



by **Schneider** Electric



PICED Programmer's Guide

Version 4.13

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PICED

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1 Introduction

1.1 Product Range

The products included in this range are:

5000CTA	C-Touch
50x0CT2	C-Touch Mark 2
50x0CTC	Colour C-Touch
C-50x0CT2	C-Touch Spectrum
5500PACA	PAC
5200PG	Wiser
	Wiser 2

1.2 About the PICED software

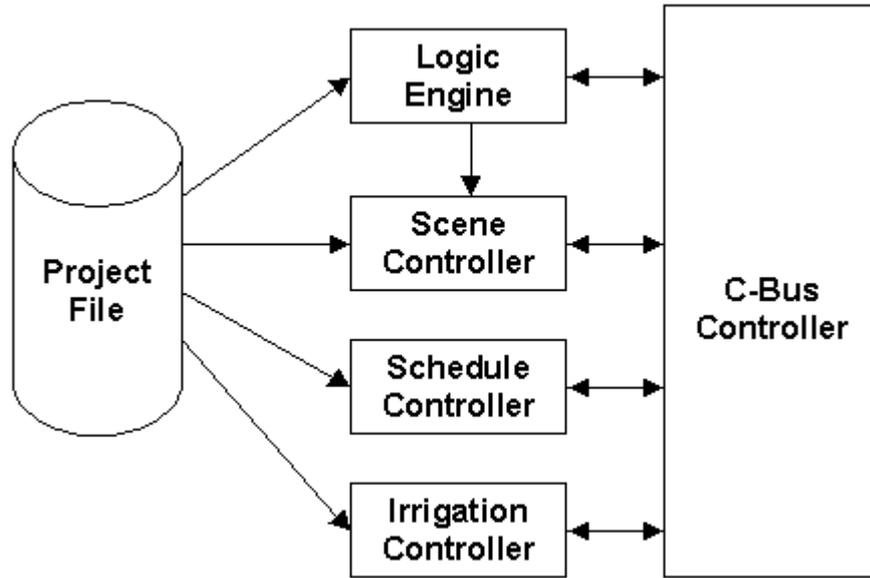
PICED is used to configure the following devices to meet the user's requirements:

- [Black and White C-Touch Touchscreen](#)
- [Black and White C-Touch Mark 2 Touchscreen](#)
- [Colour C-Touch Touchscreen](#)
- [C-Touch Spectrum](#)
- [Pascal Automation Controller](#) (PAC)
- [Wiser Home Control](#)

The PICED software major features include :

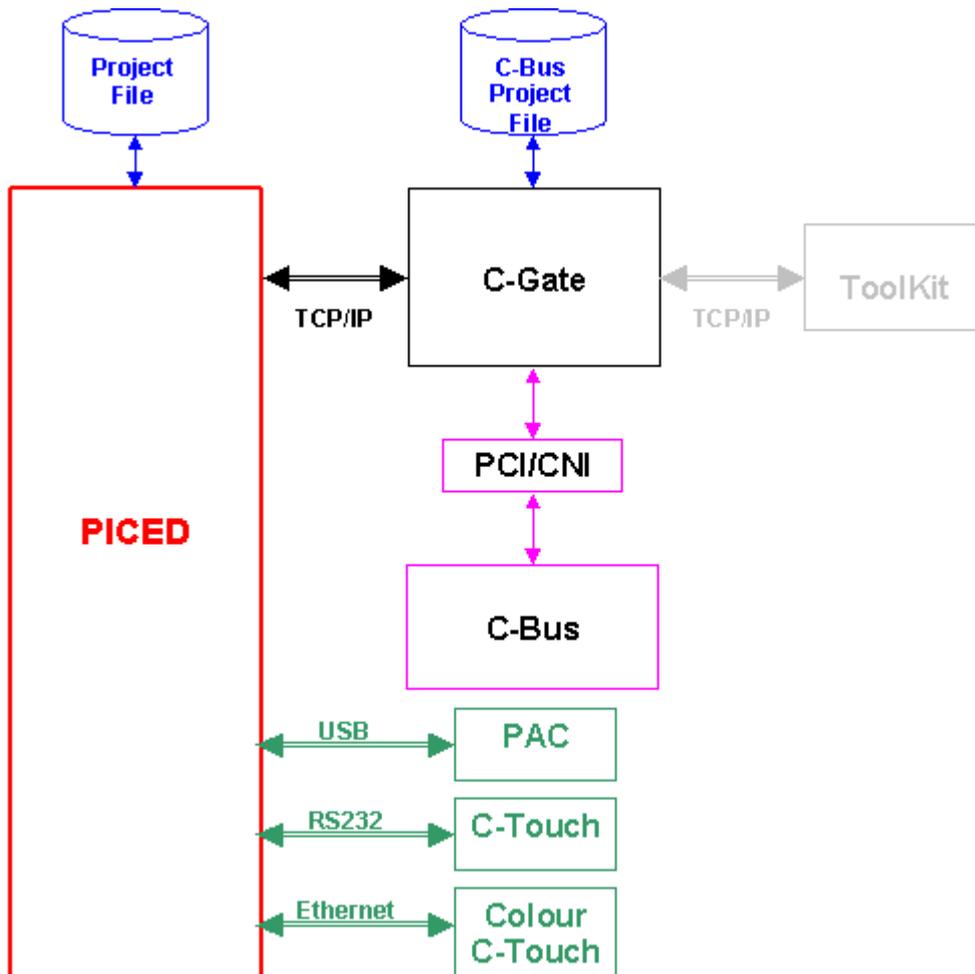
- Display of many [components](#) on many [pages](#) (Note that although the PAC does not have a screen, hence is unable to display pages, you can still use pages in your project for test purposes)
- Control and monitoring of [C-Bus](#)
- [Scenes](#) for the control of many loads together
- [Schedules](#) for the automatic control of loads
- [Access Control](#) to provide security
- [Irrigation Control](#) for controlling irrigation systems
- [Logic Engine](#) for creating customised system behaviour

These elements of the software interact as shown below :



1.2.1 Interaction with Other Software

The interaction between the PICED software and C-Gate, C-Bus ToolKit, C-Touch, PAC and Colour C-Touch is shown below.



The C-Bus ToolKit is used to create the C-Bus Project File. This is used by the PICED software for the [C-Bus Tags](#).

C-Gate provides the interface between the PICED software and the C-Bus Project File, as well as providing access to [C-Bus](#).

[Projects](#) are transferred to [C-Touch](#), [C-Touch Mark 2](#), [PAC](#) or [Colour C-Touch](#) via Serial (RS232), USB or Ethernet as shown above.

1.3 Typographic Conventions

Menu Items

The [menu](#) selections in this document follow a simple menu description notation. If the user is using the PICED Software and chooses, for example, the menu **Edit**, then from the resulting menu chooses **Select** and then from that menu chooses **Select All** then this process will be described as **Edit | Select | Select All** as a shorthand description of this operation. Certain menu items offer several options, any one of which may be selected. In this case the range is specified with square brackets and ellipses. For example, the width of a tick mark can vary from 1 to 5, this would be denoted by [1..5].

Button Names

When the name of a form button, drop-down list or check box is referred to, the name is in **bold**.

Topic Cross-References

All topics are cross referenced. A cross reference looks like [this](#). Clicking on a cross-reference (aka hyper link) will take you to that topic (unless this document is printed).

1.4 Definitions

The following definitions are useful in discussing the PICED Software:

Term	Definition
Component	A graphical object displayed on a PICED page. Components include soft keys (buttons), images, text, clocks, temperature sensors, web camera images, web pages and other items.
Page	A page is an assortment of related components that represents something understandable to the user.
Page Link	A page link is a property of a component which causes the display to jump to another page.
Schedule	A schedule is a sequence of events that are to occur at particular times or dates in the future.
Load	A load is an electrical device controlled via a C-Bus output unit. Most loads are lights, but may be any device such as sprinklers, AC Power points, heaters, projection screen motors, AV equipment (via IR) etc.
Lighting Zone	Refers to an illuminated area. In PICED a zone is a C-Bus Group Address representing one or many loads connected to a C-Bus output unit. All the lights in your dining room might be in one zone.

Scene	A scene is defined as the combination of loads distributed in various control zones with different levels. The scene can be set up with the PICED Software and assigned to soft keys on the PICED Software.
Ramp Rate	The ramp rate indicates the length of time it takes for a load to ramp to a desired level.
Input Unit	An input unit is a C-Bus unit which the user interacts with to make things happen on a C-Bus Network (PICED itself, a key input unit or passive infrared sensor are examples).
Output Unit	An output unit is a C-Bus unit which delivers power to loads (a relay and dimmer are examples).

C-Bus related definitions which are useful when discussing PICED programming are given in the following sections.

1.5 Installation

To install the PICED software :

1. Prior to installation, install the latest C-Bus ToolKit software. This installs the [C-Gate](#) software for you.
2. Insert the CD in the computer and the installer will run automatically. If you do not have a CD, run the setup.exe file.
3. Follow the instructions in the installer.

See also Computer Requirements in the FAQ.

1.6 Important Information

1.6.1 Licences

For the PICED software, there are no hardware protection keys (dongles) used. However, there are some limitations placed on the software which are worth noting :

- [C-Bus Connections](#) will time-out after 2 to 3 days
- [Simulation Mode](#) will time-out after 20 minutes

See also Licence Agreement

1.6.2 Software Limits

There are limits applicable to certain aspects of the PICED software. These are shown in the table below. They can also be seen by selecting the **Help | Software Properties** menu item.

Note that there are resource limits for [C-Touch](#), [C-Touch Mark 2](#), [C-Touch Spectrum](#) and [PAC](#) projects. This means that it is not possible to have the limit of each of the features listed below in the same project.

Property	C-Touch	C-Touch Spectrum	C-Touch Colour	PAC	Wiser	Wiser 2
Maximum number of Pages	100	100	100	100 ¹	100 ¹	100 ¹
Maximum number of Components per Page	100	100	250	250 ¹	100 ¹	100 ¹

Property	C-Touch	C-Touch Spectrum	C-Touch Colour	PAC	Wiser	Wiser 2
Maximum number of Schedules	250	250	250	250	250	250
Maximum number of Scenes	250	250	250	250	250	250
Maximum number of Scene Components per Scene	100	100	250	100	100	100
Maximum number of Users	20	20	20	0	0	0
Maximum length of Passwords	6	6	8	0	0	0
Maximum number of Access Levels	6	6	10	0	0	0
Maximum number of Irrigation Programs	0	0	8	0	0	0
Maximum number of Irrigation Zones	0	0	24	0	0	0
Maximum number of Irrigation Master Zones	0	0	2	0	0	0
Maximum number of Special Days	150	150	250	150	0	0
Maximum number of User System IO variables	100 ²	100 ²	250	100	100	100
Maximum number of Logic Timers	20 ²	20 ²	50	20	20	20
Maximum number of Logic Modules	50 ²	50 ²	100	50	50	50
Maximum number of ConditionStaysTrue Functions or HasChanged Functions	50 ²	50 ²	250	50	50	50
Amount of logic code	See How Much Logic Is Possible in logic help file FAQ.					
Maximum number of logic TCP/IP client sockets	0	0	10	0	4	20
Maximum number of C-Bus Networks	10	10	20	10	10	10
Maximum number of C-Bus Applications	10	10	20	10	20	20
Maximum number of HVAC Zones	25 ³	25	100	25	25	25
Maximum number of Measurement Channels ⁴	25	25	100	25	100	100
Maximum number of Monitors	25	25	100	25	25	25
Maximum number of E-Mail Accounts	0	0	5	0	1	5

Property	C-Touch	C-Touch Spectrum	C-Touch Colour	PAC	Wiser	Wiser 2
Maximum number of Media Link Groups	4	4	12	4	4	4
Maximum number of Pulse Power Meters ⁴	4 ³	4	5	0	4	6
Maximum number of Power Meters (analogue and pulse combined) ⁴	4 ³	4	20	0	4	20
Maximum number of Tariffs	4 ³	4	6	0	4	6
Maximum number of Matrix Switchers	3 ³	3	3	0	3	3
Maximum number of Profiles	6	6	12	6	0	16
C-Bus Error Reporting Application	No	No	Yes	No	No	No

¹ Only used for testing

² Only for the C-Touch Mark 2 units supporting logic

³ Only for C-Touch Mark 2

⁴ There are separate limits for pulse power meters, analogue measurement channels and total number of power meters

See also [Licences](#) and [Unit Differences](#)

2 C-Bus Concepts

2.1 About C-Bus

C-Bus is a microprocessor controlled wiring system that uses Unshielded Twisted Pair cable (UTP cable) as its communication medium. C-Bus is intended to be used mainly as a lighting management system although it has the capability of interfacing with other services, such as security systems and air-conditioning.

C-Bus may be integrated as part of an overall energy management system. C-Bus is highly flexible in the way it operates because each device on the Bus has its own in-built microprocessor. These devices can be programmed in the field to provide optimum energy management conditions in any installation.

Information comes from Input Units such as Key Units, Light Level Sensors and Infrascans. Messages are sent via the Bus to Output Units such as Relays and Dimmers. Connections between Input Units and Output Units are defined by [Group Addresses](#) (GA); thus GA can be considered as virtual wires. C-Bus Installation Software (the C-Bus ToolKit) allows the user to modify GA as well as other parameters. All parameters including GA are stored in each unit's non-volatile memory.

C-Bus is a truly distributed system. It does not have a central processing unit; C-Bus intelligence is distributed across entire [network](#).

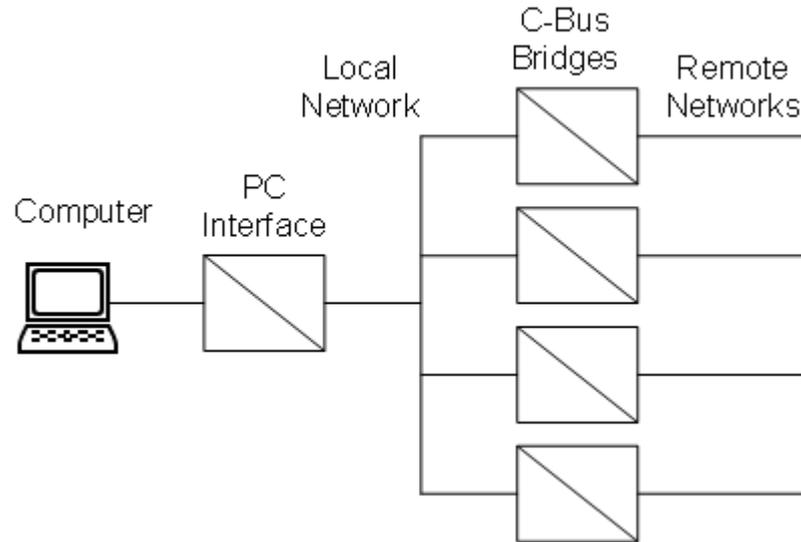
For further details about C-Bus, see the Schneider Electric (Australia) web site at <http://www.clipsal.com/cis> or the C-Bus Concepts document (in the \PICED\manuals folder).

2.2 Networks

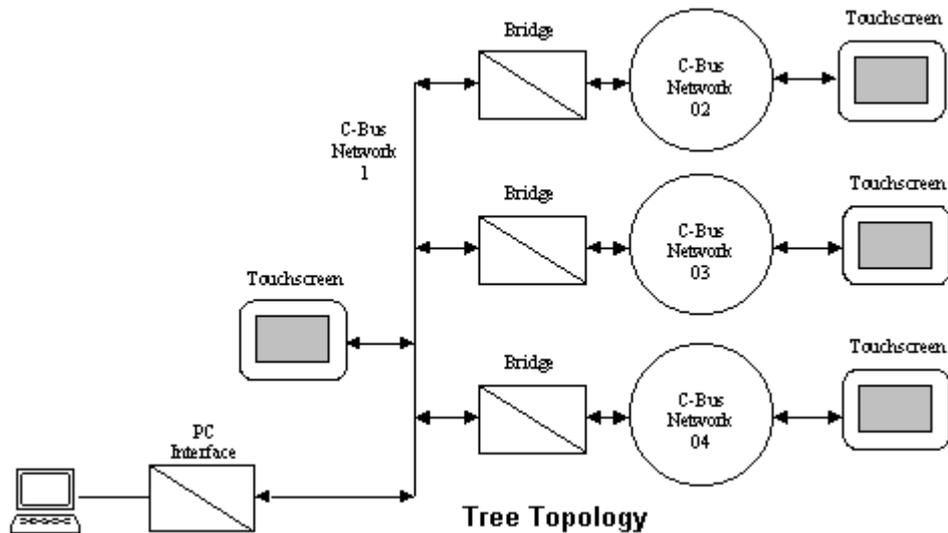
Where a project exceeds the physical limitations of a single C-Bus network, the project may need to be segregated into several networks. Each network can be connected to one or more other networks via a bridge.

Some definitions are required for the understanding of C-Bus Networks :

- The computer uses a PC Interface (PCI) or a C-Bus Network Interface (CNI) to send and receive messages from C-Bus.
- C-Bus Networks which the computer is connected to are referred to as "Local" or "Connected Networks".
- The C-Bus Network which the device is connected to is referred to as the "Default" Network
-
- All other Networks are referred to as Remote Networks.
- A C-Bus Bridge is used to connect two C-Bus Networks together and to transmit messages from one Network to the other.
- A Fully Connected Network has every Network connected to every other Network via a C-Bus Bridge, and behaves as one large C-Bus Network.
- Application Connect Mode is a setting in a C-Bus Bridge that can be used to automatically send all messages from one of its Networks to the other. This makes the two Networks behave as if they were connected (there are some limitations though). In the C-Bus ToolKit, the Send to Adjacent Network setting is used to select Application Connect Mode.



How the system works depends on how the networks are constructed. The networks below are each connected to other networks via a bridge. Each bridge is used in Application Connect mode (see the C-Bus documentation for more details). Each network has a Touchscreen on it which is capable of transmitting messages addressed to any network.



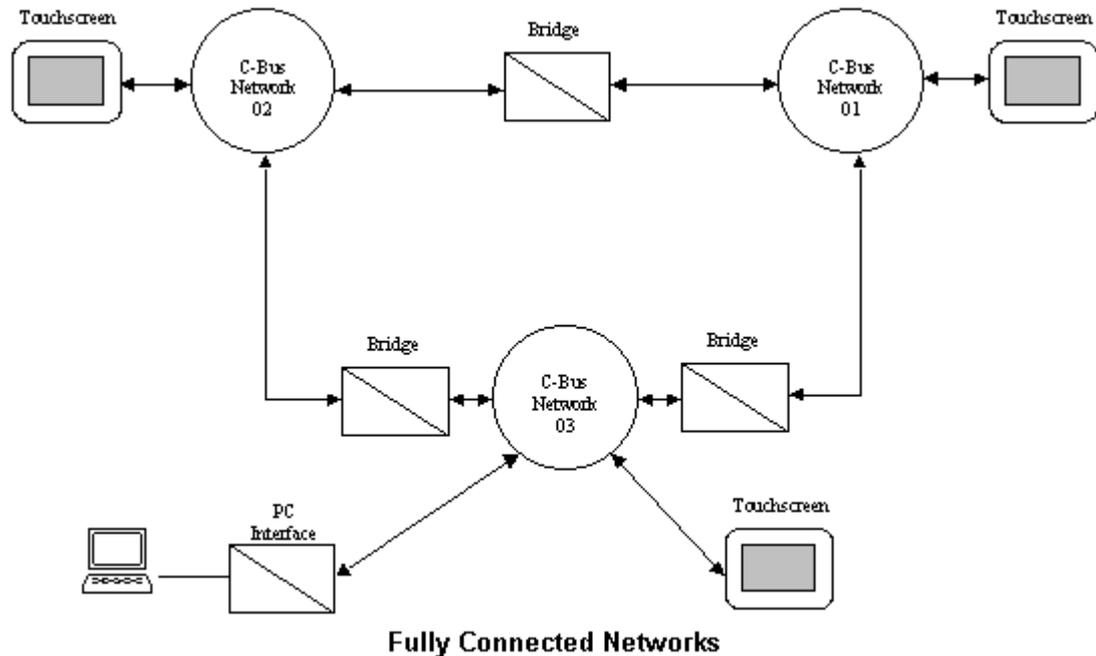
The Touchscreen on Network 1 can send commands to its local network (Network 1) which will be automatically bridged across to the other networks. Each of the other Touchscreens will see the command and act accordingly (updating indicators etc).

The Touchscreen on Network 1 can also send bridged commands addressed to any one of the other networks. In this case, the command will arrive as an inter-network command and so the bridges will not automatically resend this across to the other networks.

If the Touchscreen on Network 2 sends a command to its local network, then the command will be automatically sent across the bridge to Network 1. However, since it will arrive at Network 1 as an inter-network command, it will not then be sent across the other bridges to the other networks. In this case, the Touchscreen on Network 1 will see the command, but the others (on Networks 3 and 4) will not.

Fully Connected Networks

To make all C-Bus devices see all commands (and hence stay synchronised with each other), you will need fully-connected networks where every network is connected to every other network via a bridge, as shown below :



In the case of fully connected networks, in the [Project Details](#) form, **Options** Tab you should set the **Model Networks Independently** to off.

If you have the same Group Address on the same Application used on different networks, they will be treated as being the same. Hence if you send a command to switch on Group Address 20 on a remote network, you will see that GA 20 on the local network is also on.

Note that it will not have sent a command to the Local Network. If you want a command to go to the local network as well as other networks at the same time, you will need to use scenes.

Notes regarding use of networks which are not fully-connected

If you have networks that are not fully-connected and you want to send a command to control a [Group Address](#) on another network, you can select the destination network for the command in the [Component Properties](#) form. When the command is sent, the path through the various bridges to the remote network will be included. In order to construct the path, it is necessary to know which network the Touchscreen will be installed on. This can be set in the [Project Details](#) form.

If you have the same Group Address on the same Application used on different networks, C-Touch will treat them as being the same. Hence if you send a command to switch on Group Address 20 on a remote network, C-Touch will indicate that GA 20 on the local network is also on. Note that it will not have sent a command to the Local Network. If you want a command to go to the local network as well as other networks at the same time, you will need to use scenes.

It is best to avoid using indicators showing the state of Group Addresses on Remote Networks (i.e. that are more than one bridge away). C-Touch can not monitor the state of Group Addresses on remote networks (unless Message Tunneling is used - see below). If C-Touch sends a command to

a remote network, the indicator may or may not be showing the actual state. If the state is changed by something on the remote network, the command may not appear on the local network, and hence the C-Touch will again not show the correct state.

Message Tunneling

If the bridges are set up to send messages from remote networks back to the local network, you can monitor the state of the remote networks. Networks that are adjacent to the Local Network can send messages back to the Local Network using Application Connect Mode. Networks that are further away, can use Message Tunneling to send messages back to the Local Network.

If Application Connect Mode / Message Tunneling is not enabled, it is best to avoid using indicators showing the state of Group Addresses on Remote Networks. If the software sends a command to a remote network, any PICED [Components](#) will show the correct state. If the state is changed by something on the remote network, the command may not appear on the local network, and hence the software will not show the correct state.

For more information on C-Bus networks, see the C-Bus Networks document (in the \PICED\manuals folder).

See also [Software Limits](#) and [C-Bus Network Manager](#).

2.3 Applications

A C-Bus "Application" is used to combine related system behaviour. Typically used applications are :

- [Lighting](#)
- [Irrigation](#)
- [Heating](#)
- [Trigger Control](#)
- [Enable Control](#)
- [Security](#)
- [Telephony](#)
- [Measurement](#)
- [Error Application](#)
- [Date/Time Application](#)
- [Media Transport Control Application](#)

Each C-Bus Application has a number (0 to 255) and a name ([C-Bus Tag](#)).

The C-Bus Applications are explained in detail in the C-Bus Concepts document:

- Select **Help | C-Bus Concepts** for the help file version
- C-Bus Concepts PDF document in the \PICED\manuals folder

See also [Software Limits](#)

2.3.1 Lighting Applications

The Lighting Applications are typically used for controlling :

- Lighting
- Solenoids
- Curtains and shutters

The range of Application Numbers for lighting is 48 (30 [hex](#)) to 95 (5F [hex](#)). The default Lighting Application number is 56 (38 [hex](#)).

There are other C-Bus Applications which use Lighting Application messages and concepts, but have specific Application numbers assigned to them. These are referred to as "lighting compatible" applications. These include :

- Ventilation, damper and fan control is Application number 112 (70 hex)
- Irrigation is Application number 113 (71 hex)
- Pool, spa, pond and fountain control is Application number 114 (72 hex)
- Heating is Application number 136 (88 hex)

There are other C-Bus Applications which use some of the Lighting Application messages and concepts, but are not completely compatible, including :

- Trigger Control Application
- Enable Control Application

The above Applications consist of [Group Addresses](#) and can be controlled by the PICED software.

 Note that you should never use any Application number other than the ones shown above for lighting control, otherwise there may be unforeseen consequences.

There are other Applications which do not use Lighting Application messages at all. These are called "non-lighting compatible applications" and include :

- [Security](#)
- [Measurement](#)
- [Telephony](#)
- [Error Reporting Application](#)
- [HVAC Application](#)
- [Date/Time Application](#)

2.3.1.1 Group Addresses

A Group or Group Address is an "address" of one or more output loads. The Group Address is used to match an input device (keypad, touchscreen etc) with an output device (relay, dimmer etc) channel. Group Addresses have a number (0 to 255) and can be given names ("[tags](#)") using the C-Bus Installation Software.

In the Trigger Control [Application](#), the Group Addresses are referred to as "Trigger Groups".

In the Enable Control Application, the Group Addresses are referred to as "Enable Groups".

The generic term for Group Addresses, Trigger Groups and Enable Groups is "Network Variables". A Network Variable is something that stores a value, and is synchronised across the [Network](#) (ie. all devices on the Network store the same value for the Network Variable).

 Note that the output unit logic is **not** modelled. The group addresses are controlled, not the output terminals.

2.3.1.2 Levels

Levels

Every [Group Address](#) has a level (or value) between 0 (0%) and 255 (100%).

How Levels are Used

In the Lighting [Applications](#), the level corresponds to the lighting intensity or brightness. In other

Applications, the level is used in other ways :

In the Trigger Control Application, the "Levels" are referred to as "Action Selectors" because they are selecting some sort of action to be performed. In Trigger Control, setting a Trigger Group to a particular Action Selector (Level) can be used to trigger a [Scene](#) or start an [Irrigation](#) program.

 Note that the EXACT Action Selector (Level) must be set, and ramping the Trigger Group through this Level will have no effect. You must also set the [ramp rate](#) to zero (i.e. an instantaneous change) rather than ramping to the Level. Ramping to the Action Selector (Level) may still cause the event to be triggered, but it will happen when the message is sent, NOT at the end of the ramp.

In the Enable Control Application, the Levels are called "values". In Enable Control, setting an Enable Group to a particular value (level) can be used to enable a [Schedule](#) or to enable the [Irrigation](#) controller.

In the Trigger and Enable Control Applications, [C-Bus Tags](#) should be used to reference the Action Selectors and Values (ie Levels). Do not set the Action Selectors and Values in [Percent](#) because the value you are trying to set may be in between two percentage levels (in fact in these Applications, the concept of percent does not make sense).

To use a [Network Variable](#) value (Level) as a trigger or to enable something, it is essential that the C-Bus message that set the value must reach the [Local Network](#). If a switch on a remote network is used to set a value, then there will need to be a C-Bus bridge to get the message onto the Local Network. Note that it is also necessary to ensure that the Tag for the value is created on both the Local Network and on the remote network.

Notes

The level of the Group Address associated with a [Component](#) controls the [Visible Properties](#) of the component.

The PICED software has a [Convert Levels](#) form to allow you to convert between [percent](#), level and [Hexadecimal](#) values.

See also [Load Monitor](#)

2.3.1.3 Percentage

C-Bus [Group Address Levels](#) are expressed as a number (decimal or [hexadecimal](#)) or as a percentage (0-100%). The conversion between the level and percent is :

$$\text{Level} = (\text{Percent} * 255) / 100$$

0% = 0
1% = 2
2% = 5
3% = 7
4% = 10
etc.

$$\text{Percent} = 100 * (\text{Level} + 2) / 255$$

0 = 0%
1 = 0%
2 = 1%
3 = 1%

4 = 1%
5 = 2%
etc.

Example : If level is 41, then Percent = $100 \times (41+2)/255 = 16.784$ and we keep the whole number (16) and hence level 41=16%.

Because there are 256 discrete levels (0 to 255) but only 101 different percentages (0 to 100), not all levels have a unique corresponding percentage. If you are setting a group level as a percent, there will be some levels which you are unable to set. For example, if you want to set to a level of 5, you can set the level as 2% (see above). If you want to set to a level of 6, you will be unable. The next closest in this case will be 7 (3%).

A full list of conversions is provided in the PICED help file and in the C-Bus Concepts document.

The PICED software has a [Convert Levels](#) form to allow you to convert between percent, [level](#) and [Hexadecimal](#) values.

2.3.1.4 Ramp Rates

A C-Bus [Group Address](#) can be set to ramp to a [Level](#) over a certain amount of time. This time is called the Ramp Rate. Ramp Rates supported by C-Bus are :

- 0 seconds (instantaneously)
- 4 seconds
- 8 seconds
- 12 seconds
- 20 seconds
- 30 seconds
- 40 seconds
- 1 minute
- 1.5 minutes
- 2 minutes
- 3 minutes
- 5 minutes
- 7 minutes
- 10 minutes
- 15 minutes
- 17 minutes

Note that the ramp rate is the time to change the level from 0% to 100% or vice versa. If the level is at 50% and you execute a ramp to 100% with a 4 second ramp rate, it will only take 2 seconds.

2.3.1.5 Labeling

Group Addresses on the Lighting Applications, [Trigger Control Application](#) and [Enable Control Application](#) can have Dynamic Labels applied to them. These labels are designed to allow keys on C-Bus input units to update their status to show what they are controlling. Labels are broadcast onto C-Bus so that all devices supporting Dynamic Labels can show the new label. Labels can be updated by the C-Bus ToolKit software, or by devices such as the C-Bus Multi-Room Audio system.

Dynamic Labels can be applied to a Group Address (for Lighting Applications), or to an Action Selector (for Trigger Control Application). Labels can be stored in multiple languages to facilitate rapid changing of the language displayed on a Dynamic Label device. The languages and their code numbers are shown below :

Language	Code (hex)
----------	------------------------------

English	01
English (Australia)	02
English (Belize)	03
English (Canada)	04
English (Caribbean)	05
English (Ireland)	06
English (Jamaica)	07
English (New Zealand)	08
English (Philippines)	09
English (South Africa)	0A
English (Trinidad)	0B
English (UK)	0C
English (USA)	0D
English (Zimbabwe)	0E
Afrikaans	40
Basque	41
Catalan	42
Danish	43
Dutch (Belgium)	44
Dutch (Netherlands)	45
Faeroese	46
Finnish	47
French (Belgium)	48
French (Canada)	49
French	4A
French (Luxembourg)	4B
French (Monaco)	4C
French (Switzerland)	4D
Galician	4E
German (Austria)	4F
German	50
German (Liechtenstein)	51
German (Luxembourg)	52
German (Switzerland)	53
Icelandic	54
Indonesian	55
Italian	56
Italian (Switzerland)	57
Malay (Brunei)	58
Malay	59
Norwegian	5A
Norwegian (Nynorsk)	5B
Portuguese (Brazil)	5C
Portuguese	5D
Spanish (Argentina)	5E
Spanish (Bolivia)	5F
Spanish (Chile)	60
Spanish (Colombia)	61
Spanish (Costa Rica)	62
Spanish (Dominican Republic)	63
Spanish (Ecuador)	64
Spanish (El Salvador)	65
Spanish (Guatemala)	66
Spanish (Honduras)	67
Spanish	68

Spanish (Mexico)	69
Spanish (Nicaragua)	6A
Spanish (Panama)	6B
Spanish (Paraguay)	6C
Spanish (Peru)	6D
Spanish (Puerto Rico)	6E
Spanish (Traditional)	6F
Spanish (Uruguay)	70
Spanish (Venezuela)	71
Swahili	72
Swedish	73
Swedish (Finland)	74
Chinese_cp936	CA

Note that Labels are not the same as [C-Bus Tags](#). C-Bus Tags are stored in the C-Bus Project Database and generally do not change. Labels change from time to time and are broadcast onto C-Bus as they change. If a label for a particular Group or Action Selector has not been transmitted on C-Bus (or the labels have been cleared), then the C-Bus Tag will be displayed.

If the language is changed, a C-Bus command will be sent to change the language in all other C-Bus devices. The command will only be sent to C-Bus [Networks](#) which are used with labels in the [Project](#).

See also :

- [Labels form](#) (select **Project | C-Bus Applications | Labels** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)
- C-Bus Concepts document (help file or PDF)

2.3.1.6 Selecting C-Bus Properties

In various parts of the PICED software, you will need to select C-Bus properties (Networks, Applications, Group Addresses, Levels and Ramp Rates). Generally, you will see a set of controls like those below.

The image shows a software control panel with five rows of settings. Each row has a label on the left and a dropdown menu on the right. To the right of the dropdown menus are two columns of icons: a green plus sign (+) and a pencil icon. The settings are: Network: Local Network; Application: Lighting; Group: Bedside Lights; Level: ON; Ramp Rate: over 4 seconds.

The icons shaped like a plus (+) are used to add new [tags](#). The icons shaped like a pencil are used to edit tags.

Network

To select the desired [Network](#), click on the **Network** drop down list. Changing the Network will cause the Application, Group Address and Level information to be updated. Networks can only be added and edited using the C-Bus Toolkit software.

Application

To select the desired [Application](#), click on the **Application** drop down list. Changing the Application will cause the Group Address and Level information to be updated. Applications can only be added and edited using the C-Bus ToolKit software.

Group Address

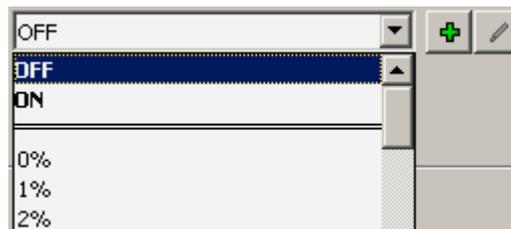
To select the desired [Group](#), click on the **Group** drop down list. Changing the Group will cause the Level information to be updated.

See also :

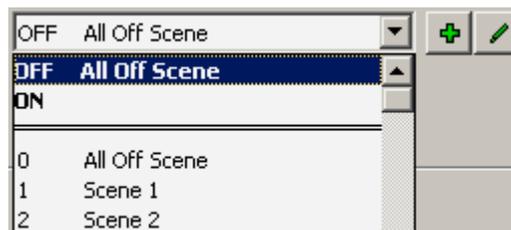
- [Add an application group](#)
- [Edit an application group](#)
- [Add a lighting group](#)
- [Edit a lighting group](#)
- [Add enable application group](#)
- [Edit enable application group](#)

Level

To select the desired [Level](#), click on the **Level** drop down list. The contents of the list (level, percent and/or level [tag](#)) will depend on the selected Application. For the Lighting Application, you will see OFF (0%) and ON (100%) at the top followed by a list of all levels in percent :



If any level tags have been defined, they will be listed too. If you have selected an application on which percentage is meaningless (such as the trigger control application), then the list will contain a list of levels (0 to 255) with any level tags :



If you wish to change what is shown in the list, right click on the combo box and select the desired option :



To add a new Level tag, click on the Add button. To edit the currently selected Level tag, click on the Edit button.

See also :

[Add an application group level](#)
[Edit an application group level](#)
[Add a lighting group level](#)
[Edit a lighting group level](#)
[Add enable group value](#)
[Edit enable group value](#)

Ramp Rate

To select a [Ramp Rate](#), click on the Ramp Rate combo box and select the desired ramp rate.

Notes

To see the numerical value of a selected Network, Application, Group Address or Level tag, hold the mouse over the drop down list and a hint will appear. To change between decimal and hexadecimal numbers, use the [Program Options](#) form.

2.3.1.6.1 Add Group

The Add Group form allows you to specify a group address and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the group address using the **Group Address** drop down list. It will list the remaining 256 addresses which have not been assigned a tag name. If you want to change the group tag name, see [Edit an application group](#)
2. Specify the tag/group name in the **Group Description** field.
3. Click the **OK** button to save changes.

2.3.1.6.2 Edit Group

The Edit Group form allows you to edit a group [tag](#) and to turn a group on or off.

Changing the group tag name

To change the group tag name, follow the procedure below:

1. Edit the group tag name in the **Group Description** field.
 2. Click the **OK** button to save the changes.
- If you want to add a new group, see [Add an application group](#)

Turning the group on or off

There are two buttons for turning the group on and off. This is useful for checking to see if the group virtual circuit is operational.

1. To turn the group on, click the **Set On** button.
2. To turn the group off, click the **Set Off** button.

2.3.1.6.3 Add Level

The Add Level form allows you to specify a group address level and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the level using the **Level** drop down list. It will list the remaining 256 levels which have not been assigned a level tag name.
2. Specify the level name in the **Description** field.
3. Click the **OK** button to save changes.

If you want to change the level tag name, see [Edit a application group level](#).

2.3.1.6.4 Edit Level

The Edit Level form allows you to edit a group address level [tag](#). To change the level tag name, follow the procedure below:

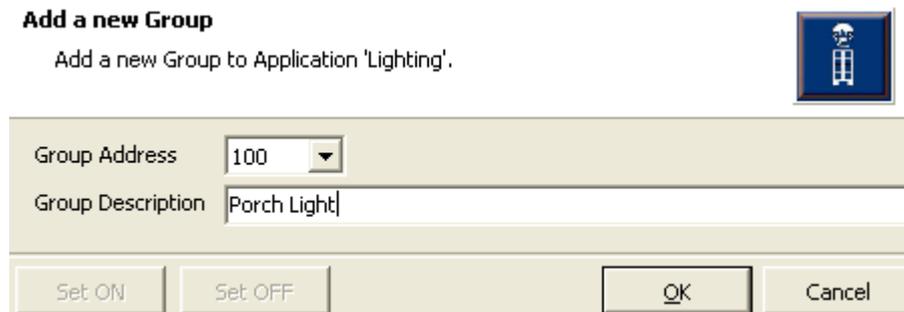
1. Edit the level tag name in the **Description** field.
2. Click the **OK** button to save the changes.

If you want to add a new group level, see [Add an application group level](#).

2.3.1.6.5 Add Lighting Group

The Add Lighting Group form allows you to specify a group address and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the group address using the **Group Address** drop down list. It will list the remaining 256 addresses which have not been assigned a tag name. If you want to change the group tag name, see [Edit lighting application group](#)
2. Specify the tag/group name in the **Group Description** field.
3. Click the **OK** button to save changes.



Add a new Group

Add a new Group to Application 'Lighting'.

Group Address: 100

Group Description: Porch Light

Buttons: Set ON, Set OFF, OK, Cancel

2.3.1.6.6 Edit Lighting Group

The Edit Lighting Group form allows you to edit a group address [tag](#) and to turn an application group on or off.

Changing the application group tag name

To change the group address tag name, follow the procedure below:

1. Edit the group tag name in the **Group Description** field.
2. Click the **OK** button to save the changes.

If you want to add a new group, see [Add lighting application group](#)

Turning the group on or off

There are two buttons for turning the group on and off. This is useful for checking to see if the group virtual circuit is operational.

1. To turn the group on, click the **Set On** button.
2. To turn the group off, click the **Set Off** button.

Edit a Group 

Group Address	<input type="text" value="32"/>
Group Description	<input type="text" value="Kitchen 1"/>

2.3.1.6.7 Add Lighting Level

The Add Lighting Level form allows you to specify a Lighting Group Address [level](#) and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the level using the **Level** drop down list. It will list the remaining 256 levels which have not been assigned a level tag name.
2. Specify the level name in the **Description** field.
3. Click the **OK** button to save changes.

If you want to change the level tag name, see [Edit a lighting application group level](#).

2.3.1.6.8 Edit Lighting Level

The Edit Lighting Level form allows you to edit a Lighting Group Address [level tag](#). To change the level tag name, follow the procedure below:

1. Edit the group tag name in the **Description** field.
2. Click the **OK** button to save the changes.

If you want to add a new group level, see [Add a lighting application group level](#).

2.3.1.6.9 Add Enable Group

The Add Enable Group form allows you to specify an enable network variable address and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the enable network variable address using the **Enable Network Variable Address** drop down list. It lists a set of group addresses. It will list the remaining 256 addresses which have not been assigned a tag name. If you requires an address which is already in use, you can reassign the variable address.
2. Specify the tag/group name in the **Enable Network Variable Description** field.
3. Click the **OK** button to save changes.

2.3.1.6.10 Edit Enable Group

The Edit Enable Group form allows you to edit an enable network variable group [tag](#) name. To do so, follow the instruction below:

1. Edit the group name in the **Enable Network Variable Description** field.
2. Click the **OK** button to save the changes.

2.3.1.6.11 Add Enable Value

The Add Enable Value form allows you to specify an enable network variable value and to assign a [tag](#) name to it. To do so, follow the instruction below:

1. Select the value using the **Value** drop down list. It lists a set of values. It will list the remaining 256 addresses which have not been assigned a tag name. If you require a value which is already in

- use, you can reassign the variable level.
2. Specify the tag name in the **Description** field.
3. Click the **OK** button to save changes.

2.3.1.6.12 Edit Enable Value

The Edit Enable Value form allows you to edit an enable network value [tag](#) name. To do so, follow the instruction below:

1. Edit the value name in the **Description** field.
2. Click the **OK** button to save the changes.

2.3.2 Trigger Control Application

The Trigger Control Application is used to "trigger" things to happen immediately. Examples include :

- Triggering [Scenes](#)
- Triggering an [Irrigation Program](#)
- Sending an Infra Red command from a C-Bus IR Transmitter

The Trigger Control Application uses application number 202 (CA [hex](#)) and uses most of the [Lighting Application](#) messages, however it should be noted that :

- The "[group addresses](#)" are referred to as "Trigger Groups"
- The "[levels](#)" are referred to as "Action Selectors"
- The [ramp rate](#) is meaningless and is ignored

Scene Indicators

The Trigger Control Application also supports the synchronisation of [Scene](#) indicators between devices. A key on another unit can be used to remotely trigger a Scene in a touch screen or PAC. The indicator on that remote unit will then show that the Scene has been set. If the level of one of the groups in the Scene changes, the touch screen or PAC sends an "indicator kill" C-Bus command to switch off the indicator in the remote unit.

The Scene Indicator control is also designed to facilitate a Scene being spread across more than one device. For example, a key unit may only be able to set 10 groups as part of a Scene. By having three key units controlling 10 groups each, you could have a 30 group Scene. Because touch screen or PAC can support large Scenes, it is not recommended to put parts of the Scene in another device.

See also [Triggering Scenes](#) and [Scene Status Indication](#).

2.3.3 Enable Control Application

The Enable Control Application is used to enable system functions. Examples include :

- Enabling [Schedules](#)
- Enabling the [Irrigation Controller](#)
- Enabling keys on Key Input Units

The Enable Control Application uses application number 203 (CB [hex](#)) and uses most of the [Lighting Application](#) messages, however it should be noted that :

- The "[group addresses](#)" are referred to as "Enable Groups"
- The "[levels](#)" are referred to as "Values"
- The [ramp rate](#) is meaningless and is ignored

2.3.4 Security Application

The Security Application is used for monitoring and controlling C-Bus enabled security panels.

Typical uses include :

- Remote security keypad emulation
- Arming security system
- Setting security system mode
- Monitoring alarms
- Monitoring security zones

The Security Application functions can be used via :

- [Security Application form](#) (select **Project | C-Bus Applications | Security App** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The [C-Bus Network Manager](#) can be used to select which Networks the Security Application messages will be sent to.

The C-Bus Security Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the security panel instructions for details of the operation of the device and the C-Bus Security Application.

2.3.5 Measurement Application

The Measurement Application is used for monitoring and displaying data broadcast by devices such as the General Input Unit. Devices broadcasting data on the Measurement Application can have one or more channels of data.

Measurement Application messages contain the following information :

- The device ID which broadcast the message (this is often, but not necessarily the same as the unit address)
- The channel number (these are numbered starting from 0)
- The data, which can be :
 - integer (whole number)
 - boolean (true or false)
 - real (a number with a fractional part)
- The data unit type (such as Volts or degrees Centigrade)

The Measurement Application functions can be used via :

- [Measurement Application Manager](#) (select **Project | C-Bus Applications | Measurement Manager** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The C-Bus Measurement Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the General Input Unit instructions for details of the operation of the device and the C-Bus Measurement Application.

2.3.6 Telephony Application

The Telephony Application is used for monitoring and controlling devices which support telephony messages, such as the C-Bus Telephone Interface. Typical uses include :

- Monitoring incoming and outgoing telephone numbers
- Controlling lights when the telephone rings
- Re-directing the phone

The Telephony Application functions can be used via :

- [Telephony Application form](#) (select **Project | C-Bus Applications | Telephony App** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The [C-Bus Network Manager](#) can be used to select which Networks the Telephony Application messages will be sent to.

The C-Bus Telephony Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the telephone interface instructions for details of the operation of the telephone interface and the C-Bus Telephony Application.

2.3.7 Error Reporting Application

The Error Application is used for monitoring error conditions on C-Bus devices (such as the DALI interface and universal dimmer). The Error Reporting Application is only used by the Colour C-Touch unit.

Devices which use the C-Bus Error Application can report their error status onto C-Bus for other devices to monitor. An error message contains the following information :

- The Device ID - this is used to identify the particular unit
- The System Category (Product Type) - for example, DALI Gateway or Universal Dimmer
- The Error Severity - see below
- Whether the error is "Most Recent" and/or "Most Severe" - see below
- Whether the error has been acknowledged - see below
- Additional error data - see below

System Category (Product Type)

Each error application message relates to a specific Product Type, or System Category. The currently supported types are :

Type/Category	Number
Key Unit	320
Telecommand/Remote Entry	324
Digital Temperature Sensor	328
Power Supply	576
BMS Diagnostic Reporting	704
LE Dimmer	832
TE Dimmer	836
Relay	848
PWM Dimmer	856
Sine wave Dimmer	860
DALI Gateway	872
Modular Dimmer	876
Universal Dimmer	884
Device Controller	888
Air Conditioning System	960

Error Severity

The severity of an error reflects how critical the error is. The error severity categories in order of severity are :

- Unknown : the current error severity is unknown (no messages have been received)
- All OK : An Error Severity of 'All OK' is a shortcut used to indicate that all Monitored Events watched by an Error Monitoring Device are OK.
- OK : An Error Severity of 'OK' is used to indicate that the status of an individual Monitored Event being watched by an Error Monitoring Device is currently within normal operating conditions.
- Minor Failure : An Error Severity of 'Minor Failure' is used to indicate a warning or low priority error for an individual Monitored Event being watched by an Error Monitoring Device.
- General Failure : An Error Severity of 'General Failure' is used to indicate an error for an individual Monitored Event being watched by an Error Monitoring Device.
- Extreme Failure : An Error Severity of 'Extreme Failure' is used to indicate a catastrophic or dangerous failure for an individual Monitored Event being watched by an Error Monitoring Device.

Most Severe Errors

Error messages can be "Most Recent" and/or "Most Severe". Most Recent error messages reflect the present status of the error condition. Most Severe error messages reflect the most severe error condition which has existed since the condition was last cleared. A Most Severe error can be cleared using the [Error Manager](#) or a [Special Function](#).

Note that the names have changed. "Most Recent" errors used to be referred to as "Current" errors. "Most Severe" errors used to be referred to as "Latched" errors.

Acknowledged Errors

An error can be acknowledged to confirm that an operator is aware of the error state using the [Error Manager](#).

Error Data

The data accompanying an error report depends on the unit type. Typically, it will have details of the nature of the fault and the relevant channel.

Using the Error Application

The Error Application functions can be used via :

- [Error Manager](#)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

Note that only errors which are "monitored" by the Error Manager are reported using the In-Built System IO Variables.

The C-Bus Error Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the device instructions for specific details of the operation of the device and the C-Bus Error Application.

2.3.8 Date/Time Application

The C-Bus Date/Time Application is used to synchronise the date and time between different devices on C-Bus. This process is automatic and does not require any input from the installer.

When the date or time is changed, it will be broadcast onto C-Bus. The date and time can be changed using :

- [Special Functions](#)
- [In-built System IO](#)
- Date/Time form (activated by a [Special Function](#))
-

When the date or time is changed, a [Schedule Catch-Up](#) may be executed.

The [C-Bus Network Manager](#) can be used to select which Networks the Date/Time Application messages will be sent to.

The C-Bus Date and Time Application is explained in detail in the C-Bus Concepts document (help file or PDF).

See also C-Bus Unit Clocks in the FAQ

2.3.9 HVAC Application

The HVAC (Heating Ventilation Air Conditioning) Application is used for monitoring and controlling Heating, Ventilation and Air Conditioning systems.

Typical uses include :

- Emulating a thermostat control panel
- Monitoring the Air Conditioning system
- Advanced control of an Air Conditioning system

The Air Conditioning Application functions can be used via :

- [HVAC Application Manager](#) form (select **Project | C-Bus Applications | HVAC Manager** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The [C-Bus Network Manager](#) can be used to select which Networks the HVAC Application messages will be sent to.

The C-Bus HVAC Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the C-Bus thermostat instructions for details of the operation of the Air Conditioning Application.

Note that C-Touch Mark 1 units do not support the HVAC Application.

2.3.10 Audio

The [Media Transport Control Application](#) and [Audio Application](#) are both used to control the C-Bus Multi-Room Audio (MRA) system.

The Media Transport Control Application is used to control devices which are supplying an audio source, like tuners or MP3 streamers, whereas the Audio Application is used for controlling where the audio signal is sent to and the volume etc.

2.3.10.1 Media Transport Control Application

The Media Transport Control Application is used for transmitting media related information, and for the control of media devices via C-Bus.

Typical uses include :

- Displaying the currently playing music
- Selecting music tracks
- Play/pause/stop/next control of music tracks

Each set of Media equipment is associated with a Media Link Group number. The Media Link Group is used in each of the Transport Control Application messages to identify which set of equipment is being controlled.

Each set of equipment (a Media Link Group) can have one or more "Categories" of music. These include things like:

- Radio tuners
- CD players
- Music streaming

For each category, there is one or more "Selection". The usage of selections differs for each type of Category. For a radio tuner, the Selections might be the radio stations. For a CD player, the Selection might be a particular CD.

For each Selection, there will be one or more "tracks". The usage of tracks differs for each type of source. For a CD player, the tracks would be the songs on the selected CD.

The Media Transport Control Application functions can be used via :

- [Media Transport Control Application Manager](#) form (select **Project | C-Bus Applications | Media Transport Control Manager** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The [C-Bus Network Manager](#) can be used to select which Networks the Media Transport Control messages will be sent to.

The C-Bus Media Transport Control Application is explained in detail in the C-Bus Concepts document (help file or PDF).

The Media Transport Control Application is typically used in conjunction with the [Audio Application](#) to provide a complete audio control solution.

Refer to the C-Bus Multi-Room Audio System instructions for details of the operation of the Media Transport Control Application.

Note that C-Touch Mark 1 units do not support the Media Transport Control Application.

2.3.10.2 Audio Application

The C-Bus Audio Application is used for transmitting audio control information, and for the control of audio devices via C-Bus.

Typical uses include :

- Controlling amplifier volume, bass and treble
- Selecting the audio source for a zone

The C-Bus audio devices of interest are:

- Matrix Switchers: these switch an audio source (input/feed) to an audio zone (room or area)
- Audio Amplifiers: these amplify the sound; one per audio zone

Each Matrix Switcher in a system has:

- up to 8 sources (radio tuners, "streamer" or other audio inputs)
- up to 8 zones (one zone per room or area)

The Media Transport Control Application functions can be used via :

- [Audio Application Manager](#) form (select **Project | C-Bus Applications | Audio Manager** menu item)
- [Special Functions](#)
- [In-Built System IO Variables](#)
- [Tools](#)
- [Logic](#)

The [C-Bus Network Manager](#) can be used to select which Networks the Audio Application messages will be sent to.

The C-Bus Audio Application is explained in detail in the C-Bus Concepts document (help file or PDF).

Refer to the C-Bus Multi-Room Audio System instructions for details of the operation of the C-Bus audio devices.

The Audio Application is typically used in conjunction with the [Media Transport Control Application](#) to provide a complete audio control solution.

Note that C-Touch Mark 1 and PAC units do not support the Audio Application.

Lighting Bridge

The C-Bus audio matrix switchers and amplifiers can also be controlled via lighting groups if configured to. The matrix switcher and amplifiers "bridge" between the audio application and the lighting application so that events on one application are mapped to the other. This results in twice as many C-Bus messages but does allow for devices which do not support the C-Bus Audio Application (like DLT switches) to control the C-Bus MRA system.

2.4 C-Bus Tags

All C-Bus [Applications](#), [Group Addresses](#) and [Levels](#) are assigned a number from 0 – 255 (0 – FF [hexadecimal](#)). Remembering these numbers is inconvenient, so a name can be assigned to them. The name is referred to as a "tag".

Examples of tags are :

- Network Tags
 - "Local Network"
 - "Third Floor"
- Application Tags
 - "Lighting"
 - "Control"
- Group Address Tags
 - "Kitchen Light"
 - "Pool Pump"

- Level Tags
 - "Welcome Home Scene"
 - "Irrigation On"

There are two ways of creating tags for use with a project :

- From the Software – in a form that has a drop-down list to select a group address or level, there will be [two buttons](#) alongside which allow you to add a new tag or to edit the selected one
- Using the C-Bus Tool Kit – see C-Bus documentation for details

To create new C-Bus [Networks](#) or [Applications](#), it is necessary to use the C-Bus ToolKit software.

C-Bus tags get loaded into a project when you select the [C-Bus project](#).

See also [Refresh C-Bus Tags](#)

2.5 Hexadecimal Numbers



It is not usually necessary to understand or use hexadecimal numbers.

A Hexadecimal number is a number represented in "base 16". Everyday numbers are represented in decimal, which is base 10. In the decimal system numbers are expressed with 10 symbols; the familiar digits 0-9. The hexadecimal system uses 16 symbols, the ten digits (0 to 9) plus six letters (A to F) to stand for "digits".

In the decimal system, once the number 9 (the last digit) is reached, a symbol has to be placed in the next column (the "tens" column) to create a number with two digits. In the hexadecimal system, in exactly the same way, once the number "F" (the last digit) is reached a symbol must be placed in the next column (the "sixteens" column).

A comparison between the two is shown below (decimal = hexadecimal) :

0 = 00	1 = 01
2 = 02	3 = 03
4 = 04	5 = 05
6 = 06	7 = 07
8 = 08	9 = 09
10 = 0A	11 = 0B
12 = 0C	13 = 0D
14 = 0E	15 = 0F
16 = 10	17 = 11
18 = 12	19 = 13
20 = 14	21 = 15
22 = 16	23 = 17
24 = 18	25 = 19
26 = 1A	27 = 1B
28 = 1C	29 = 1D
30 = 1E	31 = 1F
32 = 20	33 = 21

A complete list is provided in the PICED help file.

The PICED software has a [Convert Levels](#) form to allow you to convert between [percent](#), [level](#) and Hexadecimal values.

There is a [Program Option](#) to display C-Bus related numbers (Networks, Applications and Group Addresses) as hexadecimal if required.

3 Configuring the PICED Software

3.1 Starting the Software

The simplest way to start the PICED software is to use the start menu item. If you have installed the software using the defaults, then click on the **Start** button, click on **Programs**, then **Clipsal**, then **PICED** then **PICED**.

When the program starts, you will see the [Project Details](#) wizard which will allow you to create a [New Project](#), [Open a Project](#), or re-open an existing project.

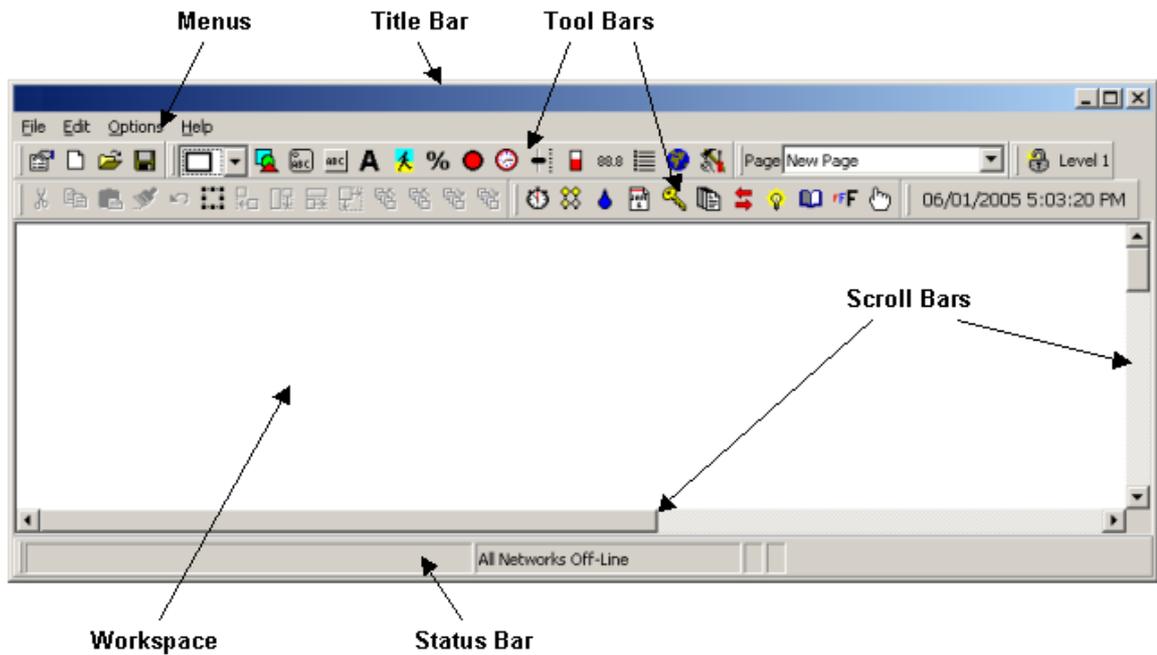


If this is the first time you have used the software, select the **Open an Existing Project** button, select one of the example projects, click on the **OK** button, then click on the **Finish** button.

⚠ Note that the PICED software should not be run at the same time as the C-Bus Tool Kit. They use C-Gate in different modes and also there can be problems caused by the two programs simultaneously accessing the C-Bus tag database.

3.2 Software Screen

The PICED Software is a Windows™ application that uses a graphical representation of various controls and objects associated with the programming of the PICED Software. When the PICED Software is opened, you will see a screen something like that below.



The features are :

- Menus** : the [menus](#) provide access to the software functions
- Title Bar** : this shows the name of the software and the loaded [Project](#) (if any)
- Tool Bars** : the [Tool Bars](#) provide quick access to the common software functions
- Scroll Bars** : these allow you to select which part of the work space you wish to look at
- Work Space** : this is where you create and edit the project (only used for testing with PAC and Wisier Home Control projects)
- Status Bar** : the [Status Bar](#) shows various aspects of the software status

Before a project can be created the design environment provided by the Software can be configured to operate in a way most convenient to the user. The following sections describes these preliminary configuration settings.

3.3 Program Options

The PICED Software can have various options configured by selecting the **Program Options** item from the **Options** menu.

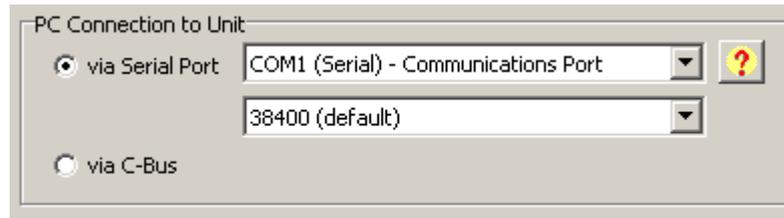
Auto Save

When Auto Save is enabled, the project will be saved at regular intervals. The interval can be set to between 5 and 60 minutes.



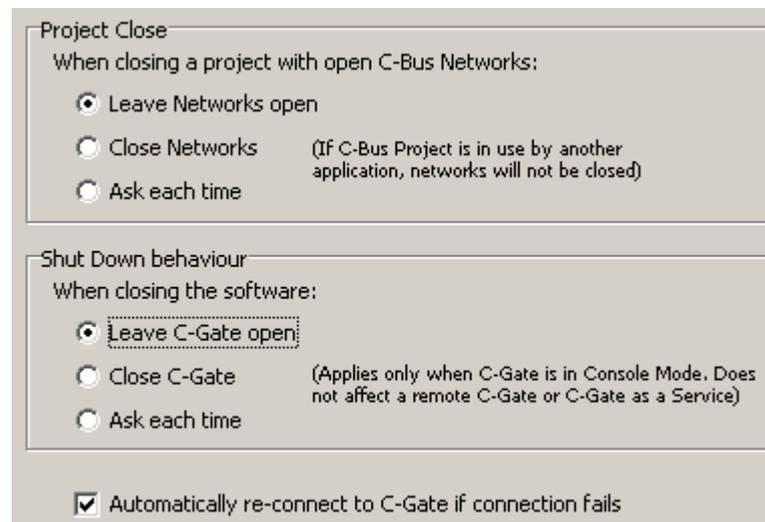
Connections

The connections tab allows you to select options for connections to the PICED software.



When connecting to a C-Touch or PAC unit, you have two options : connecting directly via a serial port or connecting via C-Bus. If you are connecting directly, just select the COM port number and the speed (for C-Touch Mark 2 and C-Touch Spectrum only). If you are connecting via C-Bus, you will also need to have set the Unit Address of the Touchscreen in the [Project Details](#) form. The **Show COM Ports** button (with the ? on it) opens the Windows Device Manager to show which COM ports are used by which devices.

C-Gate



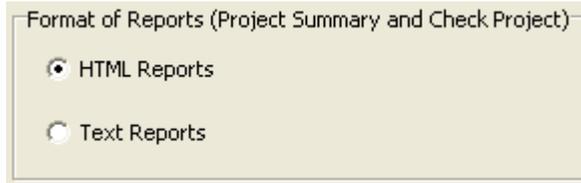
When closing a project, you have a choice of whether to close the C-Bus Networks or not. If the networks are not closed, then the COM Port or CNI will not be available for use by other projects and/or other software. If the C-Bus project is being used by other software, it will not be closed until the other software also closes the project.

When closing the PICED software, you have a choice of whether to close C-Gate or not. Note that C-Gate will not be closed if it is remote (ie. running on a different computer) or if it is running as a Service.

Select the **Automatically re-connect C-Gate if connection fails** option if you wish PICED to [automatically reconnect](#) to C-Gate if the connection fails for any reason.

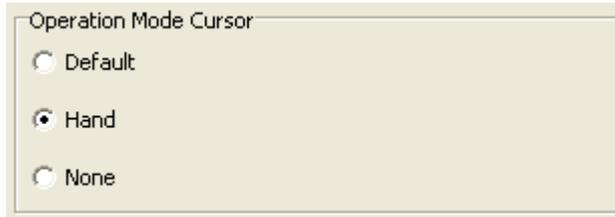
Reports

The Reports tab allows you to select whether you want your [Project Summary](#) and [Check Project](#) reports presented as an HTML report (to read or print using a web browser) or as a text file for inclusion in some other document.



Operation Mode

It is possible to select the type of cursor for when Simulation Mode is running. If you are using a Touch Panel PC, it may be desirable to have no cursor displayed.



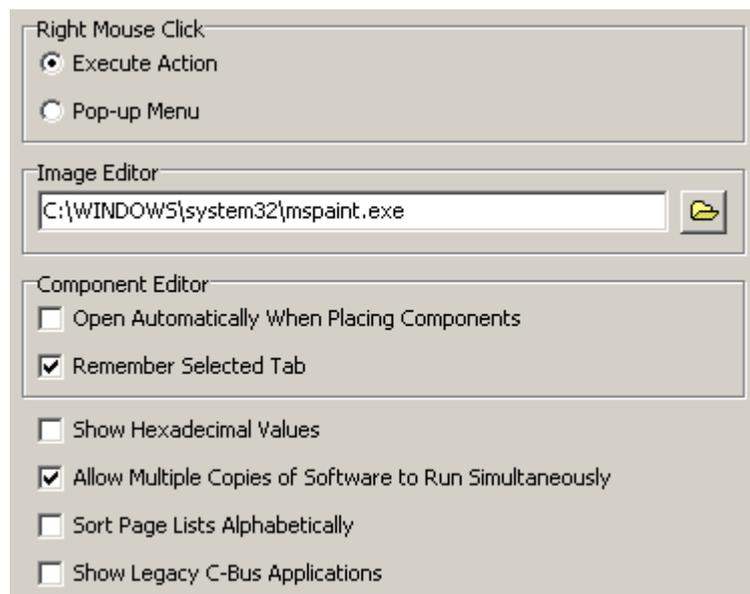
Start-up Options

The Start-up tab allows you to select how you want the PICED software to start up. The options are:

- Show the [Project Details Wizard](#)
- [Open](#) the project which was open the last time the software was used
- Start with a blank project (uses the "Home" [C-Bus ToolKit Project](#))



Other



By default, when the right mouse button is clicked on a component, the action for that component is executed. Alternatively you can have a pop-up menu appear when the right mouse button is clicked.



The menu items are:

- **Activate Component** - this [Activates](#) the currently [selected](#) Component
- **Undo** – [cancels](#) the previous action(s)
- **Delete** – [delete](#) the selected component(s)
- **Cut** – [cut](#) the selected component(s)
- **Copy** – [copy](#) the selected component(s)
- **Paste** – [paste](#) a copy of the copied component(s)
- **Paint Format** – paint the [format](#) of the copied component
- **Component Properties** – set the [properties](#) of the selected component
- **Align** – [align](#) the position of the selected component(s)
- **Select All** – [select](#) all of the components on the page
- **Size**
 - - **Height** – Adjusts the [height](#) of the secondary [selections](#) to the primary selection
 - - **Width** – Adjusts the [width](#) of the secondary selections to the primary selection
 - - **Both** – Adjusts the [width and height](#) of the secondary selections to the primary selection
- **Component Order** – change the drawing [order](#) of the selected component
 - - **Move Back** - move selected Component back one position
 - - **Move to Back** - move selected Component to the back
 - - **Move Forward** - move selected Component forward one position
 - - **Move to Front** - move selected Component to the front

If you wish to have the Component Properties editor open when a component is first placed on a Page, select the **Open Automatically When Placing Components** check box.

If you want the Component Properties editor to automatically select the same tabs as when you last opened it (if possible), then select the **Remember Selected Tab** option.

If you wish to display numerical values (such as Group Addresses) as [Hexadecimal Numbers](#), select the **Show Hexadecimal Numbers** check box.

The image editor to be used when [Editing Images](#) can be selected in the **Image Editor** box.

In some circumstances it is desirable to only allow a single copy of the software to run at once. To achieve this, de-select the **Allow Multiple Copies of Software to Run Simultaneously** check box.

Select **Sort Page Lists Alphabetically** to have all page lists shown in alphabetical order. If this is

not selected, the pages will be listed in the order they were created. Alternatively, you can right click on the page list on the [Tool Bar](#) to select the page order.

Select **Show Legacy C-Bus Applications** if you want to be able to see all [C-Bus Applications](#) listed. Note that displaying all C-Bus Applications does not mean you will be able to use them. Only [Lighting Compatible Applications](#) are able to be used with [Components](#).

3.4 Simulation Mode

To disable editing functions, the PICED software can be placed in Simulation Mode by either:

- selecting the Simulation Mode item from the **View** menu
- by pressing **CTRL + S**
-

To get out of Simulation Mode, you can either:

- press **CTRL + S**; or
-
- Simulation Mode will be exited automatically after 2 to 3 days

Simulation Mode does the following things :

- Components are [activated](#) by a left **or** right mouse click (this is useful for running on Touch Panel PCs)
- The menus and [tool bars](#) are hidden
- The Window is set to the same size as the Project [Screen Size](#)

Note that the Simulation Mode cursor image can be set in the [Program Options](#) form.

Usage with Wiser Home Control

The [Wiser Home Control](#) runs Simulation Mode in a web browser on a separate form. This may require the installation of Adobe Flash to run.

Simulation Mode for the Wiser Home Control only simulates the user interface. To test [Logic](#), [Scenes](#), [Schedules](#), [User System IO](#) and [E-Mail](#) you will need to [Transfer](#) the project to the Wiser Home Control first.

See also

[Program Options](#)

[Logging](#)

[Command-Line Parameters](#)

3.5 Command Line Parameters

The PICED program can be started with various properties enabled upon start-up. These properties are called Command-Line Parameters. For example the program can start with a particular file loaded, and with the C-Bus communications channel already open. This is particularly useful when the program is set to automatically start when the computer is started (by having the program in the Windows Startup folder) or if you have a Desktop [shortcut](#).

To set the command-line parameters, right click on the PICED shortcut (on the desktop or Start menu), and select the **Properties** item. The command-line parameters are entered into the **Target** box.

The syntax is as follows :

ExeFilename [*filename*] [/cgate] [/sim] [/nosplash] [/syncschedules] [/log=enable | /log=save | /log=append] [/autosave | /autosave=time]

Where :

- **ExeFilename** is the path and file name of the executable file. Note that if there are spaces in the executable file path or file name, the ExeFileName must be enclosed within double quotes.
- **Filename** is the name of a file to be loaded. Note that if there are spaces in the file name, the file name must be enclosed within double quotes.
- **/cgate** selects whether C-Bus communications are to be opened with [C-Gate](#).
-
- **/sim** puts the program in Simulation Mode
- **/nosplash** shows the splash screen for only the minimum amount of time
- **/syncschedules** performs a [Synchronise to Schedules](#) after connection to C-Gate
- **/log=enable** enables the logging (these override the [Remember Setting](#) setting)
- **/log=save** enables the logging and saves it to a log file
- **/log=append** enables the logging and appends it to the log file
- **/autosave** sets the autosave feature on, with the default duration (15 minutes)
- **/autosave=time** sets the autosave on with the specified time (in seconds)

The ExeFileName must be present, and must be first. The Filename is optional, but if used, must be second. All other parameters are optional and may occur in any order. There must be a space between each parameter.

Examples :

"C:\Clipsal\PICED.exe" "C:\Clipsal\PICED\Projects\MyHouse.ctd"

will load the file MyHouse.ctd at start-up

"C:\Clipsal\PICED.exe" "C:\Clipsal\PICED\Projects\MyHouse.ctd" /cgate /log=save

will load the file MyHouse.ctd at start-up and connect via C-Gate, with logging enabled.

See also [Desktop Shortcut](#) and the Use With Windows Vista topic in the FAQ.

4 Using the PICED Software

4.1 Tool Bars

All program functions are available via [menu](#) items. Many of the commonly used functions are also available on the tool bars, which are the panels with a series of buttons on them.

The tool bars are at the top of the screen by default, but the tool bars can be configured to suit personal preference by :

- moving them onto any position on the screen (click on the vertical bar on the left of the toolbar and drag it)
- docking them to another place on the screen (drag a toolbar to the top, bottom, left or right of the screen)
- closing them (by dragging them onto the screen, then clicking on the close button)

In addition to manipulating individual tool bars, they can be modified together :

- Hide/close all tool bars by selecting **View | Toolbars | Hide Toolbars**
- Show all hidden tool bars by selecting **View | Toolbars | Show Toolbars**
- Restore the original position of all tool bars by selecting **View | Toolbars | Restore Toolbars**

The Main Form toolbars are shown below :

Project Toolbar



The Buttons' functions are (respectively) :

- [Project Details](#)
- [Add Page](#)
- [Open a Project](#)
- [Save the Project](#)

Place Components Toolbar



The Buttons' functions are (respectively) :

- Select which [Shape](#) to place
- Place a Shape [Component](#)
- Place a C-Bus [Button](#) Component
- Place a button Component (e.g. for a [Page Link](#))
- Place a [Text](#) Component
- Place an [Image](#) Component
- Place a [Level Indicator](#) Component
- Place an Indicator Component
- Place a [Clock](#) Component
- Place a [Slider](#) Component
- Place a Bar Slider Component
- Place a [Monitor](#) Component
- Place a [Selector](#) Component
- Place an [HTML](#) Component
- Place a [Web Cam Image](#) Component
- Place a [Graph](#) Component
- Place a [Calendar](#) Component
- Place a Component using a [Tool](#)

Page Select Toolbar



This allows you to select which [page](#) you wish to view. The order of the pages is set with the [Program Options](#) form.

Access Control Toolbar



The button allows you to [Log-in / Log-out](#). The text shows you to current [Access Level](#).

Edit Toolbar



The Buttons' functions are (respectively) :

- [Cut](#) Component
- [Copy](#) Component
- [Paste](#) Component
- [Paint Format](#) of Component
- [Undo](#) last action
- [Select All](#) Components
- [Align](#) Components
- Set Component(s) [Height](#) to match selected Component
- Set Component(s) [Width](#) to match selected Component
- Set Component(s) [Size](#) to match selected Component
- Move Component [Back](#)
- Move Component to [Back](#)
- Move Component [Forward](#)
- Move Component to [Front](#)
- [Group Components](#)
- Un-Group Components

Tools Toolbar



The Buttons' functions are (respectively) :

- Open [Schedule Manager](#)
- Open [Scene Manager](#)
- Open [Irrigation Manager](#)
- Open [Special Day Manager](#)
- Open [Access Control Manager](#)
- Open Logic Editor
- Open [Load Monitor](#)
- Open [E-Mail Manager](#)
- Open [Profile Manager](#)

- Open [Widget Manager](#)
- Open [Log](#)
- Set default [Font](#)
- [Transfer](#) project to unit
- Set [Simulation Mode](#)

Time Toolbar



This shows you the current date and time. Double clicking on the toolbar allows you to set the computer date and time.

To see the function of any item on a toolbar, hold the mouse over the item in the PICED software, and you will see a hint pop-up.

4.2 Status Bar

The status bar is shown at the bottom of the [screen](#) (unless it has been moved) and shows :

- the status of the [C-Bus](#) connection (see below)
- the status of the [C-Bus](#) network synchronisation (see below)
- details of the selected [Component](#)
- the status of the [Schedules](#) (an **S** means the Schedules are running)
- the status of the Logic Engine (an **L** means the Logic is running)
- the current mouse coordinates (if the mouse is over the [Page](#))
- the current [colour](#) being picked (if **tools | pick colour** has been selected)
- whether Simulation Mode is active

C-Bus Connection Status

The C-Bus Connection Status panel of the Status Bar displays a bar graph showing the connection status of the networks in the project, with text superimposed with the latest status information:



The width of the coloured segments in the graph is proportional to the number of networks in each state. The colour of the segments of the graph shows the networks in each [state](#):

- White: Network is in "closed", "open" or "new" state
- Red: Network is in "error" state
- Yellow: Network is in the "sync" state
- Orange: network is in the "operational" state
- Green: Network is in the "OK" state

C-Bus Synchronisation Status



The C-Bus Synchronisation Status panel of the Status Bar displays a networks synchronisation status message and progress percentage only when that network is being synchronised. If no networks are being the no synchronisation status information is displayed.

Whilst a synchronisation status message and progress percentage is being displayed the C-Bus Connection Status panel shall be displaying network(s) in the sync state using the yellow segment colour.

See also [C-Bus Network Manager](#)

4.3 Keyboard Shortcuts

There are various actions which can be performed using the keyboard which can be much faster than using a mouse to select a menu item. These Keyboard Shortcuts are listed below :

Shortcut	Action
-----------------	---------------

Page Selection

CTRL + Page Up	Select the previous Page
CTRL + Page Down	Select the next Page
CTRL + Home	Selects the Start-up Page
CTRL + SHIFT + P	Selects the Theme Page for the currently displayed page (can also use ALT + double click on page)
CTRL + SHIFT + S	Selects the Sub-Page for the currently selected Sub-Page Frame (can also use ALT + double click on Sub-Page Frame)

Component Selection

CTRL + A	Select all of the Component(s) on the Page
CTRL + E	De-select all of the selected Component(s)
CTRL + Left Click	Toggle selection of a Component
SHIFT + Left Click	Drag to select all Components in an area

Component Editing

CTRL + ↑	Move selected Components up by one Grid spacing
CTRL + ↓	Move selected Components down by one Grid spacing
CTRL + ←	Move selected Components left by one Grid spacing
CTRL + →	Move selected Components right by one Grid spacing
SHIFT + ↑	Decrease height of selected Components by one pixel
SHIFT + ↓	Increase height of selected Components by one pixel
SHIFT + ←	Decrease width of selected Components by one pixel
SHIFT + →	Increase width of selected Components by one pixel
CTRL + C	Copy the selected Component(s)
CTRL + X	Cut the selected Component(s)
CTRL + V	Paste the selected Component(s)
CTRL + F	Paint the format to the selected Component(s)
CTRL + Delete or Delete	Delete the selected Component(s)
CTRL + Z	Undo the last action
CTRL + G	Copy the group address from the Primary Selection to the Secondary Selection(s).
Esc	Cancel the Placement of a Component

Component Alignment and Size

CTRL + H Primary Selection	Make the height of Secondary Selection (s) the same as the
CTRL + W Selection	Make the width of Secondary Selection(s) the same as the Primary
CTRL + B the Primary Selection	Make both (height & width) of Secondary Selection(s) the same as
CTRL + Shift + A	Align the Secondary Selection(s) to the Primary Selection
CTRL + Shift + L Selection	Align the Left of the Secondary Selection(s) to the Primary
CTRL + Shift + T Selection	Align the Top of the Secondary Selection(s) to the Primary
CTRL + Shift + R Selection	Align the Right of the Secondary Selection(s) to the Primary
CTRL + Shift + B Selection	Align the Bottom of the Secondary Selection(s) to the Primary
Other	
CTRL + S	Simulation Mode
F1	Help
Alt + F4	Exit the PICED software
CTRL + Shift + E	Raise a deliberate error message for test and training purposes. This is not a real error. Do NOT report to Schneider Electric (Australia).

4.4 Menu Items

FILE MENU

New Project – create a [new](#) project

Open – [open](#) an existing project

Reopen – [open](#) a previously opened file.

Save – [Save the project](#)

Save As – [Save](#) the project using a different name

Archive

- **Save Backup** - Save a [Backup](#) copy of the Project

- **Export to Archive** – Export the Project to an [Archive](#)

- **Import From Archive** – Import a Project from an Archive

- **Save as V4.10** - Save the Project in a format that can be opened by [V4.10](#) or earlier of the software

Open Template – Open a project [template](#)

Add Template Contents – Add a [template](#) page to the Project

Re-Add Template Contents – Add a [template](#) page to the Project which has been used before

Save As Template – Save the Project as a [template](#)

Save Page As Template – Save the page as a [template](#)

Save Components As Template – Save the selected Components as a [template](#)

Convert Files - Convert Project files from old [format](#) to new format

Exit – exit the program

EDIT MENU

Undo – [cancels](#) the previous action(s)

Delete – [delete](#) the selected component(s)

- Cut** – [cut](#) the selected component(s)
Copy – [copy](#) the selected component(s)
Paste – [paste](#) a copy of the copied component(s)
Paint Format – paint the [format](#) of the copied component
Copy Groups - copy the [Group Address](#) of the [Primary Selection](#) to the Secondary Selection(s)
Component Properties – set the [properties](#) of the selected component
- Select**
- **Select All** – [select](#) all of the components on the page
 - **Deselect All** – [de-select](#) all of the components on the page
 - **Select Component No** – select a component by its number
 - **Select Hidden Components** – select any components on the page which are invisible
- Size**
- **Height** – Adjusts the [height](#) of the secondary [selections](#) to the primary selection
 - **Width** – Adjusts the [width](#) of the secondary selections to the primary selection
 - **Size** – Adjusts the [width and height](#) of the secondary selections to the primary selection
- Align**
- **Align** – [align](#) the position of the selected component(s)
 - **Align Left** - align the left sides of the selected components
 - **Align Top** - align the top sides of the selected components
 - **Align Right** - align the right sides of the selected components
 - **Align Bottom** - align the bottom sides of the selected components
- Component Order** – change the drawing [order](#) of the selected component
- **Move Back** - move selected Component back one position
 - **Move to Back** - move selected Component to the back
 - **Move Forward** - move selected Component forward one position
 - **Move to Front** - move selected Component to the front
- Group Components** - put the currently selected Components into a [Group](#)
Un-Group Components - remove the currently selected Components from a [Group](#)
Move onto Page – move all components onto the page (if they are off the page)
Label Components - this automatically places a label under each selected component
Use as Theme Component - use the currently selected component as the [Theme Component](#)
Apply Selected Theme Style to All - apply the style of the selected [Theme Component](#) to all similar Components
Apply Theme Style to Selected - apply the style of the [Theme Component](#) to the selected Components
Apply Theme Style to All - apply the style of the [Theme Components](#) to all Components

VIEW MENU

Simulation Mode – set the program in Simulation Mode

Toolbars

- **Hide Toolbars** – hide the [tool bars](#)
- **Show Toolbars** – show all Tool Bars
- **Restore Toolbars** – Restore all Tool Bars to their default position

Component Label

- **Show Numbers** - show the number of all [Components](#)
 - **Show Numbers of Action Comp** - show the number of all Components which have an [Action](#)
 - **Show Actions** - show the [Action](#) of all Components which have an Action
 - **Network Status** - show whether the [Network](#) for each C-Bus Component is [on-line](#)
 - **Component Group** - show the number of the [Component Groups](#)
- Show Sub-Page Frame Border** - show a dotted border for [Sub-Page Frames](#) (unless in Simulation Mode)
- Background** - show the black and white C-Touch frame
Highlight Theme Components - when displaying the [Theme Components](#) page, highlight the Theme Components
Remote Control - show the C-Touch [IR Remote Control](#) for testing purposes
Log - show the [Log](#)

- Network States** - shows the [connection state](#) of the networks
Units - show the C-Bus Units which have been found on the networks (once networks have been [opened](#))
Project Files - open the Windows Explorer to show the project files

PROJECT MENU

- Project Details** – set the [Project Details](#)
Resize Project – adjust the size of the [screen](#)
Grid
- **1..32** – set the Components placement [grid](#)
- **Snap Size to Grid** - select whether the size gets snapped to a multiple of the grid
- **Snap all to Grid** - snap all Components to the grid
- **Do not Show Grid** - hide the grid
- **Show Grid Dots** - show dots on the grid
- **Show Grid Lines** - show lines on the grid
Edit Schedules – [edit or add](#) a schedule
Edit Scenes – [edit](#) a scene
Edit Irrigation – open the [Irrigation Controller](#)
Edit Special Days – open the [Special Days](#) Manager
Edit Access Control - open the [Access Control](#) editor
Edit System IO - open the System IO Editor
Edit Logic - open the Logic Editor
Load Monitor - open the [Load Monitor](#) form
Monitors - show the [Monitor Manager](#)
C-Bus Networks - show the [C-Bus Network Manager](#)
Widget Manager - show the [Widget Manager](#)
E-Mail Manager - show the [E-Mail Manager](#)
Power Meter Manager - show the [Power Meter Manager](#)
Custom Key Manager - show the [Custom Key Function Manager](#)
Clear Historical Data - this clears data from [Graphs](#) and [Pulse Power Meters](#)
Edit Profiles - show the [Profile Manager](#)
C-Bus Applications
- **Error Manager** - show the C-Bus [Error Application Manager](#)
- **Security App** - show a summary of the [Security Application](#) status
- **Telephony App** - show a summary of the [Telephony Application](#) status
- **Measurement App** - show a summary of the [Measurement Application](#) status
- **HVAC Manager** - show the [HVAC Application Manager](#)
- **Labels** - show the [C-Bus Labels](#) form
- **Clear Labels** - clear all C-Bus labels
- **Media Transport Control App** - show the [Media Transport Control Application Manager](#)
- **Audio Manager** - show the [Audio Application Manager](#)

PAGE MENU

- New Page** – [add](#) a new page
Edit Page Properties – set the [page properties](#)
Delete Page – delete the current page
Duplicate Page – make an exact copy of the existing page
New Theme Page - create a new [Theme Page](#)
Show Theme Page - show the theme page of the currently displayed page
New Sub-Page - add a new [Sub-Page](#)
Show Sub-Page - show the Sub-Page for the currently selected [Sub-Page Frame](#)
Lock Components (all pages) – this [prevents](#) any components from being moved or resized
Lock Components (this page) – this prevents any components from being moved or resized
Negative Colours (this page) - change all colours on this page to be their negative (white becomes black and vice versa)

Negative Colours (all pages) - change all colours on all pages to be their negative (white becomes black and vice versa)

COMPONENT MENU

Place Shape - place a [Shape](#) Component
Place C-Bus Button - place a [C-Bus Button](#) Component
Place Text Button - place a Text [Button](#) Component
Place Text - place a [Text](#) Component
Place Image - place an [Image](#) Component
Place Level Indicator - place a [Level Indicator](#) Component
Place Indicator - place an [Indicator Button](#) Component
Place Clock - place a [Clock](#) Component
Place Slider - place a [Slider](#) Component
Place Bar Graph - place a [Bar Graph](#) Component
Place Monitor - place a [Monitor](#) Component
Place Selector - place a [Selector](#) Component
Place HTML - place an [HTML](#) Component
Place Web Cam - place a [Web Cam Image](#) Component
Place Tool - place a [Tool](#) Component

OPTIONS MENU

Connect to C-Bus – connect to [C-Bus](#) to allow control of the network
Run Scheduler - start or stop the [Scheduler](#)
Run Logic - start or stop the Logic Engine
Default Font – set the Default [font](#) to be used when placing components
Program Options – set the [options](#)
Enable Error Messages - enable all [Error Messages](#)
JPEG Quality - sets the quality of the image for saving the [screen image](#)
- **Low (Small File)** – lowest setting (worst image)
- **Medium** – medium setting
- **High** – good quality image with moderate file size
- **Best (Large File)** – highest setting (best image)

TOOLS MENU

Reports

- **Check Project** – [check the project for errors](#)
- **Project Summary** – generate a [summary](#) of the project
- **Logic Report** - generate a report on the Logic
- **User Manual** - generate a [User Manual](#) automatically
- **Resources Report** - shows a report on how much [memory](#) has been used by a C-Touch or PAC project
- **Error Report** - show a report of the [error states](#) in the project
- **Cascaded Scene Summary** - shows a report of the [Cascaded Scenes](#)
- **Save Screen** – save a JPEG or Bitmap of the PICED [screen image](#)
- **Save Screen with Border** – as above, but with a border around the image
- **Save All Screen Images** - as above, but for all [Pages](#) (JPEG only)

Images

- **Refresh Images** - [re-load all images](#) used by the project
- **Open Image** - open the [image](#) of the currently selected component using the [image editor](#) selected in [Program Options](#)
- **Convert Image Colours** - [change the colours of an image](#)
- **Create Animation** - open the [Create Animation](#) form
- **Convert Animated GIF** - convert an animated GIF to an [animated Bitmap](#)
- **Re-Scale All Images** - [re-scale](#) all images used by the project

- **Re-Scale Selected Images** - re-scale the selected image(s)
- **Re-Scale Page Background Image** - re-scale the page background image
- Convert Levels** - allows you to [convert](#) between [percent](#), [level](#) and [Hexadecimal](#)
- Auto Create** - [automatically create](#) Scenes, Schedules, Components etc
- Change Networks** - [Change the Project Networks](#)
- Change Colours** - [change the colours](#) of Components and Pages
- Create Desktop Shortcut** – [create a shortcut](#) to the software on the desktop.
- Sync to Schedules** - [Synchronise](#) Scheduled Groups to Schedules
- Log In** - [Log-in / Log-out](#)
- Magnify** - open the Windows [magnifier](#) to show aspects of the screen in details
- Open Image Editor** - open the [image editor](#) selected in [Program Options](#)
- Pick Colour** - pick a [colour](#) from the screen for use with components, pages etc
- Create Compact Tag File** - [create a compact version](#) of the C-Bus tag database
- Plot Graph** - this allows you to [Plot the Graph](#) of a [Graph](#) Component using Windows Excel
- Refresh C-Bus Tags** - this allows you to [Refresh the C-Bus Tags](#) used by the project

TRANSFER MENU

- Prepare Transfer File** – prepares the open file for [transferring](#) at a later date
- Resources Report** - shows a report on how much [memory](#) has been used by a C-Touch or PAC project
- Connect to Unit** – establishes communications between the PC and the C-Touch/PAC unit, ready for [transferring](#)
- Transfer Project to Unit** – allows you to [transfer](#) your configuration or new firmware to the C-Touch/PAC unit
- Transfer Project from Unit** - allows you to [transfer](#) a Project from the C-Touch/PAC unit
- Refresh Project from Unit** - allows you to transfer user changes from a unit so that the Project can be [updated](#)
- Read File from Unit** - allows you to transfer a configuration file from the C-Touch/PAC unit to the computer for [Cloning Units](#)
- Control Unit** – control the [C-Touch](#) or [PAC](#)
- Recover C-Touch or PAC** - allows you to stop a [C-Touch](#) or [PAC](#) to make it easier to connect to it
- Recover C-Touch 2 or Spectrum** - allows the firmware of a C-Touch Mark 2 to be [reloaded](#) if it has been corrupted
- Transfer C-Touch Display** – loads the display from the C-Touch unit and shows it on the PC screen. Note that you can not use the C-Touch software while showing the C-Touch display.
- Show Remote Display** – if the C-Touch display has been transferred, this will continue to be displayed until the Show Remote Display menu item is de-selected.

HELP MENU

- Main** – show the contents of the main help file
- FAQ** - opens the Frequently Asked Questions help file
- Logic** - show the Logic Help file
- Tutorial** - open the Tutorial Help file
- C-Bus Concepts** - open the C-Bus Concepts help file
- Manuals** - Open the folder with the PDF manuals
- Fault Finding** - Open the [Advanced C-Bus Fault Diagnosis](#) document
- Wiser Home Control Skin** - provides details of the usage of the selected Wiser Home Control skin
- Wiser Home Control User Guide** - provides details of the usage of the selected Wiser Home Control skin (can be printed for user)
- Clipsal Web Site** – this opens the Schneider Electric (Australia) web site
- C-Bus Forums Web Site** - this opens the C-Bus Forums web site
- On-line Registration** - connect to the Schneider Electric (Australia) on-line registration web site
- Restore Default Settings** - this restores settings back to how they were when the PICED software

was installed, including enabling all [Error Messages](#), resetting [tool bars](#) and displaying [Tip of the Day](#) and [What's New](#).

Tip of the Day – this shows the [Tip of the Day](#) form.

What's New – this shows the [What's New](#) form.

Software Properties - this shows how many Pages, Components, Scenes, Schedules etc PICED supports

Report a Problem - this allows the user to e-mail details of a problem to Schneider Electric (Australia)

About – shows details of the program

Note that many of these items are also available on the [Tool Bars](#).

See also [Keyboard Shortcuts](#)

4.5 Columns

Columns of data which look like those below can be sorted or rearranged to suit your preference. Any changes made will be remembered for next time you use the PICED software.

Number	Description	Trigger
1	Scene 1	Control / 01 = 00
2	Scene 2	Control / 01 =
3	Scene 3	Lightin

To change the order in which the data is sorted, click at the top of a column to sort by that column. Click again to reverse the order of the sort :

Number	Description	Trigger
3	Scene 3	Lighting / 06 = 10
2	Scene 2	Control / 01 =
1	Scene 1	Contr

To change the width of a column, click on the vertical bar and drag. To change the width of a column to fit the width of the text, double click on the vertical bar. To hide a column, drag the width until the column disappears.

Number	De...+Trigger
1	Scene 1 Control / 01 = 00
2	Scene 2 Control / 01 =
3	Scene 3 Lightin

To change the order of the columns, click on the top of the column and drag it to where you want it to be.

4.6 Moving Items in Lists

For information which is displayed in [Columns](#), it is generally possible to change the order of the items. To move an item in a list:

1. Select the item by clicking on it
2. Click on the **up** or **down** button (if they exist) to move up or down by one position; or
3. Click on the item and drag it to the correct position, then release the mouse button

 Note that items can only be moved if the columns are [sorted](#) by the item number, and in increasing order (1, 2, 3, ...).

4.7 Creating and Saving Projects

4.7.1 Step by Step Guide

To use the PICED Program, follow these steps :

- Create any C-Bus [Networks](#), [Applications](#), [Group Addresses](#), [Levels](#) and [Tags](#) needed using the C-Bus ToolKit software
- [Create a directory](#) to put your [project](#) in (all image files will be put there) - PICED can do this for you when you [Save the Project](#)
- [Create a new project](#)
- [Set the Project Details](#)
- [Add pages](#)
- [Add components to each page](#)
- [Add links](#) to the pages
- Create [Scenes](#)
- Create [Schedules](#)
- Set up the [Irrigation Control](#) if required
- Set up the [Access Control](#) if required
- [Check the Project](#) for errors, and correct them
- Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- Transfer the Project to the unit
- [Archive the files for later use](#)

4.7.2 Project

A PICED Project consists of the following things created for the end user to use :

- [Pages](#) of [Components](#) (Not required by PAC or Wiser Home Control projects)
- [Widgets](#) (Wiser Home Control projects only)
- [Scenes](#)
- [Schedules](#)
- [Irrigation Control](#)
- [Access Control](#)
- [Special Days](#)
- Logic
- [E-Mail Accounts](#)

All of this data is saved in the Project File. There are other things which are also stored in the directory with the Project file :

- any images, sounds or other files used by the project
- [Log](#) files
- [Project Details Reports](#) and [Error Reports](#)
- [Load Monitor](#) data

4.7.3 Opening a Project

To open a [project](#), either click on the **Open** button of the [tool bar](#), or select the **Open** item from the **File** menu. Select the directory where your project is stored, and select the file name. The default [file extension](#) of a project file is **CTD**. Click on OK.

Project files with the extension ".cte" are secure project files which have been encrypted to protect against tampering.

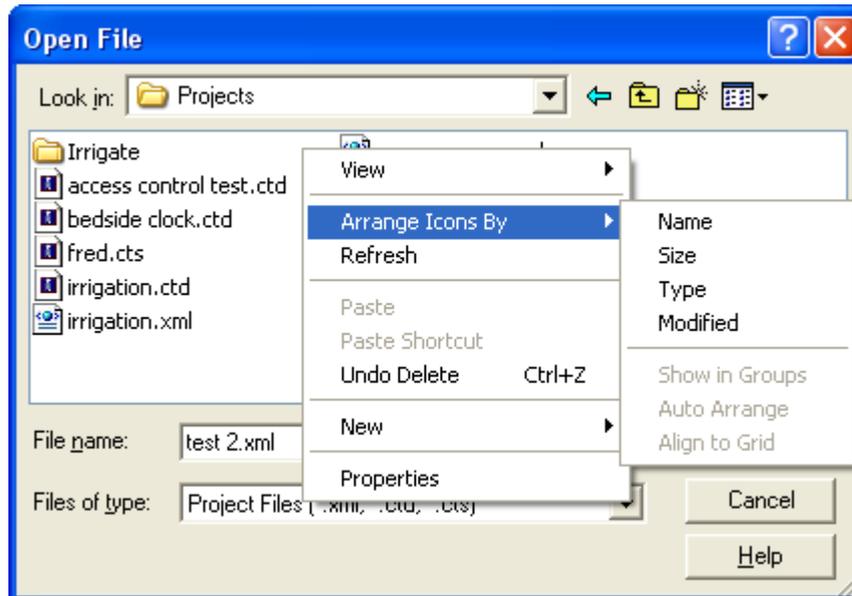
To open a project which has been recently opened, select **Reopen** from the **File** menu.

To add pages from a project to the one which is currently open, select **File | Add Template Contents** or **File | Re-Add Template Contents**.

Notes :

If an image file is missing when a project is opened, an error message will be displayed. A large X will be placed where the missing images should be.

While the Open File form is open, you can right click on the area where the files are displayed (not on a file) and select how you want them sorted :



4.7.3.1 File Types

The file extensions of the [Project](#) file types used by the PICED software are listed below :

- CTD : [Project](#) data file
- CTP : [Template](#) file
- CTE : Secure Project file - this encrypts the file when it is saved to prevent tampering
- CTA : Project [Archive](#) file
- XML : this was the Project file used by older versions of this software, and can still be opened by this version
- ~CTD : project back-up file
- ~CTP : back-up template file
- ~CTE : back-up secure Project file
- *.tar.gz : archive/transfer file for a [Wiser Home Control](#)

File Conversion

The PICED software can open the files from any previous version. The files do not need to be converted or imported to use them.

To convert all of the Project files in a directory (and its sub-directories) from the old format (*.XML) to the new format (*.CTD), select the **Convert Files** item from the **File** menu and select the required directory. When complete, you will be presented with a list of all of the files which have been converted. This just re-names the files - it does not actually change the file contents.

