

PICED Frequently Asked Questions

Software Version 4.10

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PICED FAQ

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1.1 Typographic Conventions

Menu Items

The menu selections in this document follow a simple menu description notation. If the user is using the Frequently Asked Questions 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 button 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](#).

1.2 C-Bus

Enter topic text here.

1.2.1 C-Bus Connection

1.2.1.1 Can't Control C-Bus

Problem

Can't Control C-Bus.

Cause #1

You can't connect to C-Bus.

Solution #1

See [Can't Connect to C-Gate](#) and [Diagnosing System Problems](#)

Cause #2

The currently logged in user does not have the necessary access to control C-Bus.

Solution #2

Check your Access Control settings.

Cause #3

You do not have a [Master Unit](#) selected.

Solution #3

Select one unit to be the Master.

1.2.1.2 Com Port Not Listed

Problem

Serial COM Port(s) are not listed in the PICED software.

Solution

The problem can be fixed by updating the registry as follows :

- Close down PICED.
- Click on the START menu.
- Click on Run.
- Type in "regedit" and click on OK to start the Registry Editor.
- Select the HKEY_LOCAL_MACHINE\Hardware\DeviceMap\SerialComm key (it may be different on different operating systems).
- You will see a list of COM ports.
- Select the Edit | New | String Value menu item.
- A new item appears in the list.
- Enter the name of the COM port (eg. COM3) and press Enter.
- Double click on the item.
- In the Value Data edit box, the in the name of the COM port again.
- Click on OK.
- Repeat for any other missing COM ports.
- Close down the Registry Editor.
- Restart PICED.
- The new COM port should now be in the list.

Note : making changes to the Windows Registry should be done with great caution as it is possible to cause computer problems.

1.2.1.3 Can't Connect to C-Gate

Problem

The PICED software can't connect to C-Gate, or the connection is unreliable.

Solution

There are several possible reasons for this as listed below :

1. The IP Address is incorrect

Check that the IP Address in the PICED Project Options form is correct. If C-Gate is running on the local machine, the IP Address will be 127.0.0.1.

2. C-Gate is not running

Check that C-Gate is [running](#) on the selected IP Address.

3. The Port Number is incorrect.

The default C-Gate command port is 20023. If it has been changed to another value in the **C-GateConfig.txt** file, then the correct value needs to be entered into the PICED Project Options form.

4. C-Gate is taking too long to respond

If C-Gate takes longer than 5 seconds to respond to PICED, then PICED will assume that C-Gate is not present. One cause of long delays is a slow Internet connection. This can only be fixed by using a faster connection.

The other cause of long delays is Domain Name Server (DNS) lookups when there is no Internet connection established. If your computer has an Ethernet card installed, some drivers will not realise that there is no connection to the Internet available. When C-Gate tries to do a DNS lookup, it can take up to a minute to complete. To fix this, it is necessary to modify your HOSTS file to prevent DNS lookups for the local machine. On your computer there should be a file called hosts (this file name has no file extension) :

- **c:\windows\hosts** for Windows 98 machines
- **c:\windows\system32\drivers\etc\hosts** on Windows NT and XP machines

This file should contain a line :

```
"127.0.0.1    localhost"
```

If this file does not exist, there may be a file called hosts.sam ("sample" hosts file) which can be used to create the hosts file. To make this file operate, it is necessary to rename it to remove the ".sam" extension (the file will now be called "hosts", with no file extension at all). This can be done using Windows Explorer or any file management program.

5. C-Gate does not have the appropriate license for the number of networks being used

C-Gate uses a "dongle" to control the number of C-Bus Networks that can be accessed. To use more networks, the appropriate C-Gate license must be purchased.

6. Firewall Set-up

Check that your computer firewall is not blocking the ports which C-Gate needs to use.

See also [Firewall Settings](#)

1.2.1.4 How to Test C-Gate

Problem

How can you test to see whether C-Gate is operating ?

Solution

You can use the Telnet program to open a connection to C-Gate and test it. To run Telnet either :

- Look in the Windows directory for a file called telnet.exe and run it.
- Select the **Remote System** item from the **Connect** menu.
- Enter the C-Gate IP Address in the **Host Name** box and enter 20023 in the **Port** box.
- Click on **OK**.

OR

- From the Windows **START** menu, select **RUN**.
- type telnet <IP Address> <Port> (for example, "**telnet localhost 20023**" or "**telnet 127.0.0.1 20023**")
- click on **OK**

You should see a message "201 Service ready: null Version: v1.5.0 (restricted) (build 1085)" or similar. This means that C-Gate has connected.

If you are familiar with C-Gate commands, then you can enter them. See the C-Gate documentation for more details.

When finished, select the **Disconnect** item from the **Connect** menu.

1.2.1.5 How to Connect to Remote C-Gate

Problem

How do you connect to C-Gate on a remote Computer ?

Solution

The IP Address of the remote computer needs to be entered into the PICED Project Details form.

It is important that the computer running C-Gate has a static IP Address, otherwise the other computers will not know its IP Address, since it will keep changing.

The computers on a single network also need to have the same Subnet Mask so that they can communicate with each other.

Notes

Using C-Gate on a remote PC will be slightly slower than having it on the same PC due to the time it takes for the messages to get across the network, but the difference should not be noticeable.

1.2.1.6 See also [Firewall Settings](#) C-Gate not Synchronising

Problem

C-Gate is not synchronising all of the networks.

Solution #1

When connecting to C-Gate, C-Gate needs to synchronise all of the networks. If the synchronisation never completes, it may be because you have run the C-Bus ToolKit. The C-Bus ToolKit switches off the automatic synchronisation process.

You will need to close PICED, the C-Bus ToolKit and C-Gate, and re-start PICED.

Solution #2

Click **View | Network States** to display the Network States form. This will show the progress of the synchronisation for each network. If you have a large number of networks connected via C-Bus Bridges, it can take quite some time to synchronise all networks. In this case, the solution is patience :-)

Solution #3

You may have network communication problems. Check :

- C-Bus voltages (Diagnostic Software can be used for this)
- C-Bus clocks
- C-Bus burdens
- C-Bus cable lengths
- Number of C-Bus units on a network
- Electrical noise on C-Bus

- Use the Diagnostic Software Traffic Analyser to look at the amount of traffic and error rates

Solution #4

You may have several faulty units. Check the C-Gate log for units which have failed.

Note that the **View | Component Label | Show Network States** menu item can be used to show the state of the network associated with each Component in your project.

1.2.1.7 C-Gate Messages

The C-Gate log file records details of what is happening on C-Bus. Refer to the Advanced Fault Diagnosis document (c:\Clipsal\Frequently Asked Questions\Manuals\Advanced Fault Diagnosis.pdf) for details of the messages.

1.2.2 Networks

1.2.2.1 C-Bus Networks

Problem

How do you find out more about C-Bus Networks ?

Solution

Refer to the C-Bus Networks document. It can be found on the Clipsal Australia web site at http://www3.clipsal.com/cis/lit_installtraining_trainmanuals.php3

1.2.2.2 Using More than 255 Groups

Problem

More than 255 Group Addresses are needed.

Solution

The maximum number of Group Addresses available is 255 per Application per Network. If you need to use more than 255 Group Addresses, there are two options :

- Use another Application (\$30 to \$5F are available for lighting)
- Use another Network

Using multiple Networks adds complications, but may be necessary anyway if there are too many units for a single Network. Even if multiple Networks are used, it may be desirable to use a different Application on each Network so that there are not unforeseen interactions between the Networks.

For example, if you use Group Address 20 on Application \$38 (56 decimal) on two different Networks which are connected by a C-Bus bridge, then these two Group Addresses may or may not be independent, depending on the bridge configuration. C-Touch will assume that the Networks are fully connected with C-Bus bridges. This means that it will assume Group Address 20 on one Network is the same as Group Address 20 on another Network, although in reality they may be different. If you use Group Address 20 on different Applications, then C-Touch will always treat them as being independent (which they will be).

Refer to the **C-Bus Networks** document available from the Clipsal Australia web site for more information.

1.2.2.3 Commands not Going Across Bridges

Problem

Commands sent by PICED to the local network are not being forwarded across C-Bus Bridges or the wireless gateway.

Solution

You are using an old PC Interface or CNI. The firmware needs to be V3.12 or later to support the "Local SAL Mode" which is needed to make commands cross the bridges in Application Connect Mode.

Refer to the **C-Bus Networks** document available from the Clipsal Australia web site for more information.

1.3 C-Bus Units

Enter topic text here.

1.3.1 C-Touch Unit

1.3.1.1 Using IR Control

Problem

How do you use IR control with C-Touch ?

Solution

The C-Touch unit can be controlled with an Infra Red (IR) remote control. C-Touch is supplied with an IR control, but it is also possible to use any remote control which uses NEC codes.

The association between an IR Remote Control key and a button on C-Touch is made in the IR tab of the Component Properties.

See also [Using with Remote Controls](#)

1.3.1.2 Using with Remote Controls

Problem

How can the Black and White C-Touch be used with other manufacturers' remote controls ?

Solution

A lesser known but useful feature of C-Bus touch screens is their ability to recognise NEC infra-red codes, link them to a touch screen component and so action events on C-Bus.

NEC IR codes are a defacto industry standard and are used by a number A/V manufacturers, not only NEC. For example, companies such as Aiwa, Bose, Celestion, Denon, Hitachi, Mitsubishi, Onkyo, Panasonic, Samsung and Toshiba use NEC codes in some (not all) of their products.

NEC IR codes can be emitted from by generic IR remote with NEC codes on-board. For example, the Clipsal Universal IR Remote can be set to a NEC TV device, then any IR code for this device can be linked on an event on the C-Bus touch screen. Using this technique any standard NEC IR code can be used to, say, set a C-Bus lighting scene.

This approach can be extended to use any number of standard NEC IR codes with C-Bus touch screens. It is only limited by the memory of the touch screen and the number of available NEC codes (255 button codes for each of 255 manufacturers' codes).

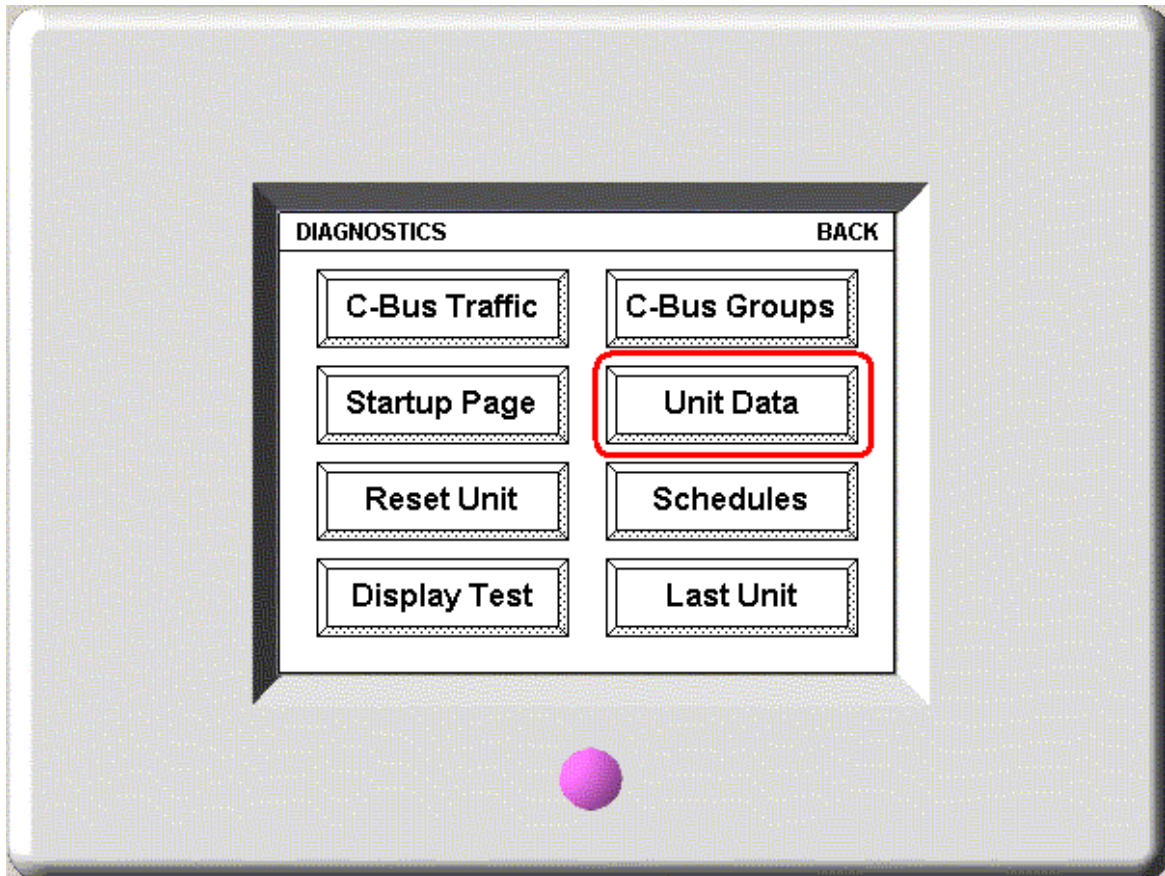
These IR codes can be used to action C-Bus events from IR devices with customisable interfaces,

such as Philips Pronto remotes, Pocket PC's and Palm devices.