File Format Change

In version 4.11, the project file (*.ctd) format changed. This does not affect the use of the software in any way except if you want to take a project which was saved in V4.11 or later and open it with V4.10 or earlier. To do this, use the **File | Archive | Save as V4.10** menu item which will save the file in the same format as V4.10, which is also suitable for opening with older versions of the software.

Other Files

The C-Bus Project file is used by the PICED software via C-Gate to get the [C-Bus Tags](#).

If you are using the [Load Monitor](#) features, there will be a data file (*_PFR.csv) used. This contains the [Power Failure Recovery](#) data.

The Project may also use [Images](#) of various types, including Bitmaps (*.bmp), JPEG files (*.jpg or *.jpeg), Windows Metafiles (*.wmf), Portable Network Graphic files (*.png), Icons (*.ico) and Enhanced Metafiles (*.emf).

If the Run Program [Special Function](#) is used, various other files may be used by the Project, including documents and other programs.

When archiving a project or copying the project from one computer to another, all of the above files are needed. The [Project Archive](#) is best used for this purpose.

4.7.4 Creating a new Project

When the software first starts, the [Project Details Wizard](#) will be displayed :



To create a new project at any other time, select the **New Project** menu item from the **File** menu.

The [Project Details](#) Wizard will allow you to

- **Create a New Project Based on a Theme** : select a theme (or other template) from the drop-down list or click on the **Browse** button to load a [Template](#) or [Theme](#) for the Project. A preview will be shown of the selected template (if available)
- **Open an Existing Project** : click on the **Browse** button to select the Project. click on the

Example button to select one of the supplied example projects.

- **Open a Recent Project** : select the Project from the drop-down list
- **Create a New Blank Project** : create a new project which doesn't use a theme or template
- **Import an Archive** : import an [Archive](#)
- **Transfer Project From Unit** : transfer a [Project](#) from a C-Touch, PAC or Wisier Home Control

If you are creating a new project, click on the **Next** button to set the rest of the [Project Details](#).

See also Good Design Practices

4.7.5 Setting the Project details

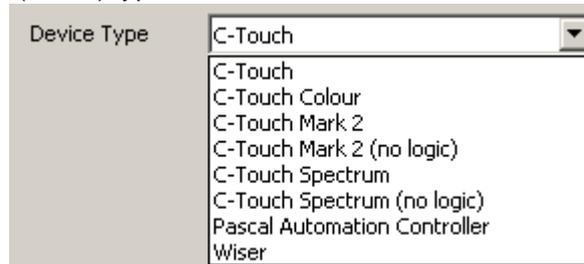
When a new [Project](#) is created, all of the parameters will be set to default values. To set Project details, select the **Project | Project Details** menu item. The Project Details Wizard will appear which will allow you to set various Project-related parameters :

- [Project Type / Screen Size](#)
- [C-Bus Project](#)
- [Unit Address](#)
- [Project Details](#)
- [Installer Details](#)
- [Options](#)
- [C-Bus Options](#)
- [Location](#)
- [Daylight Savings](#)
- [Auto Page Creation](#)

4.7.5.1 Project Type / Screen Size

The **Project Type** page of the [Project Details Wizard](#) allows you to select the type of project and, for a C-Touch project, its orientation.

Firstly, select the project (device) type from the list :



If this is a Black and White C-Touch project, select the screen orientation :



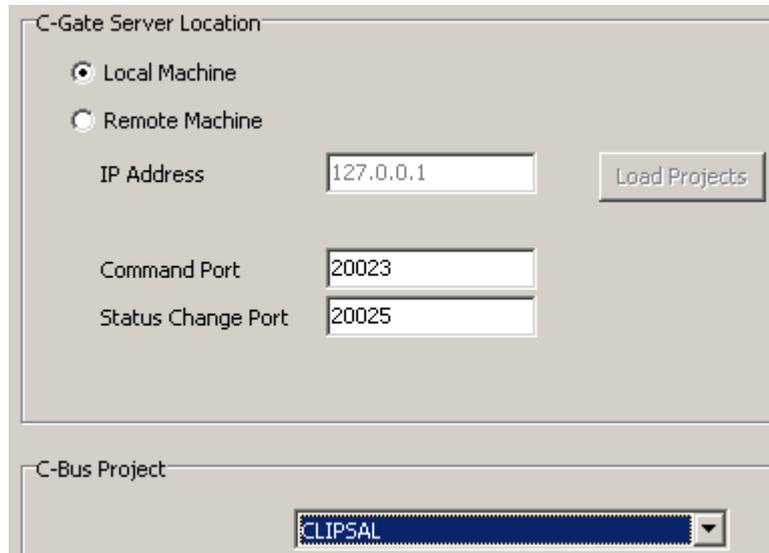
⚠ Note that for a PAC and Wisier, the Screen Size is only relevant for placing components for test purposes. The PAC and Wisier do not actually use the Screen Size or any components placed.

The Project Type determines which features are available in the software listed in [Unit Differences](#) (see also [Software Limits](#)).

When complete, click on the **Next** button.

4.7.5.2 C-Bus Project

The **C-Bus Project** page of the [Project Details Wizard](#) allows you to select the C-Bus project. A C-Bus project must be selected from the list in order for [C-Bus Tags](#) to be available.



The screenshot shows a dialog box with two sections. The top section, titled "C-Gate Server Location", contains two radio buttons: "Local Machine" (selected) and "Remote Machine". Below these are three text input fields: "IP Address" with the value "127.0.0.1", "Command Port" with the value "20023", and "Status Change Port" with the value "20025". A "Load Projects" button is located to the right of the IP Address field. The bottom section, titled "C-Bus Project", contains a dropdown menu with "CLIPSA" selected.

Most of the time you will want to use the [C-Gate](#) on your Local Machine (the computer which PICED is running on). In this case, the **Local Machine** option needs to be selected.

If you want to connect to C-Gate on a remote machine :

- select the **Remote Machine** option
- enter the **IP Address** of the remote machine
- click on the **Load Projects** button
- select the required **C-Bus Project**

If you have C-Gate configured to use a non-standard **Command Port** or **Status Change Port**, the port numbers should be entered.

 Note that the details on this page can not be changed while C-Bus is [connected](#).

When complete, click on the **Next** button.

4.7.5.3 C-Bus Project (Wiser2)

The **C-Bus Project** page of the [Project Details Wizard](#) allows you to select the C-Bus project. A C-Bus project must be selected from the list in order for [C-Bus Tags](#) to be available.

The screenshot shows a configuration window with two main sections. The top section, titled 'C-Gate Server Location', contains two radio buttons: 'Local Machine' (selected) and 'Remote Machine'. Below these are three text input fields: 'IP Address' (127.0.0.1), 'Command Port' (20023), and 'Status Change Port' (20025). A 'Load Projects' button is positioned to the right of the IP Address field. The bottom section, titled 'C-Bus Project', features a checked checkbox for 'Use C-Bus' and a dropdown menu currently displaying 'EXAMPLE'.

Most of the time you will want to use the [C-Gate](#) on your Local Machine (the computer which PICED is running on). In this case, the **Local Machine** option needs to be selected.

If you want to connect to C-Gate on a remote machine :

- select the **Remote Machine** option
- enter the **IP Address** of the remote machine
- click on the **Load Projects** button
- select **Use C-Bus** when a C-Bus network is present, deselect when using the Wiser2 without a C-Bus network
- select the required **C-Bus Project**

If you have C-Gate configured to use a non-standard **Command Port** or **Status Change Port**, the port numbers should be entered.



Note that the details on this page can not be changed while C-Bus is [connected](#).

When complete, click on the **Next** button.

4.7.5.4 Options

The **C-Bus Project** page of the [Project Details Wizard](#) allows you to select various options of the C-Bus Project which varies according to unit type.

Project Tab

The **Project** tab allows you to enter details of the Project (name, location etc).

Project name	Fred's House
Location	
Consultant	
Architect	
Owner	
Notes	

Refresh Project

It is possible to have the PICED software remind you to transfer any user changes made to a the project in a unit back to the computer before you start editing the project (see [Updating Unit Projects](#)). This is the same as using the **Transfer | Refresh Project from Unit** menu item.

There are two properties which are displayed on the Project tab and can be changed if required:

- **Project has been transferred to unit:** this shows if the project has been transferred to the unit in the past. It is automatically set by PICED
- **Refresh project from unit before editing:** this selects whether you want to be reminded to refresh the project the next time you open the project

The reminder will only be given if the project has been transferred to a unit and the **Refresh project from unit before editing** option is selected.

Installer Tab

The **Installer** tab allows you to enter the details of the C-Bus Installer :

Name	
Company	
Address	
City	
State	
Postcode	
Country	
Phone	
Mobile	
Fax	
E-mail	
Web site	

Click on the **Save Default Details** button to save the entered data for use in the future. Click on the

Load Default Details to load previously saved data.

Pages Tab (This tab is not applicable to PAC or Wiser Home Control projects)

Time-Out Details

Time-Out Details	
Time-out Page	Main Page
Dark Time-out Page	default
Time-out after	300 Seconds

The following [Time-Out](#) parameters can be set :

- **Time-out Page** - this is the page displayed after the time-out period (it can vary by [Profile](#))
- **Dark Time-out Page** - this is the page displayed after the time-out period if it is dark (Black and White C-Touch only)
- **Time-out after** - this is the period waited following a touch of the screen before the time-out page is displayed

Start-Up Details

Start-up Details	
Start-up page	Main Page
Installer Details	Fred
Installer Contact Details	123-456-789

This section allows you to select the page which will be displayed on start-up (it can vary by [Profile](#)). This page is not necessarily the same as the time-out page (see above).

You can also select the installer information to be displayed on C-Touch.

Page Transition (Colour C-Touch only)

Page Transition	
Page Change Effect	None
Sub-Page Change Effect	None
Speed	Medium

This controls the [Page Transition](#) visual effects of page changes:

- **Page Change Effect:** this is the effect when changing from one [Page](#) to another
- **Sub-Page Change Effect:** this is the effect when the [Sub-Page](#) displayed in a [Sub-Page Frame](#) changes
- **Speed:** this is the speed of the transition from one page to another

The names of the effects are reasonably self-explanatory. To see all effects in action, select "random" or "cycle", close the form and then change pages lots of times. The page transition effects can also be set using [Special Functions](#).

Alarm Tab (This tab is not applicable to PAC or Wiser Home Control projects)

Alarm Details		
Repeat Period	2	Seconds
Alarm Duration	3600	Seconds
Snooze Duration	600	Seconds
Alarm Sound	P1\Sound Effects\Alarm.wav	...
Alarm Page	Alarm Page	▼

The following details of the [alarm](#) can be set :

- The **Repeat Period** - how often it goes off
- The **Alarm Duration** - how long it will continue
- The **Snooze Duration** - how long the alarm will be suppressed when a Snooze [Special Function](#) is executed
- The **Alarm Sound** - the wav file used for the alarm sound (Colour C-Touch only). If this is not selected, the PICED software plays the system default beep when the Alarm is on. To set the desired sound, use the Windows Control Panel. Black and White C-Touch makes a regular beep when the alarm is on.
- The **Alarm Page** is the page which will be selected when the alarm is sounded.

C-Bus Tab

The **C-Bus** tab allows you to select :

- The network that the unit is installed on
- Various C-Bus options
- The [network modelling](#) (Colour C-Touch Projects only)

The **Connection** group allows you to select the [network](#) that the device will be connected to. This is only used if you are sending commands from one network to another. In this case, the device needs to know which network it is on so that it can send the message with the correct path information.

Device is on network	Local	▼
Default Application	Lighting	▼
Unit Address	Unused	▼

The **Default Application** is used when creating new [Components](#), [Scenes](#) and [Schedules](#).

The **Unit Address** is necessary if you are going to be programming a Black and White C-Touch or PAC over C-Bus.

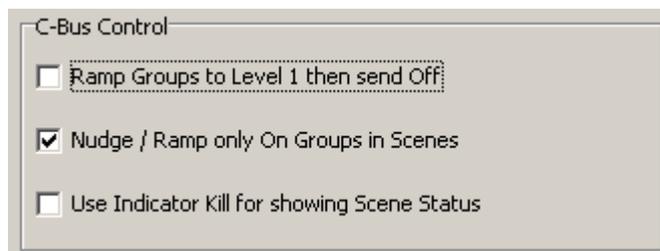
Networks (Colour C-Touch Projects only)

Networks	
<input checked="" type="checkbox"/>	Model Networks Independently
<input checked="" type="checkbox"/>	Bridges use Application Connect Mode

For the Colour C-Touch to correctly model the C-Bus [networks](#), it is necessary to select whether

networks are to be modelled independently. If they are to be modelled independently, select the **Model Networks Independently** check box. If the bridges connected to the Colour C-Touch network have Application Connect mode set (from the Colour C-Touch network to the remote network), select the **Bridges use Application Connect Mode** check box. Refer to the C-Bus Networks document which can be found in the [Manuals](#) folder for more details on the modelling of C-Bus networks.

C-Bus Control



Ramp Groups to Off

When a group address is ramped to level 0, the command is received by all C-Bus Units on the network. On some old C-Bus input units, the status indicator will go off as soon as this message is seen, even though the level is still above 0 for some time. For this reason, many devices send a "ramp to level 1" command followed by an "off" command when the level gets to 1. In this case, the input unit status indicators will show the state correctly. To select this behaviour, select the **Ramp Groups to Level 1 then send Off** check box.

If this check box is not selected, then ramping to level 0 will be done with a single "ramp to level 0" command.

Nudge / Ramp Scene

When a Scene is [Adjusted](#) (nudged up and down or ramped up and down), it is usually desirable to just control the group addresses in the Scene which are already on. To select this behaviour, select the **Nudge / Ramp only On Groups in Scenes** check box. This will result in the following occurring :

- Nudge Up, On/Up and Dimmer will only increase the level of Group Addresses which are already on
- Nudge Down, Off/Down and Dimmer will only decrease Group Addresses which are on, and only to a minimum level of 1

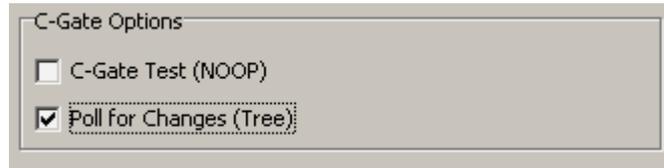
To have all of the Groups in the Scenes controlled, regardless of their level, de-select the **Nudge / Ramp only On Groups in Scenes** check box.

Indicator Kill

To use the [C-Bus Indicator Kill](#) messages to show the status of Scenes, select the **Use Indicator Kill for Showing Scene Status** check box. If this is not selected, the Scene group levels will be used for showing the status of Scenes. Note that Indicator Kill messages are sent when a Scene is "broken" regardless of this setting.

Broadcast Power Failure Recovery Levels (Colour C-Touch only)

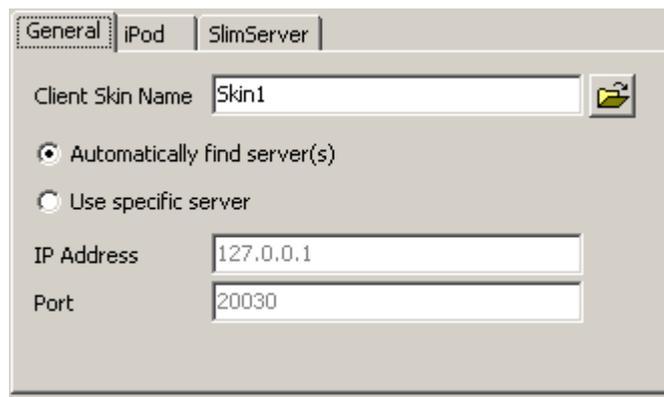
When this option is selected, all groups which have their level restored by the [Power Failure Recovery](#) process will have their level broadcast onto C-Bus. This is not normally necessary.

C-Gate Options (only applies to running the project in PICED)

The **C-Gate Test** option can be selected if you want to regularly verify that the connection to C-Gate is still OK. This option will result in a NOOP command being sent to C-Gate on a regular basis if there have been no other commands for a minute or so. If there is no reply from C-Gate, the connection will be closed and re-opened. This should only ever be used in extreme cases as it can disguise an underlying reliability problem.

The **Poll for Changes** option selects whether to use a regular C-Gate "tree" command to obtain the current C-Bus levels.

Refer to [C-Gate Algorithm](#) for additional details.

Media Tab (Colour C-Touch Only)

The desired skin for the Media Client can be selected by entering the name of the folder containing it in the **Client Skin Name** box. Alternatively, click on the button next to it and navigate to the desired folder.

By default, the Media Client automatically finds compatible media servers. If you want to use a specific server, select **Use Specific Server** and enter the server **IP Address** and **Port**. These will then be used when the Media Player Control [Special Function](#) is executed (although they can be overridden as part of the Special Function if desired).

iPod Control

The iPod tab contains options for use with the iPod Media Server. To have the software start the iPod Media Server on start-up, select the **Start iPod Server when program starts** option.

SlimServer Control

The SlimServer Tab contains options for use with the SlimServer Interface :

- The **Start SlimServer Interface when program starts** option will result in the software automatically starting the SlimServer Interface when it starts up
- The **IP Address** and **Port** are used for the connection to the SlimServer

- The **User Name** and **Password** are optionally used to log-in to the SlimServer
- The **Squeezebox MAC Address** is the MAC Address of the Squeezebox or other player

Internet Tab (Colour C-Touch Only)

Proxy Server Settings

The proxy server settings are needed if using a [Web Cam Image](#) component to view images on the Internet via a proxy server. Contact your network administrator for details, or open the network settings in your web browser to find the details of the proxy server:

- **IP Address:** the proxy server IP Address
- **Port:** the port used on the proxy server
- **User Name:** the user name to log into the proxy server
- **Password:** the password for the proxy server

Remote Connection

If you wish to [transfer the Colour C-Touch project to a unit](#) on a remote site via the Internet, the following properties will be needed:

- **URL/IP Address:** this is the URL (eg. myhouse.com) or IP Address (eg. 1.2.3.4) of the Colour C-Touch (or the router). **Do not include "http://" in the URL.**
- **Port:** this is the port number. The default value is 8336, but may be different if port mapping is used
- **Password:** this is the password for connecting to the Colour C-Touch unit

Local Connection

If you are using a static IP Address for the Colour C-Touch, you can enter it in the **Static IP Address** edit box. This will be used by the C-Touch Colour Transfer Utility when [connecting to the unit](#) on the Local Area Network (LAN). This can vary by [Profile](#).

C-Touch Tab

Key Press Sounds (Black and White C-Touch and C-Touch Spectrum only)



This section allows you to select the volume, pitch and duration of the key press beeps on the black and White C-Touch.

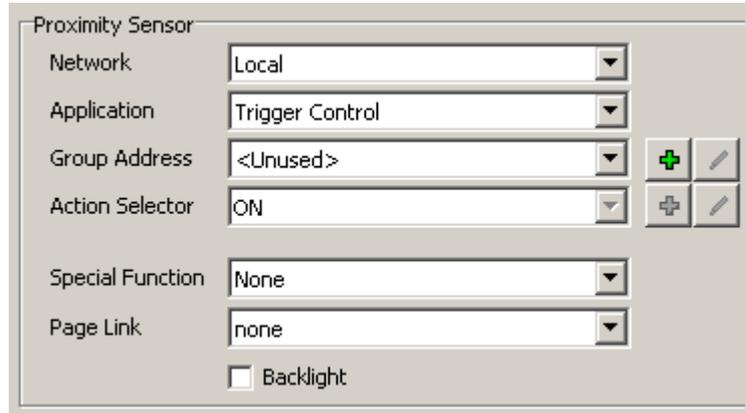
The **Show Night Light** option is used to control the night light on the Black and White C-Touch.

For Black and White C-Touch, the **Image Compression** option provides the option to compress images to reduce the project [resources](#) so that large projects will fit.

For C-Touch Spectrum projects, the image **Translucency Colour** can be selected. When the [Component images](#) are captured for transfer to the unit, they are drawn on a plain colour background. Images with translucency (for example PNGs) will have pixels which get blended with

this background colour. To get the best visual appearance for these images, it is recommended that a translucency colour be selected which is similar to the page background colour. **Note that it is important to not use a colour which is used in the project**, because this colour is used to indicate the transparency of the image, and if this colour is actually used in an image, then the pixels with that colour will not be drawn.

Proximity Sensor (C-Touch Spectrum only)

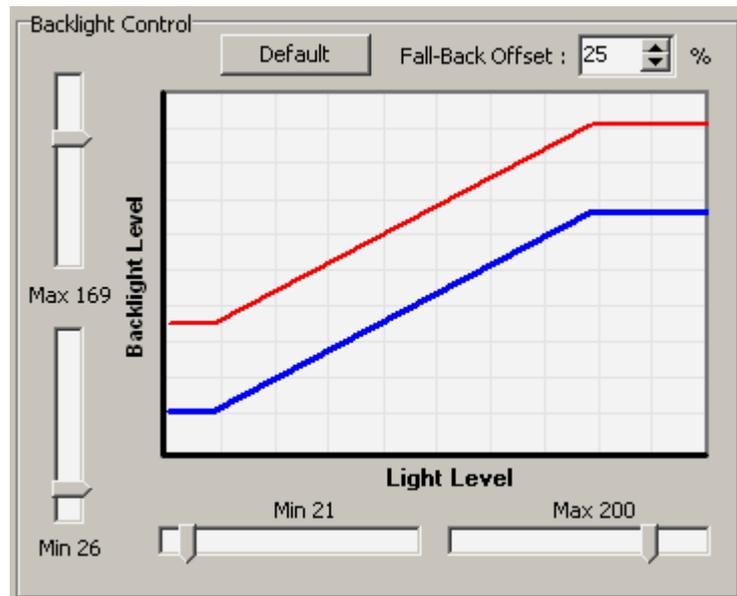


This section allows you to select what happens when the proximity sensor is activated by a nearby hand:

- **Network, Application, Group and Action Selector** - select this if you want a group to be set to a level to trigger some event
- **Special Function** - select a special function, if required
- **Page Link** - select a page to be displayed, if required
- **Backlight** - activate the backlight, if required (this can also be done using a Special Function)

Backlight Tab (Black and White C-Touch and C-Touch Spectrum only)

The C-Touch unit has a backlight control algorithm which makes the backlight increase in brightness as the room gets brighter. This ensures that the C-Touch unit is easily readable in all ambient light levels, without being too bright when the room is dark.



The graph shows the relationship between the ambient light level and the backlight level. The red line shows the relationship when the screen has been recently touched (ie. it is being used). The blue line shows the relationship when the screen has not been touched for a while (see the time-out duration above).

The backlight generally gets brighter as the ambient (room) light level gets brighter. In the example above, the backlight will be at a constant level when the ambient light level is below about 60%. The backlight gradually gets brighter until the light level is around 90%. The backlight is at a constant level when the light level is above about 90%. When the screen has not been touched for some time, the backlight level drops by around 30%.

The sliders control the minimum and maximum level of the light level and the backlight level. The **Fall-Back Offset** controls how much the backlight will dim by after the screen has not been touched for a while.

The **Default** button resets the backlight properties to their default levels.

Misc Tab

Metric Units can be selected to display Temperature in Centigrade, rather than Fahrenheit.

The [Master Unit](#) setting controls whether the unit will be the C-Bus Master. The Master Unit can also vary by [Profile](#).

To automatically delete one-off [Schedules](#) (Schedules that occur on a single day) which occurred at least a month in the past, select the **One-Off Schedules** check box. This only applies to the Colour C-Touch.

To automatically delete [Special Days](#) which occurred in the past, select the **Special Days** check box. This only applies to the Colour C-Touch.

The auto deletion of Schedules and Special Days occurs when a file is loaded and at midnight each day.

If the **Enable Popup Editor** option is selected (Colour C-Touch only), anywhere that data needs to be entered, there is an edit button  which you can click to show the pop-up editor so that you can edit new data without needing a keyboard. This only applies to the Colour C-Touch (HomeGate) forms, not the operating system forms.

The **Date Order** option allows for the selection of the default order (Day/Month/Year or Month/Day/Year or Year/Month/Day). The **Time Format** option allows for the selection of the default time format (12 hour or 24 hour). These options will be used when a new [clock](#) Component is placed on a Page and will be used by the unit when displaying system date/time information.

Location Tab

The **Location** tab of the Options page box allows you to select the location of the project installation, which is used for sunrise / sunset calculations. The essential data is the Longitude and Latitude of the installation. The easiest way to select this is to select the Country from the first drop-down list, then the city from the second drop-down list. This will enter the Longitude and Latitude for you.

If the Country and/or City is not in the list(s), then type them in and type in the Longitude and Latitude. If you click on the **Add to Database** button, this city will be added to your database of

cities and will be available for the next time you use the software.

The screenshot shows a software window with several tabs: 'Installer', 'Pages', 'Alarm', 'C-Bus', 'Media', 'Internet', 'Misc', 'Location', and 'Daylight Savings'. The 'Location' tab is active. It contains the following elements:

- Location Section:**
 - Country: Australia (dropdown)
 - City: Adelaide (dropdown)
 - Latitude: 34 55 07 (text input)
 - Longitude: 138 36 46 (text input)
 - Buttons: 'Add to Database', 'Save as Default', and 'Map'.
 - Directional controls: 'North' (radio), 'South' (radio, selected), 'West' (radio), 'East' (radio, selected).
- Verify Sunrise and Sunset Section:**
 - Time Zone: GMT+09:30 (text)
 - Date: 02/02/2011 (dropdown)
 - Buttons: 'Change Time Zone' and 'Calculate Sunrise/Sunset'.

To find the Longitude and Latitude of cities, look in an Atlas or one of the many Internet sites such as <http://www.heavens-above.com/countries.asp>.

To verify that the data entered is correct, click on the **Calculate Sunrise / Sunset** button and confirm that the data provided is correct. The sunrise and sunset times can usually be found in newspapers or on the Internet.

To use this location automatically each time a project is created, click on the **Save as Default** button.

To allow the location (longitude and latitude) to be viewed and selected using a map, click on the **Map** button to open the [Location Selection](#) form.

Daylight Savings Tab

The **Daylight Savings** tab of the Options page allows you to enter various parameters related to your location including :

- The time zone
- The start date and time of Daylight Savings
- The finish date and time of Daylight Savings
- The amount of time adjustment during Daylight Savings.

The Daylight Savings settings are used for the calculation of sunrise and sunset times.

By default these will be set to the values set for your computer. To reset these parameters, to the default, click the **Reset to Local Timezone** button.

To select a different [time zone](#), click on the **Select Other Timezone** button.

It should not normally be necessary to manually change any of the parameters on this tab as they are read from the PC's operating system.

For the Black and White C-Touch, Wiser and the PAC, you will need to click on the **Create Schedules** button to create Schedules to control Daylight Savings. These Schedules use the Daylight Savings Start and Daylight Savings Finish [Special Functions](#) to start and stop Daylight Savings in the units.

In Colour C-Touch the change of the time to and from daylight savings time is done by the operating system.

When complete, click on the **Next** button.

4.7.5.5 Options (Wiser)

The **C-Bus Project** page of the [Project Details Wizard](#) allows you to select various options of the C-Bus Project which varies according to unit type

Project Tab

The **Project** tab allows you to enter details of the Project (name, location etc).

Project name	Fred's House
Location	
Consultant	
Architect	
Owner	
Notes	

Refresh Project

It is possible to have the PICED software remind you to transfer any user changes made to a the project in a unit back to the computer before you start editing the project (see [Updating Unit Projects](#)). This is the same as using the **Transfer | Refresh Project from Unit** menu item.

There are two properties which are displayed on the Project tab and can be changed if required:

- **Project has been transferred to unit:** this shows if the project has been transferred to the unit in the past. It is automatically set by PICED
- **Refresh project from unit before editing:** this selects whether you want to be reminded to refresh the project the next time you open the project

The reminder will only be given if the project has been transferred to a unit and the **Refresh project from unit before editing** option is selected.

Installer Tab

The **Installer** tab allows you to enter the details of the C-Bus Installer :

Name	
Company	
Address	
City	
State	
Postcode	
Country	
Phone	
Mobile	
Fax	
E-mail	
Web site	

Click on the **Save Default Details** button to save the entered data for use in the future. Click on the

Load Default Details to load previously saved data.

C-Bus Tab

The **C-Bus** tab allows you to select :

- The network that the unit is installed on
- Various C-Bus options

The **Connection** group allows you to select the [network](#) that the device will be connected to. This is only used if you are sending commands from one network to another. In this case, the device needs to know which network it is on so that it can send the message with the correct path information.



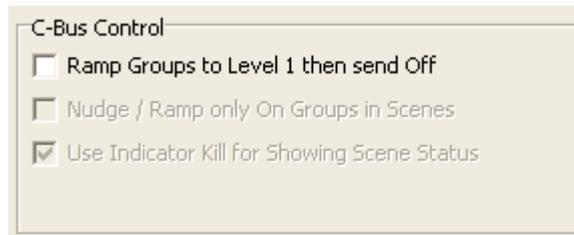
Device is on network	Local
Default Application	Lighting
Unit Address	Unused

The **Default Application** is used when creating new [Components](#), [Scenes](#) and [Schedules](#).

The **Unit Address** is necessary if you are going to be programming a Black and White C-Touch or PAC over C-Bus.

Refer to the C-Bus Networks document which can be found in the [Manuals](#) folder for more details on the modelling of C-Bus networks.

C-Bus Control



C-Bus Control	
<input type="checkbox"/>	Ramp Groups to Level 1 then send Off
<input type="checkbox"/>	Nudge / Ramp only On Groups in Scenes
<input checked="" type="checkbox"/>	Use Indicator Kill for Showing Scene Status

Ramp Groups to Off

When a group address is ramped to level 0, the command is received by all C-Bus Units on the network. On some old C-Bus input units, the status indicator will go off as soon as this message is seen, even though the level is still above 0 for some time. For this reason, many devices send a "ramp to level 1" command followed by an "off" command when the level gets to 1. In this case, the input unit status indicators will show the state correctly. To select this behaviour, select the **Ramp Groups to Level 1 then send Off** check box.

If this check box is not selected, then ramping to level 0 will be done with a single "ramp to level 0" command.

Nudge / Ramp Scene (disabled)

All of the Groups in the Scenes will be controlled, regardless of their level.

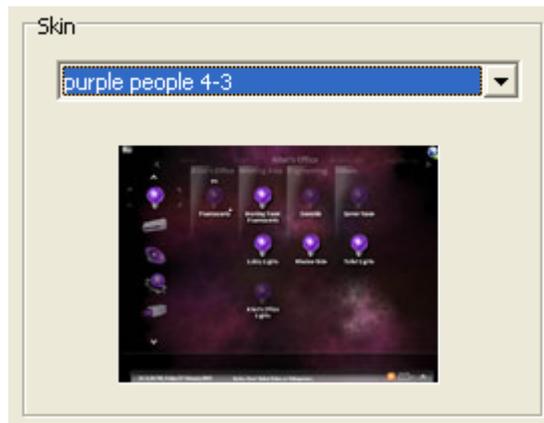
Indicator Kill

[C-Bus Indicator Kill](#) show the status of Scenes. Scene group levels will not be used for showing the status of Scenes. Note that Indicator Kill messages are sent when a Scene is "broken" regardless of this setting.

Wiser Tab

When a Wiser Home Control Project is selected, this page will allow you to select the following details:

Skin



The skin controls the appearance and functionality of the Wiser Home Control user interface. A preview image of the selected skin is shown. For details of the skin, select **Help | Wiser Home Control Skin** or **Help | Wiser Home Control User Guide**.

Properties

Wiser Properties			
Wiser IP Address	192 . 168 . 2 . 1	<input type="button" value="Open"/>	
Unit Name	My Unit		
Unit Password	*****		
Tools Password	*****		
CNI Properties			
CNI IP Address	192 . 168 . 2 . 2	<input type="button" value="Open"/>	
CNI Port	10001		

The Wiser Properties group allows you to select various properties of a Wiser unit:

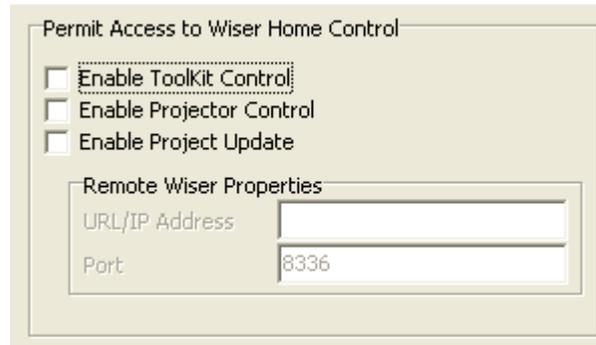
- **Wiser IP Address** - this is the IP Address (or URL) for the Wiser Home Control (on the LAN)
- **Unit Name** - used so that the unit can be recognised when connected.
- **Unit Password** - the Wiser Home Control password is required so that PICED can log-in.
- **Tools Password** - this is the password to protect the Wiser "tools" page. It can only use numbers, with 4 to 6 digits.

CNI Properties

- **CNI IP Address** - this is the IP Address of the CNI used by the Wisier Home Control. By default it is one greater than the Wisier Home Control IP Address.
- **CNI Port** - this is the port number used by the CNI

The Wisier Home Control must be on the same subnet as the PC in order to be able to transfer the project. The Wisier Home Control and CNI must also be on the same subnet as each other. See <http://en.wikipedia.org/wiki/Subnetwork> for an explanation of network masks and subnets.

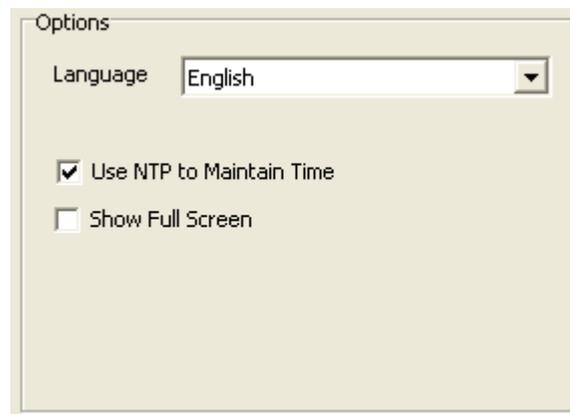
Access



This controls whether the following Wisier features are to be allowed to be accessed by a user:

- **Enable ToolKit Control** - allows the Wisier Home Control's CNI to be connected to remotely using the C-Bus ToolKit or other programs via the Wide Area Network (WAN) side of the Wisier Home Control (ie. via the Internet)
- **Enable Projector Control** - this enables a [Flash Projector](#), PC and mobile clients to control the Wisier Home Control via the WAN
- **URL/IP Address** - specify the URL or IP address in order to access the Wisier unit over the internet for remote project/firmware transfer
- **Remote Port** - specify the port number in order to access the Wisier unit over the internet
- **Enable Project Update** - this allows PICED to transfer a new project to the unit via the WAN. Enter the **URL/IP Address** for the Wisier Home Control at the remote site. The **Port** is fixed at 8336.

Options



- **Language** - select the language to be displayed on the Wisier User Interface
- **Use NTP to Maintain Time** - use the NTP time service to set the Wisier Home Control time
- **Show Full Screen** - select this if you want the [Flash Projector](#) to show full-screen.

LAN



Use Wisier as LAN Device

Allow Access From Wisier LAN ports

LAN Properties

Gateway Address

DNS 1

DNS 2

DNS 3

The **Allow Access From Wisier LAN ports** option allows for access to Wisier via the LAN side. Normally the Wisier Home Control is accessed remotely via the WAN connection of the Wisier Home Control. There are some circumstances where it may be necessary to access it remotely from one of the LAN ports. In this case, select Allow Access From Wisier LAN ports and enter the **Gateway Address** and one or more Domain Name Server (**DNS**) IP addresses.

For details of the usage of the Wisier Home Control properties, particularly with how they apply to different network configurations, please refer to the Wisier Home Control Installation guide.

Misc Tab

Metric Units can be selected to display Temperature in Centigrade, rather than Fahrenheit.

The [Master Unit](#) setting controls whether the unit will be the C-Bus Master. The Master Unit can also vary by [Profile](#).

The **Date Order** option allows for the selection of the default order (Day/Month/Year or Month/Day/Year or Year/Month/Day). The **Time Format** option allows for the selection of the default time format (12 hour or 24 hour). These options will be used when a new [clock](#) Component is placed on a Page and will be used by the unit when displaying system date/time information.

Location Tab

The **Location** tab of the Options page box allows you to select the location of the project installation, which is used for sunrise / sunset calculations. The essential data is the Longitude and Latitude of the installation. The easiest way to select this is to select the Country from the first drop-down list, then the city from the second drop-down list. This will enter the Longitude and Latitude for you.

If the Country and/or City is not in the list(s), then type them in and type in the Longitude and Latitude. If you click on the **Add to Database** button, this city will be added to your database of cities and will be available for the next time you use the software.

The screenshot shows a software interface with a tabbed menu at the top. The 'Location' tab is selected. Below the menu, there are two main sections. The first section, titled 'Location', contains four rows of input fields: 'Country' (Australia), 'City' (Adelaide), 'Latitude' (34 55 07), and 'Longitude' (138 36 46). To the right of these fields are buttons for 'Add to Database', 'Save as Default', and 'Map'. There are also radio button groups for 'North/South' and 'West/East'. The second section, titled 'Verify Sunrise and Sunset', contains a 'Time Zone' field (GMT+09:30) with a 'Change Time Zone' button, and a 'Date' field (02/02/2011) with a 'Calculate Sunrise/Sunset' button.

To find the Longitude and Latitude of cities, look in an Atlas or one of the many Internet sites such as <http://www.heavens-above.com/countries.asp>.

To verify that the data entered is correct, click on the **Calculate Sunrise / Sunset** button and confirm that the data provided is correct. The sunrise and sunset times can usually be found in newspapers or on the Internet.

To use this location automatically each time a project is created, click on the **Save as Default** button.

To allow the location (longitude and latitude) to be viewed and selected using a map, click on the **Map** button to open the [Location Selection](#) form.

Daylight Savings Tab

The **Daylight Savings** tab of the Options page allows you to enter various parameters related to your location including :

- The time zone
- The start date and time of Daylight Savings
- The finish date and time of Daylight Savings
- The amount of time adjustment during Daylight Savings.

The Daylight Savings settings are used for the calculation of sunrise and sunset times.

The screenshot shows a configuration window for time zone and daylight savings. The 'Time Zone' is set to 'GMT+09:30'. Under 'Daylight Savings', the 'Add 1 hour' option is selected. The 'Start of Daylight Savings' is set to the first Sunday in October at 2:00:00 AM, with a note that it starts on 4/10/2009. The 'End of Daylight Savings' is set to the first Sunday in April at 3:00:00 AM, with a note that it finishes on 5/04/2009. There are three buttons: 'Reset to Local Time Zone', 'Select Other Time Zone', and 'Create Schedules'.

By default these will be set to the values set for your computer. To reset these parameters, to the default, click the **Reset to Local Timezone** button.

To select a different [time zone](#), click on the **Select Other Timezone** button.

It should not normally be necessary to manually change any of the parameters on this tab as they are read from the PC's operating system.

When complete, click on the **Next** button.

4.7.5.6 Options (Wiser2)

The **C-Bus Project** page of the [Project Details Wizard](#) allows you to select various options of the C-Bus Project which varies according to unit type

Project Tab

The **Project** tab allows you to enter details of the Project (name, location etc).

The screenshot shows a form with the following fields: 'Project name' (text input, value: Fred's House), 'Location' (text input), 'Consultant' (text input), 'Architect' (text input), 'Owner' (text input), and 'Notes' (text area).

Refresh Project

It is possible to have the PICED software remind you to transfer any user changes made to a the project in a unit back to the computer before you start editing the project (see [Updating Unit Projects](#)). This is the same as using the **Transfer | Refresh Project from Unit** menu item.

There are two properties which are displayed on the Project tab and can be changed if required:

- **Project has been transferred to unit:** this shows if the project has been transferred to the unit in the past. It is automatically set by PICED
- **Refresh project from unit before editing:** this selects whether you want to be reminded to refresh the project the next time you open the project

The reminder will only be given if the project has been transferred to a unit and the **Refresh project from unit before editing** option is selected.

Installer Tab

The **Installer** tab allows you to enter the details of the C-Bus Installer :

Name	<input type="text"/>
Company	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Postcode	<input type="text"/>
Country	<input type="text"/>
Phone	<input type="text"/>
Mobile	<input type="text"/>
Fax	<input type="text"/>
E-mail	<input type="text"/>
Web site	<input type="text"/>

Click on the **Save Default Details** button to save the entered data for use in the future. Click on the **Load Default Details** to load previously saved data.

C-Bus Tab

The **C-Bus** tab allows you to select :

- The network that the unit is installed on
- Various C-Bus options

The **Connection** group allows you to select the [network](#) that the device will be connected to. This is only used if you are sending commands from one network to another. In this case, the device needs to know which network it is on so that it can send the message with the correct path information.



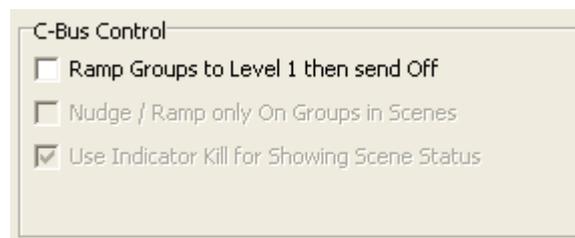
The screenshot shows a configuration window with two dropdown menus. The first menu is labeled 'Default Network' and has 'local' selected. The second menu is labeled 'Default Application' and has 'Lighting' selected.

The **Default Application** is used when creating new [Components](#), [Scenes](#) and [Schedules](#).

The **Unit Address** is necessary if you are going to be programming a Black and White C-Touch or PAC over C-Bus.

Refer to the C-Bus Networks document which can be found in the [Manuals](#) folder for more details on the modelling of C-Bus networks.

C-Bus Control



The screenshot shows a window titled 'C-Bus Control' with three checkboxes. The first checkbox is 'Ramp Groups to Level 1 then send Off' and is unchecked. The second checkbox is 'Nudge / Ramp only On Groups in Scenes' and is unchecked. The third checkbox is 'Use Indicator Kill for Showing Scene Status' and is checked.

Ramp Groups to Off

When a group address is ramped to level 0, the command is received by all C-Bus Units on the network. On some old C-Bus input units, the status indicator will go off as soon as this message is seen, even though the level is still above 0 for some time. For this reason, many devices send a "ramp to level 1" command followed by an "off" command when the level gets to 1. In this case, the input unit status indicators will show the state correctly. To select this behaviour, select the **Ramp Groups to Level 1 then send Off** check box.

If this check box is not selected, then ramping to level 0 will be done with a single "ramp to level 0" command.

Nudge / Ramp Scene (disabled)

All of the Groups in the Scenes will be controlled, regardless of their level.

Indicator Kill

[C-Bus Indicator Kill](#) show the status of Scenes. Scene group levels will not be used for showing the status of Scenes. Note that Indicator Kill messages are sent when a Scene is "broken" regardless of this setting.

Wiser Tab

When a Wiser Home Control Project is selected, this page will allow you to select the following details:

Skin



The skin controls the appearance and functionality of the Wisers Home Control user interface. A preview image of the selected skin is shown. For details of the skin, select **Help | Wisers Home Control Skin** or **Help | Wisers Home Control User Guide**.

Properties

Wiser Properties

Unit Name

C-Bus Properties

CNI Direct Connection

CNI IP Address

CNI Port

The Wiser Properties group allows you to select various properties of a Wiser unit:

- **Unit Name** - used so that the unit can be recognised when connected.

C-Bus Properties

- **CNI/Direct Connection** - use the on-board PCI for connection to C-Bus or use a remote CNI
- **CNI IP Address** - this is the IP Address of the CNI used by the Wisers Home Control. By default it is one greater than the Wisers Home Control IP Address.
- **CNI Port** - this is the port number used by the CNI

The Wisers Home Control must be on the same subnet as the PC in order to be able to transfer the project. The Wisers Home Control and CNI must also be on the same subnet as each other. See <http://en.wikipedia.org/wiki/Subnetwork> for an explanation of network masks and subnets.

Access

This controls whether the following Wiser features are to be allowed to be accessed by a user:

- **Enable ToolKit Control** - allows the Wiser Home Control's CNI to be connected to remotely using the C-Bus ToolKit or other programs via the Wide Area Network (WAN) side of the Wiser Home Control (ie. via the Internet)
- **Enable Projector Control** - this enables a [Flash Projector](#), PC and mobile clients to control the Wiser Home Control via the WAN
- **Enable Project Update** - this allows PICED to transfer a new project to the unit via the WAN. Enter the **URL/IP Address** for the Wiser Home Control at the remote site.
- **URL/IP Address** - specify the URL or IP address in order to access the Wiser unit over the internet for remote project/firmware transfer
- **Remote Port** - set the port that you wish to access the wiser2 unit from over the internet (port 80 may be blocked by some internet service providers)

Options

- **Language** - select the language to be displayed on the Wiser User Interface
- **Show Full Screen** - select this if you want the [Flash Projector](#) to show full-screen.
- **Firmware Update URL (optional)** - specify a URL for the wiser to automatically look for firmware updates over the internet. When a new version is found, an auto upgrade is performed.
- **Wiser2 LED's** - enable/disable Wiser2 front panel LED's, inbuilt system IO can be used to override this setting

LAN

<input type="checkbox"/> Obtain an IP Address Automatically	
Wiser IP Address	192 . 168 . 2 . 2
Subnet Mask	255 . 255 . 255 . 0
Simulation IP Address	0 . 0 . 0 . 0
	<input type="button" value="Open"/>
Gateway Address	192 . 168 . 2 . 1
DNS 1	192 . 168 . 1 . 1
DNS 2	0 . 0 . 0 . 0
DNS 3	0 . 0 . 0 . 0

- **Obtain an IP Address Automatically** - when enabled obtain an IP address using DHCP addressing, when disabled you will need to specify IP address, subnet mask, gateway address and DNS address(es)
- **Wiser IP Address** - specify static IP address
- **Subnet Mask** - this must match the subnet of IP network
- **Simulation IP Address** - if 'Obtain IP Address Automatically' is selected, this field allows you to enter the DHCP IP address of the unit to use 'Simulation Mode'
- **Open** - Open simulation mode using the specific static IP Address or the specified Simulation IP Address
- **Gateway Address** - the address of the router that provides internet access for the wiser
- **DNS** - domain name server address(es)

For details of the usage of the Wiser Home Control properties, particularly with how they apply to different network configurations, please refer to the Wiser Home Control Installation guide.

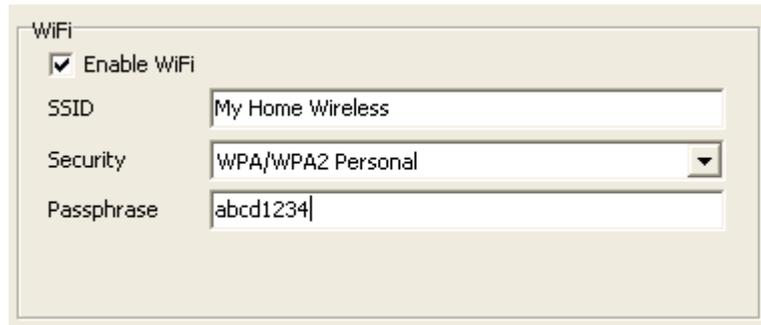
NTP

NTP	
<input checked="" type="checkbox"/> Use NTP to Maintain Time on Wiser	
NTP 1 URL	0.pool.ntp.org
NTP 2 URL	1.pool.ntp.org
NTP 3 URL	2.pool.ntp.org
NTP 4 URL	3.pool.ntp.org
<input type="button" value="Save Preference"/> <input type="button" value="Load Preference"/> <input type="button" value="Load Default"/>	

- **Use NTP to Maintain Time on Wiser** - use internet network time protocol to automatically set the time/date
- **NTP URL** - specify the 4 clock source addresses
- **Save Preference** - custom NTP URL's can be entered and saved as a preference
- **Load Preference** - replace the default NTP URL's with the saved preferred values
- **Load Default** - restore the NTP URL's to the default values

Refer to <http://www.pool.ntp.org> for alternate NTP URL's

Wireless



WiFi

Enable WiFi

SSID: My Home Wireless

Security: WPA/WPA2 Personal

Passphrase: abcd1234

- **Enable Wifi** - enable for wifi network communications instead of wired ethernet
- **SSID** - enter the SSID name of the wifi network to connect to
- **Security** - 3 wifi security modes are supported (none, WEP, WPA/WPA2 Personal)
- **Passphrase** - wifi password

DDNS



DDNS Enabled

DDNS Service: default@no-ip.com

Host Name: myhomewiser2@no-ip.org

User Name: johndoe

Password: *****

DDNS is used to provide access to the wiser over the internet with a URL instead of a changing IP address.

You must have an existing DDNS account configured with one of the supported DDNS services.

- **DDNS Enabled** - enabled a dynamic domain name service
- **DDNS Service** - a predefined set of DDNS services are available
- **Host Name** - specify the URL you wish to use for access over the internet
- **User Name** - DDNS account user name
- **Password** - DDNS account password

Ripple



Ripple Server

Enable Ripple Server

Matrix IP: 192.168.2.9

The Wiser2 has a ripple music server built in.

This will stream music directly to an MRA version 3 matrix switcher and that has an inbuilt ip streamer and provide control via wiser2 UI's and C-Bus transport control.

Further configuration is required in the audio manager before adding an MRAV3 widget.

- **Enable Ripple Server** - enable the Wiser2 ripple server
- **Matrix IP** - IP address of the matrix switcher to stream content

SAMBA

SAMBA Server

Enable SAMBA Server

Work Group

SAMBA Client

Enable SAMBA Client

User Name

Password

Domain

Host

Folder

The Wiser2 unit can share files with other networked devices either as a server or a client using the SAMBA protocol.

- **Enable SAMBA Server** - enable the wiser2 to act as a server
- **Work Group** - specify the work group that the server will operate on
- **Enable SAMBA Client** - enable the wiser2 to act as a client
- **User Name** - enter the samba account user name
- **Password** - enter the samba account password
- **Domain** - enter the domain name OR the work group name you wish to access
- **Host** - enter the IP address of the server you wish to connect to
- **Folder** - enter the folder name you wish to access on the samba server

ZigBee

Enable ZigBee

ZigBee Project

Network	Selected	Transparent Port	Interface
My Network	<input checked="" type="checkbox"/>	10010	<input checked="" type="radio"/> USB <input type="radio"/> Ethernet

The Wiser2 can communicate directly with a ZigBee wireless network.

A ZigBee network must first be created and commissioned, next a project must be created using the Zoolkit software.

- **Enable ZigBee** - select to use ZigBee within the Wiser2 project
- **ZigBee Project** - select the project that was created using the Zoolkit software
- **Network** - all networks in the Zoolkit project will be listed
- **Selected** - the Wiser2 can communicate to one ZigBee network only, the first network will be selected by default
- **Transparent Port** - the Wiser2 will allow its ZigBee interface to be accessed on IP network on this port
- **Interface** - select the ZigBee network interface, if you select Ethernet you will need to enter the IP address and port number of the ZigBee ethernet interface (USB is the on-board interface)
- **Ethernet IP** - if you selected 'Ethernet' as the ZigBee interface you must enter the IP address of the ZigBee Ethernet interface
- **Port** - if you selected 'Ethernet' as the ZigBee interface you must enter the port number of the

ZigBee Ethernet interface

Misc Tab

Metric Units can be selected to display Temperature in Centigrade, rather than Fahrenheit.

The [Master Unit](#) setting controls whether the unit will be the C-Bus Master. The Master Unit can also vary by [Profile](#).

The **Date Order** option allows for the selection of the default order (Day/Month/Year or Month/Day/Year or Year/Month/Day). The **Time Format** option allows for the selection of the default time format (12 hour or 24 hour). These options will be used when a new [clock](#) Component is placed on a Page and will be used by the unit when displaying system date/time information.

Location Tab

The **Location** tab of the Options page box allows you to select the location of the project installation, which is used for sunrise / sunset calculations. The essential data is the Longitude and Latitude of the installation. The easiest way to select this is to select the Country from the first drop-down list, then the city from the second drop-down list. This will enter the Longitude and Latitude for you.

If the Country and/or City is not in the list(s), then type them in and type in the Longitude and Latitude. If you click on the **Add to Database** button, this city will be added to your database of cities and will be available for the next time you use the software.

The screenshot shows the 'Location' tab of the software interface. It features a tabbed menu at the top with 'Location' selected. Below the menu, the 'Location' section contains:

- 'Country' dropdown menu set to 'Australia'.
- 'City' dropdown menu set to 'Adelaide'.
- 'Latitude' text input field containing '34 55 07'.
- 'Longitude' text input field containing '138 36 46'.
- Radio buttons for 'North' and 'South', with 'South' selected.
- Radio buttons for 'West' and 'East', with 'East' selected.
- 'Map' button.

 Below the 'Location' section is the 'Verify Sunrise and Sunset' section:

- 'Time Zone' dropdown menu set to 'GMT+09:30'.
- 'Date' dropdown menu set to '02/02/2011'.
- 'Change Time Zone' button.
- 'Calculate Sunrise/Sunset' button.

 Buttons for 'Add to Database' and 'Save as Default' are also visible next to the 'Country' and 'City' dropdowns respectively.

To find the Longitude and Latitude of cities, look in an Atlas or one of the many Internet sites such as <http://www.heavens-above.com/countries.asp>.

To verify that the data entered is correct, click on the **Calculate Sunrise / Sunset** button and confirm that the data provided is correct. The sunrise and sunset times can usually be found in newspapers or on the Internet.

To use this location automatically each time a project is created, click on the **Save as Default** button.

To allow the location (longitude and latitude) to be viewed and selected using a map, click on the **Map** button to open the [Location Selection](#) form.

Daylight Savings Tab

The **Daylight Savings** tab of the Options page allows you to enter various parameters related to your location including :

- The time zone
- The start date and time of Daylight Savings
- The finish date and time of Daylight Savings
- The amount of time adjustment during Daylight Savings.

The Daylight Savings settings are used for the calculation of sunrise and sunset times.

By default these will be set to the values set for your computer. To reset these parameters, to the default, click the **Reset to Local Timezone** button.

To select a different [time zone](#), click on the **Select Other Timezone** button.

It should not normally be necessary to manually change any of the parameters on this tab as they are read from the PC's operating system.

When complete, click on the **Next** button.

4.7.5.7 Timezone Selection

The [Daylight Savings](#) tab of the Project Details Wizard [Options Page](#) allows you to enter the time zone and Daylight Savings details. This process is simplified by clicking on the **Select Other Timezone** button on the Project Details **Daylight Savings** Tab. This will open the Timezone Selection form.

GMT	Name	Home	DLS	Now	Date & Time
+09:30	Darwin		N	N	1/07/2003 09:52 AM
+10:00	Guam, Port Moresby		N	N	1/07/2003 10:22 AM
+10:00	Vladivostok		Y	Y	1/07/2003 11:22 AM
+10:00	Hobart		Y	Y	1/07/2003 11:22 AM
+10:00	Brisbane		N	N	1/07/2003 10:22 AM
+10:00	Canberra, Melbourne, Sydney		Y	Y	1/07/2003 11:22 AM
+11:00	Magadan, Solomon Is., New Caledonia		N	N	1/07/2003 11:22 AM
+12:00	Auckland, Wellington		Y	Y	1/07/2003 01:22 PM
+12:00	Fiji, Kamchatka, Marshall Is.		N	N	1/07/2003 12:22 PM

Time Zone :	AUS Eastern Standard Time
Standard Time:	AUS Eastern Standard Time, GMT + 10:00 Starts on last Sunday of March at 3:00:00 AM This year: 30/03/2003 3:00:00 AM
Daylight Saving Time: (Active Now)	AUS Eastern Daylight Time, GMT + 11:00 Starts on last Sunday of October at 2:00:00 AM This year: 26/10/2003 2:00:00 AM
Adjustment	60 minutes

The Timezone Selection form allows you to select from an extensive list of time zones supplied by the operating system. There is a list of all Time zones, with the following details :

- **GMT** : offset from GMT (Greenwich Mean Time)
- **Name** : the name of the Timezone
- **Home** : the word "home" is written along side of your home time zone. This can only be changed from the operating system.
- **DLS** : this shows whether Daylight Savings is used in this time zone.
- **Now** : this shows whether Daylight Savings is currently active.
- **Date & Time** : this shows the current data and time in the time zone

When a time zone is selected, the following details are shown at the bottom of the form :

- **Timezone** : this is the name of the selected time zone
- **Standard Time** : this is when Daylight Savings finishes
- **Daylight Savings Time** : this is when Daylight Savings starts
- **Adjustment** : this is how much the clocks are adjusted during Daylight Savings time.

Click on the **OK** button to use the selected time zone for your Project.

Note that the computer timezone can be set using [Special Functions](#). This is the timezone that the computer is in, and will determine when it changes its time for daylight savings. The project timezone must match the computer timezone when the project is installed and running. During development of a project, they may be different (if you are developing a project to run on a computer in a different timezone).

4.7.5.8 Location Selection

The [Location](#) tab of the Project Details Wizard [Options Page](#) allows you to enter the location of the project. This process is simplified by clicking on the **Map** button on the Project Details **Location** tab. This will open the Location Selection form.

The map is centred on the selected latitude and longitude.

To change to a different latitude and longitude:

1. Enter values in the **Latitude** and **Longitude** boxes
2. Click on the **Go to Location** button
3. The map will be centred on the new latitude and longitude

To select a location by address:

1. Type an address into the **Address** box (the address from the [Project Details](#) will already be in the address box)
2. Click on the **Go to Address** button
3. The map will be centred on the address and the latitude and longitude boxes will be updated (unless the address was invalid)

To select a location by dragging the map:

1. Click and drag the map so that the location is in the centre of the map
2. Click on the **Get Location** button
3. The latitude and longitude boxes will be updated

When complete, click on the **OK** button to transfer the latitude and longitude to the [Location](#) tab of the Project Details form. Click on the **Cancel** button to close the Location Selection form without making any changes.

Note : this form requires an Internet connection to operate.

4.7.5.9 Auto Page Creation

The **Create Project Pages** page of the [Project Details Wizard](#) allows you to quickly and automatically create a series of pages for your project.

The steps in the process are :

- Select the **Auto Create** button if you want to automatically create pages
- For each page you want to have created, enter the name in the **Page Names** list
- If you want a menu page created with page links to each page, select the **Create Menu** item
- If you want each page labelled with its name, select the **Label Pages** item
- If you want a theme page used for each of your pages, select it from the **Theme Page** list
- If you want to add a tools or other template page, select the **Add Template Page** button, and select the required template page from the list, or click the **Browse** button to select a page which is not listed
- Click on the **Finish** button when complete

4.7.6 Saving the Project

To save the [project](#), either click on the **Save** button of the [tool bar](#), or select the **Save** item from the **File** menu. To save the project with a different file name, select **Save As** from the **File** menu and enter the desired name.

If you are saving the project for the first time, or saving with a different file name, you will be prompted to enter a file name. Select the directory where your project will be stored, and enter a file name. The default file extension is **CTD**, which does not need to be entered.

To encrypt the project [file](#) to make it secure against tampering, select **Secure Project File (*.cte)** from the **Save As Type** drop down list in the Save As form.

When you save the project, all associated files (images etc) are copied into the project directory. This is to ensure that all of the necessary files are collected together to prevent any of them from being inadvertently deleted, and to simplify [archiving the Project](#) . Once the project has been saved, it will start using the saved files, not the original ones that were selected.

To keep the files for a project together and to prevent them from being confused with files for other projects, it is recommended that you create a separate directory (folder) for each project.

To do this, either

- If you are saving the Project file in the recommended \Projects directory, the PICED software will ask if you want a separate directory created. This will be created with the same name as the

- Project if you click on the Yes button; or
- Create a new folder before you start, using Windows Explorer or similar product; or
- When you save for the first time, or select **Save As** from the **File** menu, the **Save File** form will appear. If you click on the **new folder** icon, a new folder will be created. You can then change the name and select the folder.

New Folder Icon : 

To save just the currently displayed page to a file, select **Save Page As Template** from the **File** menu.

Note that when a file is saved, a backup copy is created with the same name, but with a [back-up file extension](#). This will be over-written the next time the file is saved.

To save a project as a [template](#), select the **Save Template** item from the **File** menu.

See also [Saving a Backup](#)

4.7.7 Templates

Templates can be used to store various aspects of a [Project](#) which are used on a regular basis. A Template can store :

- Project Details – all of the information in the [Project Details](#) form.
- [Pages](#), each of which may contain various [components](#)
- [Theme Pages](#)
- [Scenes](#)
- [Schedules](#)
- [Irrigation Programs](#)
- [Special Days](#)
- [Access Control](#)
- [Logic](#)
- C-Bus Application data
 - [Error Reporting Application](#)
 - [HVAC Application](#)
 - [Measurement Application](#)
 - [Media Transport Control Application](#)
 - [Audio Application](#)
- [Power Meters](#)
- [Monitors](#)
- [E-Mail](#) Accounts
- [Profiles](#)
- Wiser data ([Widgets](#) and [Options](#))

Project Templates

A project template is a complete project which can be re-used. It will generally contain the required structure and graphics, without the site-specific details. The Theme Templates supplied with PICED are examples of Project Templates.

Page Templates

A page template is a single page with [Components](#) on it.

Component Templates

A component template is a set of [Components](#) which can be added to a project.

Other Templates

Templates are also used for things like:

- Logic code
- Special Days (such as public holidays)

Templates Supplied with PICED

The templates folder contains many folders with various templates:

- Components: single customised Components and sets of related Components
- Games: simple games
- Logic: samples of logic code
- Pages: pages for editing and control
- Special Days: public holidays (for Australia)
- Themes: project templates with different styles (see also the Theme Selector example project)
- Wisers: these are the "skins" used by Wisers and are not able to be used in the same way as other templates

See also Tutorial.

4.7.7.1 Creating Templates

To save a whole Project as a Template:

1. Select the **Save As Template** item from the **File** menu
2. Select which parts of the Project you want to have saved in the Template
3. Click on **OK**
4. Enter a File Name
5. Click on **OK**

To save just the current page as a Template:

1. Select the **Save Page As Template** item from the **File** menu
2. Select which parts of the Project you want to have saved in the Template
3. Click on **OK**
4. Enter a File Name
5. Click on **OK**

Project Templates

Templates can be used to save the user from having to re-enter the same data each time a new project is started.

To create a project template, follow these steps :

- Create a new [Project](#).
- In the [Project Details](#) form, enter your name and company details.
- In the Project Details form, enter your location and time zone.
- Create a standard start-up [page](#) if you want one.
- Create any other pages that you want to use regularly (you can always delete them later if you don't use them).
- Place any specific components that you regularly use on a page, so that you can [copy](#) and paste them later.
- Set up any common [Scenes](#) that you may need.
- Set up any common [Schedules](#) that you may need.
- Set up any [Access Levels](#) that you may need.
- Set up the [grid](#) to your preferred setting.
- Set any other preferences.

- Select the **Save As Template** item from the **File** menu and follow the steps described above.

To use a template in the future, select the **Open Template** item from the File menu.

Component Templates

[Components](#) or groups of Components can be saved as a Component Template. This allows you to create Components or groups of Components for easy re-use at a later date. To create a Component Template:

1. Create the Components
2. [Select the Components](#)
3. Select the **File | Save Components as Template** menu item

4.7.7.2 Adding Template Contents

To add a Template to a project:

1. Select the **File | Add Template Contents** menu item
2. Select which parts of the Template you want to import using the Template Options form
3. Click **OK**
4. Select the Template file
5. Click on **OK**

If you have used a particular Template before, you can select it from the **File | Re-Add Template Contents** menu item.

Screen Size

When a template with [Pages](#) is saved, the Project [screen size](#) is also saved. If you load a template which contains Pages, you have the option to use the template screen size or to keep the screen size of the Project.

If the Template screen size is different from the Project screen size, a warning will be raised. If the template page is larger than the Project screen size, then the template [Components](#) will be rearranged so that they fit on the page.

Component Templates

When adding a Component Template to a project, the Components in the template will be added to the currently selected page and selected. They can then be easily [dragged](#) to the correct position.

4.7.7.3 Editing Templates

To open an existing Template:

1. Select **Open Template** item from the **File** menu
2. Select the Template file
3. Click on **OK**
4. You will be prompted to select a C-Bus Project (since this is not stored in a template). Select the C-Bus project and click on **OK**

After making changes to the template, save the changes as follows:

1. Select the **File | Save** menu item
2. You will be prompted to ask whether you want to save the project as a template or as a project file. Click on the **Template** button.
3. Select which aspects of the project you want to save in the template

4. Click on **OK**

4.7.7.4 Copying Project Data Using Templates

If you have some aspect of a project which you want to re-use in another project, there are two solutions, as described below.

Saving Project Data for Re-use

To save aspects of a project for use in a second project:

1. Open the first project
2. [Create a template](#) containing the data you want to re-use
3. Open the new project
4. [Add the template contents](#)

Adding Project Data from Existing Project

To add aspects of an existing Project to a new Project in PICED:

1. Select the **File | Add Template Contents** menu item
2. Select which parts of the existing Project you want to import using the Template Options form
3. Click **OK**
4. Change the **Files of type** option from "template files" to "project files"
5. Select the Project file
6. Click on **OK**

4.7.8 Archiving the Project

Archiving consists of collecting together all [files](#) related to a [Project](#) and compressing them into a single compact file.

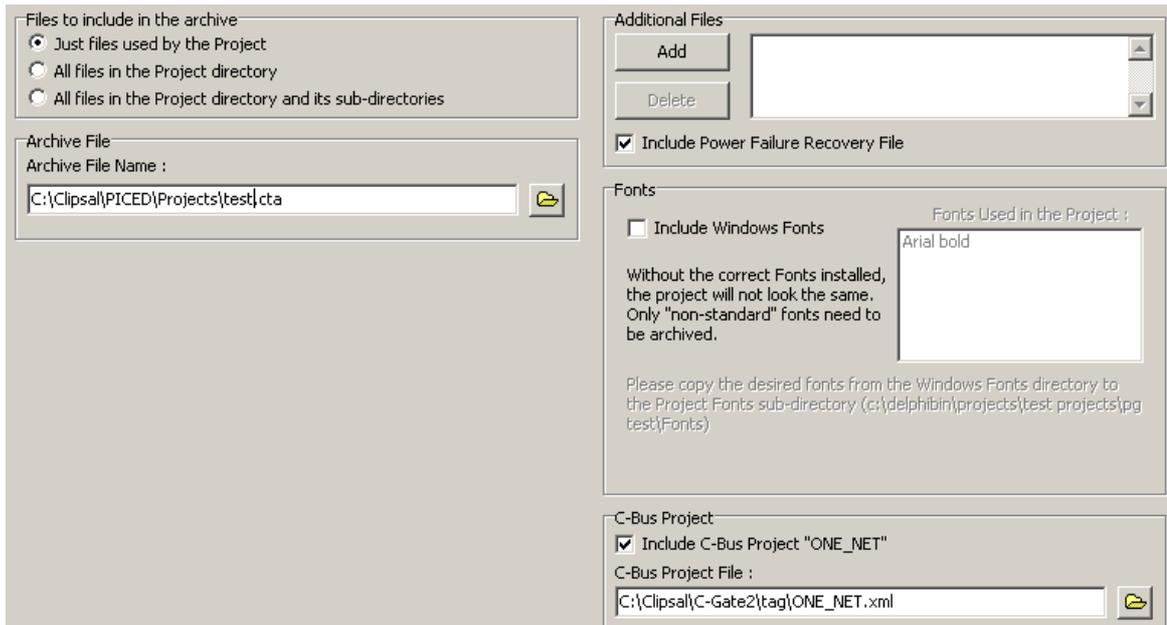
When a Project is complete, installed and tested, you should consider archiving the project files. The purpose of archiving the files is so that if (when) you need to make changes at a later date, the files are guaranteed to be available. If you keep the files on your hard disk, and there is a failure, you may lose many hours of work if you have to re-create the project again.

Ideally, a copy of the archive file should be given to the customer for safe keeping.

See also [Saving the Project](#), [Exporting to an Archive](#), [Importing from an Archive](#), [Saving a Backup](#)

4.7.8.1 Exporting to an Archive

A new archive is created by the **File | Archive | Export to Archive** menu item. This opens the Export Project to Archive form.



Files

The files to be archived can be selected:

- Select **Just Files used by the Project** to archive just the files which are actually used by the [Project](#). This is a convenient way to extract just the files used by a project from a directory which contains several projects.
- Select **All Files in the Project Directory** to archive all files in the Project folder
- Select **All Files in the Project Directory and its sub-directories** to archive all files in the Project folder and any folders within the Project folder.

If you selected **Just Files used by the Project**, you can also select additional files which may be required (for example, files which are used by [Logic](#)). To add additional files, click on the **Add** button, select a file and click on **OK**. Note that only files which are in the [Project directory](#) can be added. To delete a file from the list, select the file in the list then click on the **Delete** button.

The [Power Failure Recovery](#) file is added to the archive by default. If you do not want to include this file, de-select **Include Power Failure Recovery File**.

Select the C-Bus Project file (usually in the C:\Clipsal\C-Gate2\Tag directory) if the displayed one is incorrect.

Fonts

If you use a [non-standard font](#) (i.e. One which does not come with Windows), it would be advisable to save a copy of the font with the project. The font files, which have either a ".ttf" or ".fon" extension reside in the Windows\Fonts directory (or the Winnt40\Fonts on some versions of Windows). Normally, these fonts would be those which have been downloaded specially for use in the project.

For example, if you use a non-standard font called "My Font" in your project and your project is stored in C:\Clipsal\PICED\Projects\MyProject, PICED will copy the font file (for example C:\Windows\Fonts\MyFont.ttf) to the project fonts folder C:\Clipsal\PICED\Projects\MyProject\Fonts for inclusion in the archive.

Once all the files have been specified, the archive file is named. The extension for PICED software archive files is ".cta".

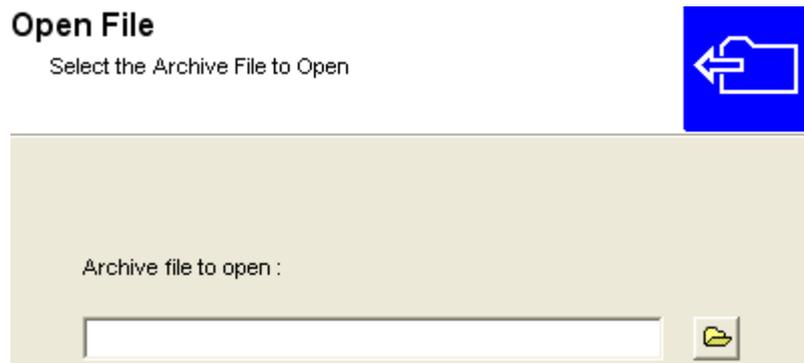
When complete, click on the **Finish** button.

 Note that the archive file created by the Export to Archive process can not be [transferred to a Colour C-Touch](#) as the format is slightly different to that used by the Colour C-Touch.

See also [Importing from an Archive](#).

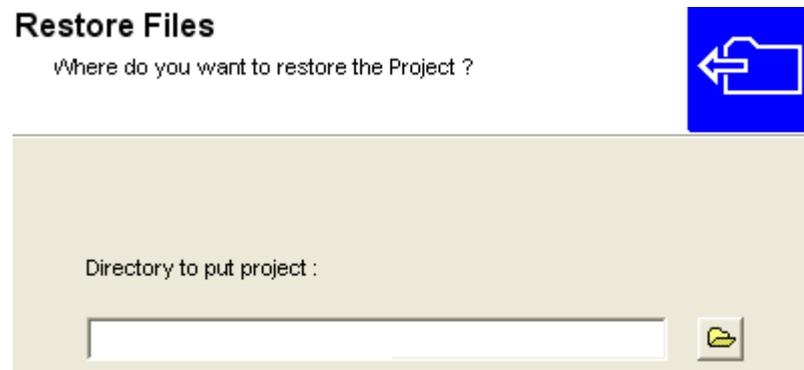
4.7.8.2 Importing from an Archive

To open an archive, select the **File | Archive | Import From Archive** menu item. This starts the Import Archive wizard. The first page in the Wizard asks for the archive to load. This will be a file with a .cta extension or .tar.gz for a file transferred from a Wiser Home Control.



Click on the **Next** button.

The restore files page selects where the files will be restored to.



Click on the **Next** button.

The C-Bus Project is imported next. The xml file has to be copied into the C-Gate\tag directory. If the C-Bus Project file or the C-Gate tag directory is incorrect, enter the correct values. If you want to manually copy the tag file later, de-select the **Copy C-Bus Project** check box.

C-Bus Project

How to import the C-Bus Project



To install the C-Bus Project, the C-Bus project file (*.xml) needs to be copied to the C-Gate\Tag directory.

Copy C-Bus Project

C-Bus Project File 

Destination 

Click on the **Next** button.

Finally, any fonts which might have been saved are restored to the Project Directory. They then need to be manually copied into the Windows Fonts directory for Windows to use them.

Click on the **Finish** button. The project is restored to the selected directory and the user is offered the option of opening up the newly restored project.

4.7.8.3 Saving a Backup

It can be a good idea to save a backup copy of your [Project](#) at various phases of development. This will allow you to go back to a particular version of the Project in case you should change your mind about changes you have made to the Project.

To save a backup of the Project, select the **File | Archive | Save Backup** menu item. This will save a copy of the project with the date and time included in the file name, which guarantees that each backup file will have a unique, identifiable name.

To save all aspects of a project, including images, [Export to an Archive](#) instead.

4.7.9 Printing

This software does not support printing directly, but it is quite simple to print out most things that may be of interest.

To print out any of the following details :

- [Project Details](#) (installer, location etc)
- [Schedules](#)
- [Scenes](#)
- [Network](#), [Application](#) and [Group Address](#) usage
- Images used
- [Access Control](#) details
- [Irrigation Control](#) details

create a [Project Summary](#) file (it can be set to HTML or plain text in the [Project Details](#)) which can then be printed directly.

To print screen shots, save the [Screen Image\(s\)](#). Open the file(s) with an image manipulation program and print from there.

To print the [log](#), open the log file with a suitable program (text editor, spreadsheet or database) and

print from there.

4.7.10 Time-Out

You may wish the C-Touch unit to display a particular page after C-Touch has not been used for some time. The page and the duration of the time-out period can be set in the [Project Details](#) form.

When the time-out period expires :

- any [logged-in](#) user will be logged out
- the [backlight](#) will turn-off
- the time-out page will be displayed.

If the room is dark, a different time-out page will normally be displayed. The "Dark Time-Out Page" has no buttons on it. When you touch it, it just turns on the [backlight](#), and displays your regular time-out page. The intention is so that if you press the C-Touch screen at night when you can't see the screen, you will not accidentally switch something that you did not want to.

To set the threshold lighting level at which the dark time-out page is displayed :

1. Select the [Backlight Setting](#) page or a page containing a button with the threshold set [Special Function](#)
2. Switch the backlight off
3. Adjust the light level in the room until the C-Touch unit is just becoming difficult to read.
4. Press the threshold setting button.

Each [Page](#) can also have its time-out duration set independently if required. Pages which allow access to more critical functions should have a shorter time-out set.

4.8 Pages

A page is a set of [components](#) that are displayed together. A [Project](#) may contain many pages [linked](#) together so that user can navigate between them.

See also [Software Limits](#) and Good Design Practices

4.8.1 Selecting Pages

To select a particular page, either :

- Select the required page from the drop down list on the [tool bar](#)
- If the required page has a [link](#) from the current page, [activate](#) the component that links to it.
- Use the [CTRL + Page Up/Down](#) keys to move forward or back a page

When the page changes, it will use the selected [Page Transition](#) to change from one page to the next.

4.8.2 Adding Pages

A project can have multiple [pages](#), each of which contains various [components](#).

To add a new page :

- click on the New Page speed button on the [Tool Bar](#) OR select the **Page | New Page** menu item
- enter the name of the new page and set any other [Page Properties](#)
- click on **OK**

To make a copy of a page :

- [Select](#) the desired page
- select the **Page | Duplicate Page** menu item

- enter the name of the new page
- click on **OK**

To add a [Template](#) page (or pages) with its components to the current project :

- select the **File | Add Template Contents** menu item
- select which parts of the Template you want to load
- select the desired file
- click on **OK**
- if the name of the Template page has already been used, a new one will be assigned

See also [Software Limits](#).

4.8.3 Deleting Pages

To delete a page :

- [Select](#) the desired page
- select the **Page | Delete Page** menu item
- click on **OK**

All components on the page will be deleted. Any [Component page links](#) will be automatically adjusted.

4.8.4 Page Properties

To change the properties of the currently displayed [page](#), either :

- Select the **Page | Page Properties** menu item; or
- Double click on the page where there are no [components](#)

A form will appear which will enable the user to change :

- The name of the page
- The [Access Level](#) for the page
- The [Theme](#) for the page
- Whether components are [locked](#) on this page
- The [Time-out](#) duration for the page
- The background style :
 - Single Colour
 - Colour gradient from left to right (blend between two colours)
 - Colour gradient from top to bottom
 - Centred image (image is drawn in the centre of the window)
 - Tiled image (image is drawn many times to fill the window)
 - Stretched image (image is stretched to fill the window)
- The background [colour\(s\)](#) (if applicable)
- The background image (if applicable)
- **Notes** applicable to the page

Page Name: Kitchen

Access Level: Level 1

Theme Page: None

Lock Components

Page Time-out

Use Project Default

Never Time-out

Other time: 300 seconds

Page Background

Style: Gradient Top to Bottom

Select Background Colour 1: Yellow

Select Background Colour 2: Blue

Image: [Empty]

If an Access Level has been set for a page, then when the user tries to select that page, they will have to [Log-in](#) to get access to that page.

After a certain time of displaying a page, it will [time-out](#) and select the Time-Out page. The Page time-out duration can be set to :

- Project Default - use the time-out duration set in the [Project Details](#)
- Never time-out - this is useful if an alarm or message page has been displayed
- Other time - enter the time required

Note :

The [Start-up](#) and Time-out page(s) must always have the lowest Access Level, otherwise you will not be able to open a project.

If a [Theme](#) is selected, the Page Background settings will be ignored.

Theme Page Properties

If the Page being edited is a [Theme Page](#), then the Page Properties form will be slightly different:

- The Page Time-Out details are disabled because they are not relevant to a Theme Page
- The Access Level is disabled

Sub-Page Properties

If the Page being edited is a [Sub-Page](#), then the Page Properties form will be slightly different:

- The Page Time-Out details are hidden because they are not relevant to a Sub-Page
- The **Height** and **Width** of the Sub-Page can be selected
- The **Page Background** options are different. If the **Style** is set to **Colour**, then the background of the Sub-Page will be the selected colour. If the **Style** is set to **Transparent**, then the Sub-Page will be drawn with no background in the [Sub-Page Frames](#). The Colour will still be shown when

editing the Sub-Page.

4.8.5 Page Transitions

When a Page [changes](#), it is possible to have a transition effect as the page changes from one to another. The transition can be selected as follows:

- The default Page Transition can be selected on the [Options](#) tab of the Project Details
- The default Page Transition can be set using [Special Functions](#)
- The next Page Transition to be used can be selected using [Special Functions](#)

4.9 Components

A Component is an item that can be placed on a [page](#). It may be a [button](#), [text](#), [image](#), [clock](#), [slider](#), [monitor](#) or other [type](#) of component. Components can be used to display information, control [C-Bus](#) or to navigate the Project [pages](#).

See also Good Design Practices and [Software Limits](#).

4.9.1 Component Actions

When a component is [activated](#), it can perform an action.

The types of Actions which a component can perform include :

- Selecting another [page](#);
- Executing a [C-Bus](#) command;
- Executing a [Special Function](#); or
- Controlling a [System IO Variable](#)

Components do not have to have an Action. They can be used purely for visual effect, or to display some sort of data.

4.9.2 Activating Components

Activating a [Component](#) causes it to perform the [action](#) which it is intended to do.

To activate a component on the PICED Software, right mouse click on the component (see note below). If PICED is running on a Touch Panel PC and it is running in Simulation Mode, pressing a component with your finger will activate it.

Note that the component which is on [top](#) will be the one activated. Any components which have no action when pressed will be ignored when determining which component to activate. For example, in the example below, there is a button controlling C-Bus with an image on top of the button, and another button controlling C-Bus with a C-Bus [Timer Display](#) on top.



If the user clicks on the image of the car, then the image will be ignored (assuming that there are no actions associated with it), and the "click" will go through to the component below (the button).

In a similar way, if the user clicks on the C-Bus Timer Display, it too will be ignored because its C-Bus action is "status" and hence it performs no action.

Note that when a Component is activated, its status indicator will change immediately, but there may be a delay in the command being executed on C-Bus.

If you have selected the [option](#) to show the pop-up menu when you right click on the software, the Components will not be activated on a right mouse click. You will need to [select the component](#) first, then right click and select the **Activate Component** menu item.

See also [Status](#), [Program Options](#) and [Remote Control](#)

4.9.3 Component Types

There are only a few basic types of [Components](#), but they can have their [properties](#) set to make them look like there are in fact hundreds of types :

- [Text](#)
- [Images](#)
- [Shapes](#)
- [Buttons](#)
- [Sliders](#)
- [Level Indicators](#)
- [Clocks](#)
- [Monitors](#)
- [Selectors](#)
- [HTML](#)
- [Web Cam Image](#)
- [Graphs](#)
- [Calendars](#)

All components have the following [properties](#) in common :

- all components may have an [Action](#)
- all components may have their [Remote Control](#) properties set
- all components have a [Position](#) and [Size](#)

4.9.3.1 Text

A Text Component displays one or more lines of text. The [font](#) can be set. There is no [border](#) or [background](#).

Examples :

Text can be any font,
size, style or **colour.**

4.9.3.2 Images

An Image Component displays an [image](#) (picture) on the page.

An Image Component has no [border](#) or [background](#). When the [Project](#) is [Saved](#), all image files are copied to the project directory. If an image that is used by the project is deleted or renamed, an error message will be raised and a "dummy" image will be displayed (a large red X).

The image is limited to the [size of the screen](#).

Images can be [stretched](#) in the PICED software, but it may be preferable to use an image

manipulation program to perform this before placing the image on a Page, as drawing stretched images uses considerable processor time.

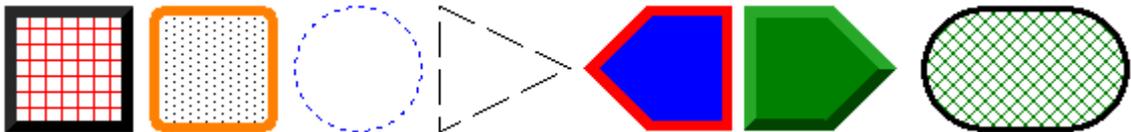
When a image is displayed on a Black and White C-Touch, the image will be [dithered](#) first.

4.9.3.3 Shapes

A Shape Component has a [border](#) and [background](#) and nothing else. It can be used for displaying :

- Rectangles
- Triangles
- Circles and Ellipses
- Pointers
- Lines
- Arbitrary shapes
- Invisible "hot spots: which can be activated

Examples :



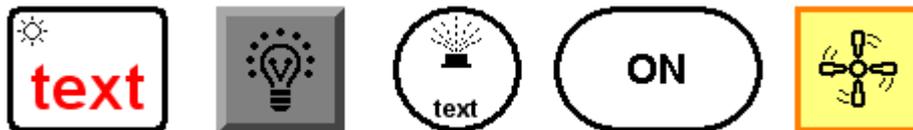
Note : when [placing](#) a Shape, the border shape can be selected from a drop-down list on the [Tool Bar](#).

4.9.3.4 Buttons

A Button Component consists of a [border](#), [background](#), [text](#) and an [image](#). All of these parts can be used to indicate C-Bus status :

- The border and background can change [colour](#) according the [Group Address](#) level.
- The text words and [font](#) can change according the Group Address state.
- The image can toggle between any two images to indicate the Group Address state.

Examples :



4.9.3.5 Sliders

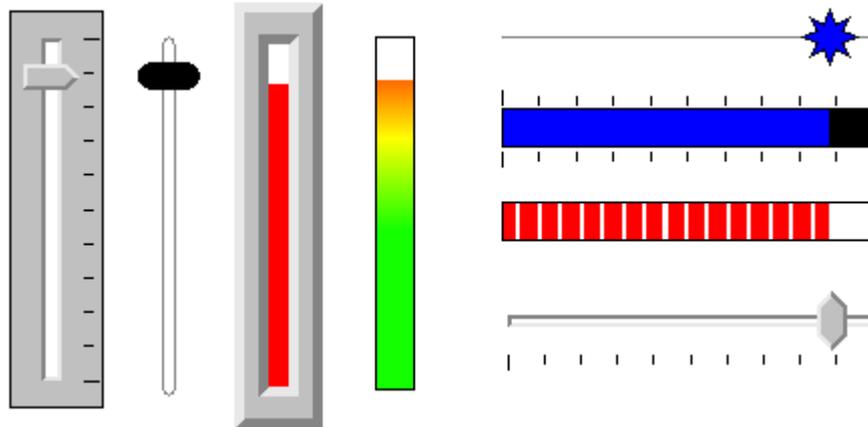
A Slider Component is used to set or show the precise level of a [Group](#).

A slider can be either a normal slider or a bar graph. Bar graph Components are not available in Black and White C-Touch projects.

A Slider consists of a [border](#), [background](#), slot, thumb (the bit that slides up and down or left and right) and tick marks (the lines along the side). The Slider thumb is used to set or indicate the C-Bus [Level](#). For example, if the thumb is 80% of the way from the bottom (or left, if it is a horizontal slider), then the Group Address [Level](#) is 80%.

A bar graph does not have a thumb, but rather shows the level by means of a coloured bar.

Examples :



4.9.3.6 Level Indicators

A Level Indicator Component is used to show the precise level of a C-Bus [group](#) or a [System IO Variable](#).

The properties of a Level Indicator are :

- [Border](#) and [background](#)
- Text [font](#)
- [Value](#) to display
- [Alpha Blending](#)

Examples :



See also [Graph](#) Components

4.9.3.7 Clocks

A Clock Component is used to show the time, day of the week and/or date. It has a [border](#) and [background](#) and can have its text [font](#) set. A Clock Component can also display :

- the amount of time remaining on a [C-Bus timer](#)
- [sunrise](#) time
- sunset time
- the [Irrigation](#) Controller timer
- a [Schedule](#) Time
- a [System IO](#) variable time

Examples :



See also [Calendar Component](#)

4.9.3.8 Monitors

A monitor component is like a gauge that can display the value of some variable. A monitor can be used to display temperature, light levels or voltage. It has a [border](#) and [background](#) and can have its text [font](#) set.

Examples :



⚠ If the value for the Monitor is unknown (because it has not yet been read), the value displayed will be:

- ?°C or ?°F for temperature (depending on the [Metric Units](#) setting)
- ?lux for light level
- ?V for voltage

See also [Monitor Properties](#), [Monitor Manager](#) and [In-built System IO](#)

4.9.3.9 Selectors

A Selector component is used to allow the selection of an item from a list, in much the same way as a Windows "Radio Group".

A Selector Component consists of a [border](#), [background](#), [text](#) and an [image](#). All of these parts can be used to indicate C-Bus status :

- The border and background can change [colour](#) according the [Group Address](#) level (not for Black and White C-Touch projects).
- The text [font](#) can change according the selected item (the text is fixed for each item).
- The image can toggle between any two images to indicate the selected item.
- The selected item in the list indicates the current Group Address level.

Example :

- Scene 1
- Scene 2
- Scene 3
- Scene 4

The first item in the list will be selected when the Group Address [Level](#) is 0. The second item will be selected when the level is 1 and so on.

When setting the Selector properties, add one line of [Text](#) for each option you want in the list.

4.9.3.10 HTML

An HTML [Component](#) consists of a [border](#) and an HTML (web) page. HTML Components are not available in Black and White C-Touch projects.

The HTML Component can be used to show any HTML page, including :

- pages on the hard disk (for example, instructions)

- web pages (for example, a weather forecast)
- video camera (web cam) images
- web based control panels

The properties which can be selected for an HTML Component are :

- [Border](#)
- [URL](#) (web address)
- [Refresh Rate](#)

Notes

The HTML Component is unique in several respects :

- The user can only click on the [Border](#) to [Select](#) or [Manipulate](#) it
- The [Background](#) is not drawn by the PICED software, but by the operating system and is always on top of the Drawing Order
- Some [Keyboard Shortcuts](#) will not work if the mouse is over the HTML component
-

Note that if an Internet page is to be displayed, the computer running PICED needs to have an Internet connection. It is recommended that a firewall and virus scanner are used for security.

See also [HTML Properties](#) and FAQ topics Problems with displaying HTML and Using Web Cams

4.9.3.11 Web Cam Image

A Web Cam Image Component is very similar to an [Image Component](#) except that it displays a JPEG image retrieved from a Web Camera or from the Internet.

The properties which can be selected for an HTML Component are :

- [URL](#) (web address)
- [Refresh Rate](#) (how often the image is updated)

A Web Cam Image has no [border](#) or [background](#). The image is limited to the [size of the screen](#).

Web Cam Images can be [stretched](#) in the PICED software, but this will add to the processor load. It is recommended that web cam images be displayed at their normal size.

In a Web Cam Image Component, the relevant [URL](#) is the one which retrieves a single JPEG image from the camera. This will be different for every type of camera. The [Web Cam Wizard](#) can be used to automatically generate the required URL for selected web cameras.

See also FAQ topic Using Web Cams, [Web Cam URL](#) and [Image Server](#)

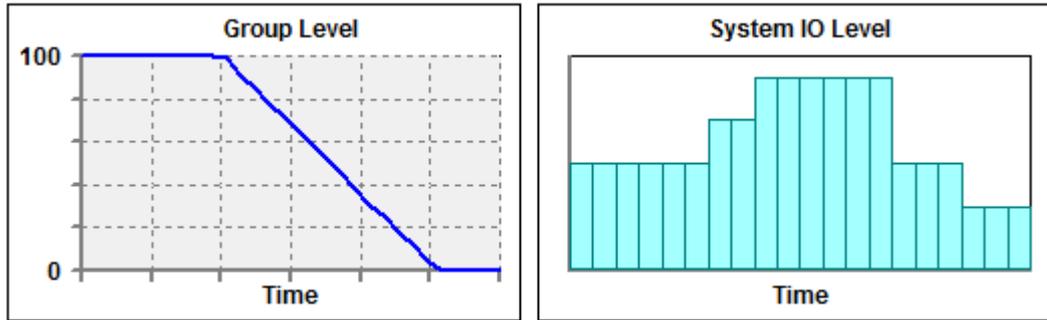
4.9.3.12 Graph

A Graph Component is used to show data graphically over a period of time.

The properties of a Graph Component are :

- [Border](#) and [background](#)
- Header and X axis label [text](#)
- Header and other text [font](#)
- [Value](#) to display
- [Alpha Blending](#)
- [Graph Properties](#)

Examples :



To give the appearance of two lots of data plotted on the same graph, the simplest method is to place a graph on top of another one. The top one needs to be the same size and needs to have a transparent background so that the bottom graph will be visible.

4.9.3.13 Calendar

A Calendar Component is used to show a calendar for a selected month (usually the current month).

The properties of a Graph Component are :

- [Border](#) and [background](#)
- Header and other text [font](#)
- [Alpha Blending](#)
- [Calendar Properties](#)

Example :

March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10 PH	11	12	13	14	15
16	17	18	19	20	21 PH	22 PH
23	24 PH	25	26	27	28	29
30	31					

See also [Adjusting Calendar Month](#)

4.9.3.14 Sub-Page Frame

A Sub-Page Frame component is used to display a [Sub-Page](#).

The properties of a Sub-Page Frame Component are :

- [Position and size](#)
- [Sub-Page Frame Properties](#)

When a Sub-Page Frame Component is placed on a page, it will be invisible unless you have selected the **View | Show Sub-Page Frame Border** menu item option.

The Sub-Page Frame component will initially display the [Default Sub-Page](#). The Sub-Page displayed in the frame can then be changed using [Page Links](#). When the Sub-Page changes, a [Page Transition](#) effect can be used.

Sub-Page Frames work best when the Sub-Pages displayed in the frame are all the same size, and are the same size as the frame.

To edit the Sub-Page which is displayed in the Sub-Page Frame, either:

1. Select the frame and use the **Page | Show Sub-Page** menu item
2. Select the frame and use **Ctrl + Shift + S**
3. Hold **Alt** key while double clicking on the frame

4.9.4 Component Properties

To change the properties of a particular [Component](#), either :

- Double click on the component; or
- [Select](#) the component (by clicking on it) and select the **Edit | Component Properties** menu item.

A form will appear that will enable the user to change the Component's properties:

- [Physical appearance](#)
- [Page Links](#)
- [Special Functions](#)
- [Remote Control](#)
- [C-Bus Properties](#)
- [System IO Properties](#)
- [Status Indication Options](#)

It is possible to have the Component Properties editor appear automatically when a Component is placed by selecting the option in the [Program Options](#).

See also Good Design Practices

4.9.4.1 General Properties

The General tab of the [Component Properties](#) form allows you to select the following details for a component:

- An optional **name**. This is used in [reports](#) and for [logic](#).
- The **visible** property (see below)
- **Notes** to record any relevant information about the Component

The **visible** property of a component is normally selected. It can be de-selected to make the component invisible. This is useful during project development if a component is not complete. It can also be used in Logic to control the appearance of components on a Page. The Component visibility can also vary by [Profile](#).

4.9.4.2 Visible Properties

To change the visible properties (physical appearance) of a particular [Component](#), open the [Component Properties](#) form then select the **Visible Properties** tab. The options on the **Visible Properties** tab depend upon the type of component, and may include :

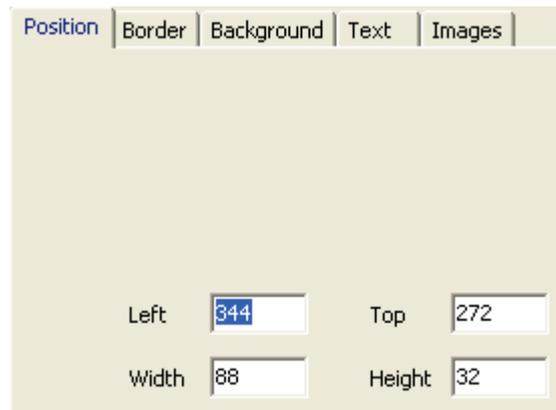
- [Position](#)
- [Border](#)
- [Background](#)
- [Text](#)
- [Image](#)
- [Clocks](#)

- [Slider](#)
- [Monitor](#)
- [Value](#)
- [HTML](#)

4.9.4.2.1 Position

The **Position** tab of the [Visible Properties](#) tab allows the [size](#) and position of the component to be entered manually. The position is specified by the coordinate of the left and top corner of the rectangle bounding the component and the width and height of the component.

When a triangular, round or oval shaped component is placed on a page, the component is bounded by an imaginary rectangle. The coordinates on this tab refer to this bounding rectangle.



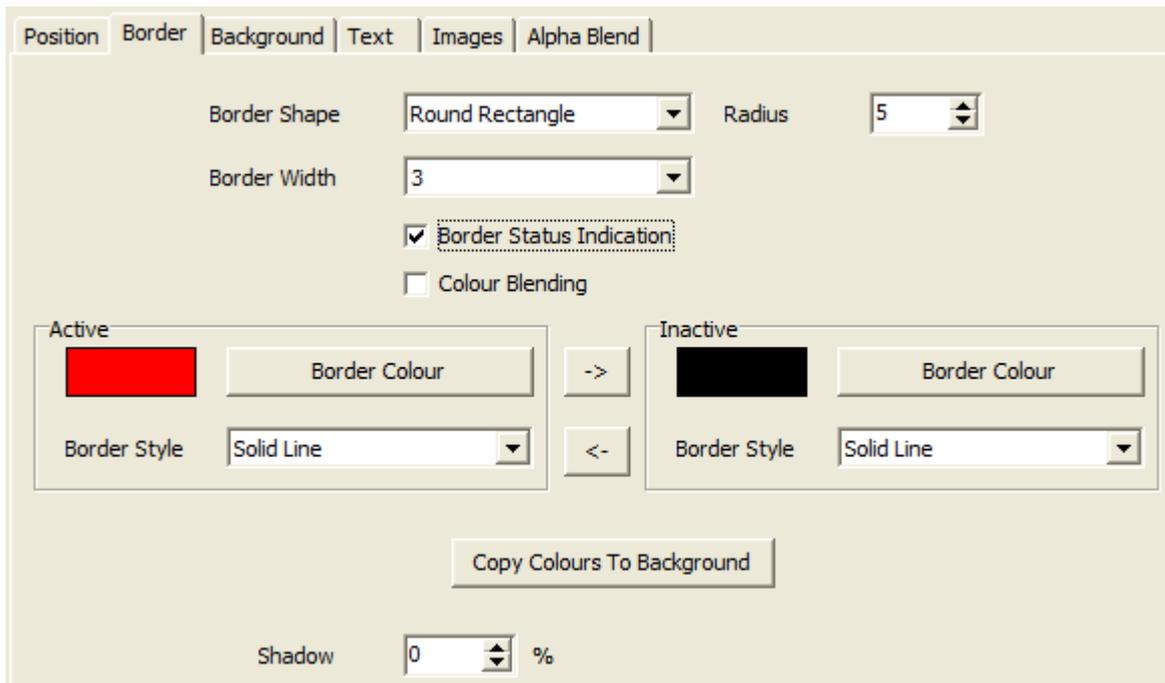
Property	Value
Left	344
Top	272
Width	88
Height	32

4.9.4.2.2 Border

The border of a [component](#) is the shape and style of the outline of the component.

The **Border** tab of the [Visible Properties](#) tab allows you to enter the appearance of the border of the component. You can select the following border properties :

- shape (rectangle, ellipse, triangle etc.)
- line style (solid, dotted, raised, lowered etc.)
- border width
- [colour](#)
- Shadow



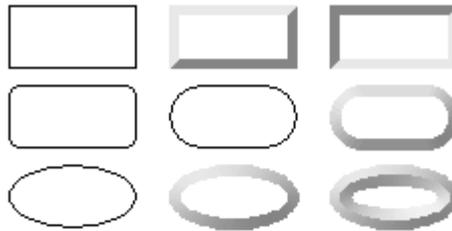
Border Shape

The border shape may be :

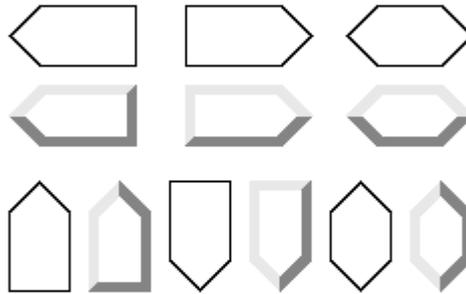
- Rectangle
- Rounded Rectangle
- Triangle
- Circle / ellipse
- Pointer
- Capsule
- Polygon
- Star
- Line (for [Shape](#) Components only)
- Arbitrary shape (for Shape Components only)

Some of the possible border shapes are shown below.

Rectangles, Capsules and Ellipses



Pointers



Triangles



Polygons and Stars

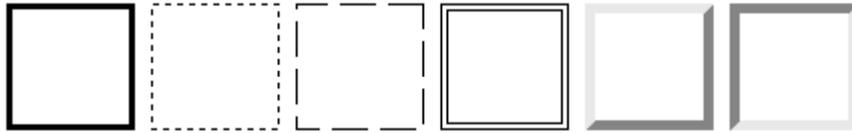


Line Style

The available border style options depend on the border shape. The options are :

- None (this will make the border transparent, in which case it will not be seen)
- Solid Line (of different thicknesses)
- Outline Dotted (1 pixel wide dotted line)
- Outline Dashed (1 pixel wide dashed line)
- Outline Solid (1 pixel wide solid line)
- Raised
- Lowered
- Raised Edge
- Lowered Edge

Border Lines Styles are shown below :



Colour

The border [Colour](#) can also be selected.

If the border colour or style is to change to show the [status](#) of the Component, the **Border Status Indication** check box is ticked and the active and inactive styles and [colours](#) are both selected. The colours can be chosen from a palette or specified by hue, saturation and luminance. The colour status indication is selected from a palette in the same way for both the border and the [background](#).

Colour blending is the process of mixing two colours together to yield an intermediate colour. Ticking the **Colour Blending** tick box will allow an indicator or component to display different colours between minimum and maximum. The two endpoint colours must be selected for this to work.

Note that if a colour and the complement of that colour are mixed together the result is a neutral grey. So the combination of blue and yellow, red and cyan or green and magenta will be neutral grey in a 50/50 mix (ie. when the level is at 50%).

Conversely, two colours which are not complements such as red and green (two of the additive primary colours) will yield some kind of colour at all ratios. Hence, for an indicator to show as coloured at all settings the two end points should not be complements of each other.

If you click the **Copy Colour To Background** button, the active and inactive Border colours will be copied to the active and inactive [Background](#) colours.

Shadow

The component can have a shadow from 0% (no shadow) to 100% (black shadow) which is selected using the **Shadow** control. Levels in between 10% and 90%, particularly around 40%, give a realistic looking shadow.



There are some limitations for the use of shadows :

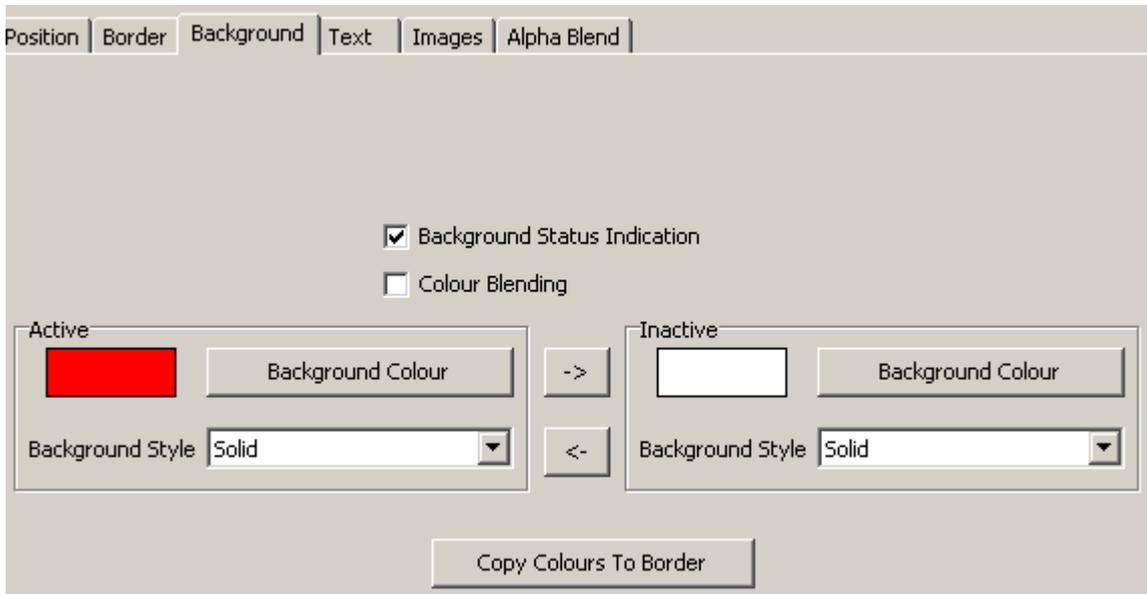
- They are drawn using [Alpha Blending](#), and hence use additional processor power. Therefore large components with shadows should be avoided where possible.
- An invisible/translucent/transparent component will still have a shadow
- If you have components too close together, the shadow of one component may be on top of another component
- Shadows can not be used with the Black and White C-Touch

4.9.4.2.3 Background

The background of a Component is the style used to "paint" the [component](#) inside the [border](#).

The **Background** tab of the [Visible Properties](#) tab allows you to enter the appearance of the [background](#) of the component. The following properties can be set :

- Background [Colour](#)
- Background Style (none, solid, stripes etc)

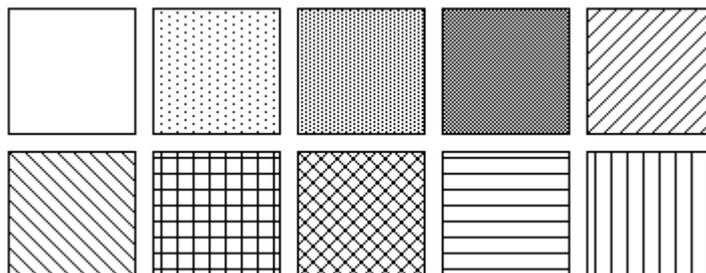


The background style may be set to :

- None (this will make it transparent)
- Solid (i.e. a plain colour)
- Light Shaded
- Medium Shaded
- Dark Shaded
- Back Diagonal
- Forward Diagonal
- Cross
- Diagonal Cross
- Horizontal
- Vertical

Note that if the shading is set to Light, Medium or Dark Shaded, the colour can only be black. For the other shading options, it can be any colour on a transparent background.

The possible background styles are shown below :

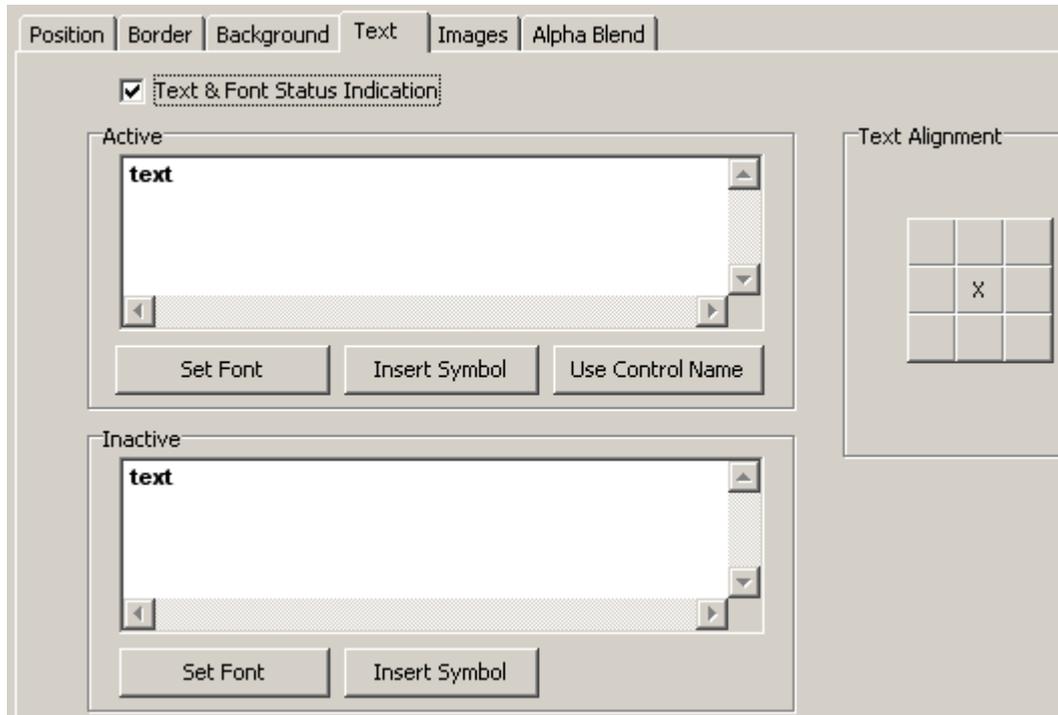


If you wish to have the background style or colour change to show the [status](#) of the Component, click on the **Background Status Indication** check box and select both the active and inactive background colours. If the **Colour Blending** option is selected, the colour will change from one colour to the other gradually as the Group Address level changes.

If you click the **Copy Colour To Border** button, the active and inactive Background colours will be copied to the active and inactive [Border](#) colours.

4.9.4.2.4 Text

The **Text** tab of the [Visible Properties](#) tab allows you to set the component text, the text alignment (top, left, centre etc) and the text [font](#).



To select the font, click on the **Set Font** button and the [Font Selection](#) form will appear.

To set the text justification/alignment (top, left, centre etc), click on one of the Text Alignment buttons.

For [Level](#) Components, the **Word Wrap** option can be selected (not for Black and White C-Touch). If the text is longer than the width of the component, it will continue on the next line automatically. This is useful for when displaying for a [System IO Variable](#) which could get quite long. When Word Wrap is selected, the text will always be top aligned.

If you wish to have the text and/or font style change to show the status of the associated [C-Bus](#) group address, click on the **Font Status Indication** check box and select the active and inactive text and fonts.

You can insert [symbols](#) into the text boxes as follows :

1. Select the required font
2. Select the position where you want the symbol inserted
3. Right click on the text box and select the **Insert Symbol** item; or click on the **Insert Symbol** button
4. The [Insert Symbol](#) form will appear.
4. Click on the desired symbols (they will appear at the top of the form)
5. Click on **OK**

For [Clocks](#), [Level Indicators](#) and [Monitors](#), a sample of the text is displayed. The actual text

displayed will depend on the actual value of the data displayed.

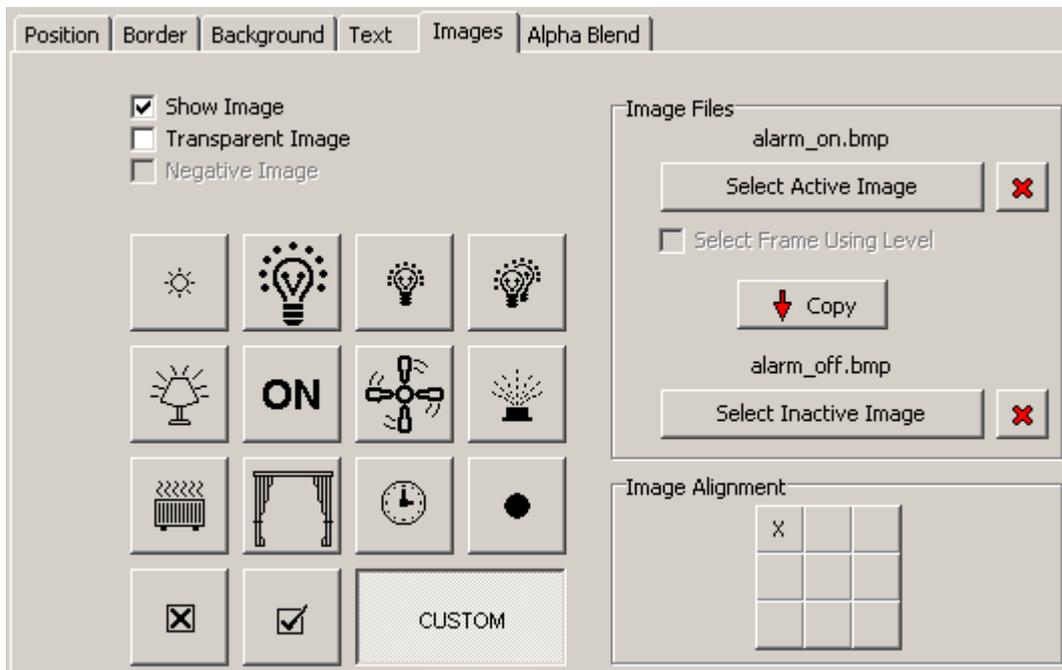
Automatic Labelling

For [Button](#) and [Text](#) components, the text can be automatically generated based on what the component controls. Click on the **Use Control Name** button to generate the active and inactive text based on :

- the C-Bus [Group Address Tag](#) if the component controls C-Bus; or
- the [Scene](#) name if the component controls a Scene; or
- the [System IO](#) variable name if the component controls System IO; or
- the [Special Function](#) name if the component controls a Special Function; or
- the [Page](#) name if the component has a page link.

4.9.4.2.5 Image

The **Images** tab of the [Visible Properties](#) tab allows you to select which image(s) are displayed on a [button](#), [Selector](#) or [Image](#) component and the image alignment (top, left, centre etc).



To display an image, select the **Show Image** check box. Either :

- select one of the standard images; or
- click on the **Custom** button and select your own active and inactive images by clicking on the **Select Active Image** or **Select Inactive Image** button. A form will appear, allowing you to select an image.
- click on the **Copy** button to copy the name of the active image to the inactive image
- click on the **x** buttons to clear the selected images.

Image Types

The PICED software supports the following image types:

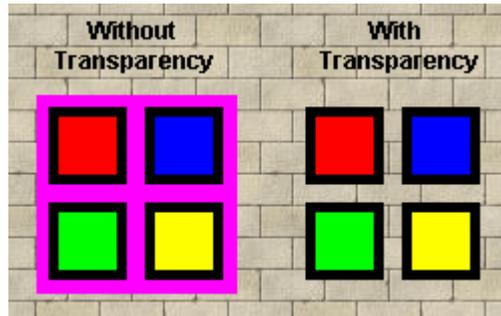
- Bitmap (.bmp)
- JPEG (.jpg, .jpeg)
- Graphics Interchange Format (.gif)
- Windows Metafile (.wmf)
- Portable Network Graphics (.png)
- Icons (.ico)

- Enhanced Metafiles (*.emf)

Transparent Images

A bitmap image can be made transparent by selecting the **Transparent Image** check box. The colour of the bottom left pixel will be used as the transparent colour. Any pixels in the image matching this colour will not be displayed (ie. will be transparent).

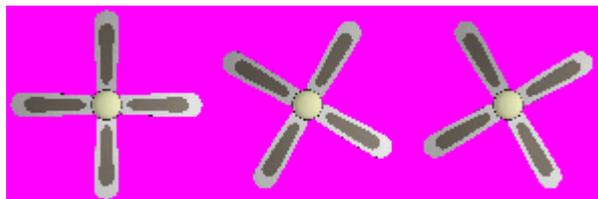
The effect of transparency on an image is shown below, where pink is used as the transparency colour.



Animated Images

Animated images in the form of bitmap strips can be displayed. A bitmap strip has a series of "frames" in the bitmap. These get displayed one after the other to give an animation effect. A text file with the same name as the bitmap is used to provide the details of the animation. Refer to the provided sample animated images (in c:\Clipsal\PICED\Image Library\Animated) to get a better understanding of how these work.

For example, the bitmap image below is called "fan.bmp". It has three frames of a rotating fan. Pink has been used as the transparency colour.



To provide the necessary information about the animation, an accompanying file called "fan.txt" contains the following information :

```
# This file contains the animation details for the bitmap with the same file name.
# Frame Count
3
# Frame Rate (milliseconds per frame)
200
```

The lines starting with a # are just for information. The only data actually used is the number of frames (3 in this case) and the animation rate (200ms in this case). The animation rate must be a multiple of 100ms.

It is also possible to have slightly more sophisticated animations, where you can control the order and duration of each frame shown and control the looping of the animation. For example, if you want an animation of a sprinkler which pops up, and then shows water spraying continually, you might

have animation frames which look like :



Again, pink has been used as the transparency colour. In this case, a repeating "loop" is required for the last three frames. To create this effect, the text file needs to have some extra data in it like this :

```
# This file contains the animation details for the bitmap with the same file name.
# Frame Count
7
# Frame Rate (milliseconds per frame)
200
# Optional frame data (order of frames, duration and looping)
F 1 2
F 2 2
F 3 2
F 4 1
F 5 1
F 6 1
F 7 1
L 5 0
```

The optional data at the end consists of series of "instructions" for how to do the animation. There are two different types of lines :

- The ones starting with F (for "Frame number") are followed by a frame number to display and a duration (multiples of the Frame Rate)
- The ones starting with L (for "Loop") are followed by an animation step to jump to and how many times to loop (0 means loop forever)

So the above animation text file means that frames 1 to 3 are to be shown for 400ms (2 x 200ms frame rate). Frames 4 to 7 are then shown for 200ms each. It then loops back to step 5 (in this case, showing frame 5 for 200ms). This is repeated forever.

The **Tools | Images | Convert Animated GIF** menu item converts an animated GIF images into an animated bitmap. Alternatively use a tool such as [Alchemy GIF Animator](#).

Frames

[Button](#) components can also select a frame of a bitmap depending on the C-Bus level. This allows almost any customised effect to be created to display the level of a C-Bus Group Address. To do this, select an animated image as the Active Image. Select the **Select Frame Using Level** check box. The number of frames in the bitmap will be divided across the range 0 to 255. Hence if there are 10 frames, the first will be shown for levels 0 to 25 (255 / 10), the second from 26 to 51 and so on.

Negative Images

If you have selected one of the standard images, you can select to display it as a negative image (black is shown as white and vice versa). To display the negative image, select the **Negative Image** check box.

Aspect Ratio

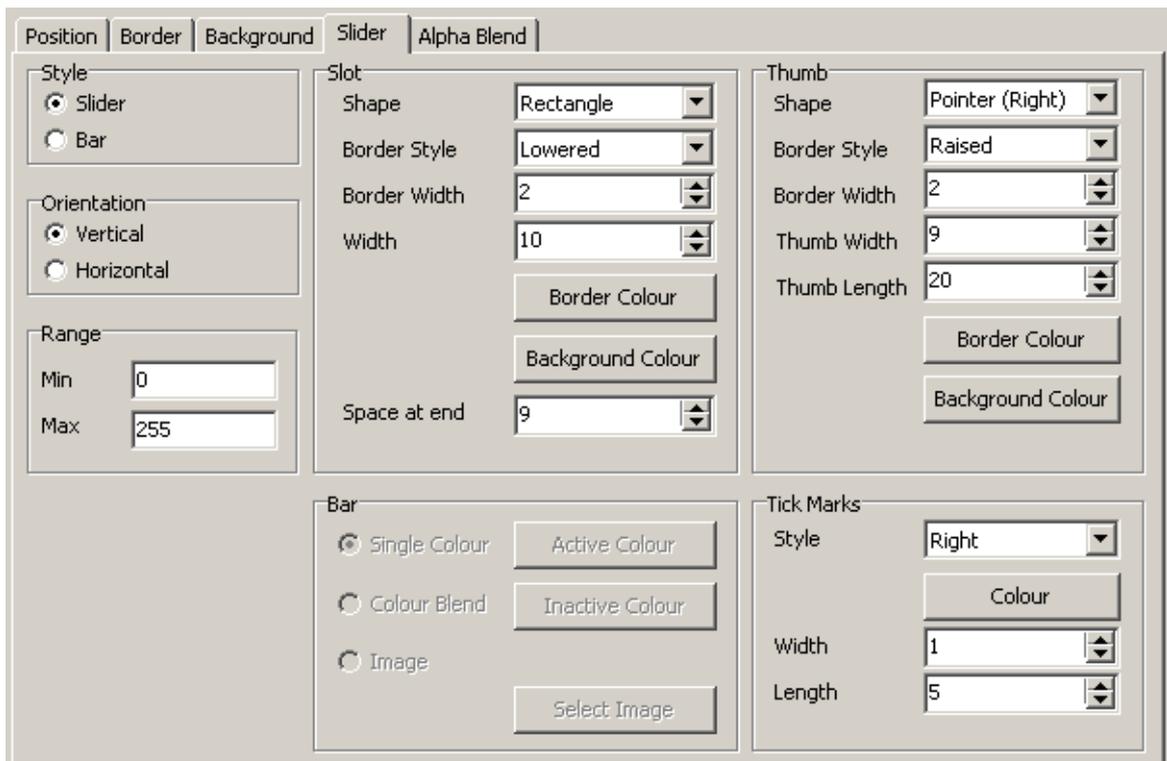
If you are editing an Image component, there will be an option to "**Keep Aspect Ratio**". If this option is selected, when you re-size the component, the original aspect ratio (the ratio of the width to

height) will be maintained, preventing the image from looking distorted.

See also [Re-scale Images](#), [Refresh Images](#), [Change Image Colours](#) and [Create Animation](#)

4.9.4.2.6 Slider

The **Slider** tab of the [Visible Properties](#) tab allows you set the appearance of a [slider](#) component. A Slider consists of a [border](#), [background](#), slot, thumb (the bit that slides up and down) and tick marks (the lines along the side). The Slider thumb is used to set or indicate the C-Bus [Level](#).



You can set the following slider details :

- Style:
 - A **Slider** has a thumb (the bit that slides up and down)
 - A **Bar** has a rectangle of colour to indicate the C-Bus Level.
- Orientation:
 - Vertical
 - Horizontal
- Range:
 - Min - the minimum value for the slider
 - Max - the maximum value for the slider
- Appearance of the **Slot**:
 - Shape
 - [Border](#) Style
 - Border Width
 - Slot width
 - Border Colour
 - [Background](#) Colour
 - **Space at end** of slot (between the end of the slot and the inside edge of the border)
- The **Bar** properties (if it is a Bar Style):
 - **Single Colour**

- **Colour Blend** (select Active [Colour](#) and Inactive Colour) - the colour blending can be used to change the colour of the bar as the C-Bus level changes.
- **Image** - select an image to use as the bar. There is a folder in the Image Library with suitable bar images.
- Appearance of the **Thumb** (if it is a Slider Style):
 - Shape
 - Border Style
 - Border Width
 - Thumb Width
 - Thumb Length
 - Border Colour
 - Background Colour
- The **Tick Marks**:
 - Style (none, one side or both sides)
 - Colour
 - Width
 - Length

4.9.4.2.7 Clock

The **Clock** tab of the [Visible Properties](#) tab allows you to set the properties of a [clock](#) component.

There are several options for the time information which will be displayed. The **Time / Date Displayed** drop down list allows the following types to be selected :

- Current Time/Date – this displays the current time and/or date.
- Sunrise Time – this displays today's sunrise time
- Sunset Time – this displays today's sunset time
- Schedule Time – this shows the due time for the schedule in the adjacent drop-down list.
- C-Bus Timer – this shows the remaining time left on the timer for the associated [Group Address](#)
- Irrigation Timer – this displays the amount of time left in the current [Irrigation](#) Zone (if irrigation is running).
- System IO Time - this displays the value of the associated [System IO](#) variable
- Logic Timer Time - this displays the time of the selected Logic Timer

If displaying the current time/date, you can select :

- whether seconds are displayed
- whether 24 hour format is used or AM/PM

If displaying the day of the week, you can select whether the full or abbreviated day name is used

If displaying the date, you can select :

- Date order
 - DD/MM/YY (Day / Month / Year)
 - MM/DD/YY (Month / Day / Year)
 - YY/MM/DD (Year / Month / Day)
- 2 or 4 digit year
- Month number or name
- Whether the separator (/) is used

A sample of the time/date is displayed at the bottom in the format selected.

4.9.4.2.8 Monitor

The **Monitor** tab of the [Visible Properties](#) tab allows you to set the properties of a [Monitor](#) Component.



You must select :

- the Monitor to be displayed
- the data accuracy (precision) - for Temperature and C-Bus Voltage only

To add or edit a Monitor, click on the **Add/Edit** button to open the [Monitor Manager](#).

4.9.4.2.9 Value

The **Value** tab of the [Visible Properties](#) tab allows you to set the properties of a [Level Indicator](#) or [Graph](#) Component.

The image shows a software dialog box titled "Value to Display". It is divided into two main sections. The top section, "Value to Display", contains eight radio button options: "C-Bus Group Address Percent", "C-Bus Group Address Level", "C-Bus Group Address RCS Temperature", "C-Bus Group Address Level Tag Description", "C-Bus Group Address Tag Description", "C-Bus Group Address Custom" (which is selected and has a dotted border around it), "System I/O Value Default", and "System I/O Value Custom". The bottom section, "Custom", contains five input fields: "Prefix Text", "Postfix Text", "Gain" (with the value "1"), "Offset" (with the value "0"), and "Decimal Places" (with the value "0" and a small up/down arrow). To the right of these fields is a "Calculate" button.

For a Component displaying or controlling [C-Bus](#), the options are :

- **C-Bus Group Address Percent** : display Group level as a [percentage](#) of full load
- **C-Bus Group Address Level** : display Group level
- **C-Bus Group Address RCS Temperature** : display Group level as an RCS (Room Control System) Temperature (if the Group Address is used to broadcast RCS Temperature)
- **C-Bus Group Address Level Tag Description** : display Group level as a Tag Description (if there are Level Tags for the Group) - does not apply to Graph Components
- **C-Bus Group Address Tag Description** : display Group tag - does not apply to Graph Components
- **C-Bus Group Address Custom** : display Group level as a custom value (see below)

For a Component displaying or displaying or controlling [System IO](#), the options are :

- **System IO Value Default** : display System IO value with default settings
- **System IO Value Custom** : display System IO value as a custom value (see below)

Custom Format

When displaying a value using the custom option, there are several properties which can be selected to control the text displayed :

- **Prefix Text** : this is text displayed before the numerical value
- **Postfix Text** : this is text displayed after the numerical value
- **Gain** : this is used to scale the value displayed (see below)
- **Offset** : this is used to scale the value displayed (see below)
- **Decimal Places** : this controls the accuracy of the number displayed

Value Scaling

Sometimes it is necessary to change the value which is displayed. For example, you may have a temperature sensor connected to an analogue input unit which is broadcasting the value on a Group Address. In these cases, it is necessary to scale the value. There are two parameters which are used to implement the scaling. The "gain" is multiplied by the value and the "offset" is added to the value to get the result which is displayed. For example, with a gain of 2 and an offset of 10, the relationship between the level and the result displayed would be :

Level	Result = 2 * Level + 10
0	10
1	12
2	14
100	210
255	520

If you do not want to use scaling, have the gain = 1 and the offset = 0.

Calculating Scaling Coefficients

To calculate the necessary gain and offset values, click on the **Calculate** button. Enter the result you want displayed when the C-Bus level is at its minimum and click **OK**. Enter the result you want displayed when the level is at its maximum and click **OK**. The gain and offset will be calculated and placed in the boxes for you.

Alternatively, the scaling coefficients can be calculated by knowing what the result is for two different levels. If the levels are X1 and X2 and the corresponding results are Y1 and Y2 respectively, then

$$\text{Gain} = (Y2 - Y1) / (X2 - X1)$$

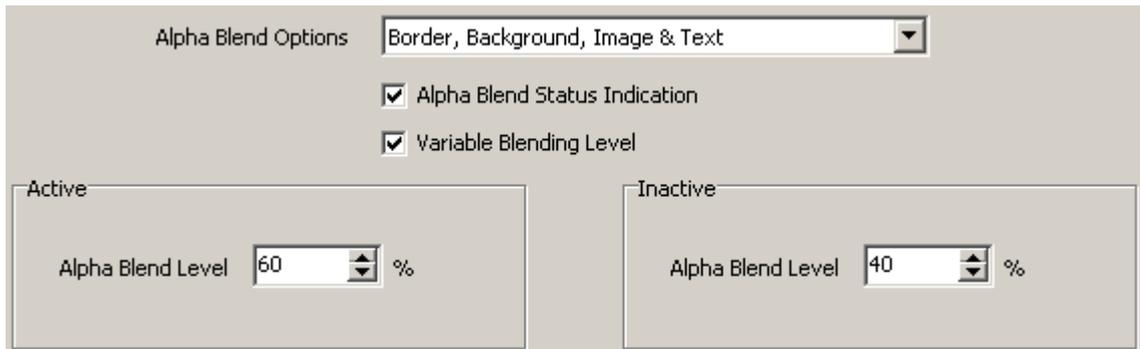
$$\text{Offset} = Y1 - \text{Gain} * X1$$

Note : The Room Control System is an obsolete system for which support has been retained for backwards compatibility.

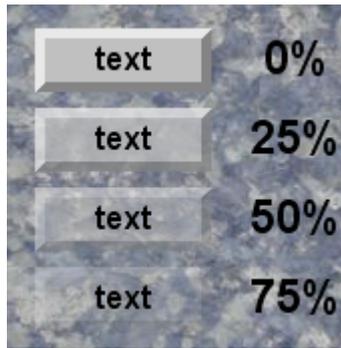
4.9.4.2.10 Alpha Blending

Alpha Blending is the process of making something look translucent (ie. you can partly see through it).

To select the amount of Alpha Blending and the options, click on the **Alpha Blend** tab of **Visible Properties** tab on the [Component Properties](#) form.



The amount of blending can be from 0% (all component, no background) to 100% (all background, component is invisible) :



Depending on the type of Component, you can Alpha Blend :

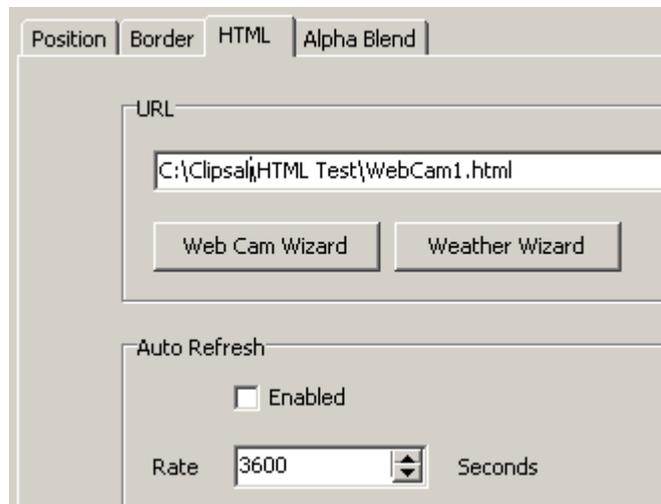
- [Border](#) and [Background](#)
- [Images](#)
- [Text](#)
- [Slider](#) slot, tick marks and thumb

To have the Alpha Blending level show the Component [status](#), select the **Alpha Blend Status** Indication option. To have the Alpha Blending level change according to the Component [level](#), select the **Variable Blending Level** option.

Note : Alpha Blending is not available in Black and White C-Touch projects.

4.9.4.2.11 HTML

The **HTML** tab of the [Visible Properties](#) tab allows you to set the properties of an [HTML Component](#) or a [Web Cam Image](#).



HTML Component URL

The URL is either :

- a link to a web site; or
- a link to a file on the computer

To enter a URL for a web site, either :

- type in the URL directly (eg. <http://mywebsite.com>); or
- open the web page with your web browser and then copy and paste the URL into the URL box

To enter a URL for a file on the computer, either :

- type in the URL directly (eg. c:\Clipsal\MyHTMLFile.html); or
- click on the folder button, select the file and click on **OK**

To automatically generate HTML for the display of web cams or displaying the weather, click on the **Web Cam Wizard** or **Weather Wizard** buttons. This will open the respective wizards. Enter the necessary data, including the HTML file name and click on **OK**. A file will be generated containing the necessary HTML code. The file name will appear in the URL box.

Web Cam Image Component URL

In a Web Cam Image Component, the relevant URL is the one which retrieves a single JPEG image from the camera. This will be different for every type of camera. For example, for an IP Box IP-200 camera server at IP Address 192.168.0.5, the URL will be :

http://192.168.0.5/Jpeg/CamImg.jpg

Generally, the web cam manual will give information about the URL required. If not, then to determine the relevant URL for a given camera, use a web browser to view the camera. There will usually be link somewhere which takes a "snap shot" image. The URL used to take the snap shot will probably be the one needed. Enter this URL in your browser and check that just a single image is shown. If there is more than just a single image shown (for example text or other links), you will need to view the HTML source (in Internet Explorer, select **View | Source**) to find the URL of the single image.

To automatically generate a URL for the display of web cams, click on the **Web Cam Wizard** button. This will open the Web Cam wizard. Enter the necessary data, including the camera type and IP Address and click on **OK**. The URL will appear in the URL box.

Note that any source of JPEG images can be used, not just web cams. If you are displaying images from the Internet, you may need to set your [Proxy Server Settings](#).

If your camera uses HTTP Authorisation, you will need to set the user name and password.

Weather Wizard

An HTML page can be created to display a weather forecast by clicking on the Weather Wizard button and selecting the required properties.

Refresh Rate

The refresh rate can be set if the page needs to be refreshed on a regular basis. This is useful for web pages such as weather forecasts which change on a regular basis. Do not set this to be more often than is absolutely necessary, as it consumes Internet bandwidth and processor power.

For Web Cams, the refresh rate can be as little as 0.1 second (10 frames per second). This does not apply if you are displaying a web cam using an HTML component. In this case, the refresh rate is controlled by the settings of the web cam.

Aspect Ratio

If you are editing a Web Cam component, there will be an option to "**Keep Aspect Ratio**". If this option is selected, when you re-size the component, the original aspect ratio (the ratio of the width to height) will be maintained, preventing the image from looking distorted.

See also [Image Server](#) and FAQ topics Problems with displaying HTML and Using Web Cams

4.9.4.2.12 Graph

The **Graph** tab of the [Visible Properties](#) tab allows you to set the properties of a [Graph Component](#).

Options

The **Options** group allows you to select :

- The **Graph Type**
 - Line - a line joins the data points
 - Area - like a line graph, but the area under the line is filled in
 - Bar - each data point is drawn with a vertical bar
- The number of **Points** to be plotted
- The data to be **plotted** :
 - Current Value - the value at the time each new point is drawn is used
 - Average Value - the average value over the interval is used
 - Maximum Value - the maximum value over the interval is used
 - Minimum Value - the minimum value over the interval is used

Horizontal Axis

The **Horizontal Axis** group allows you to select for the horizontal axis :

- The time **Interval** between data points
- The spacing between **tick marks/grid points**
- Whether to **Show Tick Marks**
- Whether to **Show Grid Lines**
- Whether to **Show Values** (time) - if this is selected, the horizontal axis label will not be shown

If displaying [Power Meter In-built System IO data](#) (energy, cost or peak power), the horizontal time scale is determined by the properties of the In-built System IO Variable (on the [System IO Properties Tab](#)). For example, if the energy data is being displayed with a scale of one week, then each data point on the graph will be one week. The **Grid/Tick Spacing** can be set to select how

many data points are between each tick. A value of 1 means every data point will have a tick. A value of 2 means every second data point will have a tick and so forth.

Vertical Axis

The **Vertical Axis** group allows you to select for the vertical axis :

- The **Minimum** value
- The **Maximum** value
- The spacing between **tick marks/grid points**
- Whether to **Show Tick Marks**
- Whether to **Show Grid Lines**
- Whether to **Show Values** (level) on the graph

Axis Line

The **Axis Line** group allows you to select properties for the vertical and horizontal axes :

- The **Line Colour**
- The **Line Width**
- The **Line Style**
 - none (this will make the axes transparent, in which case it will not be seen)
 - a solid line of different thicknesses
 - a dotted line (line width must be 1)
 - a dashed line (line width must be 1)

Graph

The **Graph** group allows you to select properties for the graph area and line :

- The **Line Colour**
- The **Line Width**
- The **Line Style**
 - none (this will make the axes transparent, in which case it will not be seen)
 - a solid line of different thicknesses
 - a dotted line (line width must be 1)
 - a dashed line (line width must be 1)
- The **Background Colour**
- The **Background Style**
 - None (this will make it transparent)
 - Solid (i.e. a plain colour)
 - Light Shaded
 - Medium Shaded
 - Dark Shaded
 - Back Diagonal
 - Forward Diagonal
 - Cross
 - Diagonal Cross
 - Horizontal
 - Vertical

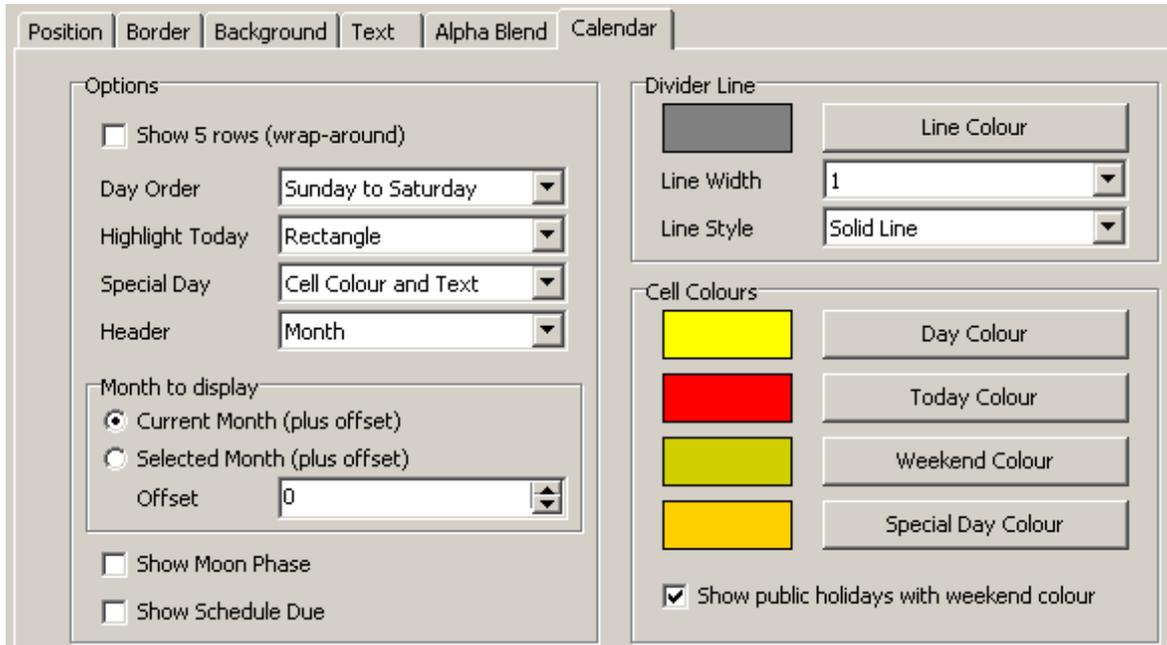
Notes

If the value of the data being plotted is not between the specified minimum and maximum, the line will be drawn in a fainter colour to show that it has gone out of range.

A title for the graph can be selected on the Text tab. A label for the Horizontal axis can also be selected on the Text tab, but this will only be shown if the values are not shown on the horizontal axis.

4.9.4.2.13 Calendar

The **Calendar** tab of the [Visible Properties](#) tab allows you to set the properties of a [Calendar Component](#).



Options

The **Options** group allows you to select :

- Whether to **Show 5 rows** - if selected, some days at the end of the month will be shown on the top row. If not selected, there will be 6 rows.
- **Day Order** - the days can be shown from Sunday to Saturday, or from Monday to Sunday
- **Highlight Today** - this selects the method used to highlight today's date
 - None - today is not highlighted
 - Cell Colour - the selected cell colour (see below) is used
 - Circle - a circle in the selected colour is drawn around today
 - Rectangle - a rectangle in the selected colour is drawn around today
- **Special Day** - this selects the method used to highlight [Special Days](#)
 - None - the Special Days are not highlighted
 - Cell Colour - the selected cell colour (see below) is used
 - Rectangle - a rectangle in the selected colour is drawn around Special Days
 - Text - text using the Special Day [abbreviations](#) is written in the bottom right corner of the days
 - Cell Colour and Text - combination of above
 - Rectangle and Text - combination of above
- **Header** - this selects what is to be written on top of the Calendar
 - None - no heading
 - Month - the name of the selected month
 - Short Month - the short (3 character) name of the month
 - Month and Year - the name of the month followed by the year
 - Short Month and Year - the short name of the month followed by the year
- **Month to Display** - either select the **Current Month** or the **Selected Month** (selected with [In-built System IO](#))
- **Offset** - the month displayed will be the Month to Display +/- the offset. This allows for multiple calendar components to display different months
- **Show Moon Phase** - this shows a small icon indicating the quarters on the moon phase. It is

approximate to a day or so.

- **Show Schedule Due** - this shows an icon indicating which days the Schedule selected by [Schedule In-Built System IO](#) is due on.

Divider Line

The **Divider Line** group allows you to select properties for the divider line separating the cells :

- The **Line Colour**
- The **Line Width**
- The **Line Style**
 - none (this will make the axes transparent, in which case it will not be seen)
 - a solid line of different thicknesses
 - a dotted line (line width must be 1)
 - a dashed line (line width must be 1)

Cell Colours

The **Cell Colours** group allows you to select the cell colours for :

- **Day Colour** - the colour to show the days of the month (unless it is one of the day types below)
- **Today Colour** - the colour to show today
- **Weekend Colour** - the colour to show weekends
- **Special Day Colour** - the colour to show [Special Days](#)

If the **Show Public Holidays with weekend colour** option is selected, Special Days which are Public Holidays will be shown in the same colour as weekends.

4.9.4.2.14 Sub-Page

The **Sub-Page** tab of the [Visible Properties](#) tab allows you to select properties for [Sub-Page Frame](#) components.

The **Default Sub-Page** is the [Sub-Page](#) which will initially be displayed in the Sub-Page Frame. The Sub-Page displayed in the frame can be changed using [Page Links](#).

If the **Select on Parent Page Change** option is selected, then the default sub-page will be selected when the page that the sub-page frame is on gets displayed. If this option is not selected, then the sub-page in the frame does not change when the parent page changes.

If you want the Default Sub-Page to be displayed after a certain amount of time, select the **Select Default Page after time-out** option. Select the time-out duration (in seconds) and the [Sub-Page Transition](#) (if required).

4.9.4.2.15 Status

The status of a Component refers to whether the function being controlled by the Component is Active (on) or not. The functions which can be indicated by the Component's status include :

- C-Bus Group Address [Level](#) (on or off)
- C-Bus [Scene](#) state (set or not set)
- C-Bus [Timer](#) (running or not running)
- Click (whether the Component is being clicked by the user or not)
- [Page Link](#) (whether the page linked to is currently being displayed)

The status of a Component can be displayed by a variety of means, depending on the [Component Type](#) :

- [Border](#)
- [Background](#)
- [Images](#)

- [Text](#)

To select which function controls the Component's status, select the **Status** tab on the [Component Properties](#) form :

Automatic Option

If the **Automatic** option is selected, then the status will indicate :

- the C-Bus level if the Component controls C-Bus; or
- the [System IO](#) level if the Component controls a System IO variable; or
- the click state if the Component controls something else

C-Bus Level Option

If the **C-Bus Level** option is selected, then the Component status will indicate the status of the associated C-Bus Group Address or Scene as described below.

The **C-Bus Indicator Range** group of the status tab allows you to select how the C-Bus state indication will be related to the C-Bus [Group Address Level](#).

By default, it will show the Inactive state of the button when the C-Bus level is 0 and the Active state of the button for any other C-Bus level. There are circumstances where this behaviour may need to be changed. The options which are able to be selected are :

- **Default** – when this is selected the default behaviour is used.
- **Preset Level** – when this is selected and the button is a PRESET or STATUS button (see above), the Active state will be shown if the C-Bus level equals the selected level (on the Key Functions Tab), otherwise the Inactive state will be displayed.
- **Custom Levels** – when this is selected, the minimum and maximum levels can be selected for which the Active state will be shown. For all other levels outside of this range, the Inactive state will be shown.
- **Scene Indicator** - when this is selected, the status will show when the Scene is set (ie. the levels of the Group Addresses in the Scene all match the levels of the Scene, or are ramping towards those levels)

⚠ If the Component is controlling the groups in a Scene (other than just setting the Scene), the first Group Address in the scene will be used for showing the status.

C-Bus Timer Option

If the **C-Bus Timer** option is selected, the component will show as active if the associated [C-Bus](#)

[Group Address](#) timer is running.

System IO Level Option

If the **System IO Level** option is selected, the component will show as active if the associated [System IO Variable](#) is Active. For a boolean (on/off) System IO Variable, this means that the System IO Variable is "on". For an integer or real System IO Variable, this means that the System IO Variable level is not zero.

Click Option

If the **Click** option is selected, the Component will show as active if the Component is currently being clicked (or touched on a touch screen).

Page Link Option

If the **Page Link** option is selected, the Component will show as active if the page selected by the [Page Link](#) is currently displayed. If the Component selects a [Sub-Page Link](#), then the Component will show as active if the page selected by the Sub-Page Link is currently displayed.

The **Page Link** option is particularly useful for [Theme Pages](#) with menu bars or for use with [Sub-Pages](#).

4.9.4.3 C-Bus Properties

To set the C-Bus properties of a component :

- Open the [Component Properties](#) form
- Select the **C-Bus** tab
- Select the [C-Bus type](#) (key function)
- Select the [Controlled Item](#) (Scene or Group Address)
- Select the [Other Properties](#) (Level, Ramp Rate, Pulse Duration)
- Select the [Indicator Functions](#)

Alternatively, the Group Address of one component can be copied to other components using the [Copy Group Address](#) function.

4.9.4.3.1 Key Functions

The **C-Bus** tab of the [Component Properties](#) form allows you to set the C-Bus functionality of the Component.

The screenshot shows the configuration interface for a C-Bus Key Function. It is organized into several sections:

- Key Function:** A dropdown menu set to "Timer".
- Ramp Rate:** A dropdown menu set to "Instantaneously".
- Controlled Item:**
 - Scene Groups: A dropdown menu with an "Edit/Add" button.
 - Single Group:
 - Network: A dropdown menu set to "Local Network".
 - Application: A dropdown menu set to "Lighting".
 - Group Address: A dropdown menu set to "Kitchen 2", with a green plus icon and a pencil icon.
- Pulse:**
 - Duration: Three spinners for HOUR (0), MIN (0), and SEC (5).
 - Final Level: A dropdown menu set to "OFF".
- Level:**
 - Level: A dropdown menu set to "ON", with a green plus icon and a pencil icon.
 - Get Current Level: A button.

C-Bus Key Function

The component will behave differently depending on which C-Bus type is selected. The C-Bus component can be set to any of the following types :

- ON : this switches the load on.
- OFF : this switches the load off.
- ON/OFF : this toggles the load on and off. If the load level is greater than 0%, it is regarded as being on.
- DIMMER : a short press will toggle the load on and off. A longer press will dim the load up and down.
- UP : a press will dim the load up.
- ON/UP : a short press will switch the load on. A longer press will dim the load up.
- DOWN : a press will dim the load down.
- OFF/DOWN : a short press will switch the load off. A longer press will dim the load down.
- TIMER, Resettable : this will switch a load to a particular level for a particular time. When the time expires, the load will return to a specified level. The timer time can be shown with a [Clock](#) component. Pressing again while the timer is running will start the timer again.
- TIMER, Toggle : this will switch a load to a particular level for a particular time. When the time expires, the load will return to a specified level. The timer time can be shown with a [Clock](#) component. Pressing again while the timer is running will stop the timer.
- PRESET : this will set the load to a preset level (0-100%). This is often used for triggering Scenes in a different unit.
- BELL PRESS : this will set the load to a particular level while the component is being pressed. When the component is released, the load will return to a specified level.
- SCENE : This will set a [scene](#). Note that pressing a scene button for more than 10 seconds will show the [Scene Editor](#) form. For setting Scenes in a different unit, use the Preset key function.
- NUDGE UP : This adjusts the load level up by the amount set in the Level box.
- NUDGE DOWN : This adjusts the load level down by the amount set in the Level box.
- SELECT : This selects between one of several levels. Only used by [Selector Components](#).
- SLIDER : This is used for [sliders](#) only.
- STATUS : this will show the C-Bus [status](#), but pressing the component will have no effect.
- UNUSED : this will not show C-Bus status or perform any C-Bus action when pressed.

Note that if C-Bus [Remote Control](#) is selected, only the Status option is available.

It is also possible to create [Custom Key Functions](#) for use with Components. Click on the edit button next to the Key Function list to open the [Custom Key Function Manager](#). Custom Key Functions in the list will be highlighted.

Controlled Item

If you wish for the Component to adjust all of the Group Addresses in a Scene, select the **Scene Groups** button and select the desired Scene.

If you wish to control a Single Group Address then :

- Select the **Single Group** button
- [Select the Network, Application and Group Address](#)

Level

If the component is to be a preset, press, timer, nudge up or nudge down you will need to select the [Level](#). You can either select a particular level in [percent](#) or a [tag](#). To use the current level of the Group Address, click on the **Get Current Level** button.

Ramp Rate

If the component is to be a preset, press, timer, nudge up or nudge down you will need to select the [Ramp Rate](#). Select a rate at which the Group Address level is to change.

Pulse

If the component is a timer, you will need to select the timer duration and type. A toggle timer will start when it is pressed, then stop after the time-out period, or if the timer is pressed again before it has timed out. A re-settable timer will start the timer again if pressed before the timer has expired. Note that a [clock](#) component can be used to display the amount of time left on a timer.

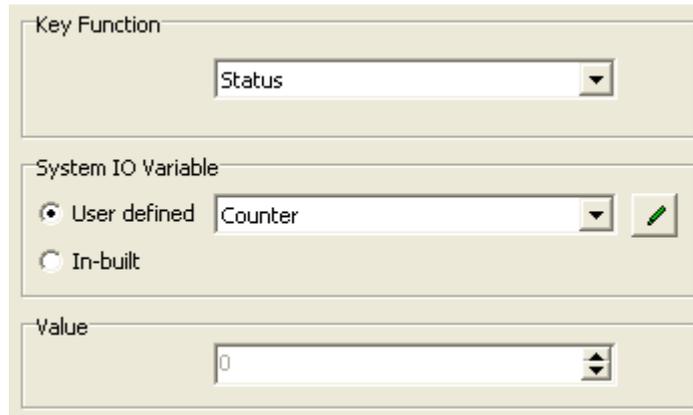
If the component is a press button or a timer, you need to select the level to which the Group Address is to return to when the press button is released or the timer expires.

During the pulse period, if a message for the Group Address is received from any source, the pulse will be cancelled.

4.9.4.4 System IO Properties

[System IO Variables](#) are used to provide interaction between the user and various elements of the PICED software.

A Component can control or monitor a System IO Variable in a similar way to controlling [C-Bus](#). To change the System IO properties of a particular [Component](#), open the [Component Properties](#) form then select the **System IO** tab :



Key Function

The **Key Function** list allows the function to be selected, with the following options :

- UNUSED : this will not show System IO Variable status or perform any System IO Variable action when pressed.
- ON : this switches the System IO Variable to its maximum value.
- OFF : this switches the System IO Variable to its minimum value.
- ON/OFF : this toggles the System IO Variable between its minimum and maximum value.
- PRESET : this will set the System IO Variable to a preset level.
- NUDGE UP : this adjusts the System IO Variable level up by the amount set in the Value box.
- NUDGE DOWN : This adjusts the System IO Variable level down by the amount set in the Value box.
- SLIDER : this is used for System IO Variable [sliders](#) only.
- STATUS : this will show the System IO Variable [status](#), but pressing the component will have no effect.
- SELECTOR : this is used for System IO Variable [Selectors](#) only.
- BELL PRESS : this sets the System IO Variable to its maximum while the component is held, then sets it to the minimum value when released.
- INCREMENT MONTH : this increments (increases by one) the month (date System I/O only)
- DECREMENT MONTH : this decrements (decreases by one) the month (date System I/O only)
- INCREMENT YEAR : this increments (increases by one) the year (date System I/O only)
- DECREMENT YEAR : this decrements (decreases by one) the year (date System I/O only)

System IO variables can be displayed and/or controlled using components as shown in the table below.

Component Type	Integer/Time/Date	Real	Boolean	String
Text				Display
Shapes	Control	Control	Display and Control	
Buttons	Control	Control	Display and Control	
Sliders	Display and Control	Display and Control		
Level Indicators	Display	Display		
Clocks	Display (Time & Date only)			
Selectors	Display and Control			

System IO Variable

The **System IO Variable** box allows you to select a [User System IO](#) variable or an [In-built System IO](#) variable.

Value

The **Value** is used when the **Key Function** is preset, nudge up or nudge down.

Properties

When some in-built system IO variables are selected, additional properties need to be set. These will appear at the bottom of the form when required. For example, if you select the Irrigation Zone Running variable, you will need to select which [Irrigation Zone](#) applies.

It is recommended that the [Tool Select](#) function be used for adding In-built System IO Components, as it semi-automates the process and it also shows related [Special Functions](#).

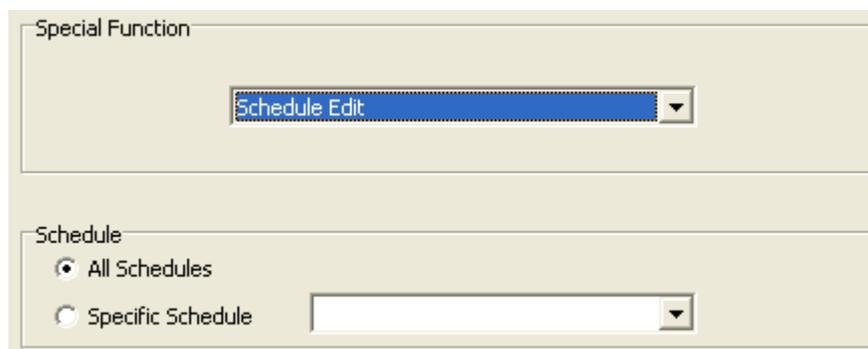
Various [templates](#) are supplied with the PICED software to quickly add sets of related components, such as for editing Scenes, Schedules or Irrigation.

4.9.4.5 Special Function Properties

When a [component](#) is [activated](#), it can cause a [Special Function](#) to be executed.

To add a Special Function to a component :

- Open the [Component Properties](#) form
- Select the **Special Function** tab
- Select the special function from the list
- Enter any other information applicable to that special function (Schedule Number, Scene Number, Irrigation Zone, Program Details, Module Number, System IO Variable)



The image shows a software interface for configuring a Special Function. It consists of two main sections. The top section, titled 'Special Function', contains a dropdown menu with 'Schedule Edit' selected. The bottom section, titled 'Schedule', contains two radio buttons: 'All Schedules' (which is selected) and 'Specific Schedule' (which is unselected). To the right of the 'Specific Schedule' radio button is a text input field.

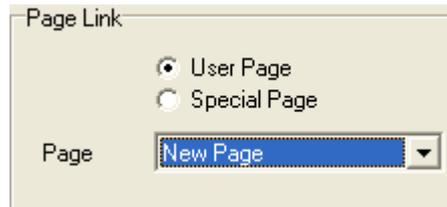
See also [Controlling the Touchscreen](#) and [Tool Select](#)

4.9.4.6 Page Links

When a component is [activated](#), it can cause another page to be displayed. To do this, a link to the page needs to be added to the component.

To add a link :

- Open the [Component Properties](#) form then
- Select the **Page Link** tab page
- Select the destination page from the list



If the [Project Type](#) is for a Black and White C-Touch, links can be either to a user created page, or to one of many "special pages" :

- BACK : if the user clicks on the component, the previous page will be displayed.
- CALIBRATION : this allows the C-Touch unit touch panel to be calibrated.
- DIAGNOSTICS : this shows some diagnostics information.
- STARTUP PAGE : this displays the [start-up page](#)
- CLEANING MODE : this puts the unit in cleaning mode
- TIME SET : this allows the user to set the time
- DATE SET : this allows the user to set the date
- CONTRAST SET : this allows the user to set the C-Touch unit contrast
- BACKLIGHT SET : this allows the user to control the [Backlight](#)

See also [Special Functions](#) and [Tool Select](#)

Sub-Page Links

If a Component is on a [Sub-Page](#), it is possible to select a Sub-Page link to change the Sub-Page displayed in the [Sub-Page Frame](#) displaying the Sub-Page. To do this:

1. Select the **Page Link** tab
2. Select **Parent Sub-Page Frame** from the frame drop-down list
3. Select the desired Sub-Page

A Component can also be used to change the Sub-Page displayed by a Sub-Page Frame elsewhere on the same page. To do this:

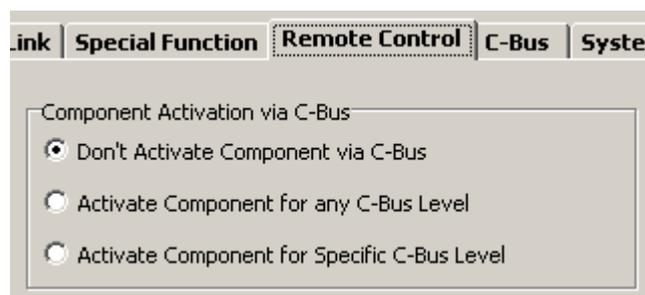
1. Select the **Page Link** tab
2. Select the Sub-Page Frame from the frame drop-down list
3. Select the desired Sub-Page

4.9.4.7 Remote Control

Component Activation via C-Bus

A [Component](#) can be [Activated](#) by means of a C-Bus event.

To do this, open the [Component Properties](#) form, and select the **Remote Control** tab :



The C-Bus Group Address to be used to activate the Component is selected on the [C-Bus](#) tab of the

Component Properties form.

To activate the component for this Group Address being set to any level, select the **Activate Component for any C-Bus Level** button. To activate the Component only if the Group Address is set to a particular level (as set on the C-Bus Tab), select the **Activate Component for Specific C-Bus Level** button.

⚠ If a Component is activated by a C-Bus Group Address, it can not also be used to control C-Bus. In this case, only the "Status" Key Function option will be available on the C-Bus Tab.

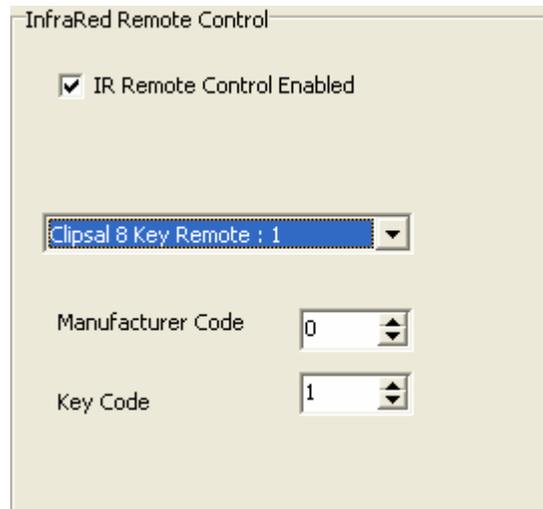
Component Activation via IR Remote Control

The C-Touch units can be controlled from an Infra Red (IR) remote control. You can either use the one that comes with the unit, or any remote control which uses NEC codes.

A remote control key can be associated with a [Component](#) on the C-Touch unit. When the remote control key is pressed, the C-Touch unit will act as if you pressed the screen in the **centre** of that component. If you want a Component to only be activated by remote control and not by someone clicking on it, make the component very small and put it near the edge of the screen, away from other Components. This will minimise the chance that someone will accidentally click on it. Never place other Components with [actions](#) on top of an IR activated Component, as the Component on top will be activated when the IR command is received.

To set up the association between a component and a remote control key :

- Select the Remote Control tab from the [Component Properties](#) form
- Select the IR Remote Control Enabled check box.
- If you are using the remote control that came with the C-Touch unit (5035TX), you can just select the desired key from the drop-down list.
- If you are using another remote control unit, you will need to enter the Manufacturer and Key codes (see below).



The screenshot shows a configuration window titled "InfraRed Remote Control". It features a checked checkbox for "IR Remote Control Enabled". Below this is a dropdown menu currently displaying "Clipsal 8 Key Remote : 1". At the bottom of the window, there are two spinners: "Manufacturer Code" is set to "0" and "Key Code" is set to "1".

Remote control codes can be found on various web sites, or can be read via the Black and White C-Touch unit. To do this, you need to have a Black and White C-Touch unit and select the Diagnostics page. Select the Unit Data page, and there will be information about the last received IR code. Point your remote control at the C-Touch unit and press the key. You will see the Manufacturer Code and Key Code appear on the C-Touch screen. These values can then be entered in the Component Properties form.

You can test that the remote control codes have been set up correctly (if using the remote control that came with C-Touch) by selecting the **View | Remote Control** menu item. A form will appear with an image of the remote control unit on it. Clicking on one of the keys will execute the action set up for that key.

A component can only be remote controlled if the page it is on is showing. To enable a Component to be remote controlled regardless of which page is showing, place the Component on a [Theme Page](#) and use that Theme Page for all of your other pages in the project. This will ensure that the Component is always available without having to copy it to every page.

4.9.4.8 Inserting Symbols in Text

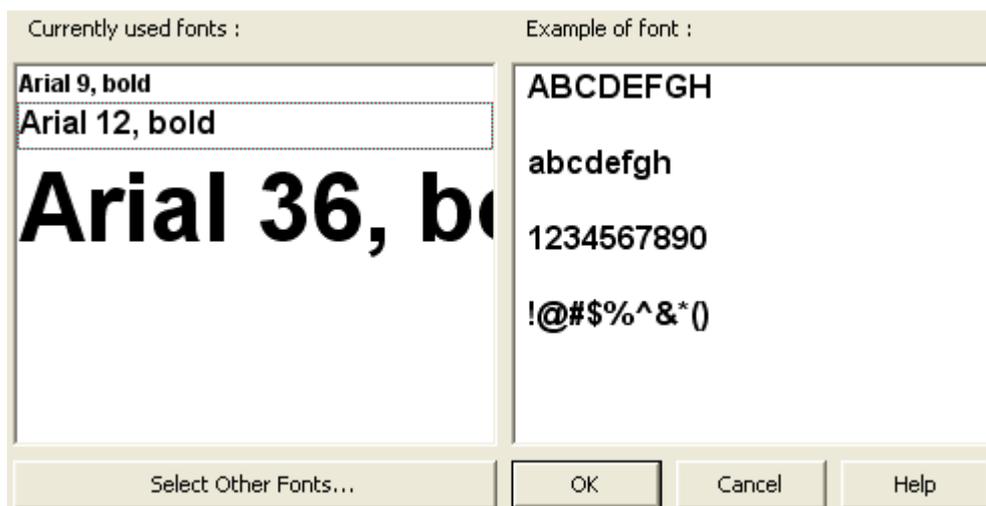
Each Font has many characters (symbols) apart from the letters of the alphabet, and the numbers, such as © μ ¥ etc. Many of these symbols do not have a corresponding key on a standard keyboard.

When editing the [text](#) of a component, select the position in the text that you want a symbol inserted. Right click on the text and select the **Insert Symbol** menu item. A form appears which shows all possible symbols in the currently selected font. Click on the symbols that you want inserted. Click on the **OK** button to insert the selected symbols.



4.9.4.9 Font Selection

Fonts can be selected by means of the Font Selection form. A list of fonts shows all of the fonts currently used in the project, with the currently selected font highlighted. A sample of the font is also displayed.



To change to another font which is in the list, just click on the desired font. If you wish to use a different font, click on the **Select Other Fonts** button and select the required font.

⚠ The default font can be set so that all components which are placed will use this font. To set the default font, select the **Options | Default Font** menu item or use the button on the [tool bar](#). If you are using [Theme Components](#), the font for the Theme Component will be used, not the default font.

NOTES :

The font selection form is used to minimise the number of different fonts which are used in a project for several reasons :

- Each font used requires additional memory in the Black and White C-Touch unit. The amount of memory used by fonts can be seen with the [Resources Report](#).
- Projects look much better with a minimal number of different fonts used – consistency makes it easier to understand.
- For Colour C-Touch it is easiest to use the [Installed Fonts](#).

Using fonts which lean over (such as italics) can cause problems when transferred to the Black and White C-Touch units. You need to select fonts where the characters do not overlap each other.

See also [Colour Conversion](#).

See also Good Design Practices.

4.9.4.10 Colours

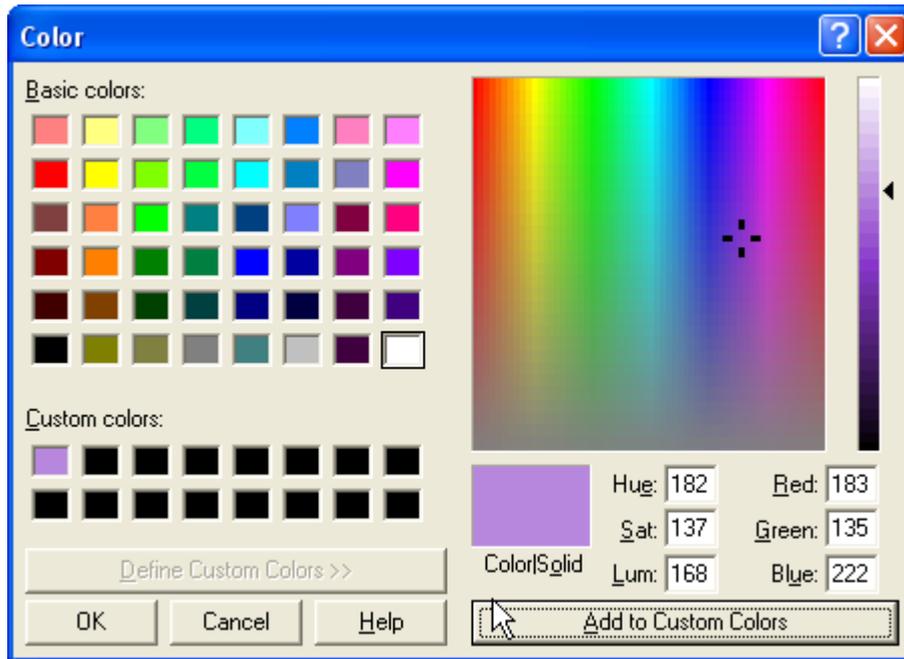
The colour of various things can be set to almost any colour desired :

- [Page](#) background colour
- [Component background](#) and [border](#)
- [Slider](#) thumb, slot and tick marks

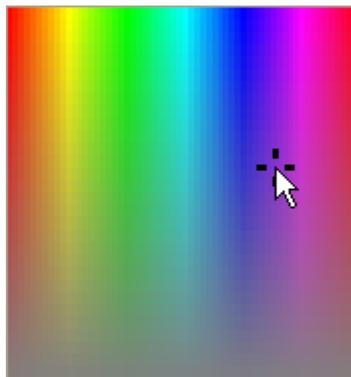
Colours are selected using the Colour form. You can either select a Basic Colour by clicking on the desired colour or you can select a Custom Colour.

Selecting Custom Colours

To select a custom colour, click on the **Define Custom Colors** button.



Select the shade required by clicking on the colour square :



Then click on the desired intensity for the colour :



Alternatively, the colour can be selected by entering the [Red/Green/Blue](#) components, or the [Hue/Saturation/Luminance](#) components.

Then click on the **Add to Custom Colors** button to add the colour to the **Custom colors** list.

Click on **OK** to use the colour..

To copy a custom colour from one object (component or page) to another, select the first object and open the colour form. The colour will already be in the **Color|Solid** box. Click on the **Add to Custom Colors** button to add the colour to the **Custom colors** list. Open the second thing, and edit the colour. The new custom colour will be there for you to choose.

The only colours able to be displayed on a Black and White C-Touch are (surprisingly) black and white.

See also [Add colour by Hex Code](#) and [Pick Colours](#)

4.9.5 Adding Components to a Page

[Components](#) are items which can be placed on a [page](#) and may either :

- be purely visual; or
- respond with some action when [activated](#)

There are many component [types](#), each having their own set of features.

To add components to a page :

- [Select the required page](#)
- Click on the required component on the [tool bar](#) **OR** select the required component from the **Component** menu.
- Click on the page where the component is required. If the component is a button or shape, click and drag to set the size required. See also [Adding Lines](#) and [Adding Arbitrary Shapes](#)
- [Edit the component properties](#) if required.

It is possible to have the Component Properties editor appear automatically when a Component is placed by selecting the option in the [Program Options](#).

See also [Software Limits](#), [component manipulation](#), Good Design Practices and [Keyboard Shortcuts](#)

4.9.5.1 Adding Lines

To add a line Component :

1. Select the line in the Shapes drop down list on the [Place Components Tool Bar](#). If it is already selected, then click on the Shape button on the Tool Bar.
2. Click on the Page where the line is to start
3. Move the mouse to where the line is to end (you will see a line drawn as you move the mouse)
4. Click on the Page where the line is to end
5. Edit the [Component Properties](#) to set the line colour, style and thickness

Note that line borders can only be used for [Shape](#) components.

4.9.5.2 Adding Arbitrary Shapes

To add an arbitrary shape Component :

1. Select the arbitrary shape icon in the Shapes drop down list on the [Place Components Tool Bar](#). If it is already selected, then click on the Shape button on the Tool Bar.
2. Click on the Page where one corner is to be
3. Move the mouse to where the next corner is to be (you will see a line drawn as you move the mouse)
4. Click on the Page where the next corner is to be
5. Repeat step 4 for all corners
6. Click on the first corner again to finish the shape

7. Edit the [Component Properties](#) to set the [border](#) and [background](#)

Note that arbitrary shape borders can only be used for [Shape](#) components.

4.9.5.3 Tool Select

If you wish to use a quick method to place a [component](#) with either a [Special Function](#) or [In-built System IO](#) (or a link to a [Special Page](#) for Black and White C-Touch) :

1. Open the **Tools** form by selecting the **Edit | Place Component | Tools** menu item or clicking the **Tools** button on the [Tool Bar](#)
2. Select the **Category** of the tool required
3. Select the tool **Function**
4. Select any properties
5. Click on the **OK** button
7. Click on the screen where you want the button placed
8. A component using the corresponding [Theme Component](#) style will be placed with the appropriate properties set
9. Depending on the tool placed, you may need to edit some of its [properties](#) (for example, a zone number)

The Components which can be placed depend on the [Project Type](#), and include buttons for :

- [Schedules](#) (Colour C-Touch only)
 - Count - show the total number of Schedules
 - Edit - open the [Schedule Manager](#)
 - Day of Month - select the day of the month for the Schedule
 - Day of Week - select the day of the week for the Schedule
 - Day Type - select the Schedule day type (normal, Repeat, Last Week of Month)
 - Details - show the details of when the Schedule is due and what it does
 - Is Enabled - show if this Schedule is enabled
 - Level - show the C-Bus level of the Schedule
 - Level Select - nudge the selected Schedule C-Bus level up and down
 - Month - select the month for the Schedule
 - Name - show the name of the selected Schedule
 - Number - show the number of the selected Schedule
 - Pulse Duration Select - select the Schedule pulse duration
 - Repeat Due - show the next due date of the selected Schedule (if it is a repeat Schedule)
 - Repeat Interval - show the repeat interval of the selected Schedule
 - Repeat Select - select the repeat interval and day
 - Schedule Select - select a Schedule
 - Start/End Select - select the Schedule start/end time (for repeat time and random time Schedules)
 - Synchronise - [synchronise](#) to the Schedules
 - Time - show the time of the selected Schedule
 - Time Select - change the Schedule time
 - Time Type - select the Schedule Time Type (normal, sunrise, sunset, repeat, random)
- [Scenes](#) (Colour C-Touch only)
 - Component Count - show the total number of Scene Components
 - Component Current Level - show the current level on C-Bus of the Scene Component
 - Component Current Level Select - change the current level on C-Bus of the Scene Component
 - Component Level - show the C-Bus level of the selected Scene Component
 - Component Level Select - change the C-Bus level of the selected Scene Component
 - Component Name - show the name of the selected Scene Component
 - Component Number - show the number of the selected Scene Component
 - Component Ramp Rate Select - select the ramp rate for the selected Scene Component
 - Component Select - select a Scene Component
 - Count - show the total number of Scenes
 - Edit - open the [Scene Manager](#)

- Name - show the name of the selected Scene
- Nudge Level Down - nudge down the C-Bus level of the selected Scene
- Nudge Level Up - nudge up the C-Bus level of the selected Scene
- Number - show the number of the selected Scene
- Scene Select - select a Scene
- Set - set the selected Scene
- Set Level Off - set the selected Scene off
- Set Level On - set the selected Scene on
- Store - store the levels of the selected Scene
- [Irrigation](#) (Colour C-Touch only)
 - Edit - open the [Irrigation Manager](#)
 - Program Count - show the number of Irrigation Programs
 - Program Name - show the name of the selected Irrigation Program
 - Program Number - show the number of the selected Irrigation Program
 - Program Select - select the Irrigation Program
 - Rain Delay - activate the [Irrigation Rain Delay](#)
 - Run Zone - run the currently selected irrigation zone
 - Running - show if the Irrigation Controller is running
 - Running Zone Name - name of the currently running zone
 - Stop - stop the Irrigation Controller running
 - Time - show the duration of the currently selected Zone in the currently selected Program
 - Time Remaining - show how much time is remaining on the currently running Zone
 - Time Select - select the duration of the currently selected Zone in the currently selected Program by one hour
 - Zone Count - show the number of Irrigation Zones
 - Zone Name - show the name of the selected Irrigation Zone
 - Zone Number - show the number of the selected Irrigation Zone
 - Zone Running - show whether the selected Irrigation Zone is running
 - Zone Select - select the Irrigation Zone
- [Special Days](#) (Colour C-Touch only)
 - Edit - open the [Special Day Manager](#)
 - Name - show the name of the current Special Day
- [Access Control](#) (Colour C-Touch only)
 - Edit - open the [Access Control Manager](#)
 - Edit Password - show the Access Control [User Editor](#)
 - Keypad - a keypad for entering password
 - Level - show the level of the current Access Level
 - Level name - show the name of the current Access Level
 - Logged In State - show whether anyone is currently logged in
 - Log-in - show the page for entering the user password
 - Log-out - log the user out and display the [start-up page](#)
 - Password - show the current password as stars (****)
 - User Name - show the name of the currently logged-in user
- [Date & Time](#)
 - Calendar, Month Down - adjust the month shown on a [Calendar Component](#) (Colour C-Touch only)
 - Calendar, Month Name - show the month selected (Colour C-Touch only)
 - Calendar, Month Up - adjust the month shown on a Calendar Component (Colour C-Touch only)
 - Calendar, Year - show the year selected (Colour C-Touch only)
 - Cancel - cancel setting the date and time (Colour C-Touch only)
 - Date Select - adjust the date to be set (Colour C-Touch only)
 - Date to be Set - show the date to be set (Colour C-Touch only)
 - Date/Time Form - set the computer date and time (Colour C-Touch only)
 - Day Down - adjust the date to the previous day (Black and White C-Touch only)
 - Day Up - adjust the date to the next day (Black and White C-Touch only)
 - Daylight Savings - show whether Daylight Savings is active (Colour C-Touch only)
 - Daylight Savings Start - start Daylight Savings (Black and White C-Touch only)

- Daylight Savings Stop - stop Daylight Savings (Black and White C-Touch only)
- Hour Down - adjust the time down by an hour (Black and White C-Touch only)
- Hour Up - adjust the time up by an hour (Black and White C-Touch only)
- Minute Down - adjust the time down by a minute (Black and White C-Touch only)
- Minute Up - adjust the time up by a minute (Black and White C-Touch only)
- Month Down - adjust the date to the previous month (Black and White C-Touch only)
- Month Up - adjust the date to the next month (Black and White C-Touch only)
- Second Reset - reset the time seconds (Black and White C-Touch only)
- Set Date - show the date setting page (Black and White C-Touch only)
- Set New Date/Time - set the date and time to the selected time (Colour C-Touch only)
- Set Time - show the time setting page (Black and White C-Touch only)
- Startup Date - the date the [Project](#) was [opened](#)
- Startup Time - the time the Project was opened
- Sunrise - show the sunrise time
- Sunset - show the sunset time
- Time Select - adjust the time to be set (Colour C-Touch only)
- Time to be Set - show the time to be set (Colour C-Touch only)
- Year Down - adjust the date to the previous year (Black and White C-Touch only)
- Year Up - adjust the date to the next year (Black and White C-Touch only)
- [Pages](#)
 - Back - [Back](#) Page button
 - Backlight - show the backlight setting page (Black and White C-Touch only)
 - Calibration - show the calibration setting page (Black and White C-Touch only)
 - Cleaning Mode - set cleaning mode (Black and White C-Touch only)
 - Contrast - show the contrast setting page (Black and White C-Touch only)
 - Date Set - show the date setting page (Black and White C-Touch only)
 - Diagnostics - show the diagnostics page (Black and White C-Touch only)
 - Name - show the name of the current page (Colour C-Touch only)
 - Startup - show the start-up page (Black and White C-Touch only)
 - Time Set - show the backlight setting page (Black and White C-Touch only)
- [Logic](#) (Colour C-Touch only)
 - Module Enabled - show whether a particular logic Module is enabled
 - Running - show whether logic is running
 - Timer - show the time for a particular logic timer
- [Security](#)
 - Alarm State - show the state of the security alarm
 - All Zones OK - show whether all security zones are secure (sealed)
 - Arm Failed - show whether the arm sequence failed
 - Arm Ready - show if the system is ready to arm
 - Arm System - arm the system
 - Armed Level Name - show a description of the system armed level
 - Armed State - show whether the system is armed
 - Battery Charging - show if the battery is charging
 - Entry Delay - show if the Entry Delay is in progress
 - Exit Delay - show if the Exit Delay is in progress
 - Fire Alarm - show if there is a fire alarm
 - Gas Alarm - show if there is a gas alarm
 - Keypad - a security system keypad
 - Keypad Arm - emulate a keypad Arm key press
 - Keypad Away - emulate a keypad Away key press
 - Keypad Day - emulate a keypad Day key press
 - Keypad Fire - emulate a keypad Fire key press
 - Keypad Night - emulate a keypad Night key press
 - Keypad Panic - emulate a keypad Panic key press
 - Keypad Vacation - emulate a keypad Vacation key press
 - Line Cut Alarm Sounding - show if there is a line-cut alarm
 - Low Battery - show if there is low backup battery charge

- Mains Failure - show if there is a mains power failure
- Normal Operation - show if there is normal operation (no alarms)
- Other Alarm Sounding - show if there is an other alarm
- Panic State - show if the system is in a panic state
- Password Entry Status - show the password entry status
- Password OK - show if the password is OK
- Raise Alarm - raise an alarm
- Show Form - show the Security Application form
- Tamper State - show if the system is in a tamper state
- Zone Isolated - show if a zone is isolated
- Zone State - show the state of a zone (secure or not)
- Zone Status - show the status of a zone (text)
- [Telephony](#)
 - Dial In Fail Reason - show the reason for the last dial-out failure
 - Dial Out Fail Reason - show the reason for the last dial-in failure
 - Divert - divert the telephone
 - Divert Clear - clear the telephone diversion
 - Diverted - is the telephone diverted ?
 - Diverted Number - show the diverted telephone number
 - Last Incoming Number - show the last received telephone call number
 - Last Outgoing Number - show the last dialled telephone number
 - Off Hook - is the telephone off-hook
 - Off Hook Number - show the off-hook telephone number
 - Off Hook Reason - show the off-hook reason
 - Reject Incoming Call - reject (hang-up) the incoming telephone call
 - Ringing - is the telephone ringing ?
 - Ringing Number - the ringing telephone number
 - Secondary Isolated - is the telephone interface secondary output isolated ?
- [Error Application](#)
 - Clear Most Severe Errors - clear any Most Severe errors
 - Project Most Recent Error Status - show if there is an error anywhere in the project
 - Project Most Recent Error Name - show a description of the error with the highest severity
 - Project Most Severe Error Status - show if there is a Most Severe error anywhere in the project
 - Project Most Severe Error Name - show a description of the Most Severe error with the highest severity
 - Network Most Recent Error Status - show if there is an error anywhere in a network
 - Network Most Recent Error Name - show a description of the error with the highest severity
 - Network Most Severe Error Status - show if there is a Most Severe error anywhere in a network
 - Network Most Severe Error Name - show a description of the Most Severe error with the highest severity
 - Show Error Manager - show the [Error Manager](#)
 - Unit Most Recent Error Status - show if there is an error anywhere in a unit
 - Unit Most Recent Error Name - show a description of the error with the highest severity
 - Unit Most Severe Error Status - show if there is a Most Severe error anywhere in a unit
 - Unit Most Severe Error Name - show a description of the Most Severe error with the highest severity
- [Measurement Application](#)
 - Boolean Value - show the boolean value of the selected channel
 - Energy Value - show the energy value for the selected [Analogue Power Meter](#) channel
 - Integer Value - show the integer value of the selected channel
 - Power Value - show the power value for the selected [Analogue Power Meter](#) channel
 - Real Value - show the real (floating point) value of the selected channel
 - Show Form - show the Measurement App Form
 - Temperature Value - show the value of the selected channel (which is conveying a temperature reading)
 - Valid Value - does the selected channel have valid data ?
- [Labels](#)

- Action Selector Label - the label for a selected Action Selector
- Clear - clear all labels
- Group Label - the label for a selected Group
- Set Language - set the language to be used for labels
- Show Form - show the labels form
- Show Language - show the currently selected language
- [Load Monitor](#)
 -
 - Load Power - the current power used by the load
 - Show Form - show the [Load Monitor](#) (Colour C-Touch only)
 - Total Power - the current power used by the site
- [HVAC \(Air Conditioning\)](#) All of the following apply to a specific Zone Group and Zone Number
 - Busy State - show if the controller is busy
 - Cooling State - show if the controller is cooling
 - Data is Valid - show if the data is valid
 - Error Name - show the name of any error
 - Error Number - show the number of the error
 - Error State - show whether there is an error
 - Fan Speed Select - select the fan speed
 - Fan Speed Text - show the speed of the fan
 - Fan State - show if the fan is running
 - Heating State - show if the controller is heating
 - HVAC Refresh - refresh the data from all HVAC controllers
 - Mode Name - show the name of the HVAC mode
 - Mode Select - set the mode (see [HVAC App In-Built System IO](#))
 - Operating Type Name - show the name of the Operating Type
 - Operating Type Select - set the Operating Type (see [HVAC App In-Built System IO](#))
 - Plant Equipment - show the HVAC plant equipment type (see [HVAC App In-Built System IO](#))
 - Plant Equipment Name - show the name of the HVAC plant equipment type
 - Sensor Status - show the temperature sensor status
 - Sensor Status Name - show the sensor status name
 - Setback State - show whether temperature setback is enabled
 - Set-Level - show set point (numerical value)
 - Set-Level Select - select the set point
 - Set-Level Text - text showing the Set-Level value (includes °C or °F if showing a temperature)
 - Set-Level Type Name - show what type the set level is (Temperature, Comfort Level or Fan Speed)
 - Temperature - show the current temperature
 - Zone Damper Open - show if the damper is open
 - Zone Enabled - show the state of the Zone (enabled/disabled)
 - Zone Group State - control the Zone Group (on/off) - this does not use a Zone Number
- Shutters (control for the C-Bus Shutter Relay) :
 - 1 Key Toggle - single key operation - open/close and stop
 - 2 Key Open Toggle - two key operation - open and stop
 - 2 Key Close Toggle - two key operation - close and stop
 - 3 Key Open - three key operation - open
 - 3 Key Close - three key operation - close
 - 3 Key Stop - three key operation - stop
- Audio ([Media Transport Control Application](#) and [Audio Application](#)) control:
 - Category Select - select a Category
 - Play/Pause/Stop - set the play/pause/stop mode
 - Power - control the power
 - Repeat - set repeat option
 - Selection Select - select a Selection
 - Shuffle - select shuffle
 - Track Select - select a track
 - Mute - control the audio mute function

- Source Select Absolute - select the audio source using "presets"
- Source Select Previous/Next - select the audio source using "previous" and "next" buttons
- Timer - start the audio timer
- Tone - control the audio bass, treble and balance
- Volume - control the audio volume
- [User System IO](#) control
 - Date - show the date for a User System IO Variable
 - Date Select - select the date of a date User System IO Variable
 - State - show the state of a boolean User System IO Variable
 - Time - show the time for a User System IO Variable
 - Time Select - select the time of a time User System IO Variable down
 - Value - show the value of a User System IO Variable
 - Value Select - select the value of an integer or real user System IO Variable
- [E-Mail](#)
 - Message Count - show the number of E-Mail messages in the selected account
 - Message Details - show the details of the selected E-Mail message
 - Message Present - show if there are any E-Mail messages in the selected account
 - Select Account - select an E-Mail account
 - Select Message - select an E-Mail message
- [Power Meters](#)
 - Analogue Meter Energy - show the energy usage for the selected [Analogue Power Meter](#)
 - Analogue Meter Power - show the power for the selected Analogue Power Meter
 - Power - show the total power usage
 - Pulse Power Meter Energy - show the energy usage for the selected [Pulse Power Meter](#)
 - Pulse Power Meter Power - show the power for the selected Pulse Power Meter
 - Today's Energy Usage - show the energy usage for today
 - Today's Energy Cost - show the energy cost for today
 - Today's Peak Power - show the peak power usage for today
- Other
 - Alarm, Cancel Next : this cancels the next [alarm](#) only.
 - Alarm Off - stop the alarm
 - Alarm On - start the alarm
 - Alarm Snooze - snooze the alarm
 - Alarm State : this shows whether the alarm is currently on
 - Backlight Off - switch the backlight off (Black and White C-Touch only)
 - Backlight On - switch the backlight on (Black and White C-Touch only)
 - Backlight Set - set the backlight threshold (Black and White C-Touch only)
 - Calibrate - calibrate the screen (Colour C-Touch only)
 - Cleaning Mode - set Cleaning Mode (Colour C-Touch only)
 - Contrast Down - decrease the contrast (Black and White C-Touch only)
 - Contrast Reset - reset the contrast (Black and White C-Touch only)
 - Contrast Up - increase the contrast (Black and White C-Touch only)
 - Error Manager - show the [Error Application Manager](#) (Colour C-Touch only)
 - File Save - save the project (Colour C-Touch only)
 - Free Memory - show the amount of free memory on the computer (Colour C-Touch only)
 - Internet - change the Internet settings (Colour C-Touch only)
 - Log, Show - show the [log](#) (Colour C-Touch only)
 - Logic Edit - edit the [Logic](#) (Colour C-Touch only)
 - Media Player - show the [Media Player](#) control (Colour C-Touch only)
 - Processor Usage - show the amount of processor usage on the computer (Colour C-Touch only)
 - Project Options - edit the [project details](#) (Colour C-Touch only)
 - Region - set the computer region settings (Colour C-Touch only)
 - Restart - restart the computer (Colour C-Touch only)
 - Save Settings - save settings to registry (Colour C-Touch only)
 - Simulation Mode Enter [Simulation Mode](#)
 - Simulation Mode Exit Simulation Mode
 - System IO, User - show the [User System IO](#) form (Colour C-Touch only)

- Utilities - show the utilities form (Colour C-Touch only)

The same end result can be achieved by placing a component on a page, then setting its [properties](#).

Various [templates](#) are supplied with the PICED software to quickly add sets of related components, such as for editing Scenes, Schedules or Irrigation.

4.9.6 Manipulating Components

Before a [Component](#) can be manipulated, it must be [selected](#). If you are wanting to manipulate several components at once, select the required components first, then manipulate them together.

Components may be manipulated in the following ways :

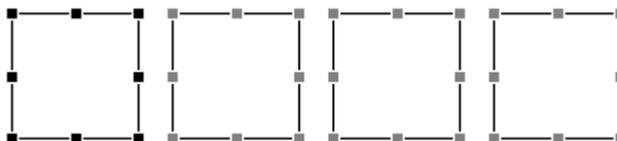
- [Moved](#)
- [Stretched](#)
- [Copied](#)
- [Deleted](#)
- [Painted](#)

Most of the above functions can also be accessed from the [Tool Bars](#).

4.9.6.1 Component Selection

Before a [Component](#) can be [manipulated](#), it must be selected by clicking on it with the left mouse button. You will see the component highlighted with black dots at the corners and sides. Clicking outside of the component will de-select it.

If you are wanting to manipulate several components at once, select the first component by clicking on it. Hold down the CTRL key while you select subsequent components. Clicking on a component a second time will deselect it. You will notice that subsequently selected components have grey dots rather than black ones. The component with the black dots is known as the primary selection, the others are secondary selections. They are treated slightly differently for some actions.



To select all components in an area, hold down the Shift key, then click with the left mouse button and drag around the area of the components that you wish to select. If the Primary Selection component is important, select that first (by clicking on it), then select the area.

You can also select all of the components by using the **Select All** speed button or selecting the **Edit | Select | Select All** menu item.

Multiple components can be de-selected by selecting the **Edit | Select | Deselect All** menu item or by clicking somewhere outside of all of the selected components.

To select a hidden component, select the **Edit | Select | Select Hidden Components** menu item.

To select a particular component number, select the **Edit | Select | Select Component No** menu item.

See also [Component Manipulation](#) and [Grouping Components](#).

4.9.6.2 Moving Components

To move one or more [Components](#), [select](#) them, then move by dragging them with the mouse or using the CTRL + [Arrow Keys](#). If you have selected more than one Component, you can click on any of them to drag the entire group. While you are moving the components, you will see an outline of where they will be placed.

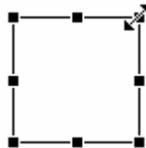
If you are unable to move Components, it may be because the Components are [Locked](#).

4.9.6.3 Component Size

The size of [Components](#) can be set in several ways.

Some components can have their size set as they are [placed](#). When placing these components, click on the screen where you want one corner to be, drag to where you want the diagonally opposite corner to be and release the mouse button.

After a component has been placed, you can [select](#) it and adjust the size by placing the cursor over one of the selection dots. The cursor will change to show which way the size will be adjusted (left-right, up-down or diagonally) :



Click on the dot and drag to the required size. Release the mouse button when the size is right.

A component's size can also be adjusted precisely by [editing](#) it and typing in the required size.

To change the size of components to match the size of another component, [select](#) the component that you want the others to match (the primary selection). Then select the other component(s) - these are the secondary selections. The height, width or both can be set by either clicking the size speed buttons on the [tool bar](#) or selecting the **Edit | Size** menu, then selecting **Height**, **Width** or **Both**.

Some components have a minimum size. If you try to set the size too small, it will be automatically adjusted.

If you are unable to resize Components, it may be because the Components are [Locked](#).

See also [grid](#).

4.9.6.4 Copying and Deleting Components

To copy one or more [Components](#), [select](#) them then :

- click on the **copy** item from the **edit** menu;
- click on the **copy** speed button on the [Edit Tool Bar](#); or
- press **CTRL + C**

To cut one or more components, select them then :

- click on the **cut** item from the **edit** menu;
- click on the **cut** speed button on the Edit Tool Bar; or
- press **CTRL + X**

To paste the copied/cut Component(s) :

- [Select](#) the [Page](#) where you want the new Components to be
- click on the **paste** item from the **edit** menu; or
- click on the **paste** speed button on the Edit Tool Bar; or
- press **CTRL + V**

The new Component(s) will be placed next to the copied/cut one. If you changed pages before pasting, it will appear in the same position as the copied/cut Component(s), but on the new page.

To delete one or more components, select them then :

- click on the **delete** item from the **edit** menu;
- click on the **delete** speed button on the Edit Tool Bar; or
- press the **delete** key

4.9.6.5 Paint Format

Once the format of a Component has been set to achieve some kind of visual effect, the format itself may be copied to other similar Components in the project. This is called "Painting Format".

The Paint Format will copy the format (border and background styles) of the copied component to the second one. If the copied component is the same type as the painted component(s), more than just the border and background will be painted, depending upon the component type.

To paint the format of one or more [Components](#) :

- [Copy](#) a component with the desired format
- [Select](#) the component(s) to be changed
- Click on the **paint format** item from the **edit** menu; or
- Click on the **paint format** speed button on the [Edit Tool Bar](#); or
- Press **CTRL + F**

4.9.6.6 Copy Group Address

To copy the [controlled Group Address](#) from one component to another :

1. [Select](#) the component to be copied from
2. Select one or more other components to be copied to
3. Press **CTRL + G** or select the **Edit | Copy Group Address** menu item
4. The Group Address will be copied from the [Primary Selected](#) to the secondary selected components

Note that if a component controls a [System IO Variable](#), this will be copied instead.

4.9.6.7 Component Order

[Components](#) are drawn on the page in the order in which they are placed. Sometime it is desirable to change the order so that a particular component will be drawn behind another one, for example.

To change the order in which components are drawn :

- [Select](#) the component which is to change
- Select the **Order** menu from the **Edit** menu, and select
 - Move Back
 - Move to Back
 - Move Forward
 - Move to Front; **or**
- Select one of the order speed buttons on the [tool bar](#).

Note that the component that is on top will be the one [activated](#) when clicked. Any components which have no action when clicked will be ignored when determining which component was activated.

4.9.6.8 Component Alignment

[Components](#) are drawn on the page where they are placed. Sometime it is desirable to move one or more components so that they line up with each other or with the page outline. To change the component alignment :

- [Select](#) the component(s) which you want to change
- Select the **Align** menu item from the **Edit** menu or click on the **Align** speed button on the [tool bar](#)
- Select the required actions in the Component Alignment form (see below)
- Click on **OK**

The screenshot shows the Component Alignment dialog box with the following sections:

- Align to Primary Selection:** Contains three icons for horizontal alignment (Left, Centres, Right) and three for vertical alignment (Tops, Centres, Bottoms). A 'None' button is also present.
- Grid:** Contains a checked checkbox labeled 'Snap To Grid'.
- Align to Page Centre:** Contains two horizontal alignment options (Components, Group) and two vertical alignment options (Components, Group), plus a 'None' button.
- Space Evenly:** Contains two horizontal spacing options (Selection, Page) and two vertical spacing options (Selection, Page), plus a 'None' button.

If one or more Components are aligned with respect to another Component, the [Primary Selection](#) is the one that the others will be aligned to.

Alignments can be made in several ways :

- Secondary selections can be aligned with respect to the primary selection horizontally or vertically
- Components may be aligned to the centre of the page, either individually or as a group, horizontally or vertically
- Components can be spaced evenly, either within the group or across the page, horizontally or vertically

It is not possible to do more than one type of alignment at a time, as this may give unpredictable results.

If the **Align to Grid** check box is selected, all of the selected components will be placed on the [grid](#).

It is also possible to align the left, top, right or bottom sides of selected components by means of the **Edit | Align** menu items or by the [Keyboard Shortcuts](#).

 Note that some alignment options are not available with [Grouped Components](#).

4.9.6.9 Lock Components

The **Lock Components** items in the **Page** menu can be used to prevent the [Components](#) on the [Pages](#) from being moved or re-sized. If they are locked, they can still be [selected](#) and [edited](#).

Use **Page | Lock Components (all Pages)** to lock the components on all pages.

Use **Page | Lock Components (this Page)** to lock just the components on the current page. You can also control this by editing the [Page Properties](#).