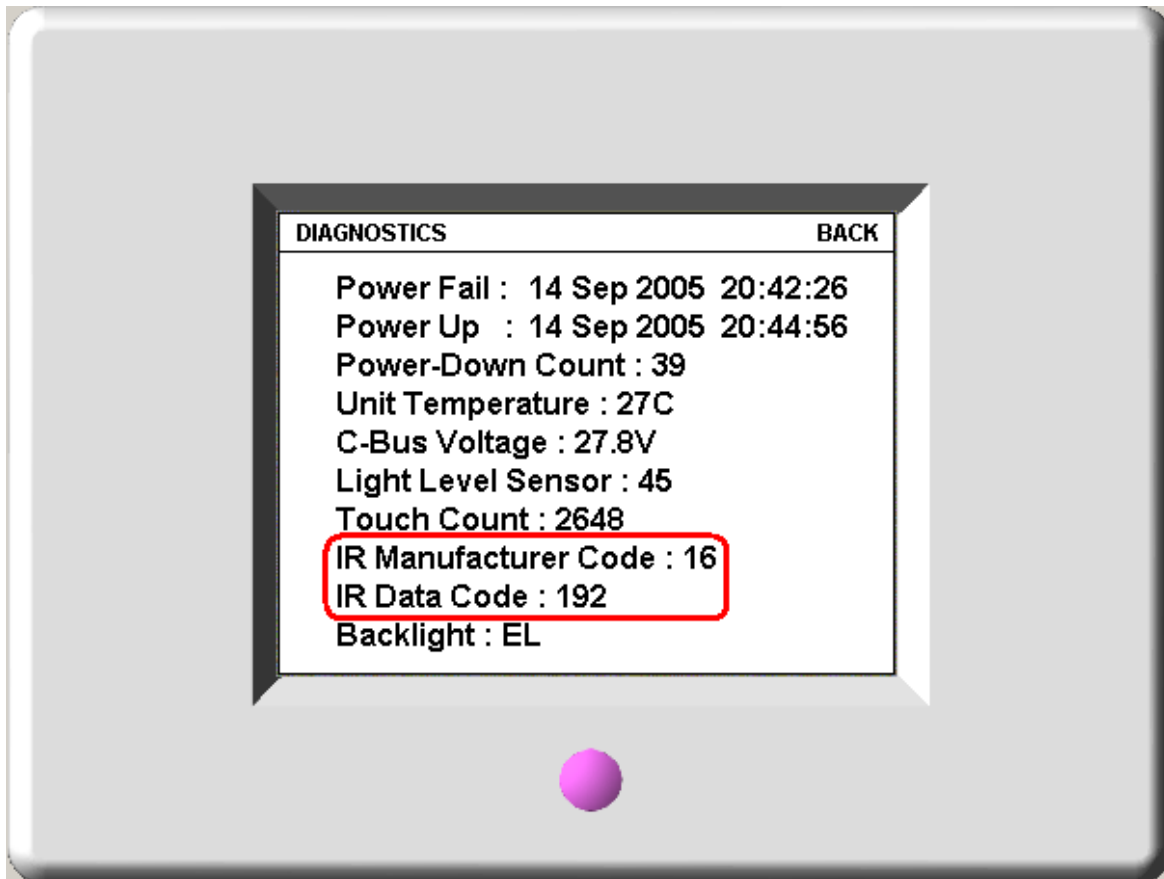
Step 1 - Establish IR Code numbers

The installer needs to establish what the manufacturer's IR code and IR data codes are for the remote control buttons to be linked to the touch screen.

This is easily carried out by entering the Diagnostics page on an installed C-Bus Touch Screen, then from this page going to the 'Unit Data' page, as shown below.



The touch screen will now recognise the IR codes for any button pressed on a generic IR remote which has been set to control an NEC device. The touch screen will display the Manufacturer's IR Code and Data Code, as shown below.

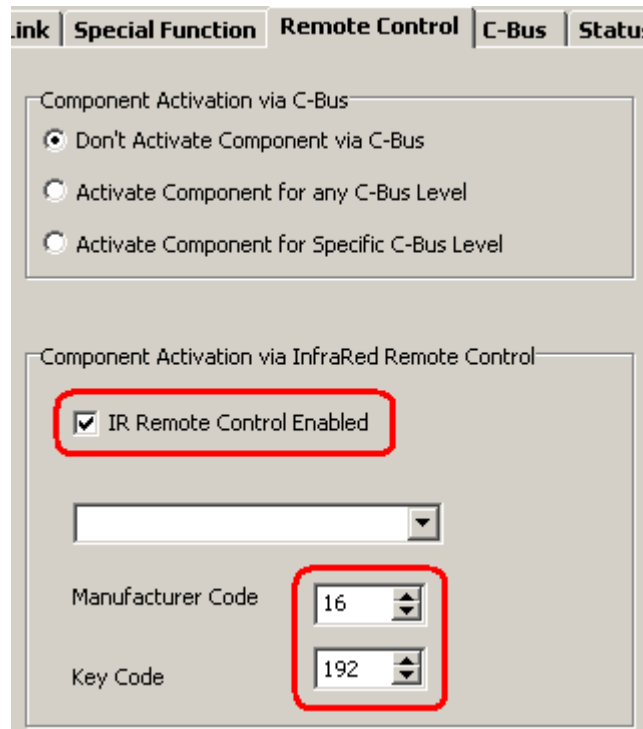


Make a note of these codes for each remote control button to be used.

Step 2 - Make Association

Set up the association between a touch screen component and a remote control key as follows.

- Create a touch screen component using PICED software, for example a button.
- Open the Component Properties form.
- Select the **Remote Control** tab.
- Select the **IR Remote Control Enabled** check box.
- Enter the **Manufacturer Code** and **Key Code** established in Step 1.



Notes

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 pages in the project. This will ensure that the Component is always available without having to copy it to every page.

You can use an invisible component to control something via IR if you don't want a whole lot of components visible on each page.

1.3.1.3 Using Multiple C-Touch Units

Problem

What should be considered when installing more than one C-Touch unit on a Network ?

Solution

It is easiest if each of the C-Touch units has basically the same project in it, rather than creating separate projects for each. To do this :

- Create a project which allows you to control ALL of the installation, with a page for each room where a C-Touch will be installed
- For each C-Touch, change the time-out page to be the appropriate page for the room where it will be installed
- Only one C-Touch unit should execute the Scenes and Schedules, otherwise there will be duplicate commands sent out. This can be controlled by selecting the Master Unit. See the main help file Master Unit topic for more information.

Note that the page created for each room needs to have a component linking to the main menu (if you have one) so that all pages of the project can be accessed.

Problem

Installing more than 2 or 3 C-Touch units on a network stops the network from operating.

Cause

If you have C-Bus Firmware [version](#) 4.0 (see the C-Touch start-up screen), it may be that you have more than one burden enabled on the network. With version 4.0 of the PC Interface chip (inside C-Touch) it is possible to have burdens enabled with any unit address. Prior to version 4.0, the burden was only enabled for unit address 1.

Solution

Ensure that there is no more than one burden set on the network.

1.3.1.4 C-Touch Version Information

Problem

How do you find out the version of C-Touch ?

Solution

When you first apply power, a screen shows several pieces of version data :

- **Hardware Version** – this is the version of the hardware. If the version is 1.0 or later, it has the new (LED) backlight.
- **Monitor Version** – this is the version of the monitor. This can only be updated in the factory. This does not apply to C-Touch Mark 2.
- **C-Touch Firmware Version** – this is the version of the firmware. This can be upgraded.
- **C-Bus Firmware Version** – this is the version of the C-Bus Interface chip.

1.3.1.5 Dim Backlight

Problem

C-Touch backlight is not very bright.

Solution

If you have a C-Touch with hardware version less than 1.0, then you have an Electro-Luminescent (EL) backlight, which is not very bright by its nature.

If you have a C-Touch with hardware version 1.0 or later, then you have a Light Emitting Diode (LED) backlight. This is much brighter than the EL backlight, as long as you have sufficient C-Bus Voltage. If you go to the backlight control page on C-Touch, you will be able to see the backlight current. If the C-Bus voltage is greater than around 25V, you should get the full backlight current (60mA). If the current is less than this, it is due to the C-Bus voltage being low. The C-Bus voltage can be increased by adding additional power supplies, preferably close to C-Touch to minimise voltage drops across long wiring runs.

1.3.1.6 Current Consumption

Problem

What is the current consumption of C-Touch ?

Solution

C-Touch (Mark 1) draws 40mA and C-Touch Mark 2 draws 65mA from C-Bus regardless of the backlight state (on or off).

1.3.1.7 C-Touch Resetting

Problem

C-Touch is resetting itself.

Solution 1

If the a C-Touch unit continuously resets itself, the initialisation of the C-Bus interface has probably failed. The most likely causes are :

- No clock on the C-Bus network
- Poor communication on C-Bus (check the burden)
- Low C-Bus Voltage (less than 20V) and/or low temperature (less than 5°C)

If the unit has version 0.8 or earlier hardware, a short interruption of the C-Bus voltage (< 1 second) may also cause this symptom. In this case, remove C-Bus voltage for more than 2 seconds, then re-apply.

Solution 2

This may also be caused by a low C-Bus voltage at the C-Touch. In this case, it may be necessary to change the network wiring or power supplies.

1.3.1.8 C-Touch Ticking

Problem

C-Touch (Mark 1) is ticking and displaying nothing on the screen.

Cause

The firmware has been corrupted (probably due to an interruption during download of new firmware).

Solution

Download the latest firmware and reload the project.

1.3.1.9 Please Program Before Use Message

Problem

There is a message on C-Touch saying "Please Program Unit Before Use".

Cause

The user configuration data has been corrupted, probably caused by an interruption during downloading a project.

Solution

Download a C-Touch project to C-Touch.

See also [C-Touch Downloading Problems](#)

1.3.1.10 C-Touch Connection Problems

Problem

Problems with connecting to C-Touch from the PICED Software.

Solution

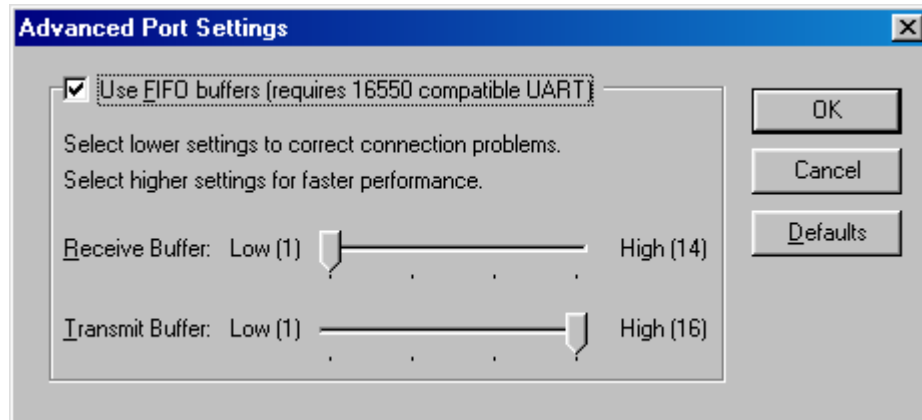
If you are having difficulty connection to C-Touch, the most likely causes are :

- Wrong serial port selected – check that the correct serial port is selected in the PICED Software
- Cable fault – try a different download cable
- PC Serial Port voltage is low – try a different PC
- Faulty C-Touch – try a different C-Touch
- Unreliable Communications – see below
- Using a USB to Serial (RS232) converter can cause unreliable operation

Unreliable serial communications can cause problems with downloading to C-Touch or using C-Touch as a PC Interface. Generally this is caused by problems with the operating system where it loses bytes of received information.

If you are using Windows 98, you can fix this as follows :

1. Click on the START button
2. Select Settings | Control Panel
3. Double Click on System
4. Select the Device Manager tab
5. From Ports (COM & LPT) double click on the desired COM port
6. Select the Port Settings tab
7. Click on the Advanced button
8. Set the Receive Buffer to Low (1) – see figure below
9. Click on OK
10. Click on OK
11. Click on OK
12. Close the Control Panel



Problem

On connecting there is an error 14603 - "Could not connect to Unit. Wrong device type".

Cause

The device you are trying to connect to is not a C-Touch unit.

Solution

Check that you are actually connected to a C-Touch unit.

Click on the **Options | Program Options** menu item and check the serial port.

1.3.1.11 C-Touch Transfer Problems

Problem

Problems with transferring project data to or from C-Touch.

Solution

Assuming that you can [connect](#) to C-Touch, one cause of problems with transferring projects to the C-Touch unit is that the memory has worn out. The Flash memory in C-Touch (units manufactured prior to 2006) is only guaranteed for 100 rewrite cycles. It is unlikely that a C-Touch would be reprogrammed this many times in a normal installation, but units used for training could be. There is no fix for this.

If the transfer starts but does not complete, the problem may be with [unreliable communications](#).

1.3.1.12 C-Touch Calibration

Problem

It is necessary to press next to a C-Touch component in order for it to operate

or

The start-up screens respond to touch, but after that it is not possible to control anything.

Cause

C-Touch needs to be re-calibrated.

Solution

There should be a calibration button somewhere in the C-Touch Project to start the calibration process (this is a button with the **calibration** Special Function set).

If the calibration process is failing, it may be because your finger is too large. It is important to press exactly on the X. To do this, use a device like a PDA stylus which has a small tip. **Do not use anything sharp, as it will damage the screen.**

If the calibration is way off, it may be necessary to reset the calibration. If your firmware is earlier than version 1.6, then you can reset the calibration by either downloading the version 1.6 firmware or :

- Connect a PC to the C-Touch (via the download cable, or via C-Bus)
- From the **Transfer** menu, select the **Connect to Touchscreen** menu item
- From the **Transfer** menu, select the **Control Touchscreen | Reset Calibration** menu item
- Disconnect from C-Touch
- Calibrate as described above

1.3.1.13 C-Touch as a PCI

Problem

How do you use C-Touch as a PCI ?

Solution

C-Touch can be used as a PC Interface (PCI). It is necessary for any software that is using the C-Touch as a PCI 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 PICED 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 PICED Software
2. Select **Connect to C-Bus** from the **Options** menu.
3. Disconnect from C-Bus (repeat step 2).
4. 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).