4.9.6.10 Grouping Components

Component Groups are used to manipulate ([Select](#), [Copy](#), [Paste](#), [Delete](#) or [Move](#)) a group of [Components](#) as if they were a single Component. When a Component in a Component Group is selected, all Components in its Component Group will also be selected. Once the Components are selected, all other actions (copy, paste, delete, move) are the same as normal.

Components can be grouped together to give a Component Group as follows :

- [Select](#) the Components to be in the Group
- Select the **Edit | Group Components** menu item

Components in a Component Group can be removed from the Component Group as follows :

- [Select](#) the Components to be removed from their Component Group
- Select the **Edit | Un-Group Components** menu item

To view the numbers of the Component Groups, select the **View | Component Labels | Component Groups** menu item. Each Component Group will have a unique number.

4.9.7 Running Programs

When a component is [activated](#), it can cause some [Special Functions](#) to be executed. If you are creating a project for Colour C-Touch, you can use a Special Function to play a sound file (wav format). Colour C-Touch does not currently support running other programs.

On the Special Functions tab, when the **Run Program** option is selected, there are two boxes to enter data :

- Program or File : This is the wav file to be played
- Parameters : This can be ignored

Notes :

The files selected will be copied to the project directory when it is [saved](#).

If the path to a program or file contains spaces, it may be necessary to enclose the path and executable name within double quotes (eg. "C:\Program Files\Internet Explorer\IEXPLORE.EXE").

If you are having problems getting the selected program to run, it is recommended that you test that you have the details correct. From the Windows **Start** menu, select **Run**. Copy the data from the **Program or File** and **Parameters** edit boxes into edit box on the Windows Run form and click on the **OK** button.

4.9.8 Grid

It can be difficult to get [Components](#) to line up exactly when they are placed onto a [Page](#). To make this easier, the components are placed on a "grid" which is set by default to be every 8 pixels. This means that a component can only be placed every 8 pixels, making them easier to line up. When

[dragging](#) a component, you will see it jump from one grid point to the next, so that the top left corner is always on a grid point.

The grid can be set to between 1 and 32 pixels by selecting the **Project | Grid** sub-menu and selecting the required value.

There are two other options under this menu. The **Snap Size to Grid** makes the size a multiple of the grid, rather than having the bottom right corner of the component actually on the grid.

The **Snap All To Grid** item puts all components on the page back on the grid. This is used if you have changed the grid size.

The grid can be displayed as dots or lines by selecting **Project | Grid | Show Grid Dots** or **Project | Grid | Show Grid Lines** respectively.

See also [Component Alignment](#)

4.9.9 Undo

The **undo** function takes the project back to a previous state. If operations are carried out (creating a component, moving a component re sizing etc) then by successive application of the undo action, the project can be returned to the state before those operations were performed. A maximum of six operations can be "undone".

To undo your last action :

- select the **Undo** item from the **Edit** menu
- click on the **Undo** speed button on the [Tool Bar](#)

The **Undo** item in the **Edit** menu shows what action will be undone.

4.10 Themes

Themes can be used to make the pages and components have the same style. This helps to produce attractive and usable Projects simply.

A Theme consists of a series of Theme Pages which contain the "templates" to be used for the [Pages](#) and [Components](#) in the Project.

For example, you may wish to have a particular background colour and some images for all of the Pages in your Project. By placing these on a Theme Page, they can easily be used by all of the other Pages in your project. If you decide to change the look of the Project, you can just change the Theme Page, and all of the other Pages in the Project using this Theme Page will automatically change to the new Theme.

To create a Theme :

- Create one or more [Theme Pages](#)
- On the first Theme Page, add any [Theme Components](#) required
- On the second and subsequent pages, add any [Components](#) to give the desired appearance
- On the Project Pages, select the [Page Theme](#)
- Save the project as a Theme by selecting **File | Save as Template** and save the project to the \templates\themes folder in a new folder
- If you wish to have a preview image of the theme on the project wizard, save a screen image of the project called preview.jpg in the same folder. You can use the **Tools | Reports | Save Screen** menu item to do this.

4.10.1 Theme Components

When a [Component](#) is [placed](#) on a [Page](#), it has a default appearance. This appearance can be [edited](#) to make it look however you want. It is more convenient to have the Components have the correct style when they are first placed, rather than having to change them afterwards. To achieve this, you can set some [Theme](#) Components with the styles that you wish to have.

The process is :

- Create one or more [Theme Pages](#)
- On the **first** of the Theme Pages (the Theme Components Page), place the Components you wish to use in your theme (one of each type)
- Edit the Components on the Theme Components Page to achieve the desired appearance
- Every time you place a new Component, it will take on the appearance of the corresponding Theme Component

When a component is placed by clicking an icon on the [Tool Bar](#), if there is a corresponding Theme Component, then it will be placed. If not, then the default one will be placed. The component chosen from the theme components page, depends on which type of component is being placed :

- **Text** : the first text Component on the Components Theme Page
- **Shape** :
 - if placing a shape with a flat border, then it will be the first flat Shape Component on the Theme Components Page
 - if placing a shape with a 3D border, then it will be the first 3D Shape Component on the Theme Components Page
- **C-Bus Button** : the first Button Component on the Theme Components Page which has a C-Bus type set
- **Text Button** : the first Button Component on the Theme Components Page which does not have a C-Bus type set
- **Level** : the first Level Component on the Theme Components Page
- **Indicator** : the first Shape Component on the Theme Components Page which has a C-Bus type set
- **Clock** : the first Clock Component on the Theme Components Page
- **Slider** : the first Slider Component on the Theme Components Page which is a Slider type
- **Bar Graph** : the first Slider Component on the Theme Components Page which is a Bar Graph type
- **Monitor** : the first Monitor Component on the Theme Components Page
- **Selector** : the first Selector Component on the Theme Components Page
- **HTML** : the first HTML Component on the Theme Components Page
- **Graph** : the first Graph Component on the Theme Components Page
- **Calendar** : the first Calendar Component on the Theme Components Page

Notes

If you have more than one of a particular type of theme component (for example, C-Bus Buttons), only the first one will be selected when placing a component. To change which one is to be used as the default, select the required one and click on the **Move to Back** tool bar button or menu item or the **Edit | Use as Theme Component** menu item. This will then make it the "first" one and hence it will be selected in the future. To highlight the Components used as the Theme Components, select the **View | Highlight Theme Components** menu item.

If you want the [automatic labelling](#) of buttons to work (based on what they control), you will need to leave the text on the Theme button components as "text".

If you edit a Theme Component, you can change all similar Components in the project by :

1. [Selecting](#) the Theme Component (on the Theme Components page) then
2. Selecting the **Edit | Apply Selected Theme Style to All** menu item.

To change Components on a Page to match the Theme style :

1. [Select](#) the Components to be changed
2. Select the **Edit | Apply Theme Style to Selected** menu item.

To apply the theme style for all Component types to all Components on all Pages, select the **Edit | Apply Theme Style to All** menu item.

4.10.2 Theme Pages

To add a Theme Page, select the **Page | New Theme Page** menu item. Enter the name of the page (or use the default) and click on the **OK** button. It is recommended that the name of the page starts with the word "Theme" in order to distinguish that this is a Theme Page, rather than a regular Page.

The first of the Theme Pages is used for the [Theme Components](#). The rest of the Theme Pages can be used as a "background" for the other pages in a Project.

A Theme Page can have its background [Colour](#) set and have any other [Components](#) placed on it. When this Theme Page is used by another Page, the Theme Page will be drawn as a background for the Page, and then the Page's components will be drawn on top.

If the theme template has multiple pages in it, to make the Theme Page work automatically with the Project Wizard [Auto Page Creation](#) process :

- Name the menu page (if used) "Menu"
- Name general purpose pages "Page 1", "Page 2" and so on
- Name other pages (such as tools) something meaningful (not "Page x") so that their purpose is clear

To edit the Theme Page of the currently displayed page, either:

1. Use the **Page | Show Theme Page** menu item
2. Use **Ctrl + Shift + P**
3. Hold **Alt** key while double clicking on the page

4.10.3 Using Themes

Once a Theme Page has been selected for a Project Page, you will see the Theme Page in the background. You can not [Select](#) or [edit](#) the Theme Page components without [Selecting](#) the Theme Page first. You can [Activate](#) the Theme Page components, however.

Theme Pages can be based on other Theme Pages. In this way a hierarchy of Theme Pages can be created, where changing the properties of the parent Theme Page will affect the appearance of the child Theme Pages, and any Project Pages based on either the parent or child.

Themes can be loaded as [Templates](#).

To get a better understanding of Themes, create a [New Project](#) using one of the supplied Theme Templates and :

- add some new Pages and [set](#) the Theme Page
- add some components to the new Pages
- change the Theme Pages and observe what happens to the new Pages

4.11 Sub-Pages

Sub-Pages are [Pages](#) which can be re-used (like [Theme Pages](#)) in multiple places in a Project. They are generally smaller than a normal page and can be displayed within a [Sub-Page Frame](#) on a page. They can also be used for pop-out menus and other dynamic effects.

To add a new Sub-Page:

1. Select the **Page | New Sub Page** menu item
2. Select the [Page Properties](#) and [Sub-Page Properties](#)
3. Click on **OK**

You will see that only part of the work area is the selected background colour of the Sub-Page. The rest of the area is grey. This shows the size of the Sub-Page relative to a regular page. You can now [add Components](#) to the Sub-Page. You will only be able to place Components within the Sub-Page area.

To use the Sub-Page on a Page:

1. Place a [Sub-Page Frame](#) on the Page. When a Sub-Page Frame Component is first placed on a page, it will be invisible unless you have selected the **View | Show Sub-Page Frame Border** menu item option.
2. Edit the Sub-Page Frame properties to select the [Size](#) (should match the size of the Sub-Page) and the [Default Sub-Page](#)

The Sub-Page Frame component will initially display the [Default Sub-Page](#). The Sub-Page displayed in the frame can then be changed using [Sub-Page Links](#).

For additional details on the use of Sub-Pages, see the Sub-Page [example project](#).

4.12 Profiles

Profiles

Sometimes it is useful to have several [Projects](#) which are almost identical except for some minor details. To support this requirement, Profiles can be used. A Profile is used to provide selection of properties of a Project based on where the Project is to be used.

A typical example would be where a project is loaded into touch screens in different rooms and they have mostly the same features, but with a different time-out page applicable to that room. For example, you may want to have three profiles named "Main Bedroom", "Kids Room 1" and "Kids Room 2" for three different touch screens. You could create a single Project and handle the differences between the touch screens using the Profiles.

The properties which can be select based on a Profile include:

- [Time-out Page](#)
- [Start-up Page](#)
- [Master Unit](#)
- Component [Visibility](#)
- [Schedules](#)
- Colour C-Touch [Local IP Address](#)

Profile Groups

Profiles can also be arranged into groups to allow for rapid selection of properties for Profiles which are related.

For example, it may be desirable to have common properties for touch screens on the same floor, but have them different from touch screens on a different floor. In this case it may be desirable to have a Profile Group called "Floor 1" for the Profiles "Touch Screen 1A" and "Touch Screen 1B" and a Profile Group called "Floor 2" for the Profiles "Touch Screen 2A" and "Touch Screen 2B".

Profiles and Profile Groups can be created using the [Profile Manager](#).

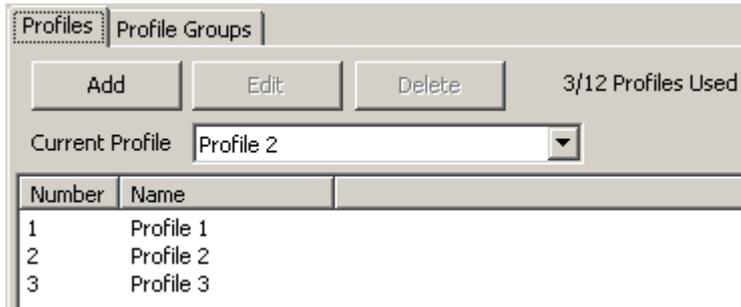
Properties which vary according to the Profile are edited using the [Profile Values](#) form.

4.12.1 Profile Manager

The Profile Manager allows you to view the [Profiles](#) and Profile Groups used in a project, and allows you to add, edit and delete them.

To open the Profile Manager, either:

- Select the Project | Edit Profiles menu item; or
- Click the Profiles button on the [Tool Bars](#)



The **Current Profile** is the Profile currently selected for this Project. The user interface and [Simulation Mode](#) show what you will see on a unit with this Project and Profile. The Current Profile is the Profile used when the Project is transferred to the unit. The Profile can be changed at the time of transfer if required.

Profiles

Adding a Profile

To Add a new Profile:

1. Select the **Profiles** tab
2. Click on the **Add** button
3. The Profile Editor will open
4. Enter the name of the Profile
5. Click on **OK**

For [Wiser](#) Projects, a Profile has a user name and password. This is used by Wiser to provide a different user interface (as controlled by the Profile) to each different user.

Editing a Profile

To edit an existing Profile:

1. Select the **Profiles** tab
2. Either:
 - Double click on the required Profile; or
 - Click on the Profile to select it, then click on the **Edit** button
3. The Profile Editor will open
4. Alter the details of the Profile
5. Click on **OK**

Deleting a Profile

To delete an existing Profile:

1. Select the **Profiles** tab

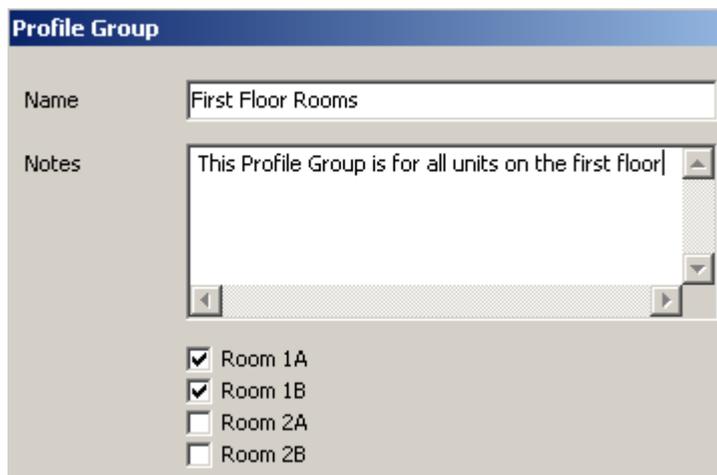
2. Click on the Profile to select it, then click on the **Delete** button

Profile Groups

Adding a Profile Group

To Add a new Profile Group, you will need three or more Profiles created (see above) then:

1. Select the **Profiles Groups** tab
2. Click on the **Add** button
3. The Profile Editor will open
4. Enter the name of the Profile Group
5. Select the Profiles which are part of the Group
6. Click on **OK**



The screenshot shows a dialog box titled "Profile Group". It has a "Name" field with the text "First Floor Rooms" and a "Notes" text area containing "This Profile Group is for all units on the first floor". Below the text area are four checkboxes: "Room 1A" (checked), "Room 1B" (checked), "Room 2A" (unchecked), and "Room 2B" (unchecked).

See also [adding Profile Groups](#).

Editing a Profile Group

To edit an existing Profile Group:

1. Select the **Profile Groups** tab
2. Either:
 - Double click on the required Profile Group; or
 - Click on the Profile Group to select it, then click on the **Edit** button
3. The Profile Group Editor will open
4. Alter the details of the Profile Group
5. Click on **OK**

Deleting a Profile Group

To delete an existing Profile Group:

1. Select the **Profile Groups** tab
2. Click on the Profile Group to select it, then click on the **Delete** button

4.12.2 Profile Values

Integer Properties

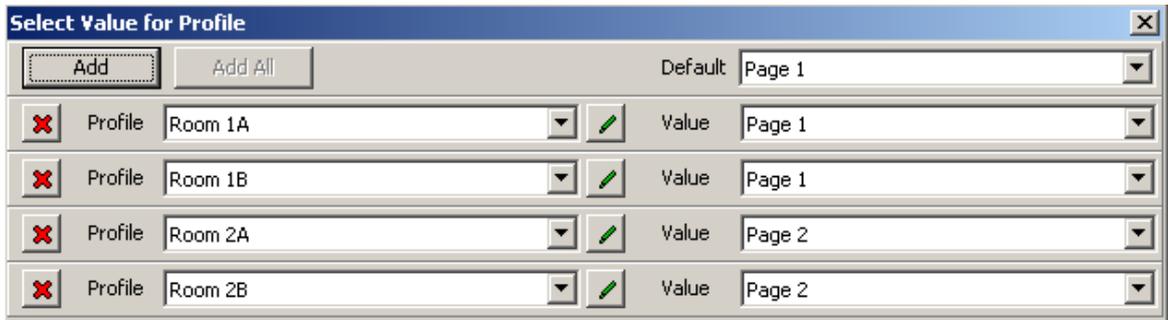
In places where an integer property can vary depending on the [Profile](#), you will see an edit button next to a drop-down list box:



If the property is the same in all profiles, you will see the value displayed (as above). If the property varies with different profiles, it is not possible to display the value so you will see something like this:



Clicking on the edit button will open the Profile Value form:



This form allows you to select different values for different Profiles or Profile Groups. In the example above, the time-out page for Profiles "Room 1A" and "Room 1B" is "Page 1" and the time-out page for Profiles "Room 2A" and "Room 2B" is "Page 2".

To add a new Profile/Value pair, click on the **Add** button. To add a Profile/Value pair for all Profiles, click on the **Add All** button.

To delete a Profile/Value pair, click on the delete button (**X**) next to the Profile.

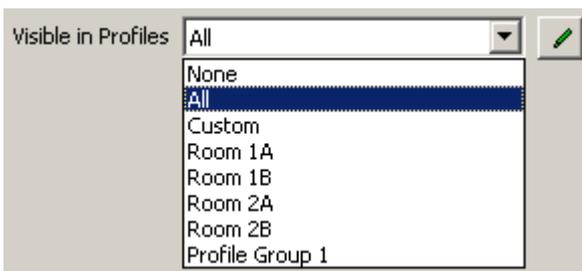
If a particular profile is not listed, then the value will be the **Default** value. So in the example above, if there was a Profile called "Room 3A", then the time-out page for that Profile would be "Page 1" because that is the Default value.

Boolean (True/False) Properties

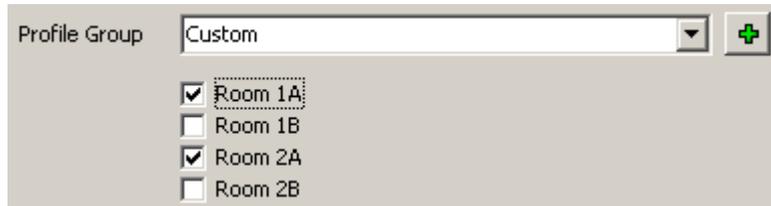
In places where a Boolean (ie. either true or false) property can vary depending on the [Profile](#), you will see an edit button next to a drop-down list box instead of the normal check box used to select a Boolean Value:



These properties will have a drop-down list of options to allow you to select which Profiles the value is true for. For example, the Component [Visibility](#) property can be set so that the Component will be visible for some Profiles, but not for others:



If a different combination of profiles is required, click on the edit button and the Profile Value editor will open:



If you select a combination of Profiles which does not already exist as a profile Group, the add button (+) will be enabled. Clicking on this button will add a Profile Group with this selection of Profiles.

String Values

String values which vary by profile are handled in the same way as [Integer](#) values.

4.13 Special Functions

Special Functions perform various actions in the software. They can be executed by [Components](#), [Schedules](#) or [Logic](#).

Special Functions for the Colour C-Touch include :

- **None** : no Special Function is used
- **Access Control Edit** - Open the [Access Control Manager](#)
- **Alarm Off** – this stops the alarm
- **Alarm On** – this starts an [alarm](#)
- **Alarm Snooze** – this delays the alarm for a set amount of time
- **Audio All Off** - switch off all audio zones
- **Audio Manager, Show** - display the [Audio Application Manager](#)
- **Audio Next Source** - select the next Source for this Zone
- **Audio Previous Source** - select the previous Source for this Zone
- **Backlight Bright** - set the backlight level to the brighter setting
- **Backlight Dim** - set the backlight level to the dim setting
- **Button Press Warning** - displays a message warning the user not to press the button
- **Calibrate Touch Screen** - run the program to calibrate the touch screen
- **Cleaning Mode** - this disables the touch screen so that it can be cleaned
- **Clear Historical Data** - this clears data from [Graphs](#) and [Pulse Power Meters](#)
- **Date/Time Form, Show** - Set the computer Date, Time and [Timezone](#)
- **Date/Time, Cancel** - cancel the adjustment of the date/time
- **Date/Time, Set** - set the time to that selected using the [in-built System IO](#)
- **E-Mail Manager, Show** - show the [E-Mail Manager](#)
- **E-Mail, Delete** - delete the selected E-Mail
- **E-Mail, Show** - show the E-Mail messages
- **Error Application, Clear Most Severe** - clear any Most Severe [errors](#)
- **Error Manager, Show** - show the [Error Manager](#) form
- **HVAC Manager, Show** - show the [HVAC Application Manager](#)
- **Installer Details** - shows a form with [details of the installer](#)
- **Internet Setup** - Set the computer Internet properties
- **Irrigation Edit** - Open the [Irrigation Manager](#)
- **Irrigation, Rain Delay** - allow the user to enter a [rain delay](#)
- **Irrigation, Run Zone** - Run an [Irrigation](#) Zone (manual control)
- **Irrigation, Stop** - stop the [Irrigation Program](#) from running
- **Labels, Clear** - clear all C-Bus Labels

- **Labels, Set Language** - set a new language for C-Bus Labels
- **Labels, Show Form** - show the C-Bus [Labels](#) form
- **Load Monitor Show** - Show [Load Monitor](#)
- **Log Show** - Show [Log](#)
- **Logic Edit** - show the Logic Editor
- **Log-in** - this shows the log-in page
- **Log-out** - this logs the user out and returns to the start-up page
- **Measurement Manager, Show** - show the [Measurement Application Manager](#) form
- **Media Player Control** - control a remote [Media Player](#) or iPod Server
- **Media Transport Control Next Category** - select the next [Category](#)
- **Media Transport Control Next Selection** - select the next [Selection](#)
- **Media Transport Control Next Track** - select the next [Track](#)
- **Media Transport Control Previous Category** - select the previous Category
- **Media Transport Control Previous Selection** - select the previous Selection
- **Media Transport Control Previous Track** - select the previous Track
- **Media Transport Control, Show Form** - show the [Media Transport Control Application Manager](#)
- **Module Disable** - disable a Logic Module to stop it from running
- **Module Enable** - enable a Logic Module
- **Monitor Form, Show** - show the [Monitor Manager](#)
- **Networking Setup** - Set the computer networking properties
- **Network Manager** - Show the [C-Bus Network Manager](#) form
- **Page Transition** - sets the [Page Transition](#) effect. The new effect will apply until it is changed again or the software re-starts.
- **Password Character** - enter a character of the user password
- **Password Clear** - clear the currently entered password
- **Password Edit** - edit the user password
- **Password Enter** - enter the password (and log-in if successful)
- **Power Meter Manager, Show** - show the [Power Meter Manager](#)
- **Program Run** - run a Program
- **Project, Edit Options** - opens part of the [Project Details](#) form
- **Project Details** - shows a form with [details of the Project](#)
- **Project, Save File** - [save](#) the [Project](#) file
- **Region/language** - Set the computer Region (date/time formats etc)
- **Re-Start** - re-starts the Colour C-Touch
- **Re-Start HomeGate** - re-starts HomeGate only (Colour C-Touch keeps running)
- **Save Settings** - saves any changes made to Calibration or sound level in Colour C-Touch
- **Scene Edit** - If **All Scenes** is selected then the [Scene Manager](#) will be opened. If **Specific Scene** is selected, then the selected scene will be opened.
- **Scene Store** - store the current settings for the selected Scene
- **Scene, Set Selected** - set the Scene selected using [In-built System IO](#)
- **Scene, Store Selected** - store the Scene selected using [In-built System IO](#) (only stores levels of lighting groups)
- **Schedule Edit** - If **All Schedules** is selected then the [Schedule Manager](#) will be opened. If **Specific Schedule** is selected, then the selected schedule will be opened.
- **Schedule Synchronise** - [Synchronise to Schedules](#)
- **Security Alarm** - raise an alarm (activate the security system)
- **Security Arm** - arm the [security](#) system
- **Security Form, Show** - show the form summarising the [Security Application](#) data
- **Security Keypad** - emulate a security keypad key press
- **Security Status Request** - send a status request message to any C-Bus security panels to get their current status
- **Sound Set** - Set the computer Sound
- **Special Day Edit** - Open the [Special Days Manager](#)
- **Sub-Page Transition** - sets the [Page Transition](#) effect for [Sub-Pages](#). The new effect will apply until it is changed again or the software re-starts.
- **System IO Edit** - if **All System IO** is selected, then the System IO Manager will be opened. If

- **Specific System IO** is selected then the selected System IO Variable will be opened.
- **Telephony Divert** - divert the [telephone](#) to another number
- **Telephony Divert Clear** - clear the telephone diversion
- **Telephony Form, Show** - show the form summarising the [Telephony Application](#) data
- **Telephony Reject Incoming Call** - reject (hang-up) the incoming telephone call
- **Utilities** - control backlight and other hardware features (colour C-Touch only)

For Black and White C-Touch and C-Touch Spectrum projects the Special Functions are :

- **None** : no Special Function is used
- **Alarm Off** – this stops the alarm
- **Alarm On** – this starts an [alarm](#)
- **Alarm Snooze** – this delays the alarm for a set amount of time
- **Audio All Off** - switch off all audio zones
- **Audio Next Source** - select the next Source for this Zone
- **Audio Previous Source** - select the previous Source for this Zone
- **Backlight Off** - switch the backlight off
- **Backlight On** - switch the backlight on
- **Contrast Down** - lighten the screen
- **Contrast Up** - darken the screen
- **Contrast Reset** - reset contrast to the default setting
- **Date : Day Down** - decrease the day
- **Date : Day Up** - increase the day
- **Date : Month Down** - decrease the month
- **Date : Month Up** - increase the month
- **Date : Year Down** - decrease the year
- **Date : Year Up** - increase the year
- **Date/Time, Cancel** - cancel the adjustment of the date/time
- **Date/Time, Set** - set the time to that selected using the [in-built System IO](#)
- **Daylight Savings Start** - start [daylight savings](#)
- **Daylight Savings Finish** - stop daylight savings
- **Error Application, Clear Most Severe** - clear any Most Severe [errors](#)
- **HVAC, Refresh** - refresh the data for the [HVAC \(Air Conditioning\) Application](#) (monitored Zone Groups only)
- **Labels, Set Language** - set a new language for C-Bus Labels
- **Log-in** - this shows the log-in page
- **Log-out** - this logs the user out and returns to the start-up page
- **Media Transport Control Next Category** - select the next [Category](#)
- **Media Transport Control Next Selection** - select the next [Selection](#)
- **Media Transport Control Next Track** - select the next [Track](#)
- **Media Transport Control Previous Category** - select the previous Category
- **Media Transport Control Previous Selection** - select the previous Selection
- **Media Transport Control Previous Track** - select the previous Track
- **Media Transport Control Status Request** - send a command for the Media Transport Control information (Category, Selection and Track names) to be updated. A command is sent for each Media Link Group used in the project.
- **Media Transport Control, Show Form** - show the [Media Transport Control Application Manager](#)
- **Password Character** - enter a character of the user password
- **Password Clear** - clear the currently entered password
- **Password Edit** - edit the user password
- **Password Enter** - enter the password (and log-in if successful)
- **Scene Edit** - If **All Scenes** is selected then the [Scene Manager](#) will be opened. If **Specific Scene** is selected, then the selected scene will be opened.
- **Scene Store** - store the current settings for the selected Scene
- **Scene, Set Selected** - set the Scene selected using [In-built System IO](#)

- **Scene, Store Selected** - store the Scene selected using [In-built System IO](#)
- **Schedule Edit** - If **All Schedules** is selected then the [Schedule Manager](#) will be opened. If **Specific Schedule** is selected, then the selected schedule will be opened.
- **Security Alarm** - raise an alarm (activate the security system)
- **Security Arm** - arm the [security](#) system
- **Security Keypad** - emulate a security keypad key press
- **Special Day Edit** - Open the [Special Days Manager](#)
- **Telephony Divert** - divert the [telephone](#) to another number
- **Telephony Divert Clear** - clear the telephone diversion
- **Telephony Reject Incoming Call** - reject (hang-up) the incoming telephone call
- **Threshold Set** - store the current light level for the [threshold](#)
- **Time : Hour Down** - decrease the hour
- **Time : Hour Up** - increase the hour
- **Time : Minute Down** - decrease the minute
- **Time : Minute Up** - increase the minute
- **Time : Reset Seconds** - reset the seconds to 0

Note that the date and time setting special functions do not operate in Simulation Mode in PICED.

Many of these things are normally done with the [special pages](#) which are included with C-Touch. There may be occasions where it is necessary to control these features from other pages (for example, having a time setting page in another language).

For PAC projects, the Special Functions are :

- **None** : no Special Function is used
- **Daylight Savings Finish** - stop [daylight savings](#)
- **Daylight Savings Start** - start daylight savings
- **Module Disable** - disable a Logic Module to stop it from running
- **Module Enable** - enable a Logic Module

4.14 System IO Variables

System IO Variables are used to provide interaction between the user and various elements of the PICED software. They can be controlled by [Components](#) or [Logic](#). System IO Variables have a value which can be displayed and/or changed. They are different from [Special Functions](#), which have no value associated with them.

There are two categories of System IO Variables :

- [In-built](#) : these provide interaction with things like [Scenes](#), [Schedules](#) and [Irrigation](#)
- [User](#) : these are customisable to allow control and monitoring of [logic](#)

System IO Variables are one of the following types:

Type	Meaning	Component Usage
Integer	A "whole" number (-2147483647 to +2147483647) (-99999 to +99999 for Wiser Home Control)	Level Indicators to show value . Buttons to nudge or preset . Sliders to show or set value Selectors to show or set value
Real	A number including a fractional amount ($\pm 1.5 \times 10^{-45}$ to $\pm 3.4 \times 10^{38}$) (± 0.1 to ± 99999 for Wiser Home Control)	Level Indicators to show value . Buttons to nudge or preset . Sliders to show or set value
Boolean	Either "true" ("on") or "false" ("off")	Level Indicators to show value . Buttons to toggle or preset .
String	Some text (maximum of 50 characters for User System IO variables)	Level Indicators to show value .
Time	A number representing the number of seconds since midnight	Level Indicators or Clocks to show value . Buttons to nudge or preset .
Date	A number representing the number of days since December 30th, 1899 (for the PAC, can only use dates since January 1st, 2000)	Level Indicators or Clocks to show value . Buttons to nudge or preset .

Not all components can display or control all system IO variable types. For example, it is not possible for a clock to display a boolean system IO value.

4.14.1 In-built System IO

In-built [System IO Variables](#) provide interaction with things like [Scenes](#), [Schedules](#) and [Irrigation](#).

The following in-built System IO Variables can be used:

- [Schedule In-Built System IO](#)
- [Scene In-Built System IO](#)
- [Irrigation In-Built System IO](#)
- [Access Control In-Built System IO](#)
- [Logic In-Built System IO](#)
- [Date and Time In-Built System IO](#)
- [Security App In-Built System IO](#)
- [Telephony App In-Built System IO](#)
- [Error App In-Built System IO](#)
- [Measurement App In-Built System IO](#)
- [HVAC App In-Built System IO](#)
- [Audio In-built System IO](#)
- [Labelling In-Built System IO](#)
- [E-Mail In-built System IO](#)
- [Load Monitor In-Built System IO](#)
- [Other](#)

It is recommended that the [Tool Select](#) function be used for adding In-built System IO Components, as it semi-automates the process and it also shows related [Special Functions](#).

Various [templates](#) are supplied with the PICED software to quickly add sets of related components, such as for editing Scenes, Schedules or Irrigation.

4.14.1.1 Scene In-Built System IO

[Scenes](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Scene Number	Number of the selected Scene	Integer	Yes
Scene Count	Total number of Scenes	Integer	No
Scene Name	Name of the selected Scene	String	No
Scene Current Level	C-Bus level of the selected Scene (used for setting all Scene Components to a particular level)	Integer	Yes
Scene Locked	Is the Scene locked for editing?	Boolean	No
Scene Nudge Level	Nudge level of the selected Scene (used for nudging the level of a whole scene) - note that reading this always returns a value of 0	Integer	Yes
Scene Component Number	Number of the selected Scene Component *	Integer	Yes
Scene Component Count	Total number Scene Components in the selected Scene	Integer	No
Scene Component Name	Name of the selected Scene Component *	String	No
Scene Component Level	Stored C-Bus set-level of the selected Scene Component *	Integer	Yes
Scene Component Current Level	The current level of the C-Bus Group Address of the selected Scene Component *	Integer	Yes
Scene Component Ramp Rate	Ramp rate for the selected Scene Component (0, 4, 8...1020) *	Integer	Yes
Scene Component Ramp Rate Text	Text description for the selected Scene Component ramp rate ("0s", "4s", "8s"... "17m") *	String	No
Scene Component Locked	Is the Scene Component locked for editing?	Boolean	No

Scenes are controlled via the "Selected Scene". The Selected Scene is the one corresponding to the Scene Number in-built System IO variable, which can be changed to select the required Scene. The name of the Selected Scene can be displayed using the Scene Name in-built System IO variable.

The levels of the Scene Components can be controlled via the "Selected Scene Component". The Selected Scene Component is the one corresponding to the Scene Component Number in-built System IO variable, which can be changed to select the required Scene Component. The name of the Selected Scene Component (Group Address) can be displayed using the Scene Component Name in-built System IO variable. The [Level](#) of the selected Group Address can be displayed and adjusted using the Scene Component Level in-built System IO variable.

Some in-built System IO (marked with * above) have an "offset" which allows the use of more than one of this System IO at the same time with different Components. For example, the level of the selected Scene Component can be shown and controlled, but by using an "offset" of 1, the next one

can be shown and controlled and so forth. See the [In-built System IO Example](#) for details.

Scenes which can not be edited

If a [Scene Locked](#) option is selected, then it will not be able to be edited and the Scene Locked variable will be true.

If a [Scene Component Locked](#) option is selected, then it will not be able to be edited and the Scene Component Locked variable will be true.

See also:

- The [In-built System IO Example](#) for details of how to edit a Scene using in-built System IO variables.
- [Special Functions](#) for editing Scenes.
- The Scene editing [Template](#) which shows how Scene editing can be done.

4.14.1.2 In-built System IO Example

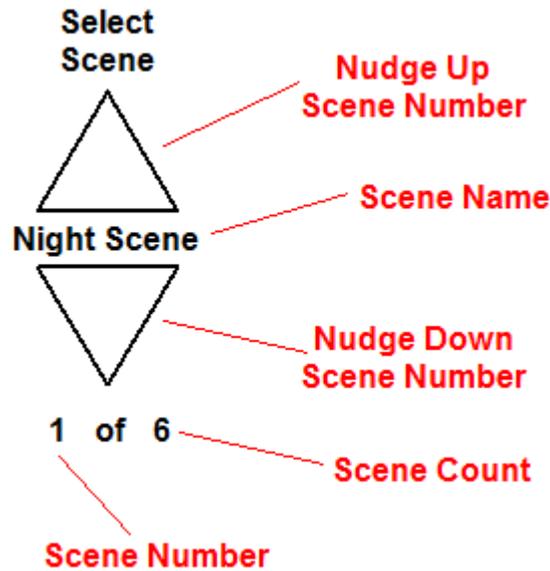
Various [templates](#) are supplied with the PICED software to quickly add sets of related components, such as for editing Scenes, Schedules or Irrigation. It is recommended that these be used, or you modify them to suit your own needs. The example below shows how to assemble the necessary components for editing a [Scene](#).

To allow a [Scene](#) to be selected, and the associated Scene Components to be displayed and controlled, a series of [Components](#) using [In-built System IO](#) variables can be used.

Step 1 - Selecting a Scene

To allow a Scene to be selected, place two [Buttons](#) to nudge up and down the "Scene Number" In-built System IO variable. The easiest way to do this is to use the [Tool Select](#) form :

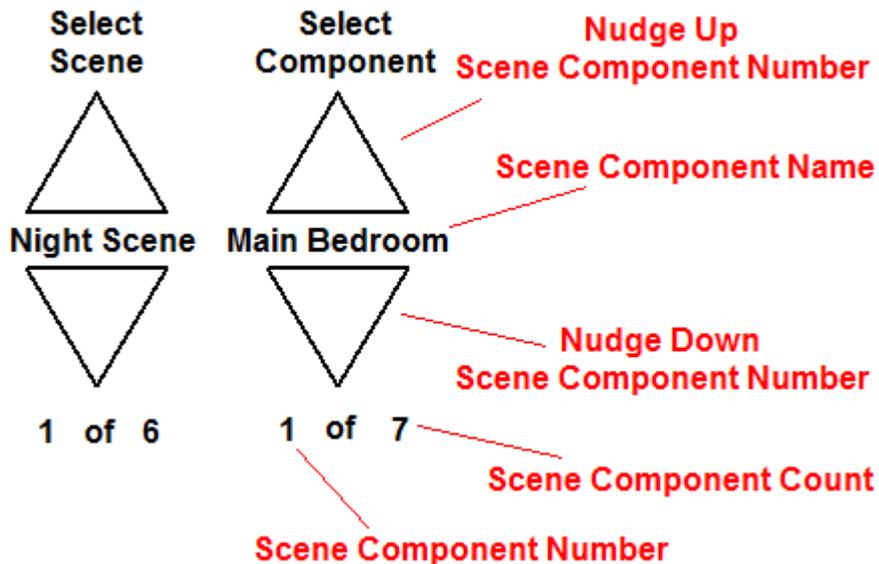
1. Open the **Tools** form by selecting the **Edit | Place Component | Tools** menu item or clicking the **Tools** button on the [Tool Bar](#)
2. Select the Scene **Category** of the tool required
3. Select the "Number Up" or "Number Down" tool **Function**
4. Click on the **OK** button
5. Click on the screen where you want the button placed



You want the user to be able to see the name of the selected Scene, so place a "Scene Name" Component using the [Tool Select](#) form. You may also want to see the number of the Scene and how many Scenes there are, but this is not essential. If you place the components as shown above, you will see the name and number of the selected Scene change as you click on the up and down arrows.

Step 2 - Selecting a Scene Component

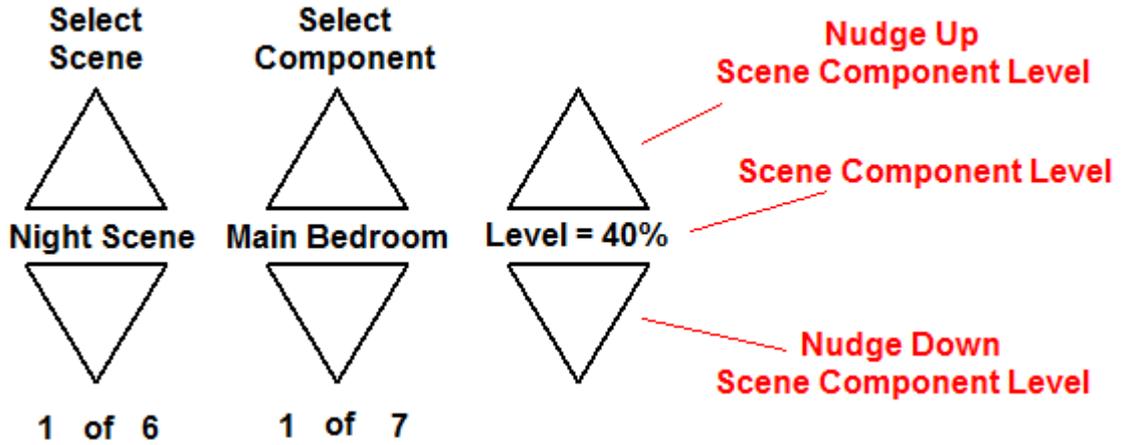
In a similar way, place components using the [Tool Select](#) form to display and select the Scene Component.



You will now be able to click on the Scene Component up and down arrows and see the Scene Component number and name change.

Step 3 - Editing the Scene Component

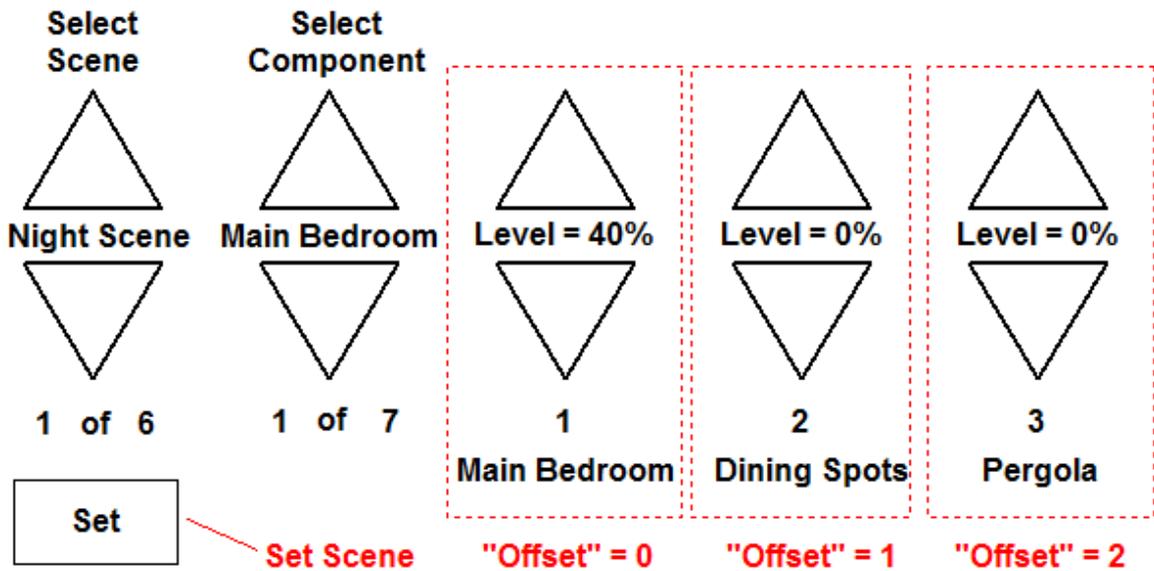
In a similar way, place components using the [Tool Select](#) form to display and select the Scene Component Level.



You will now be able to select a Scene, select a Component within that Scene and adjust the level of that Scene Component.

Step 4 - Optional Features

There is nothing else necessary to have a fully functional Scene editor. If you wish to add some extra functionality, you can allow the display and editing of several Scene Components at once or to allow the Scene to be set so that you can see how it looks.



4.14.1.3 Schedule In-Built System IO

[Schedules](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

General

Variable Name	Usage	Type	Settable ?
Schedule Number	Number of the selected Schedule	Integer	Yes
Schedule Count	Total number Schedules	Integer	No
Schedule Name	Name of the selected	String	No

Variable Name	Usage	Type	Settable ?
	Schedule		
Schedule Locked	Is the Schedule locked for editing?	Boolean	No
Schedule Enabled	Is this Schedule currently enabled ?	Boolean	Yes

Schedule Time

Variable Name	Usage	Type	Settable ?
Schedule Time	Time of the selected Schedule. For sunrise and sunset Schedules, this will be the offset. For repeat time schedules, this will be the interval.	Time	Yes
Schedule Start	The Schedule start time (repeat time and random schedules only)	Time	Yes
Schedule End	The Schedule end time (repeat time and random schedules only)	Time	Yes
Schedule Time Text	Text describing which times the Schedule occurs on	String	No
Schedule Next Due Time	Time the Schedule next occurs on	Time	No
Schedule Time Type	Time the Schedule occurs 0 = Normal 1 = Sunrise 2 = Sunset 3 = Repeat 4 = Random	Integer	Yes
Schedule Has Start & End Time	Does the Schedule have a start and end time? This is only true for repeat and random Schedules.	Boolean	No

Schedule Day

Variable Name	Usage	Type	Settable ?
Schedule Day Text	Text describing which days the Schedule occurs on	String	No
Schedule Day of Week	Does the Schedule occur on a particular day of the week?	Boolean	Yes
Schedule Day of Week Type	Day of week the Schedule occurs 0 = Custom 1 = None 2 = Every day 3 = Week days (Monday to Friday)	Integer	No

Variable Name	Usage	Type	Settable ?
	4 = Weekend (Saturday and Sunday) 5 = Work day (Week days plus holidays) 6 = Non work day 7 = Special day 8 = Non special day		
Schedule Day of Week Mask	Bit-mask controlling the day of the week the Schedule occurs on. See notes.	Integer	Yes
Schedule Day of Month	Does the Schedule occur on a particular day of the month?	Boolean	Yes
Schedule Day of Month Type	Day of month the Schedule occurs: 0 = Custom 1 = None 2 = First week of month 3 = Second week of month 4 = Third week of month 5 = Fourth week of month 6 = Last week of month 7 = Odd days 8 = Even days 9 = Repeat	Integer	No
Schedule Day of Month Mask	Bit-mask controlling the day of the month the Schedule occurs on. See notes.	Integer	Yes
Schedule Day Type	Day of month the Schedule occurs: 0 = Normal 1 = Last Week of Month 2 = Repeat	Integer	Yes
Schedule Month	Does the Schedule occur on a particular month?	Boolean	Yes
Schedule Month Mask	Bit-mask controlling the month the Schedule occurs on. See notes.	Integer	Yes
Schedule Year	Year of the Schedule	Integer	Yes
Schedule Any Year	Does the Schedule occur on any year?	Boolean	Yes
Schedule Is Repeat	Is this a repeat day Schedule ?	Boolean	Yes
Schedule Is Last Week of Month	Is the Schedule for the last week of the month?	Boolean	Yes
Schedule Also On	Does the Schedule also occur on a particular Special Day?	Boolean	Yes
Schedule Not On	Does the Schedule not occur on a particular Special Day?	Boolean	Yes
Schedule Repeat Due	Next due date of the selected Schedule (if it is a repeat Schedule)	Date	Yes

Variable Name	Usage	Type	Settable ?
Schedule Repeat Interval	Day repeat interval of the selected Schedule	Integer	Yes

Schedule Event

Variable Name	Usage	Type	Settable ?
Schedule Level	C-Bus level of the selected Schedule	Integer	Yes
Schedule Pulse Duration	The duration of the Schedule pulse	Time	Yes
Schedule Event	Text describing what the Schedule does	String	No
Schedule Controls C-Bus Group	Does the Schedule control a C-Bus Group?	Boolean	No

Selecting a Schedule

Schedules are controlled via the "Selected Schedule". The Selected Schedule is the one corresponding to the Schedule Number in-built System IO variable, which can be changed to select the required Schedule. The name of the Selected Schedule can be displayed using the Schedule Name in-built System IO variable. The other in-built System IO variables can be used to display and control the properties of the Selected Schedule.

Schedules which can not be edited

If a [Schedule Locked](#) option is selected, then it will not be able to be edited and the Schedule Locked variable will be true.

Displaying and Controlling Schedule Properties

Components can be used to control various properties of the selected Schedule. The Schedule time, day and event can all be displayed or controlled using a combination of [Buttons](#) and [Level Indicators](#).

The Schedule editing [Template](#) shows how Schedule editing can be done. This can be edited to suit the needs of a particular project. It may be desirable to only allow the time for a Schedule to be changed, for example.

Schedule Due dates can be displayed on a [Calendar](#) Component

Bit-masks

Bit-masks are really only of use for [logic](#). The following In-built System IO Variables are only of relevance when used with logic:

- Schedule Day of Week Mask
- Schedule Day of Month Mask
- Schedule Month Mask

See also:

- [Special Functions](#) for editing Schedules.

4.14.1.4 Irrigation In-Built System IO

[Irrigation](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Irrigation Running	Is the Irrigation running ?	Boolean	No
Irrigation Time Remaining	The amount of time left in the currently running Zone	Time	No
Irrigation Program Number	Number of the selected Irrigation Program	Integer	Yes
Irrigation Program Count	Total number of Irrigation Programs	Integer	No
Irrigation Program Name	Name of the selected Irrigation Program	String	No
Irrigation Zone Number	Number of the selected Irrigation Zone *	Integer	Yes
Irrigation Zone Count	Total number of Irrigation Zones	Integer	No
Irrigation Zone Name	Name of the selected Irrigation Zone *	String	No
Irrigation Zone Duration	The Irrigation duration of the selected Irrigation Zone *	Time	Yes
Irrigation Zone Running	Is the selected Irrigation Zone running ? *	Boolean	No
Irrigation Running Zone Name	The name of the currently running Zone	String	No

Irrigation can be controlled via the "Selected Program" and the "Selected Zone".

The Selected Program is the one corresponding to the Program Number in-built System IO variable, which can be changed to select the required Program. The name of the Selected Program can be displayed using the Program Name in-built System IO variable.

The Selected Zone is the one corresponding to the Zone Number in-built System IO variable, which can be changed to select the required Zone. The name of the Selected Zone can be displayed using the Zone Name in-built System IO variable. The Irrigation Time in-built System IO variable can be used to display and control the irrigation duration of the Selected Zone.

Some in-built System IO (marked with a * above) have an "offset" which allows the use of more than one of this System IO. For example, the duration of the Selected Zone can be shown and controlled, but by using an "offset" of 1, the next one can be shown and controlled and so forth. See [In-built System IO Example](#) for details of this concept.

See also:

- [Special Functions](#) for editing Irrigation and Rain Delay.
- The Irrigation editing [Template](#) which shows how irrigation editing can be done.

4.14.1.5 Access Control In-Built System IO

[Access Control](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Access Level	The current Access Level number	Integer	No
Access Level Name	The current Access Level name	String	No
Access User Name	Name of the currently logged-in user	String	No
Access Logged In	Is a user logged in ?	Boolean	No
Access Password	Currently entered password (converted to ****)	String	No

See also:

- [Special Functions](#) for editing Access Control.
- The Access Control [Template](#) which shows how access control can be used.

4.14.1.6 Logic In-Built System IO

[Logic](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Logic Running	Is logic running ?	Boolean	No
Logic Module Enabled	Is a particular logic Module enabled ?	Boolean	No
Logic Timer Time	The time for a selected logic timer	Time	No

See also [Special Functions](#) for editing Logic and enabling/disabling Modules.

4.14.1.7 Date and Time In-Built System IO

[Date/Time](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Date to be set	The new date to be set (see below)	Date	Yes
Time to be set	The new time to be set (see below)	Time	Yes
Daylight Savings	Is Daylight Savings active ?	Boolean	No
Startup Date	The date the project was opened	Date	No
Startup Time	The time the project was opened	Time	No

 The following only applies to Colour C-Touch projects.

There are two [In-built System IO](#) variables used for setting the date and time.

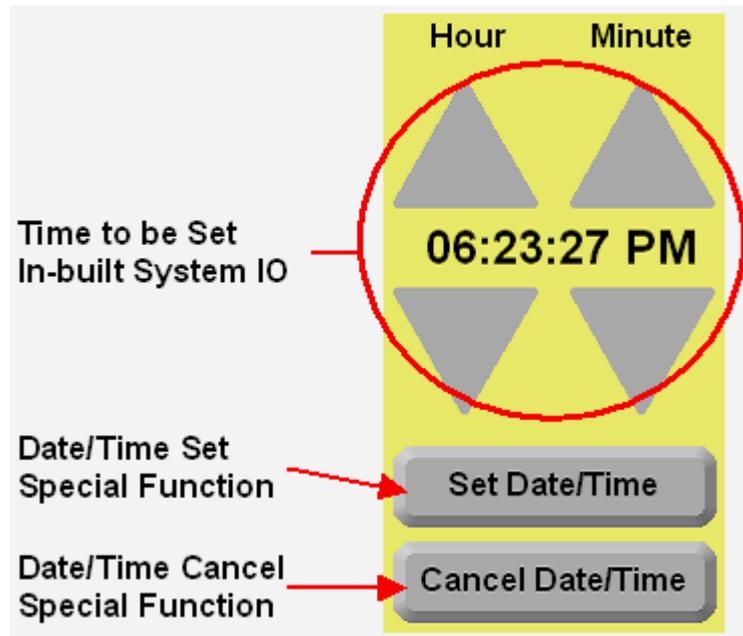
Setting the Time

To allow the user to set the time using [In-built System IO](#) variables, you need to have nudge up and down buttons to adjust the hour, minute and seconds. These are all available using the [Tool Select](#)

form. Note that these do not directly change the clock time, they just change the Time To Be Set variable. To actually change the clock time to match the Time To Be Set, you need to use a button with the Date/Time Set [Special Function](#). It is also recommended to have a button with the Date/Time Cancel Special Function to allow the change to be cancelled.

For example, to create some Components to adjust the time :

1. Place a Component showing the **Time to be Set** In-built System IO variable (see [Tool Select](#))
2. Place Components to increment and decrement the **Time to be Set**. To adjust the hour, increment/decrement by 3600. To adjust the minute, increment/decrement by 60.
3. Place Components for the **Date/Time Set** and **Date/Time Cancel** Special Functions.



Setting the Date

To allow the user to set the date using [In-built System IO](#) variables, you need to have nudge up and down buttons to adjust the day, month and year. These are all available using the [Tool Select](#) form. Note that these do not directly change the clock date, they just change the Date To Be Set variable. To actually change the clock date to match the Date To Be Set, you need to use a button with the Date/Time Set [Special Function](#). It is also recommended to have a button with the Date/Time Cancel Special Function to allow the change to be cancelled.

Calendar Month Selection

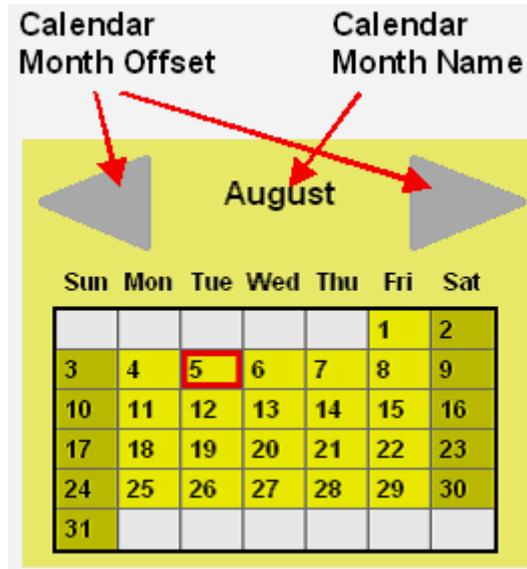
[Calendar Components](#) can display a month which is selected using the **Calendar Month Offset** [In-built System IO](#) variable. If the Calendar Component is selected to display the [Selected Month](#), it will show the current month plus or minus the value of the Calendar Month Offset system IO variable. So, for example, if it is currently in March and a Calendar Component shows the "selected month" and the Calendar Month Offset system IO variable has a value of 2, then the calendar will display the month of May.

The relevant in-built System IO Variables are :

- Calendar Month Offset - explained above
- Calendar Month - number of the selected month
- Calendar Month Name - name of the selected month
- Calendar Year - the selected year

To change the displayed month of a calendar, use [Components](#) to [nudge](#) up and down the Calendar Month Offset by 1. To change the year, nudge by 12. To allow the month for a calendar to be adjusted :

1. Place a [Calendar Component](#) and select the **Selected Month (plus offset)** option
2. Place Components to decrement and increment the **Calendar Month Offset** In-built System IO variable (see [Tool Select](#))
3. Place a Component to display the **Calendar Month Name** In-built System IO variable



See also:

- [Special Functions](#) for editing Date/Time.
- Date and Time editing [Templates](#) which show how the date and time can be changed.

Moon Phase

In-built System IO variables to provide details of the phase of the moon are listed below.

Variable Name	Usage	Type	Settable ?
Moon Phase	Current phase of the moon. Value is 0 to 7. 0 = New Moon.	Integer	No
Moon Phase Day	Current day of the moon's 29.53 day cycle. New Moon is day 1.	Real	No
Moon Phase Name	Name of the current phase of the moon.	String	No

The Moon Phase In-built System IO Variable can be used with an [Image Frame](#) to display the phase of the moon:

1. Place a [Button Component](#)
2. Remove the background, border and text
3. Click the [custom image](#) button
4. Click **Select Active Image** and select the \PICED\Image Library\Frames\Moon Phase.bmp image frame
5. Select the [Select Frame Using Level](#) option
6. Select the **status** [System IO Key Function](#)
7. Select the Moon Phase [In-built System IO Variable](#)

4.14.1.8 Security App In-Built System IO

C-Bus [Security Application](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Security Alarm Sounding	Is the alarm sounding (i.e. is it making a noise or raising some other sort of warning) ?	Boolean	No
Security All Zones Secure	Are all security zones secure (sealed) ?	Boolean	No
Security Arm Failed	Did the arm sequence fail ?	Boolean	No
Security Arm Ready	Is the system ready to arm ?	Boolean	No
Security Armed Level	Armed level: 0 = Disarmed 1 = Fully Armed 2 = Partially Armed Other = Armed Custom	Integer	No
Security Armed Level Name	Description of the armed level	String	No
Security Armed State	Is the system armed ?	Boolean	No
Security Battery Charging	Is the battery charging ?	Boolean	No
Security Entry Delay	Is the entry delay in progress ?	Boolean	No
Security Exit Delay	Is the exit delay in progress ?	Boolean	No
Security Fire Alarm Sounding	Is the fire alarm sounding ?	Boolean	No
Security Gas Alarm Sounding	Is the gas alarm sounding ?	Boolean	No
Security Line Cut Alarm Sounding	Is the line cut alarm sounding ?	Boolean	No
Security Low Battery	Is the battery charge low ?	Boolean	No
Security Mains Failure	Is there a mains power failure ?	Boolean	No
Security Normal Operation	Is the operation normal (no alarms or warnings)	Boolean	No
Security Other Alarm Sounding	Is there another alarm sounding ?	Boolean	No
Security Panic	Is the system in the "panic" state	Boolean	No
Security Password OK	Was the last password correct ?	Boolean	No
Security Password Status	Status of the password entry 1 = password succeeded 2 = password failed 3 = password disabled 4 = password re-enabled	Integer	No
Security Password Status Name	Description of the password status	String	No
Security Tamper	Is the system in the "tamper" state ?	Boolean	No

Variable Name	Usage	Type	Settable ?
Security Zone Isolated	Is a security zone isolated (disabled) ?	Boolean	No
Security Zone Name	Name of a security zone		No
Security Zone Secure	Is a security zone secure (sealed) ?	Boolean	No
Security Zone Status	Security zone status 0 = sealed 1 = unsealed 2 = open circuit 3 = short circuit	Integer	No
Security Zone Status Name	Description of the zone status	String	No

See also:

- [Special Functions](#) for various security related functions.
- The Security Application [Template](#) which shows how a security panel interface can be made.

4.14.1.9 Telephony App In-Built System IO

C-Bus [Telephony Application](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Telephony Dial In Fail Reason	Reason for dial-in failure 1 = stopped ringing	Integer	No
Telephony Dial In Fail Reason Name	Reason for dial-in failure (text string)	String	No
Telephony Dial Out Fail Reason	Reason for dial-out failure 1 = no dial tone 2 = no answer 3 = no acknowledgement 4 = number unobtainable 5 = number busy 6 = internal failure	Integer	No
Telephony Dial Out Fail Reason Name	Reason for dial-out failure (text string, as above)	String	No
Telephony Diverted	Is the telephone diverted?	Boolean	No
Telephony Diverted Number	Diverted telephone number (text string)	String	No
Telephony Last Incoming Number	Last received telephone number (text string)	String	No
Telephony Last Outgoing Number	Last dialled telephone number (text string)	String	No
Telephony Off Hook	Is the telephone off-hook?	Boolean	No
Telephony Off Hook Number	The off-hook telephone number (text string)	String	No
Telephony Off Hook	The reason for being off-hook	Integer	No

Reason	1 = incoming voice 2 = incoming data 3 = incoming other 16 = outgoing voice 32 = outgoing data 48 = outgoing other 64 = setting diversion 80 = internal failure		
Telephony Off Hook Reason Name	The reason for being off-hook (text string, as above)	String	No
Telephony Ringing	Is the telephone ringing ?	Boolean	No
Telephony Ringing Number	The ringing telephone number (text string)	String	No
Telephony Secondary Isolated	Is the telephone interface output isolated ?	Boolean	No

See also:

- [Special Functions](#) for various telephony related functions.
- The Telephony Application [Template](#) which shows how these variables can be used.

4.14.1.10 Error App In-Built System IO

C-Bus [Error Application](#) data can be monitored via a series of [In-Built System IO Variables](#). The data can be shown at several levels :

Variable Name	Usage	Type	Settable ?
Unit Level			
Error App Unit Most Recent Error Status	Show whether there is a Most Recent error anywhere in the Unit	Boolean	No
Error App Unit Most Recent Error Severity	The highest of any Most Recent errors anywhere in the Unit	Integer	No
Error App Unit Most Recent Error Name	The name of the highest of any Most Recent errors anywhere in the Unit	String	No
Error App Unit Most Severe Error Status	Show whether there is a Most Severe error anywhere in the Unit	Boolean	No
Error App Unit Most Severe Error Severity	The highest of any Most Severe errors anywhere in the Unit	Integer	No
Error App Unit Most Severe Error Name	The name of the highest of any Most Severe errors anywhere in the Unit	String	No
Network Level			
Error App Network Most Recent Error Status	Show whether there is a Most Recent error anywhere in the Network	Boolean	No
Error App Network Most	The highest of any Most Recent	Integer	No

Variable Name	Usage	Type	Settable ?
Recent Error Severity	errors anywhere in the Network		
Error App Network Most Recent Error Name	The name of the highest of any Most Recent errors anywhere in the Network	String	No
Error App Network Most Severe Error Status	Show whether there is a Most Severe error anywhere in the Network	Boolean	No
Error App Network Most Severe Error Severity	The highest of any Most Severe errors anywhere in the Network	Integer	No
Error App Network Most Severe Error Name	The name of the highest of any Most Severe errors anywhere in the Network	String	No
Project Level			
Error App Project Most Recent Error Status	Show whether there is a Most Recent error anywhere in the project	Boolean	No
Error App Project Most Recent Error Severity	The highest of any Most Recent errors anywhere in the project	Integer	No
Error App Project Most Recent Error Name	The name of the highest of any Most Recent errors anywhere in the project	String	No
Error App Project Most Severe Error Status	Show whether there is a Most Severe error anywhere in the project	Boolean	No
Error App Project Most Severe Error Severity	The highest of any Most Severe errors anywhere in the project	Integer	No
Error App Project Most Severe Error Name	The name of the highest of any Most Severe errors anywhere in the project	String	No

Errors are reported by units when a failure condition occurs. Multiple error conditions can be in place at once in a single unit, generally related to different "channels". It is not possible to show the error state for a single channel in a unit using In-Built System IO Variables.

If you use an In-Built System IO Variable to show the error data at the unit level, it will show the highest severity error condition applicable to that unit. If you show error data at the Network level, it will show the highest severity error condition in any unit on that Network. If you show error data at the Project level, it will show the highest severity error condition in any unit on any Network in the Project.

 **Only [monitored errors](#) are reported using In-Built System IO Variables.**

See also [Special Functions](#) for Error Application functions.

4.14.1.11 Measurement App In-Built System IO

C-Bus [Measurement Application](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Measurement App Boolean Value	The boolean value of the selected channel	Boolean	Yes (see below)
Measurement App Integer Value	The integer value of the selected channel	Integer	Yes (see below)
Measurement App Real Value	The real (floating point) value of the selected channel	Real	Yes (see below)
Measurement App Valid Value	Does the selected channel have valid data ?	Boolean	No

The following values will be reported for system IO variables prior to a value being received via C-Bus:

- Integer values: 0
- Real Values: 0.0
- Boolean Values: false

During this time, the "Measurement App Valid Value" will have a value of false. The value of the channel data should be ignored during this time, as the correct value is unknown.

Once a C-Bus message has been received containing a value for the channel, the corresponding system IO variable will have the correct value and the "Measurement App Valid Value" will have a value of true.

 Measurement Application channels need to be added with the [Measurement Application Manager](#) before they can be used.

 There are additional In-built System IO Variables for use with Measurement Application [Power Meters](#).

 **Note that the General Input Unit refers to channel 0 as being "channel 1".**

 Setting a Measurement App in-built System IO variable is only possible if the [Controllable](#) property is set. In this case, the value will also be broadcast onto C-Bus. Avoid changing these too often as it can create excessive C-Bus Traffic.

See also [Special Functions](#) for Measurement Application functions.

4.14.1.12 HVAC App In-Built System IO

The C-Bus [HVAC \(Air Conditioning\) Application](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
HVAC Data Valid	Is the data valid ? (see details below)	Boolean	No
HVAC Error Number	Error number	Integer	No
HVAC Error Name	Name of the error	String	No
HVAC Error State	Is there an error ?	Boolean	No
HVAC Fan Speed	The speed of the fan (0 = Auto)	Integer	Yes
HVAC Fan Speed Text	Text description of the fan	String	No

Variable Name	Usage	Type	Settable ?
	speed (Auto, 1, 2, 3)		
HVAC Mode	The mode of operation : 0 = Power is off 1 = Manual 2 = Program (Schedule Control) 3 = Override (temporary override of schedule control) 4 = Auto (option for evaporative cooling only to control "comfort level")	Integer	Yes
HVAC Mode Name	Description of the above	String	No
HVAC Operating Type	Controller operating type (see details below) : 0 = off 1 = heat only 2 = cool only 3 = heat & cool (automatic) 4 = fan (vent)	Integer	Yes
HVAC Operating Type Name	Name of the controller operating type (as above)	String	No
HVAC Plant Busy	Is the HVAC controller busy? (usually this is caused by the plant changing operating type)	Boolean	No
HVAC Plant Cooling	Is the HVAC system currently cooling ?	Boolean	No
HVAC Plant Equipment	HVAC Plant Equipment type : 1 = furnace 2 = evaporative 3 = reverse cycle 4 = heat pump, heat only 5 = heat pump, cool only 6 = furnace / evaporative cooling 7 = furnace / heat pump cooling 8 = hydronic or fan coil 9 = hydronic / heat pump cooling 10 = hydronic / evaporative	Integer	No
HVAC Plant Equipment Name	Name of the HVAC Plant Equipment (as above)	String	No
HVAC Plant Fan	Is the fan running ?	Boolean	No
HVAC Plant Heating	Is the HVAC system currently heating ?	Boolean	No
HVAC Sensor Status	Status of the temperature sensor : 0 = OK 1 = "relaxed accuracy" 2 = out of calibration 3 = failure	Integer	No
HVAC Sensor Status Name	Name of the temperature sensor status (as above)	String	No

Variable Name	Usage	Type	Settable ?
HVAC Set-Level	Set-point level. Either: <ul style="list-style-type: none"> • Temperature • Comfort level • Fan speed (see details below)	Real	Yes
HVAC Set-Level Text	A text representation of the HVAC Set Level. The text varies as follows : <ul style="list-style-type: none"> • If the Zone Operational Type (see above) is off, then the text will be blank. • If the Zone Set- Level Type (see below) is a temperature, then it displays as °C or °F. • Otherwise it shows a number (for a Comfort Level or Fan Speed). 	String	No
HVAC Set-Level Type	The type of data the HVAC Set-Level is expressing : <ul style="list-style-type: none"> 0 = Temperature 1 = Comfort Level (for evaporative cooling) 2 = Fan Speed 	Integer	No
HVAC Set-Level Type Name	Name of the HVAC Set-Level Type (see above)	String	No
HVAC Setback Enabled	Is the setback enabled ?	Boolean	Yes
HVAC Temperature	Current zone temperature	Real	No
HVAC Zone Damper Open	Is the zone damper open ?	Boolean	No
HVAC Zone Enabled	The state of the Zone (enabled or disabled). This will be true if the operating type is not "off".	Boolean	Yes
HVAC Zone Group State	The state (on/off) of a Zone Group.	Boolean	Yes

Monitored Zones

Only HVAC Zones which are [monitored](#) can be used. The first step in using the HVAC Application In-Built System IO variables is to create the Zone Groups and Zones you wish to use.

All of the HVAC App In-Built System IO variables apply to a specific Zone Group and Zone Number, except for the HVAC Zone Group State variable which only applies to a Zone Group.

Controlling Multiple Zones

Any System IO variables which can set HVAC Zone properties (HVAC Operational Type, HVAC Setback Enabled, HVAC Set Level and HVAC State) need to have all applicable zones selected. So, for example, if the Set-Level of Zones 1, 2 & 3 is to be set by a Component (using the HVAC Set Level in-built System IO), then all of these zones need to be selected in the [Component Properties](#).

It is not possible for a component to show more than one value. Hence if more than one zone is selected for a component, the data displayed is generally the first zone in the list which is being serviced (i.e. it is enabled and the damper is open). If there are no serviced zones, the first active

zone will be used. If there are no active zones, the first zone will usually be used. So, for example, if a Component is showing the temperature of Zones 1, 2 and 3 and Zone 1 is switched off, then the temperature of Zone 2 will be displayed.

Temperature

The HVAC Temperature In-built System IO variable gives the current temperature for a zone (or set of zones). The temperature will be reported in °C or °F according to the Metric selection in the [Project Details Form](#).

Set-Level

The HVAC Set Level system IO variable represents the current set-point for the system. Depending on the settings of the HVAC system, this value could be a :

- Temperature
- Comfort Level (for evaporative cooling only)
- Fan Speed (when using "fan only" operating type)

The variables related to this are :

- The HVAC Set-Level provides the numeric value of the Set-Level.
- The HVAC Set-Level Text provides a text description of the HVAC Set-Level, including the temperature symbol (°C or °F) when required. This is generally more useful than the HVAC Set-Level.
- The HVAC Set-Level Type system IO variable will tell you what is currently being controlled by the Set-Level (temperature, Comfort Level or fan speed).
- The HVAC Set-Level Type Name system IO variable provides a text description of what is being controlled by the Set-Level. This is useful for labelling Components which are being used to change the Set-Level.

Operating Type

The HVAC Operating Type In-built System IO variable controls the zone operating type (off/heat/cool/auto/fan-only).

Certain Operating Types are not applicable for some Plant Equipment types. For example, with combined evaporative cooling/other heating plant, it is not recommended to set the "heat/cool" operational type. These restrictions are implemented in the [HVAC Application Manager](#).

The HVAC Operating Type Name In-built System IO variable is useful for indicating the current Operating Type.

To display/control the on/off state of the whole HVAC system, use the HVAC Zone Group State in-built system IO variable, not the Operating Type.

Mode

The "Mode" of the HVAC system is mainly used to control whether the system is using Program (Schedule) control or Manual control. It can also be used to change to "override" mode to temporarily override the Program settings.

If evaporative plant is used for cooling, the "auto" mode is used to allow the temperature to be set using the "Comfort Level". If the "manual" mode is selected, the fan speed will be controlled by the Set Level.

Although the mode can show that the Plant is "off", you can not set it to off using the HVAC Mode in-Built System IO variable. The HVAC Zone Group State in-built system IO variable can be used for this.

Fan Speed

The HVAC Fan Speed In-Built System IO variable can be used to control the fan speed. A value of 0 corresponds to "auto".

The HVAC Fan Speed Text In-Built System IO variable shows the fan speed as text, including the word "auto" when auto is selected.

Zone Enable

The HVAC Zone Enabled In-built System IO variable is used for switching an individual zone on and off. When a zone is switched on, it takes on the Operating Type, Mode and Set-Level of the other zones.

To control the state of the whole HVAC system, use the HVAC Zone Group State in-built system IO variable.

Status Flags

The status of the HVAC system is indicated by various In-built System IO variables including :

- Plant Busy - is the plant busy (usually changing from one operating type to another) ?
- Plant Cooling - is the plant cooling ?
- Plant Fan - is the plant fan running ?
- Plant Heating - is the plant heating ?
- Zone Damper - is air being delivered to the zone ?

These are used purely to indicate what is happening within the HVAC system. They can not be controlled by the user.

The Zone Damper variable should only be used with a single zone. The others are usually associated with all of the zones in the HVAC system.

HVAC Error

The HVAC Error In-Built System IO variables are used to show if there is an error in the system. If the HVAC Error In-Built System IO variables are associated with more than one zone, they will show if any of the zones have an error condition. If there is more than one error in the system, then the error condition for the first zone in error will be reported.

Sensor Status

The HVAC Sensor Status In-Built System IO variables are used to show if there is an error in the temperature sensor. If the HVAC Sensor Status In-Built System IO variables are associated with more than one zone, they will show the most severe error condition in the zones.

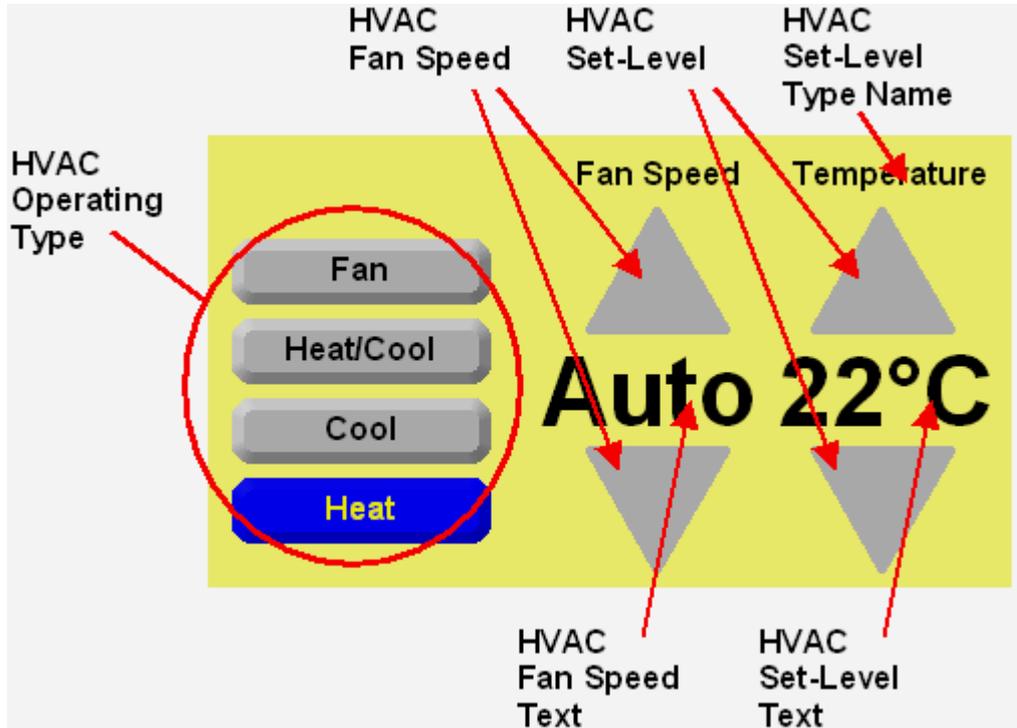
Data Valid

For a short period after start-up, the HVAC data will not be available. The HVAC Data Valid in-built system IO variable can be used to show whether all of the HVAC Data (temperature, set-level, operating type etc) has been received from the thermostat yet. Note that once this gets set to true, it will stay that way. It does not mean that the HVAC System is currently operating correctly, just that data has been received at some time in the past. The C-Bus messages which need to be received before the Data Valid for a Zone will be true are:

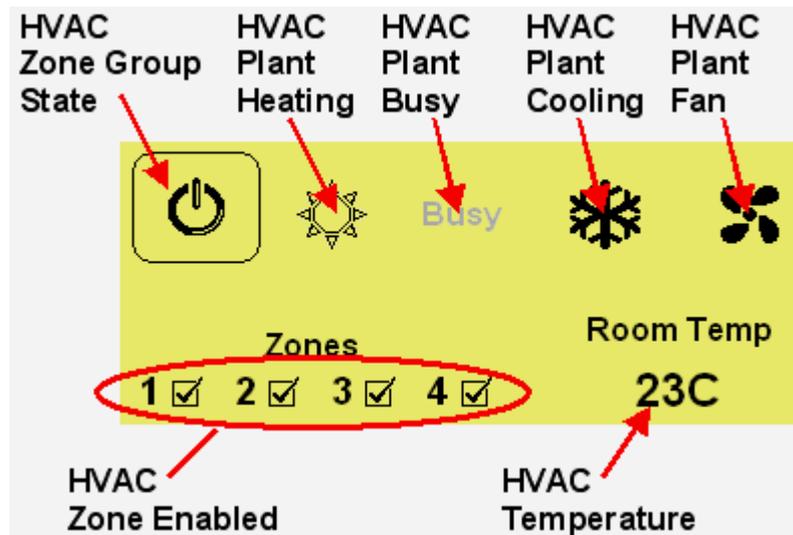
- Zone HVAC Plant Status: contains the Status Flags and Error
- Zone HVAC Mode: contains the Operating Type, Set-Level and Fan Speed
- Zone Temperature: contains the Temperature and Sensor Status

Example

The diagram below shows the in-built System IO Variables which would be used to control the HVAC Operating Type, Fan Speed and Set-Level. The buttons controlling the HVAC Operating Type use the "preset" key function to set the required Operating Type. The buttons adjusting the fan speed and Set-Level use the Nudge Up and Nudge Down key functions.



The diagram below shows how the HVAC System state and zone state can be controlled, as well as how various properties can be viewed.



All of the components in the diagrams above can be placed simply using [Tools](#).

Handling Complex Installations

The PICED software is designed to handle the majority of situations likely to be used. The C-Bus Thermostat does support additional complexity, which is not supported by the PICED software at this time. The most significant problem is if different zones have different capabilities. For example, it is possible for some zones to have cooling and heating, but others to have only heating. In situations like this, it may be necessary to have multiple sets of components. Contact Schneider Electric (Australia) Technical Support for help with these types of systems.

Notes

 C-Touch Mark 1 units do not support the HVAC Application.

Please refer to the C-Bus Thermostat documentation for additional details on the HVAC terminology and usage.

See also:

- [Special Functions](#) for HVAC Application functions.
- The HVAC Application thermostat [Template](#) which shows how the HVAC Application can be used with In-built System IO.

4.14.1.13 Audio In-built System IO

The C-Bus Multi-Room Audio (MRA) system can be controlled via the C-Bus [Audio Application](#) and the [Media Transport Control](#) Application. These two applications control different aspects of the MRA system and are described below.

Audio Application

The C-Bus [Audio Application](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Audio Mute	Mute the Audio Zone	Boolean	Yes
Audio Volume	Set the Audio Zone volume (0 to 255)	Integer	Yes
Audio Balance	Audio Zone balance (0 to 255)	Integer	Yes
Audio Bass	Audio Zone bass (0 to 255)	Integer	Yes
Audio Treble	Audio Zone treble (0 to 255)	Integer	Yes
Audio Last Error Code	Audio Zone last error code	Integer	No
Audio Zone Source	Audio Zone source (1 to 7)	Integer	Yes
Audio High Priority	Audio Zone high priority input (door bell)	Boolean	Yes
Audio Timer	The most recent setting for the audio "off timer"	Integer	Yes

Audio Timer

Setting the Audio Timer variable will set the timer in the Matrix Switcher to this value (in minutes). The Matrix Switcher will update this value every minute until it gets to zero, when it turns off. Setting the Audio Timer to 0 will switch off the zones.

Audio Balance

A value of 50% (level 127) is a centre balance. Values less than this change the balance to the left. Values more than this change the balance to the right.

Audio Bass and Treble

A value of 50% (level 127) is a "flat" response. Values less than this reduce the bass/treble. Values more than this boost the bass/treble.

Audio Volume

To display the audio volume as a percent using a [Level Indicator](#):

1. Place a level indicator on the page
2. Select the "status" system IO key function
3. Select the Audio Volume in-built System IO variable
4. On the "value" tab visible properties tab:
 - Select **System IO Value Custom**
 - Set **Postfix Text** to "%"
 - Set **Gain** to 0.39216

Media Transport Control Application

[Media Transport Control](#) information can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Media Transport Control Fast Forward	Setting the fast forward speed	Integer	Yes
Media Transport Control Pause	Pausing the music	Boolean	Yes
Media Transport Control Play	Playing the music	Boolean	Yes
Media Transport Control Selection	Selecting the Selection	Integer	Yes
Media Transport Control Selection Name	Displaying the Selection Name	String	Yes *
Media Transport Control Power	Switching the power on and off	Boolean	Yes
Media Transport Control Repeat	Enabling repeat: 0 = off 1 = repeat current track 2 = repeat all	Integer	Yes
Media Transport Control Rewind	Setting the rewind speed	Integer	Yes
Media Transport Control Shuffle		Boolean	Yes
Media Transport Control Category	Selecting the Category	Integer	Yes
Media Transport Control Category Name	Displaying the Category Name	String	Yes *
Media Transport Control Stop	Stopping the music	Boolean	Yes
Media Transport Control Track	Selecting the track	Integer	Yes
Media Transport Control Track Count		Integer	Yes *
Media Transport Control Track Name	Displaying the Track Name	String	Yes *

* Only settable if Media Link Group has the [Media Source](#) option selected.

The Category, Selection and Name In-built System IO variables also require an offset. They can display the current, next, next + 1, previous or previous - 1 data.

See also:

- [Special Functions](#) for Media Transport Control functions.
- The Media Transport Control [Template](#) which shows how the Media Transport Control Application can be used with In-built System IO.

[****](#)

4.14.1.14 Labelling In-Built System IO

C-Bus [Labels](#) can be controlled and/or monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Label Action Selector Text	The label for a selected Action Selector	String	Yes
Label Group Text	The label for a selected Group	String	Yes
Label Language	The number of the currently selected language	Integer	Yes
Label Language Name	The name of the currently selected language	String	No

See also [Special Functions](#) for Labelling functions.

 Labels only get sent to C-Bus when they change. This is done to prevent excessive C-Bus traffic and to minimise the number of updates required by C-Bus devices which use labels (such as DLT switches).

4.14.1.15 Load Monitor In-Built System IO

[Load Monitor](#) data can be monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Load Monitor Load Power	The current power used by the load (W)	Real	No
Load Monitor Total Power	The current power used by the site (W)	Real	No

 The Load Monitor Power variables are only updated while C-Bus is connected.

See also [Special Functions](#) for Load Monitor functions.

4.14.1.16 E-Mail In-built System IO

[E-Mail](#) data can be monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
E-Mail Account Count	The number of E-Mail Accounts	Integer	No
E-Mail Account Number	The number of the selected E-Mail Account	Integer	Yes
E-Mail Account Name	The name of the selected E-Mail Account		No
E-Mail Count	The number of E-Mail messages in a particular E-Mail Account	Integer	No
E-Mail Message Address	The E-Mail address of the sender of the selected E-Mail Message	String	No
E-Mail Message Count	The number of E-Mail messages in the selected E-Mail Account	Integer	No
E-Mail Message Present	Are there any E-Mail messages in the selected E-Mail Account?	Boolean	No

Variable Name	Usage	Type	Settable ?
E-Mail Message Number	The number of the selected E-Mail Message	Integer	Yes
E-Mail Message Sender	The name of the sender of the selected E-Mail Message	String	No
E-Mail Message Subject	The subject of the selected E-Mail Message	String	No
E-Mail Message Body	The body of the selected E-Mail Message (first 500 characters only)	String	No
E-Mail Present	Are there are any E-Mail messages in a particular E-Mail Account?	Boolean	No

See also [Special Functions](#) for E-Mail functions.

4.14.1.17 Power Meter In-built System IO

[Power Meter](#) information can be monitored via a series of [In-Built System IO Variables](#) :

Variable Name	Usage	Type	Settable ?
Energy Tariff	Current energy Tariff price (per kWh)	Real	Yes
Measurement App Energy Value	Recorded energy for an Analogue Power Meter	Real	No
Measurement App Power Value	Current power level for an Analogue Power Meter	Real	No
Measurement App Power Maximum	Recorded peak power for an Analogue Power Meter	Real	No
Power Meter Maximum	Recorded peak power for total of all meters	Real	No
Power Meter Total	Total power of all meters	Real	No
Power Meter Total Energy	Total energy for all meters	Real	No
Pulse Power Meter Energy	Recorded energy for a Pulse Power Meter	Real	No
Pulse Power Meter Level	Measured power for an individual Pulse Power Meter	Real	No
Pulse Power Meter Maximum	Recorded peak power for an individual Pulse Power Meter	Real	No

For many of the above variables, there are options for how the data is to be scaled.

For Power values, the data can be expressed as:

- Watts
- kg of CO₂ per hour (uses the [Carbon Footprint](#) value)
- Cost per hour (uses the energy [Tariff](#))

For Energy values, the data can be expressed as:

- kWh
- kg of CO₂ (uses the [Carbon Footprint](#) value)
- Cost (uses the energy [Tariff](#))

- MJ

For Energy and Peak Power values, the period can be selected:

- Duration (number of hours/days/weeks/months)
- Offset (Offset of 0 is current period. Offset of 1 is period before that etc.)

When using a period which is a multiple of days, the data is from midnight to the current day and time. When using a period which is a multiple of weeks, the data is from midnight on a Sunday night (0:00 on Monday morning) to the current day and time. When using a period which is a multiple of months, the data is from midnight on the morning of the first of the month to the current day and time.

For energy values, the data type can be selected:

- To date (energy used during the period so far)
- Predicted (rough estimate for the period)
- Average (average for as far back as data is available)

Predicted data is based on past history and/or the current power level. It may give unexpected results in unusual circumstances.

For the Power Meter Total, Power Meter Total Energy and Power Meter Maximum In-built System IO Variables, the total can be calculated by tariff, or for all meters. This provides the ability to separately view the total power, cost, energy or peak for a set of meters which use the same tariff. Most of the time it is desirable to use the total for all meters, rather than by tariff.

Examples

For today's total energy usage so far, use:

- Variable = Power Meter Total Energy
- Period = 1 day
- Offset = 0
- Units = Watt Hours
- Data Type = To Date

For the cost of last month's energy usage, use:

- Variable = Power Meter Total Energy
- Period = 1 month
- Offset = 1
- Units = Cost
- Data Type = To Date

For the average three-monthly energy cost, use:

- Variable = Power Meter Total Energy
- Period = 3 month
- Offset = 0
- Units = Cost
- Data Type = Average

4.14.1.18 Other In-built System IO

Variable Name	Usage	Type	Settable ?
Alarm Sounding	This shows whether the alarm is currently sounding/ringing/alerting/going off like bucket of prawns in the hot sun	Boolean	No
Alarm, Cancel Next	This cancels the next alarm only	Boolean	Yes
C-Bus State	The state of the C-Bus connection	Boolean	No
Monitor	The value of a Monitor	Real	No
System Processor Usage	The percentage of the processor currently being used	Real	No
System Free Memory	The amount of free memory	Real	No
Special Day Type	The name of the current Special Day	String	No
Page Name	The name of the current Page	String	No
Page Transition in Progress	Is a page transition in progress?	Boolean	No
Master Unit	Is this the Master Unit ?	Boolean	Yes
Metric Units	Are Metric Units used?	Boolean	Yes
Time-out Page	The project Time-out Page	Integer	Yes

4.14.2 User System IO

User [System IO Variables](#) are used by the Logic Engine to provide monitoring and control of the Logic Engine.

User System IO Variables can be controlled or monitored by [Components](#).

User System IO is not available in Black and White C-Touch (no logic) projects.

For Black and White C-Touch and the Wiser Home Control:

- There can be no more than 10 string User System IO variables
- String User System IO variables are limited to 30 characters in length

Refer to the Logic Engine help file for details.

4.15 Scenes

A scene is used to control several loads at once in a coordinated action. A Scene is a pre-determined set of [Levels](#) for particular [Group Addresses](#) ([Scene Components](#)). A scene can be used to set a series of lights to particular levels rather than setting them individually.

Common examples of uses of scenes are :

- Setting all of the lights in a building on or off
- Setting the lights in a room for a particular use (for a presentation or for a meeting)
- Controlling a series of loads for a particular use (eg. to set up for a video presentation, a Scene could dim the lights, close the curtains, lower the projector screen, start the VCR and start the projector)

Scenes can be created with the [Scene Manager](#).

Note that the Groups in a Scene can be [adjusted](#) if required.

See also [Trigger Control Application](#), [Triggering Scenes](#), [Scene Status Indication](#), Delays in Scenes, [Software Limits](#), [Special Functions](#), [In-built System IO](#), [Cascaded Scene Report](#)

4.15.1 Triggering Scenes

Scenes in the PICED software, Black and White C-Touch, Colour C-Touch or PAC can be "set" in one of two basic ways :

- By directly setting the required Scene (from a [Component](#) or [Schedule](#))
- By setting the Scene Trigger Group to its trigger Level

If a Scene has no Trigger Group associated with it, then only the first option is available.

Setting Directly

When a Scene is set directly, the groups in the Scene are set to their default levels. Following that, the Scene Trigger is broadcast in case there are other C-Bus devices which contain other parts of the Scene.

Setting via the Trigger Group

Scenes can be triggered via the Scene Trigger Group by :

- A [Component](#) setting the Scene Trigger
- A [Schedule](#) setting the Scene Trigger
- A Scene having a Scene Component which sets the Scene Trigger
- [Logic](#) setting the Scene Trigger
- A received C-Bus command which sets the Scene Trigger

If a Scene is triggered by the Scene Trigger Group being set, then the Scene Trigger is not re-broadcast.

A Scene Trigger consists of :

- [Network](#) (this can be optionally ignored)
- [Application](#) ([Trigger Control](#) by is recommended)
- [Group Address](#) (aka Action Selector on the Trigger Control Application)
- [Level](#)

When a C-Bus message with matching Network (if required), Application, Group Address and Level is received, the Scene will be set (triggered). Note that the [ramp rate](#) of the received message is ignored.

If a Scene is to be triggered from a remote Network, it is necessary to ensure that the message will be routed back to a Connected Network so that it will be seen.

If several different Scenes need to be triggered and they are mutually exclusive (ie. only one will run at a time), have them all on the same Group Address, but triggered at different levels. Since a Group Address can only be at one level, only one scene will be triggered at a time.

Notes

 **To trigger a scene, the group address needs to be set to the trigger level, not merely ramp through it.**

 **If the trigger group ramps to the trigger level (ie. not instantaneously), the Scene will**

NOT be triggered at the end of the ramp. It will be triggered as soon as the command is received.

See also [Cascaded Scene Report](#)

4.15.2 Triggering Scenes With Other Units

Triggering a Scene from another unit

To Trigger a Scene in the PICED software, Black and White C-Touch, Colour C-Touch or PAC from another unit :

1. Make sure the Scene has a [Scene Trigger](#)
2. Configure the unit to set the Scene Trigger

When a Scene key is pressed on the unit, the Trigger message will be sent onto C-Bus and received by the PICED software, Black and White C-Touch, Colour C-Touch or PAC which will set the Scene. If one of the Groups in the Scene changes, the PICED software, Black and White C-Touch, Colour C-Touch or PAC will send an [Indicator Kill](#) message onto C-Bus which will cause the indicator on the unit to go off. Note that this happens regardless of the [Use Indicator Kill for Showing Scene Status](#) option.

Triggering a Scene in another unit

If a Scene is stored in another unit and you want to trigger it from the PICED software, Black and White C-Touch, Colour C-Touch or PAC, you need to set the Scene [Trigger Group](#) to the correct level (aka Action Selector). If you are using a [Component](#) to trigger the Scene, use the "preset" [Key Function](#).

To correctly show the state of the Scene, you need to use the [Use Indicator Kill for Showing Scene Status](#) option. See [Scene Status Indication](#) for more information.

4.15.3 Adjusting Scenes

The most common way of using Scenes is to just [Trigger](#) the Scene required. There are times, however, when it is desirable to adjust the levels of all of the [Scene Components \(Groups\)](#) up or down a bit.

To set up a [Component](#) to adjust a Scene :

- Open the [Component Properties](#) form
- Select the Nudge Up, Nudge Down, On/Up, Off/Down or Dimmer [Key Functions](#)
- Select the Scene Groups to be modified

It is usually desirable to just control the group addresses in the Scene which are already on. To select this behaviour, select the **Nudge / Ramp only On Groups in Scenes** check box in the [C-Bus Options](#). This will result in the following occurring :

- Nudge Up, On/Up and Dimmer will only increase the level of Group Addresses which are already on
- Nudge Down, Off/Down and Dimmer will only decrease Group Addresses which are on, and only to a minimum level of 1

To have all of the Groups in the Scenes controlled, regardless of their level, de-select the **Nudge / Ramp only On Groups in Scenes** check box.

Nudging

If the nudge up or nudge down key functions are used, all of the Scene Components will be adjusted

up or down accordingly. The Scene Components (groups) which are off will only be adjusted if the Nudge / Ramp only On Groups in Scenes option is off.

Ramping

If the On/Up, Off/Down or Dimmer key functions are used, all of the Scene Components will be ramped up or down accordingly. The Scene Components (groups) which are off will only be adjusted if the Nudge / Ramp only On Groups in Scenes option is off.

Toggle

If the On/Off (toggle) key function is used, the Scene Components will be toggled (off goes to on and vice versa).

If the states of the Scene Components different (ie. some are on and some are off), then the first Component gets toggled, and all of the other Scene Components get set to the same state as that.

Preset

If the On, Off or Preset key functions are used, all Components in the Scene get set to the selected level.

4.15.4 Scene Status Indication

There are several methods which can be used to enable a [Component](#) to show the status of a [Scene](#). The "status" of a Scene refers to whether the Scene is "set" or not. These methods are :

- Showing Scene Component Level Status (the default option)
- Showing Trigger Status
- Using Indicator Kill Messages

The status of a Component is shown using the options selected using the [Status Tab](#).

Showing Scene Component Level Status

If a Component is used to directly set a Scene, the **Scene Indicator** option can be selected on the [Status Tab](#) to show if all Scene Components are at (or ramping towards) their target level.

To use this option :

- Select the **Scene Indicator** option on the [Status Tab](#)
- De-select the [Use Indicator Kill for Showing Scene Status](#) option

Showing Trigger Status

One option is to show whether the [Scene Trigger](#) is set. This is useful when a Component is used to set the Scene Trigger Group to trigger the Scene. The Component status can show whether the trigger is set. This will accurately show if a Scene has just been set, but it will not show if the Scene has been "broken" by having one of the Scene Components (groups) change level.

To use this option :

- Select the **Preset Level** option on the [Status Tab](#)
- De-select the [Use Indicator Kill for Showing Scene Status](#) option

Using Indicator Kill Messages

This option is very similar to the previous one, except that when a Scene gets "broken", the indicator will go off again. To enable the use of this option, select the [Use Indicator Kill for Showing Scene Status](#) option.

This uses the [Indicator Kill](#) messages on the Trigger Control Application to synchronise Scene indicators on different C-Bus devices. This is the only method available for most C-Bus units, so using this option provided consistency with other C-Bus units.

To use this option :

- Select the **Scene Indicator** option on the [Status Tab](#)
- Select the [Use Indicator Kill for Showing Scene Status](#) option

One of the features of using this method is that you can use components to [adjust](#) Scene Groups, and the Scene Indicator will still show that the Scene is set.

Note that even if this option is not selected, the Indicator Kill messages still get sent when a scene is "broken".



If using this option, Scenes must use a [Trigger Group](#).

Adjusting Scene Groups

If you have a [Button](#), [Slider](#) or [Level Indicator](#) showing the level of a Scene, it will show the level of the first Group in the Scene.

If you use a Component to [adjust](#) the level of a Scene, generally you will not use it to indicate the state of the Scene. If you do have an indicator on the component which adjusts the Scene, the state will be the state of the first group in the Scene.

4.15.5 Scene Manager

The Scene Manager allows the user to see all [scenes](#) in a project. It also allows you to add, copy, edit and delete scenes.

To show the Scene Manager form, click on the **Project | Edit Scenes** menu item or click on the Scenes button on the [tool bar](#).

Number ▲	Name	Trigger	Components
1	Party	Trigger Control / Scenes = Party	3
2	TV	Trigger Control / Scenes = TV	5
3	Bedtime	Trigger Control / Scenes = Bed Time	7
4	All Off	Trigger Control / Scenes = All Off	10

The Scene Manager shows the Scene number, name, Trigger Group and number of Components in the Scene for each Scene in the project. The [columns](#) can be sorted by clicking on top of the column or they can be rearranged and have their widths changed by dragging them.

To create a new scene, click on the **Add** button. The [Scene Editor](#) form will appear.

To delete a scene, select the required scene from the list and click on the **Delete** button.

To [edit](#) a scene, select the required scene from the list and click on the **Edit** button or double click on the required scene.

To copy a Scene, select the required Scene, and click on the **Duplicate** button.

To [change the order](#) of the Scenes, use the **Move Up** and **Move down** buttons.

To automatically create a Scene :

1. Before opening the Scene Manager, set the levels of the Group Addresses to their desired levels

2. Select [Components](#) which control the desired groups
3. Open the Scene Manager
4. Click on the **Auto Create** button
5. Enter a name and the trigger details in the [Scene Editor](#)

When you click on **OK** to close the Scene Manager, checks are made to ensure that if scenes trigger each other, there are no circular references, For example, if scene 1, triggers scene 2 which then triggers scene 1, these scenes will trigger each other indefinitely. If there are circular references, you will be alerted.