Notes :

- C-Touch can not be used for its normal functions while operating as a PCI
- To stop the C-Touch from operating as a PCI, you need to disconnect the serial cable.

See also [C-Touch Connection Problems](#)

1.3.1.14 C-Touch Project Appearance

Problem

The Project looks different on C-Touch than it does in the PICED Software.

Cause

The Project may have errors.

Solution

When the C-Touch project is compiled prior to download, it is checked to see if there are any obvious errors. Read the error messages and try to fix any problems.

To see the error messages, select the **Tools | Reports | Check Project** menu item.

Some errors may cause the project to look or behave differently on C-Touch than it does on the PICED Software.

Sometimes the end of a piece of text gets truncated. This is related to the way that Windows reports the width of text. It is generally only a problem with italic fonts. In the picture below, you will see that the first piece of text is contained entirely within the selection boundary. With the second piece of text, part of the letter "t" is outside of the region. The C-Touch software only takes the pixels within the boundary when it downloads the images to the C-Touch unit. The solution is to add a space after the text as shown in the third piece of text below. This makes the selection boundary wider, and the text is completely within the region.



1.3.1.15 Long Ramp Times

Problem

Ramp times greater than 3 minutes do not work properly.

Solution

This was a problem with C-Touch Version 1.1 firmware. Upgrade to version 1.2 or later.

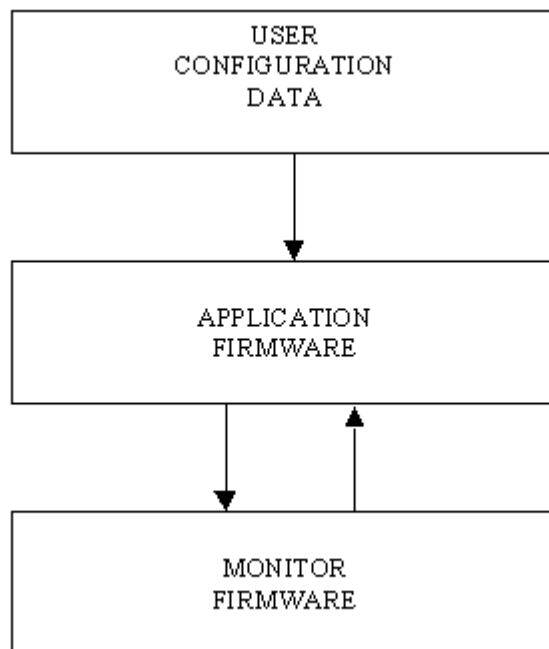
1.3.1.16 Firmware Operation

Problem

What are the different parts of the software (monitor, firmware, user configuration data) ?

Solution

The structure of the software is shown below :



The Monitor Firmware provides the minimum set of functions necessary to connect a PC to the Touchscreen and re-program the Application Firmware or Configuration Data. The Monitor Firmware is not field upgradeable. This guarantees that it is always possible to reprogram the unit following a failed Firmware upgrade. Note that the monitor firmware does not exist in C-Touch Mark 2.

The Application Firmware provides all of the Touchscreen functionality. It uses the User Configuration Data to generate the displays and to respond to C-Bus and user input as required. The Application Firmware is field upgradeable, although it should only need to be done if new features or bug fixes are required.

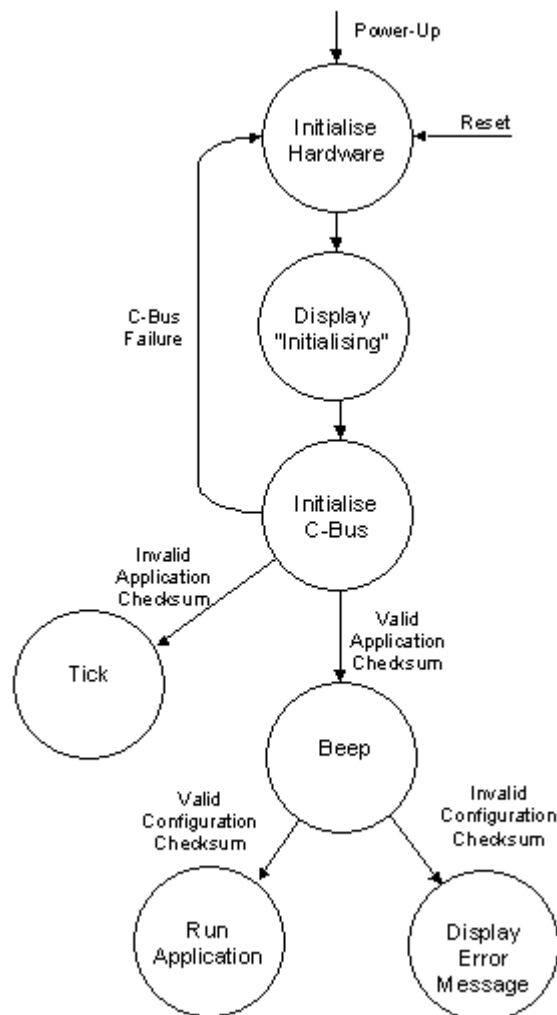
The User Configuration Data controls what is displayed, and how the Touchscreen responds to user and C-Bus input. The User Configuration Data is downloaded as required.

Problem

What is happening during the start-up of C-Touch ?

Solution

The C-Touch start-up sequence is shown in the diagram below :



The start-up steps are as follows :

1. On power-up or reset, the Monitor starts running.
2. The Monitor initialises the C-Touch hardware.
3. The Monitor then checks the Application checksum.
4. If the Application checksum is OK, it then loads the Application, and you will hear it beep.
5. If the Application checksum is not OK, you will hear it ticking, which indicates that the Monitor is still running.
6. The Application displays an "Initialising" message.
7. The Application initialises the C-Bus interface. If this is unsuccessful, it will reset the unit.
8. The Application then checks the User Configuration Data checksum.
9. If the User Configuration Data checksum is OK, it then loads the data, and runs it. You will see the start-up screen.
10. If the User Configuration Data checksum fails, it displays an error message saying that the C-Touch needs to be programmed before use.

1.3.1.17 Getting Screen Images

Any of the C-Touch screens can be captured as follows :

1. Connect to C-Touch (select **Transfer | Connect to Unit**)
2. Upload the display (select **Transfer | Transfer C-Touch Display**)
3. Save the display (select **Tools | Reports | Save Screen**)
4. Return to normal usage (select **Transfer | Show C-Touch Display**)

1.3.1.18 Keeping Project Changes

Problem

How to you keep the changes a user has made to Scenes and Schedules when you update the project ?

Solution

1. Transfer the project from the unit to PICED.
2. Make changes to the project.
3. Transfer the project from PICED to the unit.

1.3.2 Colour C-Touch Unit

1.3.2.1 Using a Colour C-Touch with a CNI

Problem

How can a Colour C-Touch be used with a CNI ?

Solution

It can't.

1.3.2.2 Using a Colour C-Touch as a PCI

Problem

How can a Colour C-Touch be used as a PC Interface ?

Solution

It can't.

1.3.2.3 Colour C-Touch USB

Problem

How can the Colour C-Touch USB ports be used ?

Solution

At this stage, the USB ports are not used.

1.3.2.4 Why use a Colour C-Touch rather than HomeGate on a panel PC ?

Problem

A panel PC running HomeGate (or other software) can give many of the same features as Colour C-Touch. Why would you choose to use a Colour C-Touch ?

Solution

The functional benefits of using a Colour C-Touch over using HomeGate on a touch panel PC are :

- Colour C-Touch supports the C-Bus Infrared remote control
- Colour C-Touch has sophisticated backlight control to adjust the backlight according to ambient conditions (this can be quite important)
- Colour C-Touch includes special software to simplify the project download process
- Colour C-Touch software supports some additional Special Functions (Cleaning Mode, Utilities) which are not required for desktop PC use
- Colour C-Touch is a fan-less device. Having a PC with a fan greatly reduces system reliability (and increases noise)
- Colour C-Touch uses a special operating system which is significantly more reliable than what is readily available "off the shelf"
- The Colour C-Touch LCD screen is of a very high quality with particularly good viewing angles

When comparing the cost of a Colour C-Touch with a PC + HomeGate, make sure that you have included all of the costs in your comparison :

- Colour C-Touch is a C-Bus device so you do not need to purchase a separate PC Interface
- Colour C-Touch includes the cost of the software, so you do not need to purchase a HomeGate license
- Colour C-Touch includes the operating system, so you do not need to purchase a copy of Microsoft Windows
- If you are using multiple networks, you will have the additional cost of the C-Gate license with HomeGate. Colour C-Touch supports multiple networks.
- A "roll your own" solution will incur significant integration, installation and set-up costs.

1.3.2.5 Using with Remote Controls

Problem

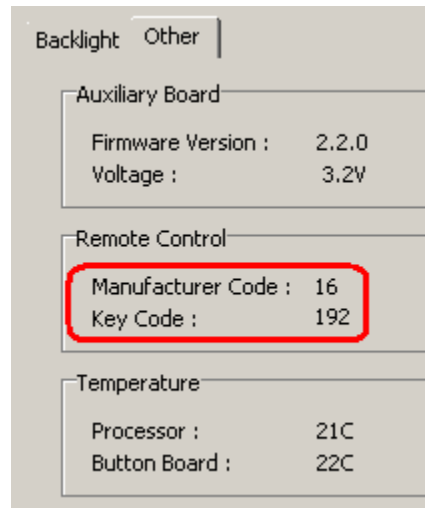
How can the Colour C-Touch be used with other manufacturer's remote controls ?

Solution

The process is exactly the same as for a [Black and White C-Touch](#) except for the method of finding the IR Remote Control Codes which is discussed below. Note that if you have a Black and White C-Touch, you can use that to find the IR Remote Control codes too.

To get an IR code using the Colour C-Touch :

- Open the Utilities form on the Colour C-Touch.
- Select the **Other** tab
- Point the remote control at the Colour C-Touch and press the desired key
- The code will be shown on the form as shown below



1.3.2.6 Screen Saver

Problem

How can the Colour C-Touch have a Screen Saver ?

Solution

The simplest method is to write some logic code to cycle between pages containing photographs or other images. A method for doing this is shown on the C-Bus Forums.

1.3.2.7 Problems with displaying HTML

If you are having problems with displaying HTML (such as web cameras) on the colour C-Touch, refer to [Problems with displaying HTML](#).

Internet Options

To display the Internet Options form, you will need to :

1. Connect a keyboard to the colour C-Touch
2. Re-start the colour C-Touch
3. Press the Windows key (⊞)
4. Select **Control Panel**
5. Double Click **Internet Options**

To set the required details :

1. Select the **Connections** tab
2. Press the **LAN Settings** button
3. Set the required details. Your network administrator can provide details of the necessary settings. If you have another (working) computer on the same network, you can copy the settings from that computer.
4. Press **OK**
5. Press **OK**

When complete, close the control panel

Networking Details

To check and change the Networking details :

1. Click on a tools button with the Utilities Special Function
2. Select the **Set Networking** button

3. You can see the various networking parameters, such as IP Address and subnet mask
4. Click on the button appropriate to your set-up to change settings

1.3.2.8 Ethernet Connectors

Problem

Are the front and rear Ethernet connectors connected together ?

Solution

Not directly. They are independent to allow both connectors to be used at the same time. This allows you to have the Colour C-Touch connected to a network via the rear connector and still program it via the front panel connector.

1.3.2.9 Connection Problems

Problem

Problems connecting to a Colour C-Touch with the C-Touch Colour Transfer Utility.

Solution #1

Check that the computer and Colour C-Touch are either connected to each other via a cross-over cable or they are both connected to Ethernet via a hub or switch. Check that the Ethernet cable is plugged in and that the LEDs are lit.

Solution #2

Check that the computer and colour C-Touch are on the same subnet (i.e. check the IP Addresses and subnet mask). To find the IP Address and Subnet mask on your computer :

1. Select **Start | Control Panel | Network Connections**
2. Select your network adaptor (double click on it to open).
3. Select the **Support** tab.

To find the IP Address and subnet mask on colour C-Touch, bring up the Networking form :

1. Click on a button with the Utilities Special Function
2. Click on the **Set Networking** button

Solution #3

Check that the computer can communicate with the colour C-Touch. A simple way to do this is to "ping" the colour C-Touch from your computer :

1. Open the computer **Start** menu
2. Select **Run**
3. Enter "**cmd**" (without the quotes) and click **OK**
4. Type "ping 192.168.0.1" (without the quotes, and use the colour C-Touch IP Address)
5. If you are getting replies, then the computer and colour C-Touch are successfully communicating

Solution #4

You may have a firewall blocking access to the colour C-Touch. You will need to switch the firewall off to see if this is the cause, or check the firewall settings.

Solution #5

You may have some software which is causing communication problems. For example, using secure remote VPN from Check Point is known to cause problems.

Note that Clipsal Australia can not provide specific technical support for Ethernet networking problems. You will need to obtain assistance from your network administrator.

See Also [Firewall Settings](#)

1.3.2.10 DLL Error Messages

Various error messages can appear in the Colour C-Touch log. The more common messages are explained below.

C-Bus DLL Error 4, Command buffer full

Too many C-Bus commands have been sent in a short period of time and the C-Bus buffer (see [C-Bus Command Queue](#)) has filled. Some commands may not be sent to C-Bus.

C-Bus DLL Error 6, Application not found

An invalid Application Address has been used, most likely in logic.

C-Bus DLL Error 7, Group Address = 255

Group Address 255 has been used, which is invalid.

C-Bus DLL Error 11, Connection to C-Bus failed

The connection to the C-Bus Interface has failed. Check that C-Bus is physically connected and that C-Bus is operating correctly.