Scene Naming

To simplify the management of large numbers of Scenes, it helps to apply a structured naming scheme for the Scenes. For example, all Scenes for the first floor of a building may start with L1 and so forth. When the scenes are sorted by name, then they will be grouped together. An example of well-named Scenes might be as follows :

- L1 All Off
- L1 All On
- L1 Cleaning
- L1 Night
- L2 All Off
- L2 All on
- L2 Cleaning
- L2 Night
- etc

Large Scenes

In large buildings, there will be typically be a series of scenes to switch on and off parts of the building. To switch on and off the whole building, it can be easier to create a scene which triggers the other scenes, rather than creating huge scenes.

Scenes which can not be edited

If the [Scene Locked](#) option is selected, then:

- If the current logged-in user only has [partial access](#) for editing Scenes, then the Scenes which can not be edited will be hidden
- Otherwise, there will be an icon next to those that can not be edited
- Attempting to change these Scenes will raise a confirmation message

See also [Software Limits](#), [Project Summary](#) and [Printing](#)

4.15.6 Scene Editor

The Scene Editor allows the user to edit a [Scene](#) in a project. The Scene Editor is accessed via the [Scene Manager](#).

Each [Scene](#) has several main properties :

- A name/description
- An triggering [Group Address](#)
- A series of Scene Components

General Tab

Each Scene needs a unique name.

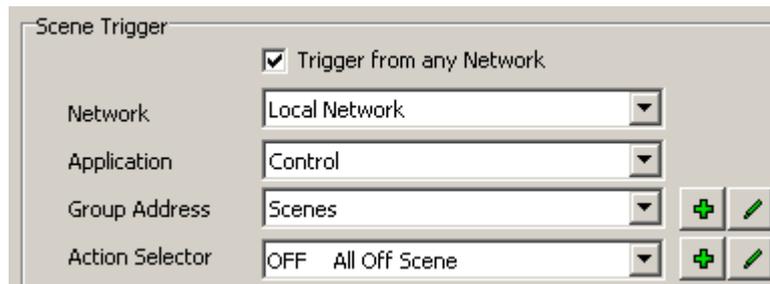
The Scene **Locked** option controls whether the user is able to edit this Scene. If it is selected then:

1. It will have an icon next to it in the [Scene Manager](#)
2. When selected, the [Scene Locked In-Built System IO](#) variable will be true
3. It will be ignored when using a Scene Store [Special Function](#)

You can add information related to the Scene by entering it in the **Notes** box.

Scene Trigger Tab

Use the **Scene Trigger** [C-Bus Properties](#) to select the [Scene Trigger](#).



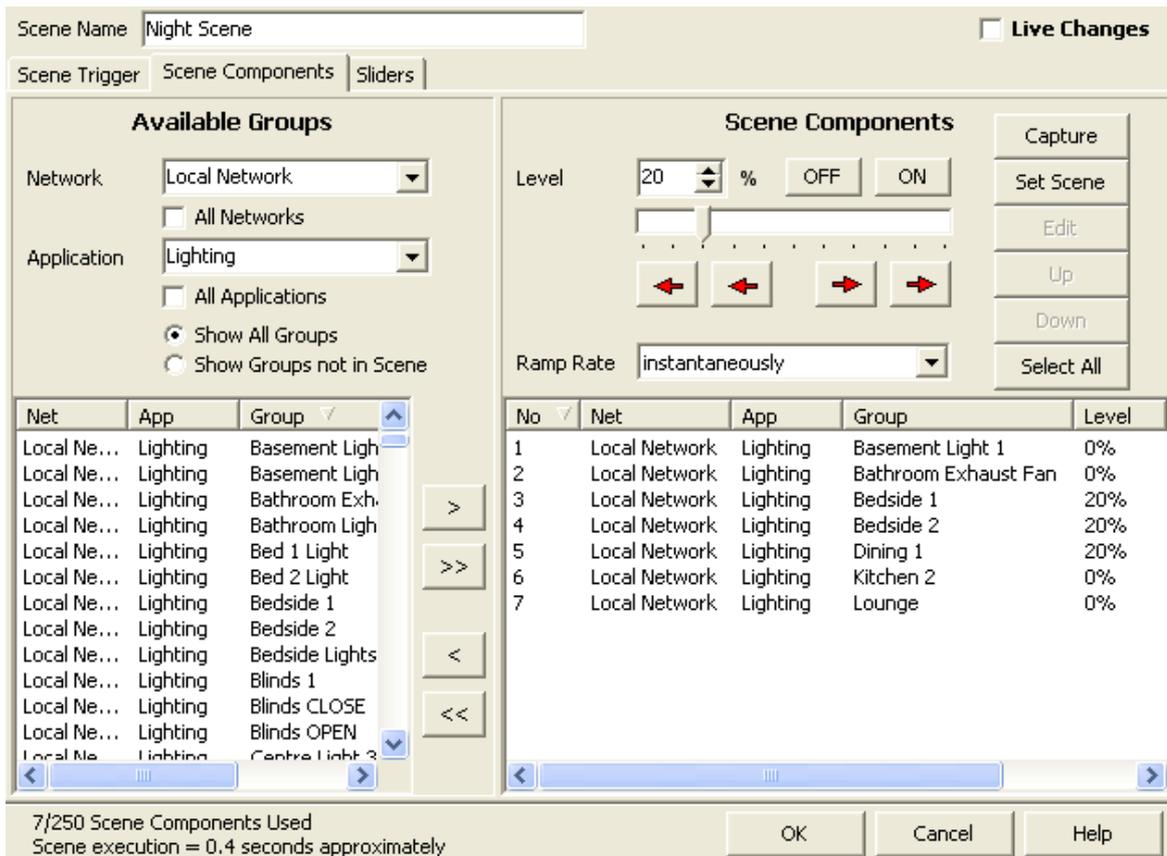
The screenshot shows the 'Scene Trigger' configuration window. It features a checked checkbox for 'Trigger from any Network'. Below this are four dropdown menus: 'Network' (set to 'Local Network'), 'Application' (set to 'Control'), 'Group Address' (set to 'Scenes'), and 'Action Selector' (set to 'OFF All Off Scene'). To the right of the 'Group Address' and 'Action Selector' dropdowns are two columns of buttons: a green plus sign and a green pencil icon.

In most cases, you will want scenes to be triggered regardless of which network the C-Bus message comes from. In this case, select the **Trigger from any Network** option. The Network selection list will just be used to select the network for the required tags.

If you want to have a Scene triggered only from a particular network, de-select the **Trigger from any Network** option and select the required network in the list. This option is not available for Black and White C-Touch or PAC projects. Black and White C-Touch and PAC always trigger from any network.

If the Scene does not need to be triggered from another input unit, leave the Group Address as "unused". Typically, a particular Group Address on the Control [Application](#) (number CA [hex](#)) will trigger the Scene when it is at 100%. It is preferable to define level tags for any Scene triggers to make it very clear exactly what is happening.

Scene Components Tab



Available Groups

The **Available Groups** list shows all Group Addresses which could be used in the Scene. There are several controls which allow the display of just the Group Addresses of interest :

- **Network** combo box : this allows the display of the Group Addresses for a particular Network
- **All Network** check box : this allows the display of the Group Addresses on all Networks
- **Application** combo box : this allows the display of the Group Addresses for a particular Application
- **All Network** check box : this allows the display of the Group Addresses on all Applications
- **Show All Groups** : this displays all Group Addresses in the selected Network(s) and Application(s)
- **Show Groups not in Scene** : this displays all Group Addresses in the selected Network(s) and Application(s) which are not already in the Scene

Scene Components

The Scene Components are the C-Bus events that the Scene will execute. The Scene Components list shows the properties for each of the Scene Components. The [columns](#) can be sorted by clicking on top of the column or they can be rearranged and have their widths changed by dragging them.

To add a new Scene Component :

1. Select the desired Group Address from the **Available Groups** list
2. Select the desired level (using the spin edit, slider, **On** and **Off** buttons or nudge buttons)
3. Click on the > button to add the Group Address to the Scene

OR

1. Right click on the **Scene Components** list
2. Select the **Add** item
3. The [Scene Component Editor](#) will open

4. Enter the desired properties for the Scene Component and click on **OK** when complete, or click on **Apply** to add the Component and leave the Scene Component Editor open to allow another Scene Component to be added.

Selecting Scene Components :

- To select a Scene Component, click on a row in the **Scene Components** list.
- To select additional Scene Components, hold down the **CTRL** key and click on the other Scene Components.
- To select all Scene Components, right click on the **Scene Components** list and select the **Select All** item.
- To de-select all Scene Components, right click on the **Scene Components** list and select the **De-select All** item.

To delete a Scene Component :

1. Select the desired Scene Component(s) in the **Scene Components** list
2. Click on the **<** button or right click on the **Scene Components** list and select **Delete**

To edit a Scene Component :

1. Select the desired Scene Component(s) in the **Scene Components** list
 2. Change the level using the spin edit, slider, **On** and **Off** buttons or nudge buttons (left and right arrows)
 3. Change the ramp rate using the **Ramp Rate** Combo Box
- OR
1. Select the desired Scene Component(s) in the **Scene Components** list
 2. Right click on the **Scene Components** list and select the **Edit** item or just double click the item in the list.
 3. The [Scene Component Editor](#) will open
 4. Enter the desired properties for the Scene Component(s) and click on **OK** when complete.

To edit more than one Scene Component at a time, select the required ones and follow the instructions above. The parameters that are common to each of the Scene Components will be shown. All other parameters will be blank. If any parameter is changed, it will apply to all of the selected Scene Components.

For example, to change the level of all Scene Components to 0%, select all of the Scene Components (select one, then hold down the Shift or Ctrl key while selecting the others). Right click on the **Scene Components** list and select the **Edit** item. Change the C-Bus level to 0%. Click on **OK**. All of the Scene Components will now be set to 0%. Nothing else in the Scene Components will have changed.

To duplicate a Scene Component, select the required one and click on the **Duplicate** button.

To copy Scene Components from one Scene to another :

1. Select the desired Scene Component(s) in the **Scene Components** list
2. Right click on the **Scene Components** list and select the **Copy** item
3. Click on the **OK** button
4. Open the new Scene with the [Scene Manager](#)
5. Right click on the **Scene Components** list and select the **Paste** item

When all changes to Scene Components are complete, click on the **OK** button. To exit without making changes to the Scene, click on the **Cancel** button.

Scene Component Order

To [change the order](#) in which Scene Components occur :

1. Make sure that the **Scene Components** list is sorted by the Scene Component number (first

column)

2. Select the required Scene Component(s) from the list
3. Click on the **Up** or **Down** buttons until it is in the correct position.

Capturing Scene Levels

It is possible to capture the levels of Scene Components from the C-Bus network and store them in the Scene. To capture the levels for all of the Scene Components, just click on the **Capture** button or right click on the **Scene Components** list and select the **Capture | Capture** item.

To capture just some of the Scene Components levels :

1. Select the desired Scene Component(s) in the **Scene Components** list
2. Right click on the **Scene Components** list and select the **Capture** item or right click on the **Capture** button
3. Select the **Capture Selected**, **Capture Network**, **Capture Application** or **Capture Net and App** sub item. The meanings of these is discussed below :
 - **Capture Selected** : captures just the selected item(s)
 - **Capture Network** : captures all Scene Components for the Network selected in the **Available Groups** panel
 - **Capture Application** : captures all Scene Components for the Application selected in the **Available Groups** panel
 - **Capture Net and App** : captures all Scene Components for the Network and Application selected in the **Available Groups** panel

Setting the Scene to C-Bus

It is possible to test the Scene by setting some or all of the Scene levels on C-Bus. To set the whole Scene, click on the **Set Scene** button or right click on the **Scene Components** list and select the **Set Scene | Set Scene** item.

To set just part of a Scene :

1. Select the desired Scene Component(s) in the **Scene Components** list
2. Right click on the **Scene Components** list and select the **Set Scene** item or right click on the **Set Scene** button
3. Select the **Set Scene Levels Immediately**, **Set Selected** or **Set Selected Immediately** sub item. The meanings of these is discussed below :
 - **Set Scene Levels Immediately** : set the whole Scene immediately (do not use the Scene Components' ramp rate)
 - **Set Selected** : Set the selected Scene Components using their correct ramp rates
 - **Set Selected Immediately** : Set the selected Scene Components to their levels immediately (do not use their ramp rates)

If the **Live Changes** check box is selected, any changes made to Scene Components will be broadcast onto C-Bus immediately.

To identify a particular Group Address :

1. Select the desired Scene Component(s) in the **Scene Components** list
2. Right click on the **Scene Components** list and select the **Flash Group** item

Automatically Creating Components to Control Scene Groups

To automatically create a series of [Components](#) on the current [Page](#) to control the Scene Components :

1. Select the desired Scene Component(s) in the **Scene Components** list

2. Right click on the **Scene Components** list and select the **Auto Create Components** item

To create Components with a particular style (for example a slider) :

1. Select a Component on the current page with the desired style
2. Open the [Scene Manager](#)
3. Open the [Scene Editor](#)
4. Select the desired Scene Component(s) in the **Scene Components** list
5. Right click on the **Scene Components** list and select the **Auto Create Components** item

At the bottom of the form, there is some text showing how many scene components have been used. In the above case, there are 6 out of a possible 250 used.

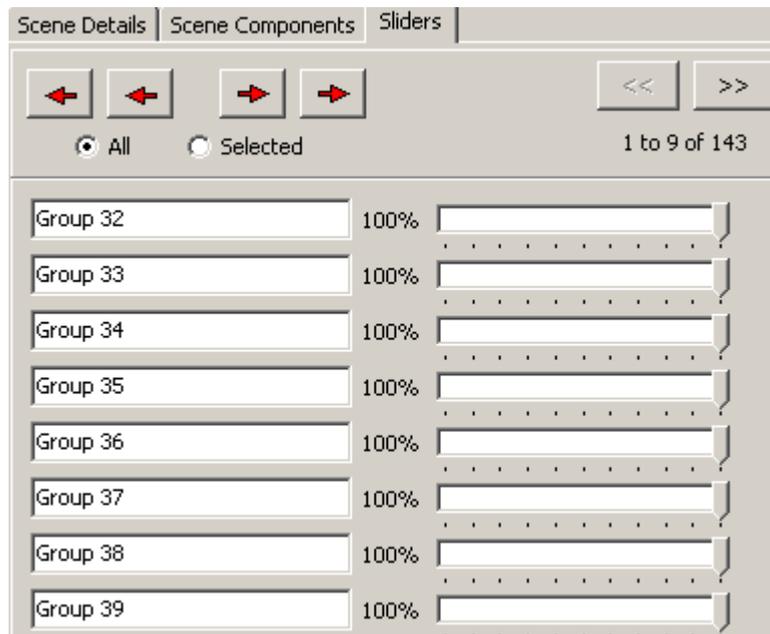
There is also some information about the approximate time needed to execute the Scene. The time taken will depend a lot on how busy C-Bus is at the time, so this figure is rather approximate, and tends to be conservative.

Scene Components which can not be edited

If the [Scene Component Locked](#) option is selected, then:

- There will be an icon next to it in the Scene Editor
- When selected, the [Scene Component Locked In-Built System IO](#) variable will be true
- Attempting to change these Scene Components will raise a confirmation message

Sliders Tab



The **Sliders** tab shows a series of sliders, one for each Scene Component, in the same order as listed in the **Scene Components** list. If there are too many sliders for one page, the << and >> buttons can be used to scroll through the pages of sliders.

A Scene Component can have its level adjusted using the corresponding slider. They can also be adjusted using the nudge buttons at the top of the page. To nudge all Scene Components :

1. Select the **All** button
2. Click on the nudge buttons

To select Scene Components :

1. Click on the Group Edit box.
2. To select another Scene Component hold down the **CTRL** key and click on the Group edit box for the next Scene Component
3. To select all Scene Components, right click on a Group edit box and select the **Select All** item
4. To de-select all Scene Components, right click on a Group edit box and select the **De-select All** item

To nudge particular Scene Components :

1. Select the **Selected** button
2. Select the required Scene Components
3. Click on the nudge buttons

If the **Live Changes** check box is selected, any changes made to Scene Components will be broadcast onto C-Bus immediately.

To view additional details of a Scene Component (Network and Application), hold the mouse over the Scene Component Group Address. A hint will appear with the details of the Scene Component.

To change the order in which the Scene Components are displayed, select the desired order using the **Scene Components** list in the **Scene Components** tab.

Scene Components which can not be edited

If the Scene Component **Locked** option is selected, then the slider will not be able to be changed.

Notes

Pressing a scene [Component](#) for more that 10 seconds will show the Scene Editor form. This only applies if the button triggers the scene directly, not if it sets the trigger for a scene.

See also [Software Limits](#), [Printing](#) and [Special Functions](#)

4.15.7 Scene Component Editor

The Scene Component Editor allows the user to edit a [Scene Component](#). The Scene Component Editor is accessed via the [Scene Editor](#).

The Scene Component Editor allows you to enter the following details of the Scene Component :

Controlled Group

Use the Controlled Group [C-Bus Properties](#) controls to select the Network, Application and Group Address.



The image shows a dialog box titled "Controlled Group" with three rows of settings, each with a dropdown menu:

Property	Value
Network	Local Network
Application	Lighting
Group Address	Bathroom 1

Action

This allows you to either ramp a group to a [level](#) or to pulse a group to a level for a particular duration. The parameters entered are :

- C-Bus [Level](#)
- [Ramp Rate](#)
- Pulse duration (if applicable)
- Pulse return level (if applicable) – this is the level that the Group Address will be set to when the pulse duration is complete.

The screenshot shows a configuration window titled "Action". It has two radio buttons: "Ramp Group" (selected) and "Pulse Group". Below these are three sections: "Level" with a dropdown set to "OFF" and a "Current Level" button; "Ramp Rate" with a dropdown set to "over 4 seconds"; and "Pulse" with "Duration" set to 0 H, 0 M, 0 S and "Final Level" set to "OFF".

Editing Option

The Scene Component **Locked** option controls whether the user is able to edit this Scene Component. If it is selected then:

1. There will be an icon next to it in the Scene Editor
2. When selected, the [Scene Component Locked In-Built System IO](#) variable will be true
3. It will be ignored when using a Scene Store [Special Function](#)

4.15.8 Scene Matrix Manager

The Scene Matrix Manager provides an overview of all Scenes and the ability to edit several Scenes at once.

To open the Scene Matrix Manager, click on the **Matrix View** button on the [Scene Manager](#).

The screenshot shows the Scene Matrix Manager interface. At the top, there are buttons for "Set Scene", "Add Scene", "Edit Scene", "Capture", "Delete Scene", and "Duplicate Scene". There are also controls for "Level" (0%, OFF, ON), "Live Changes" checkbox, and radio buttons for "Selected" and "Whole Scene". Below is a table with the following data:

Network	App	Group	All Off	Night Time	Away
Local Network	Lighting	Basement Light 1	0%		
Local Network	Lighting	Basement Light 2	0%		
Local Network	Lighting	Bed 1 Light	0%	40%	
Local Network	Lighting	Bed 2 Light	0%	30%	
Local Network	Lighting	Bedside Lights	0%	30%	
Local Network	Lighting	Bathroom Lights		30%	
Local Network	Lighting	Outside Light			20%
Local Network	Lighting	PIR Disable			0%

The Scene Matrix Manager shows only the Group Addresses which are used in one or more Scenes.

Alongside each Group Address the level of that Group Address in each Scene is shown. If a Group Address is not used in a particular Scene, the cell will be blank.

The [columns](#) can be sorted by clicking on top of the column or they can be rearranged and have their widths changed by dragging them.

Scene Management

Scenes can be managed in a similar way to the Scene Manager :

- To add a Scene, click on the **Add Scene** button or right click on one of the cells and select the **Add** item
- To delete a Scene, select a cell in the Scene column and click the **Delete** button or right click and select the **Delete** item
- To edit a Scene, select a cell in the Scene column and click the **Edit** button or right click and select the **Edit** item
- To duplicate a Scene, select a cell in the Scene column and click the **Duplicate** button or right click and select the **Duplicate** item

To select a Scene, click on any cell in the Scene column. The selected Scene name will be highlighted.

Selecting Scene Components :

- To select a Scene Component, click on a cell in the Scenes grid.
- To select additional Scene Components, hold down the **CTRL** key and click on the other Scene Component cells.
- To select all Scene Components in the selected Scene, right click on the **Scene Components** list and select the **Select All in Scene** item.
- To de-select all Scene Components, right click on the Scenes list and select the **De-select All** item.

Scene Trigger

To view the trigger for a Scene, hold the mouse over the Scene name cell. A hint will appear with the details of the trigger.

Scene Levels

To change the levels in a Scene :

1. Select the desired Scene Component(s) in the Scenes list
 2. Change the level using the spin edit, slider, **On** and **Off** buttons or nudge buttons (left and right arrows)
 3. Change the ramp rate using the **Ramp Rate** Combo Box
- OR
1. Select the desired Scene Component(s) in the Scenes list
 2. Right click on the Scenes list and select the **Edit** item or just double click the item in the list.
 3. The [Scene Editor](#) will open
 4. Enter the desired properties for the Scene Component(s) and click on **OK** when complete.

To view additional details of a Scene Component (such as ramp rate, or pulse duration), hold the mouse over the Scene Component cell. A hint will appear with the details of the Scene Component.

Adding and Removing Scene Components

To add a Scene Component to a Scene :

1. Select the desired Scene Component(s) in the Scenes list
2. Right click on the Scenes list and select the **Add Scene Component** item

To delete a Scene Component to a Scene :

1. Select the desired Scene Component(s) in the Scenes list
2. Right click on the Scenes list and select the **Delete Scene Component** item

Capturing Scene Levels

It is possible to capture the levels of Scene Components from the C-Bus network and store them in the Scene. To capture the levels for all of the Scene Components, just click on the **Capture** button or right click on the Scenes list and select the **Capture | Capture** item.

To capture just some of the Scene Components levels :

1. Select the desired Scene Component(s) in the Scenes list
2. Right click on the Scenes list and select the **Capture** item or right click on the **Capture** button
3. Select the **Capture Selected**, **Capture Network**, **Capture Application** or **Capture Net and App** sub item. The meanings of these is discussed below :
 - **Capture Selected** : captures just the selected item(s)
 - **Capture Network** : captures all Scene Components for the Network selected in the **Available Groups** panel
 - **Capture Application** : captures all Scene Components for the Application selected in the **Available Groups** panel
 - **Capture Net and App** : captures all Scene Components for the Network and Application selected in the **Available Groups** panel

Setting Scene Levels

It is possible to test the Scene by setting some or all of the Scene levels on C-Bus. To set the whole Scene, click on the **Set Scene** button or right click on the **Scene Components** list and select the **Set Scene | Set Scene** item.

To set just part of a Scene :

1. Select the desired Scene Component(s) in the Scenes list
2. Right click on the Scenes list and select the **Set Scene** item or right click on the **Set Scene** button
3. Select the **Set Scene Levels Immediately**, **Set Selected** or **Set Selected Immediately** sub item. The meanings of these is discussed below :
 - **Set Scene Levels Immediately** : set the whole Scene immediately (do not use the Scene Components' ramp rate)
 - **Set Selected** : Set the selected Scene Components using their correct ramp rates
 - **Set Selected Immediately** : Set the selected Scene Components to their levels immediately (do not use their ramp rates)

If the **Live Changes** check box is selected, any changes made to Scene Components will be broadcast onto C-Bus immediately.

To identify a particular Group Address :

1. Select the desired Scene Component(s) in the Scenes list
2. Right click on the Scenes list and select the **Flash Group** item

Printing Scene Details

To print the Scene matrix, right click on the Scenes list and select the **Print** item. The **Printer**

Setup allows the selection of the printer.

Importing and Exporting

The data in the Scene Matrix manager can be exported to or imported from a "CSV" format file. These files can be easily used with spreadsheets, databases and other software.

To export the Scene Data :

1. Click on the **Export** button
2. Enter the file name
3. Click on **OK**

To import the Scene Data :

1. Click on the **Import** button
2. Click on the **Yes** button
3. Select the file name
4. Click on **OK**

Scene Components which can not be edited

If the Scene Component **Locked** option is selected, then the cell will have a grey background and will not be able to be edited.

4.16 Schedules

A Schedule is used whenever something has to occur at a particular time. This can be an event that occurs only once or something that is repeated time and time again. The PICED Software has a list of things to do, and every second it checks whether one of those things should be done at this particular time. Every Schedule creates a new entry in that list.

Generally, Schedules are independent of each other. However, sometimes, one Schedule but not another must be executed depending upon some condition. For example the Schedule of watering used in the summer (every two days, at night) might be quite different than the winter Schedule (every week, while at work during the day) both Schedules can't apply; it's one or the other. This is called a "mutually exclusive" scheduling situation.

It is possible to set up mutually exclusive schedules to handle this kind of situation by means of setting different levels on an enabling [Group Address](#). See the [Schedule Editor](#) for details.

Schedules are created and managed using the [Schedule Manager](#).

Schedules use the computer clock to determine the time. The accuracy of the schedules is therefore limited to the accuracy of the computer clock. The computer date and time can be set using [Special Functions](#).

See also [Special Days](#), [Software Limits](#), [Special Functions](#), [In-built System IO](#).

4.16.1 Schedule Manager

The Schedule Manager allows the user to see a summary of all [Schedules](#) in a project, and to see which are active. It also allows you to add, duplicate, edit and delete Schedules.

To show the Schedule Manager form, click on the **Project | Edit Schedules** menu item or click on the **Schedule** button on the [tool bar](#).

ADDING, DELETING & EDITING SCHEDULES

To create a new Schedule, click on the **Add** button. The [Schedule Editor](#) form will appear. If a Schedule Collection is selected, the new Schedule will have the same enabling conditions as the Schedule Collection.

To delete a Schedule, select the required Schedule from the list and click on the **Delete** button.

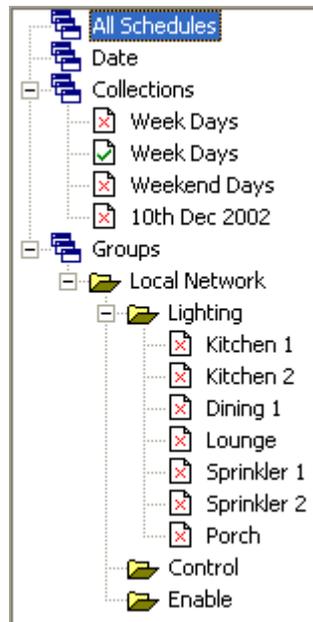
To [edit](#) a Schedule, select the required Schedule from the list and click on the **Edit** button or double click on the required schedule. The [Schedule Editor](#) form will appear.

To duplicate a Schedule, select the required Schedule, and click on the **Duplicate** button. You will be prompted to enter the name of the new Schedule, which must be unique.

To [change the order](#) of the Schedules, select a Schedule and drag it to the correct position.

SCHEDULE TREE

The Schedule Tree view on the left of the Schedule Manager allows you to select sets of schedules.



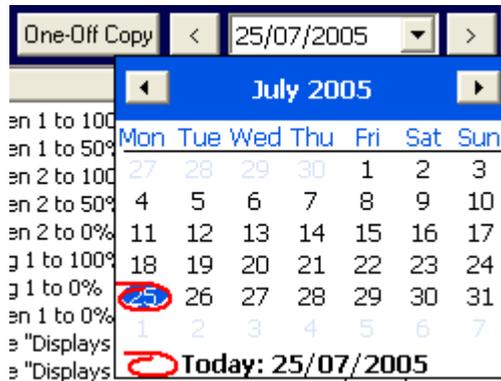
The alternative Schedule selection options are :

- All Schedules : Select the **All Schedules** node, and all Schedules will be displayed.
- Schedules by Date (see below)
- Schedule Collections (see below)
- By Network : select the desired Network and all Schedules related to that Network will be shown.
- By Application : select the desired Network and Application and all Schedules related to that Network/Application will be shown.
- By Group Address : select the desired Network, Application and Group Address and all Schedules related to that Network/Application/Group Address will be shown. The Group Address icon in the tree shows the state of the Group Address (On / Off).

The **Show Groups** item on the tool bar allows you to select whether to display all of the Groups on the tree. It is faster to not have them displayed, particularly when there are a lot of Schedules.

SCHEDULES BY DATE

To view all Schedules for a particular date, select the **Date** node. Only the Schedules for the current date will be displayed. To change the date, click the < or > buttons, or drop down the calendar as shown below. The **One-Off Copy** button can be used to [Create One-Off Schedules](#).



SCHEDULE COLLECTIONS

The Schedules are automatically arranged into Schedule Collections, which are groups of related Schedules. All of the Schedules in a Schedule Collection will be executed under the same conditions (ie. they are executed on the same day(s) and have the same enabling group). The enabling conditions under which the Schedule is executed are shown at the bottom of the Schedule Manager form.

Selecting a Schedule Collection from the Schedule Tree will display only the Schedules in that Schedule Collection. Selecting All Schedules will display all Schedules.

If you double click on a Schedule Collection in the list, it will open the Schedule Collection Conditions form. This will allow you to change the Enabling Group Address and the Day on which all of the Schedules in the selected Schedule Collection occur. Refer to the [Schedule Editor](#) for more details.

The Schedule Collection icon in the tree shows the enabled state of the Schedule Collection (Enabled / Disabled).

SCHEDULE TABLE VIEW

The Schedule Table displays the Schedule data in several [columns](#) as described below :

Number	Description	Date	Time	Action	Enable	State
1	Irrigation	Every Day	8:00:00 PM	Set Irrigation Control to Lawns	Always	Disabled
2	Night	Every Day	Sunset + 1:00:00	Ramp Lounge to 100% over 8 seconds	Always	Disabled
3	Enable Irrigation	18th Mar	4:04:00 PM	Set Irrigation Enable to Irrigation On	Always	Disabled
4	Test	Every Day	7:50:20 PM	Pulse Scene "Scene 2" Groups to 100% for 3 sec	Always	Disabled

The columns are :

- **Number** : This is the number of the Schedule.
- **Description** : This is the name that has been given to the Schedule.
- **Date** : This is the day(s) that the Schedule will be executed.
- **Time** : This is the time that the Schedule will be executed.
- **Action** : This is the action that the Schedule will perform.
- **Enable** : This shows under which conditions the Schedule is enabled.
- **State** : This is whether the Schedule is enabled or not.

Note that the width of the [columns](#) can be dragged and the order of the columns can be changed by dragging the column to where it is required. The Schedules can be sorted by any column by clicking on the top of that column.

Double clicking on a Schedule in the list will show the [Schedule Editor](#) form.

To display all of the days in the year in which the selected schedule will occur, click on the **Year View** button.

RUNNING SCHEDULES

Note that Schedules will not be executed unless the Scheduler is running. To run the scheduler, select the **Run** check box. The scheduler can also be set running by clicking on the **Options | Run Scheduler** menu item, using the [Command-Line Parameters](#) or double clicking on the [Status Bar](#). The state of the Run Scheduler item is remembered. The next time that PICED is run, the state will be the same.

NAMING SCHEDULES

To simplify the management of large numbers of Schedules, it helps to apply a structured naming scheme for the Schedules. For example, all Schedules for the first floor of a building may start with L1 and so forth. When the Schedules are sorted by name, then they will be grouped together. An example of well-named Schedules might be as follows :

- L1 Workdays Finish
- L1 Workdays Night
- L1 Workdays Start
- L2 Workdays Finish
- L2 Workdays Night
- L2 Workdays Start
- etc

REFRESHING GROUPS

The state of Group Addresses shown on the Schedule Tree can be refreshed to show the current state on C-Bus by clicking on the Refresh button. This will also update the enable state shown in the Schedule Table View. To make the refreshing happen automatically, select the **Auto Refresh** check box. The refreshing may take several seconds when there are a lot of Schedules.

Schedules which can not be edited

If the Schedule **Locked** option is selected, then:

- There will be a padlock icon next to it in the Schedule Manager
- Attempting to change these Schedules will raise a confirmation message

Schedules which are not used in the current [Profile](#) will have an **X** icon next to them. Although they can be edited, it will not affect the Project.

See also [Software Limits](#), [Project Summary](#), [Printing](#) and [Schedule Catch-Up](#)

4.16.2 Schedule Properties

The Schedule Editor allows the user to edit a [schedule](#). The Schedule Editor is accessed via the [Schedule Manager](#).

Each Schedule has several main properties :

- A name/[description](#)
- An [enabling](#) Group
- The [time](#) at which it will occur
- A [day](#) or days on which it will occur
- An [event](#) which will be executed

Make the necessary changes on each of the tabs. When all changes are complete, click on the **OK** button. To exit without making changes to the Schedule, click on the **Cancel** button.

See also [Special Functions](#), [Schedule Examples](#), [Year View](#) and [Schedule Catch-Up](#)

4.16.2.1 Schedule General

The General tab of the [Schedule Editor](#) form allows you to enter a unique name for the Schedule. The description should be something meaningful to you so that it makes sense when you see it in a list.

The Schedule **Locked** option controls whether the user is able to edit this Schedule. If it is selected then:

1. It will be hidden or have an icon next to it in the [Schedule Manager](#)
2. It will be skipped when using [Schedule In-Built System IO](#) variables

The Schedule can be enabled for just selected [Profiles](#) by [selecting](#) the required Profiles from the **Used in Profiles** list.

You can add information related to the Schedule by entering it in the **Notes** box.

4.16.2.2 Schedule Enabling

A Schedule can be turned on or off. If the schedule is turned on, the Schedule proceeds as programmed. If it is off, the Schedule is ignored. This effect is achieved by means of an enabling [Group Address](#). This Group Address and the [Level](#) determine whether a Schedule is to run. If the Schedule does not need to be turned on or off, the [Group Address](#) is left as "unused". Typically, a particular Group Address on the Control [Application](#) (number CA [hex](#)) will enable the Schedule when it is at 100%.

The [Schedule Editor Enable](#) Tab allows you to select how you want to enable/disable the [Schedule](#).

The screenshot shows the 'Enable' tab of the Schedule Editor. It contains a section titled 'Enabled By' with three rows of configuration options:

Enabled By	Application	Group	Value
Application	Enable	Sprinkler 1 Schedule	ON Enabled
Group			
Value			

Each row has a dropdown menu and two small icons (a green plus sign and a green pencil) to the right.

There are two basic techniques to generate [mutually exclusive schedules](#) (ie. only one will run at a time.) These are both illustrated in the Schedules.CTD example provided with the PICED software.

The first of these techniques is to assign all Schedule Enable Groups the same Group Address and use a different level for each Schedule. Since a Group Address can only have one level at a time, only one Schedule can be in effect at one time.

Alternatively, separate Group Addresses can be used to enable different Schedules. Scenes can be used to set the Group Address levels to enable a different Schedule. The designer is fully responsible for ensuring that the activity is mutually exclusive and so there is a potential for errors (The Mutually Exclusive page of the Schedules.CTD project illustrates this.)

See also [Power Failure Recovery](#).

4.16.2.3 Schedule Time

The time that the [Schedule](#) is to occur is set on the [Schedule Editor Time](#) tab.

The screenshot shows the 'Schedule Editor Time' dialog box. On the left, under 'Schedule Type', there are five radio button options: 'Fixed Time', 'Sunrise', 'Sunset', 'Repeat' (which is selected), and 'Random'. On the right, under 'Schedule Time', there are three rows of time selection controls. The first row is labeled 'Every' and has three spinners for 'HOURS' (set to 1), 'MIN' (set to 0), and 'SEC' (set to 0). The second row is labeled 'Starting' and has three spinners for 'HOURS' (set to 19), 'MIN' (set to 0), and 'SEC' (set to 0). The third row is labeled 'Ending' and has three spinners for 'HOURS' (set to 23), 'MIN' (set to 0), and 'SEC' (set to 0).

There are several options :

- **Fixed Time** : The Schedule time is set in 2400 hour time (eg. 5PM = 1700).
- **Sunrise** : The Schedule time is [sunrise](#) plus or minus a fixed offset.
- **Sunset** : The Schedule time is sunset plus or minus a fixed offset.
- **Repeat** : The Schedule occurs at a regular interval between the **Starting** and **Ending** times.
- **Random** : The Schedule occurs at a random time between the **Starting** and **Ending** times.

For random Schedules, the time at which the schedule is to occur is calculated when the time gets to the **Starting** time.

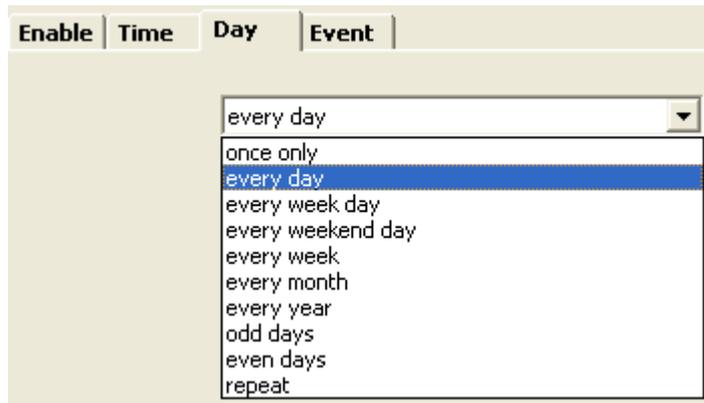
The Schedule time can be displayed using a [Clock](#) and can be edited using [In-built System IO](#) components.

4.16.2.4 Schedule Day

The day(s) that the [Schedule](#) is to occur is set on the [Schedule Editor Day](#) tab. By default, the Schedule is set to occur every day.

There are two ways of selecting the day. By clicking on the **Advanced** or **Simple** button, you will see more or less detail as required. The simple option allows you to select days as follows :

- Once Only – you will need to enter the date, or select it from the drop-down calendar
- Every Day
- Every Week Day (Monday to Friday)
- Every Weekend (Saturday and Sunday)
- Every Week – you will need to select which day of the week
- Every Month – you will need to select which day of the month
- Every Year – you will need to enter the day of the year, or select it from the drop-down calendar (the selected year is ignored)
- Odd Days
- Even Days
- Repeat - select the number of days in the repeat cycle and the starting date



For more complicated day selection, you will need the page with more detail (click on the **Advanced** button):

Day of the Week

If you want the Schedule to occur on particular days of the week or on [Special Days](#), select the days required. The drop-down list at the top allows you to select various combinations, including :

- None (this clear the lists for you). You must then select one or more days, otherwise the Schedule will never run.
- Any Day (i.e. you don't care which day of the week it is)
- Weekdays (Monday - Friday)
- Weekends (Saturday and Sunday)
- Work Days (Monday to Friday, but not Public Holidays)
- Non-work Days (Saturday, Sunday and Public Holidays).

To enter something different, select **Custom** from the list, and select the required days.

The Schedule will run on the days of the week selected (Sunday - Saturday) and also on any [Special Days](#) selected in the **Also On** list, but not on any Special Days selected in the **Not On** list.

In the example below, the Schedule will occur on Weekends (Saturday and Sunday) and also on Public Holidays. For many people, these are non-working days.

<input checked="" type="checkbox"/> Sunday	
<input type="checkbox"/> Monday	
<input type="checkbox"/> Tuesday	
<input type="checkbox"/> Wednesday	
<input type="checkbox"/> Thursday	
<input type="checkbox"/> Friday	
<input checked="" type="checkbox"/> Saturday	
Also On	Not On
<input type="checkbox"/> Normal	<input type="checkbox"/> Normal
<input checked="" type="checkbox"/> Public Holiday	<input type="checkbox"/> Public Holiday
<input type="checkbox"/> Special Day 1	<input type="checkbox"/> Special Day 1
<input type="checkbox"/> Special Day 2	<input type="checkbox"/> Special Day 2
<input type="checkbox"/> Special Day 3	<input type="checkbox"/> Special Day 3
<input type="checkbox"/> Special Day 4	<input type="checkbox"/> Special Day 4
<input type="checkbox"/> Special Day 5	<input type="checkbox"/> Special Day 5
<input type="checkbox"/> Special Day 6	<input type="checkbox"/> Special Day 6

In the example below, the Schedule will occur on Week Days (Monday to Friday) but not on Public Holidays. For many people, these are working days.

<input type="checkbox"/> Sunday	
<input checked="" type="checkbox"/> Monday	
<input checked="" type="checkbox"/> Tuesday	
<input checked="" type="checkbox"/> Wednesday	
<input checked="" type="checkbox"/> Thursday	
<input checked="" type="checkbox"/> Friday	
<input type="checkbox"/> Saturday	
Also On	Not On
<input type="checkbox"/> Normal	<input type="checkbox"/> Normal
<input type="checkbox"/> Public Holiday	<input checked="" type="checkbox"/> Public Holiday
<input type="checkbox"/> Special Day 1	<input type="checkbox"/> Special Day 1
<input type="checkbox"/> Special Day 2	<input type="checkbox"/> Special Day 2
<input type="checkbox"/> Special Day 3	<input type="checkbox"/> Special Day 3
<input type="checkbox"/> Special Day 4	<input type="checkbox"/> Special Day 4
<input type="checkbox"/> Special Day 5	<input type="checkbox"/> Special Day 5
<input type="checkbox"/> Special Day 6	<input type="checkbox"/> Special Day 6

If you want a Schedule to occur on just "normal days" (any day that is not one of the [Special Days](#)) :

- select **Custom** from the list
- switch off **Sunday - Saturday**
- select **Normal** in the **Also On** list

Day of the Month

If you want the Schedule to occur on particular days of the month, select the days required. The drop-down list at the top allows you to select various combinations, including :

- None (this clear the list for you). You must then select one or more days, otherwise the Schedule will never run.
- Any Day (i.e. you don't care which day of the month it is)
- The First Week of the Month (day 1 - 7)
- The Second Week of the Month (day 8 - 14)
- The Third Week of the Month (day 15 - 21)
- The Fourth Week of the Month (day 22 - 28)
- The Last Week of the Month (the last 7 days of the month)
- Odd Days (1, 3, 5, etc)
- Even Days (2, 4, 6 etc)
- Repeat Days (eg. every 3 days)

To enter something different, select **Custom** from the list, and select the required days.

Repeat Days

For repeat days, you need to select how often you wish the schedule to occur and the next day that it is to occur. If you select the Schedule to occur every 5 days, then the next day for it to occur will need to be sometime in the next 5 days.

Month

If you want the Schedule to occur in particular months, select the months required. The drop-down list at the top allows you to select various combinations, including :

- None (this clear the list for you). You must then select one or more months, otherwise the Schedule will never run.
- Any Month (i.e. you don't care which month it is)

To enter something different, select **Custom** from the list, and select the required months.

Year

If you want the Schedule to occur in a particular year, de-select the **Any Year** check box and enter the year required.

Combinations

The Days, Months and Years can be combined in any way you wish. The Schedule will only be executed on days where the Day of the Week, Special Days, Day of the Month, Month and Year ALL match the selection.

To display all of the days in the year in which the Schedule will occur, click on the [Year View](#) button.

See [Schedule Examples](#) to see how to set up the more complex Schedules.

The Schedule date can be edited using [In-built System IO](#) components.

4.16.2.5 Schedule Event

The [Schedule Editor](#) **Event** tab allows you to set the [Schedule](#) Event. The Event is the action which will occur at the scheduled [time](#) and [day](#).

C-Bus Control

For C-Bus Control, there are three choices :

- setting a Group to a particular level;
- pulsing a group; or
- setting a [scene](#).

To control an individual group, select the **Single Group** button. To control all of the groups in a Scene, select the **Scene Groups** button and select the appropriate Scene.

To set a group or Scene groups, click on the **Ramp Group** button and select the required [group\(s\)](#), [level](#) and [ramp rate](#).

To pulse a group or Scene Groups (ie. set it to a particular level for a certain time), click on the **Pulse Group** button and select the required group(s), level, ramp rate, duration and return level (the level returned to at the termination of the pulse)

To set a scene, click on the **Set Scene** button and select the required scene from the list.

Notes on Using Timers (Pulsed Groups)

Timers are used where the exact time that something is on for is critical. For example, if you want something to be pulsed on for a couple of seconds, then a Pulse is appropriate. If you want to switch a light on at 7:00 PM, then off at 6:00 AM, then an 11 hour pulse is not so appropriate. It is more suitable to have two Schedules. See [Power Failure Recovery](#).

Page Link

You can also have the Schedule select a [page](#) by selecting the required page from the **Page Link** tab. An example of a use for this would be to have PICED display a page reminding the user to put out the garbage on a particular night.

Special Functions

You can also have the Schedule execute a [Special Function](#) by selecting the required one from the **Special Function** tab. The most common use for Special Functions being executed from a Schedule is to raise an alarm at a particular time or enabling a [Logic Module](#).

Note that not all Special Functions can be executed from a Schedule (you will only be given a choice of some of them).

4.16.3 Year View

Selecting the days for which a [Schedule](#) is to occur can be complex. The Schedule Year View displays every day on which the selected Schedule will occur to enable you to confirm that you have set up the Schedule correctly.

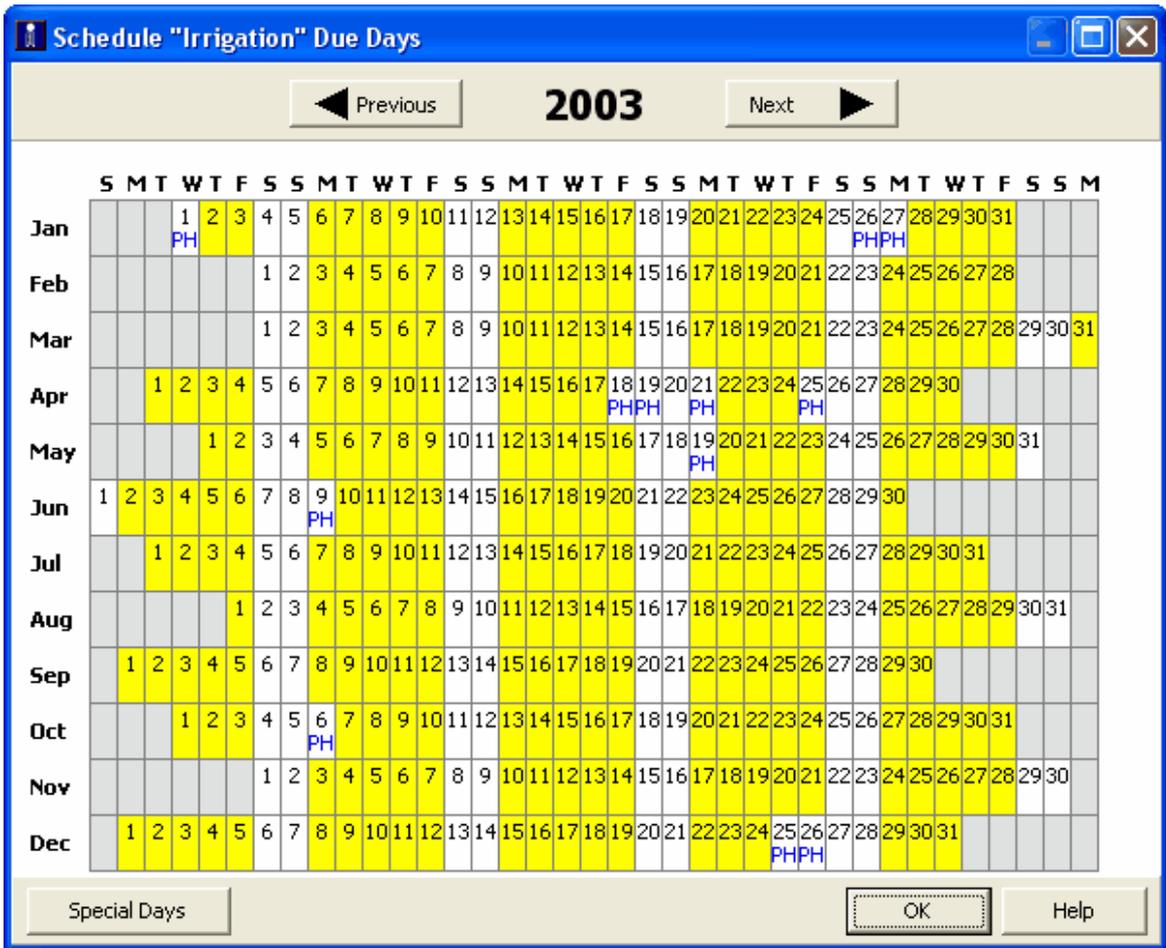
To open the Schedule Year View :

In the [Schedule Editor](#) **Day** tab, click on the Year View button; or

In the [Schedule Manager](#), select a Schedule and then click the **Year View** button on the [Tool Bar](#)

The days highlighted are the ones on which the Schedule will occur. Click on the **Previous** button to go back a year, or on the **Next** button to go forward a year.

Special days are marked with a PH for public Holiday or S1...S6 for Special Days 1 through to 6.



4.16.4 Schedule Examples

[Schedules](#) are set with the [Schedule Editor](#). This section provides guidance on how to set up the days of some of the more complex Schedules.

Standard Schedules

The due days for most Schedules can be set using the **Day** tab of the Schedule Editor with the **More** option selected :

Sets of days can be selected with the **Day of Week**, **Day of Month**, **Month** and **Year** group boxes.

For a particular day to be included in a Schedule it must be present in each of these sets of days.

Another way to look at it is : ***any day which does not belong in any one of the sets (ie. it is the wrong day of the week, Special Day type, day of the month, month or year) will NOT be included in the Schedule.***

Example 1

For example, suppose you have selected :

- Week Days (Monday to Friday) in the **Day of Week** set
- Any Day (ie. all days, 1..31) in the **Day of Month** set
- January to June in the **Month** set
- 2003 in the **Year** set

Any day which is present in each of the above sets will be included in the Schedule. Hence :

- Monday 23 June 2003 will be in the Schedule (the day is in Monday - Friday, the day of the month is in 1-31, the month is in Jan - June and the year is 2003)
- Monday 21 June 2004 will not be in the Schedule (the day is in Monday - Friday, the day of the month is in 1-31, the month is in Jan - June but the year is not 2003)
- Any Saturday or Sunday will not be in the Schedule.
- Any day in July - December will not be in the Schedule
- Any day not in the year 2003 will not be in the Schedule

Example 2

If you want the Schedule to occur on the first Tuesday of every month, select **Custom** in the list in the **Day of Week** group and select **Tuesday**. Select **Week 1** from the list in the **Day of Month** Group. Leave the **Month** group set to **Any Month**. Leave the **Year** group set to **Any Year**.

Example 3

To have a schedule repeat every three days, select **Any Day** in **Day of Week** and **Any Month** in the **Month** group. Select **Repeat** in **Day of Month**. Select **3** in the **Repeat Schedule** group. Select the next day that you wish to have it occur.

Public Holidays and other Special Days

[Special Days](#) can be used to define sets of days which are related to each other. These can be included in Schedules or excluded from Schedules by selecting them in the **Day of Week** group box.

Example 4

To have a Schedule occur on Monday to Friday but not on [Public Holidays](#), select **Custom** in the list in the **Day of Week** group and select **Monday** through to **Friday**. Select **Public Holidays** in the **Not On** group. Use the [Special Day Manager](#) to set the Public Holidays.

Example 5

To have a Schedule occur on a Birthday :

- Use the [Special Day Manager](#) to create the "Birthday" Special Day category and to set all of the Birthdays
- In the Schedule Editor select **Custom** in the list in the **Day of Week** group and de-select **Sunday** through to **Saturday**. Select **Birthdays** in the **Also On** group.

Note : When you have set up a Schedule, use the [Year View](#) to confirm that you have it correct.

4.16.5 Creating One-Off Schedules

Sometimes it is desirable to create a set of Schedules which will only run on a particular day. For example, in a shopping centre, you may have an extended trading day, and for just that day, you need to modify the Schedules.

The easiest way to do this is as follows :

1. Open the [Schedule Manager](#)
2. Select the **Date** view
3. Select the date for the one-off Schedules
4. Click on the **One-Off Copy** button
5. Select whether you want to copy **All** Schedules for this date, or just the **Selected** ones.
6. A form will be displayed. Select the Special Day type for this date.
7. Click on **OK**

This does the following things for you automatically (for all Schedules or just the selected ones) :

1. It sets all of the current Schedules for that date to not occur on the selected Special Day type
2. It creates a copy of each Schedule for that date and :
 - gives it a unique name (current name + date)
 - sets it to occur on just that date and Special Day type
3. It sets the Special Day type for the selected date

If you have the Auto Delete One-Off Schedules option in the [Project Details](#) selected, the one-off Schedules will automatically be deleted after they have been run.

4.16.6 Synchronising to Schedules

When PICED starts up, or following a [Power Failure](#), the [Group Addresses](#) will not necessarily be at the levels that they should be for the time of the day. The Group Addresses can all be set to their correct levels for the time of the day by :

- Selecting the **Tools | Sync to Schedules** menu item
- Clicking a [Component](#) with a Sync to Schedules [Special Function](#)
- Using a [Command Line Parameter](#)

The Synchronising process is the same as doing a [Schedule Catch-Up](#) for the last 24 hours. All Schedules for the last 24 hours are executed in quick succession.

4.17 Access Control

Access to the PICED project [pages](#) and to most of the PICED software functions can be limited based on a user's [Access Level](#).

Each project Page has an Access Level. If the currently [logged in](#) user has an Access Level equal or greater than a page's Access Level, then they can view that page. If not, then they will need to log-in first.

Similarly, most functions of the PICED software also have an Access Level. If the user does not have access to a function, then it will either appear as being disabled or will be invisible, depending on the configuration of the [Access Manager](#).

The default Access Levels are :

- Level 0 : Anyone
- Level 1 : User 1
- Level 2 : User 2
- Level 3 : User 3
- Level 4 : Supervisor
- Level 5 : Administrator

A user can access anything which has an Access Level equal or lower than the user's Access Level. The lowest level is available without having to log-in.

Using Access Levels

To use Access Control with a project, follow these steps :

1. Create the desired [Access Levels](#)
2. Add the [users](#)
3. Assign which Access Levels have access to which features
4. Assign Access Levels to [pages](#) which are to be restricted
5. Add buttons with Log-in and Log-out [Special Functions](#) where necessary

Note :

User passwords are encrypted in the Project file, however it is recommended that if security is critical, then the project should be saved as an [encrypted](#) file.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.17.1 Access Control Manager

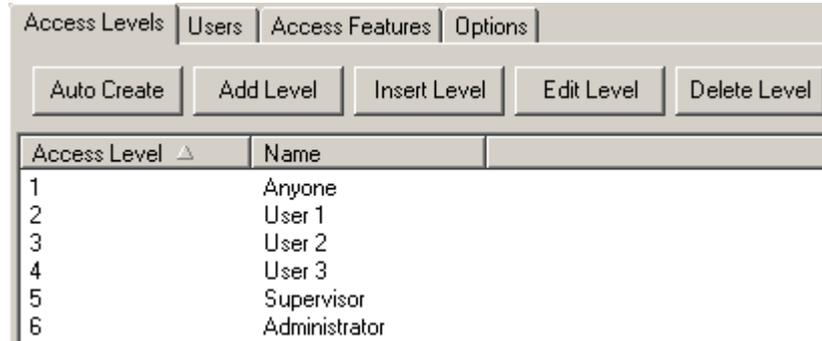
Access Levels provide a means of limiting access to the PICED software. [Access Levels](#) can be defined using the Access Control Manager. To open the Access Control Manager, either :

- Click on the **Project | Edit Access Control** menu item; or

- Click on the **Access Control** button on the [Tool Bar](#)

Access Levels Tab

This allows Access Levels to be added, deleted and edited. The list [columns](#) can be rearranged or have their widths changed. To sort by a column, click on the top of that column.



To automatically use the default Access Levels, click on the **Auto Create** button.

To add a new Access Level, click on the **Add Level** button. To Insert a new Access Level in the list, select an Access Level, then click on the **Insert Level** button.

To delete an Access Level in the list, select an Access Level, then click on the **Delete Level** button.

To edit an Access Level, either :

- select an Access Level, then click on the **Edit Level** button; or
- double click on an Access Level

This will allow the user to edit the name of the Access Level.

Users Tab

This allows you to add Users and assign them Access Levels. The list [columns](#) can be rearranged or have their widths changed. To sort by a column, click on the top of that column.



To add a new user, click on the **Add User** button.

To delete a user, select the user, then click on the **Delete User** button.

To edit a User, either :

- select a User, then click on the **Edit User** button; or
- double click on a User

The [User Editor](#) will appear, allowing you to set the user properties.

Access Features Tab

The Access Features allows you to set which Access Levels can access which PICED software features. This is only available for Colour C-Touch projects. To change whether an Access Level has access to a particular feature, click on the appropriate cell in the array and it will change between :

- None (no access)
- Full (full Access)
- Partial (partial access)

Access Levels Users Access Features Options						
<input type="button" value="Default"/> <input type="button" value="All Full Access"/> <input type="button" value="All No Access"/>						
Task	Anyone	User 1	User 2	User 3	Supervisor	Administrator
Control C-Bus	Full	Full	Full	Full	Full	Full
Edit Schedules	None	Full	Full	Full	Full	Full
Edit Irrigation	None	Full	Full	Full	Full	Full
Edit Scenes	None	Full	Full	Full	Full	Full
Edit Special Days	None	Full	Full	Full	Full	Full
Edit System I/O	None	Full	Full	Full	Full	Full
Edit Project	None	None	None	None	None	Full
Edit Logic	None	None	None	None	None	Full
Show Log/Load Monitor	None	None	None	None	None	Full
Miscellaneous	None	None	None	None	None	Full
Exit/Open	None	None	None	None	None	Full
Remote Access	None	None	None	None	None	Full
Edit Access Control	None	None	None	None	None	Full

To give all Access Levels access to all features, click on the **All Yes** button.

To give all Access Levels access to none of the features, click on the **All No** button.

To give all Access Levels typical access to features, click on the **Default** button.

The features controlled by the various options are:

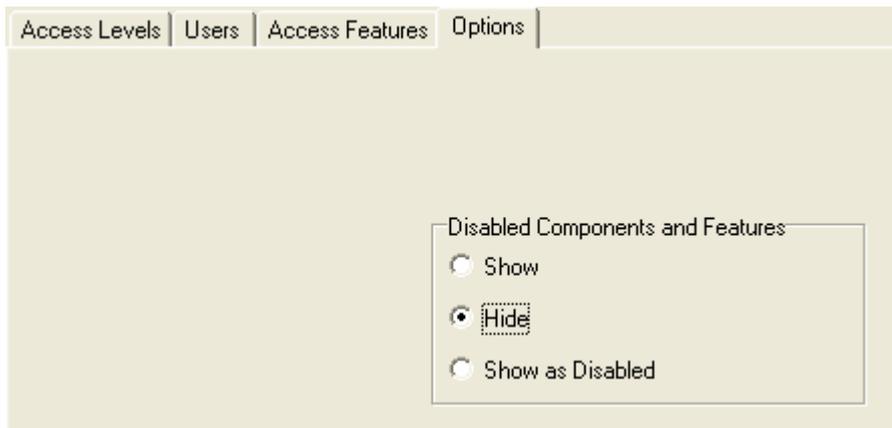
Option	No Access	Partial Access	Full Access
Control C-Bus	No control of C-Bus using Components or Load Monitor form	N/A	Full Control
Edit Schedules	Can not: <ul style="list-style-type: none"> • Start/stop scheduler • Open Schedule Manager or Schedule Properties • Use Schedule In-Built System IO 	Edit time, day and GA level only	Edit all
Edit Irrigation	Can not: <ul style="list-style-type: none"> • Open Irrigation Manager • Use Irrigation In-Built System IO 	Edit zone times only	Edit all
Edit Scenes	Can not:	Edit levels only.	Edit all

Option	No Access	Partial Access	Full Access
	<ul style="list-style-type: none"> Open Scene Manager or Scene Editor Use Scene In-Built System IO Use Scene Special Functions 		
Edit Special Days	Can not open Special Day Manager	Add/delete Special Days only	Edit all
Edit System IO	Can not: <ul style="list-style-type: none"> Open User System IO Manager Use Components to change User System IO values 	Edit values only	Edit all
Edit Project	No editing of pages , components or Project details	When Project details is opened from a Special Function , many aspects can not be set	Edit all
Edit logic	Can not open Logic Editor	N/A	Edit all
Show Log/Load Monitor	Can not show various forms: <ul style="list-style-type: none"> Log Load Monitor Error Manager HVAC Manager C-Bus Network Manager Measurement Manager 	N/A	Full Control
Miscellaneous	Can not: <ul style="list-style-type: none"> Create Desktop Shortcut Convert Files Create Logic Report 	N/A	Full Control
Exit/Open	Can not: <ul style="list-style-type: none"> Close PICED Open a Project Change Simulation Mode 	N/A	Full Control
Remote Access	N/A	N/A	N/A
Edit Access Control	Can not: <ul style="list-style-type: none"> Change File Encryption Open Access Control Manager 	Edit users only	Edit all

Options Tab

This is only available for Colour C-Touch projects. The options for displaying disabled components and features (menu items and tool bar buttons) are :

- **Show** : display them as normal
- **Hide** : hide disabled Components and features
- **Show as Disabled** : show disabled Components with greyed out text



Notes

At least one user must always have access to the Access Control feature, otherwise it is possible to be permanently locked out of the software.

The lowest Access Level (default name "Anyone") and the highest Access Level (default name "Administrator") must always be enabled, otherwise it is possible to be locked out of the software for some time.

See also [Software Limits](#)

4.17.2 Access Level Editor

The Access Levels Editor is accessed via the [Access Control Manager](#) and allows the editing of the name of an Access Level.

4.17.3 Users Editor

The Users Editor is accessed via the [Access Control Manager](#) and allows the editing of the properties of a user.

The properties which can be set for each user are :

- Name : this is the name of the User
- Access Level : this is the Access Level for the User
- Password : this is the password for the User.

User Name <input type="text" value="John"/>			1 ABC	2 DEF	3 GHI
Access Level <input type="text" value="Administrator"/>			4 JKL	5 MNO	6 PQR
Password (Numbers Only) Enter Password : <input type="text" value="****"/>			7 STU	8 VWX	9 YZ
Verify Password : <input type="text" value="****"/>				0	

Note that the password must be a number, and can be entered by clicking on the Password boxes and typing numbers or by clicking on the numeric buttons on the right. The buttons have letters on the bottom which may be useful in remembering the password.

See also [Software Limits](#)

4.17.4 Log-in / Log-out

To gain access to the PICED software, it may be necessary to log-in. This involves entering a password by clicking on the numeric buttons on the screen then clicking on the OK button :

Password : ****

1 ABC	2 DEF	3 GHI
4 JKL	5 MNO	6 PQR
7 STU	8 VWX	9 YZ
◀	0	OK

The user will be asked to log-in if they try to access a page that has an Access Level which is higher than their Access Level. Alternatively, you can :

- click on the **Log-in / Log-out** button on the [Tool Bar](#)
- select the **Tools | Log-in** menu item
- click on a component with the Log In [Special Function](#) set

To log-out :

- click on the **Log-in / Log-out** button on the [Tool Bar](#)

- select the **Tools | Log-in** menu item
- click on a component with the Log Out [Special Function](#) set

4.17.5 Conversion of Old Version Files

If you load an older PICED [Project](#) file which used passwords only for [Access Control](#), PICED will automatically create a user for each password and assign an Access Level to each page which was password protected. As it is impossible to know exactly what the user will require, a single Access Level is used for all Users and Pages.

4.18 Special Days

Special Days are days which are different in some way from a "normal" day. An example is Public Holidays or Birthdays.

Special Days can be selected in [Schedules](#) so that different behaviour can be set for different days.

Special Days are defined and entered using the [Special Day Manager](#).

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#), [Templates](#) and [Calendars](#)

4.18.1 Special Day Manager

To open the Special Days manager either :

- click on the **Project | Edit Special Days** menu item
- click on the **Special Days** button on the tool bar
- click on the **Special Days** button in the [Schedule Manager](#)

Calendar Tab

The Calendar Tab allows you to add or delete Special Days.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25 Public Holiday
26	27	28	29	30	31	

Remove Old Days Remove All 4/250 Special Days used OK Help

To add a Special Day :

- select the required month (using the **Month** and **Year** buttons)
- double click on the required day
- the [Special Day Editor](#) will appear which can be used to select the desired Special Day(s)

To delete a Special Day, repeat the above process and set the Special Day type to **Normal**.

To delete all Special Days before the selected month, click on the **Remove Old Days** button. If you have the Auto Delete Special Days option in the [Project Details](#) selected, the Special Days will automatically be deleted after they have occurred.

To delete all Special Days, click on the **Remove All** button.

Day Types Tab

The Special Day Types are Normal, Public Holiday and Special Day 1 to Special Day 6. Special Days 1 to 6 can be assigned any **description** (name) you wish. They can also be given an **abbreviation**. This is used for :

- The **Calendar** Tab (see above) when there is more than one Special Day for the same date
- For [Calendar Components](#)

	Description	Abbreviation
	Public Holiday	PH
Special Day 1	Birthdays	B
Special Day 2	Special Day 2	S2
Special Day 3	Special Day 3	S3
Special Day 4	Special Day 4	S4
Special Day 5	Special Day 5	S5
Special Day 6	Special Day 6	S6

See also [Software Limits](#)

4.18.2 Special Day Editor

The Special Day Editor allows you to set the Special Day type(s) for a particular day or range of days. The Special Day Editor is opened from the [Special Day Manager](#) by double clicking on the required day.

Special Day Type

More

Normal
 Public Holiday
 Special Day 1
 Special Day 2
 Special Day 3
 Special Day 4
 Special Day 5
 Special Day 6

Most of the time you will want to just set the Special Day type(s) for the selected day. In this case, you just need to select the Special Days (Normal, Public Holiday etc) and then click on **OK**.

To access the more advanced Special Day creation features, click on the **More** button. The form will change to :

This allows you to create multiple special days at once. Note that each Special Day item in PICED contains the information for a single day. When you use the form to create multiple special days, they are all independent and can be edited or deleted later as required.

To create a series of Special Days for the same date every year :

- Select the **Single Day, Every Year** radio button
- Select the **Ending** year
- Select the **Special Day Type(s)**
- Click on **OK**

To create a series of Special Days within a range of dates :

- Select the **Multiple Days** radio button
- Select the **Starting** date
- Select the **Ending** date
- Select which days of the week are applicable (if relevant)
- Select the **Special Day Type(s)**
- Click on **OK**

Options for setting the Special Day Type

Most of the time you will want to set the Special Day Type of the selected day(s) to be the Special Day Type(s) which have been selected. In this case, the **Set Day Type** radio button needs to be selected and the existing Special Day Types for the selected day(s) will be replaced with the new ones.

Sometimes you may want to add a Special Day Type to selected days without removing the Special Day Types already assigned. For example, you may want to add a "School Holidays" Special Day Type to a range of days, but not erase the "Public Holiday" Special Day Type from any days in the range. In this case, the **Add Day Type** radio button needs to be selected.

Alternatively, you may want to remove a particular Special Day Type from selected days without affecting any other Special Day Types. In this case, select the **Remove Day Type** radio button.

4.19 Irrigation

4.19.1 Irrigation Control

Irrigation can be implemented using [Schedules](#), but it is much simpler to use the in-built [Irrigation Manager](#). The Irrigation Manager provides the same functionality as a regular irrigation controller.

Typically it is necessary to activate various solenoids for particular times to ensure that everything receives the correct amount of water. Different parts of a garden may need different amounts of water, which may change depending on the time of the year.

Zones

An irrigation Zone is a load which can be controlled by the Irrigation Controller. It is generally a solenoid which controls water flow to sprinklers or drippers. Separate zones are generally used to allow different sections (zones) to be watered for different durations, or because there is insufficient pressure or flow rate to allow a whole site to be watered at once.

Programs

An irrigation Program is a sequence of events, corresponding to switching on each irrigation Zone for a selected amount of time. It may be desirable to have different Irrigation Programs running on different days to allow for different type of plants which need to be watered more or less often. It may also be desirable to define different Irrigation Programs for different seasons (e.g. shorter watering cycles during winter).

A typical Irrigation program consists of a sequence of events such as :

- Switch on front lawn sprinkler for 10 minutes
- Delay for 2 seconds
- Switch on back lawn sprinkler for 12 minutes
- Delay for 2 seconds
- Switch on garden drippers for 60 minutes

An Irrigation Program has a C-Bus Trigger Group Address/Level (Action Selector) associated with it which is used to start the Program running. When the trigger gets set, the Irrigation Program will start running. This trigger can either be set with a [component](#) or a [Schedule](#) to start the Irrigation program.

Master Loads

A Master Load is a load which is on during the entire Irrigation Program. For example, a pump or master solenoid may need to be switched on as the Irrigation Program commences and stay on until the program completes.

A Master load can be added which does not control anything, but the Group Address can be used by a [Component](#) to indicate that the Irrigation is running.

Valve Types

A **Level Control** valve (solenoid) stays on only while the voltage is applied to it.

A **Pulse Control** valve (also called a latched valve) needs a pulse applied to one connection to open the valve and then another pulse applied to a different connection to close the valve and therefore it requires two group addresses to control it.

Zone Delay / Overlap

The zone delay is the delay between zones which may be needed to give the valves time to close properly.

The Zone Overlap is when the next zone starts before the previous one has completed. This can be used to reduce water hammer.

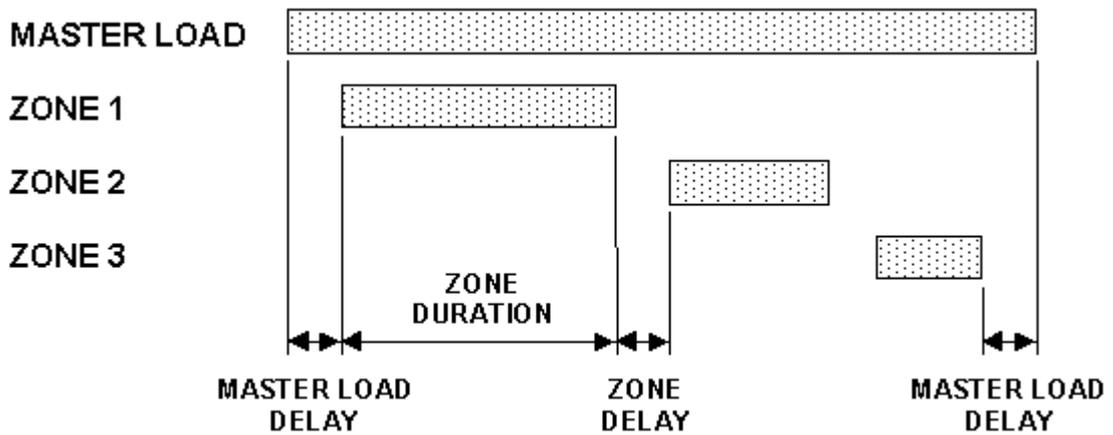
Zone Duration

This is how long a zone is to be run for a particular program. Different zones will require different durations. The duration may vary from Program to Program as well.

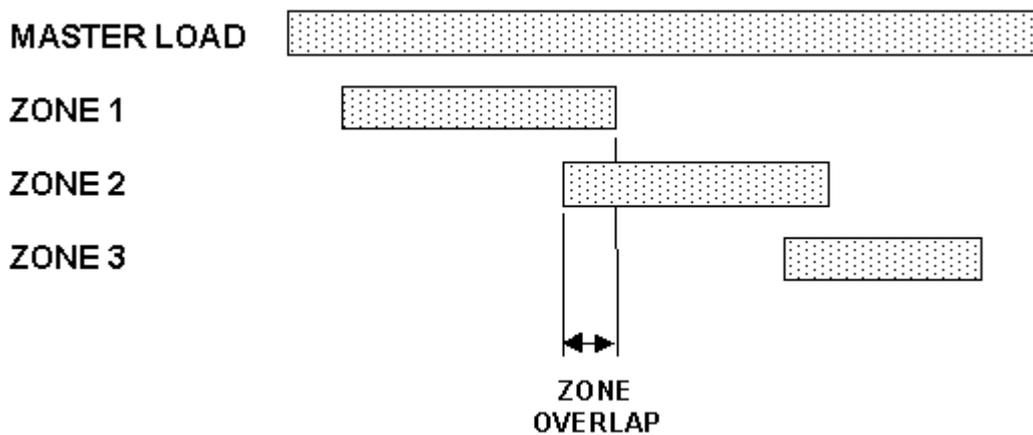
Running a Program

When an irrigation program is started (triggered), it runs each zone, in order, for the selected duration. If a particular zone has zero duration for that program, it will be skipped. The selected zone delay/overlap is applied between each zone.

Some of the above terms are illustrated in the diagrams below. In these examples, each which show a single Irrigation Program, there is a Master Load and three Irrigation Zones being switched on and off, one after the other. In the first example, there is a delay between the zones.



In the second example, the zones "overlap", and are on at the same time briefly.



The Irrigation Controller allows the set-up of Irrigation Programs and Zones to perform the tasks required for irrigation of gardens and lawns.

Rain Delay

When it rains, you may want to disable the Irrigation Controller for a number of days to avoid wasting water. A rain delay is a [Schedule](#) which is used to enable the Irrigation Control (using the Enable Group) at some time in the future.

To use the Rain Delay feature, add a component with the Rain Delay [Special Function](#) to a page. When the Component is clicked, the Irrigation Controller will be disabled (by setting the Master Enable group to off) and a form will be opened to allow you to enter the delay until the Rain Delay Schedule will re-enable the Irrigation Controller.

Manual Control

It is possible to run a single Irrigation Zone for a pre-determined amount of time using a [Special Function](#). The time for the zone to run is set in the [Irrigation Manager](#).

Using Irrigation Control

The steps for using Irrigation Control are :

1. Select a Master Enable [group](#) if required
2. Select zone delay/overlap
3. Select any Master Loads which have to be controlled
4. Select the Irrigation Zones which have to be controlled
5. Enter the Irrigation Programs required
6. Enter the time for each Zone in each Program
7. Enter [Schedules](#) to trigger the Irrigation Programs
8. Add any [Components](#) to [pages](#) for
 - manual control of Irrigation Zones
 - manual triggering of Irrigation Programs
 - enabling the Irrigation Control (via the Master Enable Group)
 - displaying the Irrigation zone [time](#)
9. Set up a [Rain Delay](#) button on a page

Example

A house has three zones for watering lawns, and four for watering different parts of the garden. The watering requirements are :

- In Summer, each of the lawn zones is watered for 20 minutes, every two days
- In Summer, each of the garden zones is watered for 15 minutes, every three days
- In Spring and Autumn, each of the lawn zones is watered for 10 minutes, every 5 days
- In Spring and Autumn, each of the garden zones is watered for 10 minutes, every week

This means there are four separate Irrigation Programs required. A [Group Address level tag](#) should be created for each Irrigation Program.

There are a total of 7 Irrigation Zones. A Group Address tag should be created for each Irrigation Zone, preferably in the Irrigation [Application](#) (number 71 [hex](#)).

It will also be necessary to create 4 [Schedules](#) to trigger each of the Irrigation Programs on the right days.

 If you switch on the Zones (including Master Zones) by controlling their group address, the Irrigation Manager will not switch them off again. Only use the methods described above.

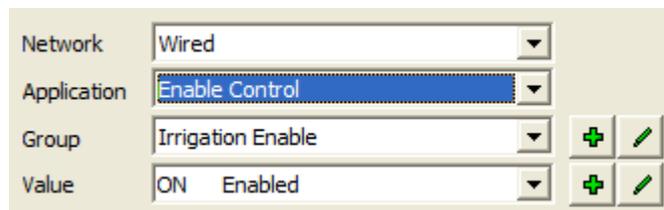
See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.19.2 Irrigation Manager

To show the Irrigation Manager form, select the **Project | Edit Irrigation** menu item, select the **Irrigation** button on the [Toolbar](#) or click on a Component using the Irrigation [Special Function](#). Irrigation Control is not available for Black and White C-Touch or PAC projects.

Master Enable Page

The first page allows the selection of the Master Enable group. Select the [Network](#), [Application](#), [Group Address](#) and [Level](#) for enabling the Irrigation Control. If this Group Address is set to any other level, the Irrigation Controller will be disabled. It is recommended that the Enable Control Application (\$CB) be used for this purpose. If the "Unused" Group Address is selected, there will be no Master Enable, and the Irrigation Controller will always be enabled. Note that if the Master Enable Group is disabled while an irrigation cycle is underway, the cycle will be terminated. See also [Power Failure Recovery](#).



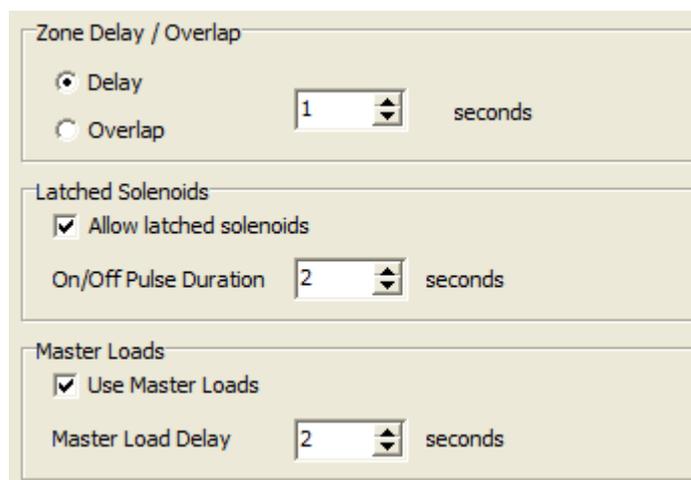
Network	Wired		
Application	Enable Control		
Group	Irrigation Enable	+	✓
Value	ON Enabled	+	✓

You can add information related to Irrigation by entering it in the **Notes** box.

Click the **Next** button when complete.

Settings Page

This page allows the selection of various irrigation options.



Zone Delay / Overlap	
<input checked="" type="radio"/> Delay	1 seconds
<input type="radio"/> Overlap	
Latched Solenoids	
<input checked="" type="checkbox"/> Allow latched solenoids	
On/Off Pulse Duration	2 seconds
Master Loads	
<input checked="" type="checkbox"/> Use Master Loads	
Master Load Delay	2 seconds

Zone Delay / Overlap : this sets the [Zone Overlap or Zone Delay](#).

The **Allow Latched Solenoids** check box enables the use of latched solenoids in the irrigation control. Most times these are not needed.

On / Off Pulse Duration : this sets the pulse duration for [pulsed loads](#) (latched solenoids).

The **Use Master Loads** allows the use of [Master Loads](#) in the irrigation project. Most times these are not needed.

Master Load Delay : this sets the duration of the [Master Load Delay](#).

Click the **Next** button when complete.

Master Loads Page

The Master Loads page is only shown if the **Use Master Loads** option is selected on the Settings page. It shows the details of the selected [Master Loads](#) :

1. Number
2. C-Bus [Network](#)
3. C-Bus [Application](#) (It is recommended that the Irrigation Application (\$71) be used for this purpose)
4. C-Bus [Group](#)
5. Off Group. This is the group used to switch the solenoid off. This will only be displayed if the **Allow Latched Solenoids** option on the Settings page was selected.

Number	Network	Application	Group	Off Group
1	Wired	Irrigation	Master Solenoid	

1/2 Master Loads Used

The Master Loads can be selected using this page :

1. To add a new Master Load, click on the **Add Load** button. The Master Load form will allow you to select the load Group Address. If you have selected the **Allow Latched Solenoids** option on the Settings page, you will be able to select the type of load. If you are using a latched solenoid (pulsed load), you will need to select the "Off Group" as well.
2. To edit an existing Master Load, select the load in the list and click the **Edit Load** button. Alternatively, double click the item in the list. The Master Load form will allow you to edit the Master Load's properties.
3. To delete an existing Master Load, select the load in the list and click the **Delete Load** button.
4. To [change the order](#) of the Master Loads, select a Master Load in the list and click the **Move Up** or **Move Down** buttons.

Click the **Next** button when complete.

Zones Page

The Zones Page shows the details of the selected irrigation [Zones](#) :

1. Number
2. C-Bus [Network](#)
3. C-Bus [Application](#) (It is recommended that the Irrigation Application (\$71) be used for this purpose)
4. C-Bus [Group](#)
5. Off Group. This is the group used to switch the solenoid off. This will only be displayed if the **Allow Latched Solenoids** option on the Settings page was selected.

Add Zone		Edit Zone		Delete Zone		Move Up		Move Down		5/16 Zone Loads Used	
Number	Network	Application	Group	Off Group							
1	Wired	Irrigation	Lawn North								
2	Wired	Irrigation	Lawn South								
3	Wired	Irrigation	Drippers North								
4	Wired	Irrigation	Drippers South								
5	Wired	Irrigation	Garden								

The Zones can be selected using this page :

1. To add a new Zone, click on the **Add Zone** button. The Zone form will allow you to select the load Group Address. If you have selected the **Allow Latched Solenoids** option on the Settings page, you will be able to select the type of load. If you are using a latched solenoid (pulsed load), you will need to select the "Off Group" as well.
2. To edit an existing Zone, select the Zone in the list and click the **Edit Zone** button. Alternatively, double click the item in the list. The Zones form will allow you to edit the Zone's properties.
3. To delete an existing Zone, select the Zone in the list and click the **Delete Zone** button.
4. To [change the order](#) of the Zones, select a Zone in the list and click the **Move Up** or **Move Down** buttons.

Click the **Next** button when complete.

Program Page

The Program Page shows the properties of the selected [Irrigation Programs](#) :

- Name
- Irrigation Program Trigger :
 - C-Bus [Network](#)
 - C-Bus [Application](#) (It is recommended that the Trigger Application (\$CA) be used for this purpose)
 - C-Bus [Group](#)
 - C-Bus [Level](#) (Action Selector)

Add Program		Edit Program		Delete Program		3/8 Irrigation Programs Used					
Number	Name	Network	Application	Group	Action Selector						
1	Winter	Wired	Trigger Control	Irrigation	Winter Watering						
2	Spring	Wired	Trigger Control	Irrigation	Spring Watering						
3	Summer	Wired	Trigger Control	Irrigation	Summer Watering						

The Programs can be set from this page :

1. To add a new Program, click on the **Add Program** button. The Program form will allow you to select the trigger.
2. To edit an existing Program, select the Program in the list and click the **Edit Program** button. Alternatively, double click the item in the list. The Program form will allow you to edit the Program's properties.
3. To delete an existing Program, select the Program in the list and click the **Delete Program** button.

Click the **Next** button when complete.

Times Page

The Times page shows the selected duration of each Irrigation Zone for each Irrigation Program. The

irrigation Zones are listed down the left side of the table and the irrigation Programs are listed across the top.

The durations can be entered in seconds or minutes by selecting the **Seconds** or **Minutes** buttons. To change a duration, click on the cell for the desired Zone and Program. Click again to edit the value. The Up and Down arrows can be used to change the number, otherwise type in a number.

<input type="button" value="Add Zone"/> <input type="button" value="Add Program"/> Durations <input type="radio"/> Seconds <input checked="" type="radio"/> Minutes				
Zone (group)	Manual	Winter	Spring	Summer
Lawn North	5	3	5	7
Lawn South	5	3	5	7
Drippers North	60	30	60	90
Drippers South	60	30	60	90
Garden	10	5	10	15

The values in the **Manual** column are used when manually running a single irrigation zone using a [Special Function](#).

Click the **Next** button when complete.

Schedules Page

The Irrigation Schedules can be set up using the Schedules page. Alternatively the [Schedule Manager](#) could be used. This page shows the properties of irrigation related [Schedules](#) (ones which control Irrigation Zones, Programs or the Master Enable Group) :

- **Number** : This is the number of the Schedule. Note that since this is only showing irrigation related Schedules, there may be Schedules missing from the list.
- **Description** : This is the name that has been given to the Schedule.
- **Date** : This is the day(s) that the Schedule will be executed.
- **Time** : This is the time that the Schedule will be executed.
- **Action** : This is the action that the Schedule will perform.
- **Enable** : This shows under which conditions the Schedule is enabled.

<input type="button" value="Add Schedule"/> <input type="button" value="Edit Schedule"/> <input type="button" value="Delete Schedule"/> <input type="button" value="Auto Create"/> <input type="button" value="Create Rain Delay Schedule"/>				
Nu...	Description	Date	Time	Action
1	Winter Watering	Every 14 Days, Starting 19/10/2...	9:00:00 PM	Set Irrigation to Winter Watering
2	Irrigation Rain Delay	17th Oct 2006	12:00:00 PM	Set Irrigation Enable to Enabled
3	Spring Watering	Every 7 Days, Starting 19/10/2006	9:00:00 PM	Set Irrigation to Spring Watering
4	Summer Watering	Every 3 Days, Starting 19/10/2006	9:00:00 PM	Set Irrigation to Summer Watering

Schedules can be set up using this page :

- To automatically create a default schedule for each of the Irrigation Programs, click on the **Auto Create** button.
- To add a new Schedule, click on the **Add Schedule** button. The [Schedule Editor](#) will be opened.
- To edit an existing Schedule, select the Schedule in the list and click on the **Edit Schedule** button. The Schedule Editor will be opened.
- To delete an existing Schedule, select the Schedule in the list and click on the **Delete Schedule** button.
- To create a [Rain Delay Schedule](#), click on the **Create Rain Delay Schedule** button. This creates a Schedule which enables the Irrigation Controller by setting the Master Enable Group level. If you

already have a Schedule controlling the Irrigation Master Enable Group, the **Create Rain Delay Schedule** button will be disabled.

Click the **Finish** button when complete.

See also [Software Limits](#), [Clock showing the Irrigation Timer](#) and [Rain Delay tool](#)

4.20 Widgets

A Widget is a graphical component displayed on the [Wiser Home Control](#) which is used to control and/or display the state of something.

Widgets are created using the [Widget Manager](#).

The Wiser Home Control displays the widgets using the "skin" selected in the [Project Details](#) form. The skin defines the appearance of the background and the Widgets, as well as the way the user interface operates.

The Wiser Home Control automatically arranges the Widgets onto pages according to their "Location" and/or "Function Group".

Locations are defined by the user and are used to arrange Widgets according to their physical location in a site. Typical Locations in a Home might include :

- Lounge
- Dining
- Bedrooms
- Outside

Function Groups are defined by the user and are used to arrange Widgets according to their usage. Typical Function Groups in a Home might include :

- Lighting
- Security
- Climate Control
- Media (Audio/Video)

The exact details of the function of each Widget depend on the selected skin and the particular Widget. Widgets are grouped by "Service" type to make them easier to find and use. The Services are :

- C-Bus
 - Lighting
 - Scenes
 - Climate
 - Security
 - Media
 - Other
- Non-C-Bus
 - Surveillance
 - Logic
 - Other

The Services are fixed, whereas you can use Function Groups in any way you wish. For example, the "Security" Function Group may have a security keypad (security service), some security lighting (Lighting service) and some security cameras (surveillance service).

4.20.1 Widget Manager

To open the Widget Manager either :

- click on the **Project | Widget Manager** menu item; or
- click on the **Widget Manager** button on the tool bar

The Widget Manager allows you to create [Locations, Function Groups and Widgets](#). There is a page for each of these.

Locations

Locations can be managed as follows :

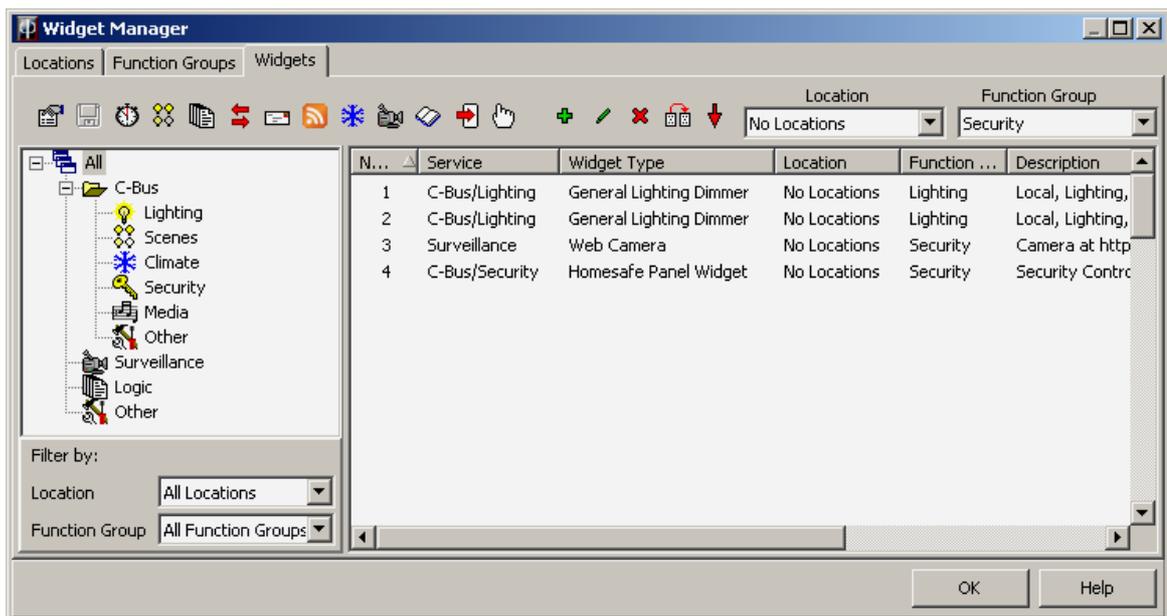
- To add a new Location, click on the **Add** button. Enter the name and click on **OK**.
- To edit a Location name, select the Location and click on the **Edit** button. Enter the new name and click on **OK**.
- To delete a Location, select the Location and click on the **Delete** button.
- To [change the order](#) of a Location in the list, select the Location and click the **Up** and **Down** buttons, or just drag it to the new position.
- To save the Locations as defaults for use on a future project, click on the **Save Default** button
- To use default Locations created previously, click on the **Load Default** button

Function Groups

Function Groups can be managed as follows :

- To add a new Function Group, click on the **Add** button. Enter the name and image then click on **OK**.
- To edit a Function Group, select the Function Group and click on the **Edit** button. Enter the new name or image and click on **OK**.
- To delete a Function Group, select the Function Group and click on the **Delete** button.
- To [change the order](#) of a Function Group in the list, select the Function Group and click the **Up** and **Down** buttons, or just drag it to the new position.
- To save the Function Groups as defaults for use on a future project, click on the **Save Default** button
- To use default Function Groups created previously, click on the **Load Default** button

Widgets



Tools

At the top of the page are buttons to allow you to control various aspects of the Project:

- Edit [Project details](#)
 - [Save the Project](#)
 - Edit [Schedules](#)
 - Edit [Scenes](#)
 - Edit [Logic](#)
 - Edit [User System IO](#)
 - Edit [E-Mail](#)
 - Edit [RSS Feeds](#)
 - Edit [HVAC \(Air Conditioning\)](#)
 - Make Projector (see below)
 - View User Manual (for selected skin)
 - [Transfer the Project](#)
- Run [Simulation Mode](#)

There are also some buttons for editing Widgets:

- To add a new Widget, click on the **Add** button. The [Widget Editor](#) will appear. Enter the Widget details then click on **OK**.
- To edit a Widget, select the Widget and click on the **Edit** button. The [Widget Editor](#) will appear. Enter the new Widget details then click on **OK**.
- To delete one or more Widgets, select the Widgets and click on the **Delete** button.
- To duplicate one or more Widgets, select the Widgets and click on the **Duplicate** button.
- To sort the Widgets click on the **Sort** button. This will sort them by Location, then by Function Group. This will help them to be displayed in a suitable order on the Wiser user interface.

Service Type Selection

The Tree on the left allows the [Service Type](#) to be selected. This allows Widgets of particular types to be viewed by themselves.

At the bottom of the tree is a **Filter By** box. These can be used to select which Locations and Function Groups you wish to view Widgets for.

Widgets ("All" Node)

When the All node is selected on the Widgets tab, all Widgets are displayed with the following properties :

- Number
- [Service Type](#)
- Location
- Function Group
- Description (this differs according to the Service Type)
- Label

If a Widget has been selected to be a [Template](#), there will be an icon on the left of the Widget number.

Widgets (Other Nodes)

Alternatively, one of the "service" nodes on the tree can be selected to make it easier to work with particular types of Widgets.

If the other nodes are selected, the information displayed, and the means of adding Widgets will differ according to the selected Service Type.

Widget Properties

At the top of the form, there are drop-down lists for selecting Location and Function Group. When Lighting or Scenes is selected, Type and Icon can be selected too. These drop-down lists can be used in several ways :

- When one or more Widgets are selected, these will show you properties of the Widgets
- When one or more Widgets are selected, these will allow you to change properties of the Widgets
- When a new Widget is added, these properties will be used for the new Widget

The use of these is much quicker than opening and editing individual Widgets. They do, however, only allow a limited set of properties to be viewed and changed.

Projector

The Wiser Home Control user interface can be controlled via any web browser which supports Adobe Flash. If you want to use a device (such as a PDA or mobile phone) which does not support Flash, you will need to load a "projector" onto that device. The process is as follows:

1. Click on the **Make Projector** button
2. Click on **Finish** to create the file
3. There will be a self-extracting zip file in your project directory containing the projector files (same name as your project but with ".exe" file extension)
4. Copy this file to your device
5. Run the self-extracting zip file and extract the files to a suitable location
6. To run the projector, execute the *.exe file which was extracted from the zip. The method for doing this will depend on the specific device you are using.

The projectors are stored under the C:\Clipsal\PICED\Firmware\Projectors\ folder. A readme.txt file in each projector folder describes which devices the projector is suitable for.

Other

The Widget Manager also has buttons to provide quick and simple access to other relevant parts of the PICED software, including :

- [Scenes](#) (on the Scenes service page)
- [HVAC \(Air Conditioning\) Application](#) (on the Climate service page)

4.20.2 Widget Editor

The Widget Editor is opened when a Widget is added or edited in the [Widget Manager](#).

Common Properties

All Widgets have certain common properties :

- [Service](#) Type
- Widget Type
- [Location](#)
- [Function Group](#)

Custom Properties

The custom properties depend on the selected Widget type. These allow you to select properties for a Widget, including :

- Labels
- Icons
- C-Bus [Networks](#), [Applications](#), [Group Addresses](#) and [Action Selectors](#)

- [Security Zones](#)
- [HVAC Zones](#)

Preview

When a Widget type is selected, a preview will appear in the panel on the right. After changes have been made to the properties, click on the **Preview** button to update the preview image.

Templates

You can choose to use a Widget as a Template for when you add more Widgets of the same Service type. To do this :

1. Open a Widget
2. Set the properties as described above
3. Select the **Use As Template** check box
4. Click on **OK**
5. This Widget will now have an icon next to it in the list showing it is a Template
6. Add another Widget of the same Service Type
7. If you open the new Widget, you will see that its properties are the same as for the Template Widget

Help

The **Help** button provides help related to the form (in this case, the Widget Editor), as on all forms. There is also a **Widget Help** button which provides help for the selected widget and the selected [Skin](#).

4.21 E-Mail

E-Mail can be accessed by :

- [Components](#) (using [In-built System IO](#))
- [Logic](#)
- Widgets (Wiser Home Control projects only)

To use E-Mail with the PICED software E-Mail accounts need to be created with the [E-Mail Manager](#).

E-Mail can be read using POP3 and sent using SMTP. Only unencrypted accounts can be used within PICED.

Wiser 2 can send and receive emails using secure communications on SMTP TLS port 587 and POP3 port 995.

To implement secure email in a Wiser 2 project simply set the account SMTP port to 587 and the POP3 port to 995.

Note: Wiser 2 does is not able to send email using secure Yahoo or secure Hotmail accounts.

4.21.1 E-Mail Manager

To open the E-Mail Manager either :

- click on the **Project | E-Mail Manager** menu item; or
- click on the **E-Mail Manager** button on the tool bar
- click on a Component with the E-Mail Manager [Special Function](#)

E-Mail Accounts can be managed as follows :

- To add a new E-Mail Account, click on the **Add** button. The [E-Mail Editor](#) will be shown. Enter the E-Mail Account details and click on **OK**.
- To edit an E-Mail Account, select the E-Mail Account and click on the **Edit** button. The [E-Mail](#)

[Editor](#) will be shown. Enter the new details and click on **OK**.

- To delete a E-Mail Account, select the E-Mail Account and click on the **Delete** button.
- To change the order of an E-Mail Account in the list, select the E-Mail Account and click the **Up** and **Down** buttons, or just drag it to the new position.
- To show the current data from an E-Mail Account, click on the **Show Account Status** button. The list of E-Mail Accounts will be shown, along with details of received E-Mail messages.
- To send a test E-Mail message, select an E-Mail Account and click on the **Send Test E-Mail** button.

4.21.2 E-Mail Editor

The E-Mail Editor is shown when an E-Mail Account is added or edited in the [E-Mail Manager](#).