The following error messages refer to specific messages which have failed to be sent :

C-Bus Broadcast Failure, App X, <reason>

A C-Bus command on Application X has failed. The reason code is explained below.

C-Bus Failure, Unit X, <reason>

A C-Bus command to unit address X has failed. The reason code is explained below.

C-Bus Broadcast Failure, Bridge X, <reason>

A C-Bus command to a remote network via C-Bus bridge address X has failed. The reason code is explained below.

The reasons for the above errors are :

- **No Acknowledgement** : there was no acknowledgement of the message being received
- **Bad Checksum** : a corrupted message was received
- **No C-Bus Clock** : there is no C-Bus clock present
- **Buffer Overflow** : the C-Bus buffer overflowed. See above.
- **Time-out** : no reply was received after waiting for a certain amount of time
- **Application is off-line** : the C-Bus Application has stopped responding to commands

1.3.2.11 Slow Operation

The processor in the Colour C-Touch is much slower than that in a typical desktop computer. A project which runs properly on a desktop PC may be sluggish when running in the Colour C-Touch. See the [Slow Operation](#) topic for details.

1.3.2.12 Keeping Project Changes

Problem

How do you keep the changes a user has made to Scenes, Schedules, Irrigation and System IO when you update the project ?

Solution

1. Transfer the project from the unit to PICED (using the C-Touch Colour Transfer Utility).
2. Make changes to the project.
3. Transfer the project from PICED to the unit.

1.3.2.13 Memory Usage

The amount of memory (RAM) used in the Colour C-Touch depends on the size of the project and, in particular, the amount and size of images used.

Colour C-Touch has an "Image Manager" which controls the loading and storing of all images used by Colour C-Touch. When a project is opened, the Image Manager loads all images needed by the project. If an image is used more than once, the Image Manager makes sure only one copy is loaded to save memory. If you are using bitmaps, then the full amount of memory required will be already used at this time. If you use JPEGs, however, the situation is a bit different. The JPEG gets loaded straight away. The first time the JPEG gets drawn, it is "expanded" to a bitmap and then drawn. This expanded bitmap then gets stored for the next time the image needs to be drawn. The result of this is that the memory usage can gradually increase over time as images are displayed for the first time.

1.3.3 PAC Unit

1.3.3.1 Time Keeping

The PAC contains a real time clock. Like all clocks, it does gain or lose time slowly. If the PAC is to be used for time-based logic, then it is important to ensure that the PAC clock stays synchronised.

If there are other C-Bus devices which also contain a clock (for example, C-Touch), then these devices will broadcast the time on a regular basis and keep the PAC synchronised.

If you do not have one of these devices, then there will be no way of knowing what the PAC time is, nor is it easy to set the PAC time. If you are using time-based logic, it is recommended that you also have a C-Touch on the network to act as a master time-keeper.

See also [C-Bus Unit Clocks](#)

1.3.3.2 PAC USB Connection

To communicate with the PAC, first 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 software to use the USB as if it was another serial port. To find which serial port number has been allocated for the PAC USB port, 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

Click on the **Options | Program Options** menu item and select the serial port for the PAC.

1.3.3.3 Using a PAC as a PCI

Problem

How can a PAC be used as a PC Interface ?

Solution

The USB driver for the PAC maps the USB connection to a serial port. When you plug a PAC into the USB port of your computer, a serial port will be assigned. You can then use this serial port with any software which is expecting a connection to a PCI, and the PAC will operate as a PCI.

Notes :

- The PAC can not be used for its normal functions while operating as a PCI
- To stop the PAC from operating as a PCI, you need to disconnect the USB cable.

See also

- [C-Touch as a PCI](#) for details on setting hand-shaking lines
- [PAC Virtual Serial Port](#).

1.3.3.4 PAC Status LED

Problem

What does the flashing of the Status LED mean ?

Solution

Status LED Behaviour	Meaning
Flashing 2.5 times per second	Normal operation. LED changes state each time logic is run.
Flashing fast	Fault with the firmware. Need to transfer new firmware and user file.
Always on	Fault with user configuration data file. Need to transfer new user file.
Goes off for several seconds	Logic has had a run-time error and the logic engine has had to re-start. Most common cause is that the logic has taken too long to execute.
Always off	Logic is having an error on every scan. Most common cause is that the logic has taken too long to execute.

1.3.3.5 Why doesn't my logic work ?

Problem

Why doesn't my logic work ?

Solution

There are many possible reasons for logic code not working as expected. It is recommended that you run the logic code with the PICED software first and fully test and debug it there. The PICED software has more options available for resolving logic problems. When the logic is operating correctly, then transfer it to the PAC.

The only features available in the PAC to support debugging are :

1. The serial ports (for sending debugging messages)
2. The User LED (for showing simple status)
3. Sending messages to PICED to warn of errors The **Transfer | Control Unit | Log PAC Messages** menu item can be used to monitor any PAC Error Messages and the PAC usage.

See the logic manual for more details on using the PICED software debugging features.

Note that you can create pages and components in a PAC project, even though the PAC doesn't use them. This allows you to test a PAC project in PICED by controlling and monitoring C-Bus through the use of C-Bus Components. You can also use the log and other PICED debugging features.

1.3.3.6 Can't connect to PAC

Problem

Problems with connecting to PAC from the PICED Software.

Solution

Check that the PAC is recognised when it is plugged in. If not, re-install the PAC USB driver.

Check that you have the correct [Serial Port](#) selected.

Problem

On connecting there is an error 14603 - "Could not connect to Unit. Wrong device type".

Cause

The device you are trying to connect to is not a PAC unit.

Solution

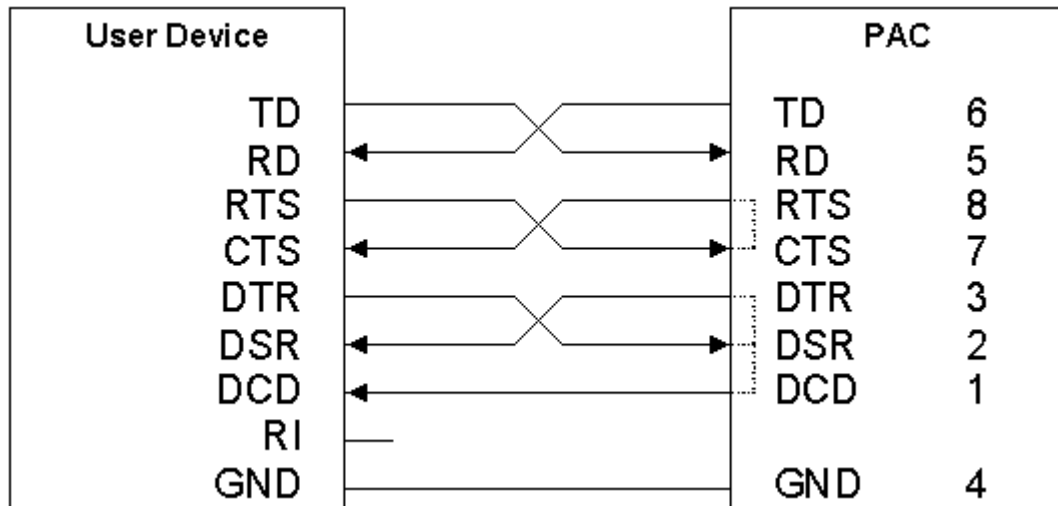
Check that you are actually connected to a PAC unit.

Check that you have the correct [Serial Port](#) selected.

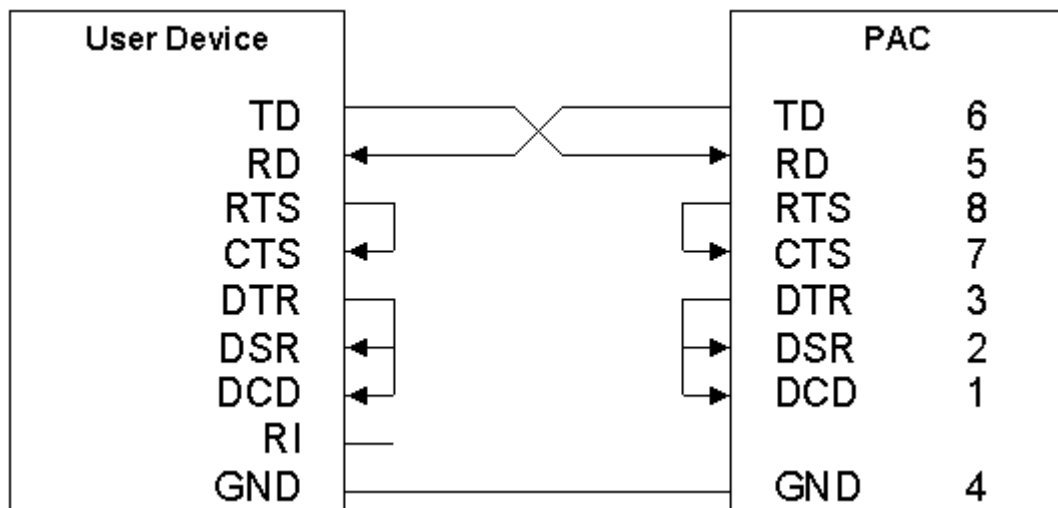
1.3.3.7 PAC Serial Ports

The PAC serial ports do not support hardware or software flow control.

To connect a device to a PAC, you will need a "null modem" cable. The wiring diagram for this is shown below. In this case, the handshaking lines can be used to power the PAC serial port from the user device. The dotted lines in the PAC show the "loop back" connections to make hardware handshaking work. This is the cable supplied with the PAC.



The alternative is to use a cable as shown below. You will need to use a power supply to supply power for the PAC serial ports when using this type of cable, as the handshaking lines are not able to supply power to the PAC. The loop back connections on the PAC end don't actually do anything as these same connections are made internally and so these can be left off.



For more information about null modem cables, see http://www.lammertbies.nl/comm/info/RS-232_null_modem.html

1.3.3.8 How much logic ?

Problem

How much logic is possible in the PAC ?

Solution

Unfortunately, there is no simple answer to this question. The PAC is intended for small amounts of logic. To implement large amounts of logic, use a Colour C-Touch, HomeGate, Schedule Plus or multiple PAC units.

There are several things that can be done, which are discussed in detail in the How Much Logic Is Possible topic of the logic help file.

1. Perform a manual estimation of the amount of time logic will take (as a % of the PAC capacity)
2. Run the logic in PICED to estimate how long it will take
3. Run the logic in the PAC and monitor it with PICED to see how long it is taking. The **Transfer | Control Unit | Log PAC Messages** menu item can be used to monitor any PAC Error Messages and the PAC usage.
4. Observe the [PAC Status LED](#). If it stops flashing for a few seconds, then you have a logic problem which may be caused by having too much logic.

See also the Efficient Code topic in the logic help file.

1.3.3.9 Programming PAC via Serial Port

Problem

Can the PAC be programmed via the serial ports ?

Solution

No. The serial ports are only used by the logic. The PAC must be programmed via the USB connection.

1.3.3.10 PAC Battery Connections

Problem

What is the PAC battery connection used for ?

Solution

When C-Bus power is removed from the PAC, it stops operating. The internal clock keeps the correct time for up to 24 hours. If you want to extend the time for which the clock runs during a power failure, or keep the PAC running during a power failure, you can connect an external battery to the PAC battery connections. The PAC does not charge the battery.

1.3.4 C-Touch Spectrum Unit

1.3.4.1 Images

Problem #1

PNG Images display OK on PICED, but have a pink (or other colour) fringe on C-Touch Spectrum.

Cause

The C-Touch Spectrum does not support translucent images. When the images are captured for transfer to the C-Touch Spectrum, they are drawn on a background colour and then a copy of this is taken. It is this background colour you can see around the edges of some images.

Solution

Open the Project Details form and select the C-Touch tab. Change the Translucency Colour to a colour which is similar to the background, but is different to any colour actually used in the project.

Problem #2

Images display OK on PICED, but have missing pixels (drawn in the background colour) on C-Touch Spectrum.

Cause

When the images are captured for transfer to the C-Touch Spectrum, they are drawn on a background colour and then a copy of this is taken. Any pixels in the captured image in this colour are assumed to be transparent. If a pixel in the image corresponds to the colour used for the background, then it will be drawn as transparent.

Solution

Open the Project Details form and select the C-Touch tab. Change the Translucency Colour to a colour which is different to any colour actually used in the project.

See also Transferred Images in the main help file.

1.3.4.2 Current Consumption

Problem

What is the current consumption of C-Touch Spectrum ?

Solution

C-Touch Spectrum draws 75mA from C-Bus regardless of the backlight state (on or off).

1.3.5 C-Bus Unit Clocks

Many C-Bus units use internal clocks, including C-Touch, Colour C-Touch, PAC, Telephone Interface, DLT and computers running HomeGate or Schedule Plus.

When the time or date is changed by the user on one of these units, the time is broadcast onto C-Bus. All units receive this message and change their internal clocks.

Some units have the ability to keep the correct time while the C-Bus power is off. When power is applied again, these units will still have the correct time. These units arbitrate between themselves to decide which will become the "time master" and that unit will broadcast the time on a regular basis to ensure that the time on all devices remains synchronised. This also ensures that devices (such as DLT) which do not retain the time during a power failure will also get the correct time soon after power-up.

A brief description of the operation of the time arbitration follows :

1. Most C-Bus units which use the time have the ability to broadcast the time with a regular period.
2. At any given time, only the Time Master broadcasts the time.
3. C-Bus units which are more likely to have the accurate time broadcast the time more often. This period is 60 minutes for HomeGate, Schedule Plus and Colour C-Touch, 90 minutes for Black and White C-Touch and 120 minutes for the PAC.
4. Units which broadcast the time more often take over the role of Time Master from the slower units.
5. Units with equal broadcast periods will be randomly selected to be the Time Master.
6. If a unit is not the Time Master and sees that there has not been a time message for a considerable period, it will take over the role of Time Master.
7. If a unit is the Time Master and it sees a time message from another unit, it will let that unit become the Time Master.