Each E-Mail Account has the following properties :

- Account Name - this is the name used in the PICED software to refer to this account
- Your Name - this is the name used when sending an E-Mail
- E-Mail Address - this is the return address used when sending an E-Mail
- Incoming Server and Port - these are the details of the POP3 account
- Outgoing Server and Port - these are the details of the SMTP account
- User Name and Password - these are used to log in to your E-Mail Account
- Update Rate - this is how often (in minutes) the contents of your E-Mail in-box is to be read
- Data to be Read - this is the data to be read from your in-box :
 - Number of E-Mails Only - select this if you only need to know how many E-Mail messages are present
 - Number, Sender and Subject - select this if you need to know the E-Mail sender and subject
 - Number, Sender, Subject and Body - select this if you need to know the details of the E-Mail message (body) (not for Wiser Home Control)

Generally, the body of the E-Mail is only necessary if you are reading and processing E-Mail messages with [Logic](#). Note that attachments will not be retrieved.

Click on the **Default** button to reset the POP3 port, SMTP port and update rate to their default values.

4.22 RSS Feeds

The Wiser Home Control can display one or more [RSS](#) feeds. The [RSS Feed Manager](#) allows you to select the RSS feeds you require.

The intention is for this to be used with news feeds. RSS feeds which have large images may not be displayed properly.

4.22.1 RSS Feed Manager

The RSS Feed Manager allows you to select the [RSS Feeds](#) required for use with a project. To open the RSS Feed Manager, click on the **RSS Feed** button on the [Widget Manager](#).

The RSS Feed displays a list of the selected RSS Feeds.

To add a new RSS Feed, click on the **Add** button, enter the RSS Feed URL and click on **OK**.

To edit an RSS Feed, select the RSS Feed, click on the **Edit** button, enter the new RSS Feed URL and click on **OK**.

To delete an RSS Feed, select the RSS Feed, click on the **Delete** button.

To change the position of an RSS Feed in the list:

1. Click on the RSS Feed and hold down the mouse button
2. Drag it to its new position
3. Release the mouse button.

Notes

The RSS Feed URL will be for an XML file. For example, http://feeds.news.com.au/public/rss/2.0/news_mostpopular_topstories_403.xml

These can usually be found on web sites by looking for the RSS icons :



Alternatively, use an [RSS Aggregator](#) (Reader) to obtain the RSS Feeds, then copy the link into the **Add RSS Feed** form.

4.23 Alarms

An Alarm can be used to alert the user. This operates very much like an alarm clock. Like a regular alarm clock, the Alarm :

- can be started at a certain time (usually via a [Schedule](#))
- can be switched off (usually using a [Component](#) with a [Special Function](#))
- there is a Snooze option, which will switch the alarm off temporarily for a certain period.

An Alarm can be started by :

- a [Schedule](#) with the Alarm On Special Function
- pressing on a Component with the Alarm On [Special Function](#) set
- a Group Address triggering a Component with the Alarm On Special Function by [Remote Control](#)
- logic executing a Special Function

An alarm will normally be stopped or "snoozed" by the use of a component with the Alarm Off or Alarm Snooze special functions respectively.

There are two [in-built System IO variables](#) for use with alarms :

- Alarm State : this shows whether the alarm is currently on (making a noise)
- Alarm, Cancel Next : this cancels the next alarm only. This can be used when the user is aware that the alarm is about to go off and wants to cancel it without switching the alarm off permanently.

The [Project Options](#) can be used to set :

- how often the Alarm beep is played
- how long the alarm will continue once it starts
- how long the Snooze period is
- the alarm sound (if no sound is selected, the default Windows sound will be used) The black and white C-Touch alarm sound is the same as the screen press beep.
- which page is to be displayed when the alarm sounds. This page will normally have Components using [Special Functions](#) to allow the alarm to be switched off, or for "snooze" to be selected

See also [Special Functions](#), [In-built System IO](#)

4.24 Logic

Logic can be used to extend the functionality of a [Project](#). Refer to the Logic Help File for complete details.

4.25 C-Bus

Several forms are available for controlling and monitoring aspects of C-Bus :

- [C-Bus Network States Form](#)

- [C-Bus Network Manager](#)
- [Security Application Form](#)
- [Telephony Application Form](#)
- [Error Application Manager](#)
- [HVAC Application Manager](#)
- [Measurement Application Manager](#)
- [Monitor Manager](#)

4.25.1 C-Bus Network States

The status of a [Component's](#) network can be displayed using the **View | Component Label | Network Status** menu item. An **X** indicates that the Component's Network is off-line and can not be controlled. A **?** indicates that the Component's Network has been opened and that the state is not known but it may be possible to control the Group Address.

The status of all of the Networks can be viewed by selecting the **View | Network States** menu item. The possible network states are :

- **New** - the network has not been opened yet (usually caused by a failure to open the network)
- **Open** - the network has been opened, but the synchronisation process has not started
- **Sync** - the network is being synchronised (the progress will be shown *)
- **OK** - the network has been synchronised and is ready for use
- **Error** - the network has an error. (the cause of the error condition will be shown)
- **Closed** - network has not opened (usually caused by a failure to open the network)
- **Operational** - the network is open and can be used, but there are units not responding (see [C-Gate Options](#)). Note that this was previously referred to as the "degraded" state.

* For the Sync and Error states, it will show "unit x of y". This refers to the xth unit out of a total of y units. It does not refer to the unit addresses.

 Any units which are in error state will be listed. If any units are in error state, this should be investigated. If too many units are in the error state, the whole network will be put into the error state, and it will be unable to be used.

C-Bus Network states are also listed in the [C-Bus Network Manager](#).

See also [C-Gate Algorithm](#), [C-Gate Options](#) and [Status Bar](#)

4.25.2 C-Bus Network Manager

To view the C-Bus Network Manager :

1. Select the **Project | C-Bus Network** menu item; or
2. Use the Network Manager [Special Function](#)

Edit Network Select All Set to Default									
N...	Name	Type	State	Use	Open	Time...	Sec...	HVAC...	Tel...
243	Network 12	Bridge from ...	Closed	no	no	no	no	no	no
244	Network 11	Bridge from ...	Closed	no	no	no	no	no	no
245	Network 10	Serial CDM1	Closed	no	no	no	no	no	no
246	Network 9	Bridge from ...	Closed	no	no	no	no	no	no
247	Network 8	Bridge from ...	Closed	no	no	no	no	no	no
248	Network 7	Bridge from ...	Closed	no	no	no	no	no	no
249	Network 6	Bridge from ...	Closed	yes	yes	yes	yes	yes	yes
250	Network 5	CNI 192.16...	Closed	no	no	no	no	no	no
251	Network 4	Bridge from ...	Closed	no	no	no	no	no	no
252	Network 3	Bridge from ...	Closed	yes	yes	yes	no	no	no
253	Network 2	CNI 192.16...	Closed	no	no	no	no	no	no
254	Network 1	CNI 192.16...	Closed	yes	yes	yes	yes	yes	yes

The C-Bus Network Manager allows the following properties of a [C-Bus Network](#) to be displayed :

- Address (number)
- Name
- Connection type (CNI, Serial, C-Bus Bridge etc)
- [State](#) (Closed, Sync, OK, Error etc)
- Whether to use the Network in this [Project](#) (only selected Networks will be displayed in the lists etc)
- Whether to open the Network when [connecting to C-Bus](#)
- Whether to send C-Bus messages to this Network for :
 - [Date/Time Application](#)
 - [Security Application](#)
 - [HVAC Application](#)
 - [Telephony Application](#)
 - [Media Transport Control Application](#)
 - [Measurement Application](#)
 - [Audio Application](#)

The [columns](#) can be sorted by clicking on top of the column or they can be rearranged and have their widths changed by dragging them.

When selecting Networks to send C-Bus messages to, it is best to only select Networks which are really needed in order to minimise C-Bus traffic.

 If you send a C-Bus message to a [Connected Network](#), this message will be automatically sent to adjacent Networks if the C-Bus Bridge has "Application Connect" mode selected. This means that C-Bus messages do not normally need to be sent to these adjacent Networks.

To edit the properties of a C-Bus Network :

1. Double click on the Network in the list or select one or more networks in the list then click on the **Edit Network** button
2. The [C-Bus Network Properties](#) form will then be displayed
3. Select the desired properties
4. Click on **OK**

To set the default properties for all Networks, click on the **Set To Default** button. This will set the "Use" and "Open" properties to "yes" for all Networks which can be used. It will also select the destination of C-Bus messages to just the local network (see note above).

To refresh the network states on the form, press the **Refresh** button. To automatically update the form when new data is received, select the **Auto Refresh** check box.

See also [C-Bus Network States](#)

4.25.2.1 C-Bus Network Properties

The C-Bus Network Properties form is opened from the [C-Bus Network Manager](#) when a Network is edited.

The C-Bus Network Properties form allows the following properties of a [C-Bus Network](#) to be changed :

- Whether to use the Network in this [Project](#) (only selected Networks will be displayed in the lists etc)
- Whether to open the Network when [connecting to C-Bus](#)
- Whether to send C-Bus messages to this Network for :
 - [Date/Time Application](#)
 - [Security Application](#)
 - [HVAC Application](#)
 - [Telephony Application](#)
 - [Media Transport Control Application](#)
 - [Measurement Application](#)
- [Audio Application](#)

Select either "yes" or "no" from the drop down lists.

If there are multiple networks selected in the [C-Bus Network Manager](#), some of the drop-down lists may be blank, indicating that this property is different on different Networks. Only properties which are changed will be changed in the Networks.

To select "yes" for all properties, click the **All Yes** button. To select "no" for all properties, click the **All No** button.

4.25.3 Security Application Form

The Security Application form can be used to monitor the status of C-Bus messages on the [Security Application](#).

To open the Security Application form, either :

- select the **Project | C-Bus Applications | Security App** menu item; or

- click on a component with the Security Form [Special Function](#)

The Security Application form lists the status of the following aspects of the security system (if it is used in the system) :

- Armed status
- Password status
- Alarm status
- Panic & Tamper status
- Low Battery, Battery Charging and Mains Failure status
- Line cut status
- Arm failed status
- Fire, Gas and Other alarm status
- Arm Not Ready status
- Zone name and status (sealed, short, open etc)

The above information can also be displayed on a [page](#) using [In-built System IO](#).

The **Auto-Refresh** check box allows the data to be refreshed if Security Application C-Bus messages are received while the form is open.

Click on the **Copy** button to copy the data to the Windows clipboard for copying into other applications.

4.25.4 Telephony Application Form

The Telephony Application form can be used to monitor the status of C-Bus messages on the [Telephony Application](#).

To open the Telephony Application form, either :

- select the **Project | C-Bus Applications | Telephony App** menu item; or
- click on a component with the Telephony Form [Special Function](#)

The Telephony Application form lists the status of the following aspects of the Telephony system (if it is used in the system) :

- On-hook / off-hook
- Whether the phone is ringing
- Whether the phone is diverted
- Last dial-in / dial-out failure
- Last incoming / outgoing number
- Whether the secondary connection is isolated

The above information can also be displayed on a [page](#) using [In-built System IO](#).

The **Auto-Refresh** check box allows the data to be refreshed if Telephony Application C-Bus messages are received while the form is open.

Click on the **Copy** button to copy the data to the Windows clipboard for copying into other applications.

4.25.5 Labels Form

The Labels Form can be used to monitor the status of [C-Bus Labels](#).

To open the Labels form, either :

- select the **Project | C-Bus Applications | Labels** menu item; or
- click on a component with the Labels, Show Form [Special Function](#)

The Labels form lists the following :

- The currently selected [language](#)
- For each Network and Application, any Group labels which have been observed
- For each Network and Trigger Group, any Action Selector labels which have been observed

The above information can also be displayed on a [page](#) using [In-built System IO](#).

The **Auto-Refresh** check box allows the data to be refreshed if Labeling C-Bus messages are received while the form is open.

Click on the **Copy** button to copy the data to the Windows clipboard for copying into other applications.

4.25.6 C-Bus Error Application

C-Bus devices can monitor and detect error conditions in the devices, and report those conditions using the [C-Bus Error Reporting Application](#).

The PICED software can monitor the Error Application messages and show the status using the [Error Application Manager](#).

For more details on the use of the Error Application with specific device types, refer to the documentation for the specific device.

See also [Special Functions](#), [In-built System IO](#)

4.25.6.1 Error Application Manager

The Error Application Manager can be used to monitor the status of error messages on the [C-Bus Error Application](#) and to print reports.

To open the Error Application Manager, either :

- select the **Project | C-Bus Applications | Error Manager** menu item; or
- click on a component with the Error Manager [Special Function](#)

The [columns](#) of data presented in the Error Application Manager include :

- Monitor : does the error message need to be monitored (see below)
- Network : the C-Bus [Network](#) which the unit is installed on
- Type : the category of error message (currently only DALI Gateway or Universal Dimmer are supported)
- Device ID : a number identifying the device sending the message
- Name : a name for the particular error condition (see below)
- Most Recent : the present [severity](#) of the error
- Most Severe : the [Most Severe](#) severity of the error since last cleared
- Data 1 & Data 2 : additional data about the error condition
- Time : the time at which the error severity was last changed
- Acknowledged : has the error been [acknowledged](#) or not

Items are added to the list either if :

- You have previously selected them to be monitored
- An error message is received from C-Bus

Error Monitoring

An error condition can be set to be monitored if you are interested in the particular error condition. Sometimes, error conditions will be broadcast which you are not interested in. An example, would

be if particular channels of a unit were not used and you don't want to receive "no load" or "load failure" messages.

To select an error condition to be monitored, either :

- Select the item in the list and click the **Monitor** button; or
- Click on the **Add** button to bring up the [Error Application Item](#) form

Error Filtering

To display only items which monitored, select the **Just Show Monitored** check box.

To display only items which have a severity greater than "OK", select the **Just Show Failures** check box.

Name

An error condition can be named by double clicking on the error condition and entering a name.

Other

To update the list as error messages are received, select the **Auto Refresh** check box. To manually update, click the **Refresh** button.

To acknowledge or clear an error condition, select the error in the list and click the **Acknowledge** or **Clear** button respectively.

To generate a report showing the error conditions, either :

- Select the Tools | Reports | Error Report menu item. This lists just the errors which are monitored and which have a severity greater than "OK"; or
- Click on the Error Application Manager **Report** button. This lists the errors with the selected filtering applied.

4.25.6.2 Error Application Item

Error conditions can be added for monitoring by clicking the **Add** button on the [Error Application Manager](#) form. This will display the C-Bus Error Application Item form. This allows you to enter the following details of one or more error conditions to be added :

- Network : the C-Bus [Network](#) which the unit is installed on
- Category : the category of error message (currently only DALI Gateway or Universal Dimmer are supported)
- Device ID : the ID number the device sending the message
- Channel : the unit channel to be monitored
- Most Severe : whether to monitor the [Most Severe or Most Recent](#) error condition

Enter the desired details and click on the **Add** button. Click on **Close** when complete.

4.25.7 HVAC Application

C-Bus devices controlling HVAC (Heating, Ventilation & Air Conditioning) can interact via the [Air Conditioning Application](#).

The PICED software can monitor the HVAC messages and show the status using the [HVAC Application Manager](#).

For more details on the use of the HVAC Application with specific device types, refer to the documentation for the specific device.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#), [C-Bus Network Manager](#)

4.25.7.1 HVAC Application Manager

The HVAC Application Manager can be used to :

1. Select HVAC Zone Groups to be used
1. Select HVAC Zones to be used
2. Monitor the [HVAC Application](#) data

C-Touch Mark 1 units do not support the HVAC Application. The [Wiser](#) does not support all HVAC features.

To open the HVAC Application Manager, either :

- select the **Project | C-Bus Applications | HVAC Manager** menu item; or
- click on a component with the HVAC Manager [Special Function](#)

Zone Group Tab

A Zone Group (also known as a "communication group") corresponds to a piece of HVAC "plant" or equipment. A Zone Group may control one or more Zones (see below).

The [columns](#) of data presented on the Zone Group tab include :

- Number - the number of the Zone Group (also called a "Communication Group Number")
- Name - the name of the HVAC Zone
- Plant Type - the type of air conditioning plant (heat pump, evaporative etc)

Adding New Zone Groups

To add a new Zone Group, click on the **Add** button. The [HVAC Zone Group Form](#) will allow you to enter the necessary details.

Editing Zone Groups

To edit an existing Zone Group :

1. Select a Zone Group in the list and click the **Edit** button; or
2. Double click on a Zone Group in the list

The [HVAC Zone Group Form](#) allows you to enter details of the Zone Group.

Deleting Zone Groups

To delete an existing Zone Group :

1. Select a Zone Group in the list
2. Click the **Delete** button

This will also delete all Zones within the group.

Zone Tab

An HVAC Zone is an area which is controlled by the HVAC plant. Typically a zone is a single room. Each Zone can be controlled separately if desired.

The [columns](#) of data presented on the Zone tab include :

- Monitor - this selects whether you want to monitor this HVAC zone. Only zones which are

monitored can be used in the project.

- Name - the name of the HVAC Zone
- Group - the Zone Group
- Zone - the Zone number
- Plant Type - the type of plant used for this Zone
- Operating Type - the Zone operating type
- Temperature - the current Zone temperature
- Set-Level - the set-level (set point) temperature for the Zone
- Setback - the setback limit for the Zone
- Guard - the guard limits for the Zone
- Status - the status of the Zone
- Error - any error states for the Zone
- Sensor Status - the status of the Zone temperature sensor
- Mode - the mode for the zone (manual, program, override or auto)

Any data which is not currently valid (generally because it has not yet been received) will be blank.

Monitoring Zones

To Monitor a specific HVAC Zone (to allow it to be used in the project), either :

1. Edit a Zone if it already exists and enable the monitoring; or
2. Add a new Zone and enable the monitoring

As data is received, it will be shown on the form. To refresh the data on the form, press the **Refresh** button. To automatically update the form when new data is received, select the **Auto Refresh** check box. To only show data for monitored Zones, select the **Just Show Monitored** check box.

Adding New Zones

To add a new Zone, click on the **Add** button. The [HVAC Zone Form](#) will allow you to enter the necessary details. Note that Zone Groups need to exist before zones can be added.

If there are Zones which have been used by a [Component](#) with [In-built System IO](#) but which are not present in the HVAC Application Manager, the **Auto Create** button will be enabled. Clicking on this button will automatically create any Zones needed.

Editing Zones

To edit an existing Zone :

1. Select a zone in the list and click the **Edit** button; or
2. Double click on a Zone in the list

The [HVAC Zone Form](#) will allow you to edit the necessary details.

Deleting Zones

To delete an existing Zone :

1. Select a zone in the list
2. Click the **Delete** button

4.25.7.2 HVAC Zone Group Form

The HVAC Zone Group form allows you to enter the details for an HVAC Zone Group (also known as a "communication group"). It can be opened from the [HVAC Application Manager](#). The details which can be edited are listed below.

The C-Bus thermostat supports many different modes of operation. In order for the PICED software

(and C-Touch etc) to be able to simulate the operation of a C-Bus thermostat, it is necessary for the following properties to be entered exactly as they are in the C-Bus ToolKit.

Zone Group

- Communication Group Number - the Zone Group, also known as a "Communication Group" (this can only be changed when adding a Zone Group, not when editing it)
- Name - the name of the Zone Group

Plant Equipment

- Plant Equipment Type - this is the type of air conditioning plant (heat pump, evaporative etc)
- Operating types supported :
 - Heat
 - Cool
 - Heat/Cool (Auto)
 - Vent (fan)

The Operating Type properties allow you to select which of the operating types (Heat, Cool, Heat/Cool and Vent) are supported by the plant equipment and are required for the user interface.

 If the system uses evaporative plant for cooling, the Heat/Cool (Auto) operating type is not recommended. See [notes for Wiser](#) below.

Schedule Control

The Schedule Control properties control how the C-Bus Thermostat scheduling will be controlled. The options are :

- Enable Scheduling for Non-evaporative Plant Equipment - this selects whether the non-evaporative plant can be controlled by schedules
- Enable Scheduling for Evaporative Plant Equipment - this selects whether the evaporative plant can be controlled by schedules
- Enable Group - this is the [C-Bus Enable Control Application](#) Group used to enable schedule (program) control of the C-Bus Thermostat
- Disable Group - this is the C-Bus Enable Control Application Group used to disable schedule (program) control of the C-Bus Thermostat
- Override Group - this is the C-Bus Enable Control Application Group used to override schedule (program) control of the C-Bus Thermostat

 It is not recommended that schedule (program) control of evaporative plant be used as it can cause damage to the plant equipment and/or the building if not used correctly. See [notes for Wiser](#) below.

Temperature Limits

This allows you to select the minimum and maximum temperature values. The temperature and comfort level set-level can only be set within these limits.

Evaporative Comfort Level Properties

The Comfort Level properties for the plant control how the comfort level is calculated :

- Lowest Comfort Temperature - this is the temperature corresponding to comfort level 1
- Comfort Level Step Size - this is the difference in temperature for each comfort level step
- Number of Comfort Levels - this is the total number of comfort levels

Fan Properties

- Heating Fan Speeds - the number of fans speeds in the HVAC heating plant
- Cooling Fan Speeds - the number of fans speeds in the HVAC cooling plant
- Unit used for ventilation - this selects whether the heating or cooling plant is used for ventilation

Use with Wiser Home Control

The Wiser Home Control does not support all possible features of the [HVAC Application](#). The following limitations are applied for Wiser Home Control projects:

- Only reverse cycle plant is supported
- Schedule control is ignored
- Heating and cooling fan speeds are assumed to be the same
- It is assumed that all operating types are allowed
- The default temperature range is assumed

Refer to the C-Bus ToolKit documentation for additional details of the meaning and usage of the various options.

4.25.7.3 HVAC Zone Form

The HVAC Zone form allows you to enter the details for an HVAC Zone. It can be opened from the [HVAC Application Manager](#). The details which can be edited are :

- Monitor - this selects whether you want to monitor this HVAC zone. Only zones which are monitored can be used in the project.
- Zone Name - the name of the HVAC Zone
- Zone Group Number - the Zone Group
- Zone - the Zone number

All other data applicable to the Zone is displayed, but it can not be edited.

4.25.8 Measurement Application

C-Bus devices can broadcast data via the [Measurement Application](#).

The PICED software can monitor the Measurement messages and show the status using the [Measurement Application Manager](#).

For more details on the use of the Measurement Application with specific device types, refer to the documentation for the specific device.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.25.8.1 Measurement Application Manager

The Measurement Application Manager can be used to select [Measurement Channels](#) to be used.

To open the Measurement Application Manager, either :

- select the **Project | C-Bus Applications | Measurement Manager** menu item; or
- click on a component with the Measurement Manager [Special Function](#)

The [columns](#) of data presented in the Measurement Application Manager include :

- Number - this is the number of the Measurement Channel in the list.
- Name - the name of the Measurement Channel
- Network - the C-Bus [Network](#) which the unit is installed on
- Device ID - the device ID number (this is usually the same as the unit address)

- Channel - the channel number (the first channel is 0 for a General Input Unit, 1 for a Current Measurement Unit)
- Current Value - the value of the data for the channel (blank if it has not been received)

Adding New Channels

To add a new Channel, click on the **Add** button. The [Measurement Application Channel Form](#) will allow you to enter the necessary details.

If there are Channels which have been used by a [Component](#) with [In-built System IO](#) but which are not present in the Measurement Application Manager, the **Auto Create** button will be enabled. Clicking on this button will automatically create any Channels needed.

Editing Channels

To edit an existing Channel :

1. Select a Channel in the list and click the **Edit** button; or
2. Double click on a Channel in the list

Viewing Channel Data

As data is received, it will be shown on the form. To refresh the data on the form, press the **Refresh** button. To automatically update the form when new data is received, select the **Auto Refresh** check box.

The [Measurement Application Channel Form](#) will allow you to edit the necessary details.

4.25.8.2 Measurement Application Channel

The Measurement Application Channel form allows you to enter the details for Measurement Channel. It can be opened from the [Measurement Application Manager](#). The details which can be edited are :

- **Name** - the name of the Measurement Channel
- **Network** - the C-Bus [Network](#) which the unit is installed on
- **Device ID** - the Device ID number (this is usually the same as the unit address)
- **Channel** - the channel number (the first channel is usually 0)
- **Controllable** - this allows the value of the channel to be set using [In-Built System IO Variables](#), which will result in the messages being sent onto C-Bus.
- **Units** - this is the type of data being sent

If this measurement channel is reporting the power for a power meter, select the additional details:

- **Measuring Power** - this selects whether the channel is measuring a power level. This is used for [Analogue Power Meters](#).
- **Power Generator** - select this if the power being measured is from a device generating the power (for example, a solar panel or wind turbine). This will result in the measured value being subtracted from the total power consumption.
- **Include in Totals** - select this option if you want this meter to be included in the totals for power, peak power, energy and cost.
- **Tariff** - the [Tariff](#) which applies to this meter
- **Offset** - the no-load [Reactive Power](#)

4.25.9 Media Transport Control Application

C-Bus devices can broadcast data via the [Media Transport Control Application](#).

The PICED software can monitor the Media Transport Control messages and show the status using the [Media Transport Control Application Manager](#).

For more details on the use of the Media Transport Control Application with specific device types, refer to the documentation for the specific device.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.25.9.1 Media Transport Control Application Manager

The Media Transport Control Application Manager can be used to select [Media Link Groups](#) to be used

To open the Measurement Application Manager, either :

- select the **Project | C-Bus Applications | Media Transport Control Manager** menu item; or
- click on a component with the "Transport Control, Show Form" [Special Function](#)

The [columns](#) of data presented in the Media Transport Control Application Manager include :

- **Index** - this is the order in the list.
- **Name** - the name of the Media Link Group
- **MLG Number** - the Media Link Group number
- **Server** - is this a [media server](#)

Adding Media Link Groups

To add a new [Media Link Group](#), click on the **Add** button. The [Media Link Group Form](#) will be displayed. Enter the Media Link Group details and click on **OK**.

Editing Media Link Groups

To edit an existing [Media Link Group](#):

1. Select the Media Link Group in the list then click on the **Edit** button; or
Double click on a Media Link Group in the list
2. The [Media Link Group Form](#) will be displayed.
3. Edit the Media Link Group details
4. Click on **OK**.

Deleting Media Link Groups

To delete an existing [Media Link Group](#):

1. Select the Media Link Group in the list
2. Click on the **Delete** button

Showing additional details

To see additional details of all Media Link Groups, click on the **Details** button. The [Media Transport Control Summary](#) form will be displayed.

4.25.9.2 Media Link Group Form

The Media Link Group form allows you to select the following details for a [Media Link Group](#):

1. **Media Link Group Number**: this number is used for everything related to a specific set of media equipment
2. **Name**: a name for the media server
3. **Media Server**: see below

Media Server

It is possible for the unit being programmed by PICED to act as a Media Server. Generally this is done by interfacing to a third party device using logic. If you are wanting to do this, select the **This unit is a Media Server** option. This will allow you to send Category, Selection and Track information by setting [Media Transport Control In-built System IO variables](#). If this option is selected, the unit will automatically respond to the Media Transport Control Get Status messages, and transmit Category, Selection and Track information onto C-Bus.

4.25.9.3 Media Transport Control Summary

The Media Transport Control Summary information can be displayed by clicking on the **Details** button on the [Media Transport Control Application Manager](#). A list of all Media Link Groups, along with all of their properties will be displayed.

4.25.10 Audio Application

C-Bus devices can broadcast data via the [C-Bus Audio Application](#).

The relevant Matrix Switchers, Zones and Sources can be entered using the [Audio Application Manager](#).

For more details on the use of the Audio Application with specific device types, refer to the documentation for the specific device.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.25.10.1 Audio Application Manager

The Audio Application Manager can be used to enter details of the installed [audio equipment](#). The details of relevance are:

- Matrix Switchers
- Audio sources
- Audio zones

To open the Audio Manager, either :

- select the **Project | C-Bus Applications | Audio Manager** menu item; or
- click on a component with the "Audio Manager, Show" [Special Function](#)

Matrix Switchers Tab

The Matrix Switchers tab shows a list of the Matrix Switchers. The [columns](#) of data are:

- Name
- Matrix Number: this is their [Matrix Switcher number](#)

Adding a Matrix Switcher

To add a Matrix Switcher, click on the **Add** button. The [Matrix Switcher Editor](#) will be displayed. Enter the Matrix Switcher details and click on **OK**.

Editing a Matrix Switcher

To edit an existing Matrix Switcher:

1. Select the Matrix Switcher in the list then click on the **Edit** button; or
Double click on a Matrix Switcher in the list
2. The [Matrix Switcher Editor](#) will be displayed.
3. Edit the Matrix Switcher details
4. Click on **OK**.

Deleting a Matrix Switcher

To delete an existing Matrix Switcher:

1. Select the Matrix Switcher in the list
2. Click on the **Delete** button

Loading data from MARPA

To read the MRA configuration data from a MARPA project file:

1. Click on the **Read from MARPA Project** button
2. Select the MARPA project file (*.caf)
3. Click on **OK**
4. The following will be created automatically:
 - Matrix Switcher
 - Audio Zones
 - Audio Sources
 - [Media Link Groups](#)

Zones Tab

The Zones tab shows a list of the audio Zones. The columns of data are:

- Matrix Switcher
- Zone Name
- Zone Number: this is their [Audio Zone number](#)

Adding a Zone

To add a Zone, click on the **Add** button. The [Audio Zone Editor](#) will be displayed. Enter the Zone details and click on **OK**.

Editing a Zone

To edit an existing Zone:

1. Select the Zone in the list then click on the **Edit** button; or
Double click on a Zone in the list
2. The [Audio Zone Editor](#) will be displayed.
3. Edit the Zone details
4. Click on **OK**.

Deleting a Zone

To delete an existing Zone:

1. Select the Zone in the list
2. Click on the **Delete** button

Sources Tab

The Sources tab shows a list of the Audio Sources. The columns of data are:

- Matrix Switcher
- Source name
- Source Index: this is their [Audio Source index](#)
- [Media Link Group](#)

Adding a Source

To add an audio Source, click on the **Add** button. The [Audio Source Editor](#) will be displayed. Enter

the Source details and click on **OK**.

Editing a Source

To edit an existing Source:

1. Select the Source in the list then click on the **Edit** button; or
Double click on a Source in the list
2. The [Audio Source Editor](#) will be displayed.
3. Edit the Source details
4. Click on **OK**.

Deleting a Source

To delete an existing Source:

1. Select the Source in the list
2. Click on the **Delete** button

Local Sources Tab

The Local Sources Tab is only visible for Wiser projects. It is used to enter details of the Local Source used for each Zone (where required).

The Local Sources tab shows a list of the Local Sources. The columns of data are:

- Matrix Switcher
- Source name
- Zone Number
- [Media Link Group](#)

Adding a Local Source

To add a Local Source, click on the **Add** button. The [Audio Source Editor](#) will be displayed. Enter the Local Source details and click on **OK**.

Editing a Local Source

To edit an existing Local Source:

1. Select the Local Source in the list then click on the **Edit** button; or
Double click on a Local Source in the list
2. The [Audio Source Editor](#) will be displayed.
3. Edit the Local Source details
4. Click on **OK**.

Deleting a Local Source

To delete an existing Local Source:

1. Select the Local Source in the list
2. Click on the **Delete** button

Automatically Creating Local Sources

To automatically add a Local Source for each Zone which uses Local Sources, click on the **Auto Create** button.

Using Local Sources

The Local Source audio input is different for each Zone, unlike the other Sources which are shared (via the Matrix Switcher). On the Wiser user interface you can have the Audio Widget for each Zone

show the same Local Source information (for example, they could all just show the name "Local" or "iPod"), or it can be customised for each individual Zone.

To use local sources:

1. When adding a Zone (see above), select the **Enable Local Source** option
2. Add a Source (not a Local Source - see above) with Source Index of 1 (the Local Source is always index 1). The properties of this Source will be used when displaying the Local Source on Wiser unless you create additional Local Sources. This Source also controls where in the list on the Wiser user interface the Local Source will be displayed.
3. Add (or auto create) Local Sources for the Zones which use Local Sources (see above). Set the properties of each Local Source as required.

4.25.10.2 Matrix Switcher Editor

The Matrix Switcher Editor is used for entering details of a [Matrix Switcher](#). It is accessed from the [Audio Application Manager](#).

The details which can be selected for a Matrix Switcher are:

- **Matrix Switcher Number:** this is the number assigned to the Matrix Switcher in MARPA
- **Name:** this is a name for the Matrix Switcher to identify it
- **Ripple IP Address:** This is the IP Address of the Ripple software (if used) for use with Wiser
- **Ripple Port:** This is the port for Ripple (if used) for use with Wiser

4.25.10.3 Audio Zone Editor

The Audio Zone Editor is used for entering details of an [Audio Zone](#). It is accessed from the [Audio Application Manager](#).

The details which can be selected for an Audio Zone are:

- **Matrix Switcher:** this is the [Matrix Switcher](#) used by the Zone
- **Zone Number:** this is the number assigned to the Zone in MARPA
- **Name:** this is a name for the Zone to identify it
- **Enable Local Source:** for Wiser projects, this selects whether the [local source](#) is displayed for this Zone

4.25.10.4 Audio Source Editor

The Audio Source Editor is used for entering details of an [Audio Source](#). It is accessed from the [Audio Application Manager](#).

The details which can be selected for an Audio Source are:

- **Matrix Switcher:** this is the [Matrix Switcher](#) used by the Source
- **Source Number:** this is the number assigned to the Source in MARPA
- **Name:** this is a name for the Source to identify it
- **Source Type:** this is the type of Source, needed to know which types of Source Controls are relevant. Note that for the "local" source, one of the "external" source options should be selected.
- **Media Link Group:** this is the [Media Link Group](#) for the Source (if used)

Source Controls

For Wiser projects, there is a list of Controls used to control the audio device for the Source. If the Source type uses [Media Transport Control](#), then the Controls will use one of the Transport Control functions. If the Source type uses [Trigger Control](#), then the Controls will have a Trigger Group and Action Selector to control a device via Infra Red (IR) control.

When the Widget is displayed normally, the "short list" of controls is displayed. A maximum of 5 controls can be displayed in the short list. When the Widget is expanded, the complete list of

controls is displayed, in the order that they appear in the list.

The Controls list shows:

- **Number:** position in the list
- **Icon:** An icon used for the Control
- **Function/Trigger:** a description of what the Control does (Transport Control function or Trigger)
- **Short List Position:** the position in the short list of controls

Adding a Source Control

To add an Audio Source Control, click on the **Add** button. The [Audio Source Control Editor](#) will be displayed. Enter the Source Control details and click on **OK**.

To automatically add a set of default controls relevant to the Source Type, click on the **Load Default** button. When editing the controls is complete, clicking on the **Save Default** button will save the set of controls as the new defaults for use in the future.

Editing a Source Control

To edit an existing Source Control:

1. Select the Source Control in the list then click on the **Edit** button; or
Double click on a Source Control in the list
2. The [Audio Source Control Editor](#) will be displayed.
3. Edit the Source Control details
4. Click on **OK**.

Deleting a Source Control

To delete an existing Source Control:

1. Select the Source Control in the list
2. Click on the **Delete** button

Local Sources

For Wiser projects, the Local Source for each Audio Zone can be selected. The process is:

1. Select the **Local Sources** tab on the [Audio Application Manager](#)
2. Click the **Auto Create** button to automatically create a Local Source for each [Audio Zone](#) with the Enable Local Source option selected; OR
3. Use the **Add**, **Edit** and **Delete** buttons as for a regular Source, except that the Zone related to the Local Source needs to be selected

For Zones with no matching Local Source, the default details from the Local Source on the Sources tab will be used.

4.25.10.5 Audio Source Control Editor

The Audio Source Control Editor is used for entering details of an Audio Source Control for use with [Wiser Home Control](#) projects. It is accessed from the [Audio Source Editor](#).

The details which can be selected for an Audio Source Control depend on the type. All controls have the following:

- **Icon:** this is the image displayed on the button for the Control
- **Short List Position:** this is the position to display the Control within the short list of Controls

For a [Media Transport Control](#) Source, the Control also has a **Function** which is the Media Transport Control function which will be sent when the Control is pressed.

For a [Trigger Control](#) Source Control, you can also select the **Network, Application, Trigger Group** and **Action Selector**. This is typically used to trigger an Infra Red (IR) transmission to control a piece of audio equipment, but may be used to trigger anything required.

4.25.11 Monitor Manager

A "Monitor" is used to retrieve data from a C-Bus unit. The data can be :

- Light Level
- Temperature
- C-Bus Voltage

This data can be used by [Monitor Components](#) or by [Logic](#).

The Monitor Manager provides a means of viewing all of the Monitors used in a project and to edit their properties. To display the Monitor Manager, select the **Project | Monitors** menu item.

The Monitor Manager shows the following details for each monitor :

- Name
- [Network](#)
- Unit Address
- Type (Light Level, Temperature or C-Bus Voltage)
- Refresh rate (in seconds)
- Value (if you are connected to C-Bus and the value has been retrieved)

The Monitor Manager also shows the average rate at which the monitors occur. This is very important because Monitors must send messages to C-Bus devices to retrieve the data. This is quite different to displaying, for example, [Lighting](#) level data which does not require C-Bus devices to be polled. If there are too many Monitors used, or their Refresh Rate is too fast, it can cause congestion on the C-Bus network. It is preferred that Monitor messages do not get sent more often than every few seconds. In general, you should select the longest period possible (5 to 255 seconds) which will give satisfactory performance.

The Monitors can be manipulated as follows :

- To add a new Monitor, click on the **Add** button. The [Monitor Item Form](#) will be shown.
- To edit an existing Monitor, select a Monitor Item in the list and click on the **Edit** button. The [Monitor Item Form](#) will be shown.
- To delete an existing Monitor, select a Monitor Item in the list and click on the **Delete** button.
- To refresh the Monitor data, click the **Refresh** button, or select the **Auto Refresh** check box to allow the data to be updated on a regular basis.

If there are Monitors which have been used by a [Monitor Component](#) but which are not present in the Monitor Manager, the **Auto Create** button will be enabled. Clicking on this button will automatically create any Monitors needed.

Monitors are also listed in the [Project Summary](#) report.

Notes

 **Monitors should never be used to retrieve data from a unit which has the capability of broadcasting that data.** For example, if a temperature sensor or light level sensor has the ability to broadcast its data on a regular basis, that should always be used in preference to using a monitor.

PICED projects from versions prior to V4 only had Monitor information attached to [Monitor Components](#). There was no ability to name a Monitor. If you load one of these projects, it will automatically create the Monitors and assign a default name to each Monitor.

If a unit is not responding, it will be shown in the Value column. This information is available using the GetUnitStatus [Logic](#) function.

See also [Software Limits](#), [Special Functions](#), [In-built System IO](#)

4.25.11.1 Monitor Item Form

The Monitor Item form is shown by the [Monitor Manager](#) to allow the properties of a Monitor Item to be edited.

The Monitor Item Form allows you to enter or edit the data for a Monitor Item :

- Name
- [Network](#)
- Unit Address
- Type (Light Level, Temperature or C-Bus Voltage)
- Refresh rate (in seconds)

4.25.12 Power Meters

The [Power Meter Manager](#) can be used to select Power Meters to be used in the [Project](#). The meters can be either:

- [Pulse Power Meters](#)
- [Analogue Power Meters](#)

The total power values are calculated and can be accessed using [Power Meter In-built System IO](#).

 Power Meters are only supported for C-Touch Mark 2, C-Touch Spectrum, Colour C-Touch and Wisier projects.

Energy Accumulation

On a regular basis, the energy used for each power meter is recorded. At the same time, the cost is calculated (using the current [Tariff](#)) and recorded.

The energy, cost and peak power is recorded for every hour (for the past 48 hours) and every day (for the past 2 years). This data is stored in the [Power Failure Recovery File](#).

 The calculated energy data will only be as accurate as the meters and the tariff data. The data should be considered to be approximate and for purposes of providing relative information to encourage behavioural change related to saving energy. It is not intended that this data will exactly agree with the bill received from the energy supplier.

See also [Software Limits](#)

4.25.12.1 Pulse Power Meters

Some power meters (such as the Schneider EN40) have a pulse output, where one pulse is generated for each energy unit passing through the meter (for example, 10Wh). If the pulse output of a pulse power meter is connected to a C-Bus Auxiliary Input Unit or a C-Bus Bus Coupler, then there will be a message on a C-Bus [Group Address](#) for each energy unit measured. The interval between the pulses is measured by PICED to calculate the power level (not the energy used). The faster the pulses occur, the higher the power level is.

To use these pulse meters with PICED:

1. Add pulse power meters using the [Power Meter Manager](#)
2. The measured power can be displayed using [Power Meter In-built System IO](#)

 The C-Bus Auxiliary Input Unit or C-Bus Bus Coupler needs to be programmed so that there is one C-Bus message per power meter pulse. The recommended set-up is to either toggle the C-Bus group for each pulse, or to send an On command. The key function for these are:

	Key Function
Short Press	Toggle or Recall 1
Short Release	Idle
Long Press	Idle
Long Release	Idle

4.25.12.2 Analogue Power Meters

The [Power Meter Manager](#) can keep track of analogue power meters. These are any meters which broadcast their power level using the [Measurement Application](#). The only requirements are:

1. The [Measurement Application Channel](#) data must be in Watts
2. The [Measuring Power](#) option must be selected for the channel

4.25.12.3 Power Meter Manager

The Power Meter Manager can be used to manage the [Power Meters](#) to be used in the [Project](#).

To open the Power Meter Manager, either :

- select the **Project | Power Meter Manager** menu item; or
- click on a component with the "Power Meter Manager, Show" [Special Function](#)

The Power Meter Manager form has two tabs to enable the management of **Pulse Power Meters** and **Analogue Power Meters** (using the Measurement Application).

Pulse Power Meters

The **Pulse Power Meters** tab displays all Pulse Power Meters in the project. The [columns](#) of data presented are:

- **Index** - this is the order in the list.
- **Name** - the name of the power meter
- **Description** - the C-Bus Group Address
- **Power** - the current power level
- **Tariff** - the [Tariff](#) which applies to this meter

At the bottom of the tab there is a message showing how many of the [possible](#) Pulse Power Meters have been used. It also shows the maximum expected pulse rate based on the data entered for the Pulse Power Meters.

Adding Power Meters

To add a new Pulse Power Meter, click on the **Add** button. The [Pulse Power Meter Editor](#) will be displayed. Enter the power meter details and click on **OK**.

Editing Power Meters

To edit an existing Pulse Power Meter:

1. Select the Pulse Power Meter in the list then click on the **Edit** button; or
Double click on a Pulse Power Meter in the list

2. The [Pulse Power Meter Editor](#) will be displayed.
3. Edit the power meter details
4. Click on **OK**.

Deleting Power Meters

To delete an existing Pulse Power Meter:

1. Select the Pulse Power Meter in the list
2. Click on the **Delete** button

Analogue Power Meters

The **Analogue Power Meters** tab displays all Analogue Power Meters in the project. The [columns](#) of data presented are:

- **Index** - this is the order in the list.
- **Name** - the name of the power meter
- **Description** - the C-Bus Unit Address and Measurement Application [Channel](#)
- **Power** - the current power level
- **Tariff** - the [Tariff](#) which applies to this meter

At the bottom of the tab there is a message showing how many of the [possible](#) Analogue Power Meters have been used.

Adding Power Meters

To add a new Analogue Power Meter, click on the **Add** button. The [Measurement Application Channel](#) form will be displayed. Enter the power meter details and click on **OK**.

Editing Power Meters

To edit an existing Analogue Power Meter:

1. Select the Analogue Power Meter in the list then click on the **Edit** button; or
Double click on a Analogue Power Meter in the list
2. The [Measurement Application Channel](#) form will be displayed.
3. Edit the power meter details
4. Click on **OK**.

Deleting Power Meters

To delete an existing Analogue Power Meter:

1. Select the Analogue Power Meter in the list
2. Click on the **Delete** button

Tariff

A Tariff is the cost of the energy per kWh. The units of the cost (cents, dollars, pounds etc) are up to the user. Each Tariff generally corresponds to a single physical power meter. When the energy supplier has different tariffs for different electricity usage (for example, normal usage and off-peak usage), there will generally be separate electricity meters.

The Tariff tab shows electricity tariffs used for the various meters. It is possible to enter between one and six different electricity tariffs for different meters. These tariffs are used by the Power Meter Manager for use with calculating the energy cost for use with [Power Meter In-built System IO](#) variables.

Adding Tariffs

To add a new Tariff:

1. Click on the **Add** button. The Tariff form will be displayed.
2. Enter the tariff details:
 - Name
 - Cost per kWh
3. Click on **OK**.

Editing Tariffs

To edit an existing Tariff:

1. Select the Tariff in the list then click on the **Edit** button; or
Double click on a Tariff in the list
2. The Tariff form will be displayed.
3. Edit the tariff details
4. Click on **OK**.

Deleting Tariffs

To delete an existing Tariff:

1. Select the Tariff in the list
2. Click on the **Delete** button

Note that it is necessary to always have at least one tariff.

History

The history tab shows recorded power meter historical data. History data can be [entered](#) so that components show meaningful data immediately, without having to wait for days or months to accumulate actual data.

Other

The **Other** tab is used for entering the carbon footprint factor for use by the Power Meter Manager in calculating carbon dioxide (CO₂) emissions for use by [Power Meter In-built System IO Variables](#).

The value entered is the number of kg of CO₂ emitted for every kWh of energy used. Your energy provider should be able to provide this value. Alternatively, a rough value can be determined if you know the type of energy sources used. Some approximate figures are given below:

Energy Source	kg CO ₂ per kWh
Coal	0.95
Oil	0.9
Natural Gas	0.6
Geothermal	0.1
Nuclear	0.06
Hydroelectricity	0.015
Photovoltaics (solar)	0.1
Wind Power	0.02

4.25.12.4 Power Meter History

The history tab of the [Power Meter Manager](#) shows recorded power meter historical data. This data is used by [Power Meter In-built System IO Variables](#) to show energy usage and peak power usage. The data is recorded for every hour over the last 48 hours and for every day over the last 2 years and

is stored in the [Power Failure Recovery](#) file.

To show the history data:

1. Open the [Power Meter Manager](#)
2. Select the **History** tab
3. Select the meter or "total" from the **Meter** list
4. Select Hourly Data or Daily Data

It is possible to enter or edit the historical data. To do this:

1. Select the hourly or daily data for a single meter or total, as above
2. Select one or more entries in the list (use CTRL or SHIFT keys to select multiple items in the list, or click on Select All)
3. Click on the **Edit** button
4. Enter new values for:
 - **Energy** used
 - **Peak Power** during the period
 - **Cost**
5. Click on **OK**

A value for the **Average Tariff** is displayed. When you enter an **Energy** value, the **Cost** will be calculated and vice versa. If you enter both the energy and the cost, a new average tariff will be displayed.

If you have selected multiple hours or days, then you have the option to enter data per hour/day or a total. If you enter the total, the amount you enter will be divided evenly among the selected hours/days.

On the Power Meter Manager, if you are displaying the history data for the total of all meters and you click on **Edit**, then the data you enter will be divided among all power meters. If all power meters have historical data within the last 30 days, then the total you enter will be divided among the power meters in proportion to their historical values. If one or more meters has no historical data, then the total you enter will be divided evenly among the meters. Data will not be distributed to meters which are generators or which do not have the Include in Total option selected.

If you are editing hourly data and you select the **Copy to Daily Data** check box, then the data from the last 48 hours will be copied into the daily data for the last two days.

If you are editing daily data and you select the **Copy to Hourly Data** check box, then the data from the last 3 days will be copied into the hourly data for the last 48 hours.

To clear all historical data (graph data and power meter history), select the **Project | Clear Historical Data** menu item.

Example 1

You have:

- Three pulse power meters
- The power usage of the three meters is roughly the same
- An electricity bill as follows:
 - For the last 3 months
 - \$450 / 3000kWh

The data can be entered as follows:

1. Go to the [Power Meter Manager](#) history tab
2. Select **Total**
3. Select **Daily Data**
4. Select the start date for the period (three months ago)

5. Hold the keyboard Shift key and click on the end date for the period (today)
6. Click on **Edit**
7. In **Data Type**, select **Total for Selected Days**
8. Enter the energy (3000kWh)
9. Enter the cost (\$450)
10. Leave **Copy to Hourly Data** selected
11. Click on **OK**
12. The daily total energy usage should be around 32kWh / \$4.80 (depending on the number of days in the months)
13. The hourly total energy usage should be around 1.3kWh / \$0.20
14. The per meter energy usage should around be 1/3 of the above figures.

Example 2

You have:

- Three pulse power meters
- The power meters have been running for a few days so you have some history
- An electricity bill as follows:
 - For the last 3 months
 - \$450 / 3000kWh

The data can be entered as follows:

1. Go to the [Power Meter Manager](#) history tab
2. Select **Total**
3. Select **Daily Data**
4. Select the range of dates for the period (three months ending just prior to the actual history data you have)
5. Edit the data as described in Example 1
6. The daily and hourly data will be in proportion to the recent historical data

Example 3

You have:

- Three pulse power meters
- The power usage of the three meters is believed to be roughly as follows:
 - Meter 1 : 50%
 - Meter 2 : 30%
 - Meter 3 : 20%
- An electricity bill as follows:
 - For the last 3 months
 - \$450 / 3000kWh

The data can be entered in two different ways as follows.

Option 1:

1. Go to the [Power Meter Manager](#) history tab
2. Enter some approximate data for each meter for today:
 - Meter 1 : 15kWh
 - Meter 2 : 9kWh
 - Meter 3 : 6kWh
3. Edit the data as described in Example 2
4. The daily and hourly data will be in proportion to the entered approximate historical data

Option 2:

1. Go to the [Power Meter Manager](#) history tab
2. Select Meter 1
3. Select **Daily Data**

4. Select the range of dates for the period (three months up to today)
5. Click on **Edit**
6. In **Data Type**, select **Total for Selected Days**
7. Enter 50% of the energy (1500kWh)
8. Enter 50% of the cost (\$225)
9. Leave **Copy to Hourly Data** selected
10. Click on **OK**
11. Repeat steps 2 to 10 for each meter (using the relative percentage for each)

Once the historical data above is entered, adding additional bills for periods prior will automatically allocate the energy across the meters proportionally, so the steps in example 2 can be followed (using the appropriate dates and energy usage).

4.25.12.5 Pulse Power Meter Editor

The Pulse Power Meter Editor can be opened from the [Pulse Power Meter Manager](#).

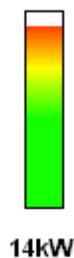
The Pulse Power Meter Editor allows the following aspects of a power meter to be selected:

- **Name**: this is a name for the power meter
- **Network**: the [C-Bus Network](#) the power meter is on
- **Application**: the [C-Bus Application](#) the pulses are on
- **Group**: the [C-Bus Group Address](#) the pulses are on
- **Energy per Pulse**: the amount of energy through the power meter for each pulse (Watt Hours)
- **Power Generator** - select this if the power being measured is from a device generating the power (for example, a solar panel or wind turbine). This will result in the measured value being subtracted from the total power consumption.
- **Include in Totals** - select this option if you want this meter to be included in the totals for power, peak power, energy and cost.
- **Tariff** - the [Tariff](#) which applies to this meter
- **Offset** - the no-load [Reactive Power](#)

4.25.12.6 Displaying Power and Energy

To display values from [Power Meters](#), use [Power Meter In-built System IO](#) variables.

Example 1

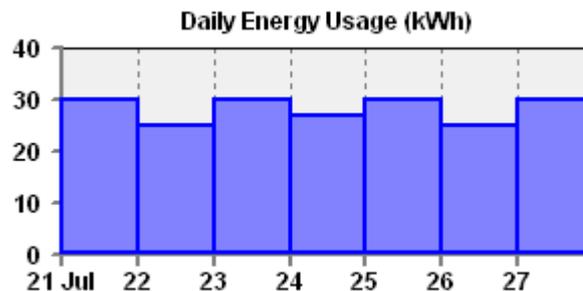


To display the power consumed by all power meters as shown above:

1. Add a bar [Slider](#)
2. Select the slider In-built [System IO properties](#):
 - Key Function: Status
 - In-Built System IO Variable: Power Meter Total
 - Meter Tariff: All Meters
 - Units: Watts
3. Select the [Slider properties](#):
 - Range Max: 15000 (for 15kW - change this to suit)
 - Bar Image: select the image file \PICED\Image Library\Slider Bars\Traffic Light.bmp

4. Add the power value:
 - Open the [Tools](#) form
 - Select the Power Meter category
 - Select Power
 - Click on OK and place the Component on the form

Example 2



To display the daily total energy usage over the last week as shown above:

1. Add a [Graph](#) Component
2. Select the graph In-built [System IO properties](#):
 - Key Function: Status
 - In-Built System IO Variable: Power Meter Total Energy
 - Meter Tariff: All Meters
 - Units: Watt Hours
 - Period: 1 day
 - Offset: 0
 - Data Type: To Date (select predicted if you want today's energy bar to show the predicted value)
3. Select the [Graph properties](#):
 - Graph Type: Bar
 - Points: 7
 - Tick/Grid Spacing: 1 (x 1 day)
 - Show Tick Marks
 - Show Values
 - Vertical Axis Maximum: 40 (or select value to suit)
4. Scale the data:
 - Select the [Value Tab](#)
 - Select System IO Value Custom
 - Gain: 0.001 (converts Watt Hours to kWh)

4.25.12.7 Reactive Power

In an AC power system, there are two components of power:

- Real Power: This is the power that does actual work, and is what your energy provider power meter records and you pay for. It is measured in Watts.
- Reactive Power: This is power which circulates in the wiring due to inductive or capacitive loads, but does no useful work. It is measured in VAR.

The (vector) sum of the Real Power and Reactive Power is known as the Apparent Power.

The ratio of Real Power to Apparent Power is known as the Power Factor:

$$\text{Power Factor} = \text{Real Power} / \text{Apparent Power}$$

Some power meters measure Real Power. These are ideal because their reading will agree with the

power meter provided by your energy provider.

Other power meters measure Apparent Power. These typically use a current clamp to measure the current then multiply this by a nominal mains voltage to get the power. If you know a typical Power Factor, you can use it with the Apparent Power from the meter to get an approximation of the Real Power (which is what you are wanting to measure).

In some installations there can be considerable Reactive Power even with most loads switched off. This can result in a very misleading measurement of power in this situation. To compensate for this, an "offset" can be used with [Analogue Power Meters](#) and [Pulse Power Meters](#). This offset value is the Reactive Power of the circuit with everything switched off. Measuring this Reactive Power will require an electrician with appropriate instruments.

4.25.13 C-Bus Custom Key Functions

The [C-Bus Key Function](#) for a [Component](#) can be either a standard key function, or a custom key function (Colour C-Touch only). A C-Bus Key Function is a series of actions ("Microfunctions") to be performed when the user presses a key. There is one Microfunction for each of the following conditions:

- Short Press: user has just pressed the Component
- Short Release: user has pressed the Component for less than 400ms and released
- Long Press: user has pressed the Component for 400ms
- Long Release: user has pressed the Component for more than 400ms, but less than 10s and released
- Extra-long press: user has pressed the Component for 10s (rarely used)
- Extra-long release: user has pressed the Component for more than 10s and released (rarely used)

Key Microfunctions

The purposes of the microfunctions are described below. The ones with a * are not used by regular C-Bus key input units.

Micro-function	Purpose
Idle	Do nothing
On Key	Set to 100%
Off Key	Set to 0%
Toggle	Alternate between setting to 100% and 0%
Ramp Toggle *	Alternate between ramping to 100% and 0%
Up Key	Ramp to 100%
Down Key	Ramp to 0%
Down Cycle	Alternate between ramping to 100% and 1%
Ramp *	Ramp to specified level at specified rate
End Ramp	Stop the ramp
Start Timer *	Set the group address level, start the timer and store the final level
Stop Timer *	Stop the timer and set the final level
Toggle Timer *	Alternate between Start Timer and Stop Timer
Store Level *	Set the group address level, store the final level
Set Scene *	Set the scene levels
Nudge Up *	Nudge (adjust) the level up
Nudge Down *	Nudge (adjust) the level down

Standard Key Functions

The key microfunctions used by the PICED software are a little different from those used in the

ToolKit, due to the vastly different capabilities of the PICED software. The key microfunctions used for each key function are listed below. The [Slider](#) and [Selector](#) key functions work differently, so are not listed.

Key Function	Short Press	Short Release	Long Press	Long Release	X-Long Press	X-Long Release
Unused	Idle	Idle	Idle	Idle	Idle	Idle
On	On Key	Idle	Idle	Idle	Idle	Idle
Off	Off Key	Idle	Idle	Idle	Idle	Idle
On/Off	Ramp Toggle	Idle	Idle	Idle	Idle	Idle
Up	Up Key	End Ramp	Idle	End Ramp	Idle	End Ramp
On/Up	Idle	On Key	Up Key	End Ramp	Idle	End Ramp
Down	Down Key	End Ramp	Idle	End Ramp	Idle	End Ramp
Off/Down	Idle	Off Key	Down Key	End Ramp	Idle	End Ramp
Dimmer	Idle	Toggle	Down Cycle	End Ramp	Idle	End Ramp
Preset	Ramp	Idle	Off Key	Idle	Idle	Idle
Timer, Resettable	Start Timer	Idle	Stop Timer	Idle	Idle	Idle
Timer, Toggle	Toggle Timer	Idle	Idle	Idle	Idle	Idle
Bell Press	Store Level	Stop Timer	Idle	Stop Timer	Idle	Stop Timer
Scene	Set Scene	Idle	Idle	Idle	Idle	Idle
Nudge Up	Nudge Up	Idle	On Key	Idle	Idle	Idle
Nudge Down	Nudge Down	Idle	Off Key	Idle	Idle	Idle
Status	Idle	Idle	Idle	Idle	Idle	Idle

Custom Key Functions

Customised key functions can be created with the [Custom Key Function Manager](#). They can be saved as a [Template](#) for later use.

4.25.13.1 Custom Key Function Manager

The Custom Key Function Manager is used to:

1. View the microfunctions used in standard key functions and custom key functions
2. Create and edit custom key functions

To show the Custom Key Manager, select the **Project | Custom Key Manager** menu item, or click on the edit button next to the [Key Function](#) button on the Component Editor.

The screenshot displays the Custom Key Function Manager interface. It is divided into two main sections: 'Standard Key Functions' and 'Custom Key Functions'. Both sections contain a table with columns for 'Key Function', 'Short Press', 'Short Release', 'Long Press', 'Long Release', 'X-Long Press', and 'X-Long Release'. The 'Standard Key Functions' table lists various functions like 'Unused', 'On/Off', 'On', 'Off', 'Dimmer', 'On Up', and 'Off Down'. The 'Custom Key Functions' table shows 'My Nudge Up' and 'My Nudge Down'. Below the tables are buttons for 'Add', 'Edit', and 'Delete'.

Key Function	Short Press	Short Release	Long Press	Long Release	X-Long Press	X-Long Release
Unused	Idle	Idle	Idle	Idle	Idle	Idle
On/Off	Toggle Ramp	Idle	Idle	Idle	Idle	Idle
On	On Key	Idle	Idle	Idle	Idle	Idle
Off	Off Key	Idle	Idle	Idle	Idle	Idle
Dimmer	Idle	Toggle	Down Cycle	End Ramp	Idle	End Ramp
On Up	Idle	On Key	Up Key	End Ramp	Idle	End Ramp
Off Down	Idle	Off Key	Down Key	End Ramp	Idle	End Ramp

Key Function	Short Press	Short Release	Long Press	Long Release	X-Long Press	X-Long Release
My Nudge Up	Nudge Up	Idle	Idle	Idle	Idle	Idle
My Nudge Down	Idle	Idle	Idle	Idle	Idle	Idle

The top part of the form shows the microfunctions used by the standard key functions. These are not able to be edited.

The bottom part of the form shows the custom key functions, and their microfunctions.

Adding Custom Key Functions

To add a new custom key function, click on the **Add** button. The [Custom Key Function Editor](#) will allow you to enter the necessary details.

Editing Custom Key Functions

To edit an existing custom key function :

1. Select a custom key function in the list
2. Click the **Edit** button

The [Custom Key Function Editor](#) allows you to enter details of the custom key function.

Deleting Custom Key Functions

To delete an existing custom key function :

1. Select a custom key function in the list
2. Click the **Delete** button

4.25.13.2 Custom Key Function Editor

The Custom Key Function Editor allows the editing of a [C-Bus Custom Key Function](#). It can be opened from the [Custom Key Function Manager](#).

Name	<input type="text"/>
Short Press	Idle <input type="button" value="v"/>
Short Release	Idle <input type="button" value="v"/>
Long Press	Idle <input type="button" value="v"/>
Long Release	Idle <input type="button" value="v"/>
X-Long Press	Idle <input type="button" value="v"/>
X-Long Release	Idle <input type="button" value="v"/>

Enter a unique name and select the [microfunctions](#) for each [Key Press Event](#).

Click on **OK** when complete.

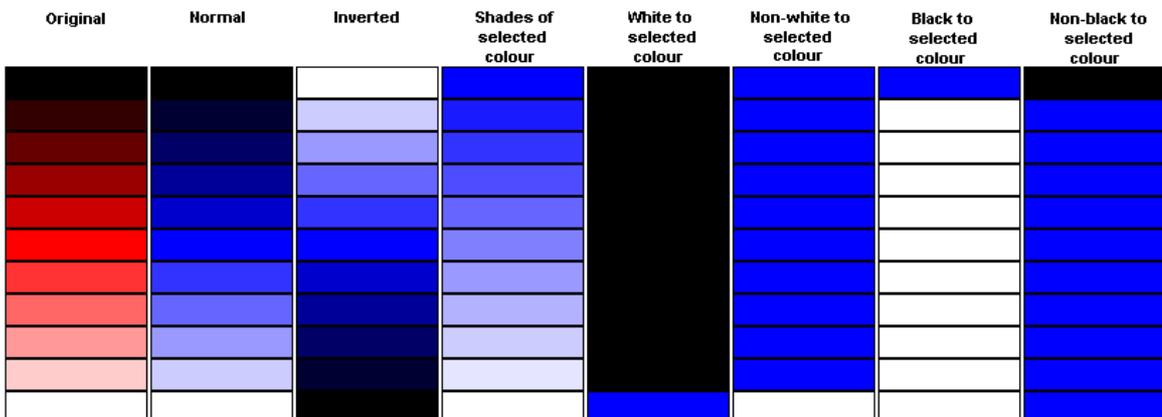
5 Tools

5.1 Change Image Colours

[Images](#) can be re-coloured using the **Tools | Images | Convert Image Colours** menu item. This will open the Image Colour Conversion form. The process to convert one or more images is as follows :

1. Select the colour to change the image to :
 - Select using the [Red/Green/Blue](#) sliders; or
 - Select using the [Hue/Saturation/Luminance](#) sliders; or
 - Click on the Select button to select a custom [colour](#).
2. Select the colour change method to apply (see the image below for the effect of the different options) :
 - Normal
 - Inverted (negative)
 - Shades of selected colour
 - White to selected colour
 - Non-white to selected colour
 - Black to selected colour
 - Non-black to selected colour
3. Select which aspects of the selected colour to apply to the image (hue and/or saturation)
4. To see the effect that the selected option will have, click on the **Preview** button. If no image file is selected, you will see bands of colours, like that shown below. If an image is selected, you will see how the image will be re-coloured.
5. Select the image(s) required. Click on the folder button next to the **Image File(s)** edit box.
6. Select the folder where the files will be copied to. Click on the folder button next to the **Output Folder** edit box.
7. To avoid ending up with multiple images with the same name, enter a prefix in the **File Name Prefix** edit box. This text will be placed in front of the new file name, and should normally be the name of the colour. If you leave this blank, a unique 6 digit/character colour identifier will be used automatically.
8. If you wish to re-scale the image(s) at the same time, select the new scale with the **re-scale** edit box.
9. Click on the **Save** button.
10. All of the re-coloured (and re-scaled if selected) images will now be in the selected folder with their new names.

Example of the effect of re-colouring an image, showing the original colours and the colours they get transformed to with the various re-colouring options :



An example of a converted image (using the "normal" setting) is shown below :

[Original](#)



Re-coloured Image



This can be used to very quickly create sets of icons in whatever colour you need for your project.

5.2 Re-scale Images

If you are using [images](#) which are stretched, these need to be re-scaled each time they are drawn on the screen. This can use considerable processor time, particularly for large images. To avoid this, images can be re-scaled as follows :

1. Select **Tools | Images | Re-Scale All Images** or **Tools | Images | Re-Scale Selected Images** or **Tools | Images | Re-Scale Page Background Image**
2. The specified image(s) will be re-scaled once and saved to disk with a new name
3. The new image files will be used from then on instead of the original images
4. It will no longer be necessary for the software to re-scale images each time as the new images are already the correct size

Note : The **Tools | Images | Re-Scale Page Background Image** only applies if the background image is set to be stretched to fit the screen.

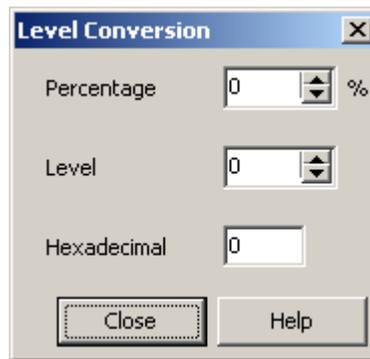
5.3 Refresh Images

Once you load an [image](#) into a Project, it will remain the same until it is re-loaded. If you edit the file on disk, you will not see the new image on the screen unless you [open](#) the Project again, or use the **Tools | Images | Refresh Images** menu item.

5.4 Convert Levels

The Convert Levels allows you to convert between [percent](#), [level](#) and [Hexadecimal](#) values.

Select the **Tools | Convert Levels** menu item to open the convert levels form.



A Percentage (0 - 100%), Level (0 - 255) or Hexadecimal (0 - FF) number can be entered and will be immediately converted to the other numbers.

5.5 Auto Create

The Auto Create form can be opened by selecting **Tools | Auto Create**. It allows you to quickly create large Projects for test purposes. ***It should never be used for creating real projects, as some of the normal safeguards are not applied during the auto create process.***

To automatically create parts of a project, enter the details as described below and click on OK.

Scenes

To automatically create [Scenes](#) :

- Select the **Scenes** tab
- Select the **Auto Create Scenes** check box
- Select the number of Scenes to create in the **Scene Count** box
- Select the number of Scene Items in the **Scene Item Count** box
- Select the starting Group Address for the Scene Items in the **Min Group Address** box
- If you want a Scene Trigger used, select the **Set Trigger** check box

This will create the selected number of Scenes, each given the name "Scene x" where x is the number of the Scene. Each Scene will contain the selected number of Scene Items. The first Scene Item will have the selected Group Address, and the subsequent ones will increment from there. All Scene Items will have a level of 100%.

If the Trigger option was selected, the first Scene will have a Trigger Group of 1 with a Trigger Level of 100%. The next Scene will use Trigger Group 2 and so on.

Schedules

To automatically create [Schedules](#) :

- Select the **Schedules** tab
- Select the **Auto Create Schedules** check box
- Select the number of Schedules to create in the **Schedules Count** box
- Select **Random Time** or Schedules spaced at **1 Minute Intervals** (starting at 12:00 noon)
- Select whether the Schedule action is to be just **On / Off** commands, **Random Levels** or whether it should also include **Random Scenes**
- Select the minimum and maximum lighting Group Addresses to be controlled from the **Min GA** and **Max GA** boxes respectively

This will create the selected number of Schedules, each given the name "Schedule x" where x is the number of the Schedule.

The first Schedule will control the Group Address selected by **Min GA**. The next Schedule will use the next Group Address and so on. If the **Max GA** Group Address is reached, then the next Schedule will use the **Min GA** Group Address again.

If the Random Scenes option is selected, then roughly 20% of the Schedules will set a random Scene.

Pages

To automatically create [Pages](#) :

- Select the **Pages & Components** tab
- Select the **Auto Create Pages** check box
- Select the number of Pages to create in the **Pages Count** box

This will create the selected number of Pages, each given the name "Page x" where x is the number of the Page.

Components

To automatically create [Components](#) :

- Select the **Pages & Components** tab
- Select the **Auto Create Components** check box
- If you want to create the components using the same style as the currently selected Component, select the **Copy Style of Selected Component**
- Select the starting Group Address in the **Min GA** box and the final Group Address in the **Max GA** box

This will create a series of C-Bus Components on the currently selected page, with their text being the [C-Bus Tag](#) for the controlled Group Address. The first Component will control the **Min GA** Group Address, the next will control the Group Address after that and so on.

The Components will be placed in rows, over the top of any existing Components. If there are too many Components to fit on the page, then some of them will be on top of each other.

Access Control

To automatically create [Users](#) :

- Select the **Users** tab
- Select the **Auto Create Users** check box
- Select the number of Users to create in the **Users Count** box

This will create the selected number of Users, each given the name "User x" where x is the number of the User. Each user will have a password of "00000n" where n is the number of the User minus one. So User 1 will have password 000000, User 2 will be 000001 and so forth.

Irrigation Zones

To automatically create [Irrigation Zones](#) :

- Select the **Irrigation** tab
- Select the **Auto Create Zones** check box
- Select the Group Address for the first Zone in the **Min GA** box
- Select the Group Address for the last Zone in the **Max GA** box

This will create a series of Irrigation Zones using the selected Groups Addresses on the Irrigation Application.

Irrigation Programs

To automatically create [Irrigation Programs](#) :

- Select the **Irrigation** tab
- Select the **Auto Create Programs** check box
- Select the Trigger Group for the first Program in the **Min GA** box
- Select the Trigger Group for the last Program in the **Max GA** box

This will create a series of Irrigation Programs using the selected Trigger Groups (on the Trigger Control Application) with a Trigger Level of 100%.

System IO Variables

To automatically create Integer System IO Variables :

- Select the **System IO** tab
- Select the **Auto Create Integer System IO** check box
- Select the number of System IO Variables to create in the **System IO Count** box

This will create the selected number of System IO Variables, each given the name "Int x" where x is the number of the System IO Variable.

5.6 Change Networks

Sometimes it is necessary to change everything in a PICED [Project](#) from one [Network](#) to another. The reasons for doing this include :

- Changing the C-Bus Project topology
- Re-using part or all of a PICED Project with a different C-Bus project
- Moving a C-Touch or PAC from one Network to another

To change everything from one Network to another, select the **Tools | Change Networks** menu item. This displays the Change Networks form :

From Network	To Network
252 (Network 3)	254 (Network 1)
253 (Network 2)	253 (Network 2)
254 (Network 1)	252 (Network 3) ▼

This enables the Network to be changed in :

- All [Components](#)
- All [Scenes](#)
- All [Schedules](#)
- All [Irrigation](#) Zones
- The project [Default Network](#)

To select the changes to be made, select the new Networks in the **To Network** column. In the case above, the changes will be :

- Everything on "Network 1" will be changed to "Network 3"
- Everything on "Network 2" will stay on "Network 2"
- Everything on "Network 3" will be changed to "Network 1"

5.7 Change Colours

The colours of Component [Borders](#) and [Fonts](#) and [Page Backgrounds](#) can be quickly changed by selecting the **Tools | Change Colours** menu item. This opens the Change Colours form. To change the colours of the project :

1. Select which components you wish to change the colours of

2. Select whether to change the Component border or not
3. Select whether to change the Page background colours or not
4. Select whether to change the font colors or not
5. Select the colour to change from
6. Select the colour to change to
7. Click on **Apply** to make the changes but leave the form open or click on **OK**

5.8 Creating a Desktop Shortcut

To create a desktop shortcut which will start the software and load the currently loaded file, select the **Create Desktop Shortcut** item from the **Tools** Menu.

The desktop shortcut will be created with the following parameters :

- The currently loaded file
- The current connection to C-Bus

Once the shortcut has been created, you may add other [Command-Line Parameters](#) by selecting the shortcut, right clicking on it and setting the properties.

5.9 Magnify Screen

You can magnify an area of the screen by using selecting the **Tools | Magnify** menu item. This opens the Windows magnifier utility. Refer to Windows documentation for more details.

5.10 Image Editor

To open the [Default Image Editor](#), select the **Tools | Image Editor** menu item.

To edit the image of a particular component :

1. If you want to edit the active image, then [Activate](#) the component
2. [Select](#) the component
3. Select the **Tools | Images | Open Image** menu item
4. Make any changes using the image editor and save the file
5. If you want to see the changes, you will need to [Refresh the Images](#). You will be asked whether you want to do this. Click on **Yes**.

5.11 Pick Colours

To pick a colour from the project [Page](#), select the **Tools | Pick Colour** menu item. Move the mouse over the colour to be selected. The selected colour will be shown on the [Status Bar](#). Click on the colour to be used and it will be added to the colour form as a [custom colour](#).

See also [Add colour by Hex Code](#)

5.12 Add colour by Hex Code

Colours on web pages are often referred to by their "Hex Code". This is a six character string representing a [colour](#). Examples are :

- Pure red is FF0000
- Pure green is 00FF00
- Pure blue is 0000FF
- White is FFFFFFFF
- Black is 000000

A colour can be added to the [custom colours](#) for use anywhere in the project by selecting the **Tools | Add Colour by Hex Code** menu item. Enter the hex colour code and click on **OK**.

See also : http://www.webmonkey.com/webmonkey/reference/color_codes/

5.13 Log File Filter

The PICED software can generate [Log](#) files for debugging purposes. Unfortunately, these log files can get quite large and hence can be difficult to review or e-mail. The Log File Filter allows you to extract just the needed part of a log file.

To run the log filter, select the **Tools | Filter Log File** menu item. The Filter Log form will be displayed. To use the log filter select the options described below and click on **OK**. The new file will be created and displayed.

Log File Type

You need to select whether the log file to be filtered was created by C-Gate or PICED / HomeGate / Schedule Plus as the file formats are different.

Files

The **Log File** box allows you to enter the log file to be filtered. The log files can be found in the relevant software folder :

- C-Gate : c:\Clipsal\c-gate2
- PICED : c:\Clipsal\PICED
- HomeGate : c:\Clipsal\HomeGate
- Schedule Plus : c:\Clipsal\SchedulePlus

The **Output File** is the file you want the filtered log to be written to. Enter a file name, or click on the folder button and select a file.

Time

If you want just the log file entries for a particular range of dates and times, select the **Filter by Time** check box. Enter the start time and stop time for the time interval of interest.

Key Words

If you want just the log file entries containing particular key words, select the **Filter by Key Words** check box. If the case (lower case or UPPER CASE) is important, select the **Match Case** check box.

If you only want to select one keyword, enter it in the box and select the **Only** option.

If you want more than one keyword, enter the first keyword in the first box, select the **AND** or **OR** option and then enter the second keyword in the second box.

Examples

Original Schedule Plus log file :

```
25/07/2006 4:05:42 PM C-Bus Tx : Set Group 32 On (User Click)
25/07/2006 4:05:42 PM C-Gate : Tx "[14]on 254/56/32"
25/07/2006 4:05:42 PM C-Gate : Rx "[14] 200 OK: //HOUSE/254/56/32"
25/07/2006 4:05:43 PM C-Gate : Rx "lighting on //HOUSE/254/56/32"
25/07/2006 4:45:46 PM C-Bus Tx : Set Group 33 Off (User Click)
25/07/2006 4:45:46 PM C-Gate : Tx "[15]off 254/56/33"
25/07/2006 4:45:46 PM C-Gate : Rx "[15] 200 OK: //HOUSE/254/56/33"
```

25/07/2006 4:45:46 PM C-Gate : Rx "lighting off //HOUSE/254/56/33"

Filtering with a time of 4:00:00PM to 4:30:00PM would result in :

25/07/2006 4:05:42 PM C-Bus Tx : Set Group 32 On (User Click)
25/07/2006 4:05:42 PM C-Gate : Tx "[14]on 254/56/32"
25/07/2006 4:05:42 PM C-Gate : Rx "[14] 200 OK: //HOUSE/254/56/32"
25/07/2006 4:05:43 PM C-Gate : Rx "lighting on //HOUSE/254/56/32"

Filtering with keyword of 32 **ONLY** would result in :

25/07/2006 4:05:42 PM C-Bus Tx : Set Group 32 On (User Click)
25/07/2006 4:05:42 PM C-Gate : Tx "[14]on 254/56/32"
25/07/2006 4:05:42 PM C-Gate : Rx "[14] 200 OK: //HOUSE/254/56/32"
25/07/2006 4:05:43 PM C-Gate : Rx "lighting on //HOUSE/254/56/32"

Filtering with keywords of 32 **OR** 33 would result in the original file.

Filtering with keywords of 32 **AND** on would result in :

25/07/2006 4:05:42 PM C-Bus Tx : Set Group 32 On (User Click)
25/07/2006 4:05:42 PM C-Gate : Tx "[14]on 254/56/32"
25/07/2006 4:05:43 PM C-Gate : Rx "lighting on //HOUSE/254/56/32"

Filtering with keywords of 32 **AND** on with **Match Case** selected would result in :

25/07/2006 4:05:42 PM C-Gate : Tx "[14]on 254/56/32"
25/07/2006 4:05:43 PM C-Gate : Rx "lighting on //HOUSE/254/56/32"

If you need a more complex filter, you can run the log file through the filter multiple times. For example, if you wanted lines that contain the word "c-gate" and either "tx" or "rx", then you could run the log file through the filter, filtering on keywords "tx" OR "rx". Then run the filtered file through the filter again, filtering on the key word "c-gate".

5.14 Schedule Catch-Up

When the PC clock is adjusted, there is a possibility that a Schedule may have been due to occur in the time that was missed. The rules of determining what happens are :

- If the clock is adjusted back, nothing happens. It is possible that a scheduled event may occur twice.
- If the clock is adjusted forward by less than one hour, all Schedules that were due in that time are quickly executed. Pulsed events will still be executed for the defined duration.
- If the clock is adjusted forward by more than one hour, but less than 24 hours, the Schedules are quickly executed but :
 - Commands are sent at the end of the process to set the final level of any [Group Address](#) level that needs to be changed.
 - Pulsed Schedules are ignored.
 - Ramping groups will be set the end level of the ramp.
- If the clock is adjusted forward by more than 24 hours, only the Schedules due in the last 24 hours of that time are executed.

During the Schedule catch-up process, a progress form will be shown. Clicking on the **Cancel** button will terminate the Schedule Catch-up.

See also [Command Line Parameters](#)

5.15 Create Animation

To simplify the creation of [Animated Images](#), select the **Tools | Images | Create Animation** menu item. The Create Animation form allows you to create a blank animation template, or to create an animation from an existing image.

Blank Animation

To create a "blank" (empty) animation :

1. Select the **Create Blank Animation** option
2. Enter how many animation frames are required
3. Enter the height and width of the animation frames
4. Select an output file name (the name of the completed animation file). This needs to be a bitmap (.bmp extension)
5. Select a [Transparency](#) colour
6. Select an animation rate (multiple of 100ms)
7. Click on **OK**
8. The newly created animation frames image will be opened in your selected [Image Editor](#)
9. Use the Image Editor to create the animation images
10. Edit the [animation text file](#) if needed

Animation From an Image

To create an animation from an existing image :

1. Select the **Create Animation From Image** option
2. Enter how many animation frames are required
3. Select the animation effect required
4. Select an input file name (the name of the image to be animated).
5. Select an output file name (the name of the completed animation file). This needs to be a bitmap (.bmp extension)
6. Select a Transparency colour
7. Select an animation rate (multiple of 100ms)
8. Click on **OK**
9. The newly created animation frames image will be opened in your selected [Image Editor](#) to allow changes if desired.
10. Edit the animation text file if needed

 Note that the animation image file created has a single line of the "transparency colour" at the bottom of the image. This is required to guarantee that the bottom left pixel in the image (this is the one which sets the transparency colour) is the correct colour.

5.16 Create Compact Tag File

The [Colour C-Touch](#) uses a compact version of the [C-Bus Project tag](#) information. It is not of any interest to most users.

This file is generated automatically when [transferring a project to the Colour C-Touch](#). It can also be generated by opening a Project, then selecting the **Tools | Create Compact Tag File** menu item. A file with a .ctf extension will be generated in the Project directory. This file can also be used by third party devices. Refer to the C-Bus Enabled Program for details.

5.17 Plot Graph

The data from a [Graph Component](#) can be plotted in Microsoft Excel if required. This provides additional flexibility for formatting and printing beyond that supplied in PICED.

The steps for plotting a graph in Excel are :

1. Ensure that Microsoft Excel is installed
2. Select the **Tools | Plot Graph** menu item
3. Select the required Graph Component from the list
4. Click on the **Graph in Excel** button
5. Manipulate the graph as required in Excel
6. Close Excel when complete

5.18 Refresh C-Bus Tags

If [C-Bus Tags](#) get changed by another piece of software, the PICED software will not know about the changes until next time it opens the project. If you want to get any changes made to C-Bus tags immediately, select the **Tools | Refresh C-Bus Tags** menu item.

5.19 Image Server

The PICED software comes with an Image Server for use with [Web Cam Image](#) components. The image server can be used to provide images for any number of Colour C-Touch units, HomeGate or Schedule Plus. This can be used for photo screen savers or for providing information in a commercial environment.

The Image Server can be run from the Start Menu under PICED or from \\PICED\\Media\\ImageServer.exe

The Image Server icon can be seen on the System Tray (bottom right corner of the screen):



Click on the Icon and select **Show** to set the properties. The **Help** button provides additional information on how to use the Image Server.

6 C-Bus Units

The PICED software can be used to configure the following C-Bus Units :

- [Black and White C-Touch](#)
- [Black and White C-Touch Mark 2](#)
- [Colour C-Touch](#)
- [PAC](#)
- [Wiser Home Control](#)

There are [differences](#) between the software features available for each unit.

6.1 Black and White C-Touch

The Black and White C-Touch can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the Black and White C-Touch and are disabled.

To create a project for a Black and White C-Touch unit:

- [Create a new project](#)
- [Set the Project Details](#)
- [Add pages](#) and [add components to each page](#) with the desired properties
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Set up the [Access Control](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- [Transfer the Project](#) to the unit

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

The following sections cover aspects of the software which are unique to the Black and White C-Touch.

For more details on the installation and use of the Black and White C-Touch, refer to the installation guide and user manual respectively.

6.1.1 Transferring a C-Touch Project to the Unit

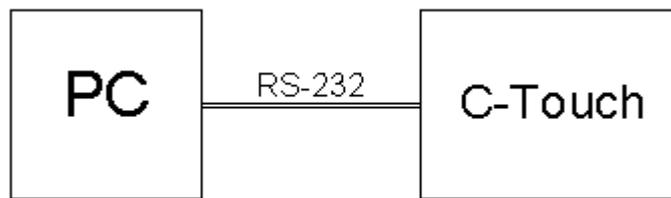
There are two types of information that you may want to transfer to the C-Touch Unit. The more common requirement is to transfer the user configuration data that you have created. Occasionally, you may wish to transfer new firmware into the unit to add new features.

There are two alternative means of transferring data to the C-Touch unit; directly via a serial cable, or via C-Bus. You can select which option you wish to use in the [Program Options](#) form.

Transferring via the Serial Cable

To transfer the Project, follow the steps below.

1. Connect your PC to the Touchscreen via the supplied serial cable.



2. In the **Transfer** menu, select the **Transfer Project to Unit** menu item, and the Transfer to Unit form will appear. Alternatively, click on the transfer button on the [Tool Bar](#).
3. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.
4. Select the action to perform:
 - If you want to transfer the configuration data for the project that is already open, select **Transfer Current Project**
 - If you want to transfer a different configuration file, select **Transfer Other Configuration File** and select the desired file (*.mot)
 - If you want to prepare a configuration file but not transfer it yet, select **Prepare Configuration Data File**
5. If you want to transfer new firmware, select the **Transfer Firmware** check box and enter the desired file (*.mot). The firmware files can be found in C:\Clipsal\PICED\Firmware.
6. To set the C-Touch time to match the PC time, select the **Set Unit Time to PC Time** check box
7. Select the [Profile](#) for the unit.
8. Click on **OK**. The transfer process will start. It may take up to five minutes, depending on the size of your file.

Transferring via C-Bus

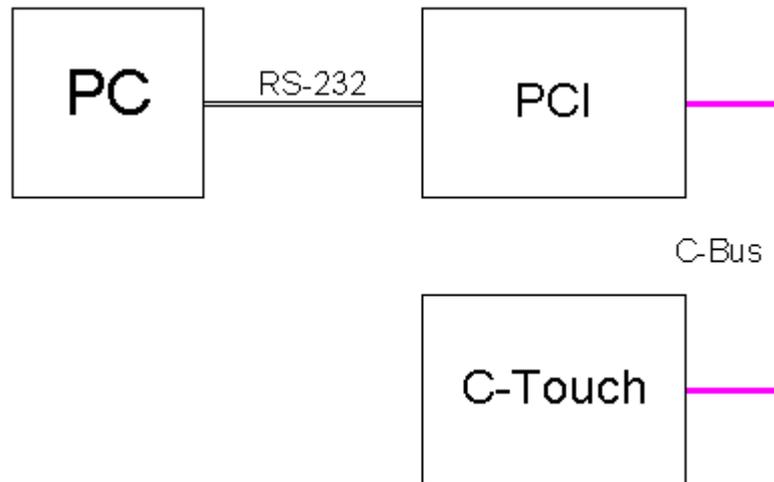
There may be occasions where it is inconvenient to remove the C-Touch unit from the wall and connect to the serial connector. In this case, you may wish to transfer via C-Bus.

There are several limitations to using this approach :

- Firstly, it is much slower. Using the serial cable is approximately 20 times faster.
- You can not transfer across C-Bus bridges
- You can only transfer new configuration data, not firmware
- **If the firmware is the wrong version, transferring a project may permanently damage the unit** and it will need to be returned for repair (see **Help | Software Properties** for the compatible firmware versions)
- C-Gate must be on the same computer as PICED

The process to transfer via C-Bus is as follows:

1. In the [Project Details](#) form, enter the Unit Address of the C-Touch unit.
2. Connect your PC to a PC Interface on the same [network](#) as the C-Touch unit.



3. [Connect to C-Bus](#) by selecting the **Connect to C-Bus** menu item from the **Options** Menu.

4. In the **Transfer** menu, select the **Transfer Project to Unit** menu item, and the Transfer to Unit form will appear. Alternatively, click on the transfer button on the [Tool Bar](#).

5. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.

6. Select the action to perform:

- If you want to transfer the configuration data for the project that is already open, select **Transfer Current Project**
- If you want to transfer a different configuration file, select **Transfer Other Configuration File** and select the desired file (*.mot)
- If you want to prepare a configuration file but not transfer it yet, select **Prepare Configuration Data File**

7. Click on **OK**. The transfer process will start. It may take up to an hour or two, depending on the size of your file and the amount of C-Bus traffic.

Note: The 5000CTA units manufactured prior to 2005 have a limit of 100 reprogramming cycles (new ones have a 1000 cycle limit). If this limit is exceeded, reprogramming may no longer be possible. It is recommended that as much testing as possible should be conducted using [Simulation Mode](#) as possible before transferring the project.

The [Log](#) can be used to identify the cause of problems during transfer.

See also [Transferring a Project from the Unit](#)

6.1.2 Transferring a C-Touch Project from the Unit

To transfer a project stored in a C-Touch unit to the PICED software, follow the steps below.

Firstly, [Connect](#) the computer to the C-Touch unit.

Either:

1. If PICED is not running:
 - Start PICED

- Select **Transfer Project From Unit**
 - Select **Next**
2. If PICED is running:
- Select **File | New Project**
 - Select **Transfer Project From Unit**
 - Select **Next**
3. If PICED is running, and you have a C-Touch project already open:
- Select the **Transfer | Transfer Project from Unit** menu item

The form below will appear:

The image shows two stacked dialog boxes. The top one is titled 'Connection' and contains the text 'Connection Type: Serial, COM2' with a 'Change' button below it. The bottom one is titled 'C-Bus Project' and contains a dropdown menu with 'HOME' selected.

If the **Connection Type** is wrong, click the Change button and select the correct connection.

Select the **C-Bus Project** which was is used with the C-Touch project.

Click on **Next**. The next page will be shown.

The image shows a 'Project' dialog box with several options. At the top, there are two checked checkboxes: 'Transfer Project' and 'Use Zip File if Present'. Below these are three sections, each with radio button options: 'Text Components' (with 'Create as Images' selected), 'Button Components' (with 'Create as Buttons with 2 Images' selected), and 'Shape Components' (with 'Create as Buttons with 2 Images' selected). At the bottom, there is an unchecked checkbox for 'Transfer User Settings'.

5. If you wish to transfer the full C-Touch project, select the **Transfer Project** check box, then select the options for text, buttons and shapes (see below).
6. If you wish to transfer the user settings (for Scenes and Schedules), select the **Transfer User Settings** check box.
7. Click on the **Finish** button.
8. If you have selected to transfer the project, a new project is then created. You will need to :
- Select where the project is to be stored, and enter a file name

- Click on **Save**

Notes :

⚠ If you are only transferring the user data, you must have a copy of the original project open first. The changed Scene and Schedule data will then be transferred. The Scenes and Schedules in the project on the PC must be exactly the same as what was transferred to the C-Touch. If changes have been made, the data transferred may cause unpredictable effects.

⚠ Before transferring a C-Touch Project, you must have a [C-Bus Project](#) which contains at least all [Networks](#) and [Applications](#) used by the C-Touch project. It is preferable to have [tags](#) for all [Group Addresses](#) used too.

Project Re-Creation

If you are going to transfer a project, it is important to understand that it is not possible to exactly re-create the original project, as much of the necessary information is not transferred.

Zip File

For versions of PICED later than V4.11, a zipped copy of the project file will be stored in the unit, if there is sufficient spare space. If the unit has a zipped project file stored in it, it can be used by selecting the **Use Zip File if Present** option. This option gives the best results as it contains all project data (including logic) except for the images.

When opening the transferred project, if there are images missing you will be [given the option](#) to find them in the image library. If there are still images missing, you can transfer the project from the unit again using the option to create components as images. The necessary images can be copied from the project folder and used.

Decompiled Project

Text Components

[Text](#) is saved in the C-Touch unit as a bitmap. When transferred, there are two choices :

1. **Create as Text Components** - this creates text components of the same size and in the same position as the original project, but with the default font and text (the word "text").
2. **Create as Images** - this creates an image component in the project which looks like the original text. Since this is not a text component, it is not possible to edit the text or appearance. To make changes, it is necessary to delete the component and replace it with an actual text component.

Button Components

[Buttons](#) are saved in the C-Touch unit as a pair bitmaps (one for the [Active](#) image and one for the inactive image). When transferred, there are two choices :

1. **Create as Default Buttons** - this creates button components of the same size and in the same position as the original project, but with the default border, style and text. If the project was created using mainly the default border styles, this option will often give good results, and is much easier to edit.
2. **Create as Buttons with 2 Images** - this creates a button component in the project which looks like the original one, and contains the two images as custom images.

Shape Components

[Shapes](#) are saved in the C-Touch unit as a pair bitmaps (one for the [Active](#) image and one for the inactive image). When transferred, there are two choices :

1. **Create as Shape Components** - this creates button components of the same size and in the same position as the original project, but with the default border and style (a simple rectangle).
2. **Create as Buttons with 2 Images** - this creates a button component in the project which looks like the original shape, and contains the two images as custom images.

Image Components

[Image](#) components will be re-created exactly as they were on the C-Touch unit. The images will be saved as the [dithered](#) image.

Slider Components

[Slider](#) components will be re-created using the default style, but will have the same size, position and function.

Level Indicator Components

[Level Indicator](#) components will be re-created using the default style, but will have the same size, position and function.

Clock Components

[Clock](#) components will be re-created using the default style, but will have the same size, position and function.

Monitor Components

[Monitor](#) components will be re-created using the default style, but will have the same size, position and function.

Logic

Logic can not be recovered unless the zip file is used (see above)

6.1.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

If you have a C-Touch [Project](#) open and it has been transferred to a C-Touch unit, you can transfer changes made by a user back to the project in your computer:

1. [Connect](#) the computer to the C-Touch unit
2. Click on the **Transfer | Refresh Project from Unit** menu item
3. The [Transfer Project From Unit](#) form will be displayed
4. Select the correct Serial Port
5. Click on **Next**
6. Click on **Finish**

Note that PICED will [Save a Back-up](#) of the Project in case you need to revert to it later.

6.1.4 Firmware Update

To update the Black and White C-Touch firmware, follow the instructions for [Transferring a C-Touch Project to the Unit](#). At step 5, make sure you select the new Firmware file. You must transfer a project with the firmware update. It is not possible to update the firmware without transferring a project.

 Firmware update can not be done via C-Bus

6.1.5 Controlling the C-Touch

There are several things that you can do once you are [connected](#) to the C-Touch Unit. Under the **Transfer** menu, there is a **Control Unit** sub-menu. Under this, there are the following menu items :

Beep

This will make the C-Touch unit beep. This can be used as a test to verify that you have connected correctly to the C-Touch unit.

Reset

This allows you to reset the C-Touch unit.

Reset Calibration

This allows you to reset the calibration of the Touchscreen if it has been set incorrectly.

Reset Contrast

This allows you to reset the Contrast to the default setting.

Set Backlight

This sets the [backlight](#) threshold to the current light level.

Set Date/Time

This sets the C-Touch date and time to the same as the computer.

6.1.6 C-Touch Resources

The following applies to C-Touch firmware 3.0 or later.

The PICED Software generates a file which is [transferred](#) to a C-Touch unit. The C-Touch units have limited amounts of memory, so you are limited in the size of the configuration file that you can transfer.

To see the exact amount of memory used by your [Project](#), select **Resources Report** from the **Transfer** menu. A file (resources.txt) is created in the project directory which has further details of the memory usage.

The 5000CTA has 128KB of memory for the user configuration data. This is used to store all aspects of the Project, including Pages, Fonts, Scenes, Schedules and other Project settings.

There is an additional 8KB of memory to store "user settings" which includes :

- Changes made to Scenes and Schedules since the last project transfer
- Levels of C-Bus Group Addresses.
- User settings for the backlight, screen calibration, screen contrast, daylight savings and so forth

In order to minimise the size of the transfer file, follow these hints :

- Minimise the number and size of bitmaps. A full-screen bitmap will use 10k Bytes of C-Touch memory.
- Minimise the size of [Buttons](#)

- Minimise the number of fonts used (only the fonts for [clocks](#), [level indicators](#) and [monitors](#) are transferred)
- Make the appearance of buttons that do the same thing (eg [sliders](#) or a "back" button) identical. Identical buttons are only saved once. Anything that you can't see (eg. the group address or page link details) will not affect this. If you need lots of large buttons which are the same except for the text, use large buttons with no text (so they are the same) and over-ly text over them.
- Use image compression if necessary. Compressed images will make the C-Touch slightly less responsive, but will make the project file smaller. Image Compression can be selected on the [Project Details](#) form or on the [Transfer to Unit](#) form.

See also [Transferred Images](#) and Good Design Practices

6.1.7 Transferred Images

The C-Touch Configuration Software generates a file which is [transferred](#) to a C-Touch unit. The format of the images transferred for each [component](#) depends upon the type of component. Each component has from none to three images transferred to the C-Touch unit so that it can draw the components when needed.

No Image

Completely invisible components (such as a [shape](#) with no [border](#), [background](#) or a [button](#) with no border, background, text or image) do not have an image transferred. This means that they use very little memory. These components are often used to create invisible "hot spots" on the screen which have a page [link](#) and will cause a page change when pressed.

Single Image

[Shapes](#) and [text](#) only have a single image saved.

Two Images

[Buttons](#) generally have two images saved, one for the active state, and one for the inactive state. One of the two images will be drawn by C-Touch according to the state of the associated C-Bus [Group Address](#). If the Active and Inactive Images are the same, only one is transferred.

Three Images

[Sliders](#) have up to three images. Two are for the background of the slider (active and inactive) and the third is for the thumb (the bit that slides up and down).

Dynamic Text Components

[Clocks](#), [Level Indicators](#) and [Monitors](#) all have their text generated dynamically (ie. as required). These components have a single image saved for their background, and have fonts transferred as required. The fonts used for Text components do not need to be transferred, as they are saved as an image.

 Care needs to be used when using components which are transparent, but not invisible. For example, a button with no border or background, but an image or text. When the image for this is saved, it is a copy of what is on the computer screen, but it is not actually transparent. This means that if you put a transparent component over the top of something that changes (eg. A button with an indicator, or a clock), you will not see the thing below change state.

6.1.8 C-Touch Screen Size

The Black and White C-Touch unit has a screen size of 320 pixels (wide) x 240 pixels (high).

6.1.9 Backlight Control

The C-Touch unit contains a backlight to enable the screen to be seen in dark conditions.

The backlight control is automatic. The backlight comes on whenever the screen is touched. The backlight goes off after the time-out duration (set on the Project [Options](#) page).

The backlight can also be switched on and off from the Backlight Setting page of the unit. To access the backlight setting page, create a [Page Link](#) to the Backlight Set special page. The backlight can also be controlled using buttons with [Special Functions](#).

The automatic Backlight control is disabled when the backlight control page is displayed.

Note that the Electro-Luminescent Backlights have a limited life and should not be run continuously. This will happen if there is no time-out set.

6.1.10 Colour Conversion

With the monochrome (Black and White) Touchscreen, colours are not able to be displayed. The C-Touch Configuration Software will also be used for colour Touchscreens in the future, so although it allows colours to be selected for lines, backgrounds and fonts, they are "converted" to Black and White for the Monochrome screens as described below :

Borders

If a white is selected for a [border](#), it will be displayed as white. Any other colour will be displayed as black.

Backgrounds

If a white or black is selected for a [background](#), it will be displayed correctly. Any other colour will be converted to a pattern of shading which is closest to the grey level of the selected colour. Hence light colours will be converted to white, dark colours will be converted to black, and others in between will be shaded.

Fonts

If a white is selected for a [font](#), it will be displayed as white. Any other colour will be displayed as black.

Images

Colour images are converted to a pattern of dots to give the appearance of shades of grey by a process called dithering. If the dithering is not satisfactory for an image, it is best to use one of the many commercially available drawing packages to convert your image to black and white before using it with the C-Touch Configuration Software.

6.1.11 In-built Pages

The C-Touch has a series of in-built pages which allow the user to perform various functions. They can be displayed through the use of [Special Functions](#).

Refer to the C-Touch User's Guide for details of the screens and their use. This document can be found in the manuals folder (select the **Help | Manuals** menu item then open the 5000CT User's Guide).

The appearance of these screens can not be changed. It is possible to build custom versions of some of these pages by creating pages with components using the appropriate Special Functions.

6.1.12 Recover Unit

If you have problems connecting to a C-Touch unit to transfer a project [to the unit](#) or [from the unit](#), it may be necessary to stop the unit from running first. To do this:

1. Physically disconnect the C-Touch from C-Bus
2. Connect the C-Touch to the PC via a [serial cable](#)
3. Select the **Transfer | Recover C-Touch or PAC** menu item
4. Connect the C-Touch to C-Bus
5. Wait for 5 seconds for the C-Touch to just start up
6. Click on the **OK** button
7. PICED will connect to the unit and immediately stop it from running
8. [Transfer the firmware and/or project](#) as normal

 It should not normally be necessary to do this. This is only intended for emergency use. It may require several attempts to get the timing correct.

6.2 Black and White C-Touch Mark 2

The Black and White C-Touch Mark 2 can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the Black and White C-Touch Mark 2 and are disabled.

The Black and White C-Touch Mark 2 is very similar to the [Black and White C-Touch](#), with a few physical changes. The firmware capabilities are mostly the same. Refer to [Software Limits](#) and [Unit Differences](#) for details.

To create a project for a Black and White C-Touch Mark 2 unit:

- [Create a new project](#)
- [Set the Project Details](#)
- [Add pages](#) and [add components to each page](#) with the desired properties
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Set up the [Irrigation Control](#) if required
- Set up the [Access Control](#) if required
- Add [Logic](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- [Transfer the Project](#) to the unit

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

6.2.1 Transferring a C-Touch Mark 2 Project to the Unit

There are two types of information that you may want to transfer to the C-Touch Mark 2 Unit. The

more common requirement is to transfer the user configuration data that you have created. Occasionally, you may wish to transfer new firmware into the unit to add new features.

There are two alternative means of transferring data to the C-Touch Mark 2 unit : directly via a USB cable, or via C-Bus. You can select which option you wish to use in the [Program Options](#) form.

Transferring via the USB Cable

To transfer the Project, follow the steps below.

1. Connect your PC to the C-Touch Mark 2 via the supplied USB cable.

The USB driver should recognise the fact that the C-Touch Mark 2 has been connected and a "virtual" serial port will be created. This allows the PICED software to use the USB as if it was another serial port. To find which serial port number has been allocated for the USB, open the Windows Device Manager :

- Click **Start | Settings | Control Panel** then select **System** OR right click the **My Computer** icon on your Desktop and select **Properties**
- Select the **Hardware** Tab
- Click **Device Manager**
- Expand the **Ports** node, and you will see the C-Touch Mark 2 listed

2. In the **Transfer** menu, select the **Transfer Project to Unit** menu item, and the Transfer to Unit form will appear. Alternatively, click on the transfer button on the [Tool Bar](#).

3. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.

4. Select the action to perform:

- If you want to transfer the configuration data for the project that is already open, select **Transfer Current Project**
- If you want to transfer a different configuration file, select **Transfer Other Configuration File** and select the desired file (*.mot)
- If you want to prepare a configuration file but not transfer it yet, select **Prepare Configuration Data File**

5. If you want to transfer new firmware, select the **Transfer Firmware** check box and enter the desired file (*.mot). The firmware files can be found in C:\Clipsal\PICED\Firmware.

6. To set the C-Touch time to match the PC time, select the **Set Unit Time to PC Time** check box

7. Select the [Profile](#) for the unit.

8. Click on **OK**. The transfer process will start. It may take up to five minutes, depending on the size of your file.

Transferring via C-Bus

This is currently not supported, but may be in subsequent releases.

Note : The C-Touch Mark 2 units have a limit of 10,000 reprogramming cycles. If this limit is exceeded, reprogramming may no longer be possible.

See also [Transferring a Project from the Unit](#)

6.2.2 Transferring a C-Touch Mark 2 Project From the Unit

[Connect](#) to the C-Touch Mark 2 unit, then refer to the instructions for [transferring a C-Touch project](#).

 Note that any [logic](#) does not get transferred from the unit.

6.2.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

[Connect](#) to the C-Touch Mark 2 unit, then refer to the instructions for [transferring a C-Touch project](#).

6.2.4 Firmware Update

To update the Black and White C-Touch Mark 2 firmware, follow the instructions for [Transferring a C-Touch Mark 2 Project to the Unit](#). At step 5, make sure you select the new Firmware file. You must transfer a project with the firmware update. It is not possible to update the firmware without transferring a project.

If the unit can not be communicated with, the firmware can be [reloaded](#).

 Firmware update can not be done via C-Bus

6.2.5 Reloading C-Touch Mark 2 Firmware

The [Black and White C-Touch Mark 2](#) can have its firmware erased by pressing the Unit Reset button. To replace the firmware :

1. Select the USB port used to connect to the C-Touch in [Program Options](#)
2. Open a C-Touch mark 2 project
3. Select the **Transfer | Recover C-Touch 2** menu item
4. Select a firmware file
5. Click on **OK**

Note : to update the firmware in an operational unit, use the [Transfer Project to Unit](#) menu item.

6.2.6 Controlling The C-Touch Mark 2

There are several things that you can do once you are [connected](#) to the C-Touch Unit. Under the **Transfer** menu, there is a **Control Unit** sub-menu. Under this, there are the following menu items :

Beep

This will make the C-Touch unit beep. This can be used as a test to verify that you have connected correctly to the C-Touch unit.

Reset

This allows you to reset the C-Touch unit.

Reset Calibration

This allows you to reset the calibration of the Touchscreen if it has been set incorrectly.

Reset Contrast

This allows you to reset the Contrast to the default setting.

Set Backlight

This sets the [backlight](#) threshold to the current light level.

Set Date/Time

This sets the C-Touch date and time to the same as the computer.

Log Logic Messages

Selecting this option results in any error messages from the C-Touch being written to the PICED [log](#). It also allows the logic usage to be monitored. The [C-Touch Logic Usage](#) (as a % of the maximum scan time) will be logged every minute, or when it exceeds the previous maximum.

6.2.7 C-Touch Mark 2 Resources

The following applies to C-Touch firmware 3.0 or later.

Memory

The PICED Software generates a file which is [transferred](#) to a C-Touch unit. The C-Touch units have limited amounts of memory, so you are limited in the size of the configuration file that you can transfer.

To see the exact amount of memory used by your [Project](#), select **Resources Report** from the **Transfer** menu. A file (resources.txt) is created in the project directory which has further details of the memory usage.

The 5000CTB has 256KB of memory for the user configuration data. This is used to store all aspects of the Project, including Pages, Fonts, Scenes, Schedules, Logic and other Project settings.

There is an additional 8KB of memory to store "user settings" which includes :

- Changes made to Scenes and Schedules since the last project transfer
- Levels of C-Bus Group Addresses.
- User settings for the backlight, screen calibration, screen contrast, daylight savings and so forth

For information on minimising the size of the transfer file, refer to [C-Touch Resources](#).

Processor Capacity

C-Touch also has limits on how much logic can be run in one "scan". There are various methods of determining how much logic can be run in a C-Touch:

- The Logic Resources form shows a scan-by-scan estimate of how much the C-Touch is using
- The How Much Logic Is Possible in the Logic help file shows how to estimate the amount of code which is possible
- The [actual Logic usage](#) can be logged
- The C-Touch status indicator will indicate if there is too much logic

The average scan duration is not allowed to exceed 75ms. This is reported as 100%. However, a scan is allowed to occasionally take up to 150ms (200%), as long as this does not bring the average over 75ms.

6.3 C-Touch Spectrum

The C-Touch Spectrum can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the C-Touch Spectrum and are disabled.

The C-Touch Spectrum is very similar to the [Black and White C-Touch Mark 2](#), but with a colour screen. The firmware capabilities are mostly the same. Refer to [Software Limits](#) and [Unit Differences](#) for details.

To create a project for a C-Touch Spectrum unit:

- [Create a new project](#)
- [Set the Project Details](#)
- [Add pages](#) and [add components to each page](#) with the desired properties
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Set up the [Irrigation Control](#) if required
- Set up the [Access Control](#) if required
- Add [Logic](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- [Transfer the Project](#) to the unit

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

6.3.1 Transferring a C-Touch Spectrum Project to the Unit

Transferring a C-Touch Spectrum project to the unit is the same as [transferring a C-Touch Mark 2 project to the unit](#).

6.3.2 Transferring a C-Touch Spectrum Project From the Unit

[Connect](#) to the C-Touch Spectrum unit, then refer to the instructions for [transferring a C-Touch project](#).

 Note that any [logic](#) does not get transferred from the unit.

6.3.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

[Connect](#) to the C-Touch Spectrum unit, then refer to the instructions for [transferring a C-Touch project](#).

6.3.4 Firmware Update

Updating the C-Touch Spectrum firmware is the same as [updating the C-Touch Mark 2 firmware](#).

6.3.5 Reloading Firmware

Reloading the C-Touch Spectrum firmware is the same as [reloading C-Touch Mark 2 firmware](#).

6.3.6 Controlling the C-Touch Spectrum

Controlling the C-Touch Spectrum via PICED is the same as [controlling the C-Touch Mark 2](#).

6.3.7 C-Touch Spectrum Resources

Memory

The PICED Software generates a file which is [transferred](#) to a C-Touch Spectrum unit. The C-Touch units have limited amounts of memory, so you are limited in the size of the configuration file that you can transfer.

To see the exact amount of memory used by your [Project](#), select **Resources Report** from the **Transfer** menu. A file (resources.txt) is created in the project directory which has further details of the memory usage.

The C-Touch Spectrum has 256KB of memory for the user configuration data. This is used to store all aspects of the Project (except for colour images), including Pages, Fonts, Scenes, Schedules, Logic and other Project settings.

There is an additional 8MB of memory for use with colour images.

There is an additional 8KB of memory to store "user settings" which includes :

- Changes made to Scenes and Schedules since the last project transfer
- Levels of C-Bus Group Addresses.
- User settings for the backlight, screen calibration, screen contrast, daylight savings and so forth

For information on minimising the size of the transfer file, refer to [C-Touch Resources](#).

Processor Capacity

C-Touch also has limits on how much logic can be run in one "scan". There are various methods of determining how much logic can be run in a C-Touch:

- The Logic Resources form shows a scan-by-scan estimate of how much the C-Touch is using
- The How Much Logic Is Possible in the Logic help file shows how to estimate the amount of code which is possible
- The [actual Logic usage](#) can be logged
- The C-Touch status indicator will indicate if there is too much logic

The average scan duration is not allowed to exceed 75ms. This is reported as 100%. However, a scan is allowed to occasionally take up to 150ms (200%), as long as this does not bring the average over 75ms.

6.3.8 Transferred Images

The C-Touch Configuration Software generates a file which is [transferred](#) to a C-Touch unit. The format of the images transferred for each [component](#) depends upon the type of component. Each component has from none to three images transferred to the C-Touch unit so that it can draw the components when needed.

No Image

Completely invisible components (such as a [shape](#) with no [border](#), [background](#) or a [button](#) with no border, background, text or image) do not have an image transferred. This means that they use very little memory. These components are often used to create invisible "hot spots" on the screen which have a page [link](#) and will cause a page change when pressed.

Single Image

[Shapes](#) and [text](#) only have a single image saved.

Two Images

[Buttons](#) generally have two images saved, one for the active state, and one for the inactive state. One of the two images will be drawn by C-Touch according to the state of the associated C-Bus [Group Address](#). If the Active and Inactive Images are the same, only one is transferred.

Three Images

[Sliders](#) have up to three images. Two are for the background of the slider (active and inactive) and the third is for the thumb (the bit that slides up and down).

Dynamic Text Components

[Clocks](#), [Level Indicators](#) and [Monitors](#) all have their text generated dynamically (ie. as required). These components have a single image saved for their background, and have fonts transferred as required. The fonts used for Text components do not need to be transferred, as they are saved as an image.

 Care needs to be used when using components which are [translucent](#) (ie. transparent, but not invisible). For example, a button with a PNG image with translucency around the edges to "soften" the edge. When the image for this is saved, it is a copy of what is on the computer screen (drawn on a plain background), but it is not actually translucent. This means that if you put a translucent component over the top of something that changes (eg. a button with an indicator, or a clock), you will not see the thing below change.

6.4 Colour C-Touch

The Colour C-Touch can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the Colour C-Touch and are disabled.

To create a project for a Colour C-Touch unit:

- [Create a new project](#)
- [Set the Project Details](#)
- [Add pages](#) and [add components to each page](#) with the desired properties
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Set up the [Irrigation Control](#) if required
- Set up the [Access Control](#) if required
- Add [E-Mail Accounts](#) if required
- Add [Logic](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- [Transfer the Project](#) to the unit

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

The following sections cover aspects of the software which are unique to the Colour C-Touch.

For more details on the installation and use of the Colour C-Touch, refer to the installation guide and user manual respectively.

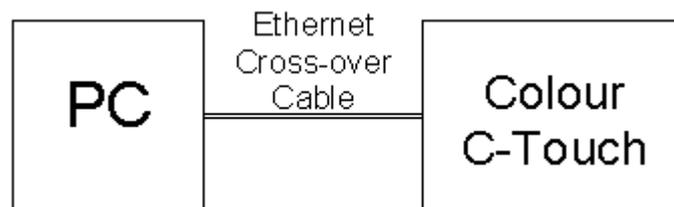
6.4.1 Transferring a Colour C-Touch Project to the Unit

A Colour C-Touch project is transferred via Ethernet using the Transfer Utility Software. The steps in transferring your project are listed below.

1. First connect your PC to the Colour C-Touch via Ethernet. The Colour C-Touch can be either connected directly, or via an Ethernet Network. Refer to the CTC Client help file for more details.

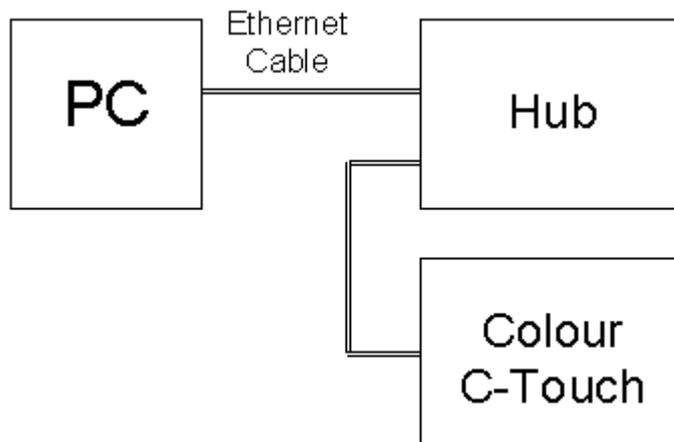
1.1 Direct connection

For a direct connection, a cross-over cable is required, unless your PC supports [Auto MDIX](#).



1.2 Networked connection

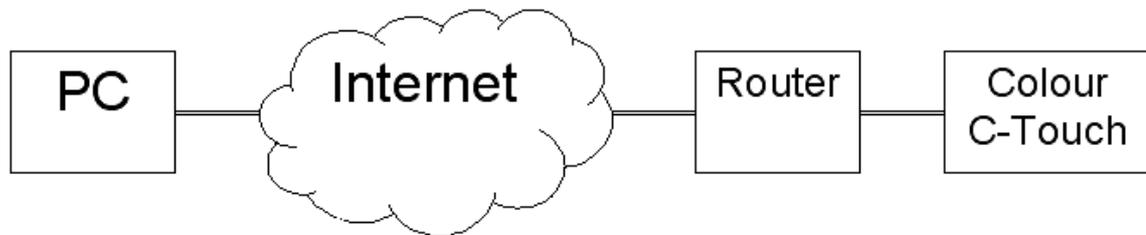
A networked connection will require an Ethernet hub, switch or router to connect the PC and the Colour C-Touch. This is the preferred connection type, as it is generally the simplest.



1.3 Remote Connection

To connect to a Colour C-Touch at a remote site via the Internet, you will need:

- An Internet connection to your PC
- An Internet connection at the remote site
- Port forwarding or port mapping set in the Router to enable connection to the Colour C-Touch (TCP/IP ports 8336 and 8081)
- Remote Access settings set in [Project Details](#)



2. [Save](#) the project if any changes have been made.
3. In the **Transfer** menu, select the **Transfer Project to Unit** menu item or click on the transfer button on the [Tool Bar](#). The Transfer Project to Colour C-Touch form will appear.
4. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.
5. Select the required action:
 - If you want to transfer the configuration data for the project that is already open select **Transfer Current Project**
 - If you want to just open the CTC Client program, select **Do Not Transfer Configuration Data** and click on OK.
 - If you want to prepare a data file for transfer at a later date, select **Prepare configuration data file, but do not transfer**
 - If you are wanting to transfer a different file, select **Transfer Other Configuration File** and select the desired file
6. If you have used [non-standard fonts](#), they will automatically be copied to the fonts folder (under the project folder - see [Export to Archive](#)). If the CTC Server finds any fonts in this folder (in the archive) it will automatically install them and re-boot.
7. If any additional files are required (for example, for [Logic](#) or [HTML Components](#)) add these files.
8. Select the [Profile](#) for the unit.
9. Click on **OK** and the [C-Bus Project](#) is exported to a [compact format](#) suitable for the Colour C-Touch and then the Project is archived.
10. The archive file is now ready to be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to the Colour C-Touch
 - Options for connecting to the Colour C-Touch unit will be presented. Select the desired one, enter any required details and click on **OK**.
11. A list of Colour C-Touch units which have been found will be displayed
 - Select the desired Colour C-Touch unit from the list
 - If the Colour C-Touch unit has out of date firmware, the Firmware tab will be displayed. Click on **Transfer Firmware**. Wait for the Colour C-Touch unit to re-start, then repeat steps 3 to 6. (The firmware files can be found in C:\Clipsal\PICED\Firmware.)
 - If the Colour C-Touch firmware is up to date, the Transfer tab will be selected. Click on **Start**. Wait for the Colour C-Touch unit to re-start.

Transfer via a Wiser Home Control Unit

To connect to a Colour C-Touch via a Wiser Home Control at a remote site via the Internet, the process is the same as above. At step 9, you need to:

- Select the **Remote Connection** option
- Enter the Wiser **URL**
- Enter the Wiser **Password**
- Select **Search for CTCs via Wiser**

Refer to the Transfer Utility help file for additional details.

Note that the ability to transfer Colour C-Touch projects via Wiser is only supported if Wiser is configured using option A or C (see Wiser Installation Guide for details). If using option A, then ports 8336, 8337, 9000 and 9001 need to be forwarded to the Wiser Unit by the router.

 Prior to transferring via Wiser, you will need to log into the Wiser user interface and enable the **Project Update** option (refer to the Wiser user manual for details). When complete, the **Project Update** should be disabled again.

Notes

The above process assumes your computer and Colour C-Touch are on a network using DHCP.

Refer to the Colour C-Touch Installation Manual for more information.

 If you select the **Transfer Other Configuration File** option, the archive file selected must not be one created using the [Archive Export](#), as the format is slightly different.

6.4.2 Transferring a Colour C-Touch Project from the Unit

To transfer a project stored in a Colour C-Touch unit to the PICED software :

1. [Connect](#) to the Colour C-Touch unit
2. Select the **Transfer | Transfer Project from Unit** menu item
3. The Project Details Wizard will be shown. Click on **Next**.
4. Select **Colour C-Touch**. Click on **Next**.
5. The archive file will be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to the Colour C-Touch
 - Options for connecting to the Colour C-Touch unit will be presented. Select the desired one, enter any required details and click on **OK**.
6. A list of Colour C-Touch units which have been found will be displayed
 - Select the desired Colour C-Touch unit from the list
 - Select **Retrieve Project From Colour C-Touch**. Enter a folder for the project. Click on **Start**.
7. The [Import Archive Wizard](#) will be displayed.
8. Select the transferred archive file. Click on **Next**.
9. Select a folder to store the project. Click on **Next**.
10. Click on **Next**. Click on **Finish**.
11. Select the project file. Click on **OK**.

6.4.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

If you have a Colour C-Touch [Project](#) open and it has been transferred to a Colour C-Touch unit, you can transfer changes made by a user back to the project in your computer:

1. [Connect](#) the computer to the Colour C-Touch unit
2. Click on the **Transfer | Refresh Project from Unit** menu item
3. The Transfer Utility will be displayed. Options for connecting to the Colour C-Touch unit will be presented. Select the desired one, enter any required details and click on **OK**.
4. A list of Colour C-Touch units which have been found will be displayed
 - Select the desired Colour C-Touch unit from the list
 - Enter a folder for the project (if you want it saved elsewhere - this is only a temporary file). Click on **Start**.

Note that PICED will [Save a Back-up](#) of the Project in case you need to revert to it later.

6.4.4 Firmware Update

To update the Colour C-Touch firmware, follow the instructions for [Transferring a Colour C-Touch Project to the Unit](#). At step 10, make sure you select the new Firmware file. You can not transfer a project with the firmware update; this must be done afterwards.

6.4.5 Colour C-Touch Screen Size

The Colour C-Touch unit has a screen size of 640 pixels (wide) x 480 pixels (high).

6.4.6 Installed Fonts

Colour C-Touch includes the following fonts installed at the factory:

- Arial
- Courier New
- Marlett
- Microsoft Sans Serif
- Tahoma
- Times New Roman
- Verdana
- Webdings
- Wingdings

Other fonts can be added when [Transferring a Colour C-Touch Project to the Unit](#).

6.4.7 Slow Operation

If the Colour C-Touch is not very responsive, it is possibly due to excessive processor usage. This can be checked using:

1. The Show Usage option in the [log](#); or
2. The System Processor Usage [In-built System IO Variable](#)

The majority of processor usage is related to graphics use:

- If a page has a clock on it, it will be re-drawn every second. If a page has an animated image on it, it will be redrawn as often as 10 times per second.
- Images which have been re-sized require more processing (it is best to re-size the image with a graphic editing program and use the re-sized image in <%SOFTWARE NAME%>
- The number of components on a page determines how long it takes to draw
- Large polygons with many sides or 3D ellipses require more processing
- Large areas of Alpha Blending require a lot of processing

Other factors include:

- Having the [Log](#) running
- [Logic](#)
- How busy C-Bus is (this will affect how often the screen re-draws too)
- Number of [Scenes](#) and [Schedules](#) (minor affect)

6.5 PAC

The Pascal Automation Controller (PAC) can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the PAC and are disabled.

To create a project for a PAC unit:

- [Create a new project](#)
- [Set the Project Details](#)
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Add [Logic](#)
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Test](#) the project (Simulation Mode)
- [Save the project](#)
- [Transfer the Project](#) to the unit

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

The following sections cover aspects of the software which are unique to the PAC.

For more details on the installation and use of the PAC, refer to the installation guide.

6.5.1 Transferring a PAC Project to the Unit

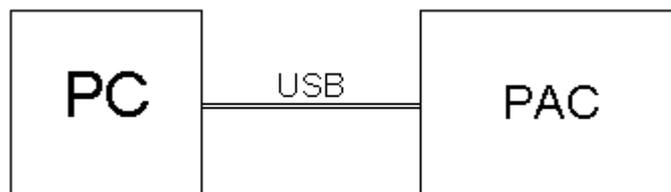
There are two types of information that you may want to transfer to the PAC Unit. The more common requirement is to transfer the user configuration data that you have created. Occasionally, you may wish to transfer new firmware into the unit to add new features.

There are two alternative means of transferring data to the PAC unit : directly via a USB cable, or via C-Bus. You can select which option you wish to use in the [Program Options](#) form.

Transferring via the USB Cable

To transfer the Project, follow the steps below.

1. Connect your PC to the PAC via the supplied USB cable.



The USB driver should recognise the fact that the PAC has been connected and a "virtual" serial port will be created. This allows the PICED software to use the USB as if it was another serial port. To find which serial port number has been allocated for the USB, open the Windows Device Manager :

- Click **Start | Settings | Control Panel** then select **System** OR right click the **My Computer** icon on your Desktop and select **Properties**
- Select the **Hardware** Tab

- Click **Device Manager**
 - Expand the **Ports** node, and you will see the PAC listed
2. In the **Transfer** menu, select the **Transfer Project to Unit** menu item, and the Transfer to Unit form will appear. Alternatively, click on the transfer button on the [Tool Bar](#).
 3. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.
 4. Select the action to perform:
 - If you want to transfer the configuration data for the project that is already open, select **Transfer Current Project**
 - If you want to transfer a different configuration file, select **Transfer Other Configuration File** and select the desired file (*.mot)
 - If you want to prepare a configuration file but not transfer it yet, select **Prepare Configuration Data File**
 5. If you want to transfer new firmware, select the **Transfer Firmware** check box and enter the desired file (*.mot). The firmware files can be found in C:\Clipsal\PICED\Firmware.
 6. To set the C-Touch time to match the PC time, select the **Set Unit Time to PC Time** check box
 7. Click on **OK**. The transfer process will start. It may take up to five minutes, depending on the size of your file.

Transferring via C-Bus

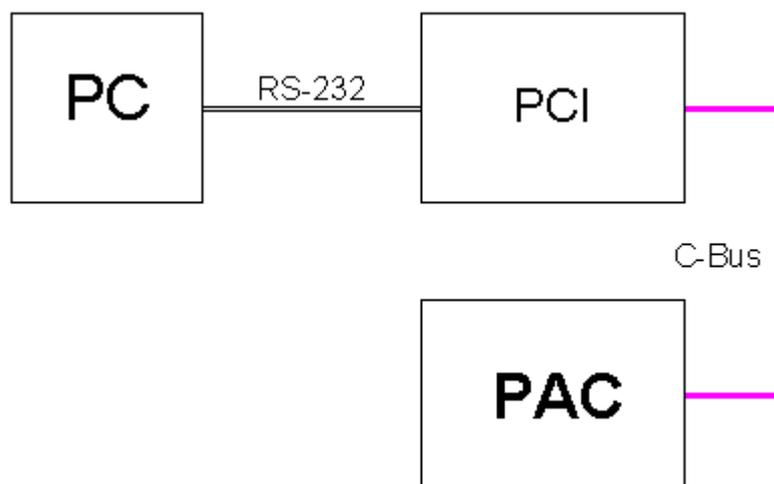
There may be occasions where it is inconvenient to remove the PAC unit from wherever it is installed and connect to the PC USB connector. In this case, you may wish to transfer via C-Bus.

There are several limitations to using this approach :

- Firstly, it is much slower. Using the USB cable is approximately 20 times faster.
- You can not transfer across C-Bus bridges
- You can only transfer new configuration data, not firmware
- **If the firmware is the wrong version, transferring a project will permanently damage the unit** and it will need to be returned for repair (see [Help | Software Properties](#) for the compatible firmware versions)
- C-Gate must be on the same computer as PICED

The process to transfer via C-Bus is as follows :

1. In the [Project Details](#) form, enter the Unit Address of the PAC unit.
2. Connect your PC to a PC Interface on the same [network](#) as the PAC unit.



3. [Connect to C-Bus](#) by selecting the **Connect to C-Bus** menu item from the **Options** Menu.
4. In the **Transfer** menu, select the **Transfer Project to Unit** menu item, and the Transfer to Unit form will appear. Alternatively, click on the transfer button on the [Tool Bar](#).
5. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.
6. Select the action to perform:
 - If you want to transfer the configuration data for the project that is already open, select **Transfer Current Project**
 - If you want to transfer a different configuration file, select **Transfer Other Configuration File** and select the desired file (*.mot)
 - If you want to prepare a configuration file but not transfer it yet, select **Prepare Configuration Data File**
7. Click on **OK**. The transfer process will start. It may take up to an hour or two, depending on the size of your file and the amount of C-Bus traffic.

Note : The PAC units have a limit of 1000 reprogramming cycles. If this limit is exceeded, reprogramming may no longer be possible. For this reason, it is recommended that all testing be done in the PICED software before download.

See also [Transferring a Project from the Unit](#)

6.5.2 Transferring a PAC Project from the Unit

To transfer a project stored in a C-Touch unit to the PICED software, follow the steps below.

Firstly, [connect](#) the computer to the PAC unit.

Either:

1. If PICED is not running:
 - Start PICED
 - Select **Transfer Project From Unit**
 - Select **Next**
2. If PICED is running:
 - Select **File | New Project**

- Select **Transfer Project From Unit**
 - Select **Next**
3. If PICED is running, and you have a PAC project already open:
- Select the **Transfer | Transfer Project from Unit** menu item

The form below will appear:



If the **Connection Type** is wrong, click the Change button and select the correct connection.

Select the **C-Bus Project** which was is used with the PAC project.

⚠ Before transferring a PAC Project, you must have a [C-Bus Project](#) which contains at least all [Networks](#) and [Applications](#) used by the PAC project. It is preferable to have [tags](#) for all [Group Addresses](#) used too.

Click on **Next**. The project will be transferred from the PAC.

Select a folder to store the project and click **OK**.

6.5.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

If you have a PAC [Project](#) open and it has been transferred to a PAC unit, you can transfer changes made by a user back to the project in your computer:

1. [Connect](#) the computer to the PAC unit
2. Click on the **Transfer | Refresh Project from Unit** menu item
3. The [Transfer Project From Unit](#) form will be displayed
4. Select the correct Serial Port
5. Click on **Next**
6. Click on **Finish**

Note that PICED will [Save a Back-up](#) of the Project in case you need to revert to it later.

6.5.4 Firmware Update

To update the PAC firmware, follow the instructions for [Transferring a PAC Project to the Unit](#). At step 5, make sure you select the new Firmware file. You must transfer a project with the firmware update. It is not possible to update the firmware without transferring a project.

⚠ Firmware update can not be done via C-Bus

6.5.5 Controlling the PAC

There are several things that you can do once you are [connected](#) to the PAC Unit. Under the **Transfer** menu, there is a **Control Unit** sub-menu. Under this, there are the following menu items :

Reset

This allows you to reset the PAC unit.

Set Date/Time

This sets the PAC date and time to the same as the computer.

Log Logic Messages

Selecting this option results in any error messages from the PAC being written to the PICED [log](#). It also allows the logic usage to be monitored. The [PAC usage](#) (as a % of the maximum scan time) will be logged every minute, or when it exceeds the previous maximum.

6.5.6 PAC Resources

The following details apply to PAC firmware 3.0 or later.

Memory

The PICED software generates a file which is [transferred](#) to a PAC unit. The PAC units have limited amounts of memory, so you are limited in the size of the configuration file that you can transfer.

To see the exact amount of memory used by your [Project](#), select **Resources Report** from the **Transfer** menu. A file (resources.txt) is created in the project directory which has further details of the memory usage.

The 5000PACA has 128K of memory for the user configuration data. This is used to store the logic, Scenes and Schedules. There is an additional 8K of memory to store "user settings" which includes changes made to Scenes and the levels of C-Bus Group Addresses.

Processor Capacity

The PAC also has limits on how much logic can be run in one "scan". There are various methods of determining how much logic can be run in a PAC:

- The Logic Resources form shows a scan-by-scan estimate of how much the PAC is using
- The How Much Logic Is Possible in the Logic help file shows how to estimate the amount of code which is possible
- The [actual PAC usage](#) can be logged
- The PAC status indicator will indicate if there is too much logic

The average scan duration is not allowed to exceed 150ms. This is reported as 100%. However, a scan is allowed to occasionally take up to 500ms (333%), as long as this does not bring the average over 150ms.

6.5.7 Recover Unit

If you have problems connecting to a PAC unit to transfer a project [to the unit](#) or [from the unit](#), it may be necessary to stop the unit from running first. To do this:

1. Physically disconnect the PAC from C-Bus
2. Connect the PAC to the PC via a [USB cable](#)
3. Select the **Transfer | Recover C-Touch or PAC** menu item
4. Connect the PAC to C-Bus
5. Wait for 5 seconds for the PAC to just start up
6. Click on the **OK** button
7. PICED will connect to the unit and immediately stop it from running

8. [Transfer the firmware and/or project](#) as normal

 It should not normally be necessary to do this. This is only intended for emergency use. It may require several attempts to get the timing correct.

6.6 Wiser Home Control

The Wiser Home Control can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the Wiser Home Control and are disabled.

To create a project for a Wiser unit:

- [Create a new project](#)
- [Set the Project Details](#)
- Add [Widgets](#). Most functions for the Wiser can be accessed from the [Widget Manager](#).
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Add [E-Mail Accounts](#) if required
- Add [RSS Feeds](#) if required
- Add [Logic](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Save the project](#)
- [Transfer the Project](#) to the unit
- [Test](#) the project (Simulation Mode)

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

Notes

For more details on the installation and use of the Wiser Home Control, refer to the Wiser Installation Guide (in the \PICED\Manuals folder) and the User Guide (in the \PICED\Templates\Wiser folder).

For more details on the use of the selected Wiser Home Control [skin](#), refer to the skin help file (**Help | Wiser Home Control Skin** menu item).

The PICED software requires the use of Adobe Flash plug-ins when creating Wiser Home Control projects. The first time you create a Wiser Home Control project, you may be prompted to install Flash. This is normal, and you should allow Flash to be installed.

There are limitations for [Simulation Mode](#) with the Wiser Home Control.

The following sections cover aspects of the software which are unique to the Wiser Home Control.

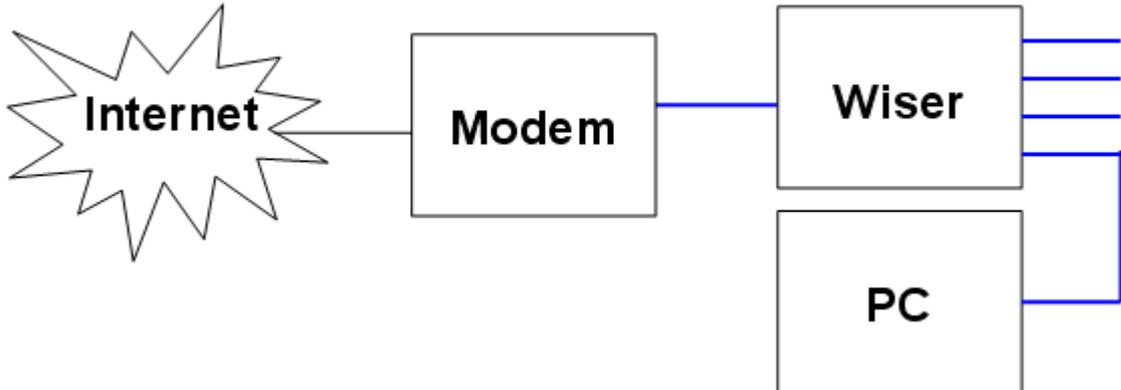
6.6.1 Transferring a Wiser Home Control Project to the Unit

A Wiser project is transferred via Ethernet using the Transfer Utility Software. The steps in transferring your project are listed below.

1. First connect your PC to the Wiser via Ethernet. The Wiser can be either connected directly, via an Ethernet Network or via the Internet. Refer to the Transfer Utility help file and Wiser Installation Guide for more details.

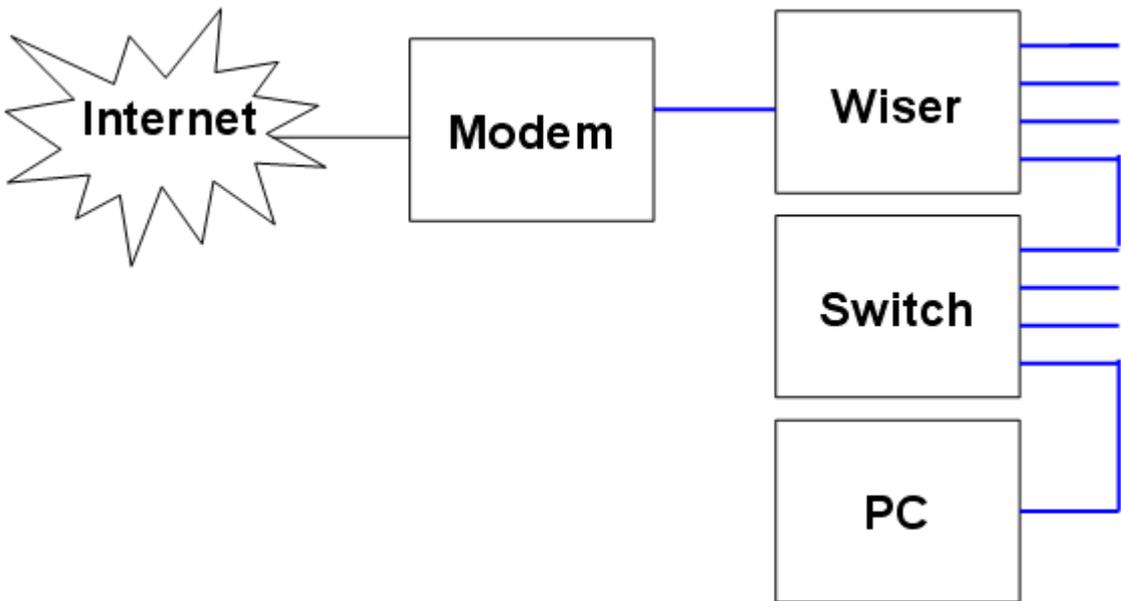
1.1 Direct connection

For a direct connection, the PC is connected directly to a Wisier LAN port.



1.2 Networked connection

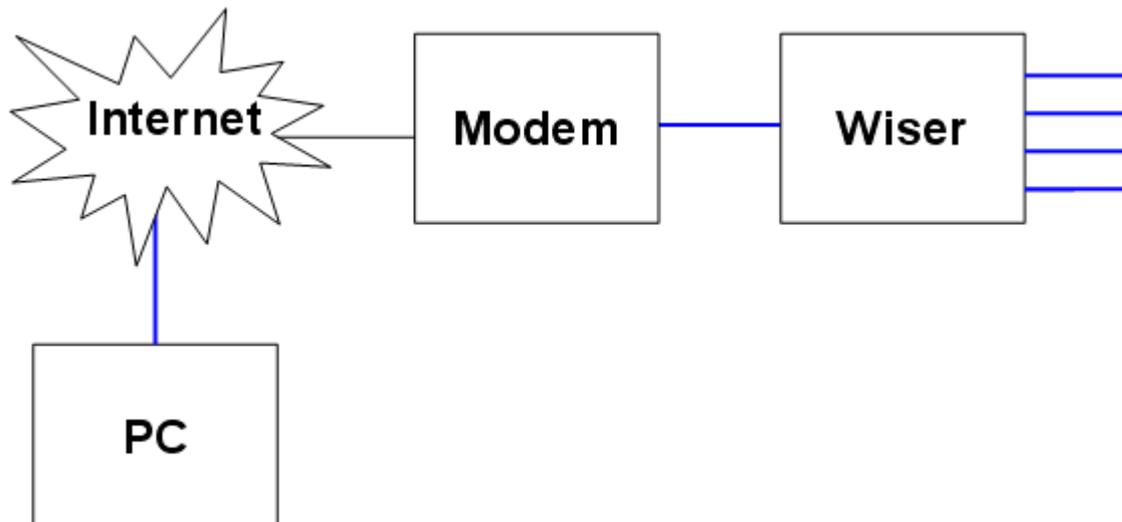
A networked connection will require an Ethernet hub, switch or router to connect the PC and the Wisier. The exact configuration depends on the site design.



1.3 Remote Connection

To connect to a Wisier at a remote site via the Internet, you will need:

- An Internet connection to your PC
- An Internet connection at the remote site (where the Wisier is)
- Appropriate remote access settings set in [Project Details](#)



2. [Save](#) the project if any changes have been made.
3. In the **Transfer** menu, select the **Transfer Project to Unit** menu item or click on the transfer button on the [Tool Bar](#). The Transfer Project to Wiser Home Control form will appear.
4. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.
5. Select the required action:
 - If you want to transfer the configuration data for the project that is already open select **Transfer Current Project**
 - If you want to just open the Transfer Utility program, select **Do Not Transfer Configuration Data** and click on **OK**.
 - If you want to prepare a data file for transfer at a later date, select **Prepare configuration data file, but do not transfer**
 - If you are wanting to transfer a different file, select **Transfer Other Configuration File** and select the desired file
6. Click on **OK**.
7. The archive file is now ready to be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to the Wiser
 - Options for connecting to the Wiser unit will be presented. Select the desired one, enter any required details and click on **OK**.
8. A list of Wiser units which have been found will be displayed
 - Select the desired Wiser unit from the list
 - If the Wiser unit has out of date firmware, the Firmware tab will be displayed. Enter a password (admin by default) and click on **Transfer Firmware**. Wait for the Wiser unit to re-start, then repeat steps 3 to 6. (The firmware files can be found in C:\Clipsal\PICED\Firmware.)
 - If the Wiser firmware is up to date, the Transfer tab will be selected. Click on **Start**. Wait for the Wiser unit to re-start.
9. Open a web browser and enter the IP Address of the Wiser unit. You should be able to see your project and control it.

Notes

 Prior to transferring a project to Wisier, you will need to log into the Wisier user interface and enable the **Project Update** option (refer to the Wisier user manual for details). When complete, the **Project Update** should be disabled again.

The above process assumes your computer is on a network using DHCP.

Refer to the Wisier Installation Manual for more information.

If you select the **Transfer Other Configuration File** option, the archive file selected must not be one created using the [Archive Export](#), as the format is slightly different.

 When you go to transfer the project to the Wisier, if the Transfer Utility detects that the Wisier firmware needs to be updated, then this will happen and you will need to transfer the project again.

6.6.2 Transferring a Wisier Home Control Project from the Unit

To transfer a project stored in a Wisier unit to the PICED software :

1. [Connect](#) to the Wisier unit
2. Select the **Transfer | Transfer Project from Unit** menu item
3. The Project Details Wizard will be shown. Click on **Next**.
4. Select **Wisier**. Click on **Next**.
5. The archive file will be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to the Wisier
 - Options for connecting to the Wisier unit will be presented. Select the desired one, enter any required details and click on **OK**.
6. A list of Wisier units which have been found will be displayed
 - Select the desired Wisier unit from the list
 - Select **Retrieve Project From Wisier**. Enter a folder for the project. Click on **Start**.
7. The [Import Archive Wizard](#) will be displayed.
8. Select the transferred archive file. Click on **Next**.
9. Select a folder to store the project. Click on **Next**.
10. Click on **Next**. Click on **Finish**.
11. Select the project file. Click on **OK**.

 Before transferring a Wisier Project, you must have a [C-Bus Project](#) which contains at least all [Networks](#) and [Applications](#) used by the Wisier project. It is preferable to have [tags](#) for all [Group Addresses](#) used too.

6.6.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

If you have a Wisier [Project](#) open and it has been transferred to a Wisier unit, you can transfer changes made by a user back to the project in your computer:

1. [Connect](#) the computer to the Wisier unit
2. Click on the **Transfer | Refresh Project from Unit** menu item
3. The Transfer Utility will be displayed. Options for connecting to the Wisier unit will be presented. Select the desired one, enter any required details and click on **OK**.
4. A list of Wisier units which have been found will be displayed

- Select the desired Wiser unit from the list
- Enter a folder for the project (if you want it saved elsewhere - this is only a temporary file). Click on **Start**.

Note that PICED will [Save a Back-up](#) of the Project in case you need to revert to it later.

6.6.4 Firmware Update

To update the Wiser firmware, follow the instructions for [Transferring a Wiser Home Control Project to the Unit](#). At step 8, make sure you select the new Firmware file. You can not transfer a project with the firmware update; this must be done afterwards.

6.6.5 Customising the Skin

Currently, the only visual aspect of the skin which can be changed is the background image. To change this:

1. Copy one of the skins to new folder. For example, copy C:\Clipsal\PICED\Templates\Wiser\Go Green 4-3 to C:\Clipsal\PICED\Templates\Wiser\MySkin
2. Edit the bkgd.jpg file in the new folder
3. The next time PICED is run, you will see the new skin in the [Skin selection list](#)
4. If you want to, you can also make the skin preview work:
 - Do a screen grab of Wiser displaying a project with your new background
 - Shrink the image to 160 x 120 pixels
 - Save as preview.jpg (in the new folder).

If you need to customise the language in the skin, you can edit the skin definition file. The easiest way is as follows:

1. Copy one of the skins to new folder. For example, copy C:\Clipsal\PICED\Templates\Wiser\Go Green 4-3 to C:\Clipsal\PICED\Templates\Wiser\MySkin
2. Open the skin_definition.xml file in the new folder using a program like Notepad
3. Find the text for the language you are using and change as required.
4. If you want to add a new language, you will need to make a copy of each section of the file which contains language related content (they all start with <language) and:
 - Enter the name of the language in the language name tag and use a unique shortcode.
 - Use a new language id number wherever it is used.
 - Change the text to suit.

6.7 Wiser 2 Home Control

The Wiser Home Control can be configured through the use of the PICED software. Some [features](#) of the PICED software are not relevant for the Wiser Home Control and are disabled.

To create a project for a Wiser unit:

- [Create a new project](#)
- [Set the Project Details](#)
- Add [Widgets](#). Most functions for the Wiser can be accessed from the [Widget Manager](#).
- Create [Scenes](#)
- Create [Schedules](#) and [Special Days](#)
- Add [E-Mail Accounts](#) if required
- Add [RSS Feeds](#) if required
- Add [Logic](#) if required
- [Check the Project](#) for errors, and correct them. Check the project [Summary](#) if desired
- [Save the project](#)
- [Transfer the Project](#) to the unit
- [Test](#) the project (Simulation Mode)

To update the project at a later date:

- Save a [back-up](#) copy of the Project
- [Transfer the user changes from the Unit](#) (if there are any)
- Make changes to the Project
- [Save the project](#)
- [Transfer the Project](#) to the unit

Notes

For more details on the installation and use of the Wiser Home Control, refer to the Wiser Installation Guide (in the \PICED\Manuals folder) and the User Guide (in the \PICED\Templates\Wiser folder).

For more details on the use of the selected Wiser Home Control [skin](#), refer to the skin help file (**Help | Wiser Home Control Skin** menu item).

The PICED software requires the use of Adobe Flash plug-ins when creating Wiser Home Control projects. The first time you create a Wiser Home Control project, you may be prompted to install Flash. This is normal, and you should allow Flash to be installed.

There are limitations for [Simulation Mode](#) with the Wiser Home Control.

The following sections cover aspects of the software which are unique to the Wiser Home Control.

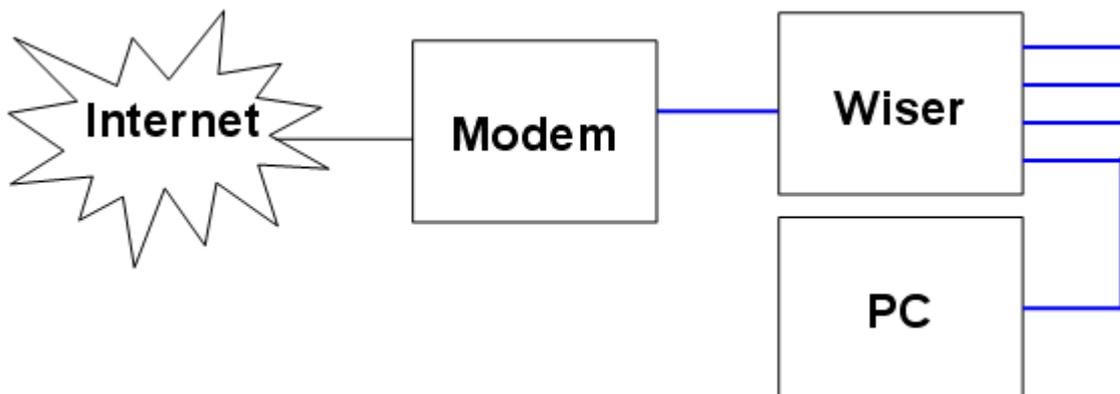
6.7.1 Transferring a Wiser 2 Home Control Project to the Unit

A Wiser project is transferred via Ethernet using the Transfer Utility Software. The steps in transferring your project are listed below.

1. First connect your PC to the Wiser via Ethernet. The Wiser can be either connected directly, via an Ethernet Network or via the Internet. Refer to the Transfer Utility help file and Wiser Installation Guide for more details.

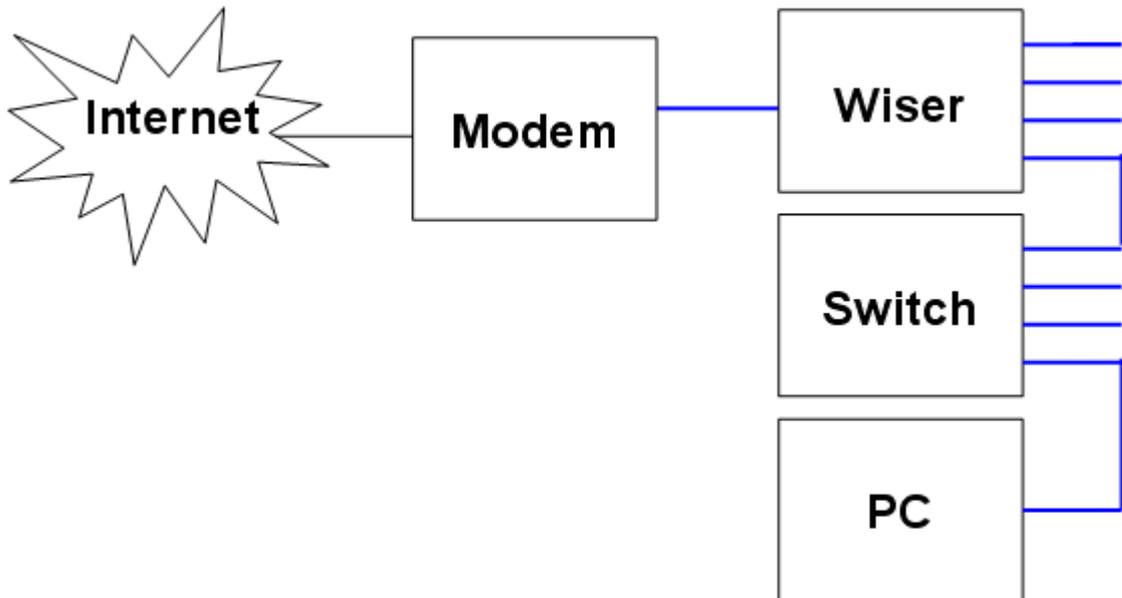
1.1 Direct connection

For a direct connection, the PC is connected directly to a Wiser LAN port.



1.2 Networked connection

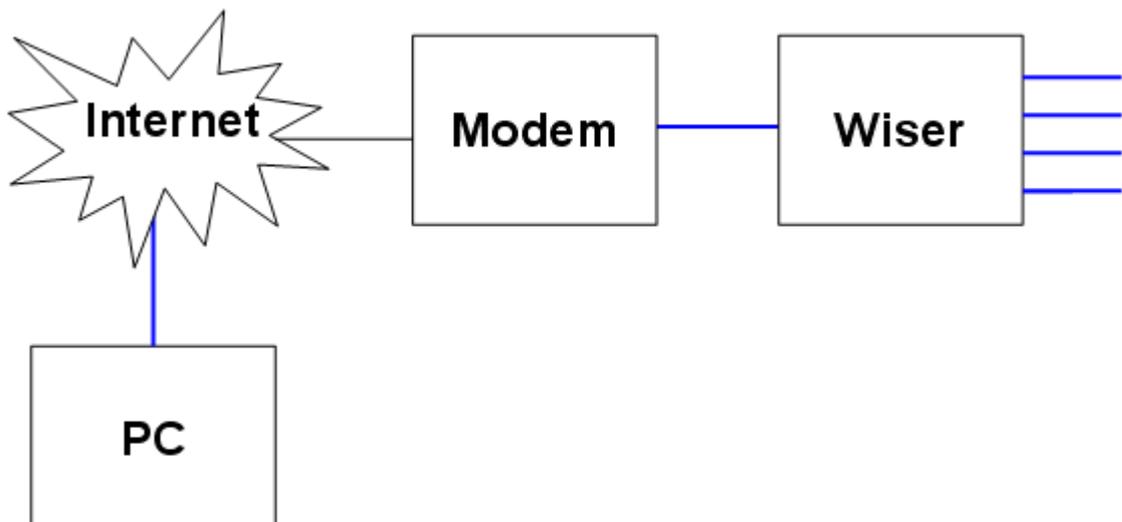
A networked connection will require an Ethernet hub, switch or router to connect the PC and the Wiser. The exact configuration depends on the site design.



1.3 Remote Connection

To connect to a Wiser at a remote site via the Internet, you will need:

- An Internet connection to your PC
- An Internet connection at the remote site (where the Wiser is)
- Appropriate remote access settings set in [Project Details](#)



2. [Save](#) the project if any changes have been made.

3. In the **Transfer** menu, select the **Transfer Project to Unit** menu item or click on the transfer button on the [Tool Bar](#). The Transfer Project to Wiser Home Control form will appear.

4. The **Project Status** will show if the project has any errors which need to be corrected before transferring the project. These are the errors reported when a [Check Project](#) is done. To see details, click on the **Show Errors** button.

5. Select the required action:

- If you want to transfer the configuration data for the project that is already open select **Transfer**

Current Project

- If you want to just open the Transfer Utility program, select **Do Not Transfer Configuration Data** and click on **OK**.
 - If you want to prepare a data file for transfer at a later date, select **Prepare configuration data file, but do not transfer**
 - If you are wanting to transfer a different file, select **Transfer Other Configuration File** and select the desired file
6. Click on **OK**.
 7. The archive file is now ready to be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to the Wiser
 - Options for connecting to the Wiser unit will be presented. Select the desired one, enter any required details and click on **OK**.
 8. A list of Wiser units which have been found will be displayed
 - Select the desired Wiser unit from the list
 - If the Wiser unit has out of date firmware, the Firmware tab will be displayed. Enter a password (admin by default) and click on **Transfer Firmware**. Wait for the Wiser unit to re-start, then repeat steps 3 to 6. (The firmware files can be found in C:\Clipsal\PICED\Firmware.)
 - If the Wiser firmware is up to date, the Transfer tab will be selected. Click on **Start**. Wait for the Wiser unit to re-start.
 9. Open a web browser and enter the IP Address of the Wiser unit. You should be able to see your project and control it.

Notes

 Prior to transferring a project to Wiser, you will need to log into the Wiser user interface and enable the **Project Update** option (refer to the Wiser user manual for details). When complete, the **Project Update** should be disabled again.

The above process assumes your computer is on a network using DHCP.

Refer to the Wiser Installation Manual for more information.

If you select the **Transfer Other Configuration File** option, the archive file selected must not be one created using the [Archive Export](#), as the format is slightly different.

 When you go to transfer the project to the Wiser, if the Transfer Utility detects that the Wiser firmware needs to be updated, then this will happen and you will need to transfer the project again.

6.7.2 Transferring a Wiser 2 Home Control Project from the Unit

To transfer a project stored in a Wiser unit to the PICED software :

1. [Connect](#) to the Wiser unit
2. Select the **Transfer | Transfer Project from Unit** menu item
3. The Project Details Wizard will be shown. Click on **Next**.
4. Select **Wiser**. Click on **Next**.
5. The archive file will be transferred using the Transfer Utility.
 - The Transfer Utility will be opened for you
 - If you have more than one Network card, you will be asked to select the one which is connected to

- the Wiser
- Options for connecting to the Wiser unit will be presented. Select the desired one, enter any required details and click on **OK**.
6. A list of Wiser units which have been found will be displayed
 - Select the desired Wiser unit from the list
 - Select **Retrieve Project From Wiser**. Enter a folder for the project. Click on **Start**.
 7. The [Import Archive Wizard](#) will be displayed.
 8. Select the transferred archive file. Click on **Next**.
 9. Select a folder to store the project. Click on **Next**.
 10. Click on **Next**. Click on **Finish**.
 11. Select the project file. Click on **OK**.

 **Before transferring a Wiser Project, you must have a [C-Bus Project](#) which contains at least all [Networks](#) and [Applications](#) used by the Wiser project. It is preferable to have [tags](#) for all [Group Addresses](#) used too.**

6.7.3 Transferring the Project Changes from the Unit

Before [updating unit Projects](#), it is a good idea to get any changes to the Project first.

If you have a Wiser [Project](#) open and it has been transferred to a Wiser unit, you can transfer changes made by a user back to the project in your computer:

1. [Connect](#) the computer to the Wiser unit
2. Click on the **Transfer | Refresh Project from Unit** menu item
3. The Transfer Utility will be displayed. Options for connecting to the Wiser unit will be presented. Select the desired one, enter any required details and click on **OK**.
4. A list of Wiser units which have been found will be displayed
 - Select the desired Wiser unit from the list
 - Enter a folder for the project (if you want it saved elsewhere - this is only a temporary file). Click on **Start**.

Note that PICED will [Save a Back-up](#) of the Project in case you need to revert to it later.

6.7.4 Firmware Update

To update the Wiser firmware, follow the instructions for [Transferring a Wiser Home Control Project to the Unit](#). At step 8, make sure you select the new Firmware file. You can not transfer a project with the firmware update; this must be done afterwards.

6.7.5 Customising the Skin

Currently, the only visual aspect of the skin which can be changed is the background image. To change this:

1. Copy one of the skins to new folder. For example, copy C:\Clipsal\PICED\Templates\Wiser\Go Green 4-3 to C:\Clipsal\PICED\Templates\Wiser\MySkin
2. Edit the bkgd.jpg file in the new folder
3. The next time PICED is run, you will see the new skin in the [Skin selection list](#)
4. If you want to, you can also make the skin preview work:
 - Do a screen grab of Wiser displaying a project with your new background
 - Shrink the image to 160 x 120 pixels
 - Save as preview.jpg (in the new folder).

If you need to customise the language in the skin, you can edit the skin definition file. The easiest way is as follows:

1. Copy one of the skins to new folder. For example, copy C:\Clipsal\PICED\Templates\Wiser\Go Green 4-3 to C:\Clipsal\PICED\Templates\Wiser\MySkin

2. Open the skin_definition.xml file in the new folder using a program like Notepad
3. Find the text for the language you are using and change as required.
4. If you want to add a new language, you will need to make a copy of each section of the file which contains language related content (they all start with <language) and:
 - Enter the name of the language in the language name tag and use a unique shortcode.
 - Use a new language id number wherever it is used.
 - Change the text to suit.

6.8 Unit Differences

The PICED software is used for configuring the following devices :

- [C-Touch Touchscreen](#)
- [Colour C-Touch Touchscreen](#)
- [Pascal Automation Controller](#) (PAC)

Some software functions are applicable to some units but not to others as shown in the table below.

Feature	B & W C-Touch	C-Touch Spectrum	C-Touch Colour	PAC	Wiser	Wiser 2
Display size	320 x 240 pixels	320 x 240 pixels	640 x 480 pixels	No. Pages and Components used for testing only. *	Set by skin.Pages and Components used for testing only. *	Set by skin.Pages and Components used for testing only. *
Colours	Black and White	65000 colours	16 Million colours	Test Purposes Only *	16 Million colours	16 Million colours
Daylight Savings	Requires two Schedules	Requires two Schedules	Automatic	Requires two Schedules	Requires two Schedules	Requires two Schedules
HTML Component	No	No	Yes	Test Purposes Only *	No	No
Web Cam	No	No	Yes	Test Purposes Only *	Using Widget	Using Widget
Graph	No	No	Yes	Test Purposes Only *	No	No
Calendar	No	No	Yes	Test Purposes Only *	No	No
Alpha Blending	No	No	Yes	Test Purposes Only *	Test Purposes Only *	Test Purposes Only *
Animated Images	No	No	Yes	Test Purposes Only *	No	No
Special Functions	Unique set	Unique Set	Unique set	Unique Set	Unique Set	Unique Set
Remote Control	Yes	Yes	Yes	No	No	No
Running Programs	No	No	WAV files only	No	No	No
Access Control	Yes	Yes	Yes	No	No	No
	No	No	Yes	No	No	No
• Edit Users	No	No	Yes	No	No	No
• Add/delete Users	Yes	Yes	Yes	No	No	No
• Edit Passwords						
Special Days	Yes	Yes	Yes	Yes	No	No
• Edit	Yes	Yes	Yes	No	No	No
Irrigation	No	No	Yes	No	No	No

Feature	B & W C-Touch	C-Touch Spectrum	C-Touch Colour	PAC	Wiser	Wiser 2
Control						
Widgets	No	No	No	No	Yes	Yes
Logic	Yes #	Yes #	Yes	Yes	Yes	Yes
• User System IO	Yes #	Yes #	Yes	Yes	Yes	Yes
In-built System IO	Yes	Yes	Yes	Yes	Yes	Yes
Network Modelling	Fully connected only	Fully connected only	Choice	Fully connected only	Fully connected only	Fully connected only
Edit Scenes	Yes	Yes	Yes	No	Yes	Yes
Add/delete	No	No	Yes	No	No	No
Edit Schedules	Yes	Yes	Yes	No	Yes	Yes
Add/delete	No	No	Yes	No	No	No
Monitor Power Power Fail Recovery	No	No	Yes	No	No	No
Log	Automatic	Automatic	Yes	Automatic	Yes	Yes
Log	No	No	Yes	Test Purposes Only *	Test Purposes Only *	Test Purposes Only *
Power Meters	Mark 2 only	Yes	Yes	No	Yes	Yes
HVAC App	Mark 2 only	Yes	Yes	Yes	Yes	Yes
Media Transport Control Application	Mark 2 only	Yes	Yes	Yes	No	No

* These features are available in PAC/Wiser projects in PICED for testing. These features are not available in the PAC/Wiser itself.

These features are available in C-Touch units with logic only

See also [Software Limits](#)

6.9 Updating Unit Projects

Once a project has been transferred to a Touch Screen, PAC or Wiser unit, the user is able to make changes to various aspects of the project, including:

- [Schedules](#)
- [Scenes](#)
- [User System IO Variables](#)
- [Irrigation Control](#)
- [Special Days](#)
- Group Address Levels (saved in [Power Failure Recovery File](#))

The [Power Meter](#) data and [Graph](#) data will also change after the Project has been transferred to the unit.

If you are going to update the Project, it is important to retrieve these changes before you start editing the project, otherwise they will be lost.

The steps to follow are:

1. Transfer the Project from the [C-Touch](#), [C-Touch Mark 2](#), [Colour C-Touch](#), [C-Touch Spectrum](#), [PAC](#) or [Wiser](#) unit
2. Edit the project

3. Transfer the edited project to the [C-Touch](#), [C-Touch Mark 2](#), [Colour C-Touch](#), [C-Touch Spectrum](#), [PAC](#) or [Wiser](#) unit

The easiest way to get the changes from the unit is to select the automatic reminder in the [Project Details](#) form, or to use the **Transfer | Refresh Project from Unit** menu item.

6.10 Cloning Units

To make an exact copy (clone) of the project in an existing Black and White C-Touch or PAC :

1. Connect your computer to the unit to be cloned (see [Serial for B & W C-Touch](#) and [USB for PAC](#))
2. Select the **Transfer | Read File From Unit** menu item
3. The configuration file from the C-Touch/PAC unit will be transferred to the computer ("config.mot" in the PICED directory).
4. Disconnect the unit
5. Connect the second unit (must have the same firmware version)
6. [Transfer](#) the file to the unit (select the **Transfer Other Configuration File** option and select the config.mot file transferred in step 3).

To make an exact copy (clone) of the project in a colour C-Touch :

1. Connect the Colour C-Touch unit to be copied
2. [Transfer the project from the Colour C-Touch](#)
3. Connect the Colour C-Touch unit to be changed
4. [Transfer the project to the new Colour C-Touch](#)

Refer to the C-Touch Colour Transfer Utility help file for details.

7 C-Gate

C-Gate must be used for connecting to C-Bus. It provides a point of control for one or more applications which wish to control and monitor C-Bus simultaneously. Refer to the C-Gate manuals for more details. C-Gate is installed as part of the C-Bus ToolKit which can be downloaded from the Schneider Electric (Australia) [web site](#).

To find the minimum version of C-Gate required for use with this software, click the **Help | Software Properties** menu item. Alternatively, refer to the software compatibility matrix on the Schneider Electric (Australia) [web site](#).

To use C-Gate with this software :

1. Start C-Gate if it isn't already running.
2. Select the **Connect to C-Bus** item from the **Options** menu.

The C-Gate connection [progress](#) is shown on the [status bar](#) at the bottom of the screen. If C-Gate has not yet synchronised all networks, this connection process may take some time.

C-Gate can also be automatically closed when PICED closes using an option on the [Program Options](#) form.

See also

- [Command-Line Parameters](#)
- [Project C-Gate Options](#)
- [C-Gate Options](#)
- [Automatic Reconnection](#)
- Advanced C-Bus Fault Diagnosis document (in the [Manuals](#) folder)

7.1 C-Gate Algorithm

The PICED software uses C-Gate to communicate with C-Bus. The initialisation process of C-Gate is as follows :

1. Connect to C-Gate at the [selected](#) IP Address
2. Set the [C-Bus project](#) to use
3. Set any operation modes required by PICED
4. Open each [network](#) selected in the [C-Bus Network Manager](#) in order (local networks first, then bridged networks)
5. Monitor each [C-Bus Network State](#) to find when they are synchronised
6. As each network is synchronised, do a "tree" to retrieve the current [Group Address](#) levels
7. Once all networks are synchronised, the state of each network will be monitored on a regular basis, and another "tree" will be performed regularly (unless this [Option](#) is disabled).

The above process can be observed using the [Log](#).

For more information on the usage of C-Gate, refer to the C-Gate documentation.

See also [C-Bus Network States](#)

7.1.1 Reconciliation Process

Generally, no C-Bus commands will be transmitted to a network until it is fully synchronised. Any [Lighting](#) C-Bus commands sent before a network is synchronised will be queued and the levels will be set once the network is synchronised. This is referred to as "reconciliation".

In the log extract below, you can see:

1. A lighting command for group "Level 2, Office 1" being sent before [Network](#) 241 is on-line
2. The Network 241 coming on-line
3. The discrepancy is discovered between the level for the group in PICED and in C-Gate
4. The discrepancy is reconciled by a new level being sent to C-Bus

30/10/2009 8:54:00 AM C-Bus Tx : Set Level 2, Office 1 On (Logic Line 2882/Scene "Level 2 Work Hours")

30/10/2009 8:54:00 AM Info : Network 241 (Level 2) is off-line, command has been queued

...

30/10/2009 8:55:00 AM C-Gate : Tx "[376]get 241 state"

30/10/2009 8:55:00 AM C-Gate : Rx "[376] 300 //PROJECT/241: state=ok"

30/10/2009 8:55:00 AM C-Gate : Tx "[377]tree 241"

30/10/2009 8:55:00 AM C-Gate : Rx "[377] 320- Network name:241 type=CNI address=192.168.1.10:10001 state=ok"

...

30/10/2009 8:55:00 AM C-Bus Rx : Level correction from C-Gate "tree"

30/10/2009 8:55:00 AM C-Bus Rx : Set Level 2, Office 1 On

...

30/10/2009 8:55:00 AM C-Bus Tx : Level 2, Office 1 to On (Reconcile Groups)

The [C-Bus Network State](#) can be displayed for a Component controlling C-Bus. This will indicate that that the network for the Component is currently off-line and the state shown may be wrong.

If a Network goes off-line and a Group Address changes state on C-Bus during the time it is off-line, the new level will be shown on PICED after the network comes back on-line again. If a Network goes off-line and a Group Address changes state on PICED during the time it is off-line, the new level will be transmitted to C-Bus after the network comes back on-line again (this has priority over changes on C-Bus while off-line).

7.2 Options

The C-Gate Config file can be used to configure various aspects of the C-Gate behaviour. These are discussed in detail in the C-Gate documentation, but a few are of significant relevance to the PICED software. The table below shows these properties. To change any of them:

1. Close C-Gate (if running)
2. Open the C-Gate Config File (C:\Clipsal\C-Gate2\Config\C-GateConfig.txt, assuming C-Gate is installed in the default location)
3. Change the value (after the = sign)
4. Save the file
5. Start C-Gate

Parameter	Usage
allow-fast-start	To speed up the start-up process, the "fast start" option can be used. This should not be used until a site is fully commissioned and there are to be no more changes to unit programming. Set the allow-fast-start option to "yes" for the fast start to be used.
command-port	This is the TCP/IP Port C-Gate accepts commands on. This should only be changed if there is a conflict with other software.
load-change-port	This is the TCP/IP Port C-Gate sends status updates on. This should only be changed if there is a conflict with other software.
global-event-level	This should be left at 5 unless debugging. Event Level 9 is useful when resolving serious C-Bus communications problems.

sync-time	This is the period between C-Gate doing a background synchronisation. This can be increased for busy networks to reduce the amount of C-Bus traffic.
use-event-file	This enables the C-Gate log.
network.error.commands-failed	This is the number of units which need to be in error state for a network to be put into error state . If a network has less units in error state, the PICED software will show the network as being in Operational State . Increasing this value will make it less likely for a network to go into the error state, but this should not be done to hide problems on a network with communications problems.
network.retries	This is the number of times C-Gate re-tries a failed command. Increasing this will make it more likely for a message to get through and therefore less likely for a unit to go into error state or a network to go into Operational or error state, but this should not be done to hide problems on a network with communications problems.

See also:

- [Project C-Gate Options](#)
- Advanced C-Bus Fault Diagnosis document (in the [Manuals](#) folder)

7.3 Automatic Reconnection

The PICED software can not operate without a connection to [C-Gate](#). The connection to C-Gate can fail for a number of reasons:

1. C-Gate could not be started (applies on program start-up only)
2. Someone has closed C-Gate
3. There has been a network infrastructure failure and the remote C-Gate server can not be contacted
4. Firewall set-up problems

There is an option to automatically re-connect to C-Gate if the connection fails. To select this:

1. Open the [Program Options](#) form
2. Select the **Automatically re-connect C-Gate if connection fails** option

If this option is selected and the C-Gate connection fails, the C-Gate Connection form will be displayed:



The form appearance will vary slightly depending on whether C-Gate is local or remote, and whether the initial connection to C-Gate failed, or a later connection.

The C-Gate connection form will try to connect PICED to C-Gate on a regular basis. To manually attempt a re-connection, click on the **Re-connect C-Gate Now** button.

To close the PICED software, click on the **Close** button.

During start-up, there is also a **Change C-Gate Setting** button which allows you to change the IP Address of the C-Gate server.

8 Testing, Debugging and Operation

8.1 Connecting to C-Bus

C-Gate has to be running and correctly configured to communicate with C-Bus before it can be used by PICED.

The PICED Software can [control](#) C-Bus if it is connected. This is used mainly for testing purposes, but can also be used for establishing the current [group address](#) levels when setting [scenes](#).

To connect to C-Bus, select the **Connect to C-Bus** sub menu from the **Options** menu. This will connect you to C-Bus using the method set-up in the [C-Bus Project](#).

The software will take several seconds to read the current state of the C-Bus [network](#). Once connected, all C-Bus buttons on the software will show and control the state of C-Bus Group Addresses.

Note that the PICED will disconnect from C-Gate at a random time between 2 and 3 days after connecting.

Using C-Touch as a PC Interface

You can also use the Black and White C-Touch unit as a PC Interface. Connect your PC to the C-Touch serial connector using the cable supplied. Follow the above steps to connect to C-Bus. C-Touch will display a message that it is in PC Interface Mode. When you have finished, remove the cable, and C-Touch will reset itself.

 **Note that you will not be able to use C-Touch while it is being used as a PC Interface.**

It is necessary for any software that is using the PC Interface to set the handshaking lines correctly, as they are used to power the C-Touch serial output driver. If you are having problems using C-Touch as a PC Interface, ensure that the software you are using sets DTR high and RTS low or vice versa. The C-Touch Configuration Software does this for you when you connect to the Touchscreen.

A simple method to initialise the handshaking lines to enable C-Touch to be used as a PC Interface is :

1. Start the C-Touch Configuration Software
2. Select **Connect to C-Bus** from the **Options** menu.
3. Select the required COM port.
4. Disconnect again, repeating steps 2 and 3.
5. The above steps have now set the Handshaking lines and any software may use C-Touch as a PC Interface (provided the software does not reset the handshaking lines).

8.2 Load Monitor

The Load Monitor shows every [Network](#), [Application](#) and [Group Address](#) used by PICED. It allows you to:

- See the level of each Group Address (Load)
- Toggle the state of the Group Address by double clicking on the Group in the list
- Select Power-Failure Recovery (see below)
- Measure approximate power consumption

To display the Load Monitor :

- Select the **Project | Load Monitor** menu item; or
- Click on the **Load Monitor** button on the [Tool Bar](#)

To refresh the display, click on the **Refresh** button on the Load Monitor Tool Bar or select the **Auto Refresh** check box to automatically refresh every 10 seconds.

The [columns](#) of data displayed are :

- **Load** : this is the name ([C-Bus Tag](#)) of the Group Address
- **Level** : this is the [Level](#) of the Group Address
- **Recover ?** : this shows whether the load is to have its level [Recovered](#) after a power failure (Colour C-Touch only)
- **Monitor ?** : this shows whether the Load is being monitored or not (see below) (Colour C-Touch only)
- **Power Rating** : this is the Power Rating (in Watts) of the load (use of this is optional) (Colour C-Touch only)
- **Power** : this is the power being used now (eg. a 150W load running at 50% will be 75W) (Colour C-Touch only)
-

Note that Power values are calculated, they are not measured values.

Selecting a Load

To select a Load, click on the load in the table. To select more than one load, select one load, then :

- click on another load while holding down the SHIFT key to select all of the loads in between; or
- click on individual loads while holding down the CTRL key

Monitoring

If C-Bus is [connected](#), the PICED software monitors the state of any loads which are selected (these have "yes" in the Monitor column) every 10 seconds and calculates the power for each load and total power.

Tool Bar

The buttons on the Tool Bar are explained below.



- **Monitor Load** : this activates or de-activates the monitoring of the selected load(s)
- **Power Fail Recovery** : this activates or de-activates the [power fail recovery](#) of the selected load(s)
- **Power** : this allows you to set the load power (optional)
- **Refresh** : this refreshes the display
- **Auto Refresh** : this automatically refreshes the display every 10 seconds
- Group selection drop down list : this allows you to select whether you want to display all Groups or just Monitored Groups

Power Failure Recovery

The **Power Fail Recovery** button on the tool bar activates or de-activates the [power fail recovery](#) of the selected load(s) (Colour C-Touch only).

Black and White C-Touch and PAC automatically recover the level of all loads after power failure..

This is particularly useful for [Group Addresses](#) which are not used in any C-Bus units ("Phantom Groups"). It is not possible for a C-Bus device (including a software application) to know the levels of these Groups unless it stores the levels itself.

See also [Logging Events](#), [In-built System IO](#)

8.3 Power Failure Recovery

When the PICED software starts up, it assumes all [Group Address Levels](#) are off (level 0). When [C-Gate](#) is connected, the levels from the [Networks](#) are read, and then PICED will show the correct levels for the Group Addresses.

Following a power failure, C-Bus recovers the Group Address Levels from the Output Units. When C-Gate connects to C-Bus, it also reads the Levels from the Output Units.

There are several circumstances where a Group Address may not exist in any Output Units. Generally, this is where Group Address is used to control something other than a load :

- [Triggering](#) a Scene
- Enabling a Schedule
- Enabling the [Irrigation](#) control
- Triggering an Irrigation Program
- Status indication (eg. showing whether a door is open)

In this case, when power is lost, the Level of the Group Address will also be lost.

In order to recover the levels following a power failure, the PICED software can write the Levels of selected Group Addresses to a file on a regular basis, and then re-load the values when it starts up. To select the Group Addresses to recover, use the [Load Monitor](#).

The Power Fail Recovery file is written :

- every 10 minutes, while C-Bus is [Connected](#), if data has changed
- when the [Project](#) is [Saved](#)
- when the [Load Monitor](#) form is closed

The Power Fail Recovery file is read :

- when the Project is [Opened](#)
- when C-Bus is connected

In addition to storing Group Address levels, the Power Failure Recover file stores (Colour C-Touch only):

- [Graph](#) data
- [Power Meter History](#) data
- [Labeling](#) data
- [HVAC Application](#) data

Notes

When a Schedule or the Irrigation control is edited, the Enabling Group has its Power Failure Recovery set automatically.

If a Group Address is being pulsed at the time of Power Failure, the [Return Level](#) will be set when power is reapplied.

If a Group Address is being ramped at the time of Power Failure, the ramp [end Level](#) will be set when power is reapplied.

Note that the C-Touch / PAC unit itself will recover the level of all Group Addresses it uses automatically. Colour C-Touch uses the process described above.

If you are transferring a project to a Colour C-Touch which is already installed, you may not want to include the Power Failure Recovery file with the Project [Archive](#) as this will overwrite the existing settings. See the [Exporting to an Archive](#) topic for details.

The Colour C-Touch has an [option](#) to broadcast the group levels onto C-Bus after the Power Failure Recovery is complete.

See also [Schedule Catch-Up](#)

8.4 Simulation Mode

To disable editing functions, the PICED software can be placed in Simulation Mode by either:

- selecting the Simulation Mode item from the **View** menu
- by pressing **CTRL + S**
-

To get out of Simulation Mode, you can either:

- press **CTRL + S**; or
-
- Simulation Mode will be exited automatically after 2 to 3 days

Simulation Mode does the following things :

- Components are [activated](#) by a left **or** right mouse click (this is useful for running on Touch Panel PCs)
- The menus and [tool bars](#) are hidden
- The Window is set to the same size as the Project [Screen Size](#)

Note that the Simulation Mode cursor image can be set in the [Program Options](#) form.

Usage with Wiser Home Control

The [Wiser Home Control](#) runs Simulation Mode in a web browser on a separate form. This may require the installation of Adobe Flash to run.

Simulation Mode for the Wiser Home Control only simulates the user interface. To test [Logic](#), [Scenes](#), [Schedules](#), [User System IO](#) and [E-Mail](#) you will need to [Transfer](#) the project to the Wiser Home Control first.

See also

[Program Options](#)

[Logging](#)

[Command-Line Parameters](#)

8.5 Logging Events

An event log can be used to monitor the events which have occurred. This can be very useful for debugging a project. To show the event log, select the **View | Log** menu item or click on the Log button on the [Tool Bar](#).

Log Tab

The text shows details of the last 200 "events" which have occurred in the software.

To see all of the events which will occur, log to a file (see below), then open the file. You can not save the displayed events (which have already occurred) to a file.



The **Log To Window** check box can be used to enable and disable the logging of events to the Event Log dialog.

The **Log To File** check box can be used to enable and disable the logging of events to the log file specified via the Options tab's Select Log File.

The Log To Window and Log To File check boxes enables the logging of events to both the Event Log dialog and the selected log file.

There are two radio buttons which determine the state of the logging to the log file:

- **Write** – This starts a new log and saves all future logged events into the selected file
- **Append** – This appends all logged events to the end of the existing selected file

The **Remember Setting** option can be used to have the log start up in the same state (disabled, enabled, saving or appending) when the PICED software next starts up. This setting is overridden by any [Command Line Parameters](#).

The **Scroll Lock** check box can be used to stop the messages from scrolling up the screen while you look at them. This can also be controlled using the **Scroll Lock** button on the keyboard.

The **Clear Log** button clears all entries in the log (but not in the file).

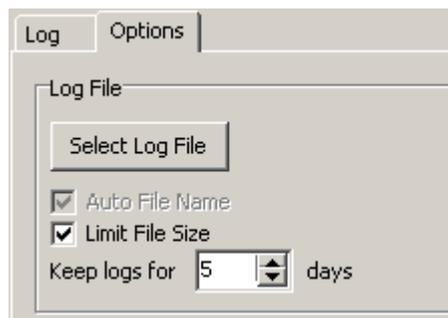
The **Comment** button allows you to put a comment into the log file.

The **C-Gate** button allows you to send a specific command to C-Gate. Click the **C-Gate** button, enter the command and click on **OK**.

There is a pop-up menu to allow text in the log to be copied:

- Copy: copy the selected lines in the log list to the Windows clipboard
- Select All: select all lines in the log
- De-select All: de-select all lines in the log

Options Tab



To select the log file name :

- Click the **Select Log File** button and enter the log file name (if no name is selected, it will use "log.txt"); or
- Select the **Auto File Name** check box and the file name will be automatically generated from the date and time, and hence will be different each time. The log file name will be of the form "year_month_day_time.txt".

The log file will be stored in the program folder (c:\clipsal\PICED by default).

If the **Limit File Size** option is selected, the file will be closed when it gets to 100,000 lines (usually around 2MB) or when the time is midnight, then another log file will be started. When this option is selected, the old log files will be deleted after the selected number of days.

There are check boxes on the Options Tab which enable various options :

- **Show Info Messages** – This enables the logging of information messages.
- **Show C-Gate Messages** – this displays messages to and from [C-Gate](#).
-
- **Show C-Touch/PAC Messages** - this displays messages sent to C-Touch/PAC via the serial interface.
- **Show Logic Debug Messages** - this displays Logic Log Messages
- **Show Logic Serial Messages** - this displays Logic Serial Messages
- **Show Logic TCP/IP Messages** - this displays Logic TCP/IP (Socket) Messages
- **Show Event Time** – When selected, this appends the date and time of each event.
- **Show Data as CSV** – This logs all data as Comma Separated Values to allow the log file to be imported into a spreadsheet, database or other program
- **Colour Highlighting** - this controls whether the different types of logged commands are shown in different colours
- **Show Usage and Debug Messages** - see below

You can also filter C-Bus messages by selecting the appropriate option :

- **Show Sent C-Bus Commands** – This enables the logging of commands sent from the software.
- **Show Received C-Bus Commands** – This enables the logging of commands received from C-Bus.
- **Lighting Compatible Applications** – This enables the logging of [Lighting and Lighting Compatible](#) C-Bus Messages.
- **Labels** – This enables the logging of [Label](#) Messages.
- **Security Application** – This enables the logging of C-Bus [Security Application](#) Messages.
- **Telephony Application**– This enables the logging of C-Bus [Telephony Application](#) Messages.
- **Measurement Application** – This enables the logging of C-Bus [Measurement Application](#) Messages.
- **Error Application** – This enables the logging of C-Bus [Error Application](#) Messages.
- **HVAC Application** – This enables the logging of C-Bus [HVAC Application](#) Messages.
- **Date & Time Application** - This enables the logging of C-Bus [Date/Time Application](#) Messages.
- **Media Transport Control Application** - This enables the logging of C-Bus [Media Transport](#)

[Control Application](#) Messages.

- **Monitors** - This enables the logging of [Monitor](#) messages.
- **Pulse Power Meters** - This enables the logging of [Pulse Power Meter](#) data.

Log Font

The log font can be changed by clicking on the **Edit Font** button, selecting the new font, then clicking on **OK**.

Log File Data

All messages written to the log contain a prefix with the type of log message. The categories and examples are listed below.

Log Header

At the start of the log is information related to the version of the program, the name of the project and any [Command Line Parameters](#).

C-Bus Messages

All C-Bus log messages are prefixed with "C-Bus".

All sent C-Bus commands in the log will be prefixed by "Tx" which is short for "transmit".

All received C-Bus commands in the log will be prefixed by "Rx" which is short for "receive".

The PICED log shows the source of all transmitted C-Bus lighting commands, which will be one of :

- User click (a user has clicked on a [component](#))
- [Schedule](#)
- [Scene](#) (triggered by external source)
- Logic

If the command was sent as part of a Scene, this will be shown.

For example, a log line showing :

```
09/05/2005 12:16:31 PM C-Bus Tx : Set Kitchen On (User Click)
```

means that at 12:16:31 PM on 09/05/2005, the "Kitchen" group was switched on, and the source of the command was a user click. Similarly :

```
09/05/2005 12:19:01 PM C-Bus Tx : Ramp Porch to 60% over 4s (Schedule "Night Time"/Scene "Welcome Home")
```

means that this command was originated by Schedule "Night Time" which triggered Scene "Welcome Home". And :

```
09/05/2005 12:21:12 PM C-Bus Tx : Set Basement Light 1 On (Logic Line 40)
```

means that the command was initiated by line 40 of the logic code.

C-Gate Messages

Commands to and from [C-Gate](#), as well as status messages related to C-Gate are all prefixed by

"C-Gate" in the log.

There are dozens of C-Gate messages, so only a few of the most common are listed here. For further details of specific C-Gate messages, refer to the C-Gate documentation.

When C-Gate is first connected, a series of commands are issued to set various C-Gate parameters. These are generally of no interest to the user.

All commands to C-Gate are prefixed by an identifier (number) in square brackets. This identifier is used by C-Gate for the reply messages to enable you to match replies with the original message. For example, one of the first messages sent to C-Gate is to determine the number of networks in the project. An example of this command and the reply is shown below :

```
04/08/2006 12:04:33 PM C-Gate : Tx "[15]show cbus networks"  
04/08/2006 12:04:33 PM C-Gate : Rx "[15] 300 //home/cbus: networks=254, 253, 252"
```

In the above case, you can see that command number 15 requested a list of networks and the reply was that there are three networks numbered 254, 253 and 252.

The most common C-Gate message of interest is setting C-Bus group address levels. For example, switching on Group Address 32 will result in the following :

```
04/08/2006 12:14:09 PM C-Gate : Tx "[22]on 254/56/32"  
04/08/2006 12:14:09 PM C-Gate : Rx "[22] 200 OK: //home/254/56/32"  
04/08/2006 12:14:09 PM C-Gate : Rx "lighting on //home/254/56/32 #sourceunit=255  
OID=22249c72-7081-4bab-a168-d5a36470e435 sessionId=cmd7 commandId=22"
```

This shows the command "on 254/56/32" being sent to C-Gate. C-Gate then acknowledges the receipt of this command ("200 OK") and shortly later says that the command has been sent to C-Bus.

Similarly, if a command is seen on C-Bus (generated by another C-Bus device), you will see a log entry like :

```
04/08/2006 12:17:50 PM C-Gate : Rx "lighting off //home/254/56/32 #sourceunit=5  
OID=22249c72-7081-4bab-a168-d5a36470e435"
```

In the above command, you can see that Network 254, Application 56 (lighting), Group Address 32 has gone off. The unit address of the C-Bus unit which sent the command is 5. You can ignore the OID data as it is only of internal use.

The other commands which you will see in the log which may be of interest are for monitoring network state and reporting the unit data. Refer to [C-Gate Algorithm](#) for details of what is happening.

Info Messages

Information (info) messages are used to provide general information related to the operation of the PICED software. These messages are prefixed with "Info". Info messages include :

- When the log first starts, a series of info messages provide details of the computer.
- If a C-Bus command is not sent because the network is off-line.
- [Access Control](#) messages (users logging in, pages timing out etc)
- Messages related to transferring projects to a C-Touch or PAC
- Messages related to time changes (initiated by the user, via C-Bus or start/end of daylight savings)
- Setting [Scenes](#)
- Executing [Schedules](#)
- Running [Irrigation Control](#)

- Starting, closing, opening and saving projects
- Entering/exiting [Simulation Mode](#)
- Connecting and disconnecting from C-Bus
- [Logic](#) engine starting and stopping
- Executing [Special Functions](#)

C-Touch / PAC Messages

If you are transferring a project to or from a C-Touch or PAC, you can see the communications between the computer and the unit. These messages are prefixed by either "C-Touch" or "PAC". These messages will not be of any use to the user, but may be of use for Schneider Electric (Australia) Technical Support for diagnosing problems related to transferring projects.

Logic Debug Messages

If you are using the LogMessage function in [Logic](#), you can see the messages in the log prefixed by "Logic".

Any serial commands sent from logic are shown, along with the COM Port number and the line of logic code which sent the command.

The serial receive buffer for each COM Port will be shown on each scan unless it is empty. If the serial data is not being read, the length of this will grow over time.

Error Messages

When some [errors](#) occur, details will be put in the log. These messages are prefixed by "Error".

Usage and Debug Messages

When the Usage and Debug Messages option is selected, the following events are logged:

- The amount of free memory (RAM)
- Processor usage (%)
- Screen Draw time (milliseconds) and number of re-draws per minute
- Page changes
- Saving project file and Power Fail Recovery File
- Changes to System IO variable values
- HTTP Image requests

 The log can slow down the operation of the PICED software, particularly when there are a lot of events, such as setting a large [Scene](#).

See also [Command-Line Parameters](#), [Load Monitor](#) and [Log File Filter](#)

8.6 Checking the Project

A check of the [project](#) can be performed by selecting the **Tools | Reports | Check Project** menu item. This verifies that there are not any problems which may cause the project to behave in a manner that is not intended. Any problems found are classed as Warnings or Errors. Warnings are generally not critical, but time should be taken to read them. Errors are more severe and should be corrected before use. Critical Errors must be fixed before the project can be transferred to the unit.

The format of the report can be set to HTML or Text in the [Program Options](#) form. The report file is saved to the Project directory for later reference.

The messages, and their meanings are given below :

Item	Meaning	Corrective Action
Warning 100	The project has scenes which have the same trigger. This means that several scenes will be triggered at once.	Edit the scenes to change one or more of the triggers.
Warning 101	An Irrigation Program has no Schedules triggering it. The Irrigation Program can only be started manually.	If you require automatic operation of the Irrigation Program, create a Schedule to trigger the Irrigation Program.
Warning 102	A Component has a page link to the page that it is on. This will not do anything useful.	Change the page link.
Warning 103	The project has no provision for setting cleaning mode. Cleaning mode disables the touch screen temporarily to allow it to be cleaned.	Add a page link to the cleaning page.#
Warning 104	The image is large and stretched (re-sized). Scaling large images uses a lot of processor capacity and may result in slow operation.	If the project is unresponsive, use an image editor to pre-scale the images to the desired size or use the Re-scale Images function.
Warning 105	A component is covering, or partly covering a component which may change appearance. When the component behind changes, you will not be able to see those changes.	Move one or more components. See Transferred Images .
Warning 106	The component is large and uses alpha blending . Alpha blending large areas uses a lot of processor capacity and may result in slow operation.	If the project is unresponsive, switch alpha blending off, or use an image editor to obtain the desired effect.
Warning 107	The component has multiple actions. This may cause unexpected behaviour when this component is activated .	Check that the actions are all required, and change if needed.
Warning 108	There are no users who can control C-Bus.	Edit the access options in the Access Control Manager .
Warning 109	A component is covering another component which has different C-Bus control. This will cause different actions, depending on where the component is pressed.	Move one component or make the C-Bus settings the same in both components. See Transferred Images .
Warning 110	A component is covering another component which has a different Page Link. This will cause different actions, depending on where the component is pressed.	Move one component or make the Page Links the same in both components. See Transferred Images .
Warning 111	A component is covering another component which has a different Special Function. This will cause different actions, depending on where the component is pressed.	Move one component or make the Special Functions the same in both components. See Transferred Images .
Warning 112	Multiple Master Units have been selected. Only one unit should normally be the	Select a single Profile for the Master Unit .

	Master Unit.	
Error 200	The project has scenes which trigger each other. Once one scene has been triggered, the scenes will trigger each other indefinitely.	Edit the scenes to change the triggers.
Error 201	The average update rate of the Monitor components is more than once per second. This will cause excessive C-Bus network traffic.	Reduce the number of monitors or increase the update periods.
Error 202	Project does not have Schedules for Daylight Savings.	Add a Schedule to set the clock at the start and end of Daylight Savings. This can be done with a single button click from the Project details form.
Error 204	The project has no provision for setting the contrast.	Add a page link to the contrast setting page.#
Error 205	The project has no provision for setting the backlight .	Add a page link to the backlight setting page.#
Error 206	A page can not be reached from the start-up page or from the time-out page .	Add a page link to the page, or delete the page if it is not required.
Error 207	Two or more components on a page have the same IR code. Only one will be activated.	Change the IR codes on one or more components.
Error 208	One component is completely hidden by another.	Move or delete the one or more components. See Transferred Images .
Error 209	Part of the component is off the screen.	Change the position or size to bring it back onto the screen.
Error 213	A component has an Application of 255 (FF hexadecimal), which is invalid.	Change the Application number, or change the component to have a C-Bus type of Unused.
Error 214	A component has a Group Address of 255 (FF hexadecimal), which is invalid.	Change the Group Address, or change the component to have a C-Bus type of Unused.
Error 215	It is not possible to navigate to all pages from a particular page.	Add some buttons to the page with page links to appropriate pages or add a back button .
Error 216	Two or more users have the same password.	Change one or more user passwords.
Error 218	Two or more Access Levels have the same name.	Change one or more user Access Level names.
Error 219	Two or more Schedules have the same name.	Change one or more user Schedule names.
Error 220	A Group Address does not have Power Fail Recovery set. The value of this Group Address will be lost after a power failure. If this is enabling a Schedule, the Schedule will be disabled following a power failure.	Enable the Power Failure Recovery for this Group Address.

Error 221	Project does not have provision to set the calibration.	Add a page link to the calibration page.#
Error 222	An item has non-ASCII characters. This will not be displayed correctly in C-Touch units.	Change the name to contain just ASCII characters (a..z, A..Z, 0..9 and other symbols on an English keyboard).
Error 223	The project has Schedules, but has no provision for setting the date and/or time.	Add a page link to the date & time setting page.#
Error 224	The project displays the time, but has no provision for setting the time.	Add a page link to the time setting page.#
Error 225	The project displays the date, but has no provision for setting the date.	Add a page link to the date setting page.#
Error 226	The Project has a lot of pulse power meters	Review whether the maximum rate of pulses is likely to occur and whether this, combined with other C-Bus traffic, will cause a problem.
Error 227	There is a large total area using alpha blending and/or shadows. Alpha blending large areas uses a lot of processor capacity and may result in slow operation.	Switch alpha blending off, or use an image editor to obtain the desired effect.
Error 228	There is a large total area of stretched (re-sized) images. Scaling large images uses a lot of processor capacity and may result in slow operation.	Use an image editor to pre-scale the images to the desired size or use the Re-scale Images function.
Critical Error 300	The project has no provision for setting Networking.	Add a Component with the Networking Special Function .#
Critical Error 304	A Scene has no Scene Components.	Edit the Scene to add some Scene Components.
Critical Error 305	Project uses alarms but has no sound file selected.	Open the Project Details form and select a wav file.
Critical Error 306	The project has a compilation error or uses invalid tags.	Open the Logic Editor and fix any Compilation Errors. You will need to compile (not run) the logic to see warning messages.
Critical Error 308	An invalid C-Bus Network has been used. This is a Network which can not be accessed from the Network which the unit is installed on .	Remove the use of this Network, or change the unit to another Network. See the Project Summary for details of what uses the invalid networks.
Critical Error 309	An invalid C-Bus Application has been used for lighting control. Valid Applications are 1 - 127, 136, 202 and 203 (01 - 7F, 88, CA, CB hexadecimal). The C-Bus Properties for a component can only use Lighting Applications .	Remove the use of this Non-Lighting Compatible Application . Refer to the Project Summary for details of where the Applications are used. When complete, save and re-open the Project.
Critical Error 310	There is an error with the usage of the C-Bus Networks.	Use the Network Manager to correct the error.
Critical Error 311	Project uses too many C-Bus Applications . See Software Limits for details.	Remove the use of some C-Bus Applications. Refer to the Project Summary for details of where the Applications are used. When complete, save and re-open the Project.

Critical Error 312	The project has an invalid number of Locations , Function Groups and/or Widgets .	Use the Widget Manager to add or remove Locations, Function Groups and/or Widgets.
Critical Error 313	The Use Indicator Kill for Showing Scene Status option is selected but one or more Scenes has no Trigger Group .	Use the Scene Manager to give all Scenes a Trigger Group.
Critical Error 314	Too many groups have Power Failure Recovery selected.	Use the Load Monitor form to remove groups which do not need to use Power Failure Recovery.
Critical Error 315	A Widget has an error.	Use the Widget Manager to edit the Widget and correct the problem.