Time messages do get sent across C-Bus bridges which are in Application Connect mode.

See also [PAC Clock](#)

1.4 Other

1.4.1 Creating Projects

Enter topic text here.

1.4.1.1 Creating Projects Quickly

Problem

How do I create new projects quickly ?

Solution

Themes

It doesn't need to take a lot of time to create attractive PICED Projects. See the help file for hints on good design practices. Themes in particular can be used to create attractive projects quickly.

Templates

If you are going to be creating several PICED Projects, it is worthwhile taking the time to create a sample project first with the look and feel that you like. This includes :

- Project Details (location, Installer details etc)
- Background colours / images
- Component Styles
- Fonts
- Common Schedules / Scenes
- Start-up page
- Main Page
- Irrigation control page
- Audio control page
- Any other pages which will be used often
- Default access control

Then save this project as one or more templates.

Each time you start a new Project, you can load the necessary templates, and much of your work will be done for you.

Scene Creation

See auto scene creation.

Keyboard Short-cuts

See Keyboard Short-cuts for components and pages and for logic.

Group Address Copy

The **Edit | Copy Group** menu item allows the copying of a Group Address (or System IO variable) from the Primary Selection to the Secondary Selection.

Format Painting

Format Painting can be used to quickly copy the appearance of one component to another.

1.4.1.2 Impressing People

Problem

How can I impress my friends and relatives ?

Solution #1

Use some of these C-Bus features:

- Intelligent, automated control of your home:
 - Scenes
 - Schedules
 - External and internal occupancy sensors (PIRs etc)
 - Use logic to make your home do what you want
- Use your Colour Touch Screen to:
 - Show that you have e-mail
 - Show weather forecasts and other web data
 - Play games and puzzles (see templates)
 - Show pages for special occasions (see templates)
- Measure useful information and display it or use it in logic:
 - Electricity consumption
 - Soil moisture level
 - Temperature
- Use C-Bus to control electrical devices like:
 - Blinds, shutters and curtains
 - Pool and fountain pumps
 - Heated towel rails
 - Coffee maker
- Integrate C-Bus with other systems such as:
 - Irrigation
 - Audio/Video equipment
 - Air Conditioning
 - Security

Solution #2

Bake them a Sticky Date Pudding.

Sticky Date Pudding

2½ cups chopped dates
 650 ml water
 1 teaspoon bicarbonate of soda
 120g butter
 1½ cups brown sugar
 4 eggs
 2 cups self-raising flour

Grease 25cm diameter tin and line with grease-proof paper.

Bring water and dates to boil. Remove from heat. Stir in bicarbonate of soda. Stand for 5 minutes.

Beat butter and sugar with electric mixer. Beat in eggs one at a time. Fold in sifted flour, then date mixture. Pour into the tin.

Bake at 160C for 1¼ hours or until done. Stand for 5 minutes. Turn out onto a cooling rack.

Sauce

2 cups brown sugar

2 cups cream
170g butter
1/3 cup Orange Juice
1 tablespoon orange rind

Combine ingredients in large saucepan. Stir over low heat without boiling until sugar is dissolved. Bring to boil and simmer for 5 minutes until thickened.

Serve hot pudding with sauce, cream and/or ice cream.

Serves 14.

1.4.1.3 Copying From One Project to Another

Problem

How can parts of a PICED Project be copied to another Project?

Solution

The Pages, Scenes, Schedules, Logic and other aspects of one project can easily be re-used in another project by using templates. There are two ways of doing this, as discussed below.

Saving as a Template

The first method is to save part of a project as a Template. This Template can then be re-used in any future Project. To save the currently displayed Page as a Template:

1. Select the **File | Save Page As Template** menu item
2. Select the aspects to be saved
3. Click on **OK**
4. Enter a file name
5. Click on **Save**

To save other aspects of a Project as a Template:

1. Select the **File | Save As Template** menu item
2. Select the aspects to be saved
3. Click on **OK**
4. Enter a file name
5. Click on **Save**

To add a saved Template to another project:

1. Open the other project
2. Select the **File | Add Template Contents** menu item
3. Select the aspects to be added
4. Click on **OK**
5. Select the Template
6. Click on **Open**

Loading Another Project as a Template

It is not strictly necessary to save parts of a Project as a Template before it can be re-used. You can load parts of another project, as if it were a Template:

1. Open the other project
2. Select the **File | Add Template Contents** menu item
3. Select the aspects to be added
4. Click on **OK**
5. In the **Files of Type** list, select **Project Files**
6. Select the Project to copy from
7. Click on **Open**

See also [Creating Projects Quickly](#)

1.4.1.4 Can't Edit Components

Problem

I can't edit some components.

Solution

If you can edit a component, but you can not move it, then check that you do not have the **Page | Lock Components** set

If you are unable to select or edit the components on a page, there are several possible causes :

- You do not have the appropriate Access Level to edit the components
- The Component may be on a Theme Page. You will need to select the Theme Page to edit the component.
- The software may be in Simulation Mode/Operation Mode.

1.4.1.5 Using With Non-English Languages

Problem

How can PICED be used with languages other than English?

Solution

From version 4.7 of PICED, all aspects of the software support "unicode" which allows most languages to be used anywhere that text can be entered. Previously, only ASCII characters ("a".. "z", "A".. "Z", "0".. "9" and other symbols on an English keyboard) were able to be used.

If you want to use East Asian languages and they are not already installed on your computer:

1. Open the Control Panel
2. Select **Regional and Language Options**
3. On the **Languages** tab, select **Install Files for East Asian Languages**
4. Click on **OK**
5. You may need your Windows install CD for the fonts

Use with Wiser Home Control

The Wiser Home Control language can be selected on the Options 2 Tab of the Project Details Wizard. This language will be used for all system-generated text (Widget text, clocks etc).

Use with Black and White C-Touch

All button text is captured as an image, so text for any language will work. There is no capability for other language support for system generated text (System pages, clocks etc).

Some names are displayed on system pages of the C-Touch unit. These names will not be displayed correctly if non-ASCII characters are used:

- Schedule names
- Scene names
- Special Day Types

Use with Colour C-Touch

To use languages other than English on buttons, it is important to use a font which supports that

language. This font needs to be included when transferring the project. There is no capability for other language support for system generated text (System pages, clocks etc).

Some names are displayed on system pages of the C-Touch unit. These names will not be displayed correctly if non-ASCII characters are used:

- Schedule names
- Scene names
- Special Day Types
- Irrigation Program names
- Access Level names
- User names
- User System IO Variable names
- E-Mail Account names

The above names will be displayed correctly using in-built system IO variables, provided the appropriate font is used.

1.4.1.6 How Many ...

Problem

What are the software limitations ?

Solution

The software limitations of PICED can be found by selecting the **Software Properties** item from the **Help** menu. The limits are also in the Software Limits topic of the main help file.

1.4.1.7 What is the information at the bottom of the screen ?

Problem

What is the information displayed at the bottom of the PICED software (on the status bar) ?

Solution

There are four panels on the status bar. They display (in order from left to right) :

1. General messages. If you hold the cursor over a button, a hint will be displayed here. If you select a component, its actions will be displayed here.
2. C-Bus network status. You can find additional information by selecting **View | Network States**. You can connect to C-Bus by double clicking here.
3. Scheduler state. If there is an S, then the Scheduler is running. You can toggle the Scheduler state by double clicking here.
4. Logic state. If there is an L, then the logic is running. You can toggle the Logic state by double clicking here.

1.4.1.8 Using Web Cams

Problem

How can web cam images be displayed ?

Solution #1

Use a HTML Component to display the web cam output. This uses a web page to display a web page served by the web cam. It generally requires an ActiveX or similar plug-in. For Colour C-Touch, only selected cameras are supported.

Solution #2

Use a Web Cam Image Component to show the JPEG images from a web cam. In this case, the software continually retrieves JPEG images from the web cam and displays them, one after the other.

This has the following advantages over using a HTML component :

- It will work for all web cams
- No ActiveX or other components are needed
- It is drawn directly on the page, meaning :
 - you don't have problems with the user clicking on links etc on the web cam image
 - the component can be stretched and Alpha Blended
 - editing is simpler
-

The disadvantages of using a web cam image component are :

- It can be tricky to determine the URL needed to return a single JPEG image.
- If you are displaying multiple web cam images on one page, the images from each camera will be retrieved in turn. If an image can not be retrieved from a particular web cam, there will be a delay while the software waits for a reply. This will cause all of the other web cams to stop briefly.

Note that new web cam types can be added to the Web Cam Wizard. The WebCam.csv file contains a list of web cams. This file contains three or five fields of data, separated by commas :

- Manufacturer
- Model
- URL format
- Default User Name (optional)
- Default Password (optional)

The URL format is the URL needed to obtain a JPEG image from the camera, but with the IP Address replaced with "%IPAddress%". If you need to use a comma anywhere in the file (other than for separating the fields), insert the text "%comma%" where the comma should be.

See also [Problems with displaying HTML](#), [Problems with displaying HTML \(Colour C-Touch\)](#)

1.4.1.9 Problems with displaying HTML

Problem

You are using HTML or Web Cam Image components, but the content is not being displayed.

Solution #1

Check that the computer is connected to Ethernet. Check that an Ethernet cable is plugged in and that the LEDs are lit.

Solution #2

Check that the computer is on the same subnet as the computer serving the web page (i.e. check the IP Addresses and subnet mask). To find the IP Address and Subnet mask :

1. Select **Start | Control Panel | Network Connections**
2. Select your network adaptor (double click on it to open).
3. Select the **Support** tab.

Solution #3

Check that the computer is connected to the Internet. Open a web page with a web browser on the

same PC and see if it works.

Solution #4

Check that the URL is correct. Enter the URL into a web browser and see if it works.

Solution #5

Check that the gateway and other internet settings are correct. Open a web page with Internet Explorer on the same PC and see if it works. If it doesn't work, select **Start | Control Panel | Internet Options** to set up the correct details. You may need to select the **Connections** tab and select **LAN Settings** to select automatic configuration files or to select a proxy server. Your network administrator will be able to advise on the required settings.

Solution #6

Your computer may be blocking "active content" or may have other settings configured which blocks the particular site. Enter the URL into Internet Explorer on the same PC and see if it works. If it doesn't work, select **Start | Control Panel | Internet Options** to set up the correct details.

Solution #7

You may not have necessary ActiveX or other components installed. Enter the URL into Internet Explorer on the same PC and see if it works. If it doesn't work, install the necessary components.

Solution #8

You may have a firewall blocking access to the site. Enter the URL into Internet Explorer on the same PC and see if it works. If it doesn't work, check your firewall settings.

Note that Clipsal Australia can not provide specific technical support for Ethernet networking problems. You will need to obtain assistance from your network administrator.

See Also [Firewall Settings](#), [Problems with displaying HTML \(Colour C-Touch\)](#)

1.4.2 Scenes

1.4.2.1 Delays Between Scene Actions

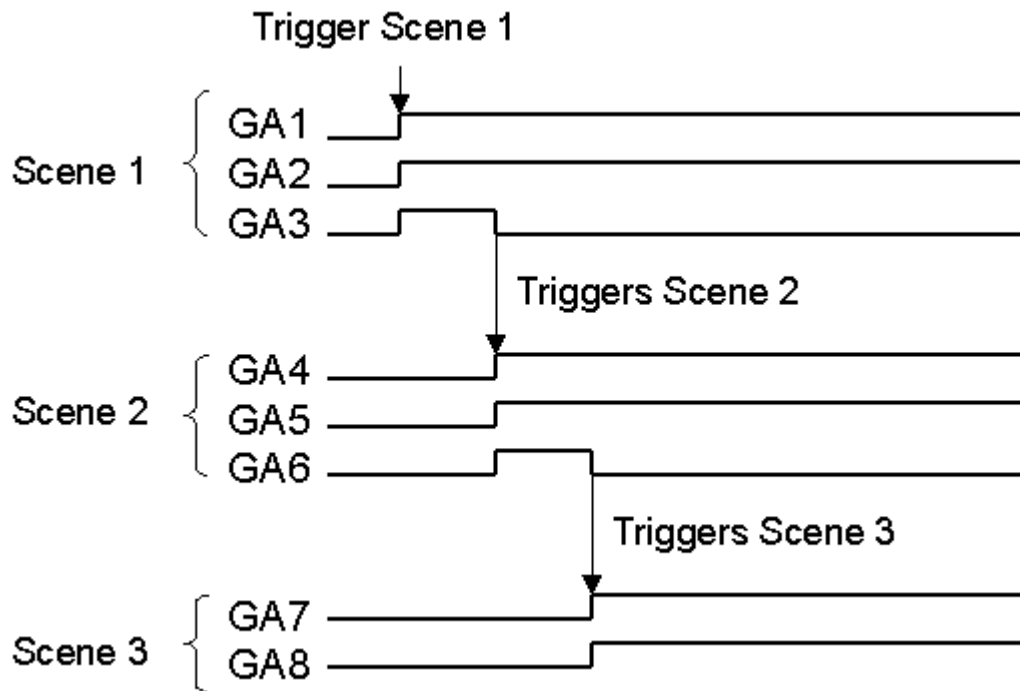
Problem

How can I put delays in scenes ?

Solution

Sometimes it is desirable to perform a series of actions with delays between them. For example, a Scene to set up a home theatre may need to close the curtains, lower the projector screen, dim the lights, wait for a few seconds, then switch on the AV equipment, wait for a few more seconds then start the DVD playing. This can be achieved by having Scenes trigger each other.