The Tools [Template](#) has a button for this function. This error can be removed by adding the Tools page.

If an error message refers to a Component number on a particular page, the Component can be found as follows :

- [select the page](#)
- select the **Edit | Select | Select Component No** item
- enter the number of the component wanted
- click on **OK**

Alternatively, the **View | Component Label | Show Numbers** menu item can be used to display the Component number of all Components which have an action.

Hiding Error Messages

You can click on [\(hide\)](#) next to an error message so that you will not see this error message in the next Check Project report. To hide all error messages of the same type, click on [\(hide\)](#) next to the error number at the bottom of the report. There is a link to click at the top of the Check Project report to re-enable any error messages which have been hidden.

 Error messages can only be hidden when viewing the HTML report in PICED (not in a web browser).

See also [Project Summary](#), Good Design Practices and [Cascaded Scene Report](#)

8.7 Project Summary

A summary of the project can be produced by selecting the **Tools | Reports | Summary** menu item. The summary is used to get an overall view of what is in the project to make sure that everything that should be controlled is being controlled.

The summary contains the following information :

- [Project](#) details.
- [Installer](#) details.
- List of all [Networks](#) and [Applications](#) used.
- List of all [Groups](#) and which [Components](#) they are controlled by.
- List of all [Scenes](#) and the actions within each scene. (See also [Cascaded Scene Report](#))
- List of all [Schedules](#) with the time, day and event.
- List of all [Group Addresses](#) and which Schedules they are controlled by.
- List of all [Pages](#) (including [Theme Pages](#)), their Components, and what they control

- Summary of the Logic
- List of all [Special Days](#)
- List of all [Access Control](#) levels and users
-
- List of all [Power Failure Recovery](#) Groups
- List of all [images](#) used by the Project.
- List of all [Monitors](#) used by the project.
- List of all [Pulse Power Meters](#) used by the project

The format of the report can be set to HTML or Text in the [Program Options](#) form. The report will be saved in the same directory as the project for later inspection.

See also [Check Project](#), [Printing](#)

8.8 Cascaded Scene Report

A "cascaded" Scene is one which is [triggered](#) from another Scene. Care must be taken when cascading Scenes as it can cause a lot of Groups to be set. It can also cause unexpected things to happen.

A report listing all Scenes and show which Scenes are cascaded can be generated by selecting the **Tools | Reports | Cascaded Scene Summary** menu item. This lists all Scenes and which Scenes are triggered by those Scenes and so on.

In the example extracted from a Cascaded Scene Summary below, Scene 3 is triggered from Group 1 being set to 100%. It also triggers Scene 5 and Scene 6. Scene 6 in turn triggers Scene 7 and Scene 8.

Scene : "Scene 3"

Scene Trigger : Application "Trigger", Group Address "Group 1", Level 100%

Triggers Scene "Scene 5" (Any Network/Lighting / Group 11 = 100%)

Triggers Scene "Scene 6" (Any Network/Lighting / Group 12 = 100%)

Triggers Scene "Scene 7" (Any Network/Lighting / Group 21 = 100%)

Triggers Scene "Scene 8" (Any Network/Lighting / Group 22 = 100%)

Note that only Scenes within the PICED project will be considered. Scenes contained in other C-Bus devices could also contribute to Scene cascades, but these are not considered.

8.9 Master Unit

If you have more than one unit on a network containing the same [Scenes](#), [Schedules](#), [Irrigation Control](#) or [Logic](#), you may get duplicate C-Bus messages sent. For example, if you had three touch screens containing the same scene with the same trigger, then if that trigger was set by a user pressing a button on a wall switch, then three lots of the Scene would be sent out, with unpredictable results.

There are two solutions to this problem :

1. Create different projects for the different units, with only one of them containing the Scenes,

Schedules, Irrigation Control and Logic.

2. Use the same project for each unit, but only select the [Master Unit option](#) in one unit.

The unit which is the Master Unit will operate normally. The other units (the slave units) will operate a little differently :

1. If the user presses a button which controls a C-Bus group or directly executes a scene (with no trigger), then the C-Bus commands will be sent.
2. Button presses which directly set a Scene which has a trigger or indirectly set a scene (via a trigger) will send out the trigger, but not trigger the scene.
3. Scenes can not be externally triggered.
4. Schedules can not set groups or scenes (but will still execute [Special Functions](#) and [Page Links](#))
5. Logic can not set groups or scenes
6. Irrigation can't set groups (individual zones can still be manually run via a Special Function)

Notes

If you are using Master Units, make sure that if Scenes, Schedules, Irrigation or Logic is edited, it is done on the Master Unit.

On Colour C-Touch, the Master Unit can be selected using the Project, Edit Details [Special Function](#).

On Black and White C-Touch, the Master Unit can be selected by selecting Diagnostics | Unit Data.

On PAC, the Master Unit can not be changed from the unit, but Mastering is not generally used with the PAC.

8.10 Media Control

The PICED software (and Colour C-Touch) comes with :

1. Media Control Client which is a remote control for a Media Server
2. Two Media Servers which can be controlled via the Media Control Client
 - Windows Media Player (version 10 or later) plug-in
 - iPod Control Server (operates with an iPort docking station)

Installing the Media Player Plug-in

To install the plug-in for Windows Media Player (version 10) on your computer :

- Run Windows Media Player.
- Click the menu **Tools | Plug-ins | Options** menu item
- Click the **Add** button.
- Locate the **WMPCTouchControl.dll** file on your PC's hard disk (this will be in the folder where the software is installed, which is c:\Clipsal\PICED by default)
- Click the **Background** category.
- Check the box next to **Colour C-Touch Control**
- Click **OK**

Connecting the iPod

The iPod needs to be plugged into an iPort docking station. The iPort docking station is connected to a serial port on the computer (or Colour C-Touch) which is to have the iPod Server software running on it. Refer to the iPort manufacturer's website (<http://www.iportmusic.com>) for more details.

Using the Media Player Control

Create a Colour C-Touch project with a Media Player Control [Special Function](#) to show the Media

Player control on the colour C-Touch. Download the project to your colour C-Touch.

The PC running Windows Media Player must be on the same Ethernet network as the Colour C-Touch. Run Windows Media Player on the computer. Select the **Tools | Plug-ins | Colour C-Touch Control** menu item if it is not already selected.

On the Colour C-Touch, click the button with the Media Player Control special function. It will display a Media Player control panel which allows :

- selection of play lists
- selection of songs
- play / pause / stop etc

The [Program Details Wizard](#) allows you to :

- select a skin for the Media Control Client
- select the option to automatically start the iPod Server software
- select the media server address

8.11 C-Bus Fault Diagnosis

See the Advanced C-Bus Fault Diagnosis document (in the [Manuals](#) folder).

9 Other Help Sources

9.1 Help Files

The PICED help files provide some additional information about the PICED software. The help files can be accessed from the **Help** menu or from any form with a Help button (in this case, you will be taken directly to the relevant help topic).

The help files include :

- Main - this provides details for using the software
- FAQ - this answers [Frequently Asked Questions](#)
- Tutorial - this gives a step by step guide to using the software
- Logic - this provides information about using the [Logic Engine](#)
- C-Bus Concepts - this provides details about C-Bus, in particular, the C-Bus [Applications](#)

9.2 Manuals

There are various PDF manuals provided with the PICED software. These can all be found in the Manuals folder :

- C-Bus Concepts - this provides general information about C-Bus as well as details of C-Bus [Applications](#)
- C-Bus Networks - this provides details for multi-[network](#) installations
- Advanced C-Bus Fault Diagnosis - this provides details of solving C-Bus system problems
- C-Touch and PAC documents - these give details for installing and using the products

9.3 FAQ

There is a Frequently Asked Questions (FAQ) help file and PDF distributed with the PICED software. This should be read for more information on how to perform common tasks.

9.4 Tip of the Day

The Software has many features that you may not know of. The Tip of the Day is designed to introduce a few of these ideas to you.

The Tip of the Day form will be displayed when you start the software. You can also display it by selecting the **Tip of the Day** item in the **Help** Menu.

The **Show on Startup** check-box allows you to set whether you want it displayed each time the software starts.

The left and right arrows allow you to scroll through the tips.

If a tip has an associated Help file entry, a button with a question mark will appear. Clicking on this will provide more information about the selected tip.

See also [What's New](#)

9.5 Whats New

The Software has many new features introduced with each new release. The What's New form is designed to introduce a few of these ideas to you.

The What's New form will be displayed when you first start a new version of the software. You can also display it by selecting the **What's New** item in the **Help** Menu.

The **Show on Startup** check-box allows you to set whether you want it displayed each time the software starts.

See also [Tip of the Day](#)

9.6 CIS Web Site

From time to time, the Schneider Electric (Australia) Web Site may have PICED software updates and/or new Frequently Asked Questions topics posted.

Click on <http://www.clipsal.com/cis> to go to the Schneider Electric (Australia) web site.

The C-Bus Forums also contain a lot of useful information : <http://www.cbusforums.com/forums/>

9.7 Design Guidance

See the Tutorial for ideas on how to make projects quickly which are attractive and usable.

9.8 Example Projects

Various example projects are supplied with the PICED software. These show how various aspects of the software can be used, as well as how to solve various common customer requirements.

The projects can be found in the \PICED\Projects\Examples folder.

10 Documenting the Installation

Planning the Project

The designer of the PICED project must capture the requirements of the user before commencing the actual creation of a PICED project. Some useful pro-forma forms are shown in this section.

The [Story Board Pro-Forma](#) can be used for sketching out the pages required for the [Project](#).

The [Scene Pro-Forma](#) has two parts, the triggering and the actions part. Any scene can be triggered by a [Group Address](#) being set to a [Level](#). The actions section specifies what is to be turned on, to what level and how fast.

To use the [Scheduling Pro-Forma](#) fill in the area to be controlled and draw a line from the start to finish time required. This list is used in the Scheduling editor accessed via the **Project | Edit Schedules** menu item.

See the Tutorial Project for examples of how the Pro-Formas are used.

Documenting the Results

The [Screen Images](#) can be saved so that they can be put into your project documentation.

The overall project can be summarised with the [Project Summary](#).

A [User Manual](#) can be generated automatically to provide to the user of the PICED [Project](#).

10.1 Story Board Pro-Forma

image :

- [Select](#) the required page
- Select the **Tools | Reports | Save Screen ...** or **Tools | Reports | Save Screen with Border ...** menu options.
- Select either JPEG or bitmap format
- Select the required directory
- Enter the file name
- Click on the **Save** button

The image will then be saved to the selected file, in the selected format, with or without a border (as required). Repeat the above process for each page you wish to save an image of.

To save all screen images with borders as JPEG files, select the **Tools | Reports | Save All Screen Images** menu item. The screen images will be saved in the [Project](#) directory as Page1.jpg, Page2.jpg etc.

Note that if you are saving the image as a JPEG file, the JPEG image quality can be selected with the **Options | JPEG Quality** menu items.

10.5 User Manual

To automatically create a basic User Manual for the PICED [Project](#), select the **Tools | Reports | User Manual** menu item. This will automatically generate an HTML manual with the following details :

- [Page](#) Images (with each Component numbered)
- List of [Components](#) and their functions for each page
- List of [Scenes](#) (if used)
- List of [Schedules](#) (if used)
- List of [Access Control](#) Levels and Users (if used)
- List of [Irrigation Control](#) details (if used)

Notes :

- only Components which have an action associated with them will be listed. Other Components are generally of no interest to the user.
- [Theme Pages](#) are listed separately from the Project Pages.
- Theme Page Components are not listed on the Project Pages.
- the manual JPEG image quality can be selected with the **Options | JPEG Quality** menu items.

The manual will be saved to the file **User Manual.htm** in the Project directory. To provide the manual to a user, you will need the **User Manual.htm file** and the page images (**Page1.jpg** etc).

The manual can be edited to suit your requirements using any HTML editor. Alternatively, the manual can be opened with a word processor, edited and saved as another format if required (for example, Microsoft Word allows you to open as HTML then save as a doc file).

11 Error Messages

11.1 Purpose

Error messages are used to indicate several things :

- You have attempted to do something wrong, or have forgotten to do something essential
- To warn that something you have done or not done may cause problems
- To get confirmation of something you have requested

When an error message appears, you can click on the **Help** button to get more information about the cause and solution to the problem.

11.2 Suppressing Error Messages

Some error messages can be suppressed so that they don't appear. These error messages will have a check box that can be selected so that the error message is not shown again.

To re-enable all of the error messages, select the **Options | Enable Error Messages** menu item.

11.3 Reporting Errors

When an unexpected error occurs, you may see a form which looks like :



To report the error to Schneider Electric (Australia) :

1. Enter some comments which describe what you were doing when the error occurred. ***Without this information, it is probably going to be impossible for Schneider Electric (Australia) to diagnose your problem.***
2. Either click on the **Send** button to send the details to Schneider Electric (Australia) or click on the **Copy** button and then paste the information into an e-mail.

When reporting errors, the following information will help with the diagnosis of the problem :

1. Details of your computer (processor, memory, hard disk)
2. Details of your operating system
3. Version of the software being used
4. Details of the error (error number etc)
5. What you did to make the error occur

6. Was it possible to make the error occur again ?

To support the diagnosis, you may also need to provide :

1. Your PICED project file
2. Your C-Bus Project File
3. [Log Files](#)

11.4 Message List

11.4.1 Confirm 14002

Message

"Are you sure you want to delete the selected *item* ? You will not be able to undo this action."

Reason

You have attempted to delete a [Page](#), [Schedule](#), [Access Level](#) or [User](#). It is not possible to [undo](#) this action.

Actions

Click on **Yes** to delete the item. Click on **Cancel** to leave the item.

11.4.2 Warning 14003

Message

"Password Incorrect."

Cause

You have entered an incorrect [password](#).

Solution

Either :

- Enter the correct password;
- Obtain help from someone that knows the right password; or
- Do not attempt to perform an action for which you are unauthorized.

11.4.3 Error 14004

Message

"This file type can not be loaded."

Cause

The file type you have attempted to [load](#) is incorrect. The file type is defined by the extension of the file name.

For example, the file "c:\temp\test.ctd" is a PICED project file.

Solution

Select a file of the correct type. The file type is shown in the Open File form.

11.4.4 Confirm 14005

Message

"File **Filename** Exists. Do you want to replace it ?"

Reason

The file name that you have selected already exists. If you [save](#) the file with this name, it will overwrite the existing one and the existing one will be lost.

Action

If you want to replace the existing file, click on Yes.

If you want to save the file as a different name, click on No.

11.4.5 Confirm 14006

Message

"*File Name* data has changed. Do you want to save the data ?"

Reason

You have performed an operation that will close the project, but the data in your project has changed since you last saved it. If you do not [save](#) it, the data will be lost.

Action

Click on Yes to save the changes to the data.

Click on No to lose the changes to the data and continue with the operation.

Click on Cancel to cancel the operation.

11.4.6 Error 14007

Message

"Error creating Form.

Reason."

Cause

The selected form could not be created. This is generally due to a shortage of Windows resources. The reason should provide additional information about the nature of the problem.

Solution

If the cause is related to Windows resources, close down any other applications that are running to make more Windows resources available.

11.4.7 Warning 14008

Message

"Screen type has been changed. Some components may be affected."

Cause

The [size](#) of the [project](#) screen has been changed. If the screen has been made smaller, components that were near the edges may have been moved to fit them onto the new screen.

Solution

Check pages to ensure that the placement of components is still suitable.

11.4.8 Error 14009**Message**

"Could not open Clipsal web site."

Cause

The Clipsal Web Site could not be opened. This may be due to a fault with your web browser or with your internet connection.

Solution

Check your web browser and Internet connection to make sure they operate correctly.

11.4.9 Warning 14010**Message**

"This image is too large to fit on the screen. It will be reduced in size automatically."

Cause

The selected image is larger than the project screen [size](#).

Solution

There are several solutions :

- Do nothing – the image will automatically be reduced in size.
- Use an image editing program to change the size of the image.
- Use a smaller image.

11.4.10 Confirm 14011**Message**

"Do you want to change the scene levels ?"

Reason

You are about to open the [Scene Editor](#). This will allow you to add and change scenes.

Action

Click on Yes to open the Scene Editor.

Click on No to not open the Scene Editor.

11.4.11 Error 14012

Message

"Error Connecting to C-Gate."

Cause

The connection to [C-Gate](#) has been lost, or could not be established. A common cause is that you may be using more C-Bus [Networks](#) than your C-Gate licence allows.

Solution

Check that C-Gate is running at the selected IP Address (see [C-Bus Project](#)).

Try connecting to C-Gate using Telnet.

Refer to the C-Gate documentation for more details.

Re-start C-Gate and check the number of licences.

See also Can't Connect To C-Gate (FAQ)

11.4.12 Error 14013

Message

"Could not connect to C-Gate at *IP Address*."

Cause

The connection to [C-Gate](#) could not be established at *IP Address*.

Solution

Check that C-Gate is running at the selected IP Address (see [C-Bus Project](#)).

Try connecting to C-Gate using Telnet.

Refer to the C-Gate documentation for more details.

See also Can't Connect To C-Gate (FAQ)

11.4.13 Information 14014

Message

"Connected to C-Gate **version**."

Reason

The connection to [C-Gate](#) was successful. The *version* of C-Gate is also given.

Action

Click on OK.

See also Frequently Asked Questions

11.4.14 Error 14015**Message**

"There are too many Applications used. Maximum is *limit*."

Cause

You have attempted to use too many [Application](#) numbers. The software can only support a [limited](#) number of different Application numbers.

Solution

Use less Application numbers.

If necessary, split the control across several projects.

Refer to the [Project Summary](#) to determine where the Applications have been used.

11.4.15 Information 14016**Message**

"No errors found in project."

Reason

The [project](#) was [checked](#) and found to be free of design errors.

Action

Click on OK.

11.4.16 Error 14017**Message**

"File *File Name* does not exist."

Cause

The file *File Name* could not be found.

Solution

Check that the file name is correct.

Check that you have the necessary privileges to access the file.

Check whether the file does exist.

11.4.17 Information 14018

Message

"A Short-Cut has been created on your desktop."

Reason

A short-cut to the PICED software and the currently loaded project [file](#) has been placed on your computer desktop.

Action

Click on OK.

See also Frequently Asked Questions

11.4.18 Confirmation 14019

Message

"An image with the name "*FILE NAME*" is already being used. Only one image with a given name can be used in a project. Do you want to use the existing image or the new one ?"

Cause

There is already an image being used with the name *FILE NAME*. For example, you may have already used an image `c:\Clipsal\ImageLibrary\clock.bmp` and you have just added the image `c:\temp\downloads\clock.bmp`. When the project is saved, image files will be copied into the project directory, hence it is not possible to use two different images with the same name.

You can look at the [Project Summary](#) for a list of all images used by the Project.

Solution

Click on the **Existing** button to use the existing image instead.

Click on the **New** button to use the new image. Note that this new image will be used everywhere in the project where this image name is used.

11.4.19 Error 14020

Message

"There is no C-Bus Project selected. Open the Project Details form and select a C-Bus Project."

Cause

There is currently no [C-Bus Project](#) file selected.

Solution

Open the [Project Details](#) form and select a C-Bus Project.

11.4.20 Error 14021**Message**

"Please save the Project first."

Cause

The [Project](#) files need to be saved before they can be archived.

Solution

[Save](#) the Project, then archive the Project.

11.4.21 Error 14022**Message**

"Program *PROGRAM NAME* could not be run because "*REASON*"."

Cause

The program *PROGRAM NAME* could not be run. The *REASON* explains the cause.

Solution

Reason	Solution
"The specified file was not found."	Check the file name. Check that the file name exists.
"The specified path was not found."	Check the file path. Check that the file path exists.
"The .EXE file is invalid (non-Win32 .EXE or error in .EXE image)."	Check that the file will run manually.
"The filename association is incomplete or invalid."	Check the Windows file associations with the filename extension.
"The specified dynamic-link library was not found."	Check the file name. Check that the file name exists.
"There is no application associated with the filename extension."	Check the Windows file associations with the filename extension.
"There was not enough memory to complete the operation."	Close down some other programs to free up some memory.
"A sharing violation occurred."	Close any program which is also using the file.
"The operating system denied access to the specified file."	Check that you have access to this file. There may be access restrictions on this file.

11.4.22 Error 14023**Message**

"Could not connect to Serial port.
REASON

This could be caused by :

- The COM Port being used by another program
- The wrong COM Port being selected in the Program Options form"

Cause #1

The [connection](#) could not be made to C-Bus because the serial port was being used by another program.

Solution #1

Close down any other programs that are using the serial port.

Cause #2

The connection could not be made to C-Bus because an operating PC Interface could not be found.

Solution #2

Check that the right serial port is selected in the [Program Options](#).

Check that a PC Interface is connected.

Check all Cables.

Check that C-Bus power is applied.

Check that the PC Interface has power (the LED(s) should be lit).

11.4.23 Error 14024**Message**

"One or more used networks do not exist in project *PROJECT NAME*. Please select another project or close this program and edit the selected project."

Cause

The PICED [Project](#) uses [networks](#) which do not exist in the [C-Bus project](#). The PICED software can not use or control networks which do not exist in the project database.

Solution

Click on **Show** to see :

- a list of the networks in the PICED Project
- a list of the networks in the C-Bus Project
- a list of where each network is used

Click on **Change** to [change the networks](#) used by the project.

Click on **Continue** to return to selecting a C-Bus project.

Click on **Close** to close the PICED software and edit the C-Bus Project.

To resolve the problem :

- Select a different C-Bus Project; or
- Remove any use of the networks which are not supported; or
- Edit the C-Bus project to include the necessary networks.

11.4.24 Error 14025

Message

"Error using C-Bus database. *Reason*"

Cause

There was a fault when using the C-Bus data base. The Reason information should provide clues as to the cause.

Solution

Click on OK.

11.4.25 Error 14026

Message

"Please select a scene."

Cause

The C-Bus action has been set to set a [Scene](#), but no scene was selected.

Solution

Select the Scene to be executed from the drop-down list.

11.4.26 Error 14027

Message

"Please select a valid C-Bus Application."

Cause

No C-Bus [Application](#) was selected.

Solution

Select a valid C-Bus Application from the drop-down list.

11.4.27 Error 14028

Message

"Please select a valid C-Bus Group Address."

Cause

No C-Bus [Group Address](#) was selected.

Solution

Select a valid C-Bus Group Address from the drop-down list.

11.4.28 Error 14029**Message**

"Group Address Tag could not be added. Please close this program and use the C-Bus Tool Kit."

Cause

There was a problem creating a new [Group Address tag](#).

Solution

Use the C-Bus Tool Kit to add the Group Address tag.

11.4.29 Error 14030**Message**

"Group Address Tag could not be edited. Please close this program and use the C-Bus Tool Kit."

Cause

There was a problem editing a [Group Address tag](#).

Solution

Use the C-Bus Tool Kit to edit the Group Address tag.

11.4.30 Error 14031**Message**

"Level Tag could not be added. Please close this program and use the C-Bus Tool Kit."

Cause

There was a problem creating a new [Level tag](#).

Solution

Use the C-Bus Tool Kit to add the Level tag.

11.4.31 Error 14032**Message**

"Level Tag could not be edited. Please close this program and use the C-Bus Tool Kit."

Cause

There was a problem editing a [Level tag](#).

Solution

Use the C-Bus Tool Kit to edit the Level tag.

11.4.32 Confirm 14033

Message

"This file is for a different project type/screen size. The project will be converted to suit."

Reason

The [page\(s\)](#) being added to the [project](#) are for a different project type.

Action

Click on **OK** to continue. The pages will be resized automatically to suit. Any features present in the imported pages which are not supported by the project type will be removed automatically.

11.4.33 Error 14034

Message

"Error reading file. **Reason**. Project file may be corrupted or too large."

Cause

There was an error in the file being read. The reason should provide clues as to the cause.

Solution

Check that the file exists and you have read access rights.

Check that the file has not been corrupted. A PICED project [file](#) can be loaded into Internet Explorer to verify whether it is corrupted.

11.4.34 Error 14035

Message

"Project could not be saved. Please check : - directory write privileges - file "read only" attributes"

Cause

The [project](#) file could not be written.

Solution

Check the following :

- The file name is valid.
- The file path is valid.
- You have write rights to the file directory.
- The file is not "read only".
- The file is not being used by another program.
- The Hard disk is not full.

11.4.35 Confirm 14036

Message

"There are duplicate Scene Triggers. These scenes will trigger each other. Do you want to change a Scene Trigger ?
Click Show to see a list of duplicates."

Reason

Two or more [scenes](#) have the same trigger conditions. If this trigger is received, all of these scenes will be executed.

Action

Click on **Yes** to go back to editing the scenes.

Click on **No** to leave things as they are.

Click on **Show** to see a list of the duplicates.

11.4.36 Error 14037**Message**

"There are circular Scene Triggers. These scenes will trigger each other. Please change a Scene Trigger or the scene item which is doing the triggering."

Cause

A series of [scenes](#) directly or indirectly trigger each other. If any one of these scenes gets triggered, it will cause enormous amounts of C-Bus traffic indefinitely.

Solution

Change a scene trigger or change a scene item which is triggering another scene.

11.4.37 Error 14038**Message**

"There are duplicate Scene names. Please rename one or more Scenes."

Cause

Two or more [scenes](#) have the same name.

Solution

Rename one or more of the scenes.

11.4.38 Error 14039**Message**

"Can not add any more Scenes. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [scenes](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of scenes, or store some of the scenes in other C-Bus devices.

11.4.39 Error 14040**Message**

"Passwords do not match."

Cause

The two [passwords](#) entered are different.

Solution

Enter the two passwords again carefully.

11.4.40 Confirm 14041**Message**

"The project has **Error Type**. Do you want to see details ?"

Reason

The [project](#) has been found to have some problems which may cause it to behave in an undesirable or unexpected manner.

If the Project has critical errors, these **must** be fixed before the Project can be transferred to the unit.

Action

Click on **Yes** to see a list of the [problems](#).

Click on **No** to ignore the problems (a Project can not be downloaded with Critical Errors). **This is not recommended.**

11.4.41 Error 14042**Message**

"Changes can not be made to C-Bus Connection while connected. Please disconnect from C-Bus before making changes."

Cause

Changes have been made in the [connection](#) to C-Bus. These can not be implemented while C-Bus is still connected.

Solution

1. Disconnect from C-Bus.
2. Make the changes to the C-Bus connection.
3. Connect to C-Bus.

11.4.42 Warning 14043

Message

"Triggering a scene on the Lighting Application may cause it to be activated by other scenes and cause circular scene triggering."

Cause

A [Scene](#) is triggered on the Lighting [Application](#).

A series of scenes within this software and externally may directly or indirectly trigger each other. If any one of these scenes gets triggered, it will cause enormous amounts of C-Bus traffic indefinitely.

Solution

Change the Scene trigger to the Trigger Control Application, unless it must be on the Lighting Application.

11.4.43 Warning 14044

Message

"Setting levels on the Control Application may trigger other scenes and cause circular scene triggering."

Cause

A [Scene](#) is controlling the Trigger Control [Application](#).

A series of scenes within this software and externally may directly or indirectly trigger each other. If any one of these scenes gets triggered, it will cause enormous amounts of C-Bus traffic indefinitely.

Solution

Change the Scene item from the Trigger Control Application unless you are certain that it can not trigger any scenes.

11.4.44 Error 14045

Message

"Could not create file '**FILE NAME**
Reason : '**reason**' "

Cause

The file could not be created. The **reason** code should provide some clues as to the exact cause.

Solution

Check the following :

- The file name is valid.
- The file path is valid.
- You have the right to write to the file directory (you may need to be an administrator).
- The file is not "read only".

- The file is not being used by another program.
- The Hard disk is not full.

11.4.45 Error 14046

Message

"Archiving Failed."

Cause

The [archive](#) file could not be created.

Solution

Check that the file name is valid.

Check that the file path is valid.

Check that you have write rights to the file directory.

Check that the file is not read only.

Check that all of the files to be archived exist.

11.4.46 Information 14047

Message

"The Archive will be copied to the Project directory."

Reason

An [archive](#) file is about to be placed in the Project directory.

Action

Click on OK.

11.4.47 Error 14048

Message

"Please select a project directory."

Cause

A directory to store the [archive](#) file has not been selected.

Solution

Select a Project Directory.

11.4.48 Error 14049

Message

"Please select an archive file."

Cause

There is no valid [archive](#) file name.

Solution

Enter the file name of the archive to open.

11.4.49 Warning 14050**Message**

"Image "*IMAGE NAME*" is missing."

Cause

An image file could not be found.

Solution #1

Obtain the missing image file and put a copy in the project directory.

Solution #2

Delete the image from the project.

11.4.50 Error 14051**Message**

"File *FILE NAME* could not be opened."

Cause

There was an error while trying to [open](#) the file.

Solution

Check that the file exists.

Check whether you have read rights to the directory.

Check to see that the file is of the correct [file type](#). If it is an image file, check to see that it is a supported format.

Check to see whether the file has been corrupted. If possible, try to open the file with another program.

11.4.51 Error 14052**Message**

"Can not add any more pages. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [pages](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of pages used, or combine several together.

11.4.52 Error 14053**Message**

"Can not add any more Components. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [components](#) which can be stored on each [page](#), and that limit has been reached.

Solution

Remove some components or move some components to another page.

11.4.53 Error 14054**Message**

"Can not add any more Schedules. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Schedules](#) which can be stored, and that limit has been reached.

Solution #1

Delete some Schedules.

Solution #2

Use Schedules to set scenes rather than controlling Groups to minimise the number of different Schedules needed.

Solution #3

Use pulses in Schedules rather than an "on" and an "off" Schedule.

11.4.54 Error 14055**Message**

"Error in Daylight Savings Data"

Cause

There is an error in the data which has been entered for the [Daylight Savings](#) data.

Solution

Check each of the parameters on the Daylight Savings tab of the [Project Details](#) form.

11.4.55 Confirm 14056

Message

"Are you sure you want to delete the Schedule Collection and all of its Schedules ?"

Reason

Deleting a [Schedule Collection](#) will remove all of its Schedules. This action will not be able to be [undone](#).

Action

Click on Yes to delete the Schedule Collection and its Schedules

Click on No to cancel the delete operation.

11.4.56 Error 14057

Message

"There are too many C-Bus Networks used. The limit is *limit*."

Cause

There is a [limit](#) to the number of [Networks](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of Networks being used. Use the [C-Bus Network Manager](#) to select which C-Bus Networks are to be used and opened.

Refer to the [Project Summary](#) to determine where the Networks have been used.

11.4.57 Error 14058

Message

"Network(s) *NETWORK NAME* are not supported by C-Gate. Please update the C-Bus Project file."

Cause

One or more [networks](#) used in the [project](#) are not supported by [C-Gate](#).

Solution #1

Remove some networks from the project. Refer to the [Project Summary](#) to determine where the Networks have been used.

Solution #2

Update the C-Bus project.

11.4.58 Warning 14059

Message

"There appears to be a discrepancy between the selected Longitude and the selected Time Zone."

Cause

The Longitude that has been entered on the Location Tab is more than 4 hours from the Time Zone selected on the Daylight Savings tab.

Solution

[Change](#) the Longitude and/or the Time Zone if one or both is in error. If both are correct, then ignore this message.

11.4.59 Error 14060

Message

"Invalid [Longitude / Latitude]. Must be 1 to 3 numbers separated by spaces or a number followed a decimal point and the fractional part of the number."

Cause

The Longitude or Latitude data has been entered incorrectly.

Solution

[Enter](#) the data as one of the following formats :

- Degrees
- Degrees Minutes
- Degrees Minutes Seconds
- Degrees.Fraction

Valid examples are :

- 123
- 123 30
- 123 30 12
- 123.456

11.4.60 Error 14061

Message

"Latitude must be between 0 and 90 degrees."

Cause

The Latitude is outside of the range 0 to 90 degrees..

Solution

[Change](#) the Latitude to the correct value.

11.4.61 Error 14062**Message**

"Longitude must be between 0 and 180 degrees."

Cause

The Longitude is outside of the range 0 to 180 degrees.

Solution

[Enter](#) the correct Longitude.

11.4.62 Error 14063**Message**

"Can not have repeat interval less than 10 seconds."

Cause

The [Schedule](#) repeat interval has been set to less than 10 seconds. If the repeat interval is too short, there will be excessive C-Bus traffic generated.

Solution

[Change](#) the repeat interval to 10 seconds or more.

11.4.63 Error 14064**Message**

"Can not add any more Irrigation Programs. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Irrigation Programs](#) which can be used and this limit has been reached.

Solution

Reduce the number of Irrigation Programs used, or attempt to combine some together.

11.4.64 Error 14065**Message**

"Can not add any more Irrigation Zones. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Irrigation Zones](#) which can be used and this limit has been reached..

Solution

Reduce the number of Irrigation Zones used, or attempt to combine some together.

11.4.65 Error 14066

Message

"Can not add any more Irrigation Master Loads. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Irrigation Master Loads](#) which can be used and this limit has been reached..

Solution

Reduce the number of Irrigation Master Loads used, or attempt to combine some together.

11.4.66 Error 14067

Message

"Scene must have one or more actions."

Cause

The [Scene](#) doesn't have any actions (ie. it doesn't do anything).

Solution

Add some Actions to the Scene.

11.4.67 Error 14068

Message

"Pulse / Timer Duration must be greater than 0."

Cause

The Pulse / Timer Duration is currently set to 0, which will not do anything.

Solution

Change it to be more than 0.

11.4.68 Error 14069

Message

"Two or more Irrigation Programs have the same trigger."

Cause

Two or more [Irrigation Programs](#) have the same trigger [Group Address](#) and [Level](#). This would cause two Irrigation Programs to be triggered at the same time.

Solution

Change the trigger for one or more Irrigation Programs.

11.4.69 Error 14070**Message**

"Two or more Irrigation Zones are the same."

Cause

Two or more Irrigation Zones have the same [Application](#) and [Group Address](#).

Solution

Change the Application and/or Group Address for one or more zones.

11.4.70 Error 14071**Message**

"Zone duration(s) are too short. Must be at least 15 seconds."

Cause

One or more [Zone](#) durations are less than 15 seconds.

Solution

Increase any short Zone durations to be more than 15 seconds.

11.4.71 Error 14072**Message**

"Please select a Schedule."

Cause

No [Schedule](#) is selected.

Solution

Select a Schedule from the list.

11.4.72 Error 14073**Message**

"Schedule has no Event set. Schedule must execute C-Bus Action, select Page or execute Special Function."

Cause

The [Schedule](#) has no event set (ie. it doesn't do anything).

Solution

[Change](#) the Schedule so that it executes a C-Bus Action, selects a [Page](#) or executes a [Special Function](#).

11.4.73 Warning 14074**Message**

"Rain Delay Schedule already exists."

Cause

The Rain Delay [Schedule](#) already exists, and can not be created.

Solution

Edit the Rain Delay [Schedule](#) if desired.

11.4.74 Warning 14075**Message**

"This Schedule will never be executed because there are no Days of the Week/Days of the Month/Months selected."

Cause

The [Schedule](#) has no Days of the Week, Days of the Month and/or Months selected. Hence there are no days on which it will be executed.

Solution

[Edit](#) the Schedule days to make sure that at least some days are selected in each of the group boxes (**Day of Week, Day of Month, Month and Year**).

See the [Schedule Examples](#) for guidance on setting up complex Schedules.

When you have set up a Schedule, use the [Year View](#) to confirm that you have it correct.

11.4.75 Warning 14076**Message**

"Non-instantaneous Ramp Rates are not supported on the selected C-Bus Application. Unexpected behaviour may occur in a C-Bus System."

Cause

The selected C-Bus [Application](#) does not support setting a [Group Address](#) to a [Level](#) with anything other than an instantaneous [Ramp Rate](#).

Solution

Change the Ramp Rate to 0 (instantaneous).

11.4.76 Error 14077**Message**

"Special Days must have a unique, non-blank name."

Cause

A [Special Day](#) name has been entered which is either blank or is the same as another Special Day.

Solution

Change the name of one or more Special Days.

11.4.77 Error 14078**Message**

"Could not create Directory."

Cause

A directory could not be created.

Solution

Check that the directory name is valid.

Check that the directory path is valid.

Check that you have write rights to the directory.

Check that the directory or path is not read only.

11.4.78 Confirm 14079**Message**

"Do you want a directory created for this project ?"

Reason

There is no directory for this [Project](#). It is recommended that each project be placed in its own directory.

Action

Click on **Yes** to have a directory created automatically for you.

Click on **No** to save the project in the selected directory.

11.4.79 Error 14080**Message**

"Can not add any more Special Days. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Special Days](#) which can be used and this limit has been reached.

Solution

Reduce the number of Special Days used by deleting any that have already occurred.

11.4.80 Error 14081**Message**

"Can not have an Special day in both the "Also On" and "Not On" groups."

Cause

A [Special Day](#) is in the Also On group and in the Not On group. This is not logical.

Solution

Remove the Special Day from one of the groups.

11.4.81 Warning 14082**Message**

"The Nudge level should typically be between 1% and 50%."

Cause

The amount of the Nudge Up / Nudge Down should typically be between 1% and 50%. If it is less than 1%, then it will not do anything. If it is more that 50%, then maybe another C-Bus function would be more suitable.

Solution

Change the Nudge level to be between 1% and 50%.

11.4.82 Error 14083**Message**

"Dimming Ramp Rate can not be zero."

Cause

The [Ramp Rate](#) has been set to zero (instantaneous), which is not appropriate for the selected C-Bus type.

Solution

Change the ramp rate to be greater than zero.

11.4.83 Error 14084**Message**

"Password length must be between x and y."

Cause

The [Password](#) length is either too short or too long.

Solution

Enter a password with the correct number of digits.

11.4.84 Error 14085

Message

"Can not add any more Users. Maximum is *limit*."

There is a [limit](#) to the number of [Users](#) which can be used and this limit has been reached.

Solution

Reduce the number of Users by deleting any that are no longer required.

11.4.85 Error 14086

Message

"User "x" and "y" have the same password."

Cause

Two [Users](#) have the same password, which will make it impossible to determine who is [logging in](#).

Solution

Change the password for one or more users.

11.4.86 Error 14087

Message

"Two or more Access Levels have the same name."

Cause

Two or more [Access Levels](#) have the same name, which will make it difficult to determine which level is selected.

Solution

Change the name of one or more Access Levels.

11.4.87 Error 14088

Message

"Can not add any more Access Levels. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Access Levels](#) which can be used and this limit has been reached.

Solution

Reduce the number of Access Levels by combining several together.

11.4.88 Error 14089**Message**

"This Access Level will never be enabled because *reason*."

Cause

The [Access Level](#) will not ever be enabled due to an error in the set-up :

- There are no Days of the Week selected
- The End Time is not later than the Start Time

Solution

Either :

- Select some days of the week; or
- Change the start and/or end time

11.4.89 Error 14090**Message**

"Lowest and highest Access Levels must be always enabled. Do you want them changed for you ?"

Cause

Lowest and highest [Access Levels](#) must be always enabled so that the user can not be temporarily locked out.

Solution

Click on the **Yes** button to automatically change the lowest and highest Access Levels so that they are enabled on **Any Day** and **Any Time**.

Click on the **No** button to manually [Change](#) the Access Levels.

11.4.90 Confirm 14091**Message**

"Do you want to convert Project files to the new format ?"

Reason

The [Project](#) files in a selected directory can be converted from the old file [format](#) to the new format. Currently, this just re-names the files from *.xml to *.ctd but does not actually change the file format as such.

Action

Click on **No** to exit.

To change the Project files, click on **Yes**, then :

- select a directory to have all of its files, and those in its sub-directories, converted
- click on the **Open** button
- a list of all files converted will then be displayed.

11.4.91 Confirm 14092**Message**

"This file was created with an old version of this software. Do you want to save this file as the latest format ?"

Reason

The [Project](#) file is the old file [format](#). It can be automatically converted to the new format (including the backup file).

Action

Click on **Yes** to save it with the new format.

Click on **No** to save it with the same format as it currently is.

11.4.92 Confirm 14093**Message**

"Do you want to recover the selected load(s) after a power failure ?"

Reason

You have requested that selected load(s) have their [Power Failure Recovery](#) status changed.

Action

Click on **Yes** to recover the state of the selected load(s) after a power failure.

Click on **No** to not recover the state of the selected load(s) after a power failure.

Click on **Cancel** to not change anything.

11.4.93 Confirm 14094**Message**

"Are you sure you want to delete old/all Special Days ?."

Reason

You have pressed a button to delete all [Special Days](#), or just the old ones (the ones that occurred before today).

Action

Click on **Yes** to delete the Special Days.

Click on **No** to leave the Special Days.

11.4.94 Confirm 14095

Message

"Are you sure you want to delete the selected *item* ?"

Reason

You have attempted to delete a [Scene](#) or Scene Action.

Actions

Click on **Yes** to delete the item. Click on **Cancel** to leave the item.

11.4.95 Warning 14096

Message

"*Tag* can not be added/edited unless there is a C-Bus Project selected."

Cause

An Application / Group Address / Level [tag](#) can not be edited or added unless the C-Bus [Project](#) tags are loaded.

Solution

Select a C-Bus [Project](#).

11.4.96 Warning 14097

Message

"There is a compile error in the logic."

Cause

The Logic Code has an error.

Solution

Review the Errors and the Logic Code. Fix any errors and re-compile.

11.4.97 Error 14098

Message

""*name*"" is an invalid Identifier. Use only letters, numbers and underscore."

Cause

Pascal Identifiers may only contain Letters, Numbers and the underscore ("_") character. Additionally, they must start with a letter.

Solution

Re-enter the name.

11.4.98 Error 14099**Message**

"Invalid Value."

Cause

The valid entered is invalid.

Solution

Re-enter the value.

11.4.99 Warning 14100**Message**

"Can not add any more System IO Variables. Maximum is **value**."

Cause

No more System IO Variables can be added.

Solution

Reduce the number of System IO Variables used, or attempt to combine some together.

11.4.100 Warning 14101**Message**

"The value was outside of the allowable range. It has been changed to x"

Cause

The System IO Variable value was outside of the range specified by the minimum and maximum values.

Solution

Either :

1. Use the value selected for you; or
2. Change the minimum or maximum

11.4.101 Error 14102**Message**

"The minimum must be set to be less than the maximum."

Cause

The minimum value was greater or equal to the maximum value.

Solution

Change the minimum or maximum value.

11.4.102 Error 14103**Message**

"Error in *parameter*"

Cause

The specified parameter has been entered incorrectly.

Solution

Enter a valid value for the parameter.

11.4.103 Error 14104**Message**

"Logic run-time error. Error Rxxx - *Error Description*"

Cause

A run-time error has occurred in the Logic Engine.

Solution

Review the Run Time Error list and fix the problem in the logic code.

11.4.104 Error 14105**Message**

"Please select a System IO Parameter."

Cause

A System IO Variable has not been selected.

Solution

Select a System IO Variable.

11.4.105 Error 14106**Message**

"There are duplicate System IO names."

Cause

Two or more System IO variable have the same names.

Solution

Change the name of one or more System IO variable.

11.4.106 Warning 14107**Message**

"This will stop the logic engine from running."

Cause

The action performed will stop the logic engine from running. Certain actions, such as re-arranging Scenes or System IO variables, mean that the logic which is currently running, may be invalid. To prevent unexpected behaviour, the logic engine has been stopped.

Solution

Run the Logic Engine again if needed.

11.4.107 Warning 14109**Message**

"A combination of AND and OR logic has been used.
AND has precedence over OR.
Additional brackets may be required to obtain the desired behaviour."

Cause

Where a combination of AND and OR logic is used, the Operator Precedence rules are important.

Solution

Carefully check that the logic code is as required. If needed, manually enter brackets in the condition code to obtain the correct result.

11.4.108 Warning 14110**Message**

"Do you want to add the current condition before continuing ?"

Cause

The **Next** button was pressed before the condition was added.

Solution

If you want the currently selected condition to be added, click on **Yes**. Otherwise, click on **No**.

11.4.109 Warning 14111**Message**

"Do you want to add the current action before continuing ?"

Cause

The **Finish** button was pressed before the action was added.

Solution

If you want the currently selected action to be added, click on **Yes**. Otherwise, click on **No**.

11.4.110 Error 14112**Message**

"Theme Pages have too many levels."

Cause

[Theme Pages](#) can be based on other Theme Pages. Too many levels have been created.

Solution

Remove some levels of the Theme Pages.

11.4.111 Error 14113**Message**

"Tag Database Error. *Error Description. Remedy.*"

Cause

A Tag Database error has occurred.

Solution

Apply the suggested remedy (normally involves closing PICED and running the C-Bus Tool Kit).

11.4.112 Error 14114**Message**

"Theme components page can not be deleted while there are other Theme Pages."

Cause

The first of the [Theme Pages](#) is always the Theme Components page. This can not be deleted while there are other Theme Pages present.

Solution

Delete the other Theme Pages first, then delete the Theme Components Page.

11.4.113 Error 14115**Message**

"The Identifier "***name***" has already been used for another ***identifier type***.
Please select another name."

Cause

The selected name has already been used for another Module, Procedure or Function.

Solution

Enter a different name.

11.4.114 Confirmation 14116**Message**

"Are you sure that you want to delete ALL of the Logic ?"

Cause

You have requested to clear all of the logic code.

Solution

Click on **Yes** to delete the code, otherwise click on the **No** button.

11.4.115 Warning 14117**Message**

"Please Note You are entering the Logic Programming Engine of the Schedule Plus software. Logic programming extends the use of Schedule Plus using logic statements defined by the installer. Schneider Electric (Australia) cannot control the contents of program modules written in this Logic Engine and as such will not be held responsible for any loss or damages that may result from incorrect Logic Engine programming. Schneider Electric (Australia) recommend that only Schneider Electric (Australia) or Approved Installers with the appropriate level of training and accreditation use this part of Schedule Plus Manufacturer's warranties may be void if this is not complied with. Please contact your C-Bus specialists for further details. Please click on the "I Accept" button if you understand the above and wish to use the Logic Engine."

Cause

You are opening the Logic Engine for the first time. Logic needs to be used with caution and should only be used by trained installers.

Solution

Click on the **I Accept** button to accept the conditions of use and open the Logic Engine, otherwise click on **I Don't Accept**.

11.4.116 Warning 14118**Message**

"Logic can not be edited while the Logic Engine is running."

Cause

It is not possible to edit the Logic code while the Logic Engine is running.

Solution

Stop the Logic from running, then make changes.

11.4.117 Warning 14119**Message**

"Please add a comment."

Cause

A comment has not been entered.

Solution

Enter a descriptive comment.

11.4.118 Error 14120**Message**

"Can not add any more Modules. Maximum is *limit*."

Cause

There is a [limit](#) to the number of Modules which can be used and this limit has been reached.

Solution

Reduce the number of Modules used, or attempt to combine some together.

11.4.119 Confirmation 14121**Message**

"Access Levels have not been defined. Do you want the default levels created ?"

Cause

There are no [Access Levels](#) defined. The default Access Levels can be created for you.

Solution

Click on **Yes** to create the default Access Levels, otherwise click on **No**.

11.4.120 Error 14122**Message**

"Version **x**, build **y** or later of C-Gate is required."

Cause

An old version of [C-Gate](#) has been found.

Solution

Install the latest version of C-Gate (supplied with the C-Bus ToolKit).

11.4.121 Confirmation 14123**Message**

"Do you want a default description to be given to this component ?"

Cause

The [Component](#) does not have a meaningful description. A [default description](#) (based on the C-Bus Group Address name, Scene name or Special Function) can be added to the Component automatically.

Solution

Click on **Yes** to have the default name applied, otherwise click on **No**.

11.4.122 Confirmation 14124**Message**

"Controlling Group Addresses on this Application may cause unexpected behaviour. Are you sure you wish to use this Application ?"

Cause

Some C-Bus [Applications](#) are reserved for specific purposes. Using these Applications for other purposes can cause problems for a C-Bus installation.

Solution

Click on the **Yes** button to continue. If you are not sure what you are doing, click on the **No** button.

11.4.123 Error 14125**Message**

"You can not edit the details of users with higher access levels."

Cause

You can only edit the details of users of your level or below.

Solution

Only someone with a higher [access level](#) can change the details of the selected user.

11.4.124 Error 14126**Message**

"Error in Location data."

Cause

There is an error in the data entered for the location.

Solution

Enter valid data.

11.4.125 Confirmation 14127**Message**

"Do you want to close the PICED software ?"

Cause

Your action will close the PICED software.

Solution

To close, click on the **Yes** button, otherwise click on the **No** button.

11.4.126 Error 14128**Message**

"Please select a file."

Cause

A file has not been selected.

Solution

Select a valid file name.

11.4.127 Information 14129**Message**

"The PICED program will be minimised. It can be maximised from the Task Bar."

Reason

The PICED software is about to be minimised.

Action

Click on **OK** to continue. To maximise the software again, click on the PICED icon on the Windows task bar.

11.4.128 Error 14130

Message

"Please enter a unique page name."

Cause

The page name entered is not unique.

Solution

Enter a unique page name.

11.4.129 Error 14131

Message

"The **x** function is not supported for the **y**."

Cause

Software function **x** is not supported by the current project type (**y**).

Solution

Don't try to use this function with this project type.

11.4.130 Confirmation 14132

Message

"The slider Height and Width appear to be wrong for this orientation. Would you like them swapped?"

Cause

A vertical slider/bar graph normally is taller than it is wide. A horizontal slider/bar graph is normally wider than it is tall. The height and width are not what is expected for the current orientation.

Solution

Click on the **Yes** button to swap the height and width. Click on the **No** button to leave them as they are.

11.4.131 Error 14133

Message

"Can not add any more Scene Items. Maximum is *limit*."

Cause

There is a [limit](#) to the number of [Scene Items](#) which can be used, and that limit has been reached.

Solution

Reduce the number of Scene Items, or put some of the Scene Items in another Scene and trigger it from this Scene.

11.4.132 Warning 14134**Message**

"Please note that the Auto Create function is only intended for use with creating test projects. It is not of any use for creating real Projects and should NEVER be used that way. The Auto Create function does not apply some of the same safeguards as when creating a project manually, so it must be used with caution and at your risk. See the Help file for more details."

Cause

The Auto Create form has been opened. This is warning about the potential problems with using this software function.

Solution

Click on OK. If you choose not to proceed, close the Auto Create form.

See also [Auto Create](#).

11.4.133 Confirmation 14135**Message**

"Are you sure you want to capture this Scene ? This will change some or all of the stored Scene levels."

Cause

You have selected a Scene Capture menu item or button. This will [capture the Scene Levels](#) from C-Bus.

Solution

Click on the **Yes** button to capture the Scene. Click on the **No** button to leave the Scene as it is.

11.4.134 Confirmation 14136**Message**

"Do you want to create a one-off copy of these Schedules ?"

Cause

You have clicked on the **One-Off Copy** button, which [creates one-off Schedules](#).

Solution

Click on the **Selected** button to create a one-off copy of all selected Schedules.

Click on the **All** button to create a one-off copy of all Schedules for this date.

Click on the **Cancel** button to cancel this operation.

11.4.135 Error 14137

Message

"[C-Gate](#) disconnected unexpectedly.
PICED can not operate without a C-Gate connection and needs to be closed."

Cause

C-Gate has stopped responding.

Solution

1. Check whether C-Gate is still running.
2. Save any changes to your work and close PICED.
3. Re-start C-Gate and PICED.

There is also an option to automatically re-connect to C-Gate if the connection fails. To select this:

1. Open the [Program Options](#) form
2. Select the **Automatically re-connect C-Gate if connection fails** option

11.4.136 Error 14138

Message

"You can not set a user access level to be higher than the logged-in access level."

Cause

You have attempted to change a user's access level to one which is higher than the logged-in access level.

Solution

[Log-in](#) with an appropriate access level and try again.

11.4.137 Error 14139

Message

"You can not delete a user with an access level higher than the logged-in access level."

Cause

You have attempted to change delete a user whose access level is higher than the logged-in access level.

Solution

[Log-in](#) with an appropriate access level and try again.

11.4.138 Warning 14140

Message

"The file being loaded was created with a later version of the PICED software. Some aspects of the [Project](#) may be incorrect once loaded. Saving the file will lose these aspects of the original Project. This file should only be loaded with the correct version of software."

Cause

Files of later versions may cause unknown problems when [loaded](#) into the PICED software.

Solution

Open the file with the correct (latest) version of the software.

11.4.139 Confirmation 14141

Message

"This will replace the current access levels with the following levels :
- ***list of access level names***
Do you want to continue ?"

Cause

The [Access Levels](#) are about to be replaced.

Solution

Click on **Yes** to replace the access levels.

Click on **No** to leave the access levels as they are.

11.4.140 Error 14142

Message

"C-Bus Project "***Project Name***" has no C-Bus networks and can not be used."

Cause

The C-Bus Project which has been selected has no C-Bus [Networks](#). It can not be used by the PICED software.

Solution

1. Select a C-Bus Project which has one or more C-Bus Networks; or
2. Close the PICED software, open the C-Bus ToolKit and add some networks to the C-Bus Project.

11.4.141 Confirmation 14143

Message

"This project was created with an earlier version of the PICED software. Saving it with the new version will mean that it may no longer be able to be opened with the earlier version. Do you want to

save it with the new version ?"

Cause

You are about to save an old version file as a new version file format. This will mean than the project may no longer be able to be opened with the earlier version of the software.

Solution

Click on **Yes** to save as the new version.

Click on **No** to cancel the save. You can use [File | Save As](#) to save the project with a different name, which will allow you to still open the old file with the older software if needed.

11.4.142 Warning 14144**Message**

"Line number not found. Likely causes are :

- missing begin statement
- error in previous module"

Cause

The selected error message corresponds to a line of logic code which could not be located. The most common causes of this situation are :

- missing **begin** statements in the logic code
- an error in a previous module or section of code

Solution

Check backwards from the position of the cursor looking for **end** statements which have no corresponding **begin** statements.

If the cursor is at the start of a module, look in the previous module for errors.

11.4.143 Confirmation 14145**Message**

"Do you want to enable/disable the access of all levels above/below ?"

Cause

You are about to change the [access](#) for a particular software function. It is recommended that all access levels have access to at least all of the functions of the access levels below it.

Solution

Click on **Yes** to change the access of the levels above/below the one selected.

Click on **No** to not change any other levels.

11.4.144 Confirmation 14146**Message**

"All changes made to the Project will be lost if you continue. Do you want to continue ?"

Cause

You are about to go back to the first page of the [Project Wizard](#). To do this, any changes to the current project will have to be deleted.

Solution

Click on **Yes** to delete any changes and return to the first page of the Project Wizard.

Click on **No** to stay on the current tab of the Project Wizard.

11.4.145 Warning 14147**Message**

"Please select a folder to store the images."

Cause

You have not specified a folder to store the images in.

Solution

Select a valid folder name.

11.4.146 Error 14148**Message**

"Amount of Logic code exceeds limits."

Cause

There is a [limit](#) to the amount of logic code which can be compiled and you have entered more than this limit.

Solution

The logic code needs to be reduced. See the Efficient Code topic of the logic help file FAQ for details on reducing the size of code and making it run faster.

11.4.147 Error 14149**Message**

"This Schedule name is already used. Please enter a unique Schedule name."

Cause

The name you have entered for a Schedule already exists. You can not have two Schedules with the same name.

Solution

Enter a new, unique, Schedule name.

11.4.148 Confirmation 14150**Message**

"Do you want to refresh the images ?"

Cause

Changing the image on the disk does not change the images on the screen until the images have been "refreshed".

Solution

Click on **Yes** to refresh the [images](#) in the project. Click on **No** to leave them as they are.

11.4.149 Error 14151**Message**

"Please enter a valid, unique name for the user."

Cause

You have entered a user name which is either blank or is a duplicate on an existing name.

Solution

Enter a name which has not already been used.

11.4.150 Error 14152**Message**

"File name needs to be of type html or htm. For example, 'WebCam.html'."

Cause

You have entered an invalid URL.

Solution

Enter a valid URL file name.

11.4.151 Error 14153**Message**

"Please enter a valid *Data Item*."

Cause

You have entered an invalid data item.

Solution

Enter valid data.

11.4.152 Confirmation 14154

Message

"Do you want to save as a Project or Template ?"

Cause

You have a [template](#) project open and have selected to [save](#) the project.

If you choose to save as a template, you will presented with a [choice of options](#) to save.

If you choose to save as a [project](#), the file will be re-named to the default project [file extension](#).

Solution

Select **Template** to save as a template.

Select **Project** to save as a project.

Select **Cancel** to cancel the save operation.

11.4.153 Confirmation 14155

Message

"Are you sure you want to **action** ? You will not be able to undo this action."

Reason

You have attempted to perform a particular action. It is not possible to [undo](#) this action.

Actions

Click on **Yes** to perform the action. Click on **Cancel** to not perform the action.

11.4.154 Warning 14156

Message

"No users can control C-Bus."

Cause

There are no [users](#) who can control C-Bus.

Solution

Either :

1. Add new users who can control C-Bus; or
2. Change the [access](#) to C-Bus

11.4.155 Error 14157

Message

"Illegal Module name. Can not use } in a Module name."

Cause

It is not possible to use a closing brace in a Module name.

Solution

Enter a valid module name.

11.4.156 Confirmation 14158**Message**

"Are you sure you want to store the new settings for this scene ?"

Reason

You have selected a Component with the Scene Store [Special Function](#) to store the current state of a particular [Scene](#). This message does not get shown in Simulation Mode.

Actions

Click on **Yes** to store the new Scene settings. Click on **Cancel** to leave the Scene as it is.

11.4.157 Confirmation 14159**Message**

"Would you like to load a copy of the backup project file ?"

Reason

The [project file](#) you have tried to [open](#) is corrupted in some way or did not exist. If the file was corrupted, you would have received [Error 14034](#) with details. Fortunately, you have a [backup file](#) which can be loaded instead.

Actions

Click on **Yes** to load a copy of the backup file. Click on **No** to create a blank project.

11.4.158 Error 14160**Message**

"This Scene name is already used. Please enter a unique Scene name."

Cause

It is not possible to have two Scenes with the same name.

Solution

Enter a unique name.

11.4.159 Confirmation 14161

Message

"There are duplicate Groups in this Scene. Do you want to continue ?"

Reason

The [Scene](#) has two or more [Group Addresses](#) which are the same. This is usually not desirable.

Actions

Click on **Yes** to save the Scene as it is. Click on **No** to change the Scene.

11.4.160 Confirmation 14162

Message

"There is no prefix text selected. Do you want to continue ?"

Reason

There is no prefix text entered. This will make it hard to distinguish the [re-coloured](#) image from the original.

Actions

Click on **Yes** to continue. Click on **No** to enter a prefix.

11.4.161 Confirmation 14163

Message

"This schedule may not operate as expected because *reason*. Do you want to continue ?"

Reason

The [Schedule Time](#) is based on sunrise or sunset, but there are some days of the year when it may not work as expected for the reason given. The various causes and solutions are listed below.

Schedule Due on Next Day

If you have a Schedule which is set to be at Sunset + 5 hours, then on days where the sunset is after 7PM, the Schedule will actually occur on the following day. If this is not what you want, the alternatives are to reduce the offset or to make the Schedule be at a fixed time (such as 11PM).

Schedule Due on Previous Day

If you have a Schedule which is set to be at Sunrise - 6 hours, then on days where the sunrise is before 6AM, the Schedule will actually occur on the previous day. If this is not what you want, the alternatives are to reduce the offset or to make the Schedule be at a fixed time (such as 1AM).

Sunrise or Sunset Does not Occur on Some Days

For locations which are close to the North or South Pole, there are days where the sun does not rise or set. On these days, schedules based on sunrise or sunset will not occur. The alternative is to use

a fixed Schedule.

Actions

Click on **Yes** to save the Schedule as it is. Click on **No** to change the Schedule.

11.4.162 Warning 14164**Message**

"This project uses the Measurement Application with System IO variables. The support for this has changed."

Cause

In versions of the PICED software prior to V4.0, it was possible to have a [Measurement Application](#) channel associated with a [System IO Variable](#). This mechanism was replaced in V4.0 by the use of [In-built System IO](#) variables to achieve the same purpose.

The project loaded uses System IO variables with the Measurement Application, but this will no longer work.

Solution

Change any components using the [User System IO](#) variables to use [In-built System IO](#) variables with the Measurement Application.

Change any [Logic](#) code which uses the [User System IO](#) variables to use [In-built System IO](#) variables.

11.4.163 Warning 14165**Message**

"There is no rain delay Schedule."

Cause

You have clicked on a button to set the [Rain Delay](#), but there is no rain delay Schedule to set.

Solution

Create a [Rain Delay Schedule](#).

11.4.164 Error 14166**Message**

"Can not add any more Air Conditioning Zones. Maximum is x."

Cause

There is a [limit](#) to the number of [Air Conditioning Zones](#) which can be used, and that limit has been reached.

Solution

Reduce the number of Air Conditioning Zones.

11.4.165 Error 14167

Message

"Can not add any more Measurement Channels. Maximum is x."

Cause

There is a [limit](#) to the number of [Measurement Channels](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of Measurement Channels.

11.4.166 Error 14168

Message

"File is not animated GIF."

Cause

An animated GIF file was expected.

Solution

Select an animated GIF file.

11.4.167 Error 14169

Message

"File is an animated GIF. These are not supported by PICED directly."

Cause

You have placed an image and it is an animated GIF. Animated GIF files are not supported directly. Only [animated bitmaps](#) are supported by the PICED software.

Solution

Click on **Convert** to convert the selected animated GIF to an [animated bitmap](#).

Click on **Static** to convert the selected animated GIF to a static bitmap image.

Click on **Cancel** to cancel the placement of the image.

11.4.168 Error 14170

Message

"File "*name*" is an animated GIF. These are not supported by PICED directly. Please convert this to an animated bitmap before use."

Cause

An animated GIF was encountered when loading an image. Animated GIF files are not supported directly. Only [animated bitmaps](#) are supported by the PICED software.

Solution

Use the **Tools | Images | Convert Animated GIF** menu item to convert the animated GIF images into an animated bitmap.

11.4.169 Error 14171**Message**

"Can not add any more Monitors.
Maximum is *value*"

Cause

There is a [limit](#) to the number of [Monitors](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of Monitors.

11.4.170 Error 14172**Message**

"Please select a monitor."

Cause

A Monitor has not been selected.

Solution

Select a Monitor and click on OK.

11.4.171 Warning 14173**Message**

"There are monitor Components which do not have a corresponding monitor."

Cause

The project has used [Monitor Components](#) which are not listed in the [Monitor Manager](#). These Monitor Components will not work without a corresponding Monitor in the Monitor Manager.

Note that prior to V4 of PICED, the Monitor Manager did not exist, and Monitors were created automatically.

Solution

Click **Auto Create** to automatically create the necessary monitors for each of the Monitor Components.

Click **OK** to close the Monitor Manager form.

Click **Cancel** to leave the Monitor Manager form open.

11.4.172 Confirmation 14174

Message

"This monitor is used by a Project Component. Are you sure you want to delete it ?"

Reason

The selected Monitor is used by a [Monitor Component](#) or by a Component using the Monitor [In-built System IO](#) variable. Deleting this monitor will mean that the Component will no longer work.

Actions

Click on **Yes** to delete the monitor. Click on **No** to leave the Monitor.

11.4.173 Warning 14175

Message

"There are Components using the Measurement Application which do not have a corresponding Measurement Channel."

Cause

The project has used a [Component](#) (with [In-built System IO](#)) with Measurement Application Channels which are not listed in the [Measurement Application Manager](#). These Components will not work without a corresponding Measurement Application Channels in the Measurement Application Manager.

Solution

Click **Auto Create** to create the necessary Measurement Channel.

Click **OK** to close the Measurement Manager form.

Click **Cancel** to leave the Measurement Manager form open.

11.4.174 Confirmation 14176

Message

"This Measurement Channel is used by a Project Component. Are you sure you want to delete it ?"

Reason

The selected Measurement Channel is used by a [Component](#) through an [In-built System IO](#). Deleting this Measurement Channel will mean that the Component will no longer work.

Actions

Click on **Yes** to delete the Measurement Channel. Click on **No** to leave the Measurement Channel.

11.4.175 Warning 14177

Message

"There are Components using the HVAC Application which do not have a corresponding monitored HVAC Zone."

Cause

The project has used a [Component](#) (with [In-built System IO](#)) with HVAC Zones which are not listed in the [HVAC Application Manager](#), or are listed but are not monitored. These Components will not work without a corresponding monitored HVAC Zone in the HVAC Application Manager.

Solution

Click **Auto Create** to create the necessary HVAC Zone (or to enable the monitoring in an existing zone).

Click **OK** to close the HVAC Application Manager form.

Click **Cancel** to leave the HVAC Application Manager form open.

11.4.176 Confirmation 14178

Message

"This HVAC Zone is used by a Project Component. Are you sure you want to delete it ?"

Reason

The selected HVAC Zone is used by a [Component](#) through an [In-built System IO](#). Deleting this HVAC Zone will mean that the Component will no longer work.

Actions

Click on **Yes** to delete the HVAC Zone. Click on **No** to leave the HVAC Zone.

11.4.177 Warning 14179

Message

"The *function* does nothing in PICED, but will perform an action when used in a *unit type* unit."

Cause

A [Component](#) has been [Activated](#) which will perform a function when downloaded to a unit, but does nothing in the PICED software.

Solution

Click on **OK**.

11.4.178 Error 14180

Message

"A valid licence for this software could not be found.

licence Details.

Consequences.

To purchase a full version, contact Schneider Electric (Australia).

- Click on OK to continue.
- Click on View Licence to see licence (dongle) details.
- Click on Close to close the PICED software."

Cause

The PICED software requires a [Licence Key](#) to operate. A valid key has not been found.

Solution

Click on **OK** to continue. The consequences of the missing licence are listed and will apply.

Click on **View Licence** to see the licence (dongle) details.

Click on **Close** to close the PICED software.

Obtain a valid licence from Schneider Electric (Australia) to operate the PICED software fully.

11.4.179 Information 14181

Message

"Licence (dongle) details :

Details"

Reason

You have requested details of the [Licence Key](#).

Action

Click on **OK**.

11.4.180 Warning 14182

Message

"This will only update the firmware in a unit which has had the firmware erased with the Unit Reset button.

To update the firmware in an operational unit, use the Transfer Project to Unit menu item."

Cause

The **Transfer | Recover C-Touch 2** menu item has been selected. This will only [update the firmware](#) in a [Black and White C-Touch Mark 2](#) unit which has had the firmware erased with the Unit Reset button.

To update the firmware in an operational unit, use the [Transfer Project to Unit](#) menu item.

Solution

Click on **OK** to continue with the update.

Click on **Cancel** to cancel the update.

11.4.181 Error 14183

Message

"Please select a folder containing a valid skin."

Cause

You have selected a folder which does not contain a [valid media skin](#).

Solution

Click on **OK** to continue. Select another folder containing a valid skin.

11.4.182 Warning 14184

Message

"Minor/Major changes have been made to the project. Do you want to see details ?"

Cause

A new project type has been [selected](#). This has required some changes to the project, as not all features are supported by all project types. See [Software Limits](#) and [Unit Differences](#) for details.

Solution

Click on **Yes** to see the details of the changes.

Click on **No** to continue.

11.4.183 Warning 14185

Message

"Some Network Properties are invalid.
Click on Change to edit the Network properties.
Click on Default to set the default Network properties.
Click on Continue to ignore the error."

Cause

Some of the C-Bus Network properties appear to be invalid.

Solution

Click on **Change** to open the [C-Bus Network Manager](#) and change the Network properties to correct any errors.

Click on **Default** to set the default properties for all C-Bus Networks.

Click on **Continue** to ignore this error.

11.4.184 Warning 14186

Message

"Some Network Properties are invalid.
Click on Show to see the errors.
Click on Default to set the default Network properties.
Click on Continue to ignore the error."

Cause

Some of the C-Bus Network properties as set up in the [C-Bus Network Manager](#) appear to be invalid.

Solution

Click on **Show** to show a list of possible errors. After reviewing the errors, correct any problems.

Click on **Default** to set the default properties for all C-Bus Networks.

Click on **Continue** to ignore this error.

11.4.185 Error 14187

Message

"Could not connect to C-Gate at *IP Address*.
Reason.
PICED can not operate without a valid C-Gate connection.
• Click on Close to close PICED
• Click on Continue to select an alternative C-Gate server
• Click on Help for more information"

Cause

There was an error when trying to connect to the [C-Gate](#) server.

Solution

Click on **Close** to close PICED.

Click on **Continue** to attempt to connect to an alternative C-Gate server. This option is not normally recommended.

If the error reason contains the message "Unable to determine server version", then the PICED software has been unable to read the version from C-Gate. This may be due to the computer being too slow or too busy, causing a delay in the connection to C-Gate. Check Computer Requirements in the FAQ. If this problem persists, you may need to start C-Gate prior to starting PICED (see Starting Up Automatically in FAQ).

Otherwise, if the error reason is "The version of C-Gate could not be found or is not compatible with this version of PICED", the problem is caused by the versions of C-Gate and PICED being incompatible with each other. You will need to either :

- Install a version of C-Gate which is compatible with PICED; OR
- Change to a different version of PICED

Note that C-Gate is installed as part of the C-Bus ToolKit. To obtain or update C-Gate it is necessary to install or update the C-Bus ToolKit.

Refer to the Schneider Electric (Australia) [web site](#) for software updates and software version compatibility details.

11.4.186 Error 14188

Message

"Printing failed. Please check that the printer is connected and switched on."

Cause

There was an error when trying to print.

Solution

Click on **OK**. Check the following :

- There is a printer connected
- The printer is switched on
- You can print from other applications

11.4.187 Error 14189

Message

"COM Port Error. It may be necessary to re-start the PICED software."

Cause

There was an error with a COM port.

Solution

Click on **OK**.

Re-start the PICED software if the problem has not been resolved.

11.4.188 Confirmation 14191

Message

"Do you want to close C-Gate ?"

Reason

You are closing the PICED software and you have the **Close C-Gate when program closes** [Program Option](#) selected.

Actions

If you want to close C-Gate, click on **Yes**, otherwise click on **No**.

11.4.189 Error 14192

Message

"You do not have sufficient privileges to **perform task**."

Cause

You do not have sufficient privileges to perform a specific task, hence it has not been performed.

Solution

Click on **OK**.

If you are running Windows Vista, refer to the Use With Windows Vista topic of the FAQ.

11.4.190 Error 14193

Message

"Can not add any more Widgets.
Maximum is **value**"

Cause

There is a [limit](#) to the number of [Widgets](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of Widgets.

11.4.191 Error 14194

Message

"Can only add files which are in the project directory"

Cause

Only files which are in the project directory can be included in the transfer package.

Solution

Click on **OK**.

Copy the required file to the project directory and try again.

11.4.192 Warning 14195

Message

"The use of HVAC Application in-built System IO variables has changed since this file was created. If these have been used with logic, it will be necessary to update the logic code."

Cause

You have loaded an older file which handles HVAC Zones in a superseded way. The [HVAC App In-Built System IO](#) variables used to control just a single HVAC Zone. As of PICED version 4.4, they may control multiple zones.

Solution

Click on **OK**.

Update any logic code which uses HVAC Application in-built System IO variables. Refer to the Logic Help File for details of how the HVAC Zones are now addressed.

Note that [Components](#) which use [HVAC App In-Built System IO](#) variables are automatically updated when the project file is loaded. There is no need to make any changes to Components unless you now want them to control multiple HVAC zones.

If you save the project with this version, the HVAC data will not be able to be loaded with older versions of the software.

11.4.193 Error 14196**Message**

"Please create HVAC Zone Groups and/or HVAC Zones first."

Cause

HVAC "[tools](#)" can not be placed if there are no HVAC Zone Groups or HVAC Zones.

Solution

1. Click on **OK**.
2. Close the Tools form
3. Create HVAC data with the [HVAC Application Manager](#).
4. Place the HVAC tools.

11.4.194 Error 14197**Message**

"Error opening Excel. **Reason.**"

Cause

Excel was not able to be opened. The Reason should provide information about why.

Solution

The solution depends on the reason for the error. The most common reason is that Excel is not installed.

11.4.195 Error 14198**Message**

"Error in **Data**.
Recommendation."

Cause

The data entered is invalid. The form is not able to be closed until valid data is entered.

Solution

Make the changes recommended by the error message.

11.4.196 Error 14199**Message**

"Can not add any more E-Mail Accounts.
Maximum is *value*"

Cause

There is a [limit](#) to the number of [E-Mail Accounts](#) which can be stored, and that limit has been reached.

Solution

Reduce the number of E-Mail Accounts.

11.4.197 Error 14200**Message**

"The file *filename* already exists."

Cause

Files are being extracted from an archive. The listed file already exists.

Solution

Click **Overwrite** to overwrite just this file.

Click **Overwrite All** to overwrite this and any other files which already exist.

Click **Skip** to skip this file, and leave the existing file in place.

Click **Skip All** to skip this and all other existing files.

11.4.198 Error 14201**Message**

"Widget needs a Location and/or a Function Group, otherwise it will not be seen."

Cause

[Widgets](#) are displayed in the Wiser Home Control according to their [Location](#) and their [Function Group](#). If neither are selected, the widget will not be displayed at all.

Solution

Select a Location and/or a Function Group for the Widget.

11.4.199 Error 14202**Message**

"Please select *item*."

Cause

An item has not been selected. The form can not be closed unless this item is selected.

Solution

Select the requested item.

11.4.200 Information 14203**Message**

"*Type of* file has been created:
File Name."

Reason

A new file has been created.

Action

Click on **OK**.

11.4.201 Error 14204**Message**

"Too many groups have Power Failure Recovery selected.
Maximum is *number*"

Cause

Too many groups have [power fail recovery](#) selected.

Solution

Use the [Load Monitor](#) form to deselect any groups which do not need to have their level recovered after power failure.

11.4.202 Error 14205**Message**

"Scene needs a Trigger Group because the "Use Indicator Kill for Showing Scene Status" option is selected."

Cause

The [Use Indicator Kill for Showing Scene Status](#) option has been selected. When this is used, [Scenes require a trigger group](#).

Solution

Either:

- Select a Trigger Group for the Scene; or
- De-select the Use Indicator Kill for Showing Scene Status option

11.4.203 Error 14206**Message**

"Password can only contain numbers."

Cause

Non-numeric characters have been used in a password which can only use numeric digits, 0 - 9.

Solution

Enter a password which only has numbers.

11.4.204 Confirmation 14207**Message**

"Are you sure you want to hide **Error Message** ?
Hidden error messages can be shown again later if required. "

Reason

You have clicked on [\(hide\)](#) in the [Check Project](#) report. This allows individual messages, or groups of messages to be hidden.

Actions

If you want to hide the error message(s) in the next Check project report, click on **Yes**, otherwise click on **No**.

11.4.205 Confirmation 14208**Message**

"This **item** is not supposed to be edited.
Are you sure you want to edit this?"

Reason

You have tried to edit a [Schedule](#), [Scene](#) or [Scene Component](#) which is locked. Locked items are not intended to be changed, and should only be changed with caution.

Actions

Click on **Yes** to continue with editing the item. Click on **Cancel** to leave the item as it is.

11.4.206 Error 14209**Message**

"The Name has already been used.
Please select a different name."

Cause

You have entered a name which has already been used. Names need to be unique.

Solution

Click on **OK**, then enter a different name.

11.4.207 Confirmation 14210**Message**

"Do you want Media Link Groups to be automatically created for you? "

Reason

[Media Link Groups](#) exist in the Transport Control Application in the selected [C-Bus Project](#).

Actions

If you want to automatically copy the Media Link Groups from the C-Bus project into the PICED Project, click on **Yes**, otherwise click on **No**.

11.4.208 Confirmation 14211**Message**

"Scene Components which are not on a Lighting Application should be locked. Do you want to lock them ?"

Reason

You have added one or more [Scene Component](#) to a Scene which is using a [C-Bus Application](#) which is not a [Lighting Application](#). Generally, these should not be able to be edited (i.e. they should be locked).

Actions

If you want to lock the Scene Component, click on **Yes**, otherwise click on **No**.

11.4.209 Confirmation 14212**Message**

"This will clear all historical data including Graph data, Power Meter data and Load Monitor Energy values. Are you sure you want to continue?"

Reason

You have selected the **Clear Historical Data** [Menu Item](#) or [Special Function](#). This will clear data from [Graphs](#) and [Pulse Power Meters](#).

Actions

If you want to clear this data, click on **Yes**, otherwise click on **No**.

11.4.210 Information 14213

Message

"Action succeeded/failed."

Reason

The action you have requested succeeded or failed.

Action

Click on **OK**.

11.4.211 Confirmation 14214

Message

"Can not add any more Media Link Groups.
Maximum is *limit*."

Reason

There is a [limit](#) to the number of [Media Link Groups](#) that can be added to a project, and that limit has been reached.

Actions

Use the [Media Transport Control Application Manager](#) to delete any Media Link Groups which are not required.

11.4.212 Confirmation 14215

Message

"Can not add any more Pulse Power Meters.
Maximum is *limit*."

Reason

There is a [limit](#) to the number of [Pulse Power Meters](#) that can be added to a project, and that limit has been reached.

Actions

Use the [Power Meter Manager](#) to delete any Pulse Power Meters which are not required.

11.4.213 Confirmation 14216

Message

"Can not add any more tariffs.
Maximum is *limit*."

Reason

There is a [limit](#) to the number of [tariffs](#) that can be added to a project, and that limit has been reached.

Actions

Use the [Power Meter Manager](#) to delete any tariffs which are not required.

11.4.214 Confirmation 14217**Message**

"The C-Bus Project "**name**" is an old format.
Do you want to transform this to the latest format ?
Click on Yes to transform to the new format.
Click on No to use a different C-Bus project or to close PICED."

Reason

The C-Bus Project you are using was created with an old version of C-Bus ToolKit and is not compatible with the current version of C-Gate. It will need to be "transformed" into the new format before it can be used.

Actions

To transform the project to the new format, click on **Yes**. If you click on **No**, you can either select a different C-Bus project, or close PICED and then use C-Bus ToolKit to transform the project.

11.4.215 Confirmation 14218**Message**

"Do you want to close the C-Bus Networks?"

Reason

You are closing a C-Bus project and there are C-Bus Networks open. The **Ask Each Time** [Program Option](#) is selected.

Actions

Click on **Yes** to close all open C-Bus Networks.

Click on **No** to leave all C-Bus Networks open.

11.4.216 Confirmation 14219**Message**

"Can not add any more Audio Matrix Switchers.
Maximum is *limit*."

Reason

There is a [limit](#) to the number of [Matrix Switchers](#) that can be added to a project, and that limit has been reached.

Actions

Delete any unused Matrix Switchers using the [Audio Application Manager](#).

11.4.217 Warning 14220

Message

"The **Form Name** form is already being displayed."

Cause

A form is already open behind the form you are currently using. You have clicked on something which requires the other form to be displayed, but it is already being displayed.

Solution

Close the form which you are using then select the other form.

11.4.218 Confirmation 14221

Message

"Image "*IMAGE NAME*" is missing.
Do you want to use matching file from the image library if it can be found?"

Cause

An image file could not be found.

Solution #1

Click on the **Yes** or **Yes to all** button to have PICED try to find the image file in the image library and copy it into the project folder. There is a chance that an image with the same name will be found, but it will be the wrong image. If this happens, then copy the correct image to the project folder, then reload the project or [Refresh Images](#).

Solution #2

Click on the **No** or **No to all** button. Obtain the missing image file and put a copy in the project folder, then reload the project or [Refresh Images](#).

Solution #3

Delete the image from the project.

11.4.219 Information 14602

Message

"Press CTRL + S to exit Simulation Mode."

Reason

You have entered [Simulation Mode](#). To exit Simulation Mode, press CTRL + S.

Action

Click on **OK**.

11.4.220 Error 14603

Message

"Could not connect to unit.

Reason

Cause

A connection could not be made to the C-Touch/PAC unit. A reason for the failure is given.

Solution

Try again. If it fails then :

- check that the correct COM Port is selected in the [Program Options](#)
- check that the serial/USB cable is connected

See also FAQ.

11.4.221 Confirm 14604

Message

"Do you want to continue despite the errors ?"

Cause

Your [Project](#) has [errors](#) in it, which may affect the performance.

Solution

To continue regardless, click on **Yes**.

To stop, click on **No** or **Cancel**.

It is recommended that you [Check the Project](#) for errors and fix them.

11.4.222 Information 14605

Message

"Written x bytes of configuration data. Click on Continue to continue. Click on Details to get details of the data to be transferred."

Reason

The configuration data file has been written.

Action

To continue with the transfer, click on **Continue**.

To view the details of the data, click on **Details**.

To cancel the transfer, click on **Cancel**.

11.4.223 Error 14606**Message**

"Monitor Version is x. You will need to upgrade to version y. The unit will need to be returned to the factory for upgrading."

Cause

Your C-Touch/PAC unit has an old version of the Monitor firmware, which needs to be upgraded,

Solution

Contact Schneider Electric (Australia) Technical Support.

11.4.224 Information 14607**Message**

"Will connect to unit on "*network*", unit address x. To change these details, edit the Project Details."

Reason

This is confirming the details of which C-Touch/PAC unit is to be connected to.

Action

Click on OK.

11.4.225 Warning 14608**Message**

"Firmware Version is x. This configuration software is for version y to z. Either change the software or the firmware to give compatible versions."

Cause

The PICED Software version is not compatible with the C-Touch/PAC Firmware version (in the C-Touch/PAC unit).

Solution

Either change the PICED software or the C-Touch/PAC [firmware](#) to give compatible versions.

11.4.226 Information 14609**Message**

"You will need to connect to the unit Serial connector to upgrade the firmware."

Reason

The C-Touch/PAC firmware can not be transferred via C-Bus.

Action

Connect the C-Touch Serial connector or PAC USB connector to your computer and [transfer](#) the firmware.

11.4.227 Error 14610**Message**

"Please enter a firmware file name.
Firmware files can be found in the \PICED\Firmware folder."

Cause

A firmware file has not been selected.

Solution

Enter a firmware file name in the **Firmware** box or click on the folder button to select a file. Firmware files can be found in the \PICED\Firmware folder. They are the files with a .mot file extension.

11.4.228 Error 14611**Message**

"Invalid firmware file name."

Cause

The selected firmware file name is invalid.

Solution

Select a valid firmware.

11.4.229 Error 14612**Message**

"Please enter a file name to be transferred."

Cause

A [Project](#) transfer file has not been selected.

Solution

Select a transfer file.

11.4.230 Error 14613**Message**

"Invalid file name to be transferred."

Cause

The transfer file name is invalid.

Solution

Select a valid transfer file.

11.4.231 Error 14614**Message**

"Transfer Error."

Cause

The transfer to C-Touch/PAC failed.

Solution

Try again. If it fails again, refer to the FAQ.

11.4.232 Information 14615**Message**

"Download Terminated by User."

Reason

The download to C-Touch/PAC was terminated by the user.

Action

Click on OK.

11.4.233 Information 14616**Message**

"Download Complete."

Reason

The download to C-Touch/PAC is complete.

Action

Click on OK.

11.4.234 Information 14617**Message**

"Changes can not be made to the Connection while connected. Please disconnect before making

changes."

Reason

The C-Touch/PAC connection can not be changed in the [Project details](#) which C-Touch/PAC is connected.

Action

Disconnect from C-Touch/PAC and try again..

11.4.235 Error 14618**Message**

"Please connect to C-Bus first."

Cause

Because you have selected to download to C-Touch/PAC via C-Bus, it is necessary to connect to C-Bus before connecting to C-Touch/PAC.

Solution

Connect to C-Bus and try again.

11.4.236 Confirmation 14619**Message**

"Please confirm that the following unit details are correct.
Failure to do so may permanently damage the unit.

Network = **Network Name**

Unit Address = **Unit Address**

Unit Type = **Unit Type**

Firmware Version = **Earliest Version - Latest Version**"

Cause

You are about to [transfer](#) a project via C-Bus. If the details are incorrect, the consequences may be serious.

If the Network or unit address is wrong, you may download the data to the wrong unit.

If the unit type is wrong, it is unpredictable what the consequences may be.

If the unit firmware version is not in the range from the **earliest version** to the **latest version**, you will permanently damage the unit and will have to return the unit to the factory for repair.

Solution

Click on **Yes** to transfer the project to the unit. The transfer via C-Bus will take a long time (up to two hours) depending on the size of the project.

Click on **No** to cancel the transfer.

11.4.237 Error 14620**Message**

"There is no Unit Address selected. A unit address will be needed if downloading via C-Bus."

Cause

A unit address has not been selected. If you intend to download to the unit via C-Bus, you will need to enter a unit address.

Solution

Click on **Change** to select a unit address.

Click on **Continue** to ignore this error.

Selecting **Don't show me again** will stop this error message being shown in the future.

11.4.238 Warning 14621**Message**

"The **type** name is too long, and will be shortened to "**name**" when transferred to C-Touch."

Cause

The name is too long to be transferred to C-Touch.

Solution

If the proposed name is acceptable, then you do not need to do anything. Otherwise, change the name to something shorter.

11.4.239 Error 14622**Message**

"The transfer failed."

Cause

The project transfer process failed.

Solution

Try again. If it fails again, refer to the FAQ.

11.4.240 Error 14623**Message**

"A project must be transferred when the firmware is updated."

Cause

The existing project data in the unit may not be compatible with the new firmware.

Solution

Select a project to transfer.

11.4.241 Error 14624**Message**

"Export of C-Bus project to C-Bus V2 format failed."

Cause

The C-Bus Project needs to be exported to "V2 format" before it can be downloaded to the colour C-Touch. This process has failed.

Solution

There are a few issues that can cause this :

1. Use of tags not supported by C-Bus V2 (for example, the use of illegal characters such as |)
2. Use of networks which are invalid (ie can not be communicated with from the network which the C-Touch is installed on. For more information on C-Bus networks, see http://www3.clipsal.com/cis/pdf_files/C-Bus-Networks.pdf)
3. Use of duplicate level tags within an Application (this is allowed in ToolKit, but not in C-Bus V2)

It is necessary to fix the problems using the C-Bus ToolKit before the project can be exported.

11.4.242 Error 14627**Message**

"No project data available."

Cause

The project data has not been stored in the PAC, and hence can not be uploaded.

Solution

Click on OK.

11.4.243 Error 14628**Message**

"A template Project can not be transferred to the unit."

Cause

The currently open [Project](#) is a [Template](#). These can not be [transferred](#) to a unit.

Solution

[Save the Project](#) as a normal project and then transfer.

11.4.244 Error 14629

Message

"The transfer failed. *Reason*"

Cause

The project failed to transfer to the unit. The *Reason* explains the specific cause of the failure.

Solution #1

If the cause of the failure is "Exceeded memory capacity of unit", then your project is too large to fit in the unit. Refer to the [Resources](#) topic for details of minimising the project file size. The simplest solution for C-Touch projects is to use a different Image Compression (selected on the [Project Details](#) form or on the [Transfer to Unit](#) form).

Solution #2

It may be necessary to contact Schneider Electric (Australia) Technical support if the reason description is not self explanatory.

11.4.245 Error 14630

Message

"Network *Network Name* has been used in this project, but is invalid. Messages are not able to reach this network from the installed network."

Cause

The project has used a [network](#) to which C-Bus messages are not able to be sent, nor are messages able to be received from.

Solution

Remove the use of this network from the project or change the unit to be on a different [network](#).

To find which network are used in the project, use the [Project Summary](#).

For more information on C-Bus networks, see http://www3.clipsal.com/cis/pdf_files/C-Bus-Networks.pdf

11.4.246 Error 14631

Message

"The use of network *Network Name* is invalid. Messages are not able to reach this network from the installed network."

Cause

You have selected a [network](#) to which C-Bus messages are not able to be sent, nor are messages able to be received from.

Solution

Do not use this network or change the unit to be on a different [network](#).

For more information on C-Bus networks, see http://www3.clipsal.com/cis/pdf_files/C-Bus-Networks.pdf

11.4.247 Confirmation 14632

Message

"This project has large stretched images. THIS MAY CAUSE PERFORMANCE ISSUES IN COLOUR C-TOUCH. Would you like to re-scale them before transfer (this is recommended) ?"

Cause

The project has large [images](#) which have been stretched. This will cause the Colour C-Touch software to run slowly, and possibly run out of memory. It is strongly recommended that the images be [re-scaled](#) before the project is transferred.

Solution

Click on **Yes** to re-scale stretched images and save the project before transferring. Note that this does not affect the original images. New stretched image files are created and used.

Click on **No** to continue with the transfer.

11.4.248 Warning 14633

Message

"Note that this archive file will not be suitable for transfer to a Colour C-Touch."

Cause

You are [archiving](#) a Colour C-Touch project file. The project archive file does not contain the same information as the file which is transferred to the Colour C-Touch unit, hence this message.

Solution

If you are wanting to transfer a Colour C-Touch project to a Colour C-Touch unit, you should follow the normal process to [Transfer a Colour C-Touch Project to the Unit](#).

11.4.249 Error 14634

Message

"Archive is too large to transfer to the Wiser Home Control unit."

Cause

The [Project](#) is too large to be stored in the Wiser Home Control.

Solution #1

Reduce the size of the project by deleting [Widgets](#), [Scenes](#), [Schedules](#), [Logic](#) etc.

Solution #2

Select a different [skin](#) which uses less memory.

11.4.250 Error 14635

Message

"The skin does not match the project widgets.

Reason.

Select a different skin, or edit the widget properties."

Cause

There is a discrepancy between the Project [Widget](#) data, and the data in the Wiser Home Control [skin](#).

Solution #1

Select a different [skin](#).

Solution #2

Proceed, but be aware that some of the project Widgets may contain invalid data. It is recommended that any Widgets of the type given in the error message be opened in the [Widget Editor](#) and checked.

11.4.251 Warning 14636

Message

"A long location name may cause problems. It is recommended that no more than 20 characters are used in the name."

Cause

The location name may be too long to be displayed correctly on the Wiser Home Control user interface.

Solution

Use Simulation Mode to see how it looks or just shorten the name.

11.4.252 Confirmation 14637

Message

"Could not connect to unit.

Reason

Select Change Port to change the port and try again."

Cause

A connection could not be made to the C-Touch/PAC unit. A reason for the failure is given.

Solution

Click on **Change Port** to open the [Program Options](#) for to select another serial port and try again.

Click on **Cancel** to quit.

11.4.253 Confirmation 14638

Message

"Do you want to create Daylight Savings schedules?"

Cause

Your location has [Daylight Savings](#) but there are no [Schedules](#) which use [Special Functions](#) to set the start and finish of daylight savings time.

This message will only appear if you have daylight savings selected.

Solution

Click on **Yes** to automatically create the Schedules.

Click on **No** to not create the Schedules.

11.4.254 Warning 14639

Message

"If this project is transferred to the Wisier Home Control, you will no longer be able to do transfers via the Internet."

Cause

The [Project Transfer From PICED](#) option allows future updates to be made via the Internet. Disabling this option will prevent this.

Solution

Select the **Project Transfer From PICED** option if you wish to be able to do remote updates to Wisier Home Control.

11.4.255 Error 14640

Message

"Widget can not be added.

Reason."

Cause

The [Widget](#) can not be added due to the reason given.

Solution

The solution depends on the particular reason for the error.

11.4.256 Error 14642

Message

"Password can not contain spaces or the following characters:
' " \ < > &."

Cause

Some characters are not allowed in the Wiser password.

Solution

Enter the correct password, without the illegal characters.

11.4.257 Warning 14643**Message**

"If the Wiser Home Control is enabled as a LAN device, the Wiser Home Control DHCP needs to be disabled, and a static IP Address needs to be used."

Cause

When the [Allow Access from Wiser LAN Ports](#) option is selected, it is important to disable the Wiser DHCP server and ensure that the Wiser has a static IP Address compatible with the rest of the user's Ethernet network.

Solution

Check the Wiser configuration. Refer to the [Wiser Installation Guide](#) for details.

11.4.258 Information 14644**Message**

"The project has been refreshed from the unit.
A back-up file was saved."

Reason

You have transferred user updates from a [C-Touch](#), [C-Touch Mark 2](#), [Colour C-Touch](#), [PAC](#) or [Wiser](#) unit to the Project. A [back-up](#) of the Project was saved in case you need to return to it.

Action

Click on **OK**.

11.4.259 Error 14645**Message**

"Unit memory is full"

Cause

The Project being transferred to the unit is too large to fit in the unit.

Solution

You will need to remove or optimise aspects of your project. Refer to [C-Touch Resources](#), [C-Touch Mark 2 Resources](#) or [PAC Resources](#) for details.

11.4.260 Error 14646

Message

"Name "***name***" is too long for use with Wiser"

Cause

The length of names which can be used in Wiser is limited to 64 characters. The names are stored as "escaped" text, which means that non-ASCII characters (such as Chinese characters) use up to 8 of these characters each.

Solution

Shorten the name.

11.4.261 Warning 14647

Message

"This component may be drawn incorrectly due to the combination of colour blend and other status indication."

Cause

The [component images](#) in C-Touch spectrum are stored as an active and inactive image. Colour blending is achieved by blending between the active and inactive image. If some other aspect of the component changes between the active and inactive states (for example, the border style, background style, text or image), the component may not be drawn as expected.

Solution

Click on **OK** to leave things as they are. Click on **Cancel** to make changes.

11.4.262 Confirmation 14648

Message

"To stop the ***unit type*** from running:

1. Connect the unit to the PC
2. Physically disconnect the unit from C-Bus
3. Wait for 5 seconds
4. Connect the unit to C-Bus
5. Wait for 5 seconds
6. Click on OK
7. Transfer the firmware and/or project as normal"

Cause

You have selected to recover a [C-Touch](#) or a [PAC](#) unit.

Solution

Follow the above instructions or refer to [Recovering C-Touch Unit](#) or [Recovering PAC Unit](#) for

additional details.

11.4.263 Confirmation 14650

Message

"Do you want to refresh this project from the unit to get user changes before editing the project?"

- Click on the Never button if you don't want to be asked for this project again"

Cause

You have opened a project which has the project [Option](#) set to remind you to refresh the project from the unit before editing the project. When [updating unit Projects](#), it is important to retrieve any changes made by the user first.

Solution

Click on **Yes** to refresh the project.

Click on **No** to edit the project without refreshing first.

Click on **Never** to not be reminded for this project again (this disables the **Refresh project from unit before editing** option).

11.4.264 Error 14651

Message

"The short list has values missing.
Please add additional controls or renumber the existing controls."

Cause

The short list value of each control is used to place the control in the correct position of the short list. There must be no gaps in the list. This error is raised when there are values missing. For example, if you have controls with short list positions 1, 2, 4 and 5, then there is a gap at position 3 and an error will be raised.

Solution

Add a control at the missing short list position, or renumber the other controls using the [Audio Source Editor](#).

11.4.265 Confirmation 14806

Message

"Special Day occurs in the past. Do you want to continue ?"

Cause

You have attempted to add a [Special Day](#) which is for a date prior to the current date. This Special Day will never get used.

Solution

Click on **Yes** to add the Special Day.

Click on **No** to not add the Special Day.

11.4.266 Error 14901

Message

"There are no users who can edit the Access Control."

Cause

There are no users who can edit the [Access Control](#) function of the PICED software. This can cause all users to be permanently locked out of the software.

Solution

Either

- Add a [user](#) with the appropriate Access Level
- [Edit](#) the features of an Access Level to make Access Control available

11.4.267 Confirm 14905

Message

"Do you want to monitor the selected load(s) ?"

Reason

You have requested that selected load(s) have their [Load Monitor](#) status changed.

Action

Click on **Yes** to monitor the selected load(s).

Click on **No** to not monitor the selected load(s).

Click on **Cancel** to not change anything.

11.4.268 Confirm 14906

Message

"Are you sure you want to import Scenes ?"

Reason

You have requested the Scenes to be replaced with [Imported](#) Scenes.

Action

Click on **Yes** to clear all Scenes and replace them with imported Scenes.

Click on **No** to cancel the import.

11.4.269 Error 14907

Message

"Error in imported file.

- **Reason**"

Cause

The [imported](#) file contained an error. Refer to the **reason** for more information.

Solution

Select **Continue** to ignore the error and import the data regardless.

Select **Cancel** to stop the import. Update the Scene data file and import again.

11.4.270 Error 14908

Message

"Error during file import. **Reason.**"

Cause

An error occurred during the file [import](#). Refer to the **reason** for more information.

Solution

It may be necessary to contact Schneider Electric (Australia) Technical support if the reason description is not self explanatory.

11.4.271 Error 14999

Message

"**Error Message**"

Cause

An unexpected error has occurred.

Solution

If this is causing problems for the use of the PICED software, please contact Schneider Electric (Australia) technical support. You may need to provide [Error Details](#).

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