A Scene can have a pulsed Group Address in it. The falling edge of this pulse (ie. when it switches off) can be used to trigger another Scene and so on as shown below. In the example below, Group Address (GA) 3 is used to trigger Scene 2 and GA6 is used to trigger Scene 3.



Alternatively, logic code can be written to create delays between actions.

1.4.2.2 C-Bus Command Queue

Problem

Why does it take several seconds to execute a large Scene ?

Cause

Approximately 40 ON/OFF commands can be sent to C-Bus per second. If you have a large scene with 120 Group Addresses, it will take up to 3 seconds to send all of these commands.

When C-Bus commands are sent by the PICED software (from Scenes, Schedules, logic and button presses), the commands are placed in a queue, then sent out in order as fast as possible.

If you execute several scenes in quick succession, sometimes you can get unexpected results. Consider the case where you set a scene which switches 120 Group Addresses ON, then immediately set another Scene switching those same Group Address OFF again and then immediately set the original Scene again. You will have 360 C-Bus commands in the queue which will take around 9 seconds to be all transmitted to C-Bus. During those 9 seconds, you will see the Group Addresses go ON, then OFF, then ON again. This is normal behaviour. During this time, if you try to send other commands from PICED, these commands will also be added to the end of the queue, so it will take a while for them to happen.

When a Scene is set, the Group Addresses on the PICED screen will show the new state immediately to provide immediate feedback. There will be a brief discrepancy between the state shown on the screen and the state on C-Bus.

If you set a large Scene and one of the Group Addresses has a short pulse, you may find that the pulse duration is changed. Consider the case where you set a Scene with 120 Group Addresses and the last one has a 2 second pulse. The 120 C-Bus commands get put in the command queue. 2 seconds later, the "falling edge" of the pulse is added to the queue. At this stage, the queue still contains 40 commands. You will end up with the falling edge of the pulse being straight after the rising edge of the pulse in the queue and so they will be sent out very close together in time.

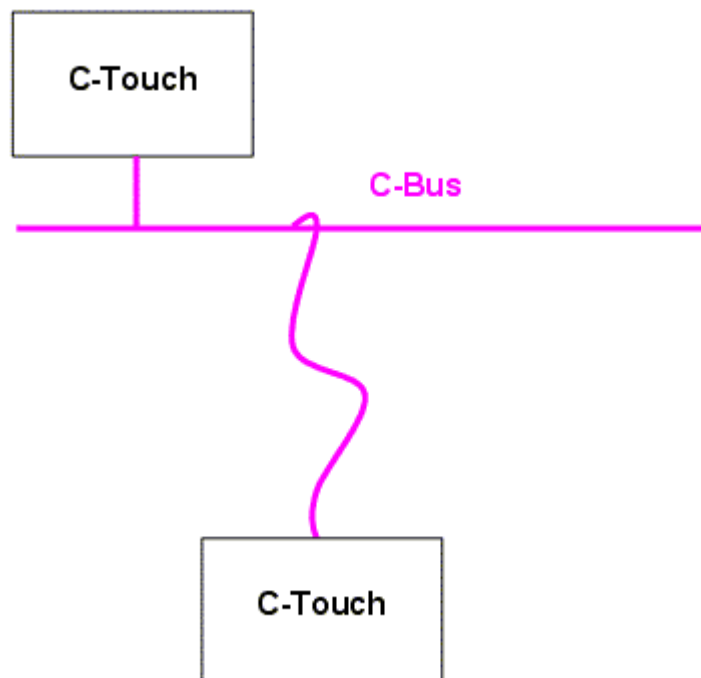
1.4.2.3 Portable Scene Editor

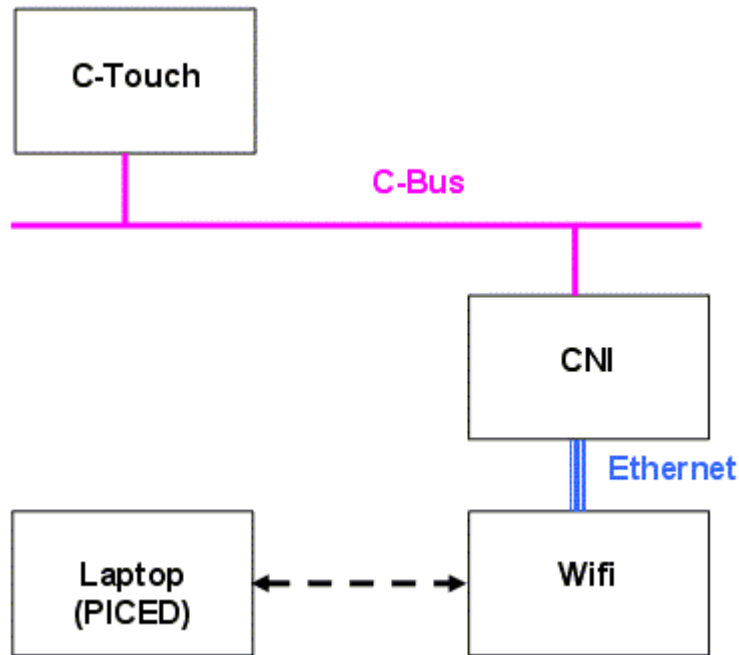
Problem

How can you create a portable Scene editor (like a mixing desk) ? The goal is to be able to move around a large site adjusting and storing Scenes.

Solution

The best solution is to have all Scenes stored in a single device on C-Bus such as a Black and White C-Touch or Colour C-Touch. This will be referred to as the Master C-Touch. The Scenes in the Master C-Touch are then triggered remotely from other devices. To produce our portable device, we can use either a C-Touch on a long C-Bus cable, or a lap top connected via wireless and a CNI as shown below. Other configurations are also possible.





The Master C-Touch needs to be set up to :

1. Contain all of the Scenes for the site, each with a Trigger Group
2. Buttons to store each Scene (using the Scene Store Special Function). These buttons need to be set up to be remotely activated via C-Bus.

The project on the portable device needs to contain the following :

1. A slider for every Group Address in the site
2. Buttons to trigger each of the Scenes stored in the C-Touch
3. Buttons to trigger a Scene store for each of the Scenes in the C-Touch
4. Scene nudge buttons for each Scene may also be useful

1.4.2.4 Displaying the status of a Scene

Problem

A Component needs to display whether a Scene is set or not.

Solution #1

If the component is setting the scene directly :

1. Add a C-Bus button to a page
2. Double click on it to open the Component Properties form
3. Select **Scene** in the **Key Function** list
4. Select the Scene in the **Scene Groups** list
5. Select the **status** tab
6. Select **Scene Indicator**

Solution #2

If the component is setting the scene indirectly (via the Scene Trigger) :

1. Add a C-Bus button to a page
2. Double click on it to open the Component Properties form
3. Select **Preset** in the **Key Function** list
4. Select the Scene trigger Network, Application, Group Address and Level
5. Select the **status** tab

6. Select Preset Level

Note that this is showing the state of the last selected Scene where the Scene Triggers are Mutually Exclusive.

Refer to the main help file Scene Status Indication topic for more details.

1.4.2.5 Scene Toggling

Problem

How can two Scenes (for example, an "on" and "off" Scene) be controlled from one button ?

Solution

1. Create the two Scenes in any unit (touch screen, key switch etc)
2. Set the two Scenes to trigger from the same Trigger Group; one with Action Selector 0 and the other with Action Selector 255
3. The button which is to control the Scenes needs to use the On/Off key function and needs to control the above Trigger Group

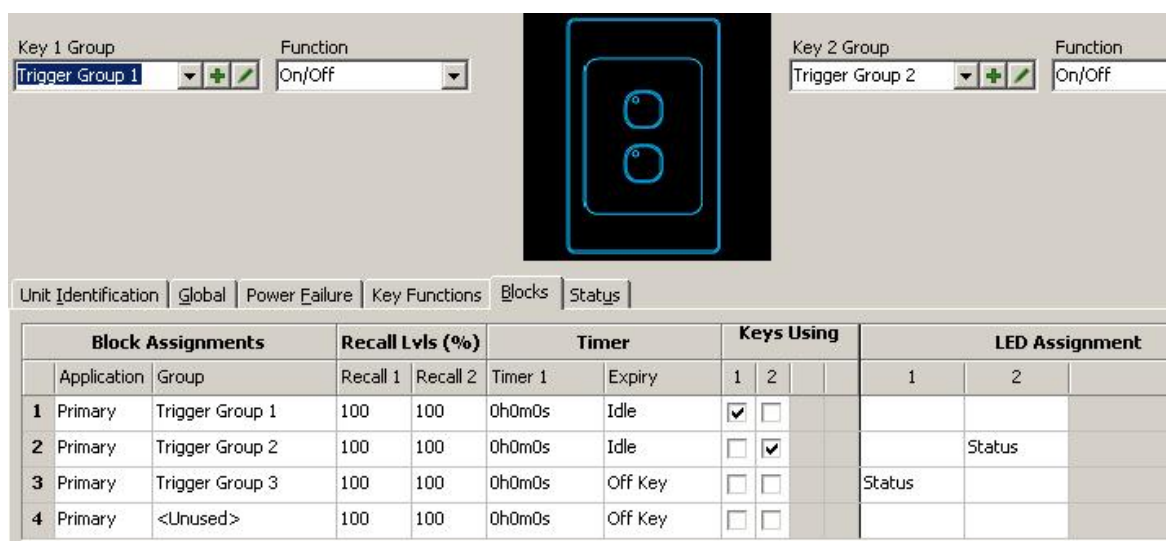
If the Scene is to be controlled from a key switch (rather than a touch screen), the key switch will need to be set to the Secondary Application and have the Trigger Control Application set to be the Secondary Application.

If the device triggering the Scenes does not support multiple applications, then follow the above steps using the lighting application.

Indicator Control

The problem with the above solution is that the indicator will not go off if the Scene gets "broken". This can be worked around by having the indicator controlled by a separate C-Bus group. An example of controlling an "on" and "off" scene and having the LED show correct status is given below:

On your key unit, you need to use two different group addresses - one controlled by the key, and a separate one for the LED. For this example, the key controls trigger group 1 with an On/Off key function, and the LED is set to show the status of Group 3. Here is how that looks in ToolKit:



The screenshot shows the ToolKit interface for configuring a key unit. At the top, there are two key group settings: 'Key 1 Group' set to 'Trigger Group 1' with function 'On/Off', and 'Key 2 Group' set to 'Trigger Group 2' with function 'On/Off'. A central image shows a key switch with two buttons. Below this, there are tabs for 'Unit Identification', 'Global', 'Power Failure', 'Key Functions', 'Blocks', and 'Status'. The 'Blocks' tab is active, displaying a table with the following data:

	Block Assignments		Recall Lvl (%)		Timer		Keys Using			LED Assignment	
	Application	Group	Recall 1	Recall 2	Timer 1	Expiry	1	2		1	2
1	Primary	Trigger Group 1	100	100	0h0m0s	Idle	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
2	Primary	Trigger Group 2	100	100	0h0m0s	Idle	<input type="checkbox"/>	<input checked="" type="checkbox"/>			Status
3	Primary	Trigger Group 3	100	100	0h0m0s	Off Key	<input type="checkbox"/>	<input type="checkbox"/>		Status	
4	Primary	<Unused>	100	100	0h0m0s	Off Key	<input type="checkbox"/>	<input type="checkbox"/>			

In a touch screen, PAC or Wiser, create the two scenes:

1. The "Off scene" is triggered by trigger group 1, action selector 0. It switches off the groups in the

scene and also switches off trigger group 3.

2. The "On scene" is triggered by trigger group 1, action selector 255. It switches on the groups in the scene and also switches on trigger group 3.

In the touch screen, PAC or Wiser, add this logic code to switch off the LED when the "on" Scene gets "broken":

```
once not SceneIsSet("On Scene") then
  SetCBusState("Local", "Trigger Control", "Trigger Group 3", OFF);
```

1.4.3 Graphics and Effects

1.4.3.1 Graphic Formats

Problem

What graphic formats are supported ?

Solution

The PICED software supports the following graphic formats :

- Bitmap (BMP)
- Windows Meta Files (WMF)
- JPEG
- Icons (ICO)
- Enhanced MetaFile (EMF)
- GIF
- PNG

To use other image formats (such as PCX), you will need to use a graphics program (such as Microsoft Photo Editor) to convert the file format to one of the supported formats.

A free graphics tool you can download is [IRFANVIEW](#).

Note that using bitmap files (BMP) will result in faster PICED operation, since there is no image decompression required.

1.4.3.2 Image and Font Resources

Problem

Where can images, and fonts be obtained ?

Solution

Sources of Images

In addition to the images supplied with the PICED software, there are many sources of images on the Internet. Some examples are :

- [Clip Art Centre](#)
- [Microsoft Clip Art Gallery](#)
- [Google \(click on the Images tab\)](#)
- [All Free Clip Art](#)
- [Absolute Web Graphics Archive](#)
- Creative Commons Icons
 - [Crystal Clear](#)
 - [Darko Free Web Icons](#)
 - [FamFamFam](#)
 - [Sekkyumu](#)
 - [Maxpower](#)

Textures and Wallpapers

- [Absolute Background Textures Archive](#)
- [Webground](#)
- [Wallpaper Vault](#)
- Make your own textures at <http://www.grsites.com/textures/>

Note : you should ensure that you do not use images which are copyrighted.

Sources of Fonts

Windows comes with many pre-installed fonts. There are also many sources of fonts on the Internet. Some examples are :

- [1001 Free Fonts](#)
- fonts.com

Notes

**You should ensure that you do not use fonts which are copyrighted.
Any fonts used must be installed on the computer running the PICED software.**

You can also create text effects using various graphics programs or :

- Word Art in Microsoft Word
- <http://www.grsites.com/logo/>

Creating and Using Customised Buttons

The PICED software has the ability to display a wide range of button styles. It also comes with samples of custom button images. There are many button images available on the Internet. If the style you wish is not available with any of these options, there are software packages which allow you to create your own button images. Some examples are :

- [ZPaint](#)
- [Trellian Button Factory](#)
- Make your own buttons on-line at <http://www.grsites.com/button/>

Alternatively, many graphics and CAD programs allow you create 3D buttons.

If you have a button which is used for a page link, you will only need one image. If the button is to be used to control C-Bus, then you will need two images (one for Active and one for Inactive). To use your custom image(s) on a button, open the button **Properties** form (by double clicking on the button). On the **Images** tab, select **Custom** and then select the Active and Inactive images.

Animated Images

There are various shareware programs available for converting animated GIF images into bitmap strips including [Alchemy GIF Animator](#).

Note : you should ensure that you do not use images which are copyrighted.

Other

There are many freeware graphics tools available, including [pixlr](#) and [GIMP](#)

1.4.3.3 Images Don't Look Right

Problem

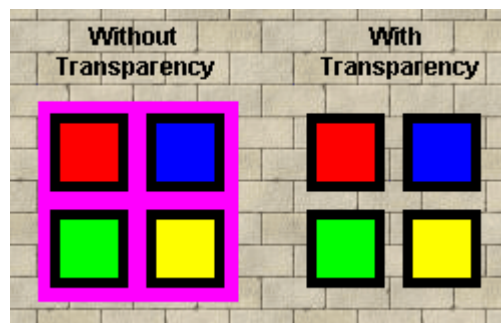
Images are either :

1. Invisible;
2. Missing part of the graphics; or
3. Inverted

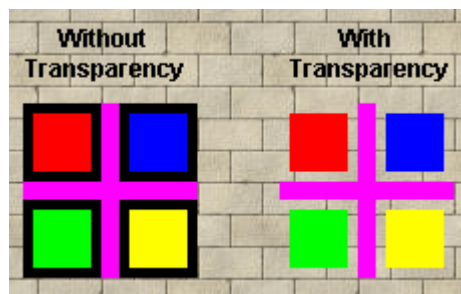
Cause

One possible cause is that the image has been set to be transparent and the transparency colour is causing the problem. When an image is set to be transparent, the pixel in the lower left corner of the image sets the transparency colour.

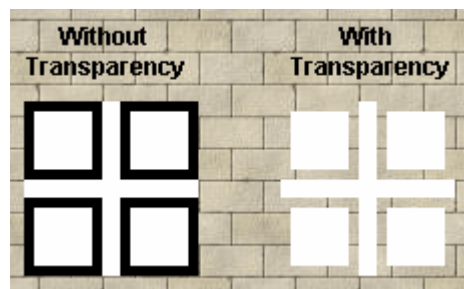
In the example below, the colour pink has been used as the transparency colour, as it is not needed in the picture. The bottom left pixel is pink to set pink as the transparency colour. The effect of showing this with and without transparency on a brick background is shown below. As can be seen, the pink areas of the original image are transparent when the image has transparency set.



In the example below, the bottom left pixel has been accidentally set to be black instead of pink. This causes the image to look different to what was expected when transparency is set.



This can be a particular problem with black and white images as shown below and can cause the image to look "inverted".



With black and white images, if the bottom left pixel is black and you have the transparent image on a white background, the image will actually end up invisible.

Solution

If the problem is caused by transparency then either :

1. Switch the image transparency off; or
2. Edit the image to change the transparency colour

1.4.3.4 Drawing Order

Problem

What is the order of drawing ?

Solution

The drawing of a page occurs in the following order :

1. The Page background is drawn OR the Theme Page is drawn
2. The Page Components are all drawn in the order in which they occur
3. Any Logic graphics are drawn on top

Essentially, this behaves as a series of "Layers" which may hide each other.

Note that if a Theme Page has a parent Theme Page, then the parent will be drawn first.

See also Optimising Drawing Speed

1.4.3.5 Slow Operation

If the PICED screen update is slow it is generally related to the computer processor being too busy. There are several possible causes, listed below. To confirm whether this is the cause of the problem, use the Processor Usage feature in the log to determine how much processor is being used. If it is continually more than around 25%, you may have problems.

Inadequate Computer Specification

See [Computer Requirements](#).

Other Programs

If other programs are running on the computer, it is possible that they are using up a large proportion of the computer resources, slowing down the performance of PICED.

Project Design

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. On these pages which are redrawn regularly, it is best to avoid things which require a lot of computer processing, unless you have a fast computer :

- large JPEG images which require a lot of processing to de-compress
- images which have been re-sized (it is best to re-size the image with a graphic editing program and use the re-sized image in PICED)
- a lot of components on a page
- large polygons with many sides or 3D ellipses
- large areas of Alpha Blending

1.4.4 Diagnosing System Problems

If your C-Bus system is not behaving as expected, there are several tools and techniques you can use in order to resolve the problem.

Tools

PICED Log

The Logging feature of the software allows you to record selected information about what the software and C-Bus is doing.

PICED Reports

The **PICED** software can generate several reports :

- check the project for errors
- logic report
- project summary
- user manual

All of these can be of assistance with diagnosing problems.

C-Gate Log

C-Gate also has a log which can be enabled. This provides more details about what is happening on C-Bus than the PICED log.

Diagnostic Software

The C-Bus diagnostic software can be downloaded from the Clipsal Australia web site. It can provide insight into what is happening on C-Bus.

Techniques

As every problem is unique, it is hard to give specific advice. However, by following the guidelines below, you should be able to resolve, or at least narrow down, the vast majority of problems.

Finding what is controlling a group

The majority of system related problems are where one or more Group Addresses are not doing what is expected. The logs can be read to determine what is (or isn't) controlling the Group Address(es) in question. It is not uncommon for there to be more than one device controlling a Group Address inadvertently, so the logs should be read thoroughly.

First Step

The first step in resolving a problem should be :

1. Enable the PICED Log (preferably with the log time shown)
2. Get the "problem" to occur
3. Look at the log for the time at which the problem occurred to try to find clues to the nature of the problem

Check Logic

If you have used Logic in your project, switch the logic off and see if the problem still occurs. If the problem is caused by the logic, then Debug the logic.

Narrow Down the Cause

The next step is to try to narrow down the source of the problem. The problem could be within the PICED software, C-Gate or within C-Bus. Using the PICED log will allow you to determine whether the PICED software is doing what you expect. The log can also provide information about what C-Gate is doing.

Use the Diagnostic Software to observe the messages on C-Bus. If the correct messages are on C-Bus, then the problem does not lie within the PICED software or C-Gate. If the correct messages are being sent by the PICED software, but they are not appearing on C-Bus, then the

problem may lie within C-Gate, the connection to C-Bus or the C-Bus network itself. In this case, the PICED log or the C-Gate log can provide additional information.

If the problem appears to be related to C-Gate, a Telnet session can be opened to C-Gate to allow the user to manually send commands. Refer to the C-Gate documentation for more details.

Using PICED to Narrow Down Cause

The **PICED** log shows the source of all transmitted commands, which will be one of :

- User click (a user has clicked on a component)
- Schedule
- Logic
- Irrigation
- Scene (triggered by external source or by any of the above)

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.

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".

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.

Using Diagnostic Software to Narrow Down Cause

The Diagnostic Software can be used to identify the unit address of the unit generating a command. In some cases, there will be more than one unit controlling a Group Address and this can cause unexpected behaviour.

Resolving Problems within C-Bus

If the problem lies within C-Bus, then check the following :

- Logic in output units can cause unexpected behaviour
- Area addressing can cause unexpected behaviour
- Unit programming
- C-Bus voltages (Diagnostic Software can be used for this)
- C-Bus clocks
- C-Bus burdens
- C-Bus cable lengths
- Number of C-Bus units on a network
- Electrical noise on C-Bus
- Use the Diagnostic Software Traffic Analyser to look at the amount of traffic and error rates

Obtaining Additional Information

Before contacting Clipsal Australia for support, check whether the [Other Sources of Information](#) contain an answer to your problem.

Last Resort

As a last resort, contact Clipsal Australia Technical Support. When reporting errors, the following information is essential for the diagnosis of the problem :

1. Software versions being used :
 - PICED
 - C-Gate
 - C-Bus ToolKit
2. Details of the error
 - Error number (if relevant)
 - What you did to make the error occur
 - What you observed and what you expected to see
 - Was it possible to make the error occur again ?
 - The results of any testing you have already performed

To support the diagnosis, you may also need to provide :

1. Details of your computer
 - processor, memory, hard disk
 - operating system version
2. Project files
 - PICED project file
 - C-Bus Project File
3. Log files :
 - PICED log file
 - Diagnostic Software log file
 - Diagnostic Software Traffic Analyser report
 - C-Gate log file

Refer to the Advanced Fault Diagnosis document (found in the PICEDManuals folder) for much more information on this topic.

1.4.5 Computer Requirements

Problem

What are the requirements for the computer ?

Solution

The computer requirements needed to run PICED are not significant. Generally, the major requirements are that the computer has enough resources to run the Operating System. If the computer can run a recent operating system (for example, Windows XP), it will generally have no problems running PICED.

The recommended minimum requirements for stable, reliable operation (mostly determined by the Operating System) are:

- Windows XP
- 500MB of hard disk free (note that Flash based hard disks can be slow to write to)
- 512MB RAM
- 1GHz Pentium 4
- Mouse
- 800 x 600 display
- 10Mbps Network adaptor (if using with a CNI, or using Internet features)
- DB9 Serial Port (if using with a serial PCI)
- USB Port (if using with a USB PCI)
- Anti-virus software

The preferred system requirements to ensure optimum performance are:

- Windows XP Professional
- 5GB of hard disk free
- 512MB RAM

- 2GHz Pentium 4 or Core 2 Duo processor E6300 or better
- Mouse
- 1024 x 768 display
- 10Mbps Network adaptor (if using with a CNI, or using Internet features)
- DB9 Serial Port (if using with a serial PCI)
- USB Port (if using with a USB PCI)
- Anti-virus software

If using with [Windows Vista](#), the processor requirements are more significant :

- 2GB RAM
- 2.4GHz Pentium 4

The above figures assume that you have a moderate sized Project. For an especially large Project, you may require more memory and hard disk.

Note that if a PC Interface is being used as the connection to C-Bus, the PC will require at least one spare RS232 serial port. If a CNI is being used as the connection to C-Bus, an Ethernet card will be required.

Processor Usage

For colour C-Touch projects, the more demanding the requirements of the Project, the more of the Colour C-Touch processor time will be used. The main requirements for the processor are the Page graphics and the Logic Engine.

There are several factors which do cause more processor time to be used :

- Having a Clock, Monitor or animated [Image](#) on a Page will cause the Page to be re-drawn more often
- Stretched Images take much longer to draw than un-stretched ones. Use the Re-scale Images function to automatically re-scale images for you.
- Alpha Blended images and images with Shadows take much longer to draw than regular images
- A lot of components on a page
- Large polygons with many sides or 3D ellipses, round rectangle and capsule components.
- Having a lot of Scenes. These all need to be checked each time a C-Bus group level changes.
- Having lots of [logic](#) can use a significant amount of processing, especially if written in an inefficient way.
- Page transitions (in particular the "fade" transitions) can slow down the performance
- Logging requires additional processing

The log can be used to show how much of the processor is being used.

1.4.6 Options Have Gone

Problem

When various actions are performed, several options were presented. These options have gone.

Solution

On many of the forms which request an input from the user (for example, confirming the deletion of something), there is a check box labelled "don't ask me again". If you select this option then you will not see this form again.

To get these confirmation forms back, select the **Options | Enable Error Messages** menu item.

1.4.7 File Versions

Problem 1

Can an old version of a PICED file be opened with a new version of the PICED software ?

Solution 1

Yes. All versions of PICED can read all old versions of files.

When the PICED file is saved, it will be saved as the new version. **This means that this file may not be able to be loaded by old versions of the PICED software.**

PICED version 3.3 or later will warn you if you try to load a file which was created with a newer (incompatible) file version.

Problem 2

The PICED project doesn't look right or aspects of it have changed.

Solution 2

It is possible that the PICED project file was opened with an older version of the PICED software than that with which it was created. For example, if you create and save a project using PICED V3.3 and you then open it with PICED V3.2 or earlier, the component borders will all be missing (amongst other things).

1.4.8 Customising Reports

Problem

How can the reports generated by the PICED software be customised ? For example, adding a logo or changing the fonts.

Solution

The reports can all be generated in HTML format. The Program Options form allows you to select between text and HTML reports.

The HTML can be edited with a dedicated HTML editing program or with some word processors (such as Microsoft Word).

1.4.9 Logic

Refer to the logic help file or manual FAQ for help with logic.

1.4.10 Firewall Settings

A firewall is a program designed to block traffic between your PC and the internet to prevent dangerous or malicious software affecting your computer. For Clipsal Australia software to operate effectively, some ports need to be unblocked to allow traffic through. The ports that are required to be opened depend on which applications are being used and are listed below.

Important: modifying your firewall may reduce the security of your computer

Configuration properties of your firewall or security software:

Allow/add the ports with following details:

Port Number	Application	Port Description	Port Type	Port Direction
8080	ServerX	Web Server Port	TCP Port	Bi-directional
8344	C-Touch Colour Transfer Utility	C-Touch Colour communications port	UDP Port	Bi-directional
20023	C-Gate	Command Port	TCP Port	Bi-directional
20024	C-Gate	Event Port	TCP Port	Bi-directional
20025	C-Gate	Load (Status) Change Port	TCP Port	Bi-directional
20026	C-Gate	Config Change Port	TCP Port	Bi-directional
20027	HomeGate/Schedule Plus	ServerX Interface	TCP Port	Bi-directional
20028	HomeGate/Schedule Plus	ServerX Interface	TCP Port	Bi-directional
20029	Windows Media Player Plugin	Communications port	TCP Port	Bi-directional
20030	iPod Server	Communications port	TCP Port	Bi-directional
20123	C-Gate	Secure Port	TCP Port	Bi-directional

Allow only PC's on the same subnet (unless specifically required)

1.4.11 Use with Windows Vista

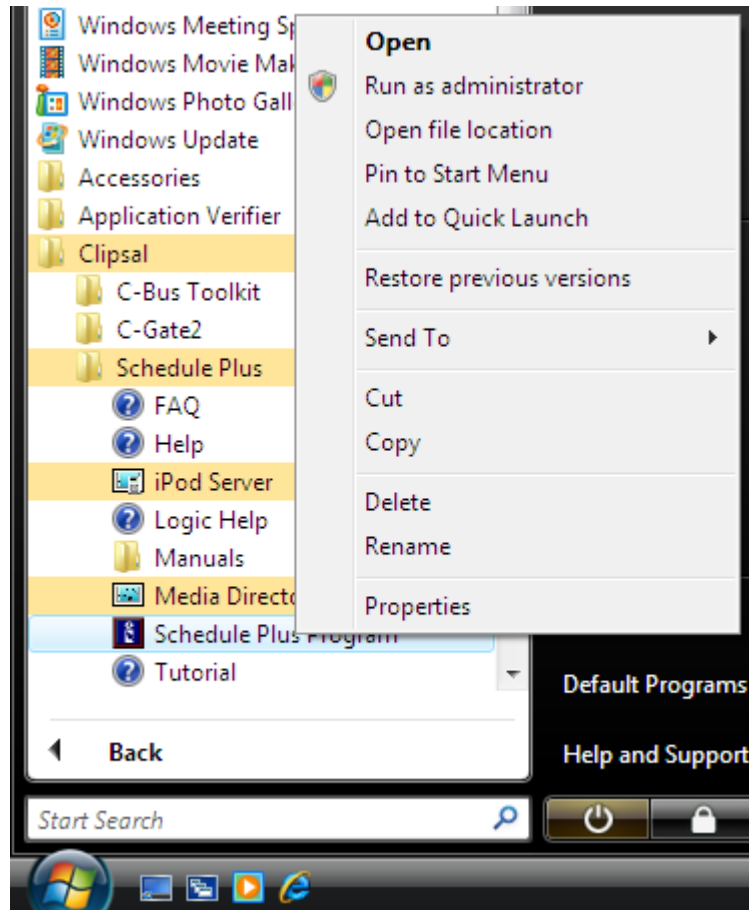
It is possible that problems will be encountered with the Windows Vista User Account Control (UAC). If you get error messages related to "permissions", this is likely to be the cause of the problem. This can also cause problems with connecting to the Colour C-Touch.

It is possible to start the PICED software with temporarily elevated permissions by running the software as "administrator", but this needs to be repeated each time the software is run, and there may be warning messages displayed which need to be acknowledged.

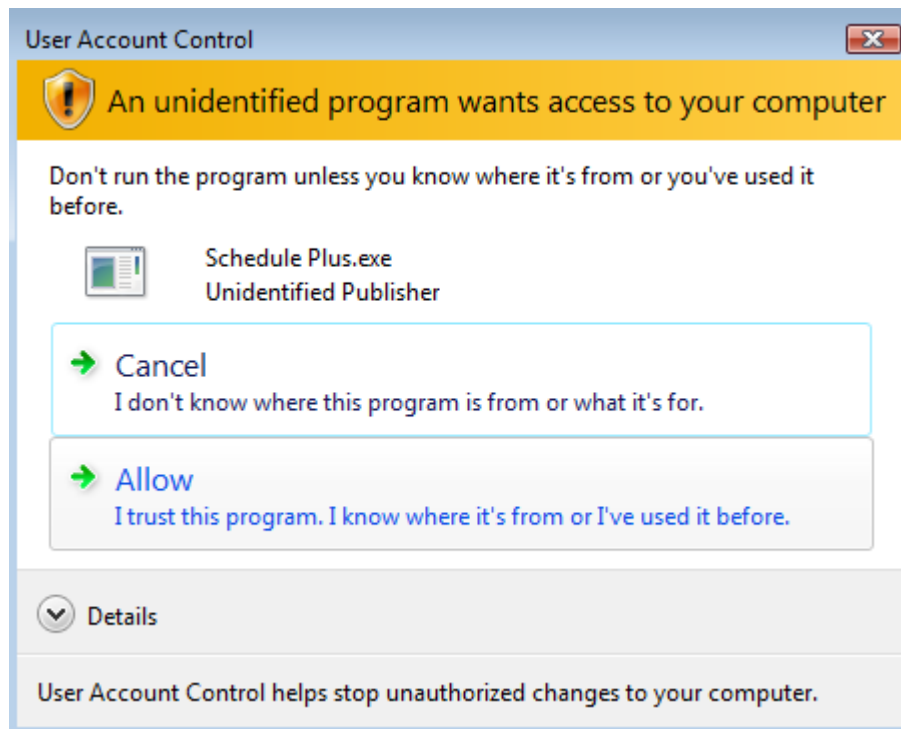
The following processes describe methods for starting the software with the necessary elevated permissions. The example shows the steps for the Schedule Plus software, but the same process applies to HomeGate or to PICED.

Manually starting the software

To manually start the software once with the elevated permissions, right click on the PICED software short-cut and select **Run as administrator**.



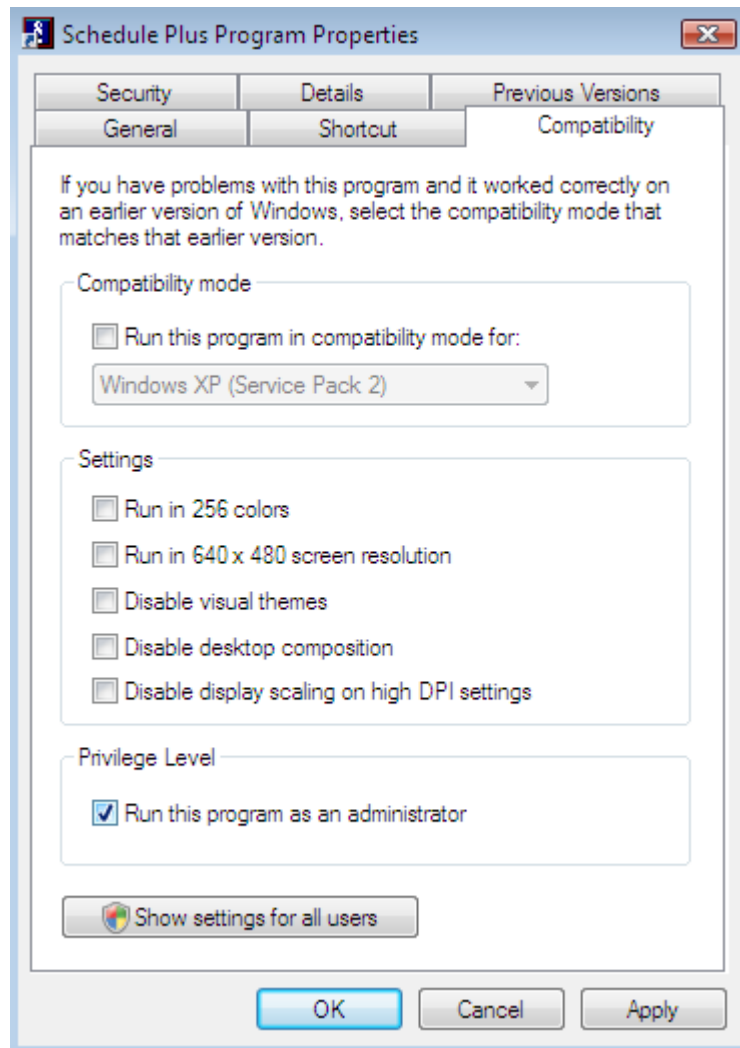
When prompted, select **Allow. I trust this program. I know where it's from or I've used it before.**



To allow the software to always run with the elevated permissions, right click on the PICED

software short-cut (as above) and select **properties**.

In the properties form, select the **Compatibility** tab. Select **Run this program as an administrator**. Click on **OK**.



Now each time you run the software it will run with administrator privileges. You will be prompted by the Vista UAC each time the software is run and you must select **Allow. I trust this program. I know where it's from or I've used it before** (as above).

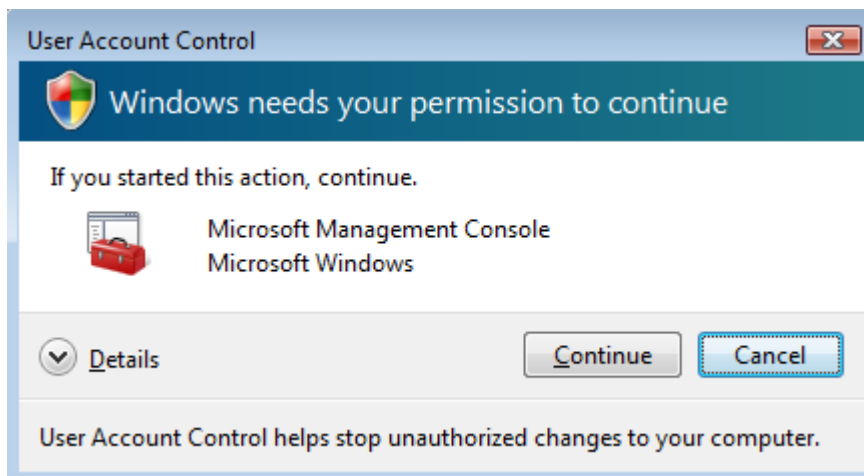
Using the Task Scheduler to automatically start the software

To run the PICED software automatically when a Windows Vista PC starts/re-starts, the Task Schedule Manager can be used. This can be set to start the software with the appropriate administrative rights for normal operation without being prompted by the Windows Vista UAC to allow the program to run.

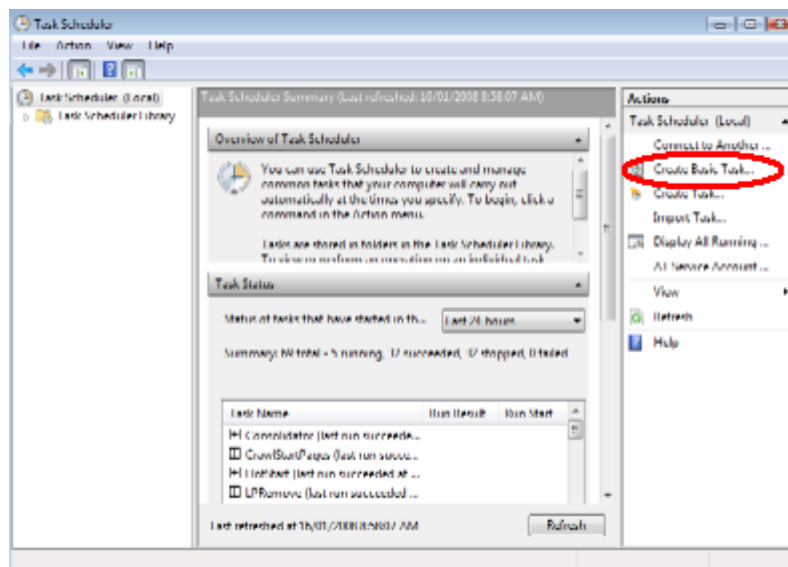
Select the Windows **Start** icon and enter "taskschd.msc" into the search box and press the **Enter** key.



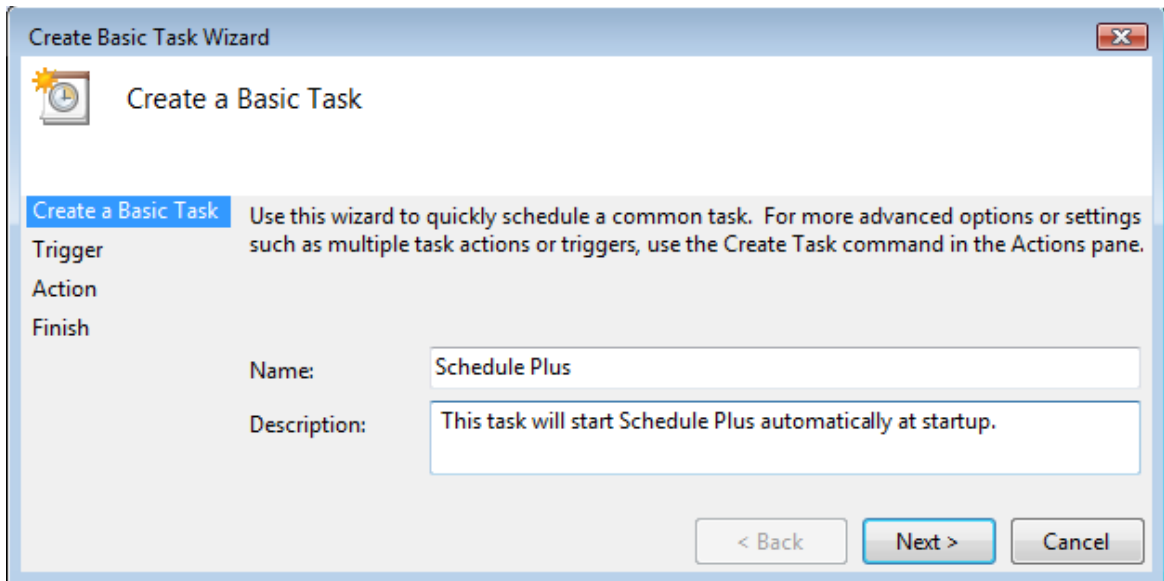
Confirm that you wish to run the Microsoft Management Console by selecting the **Continue** button when prompted.



You should now see the Task Scheduler form. Select **Create Basic Task** from the right hand side **Actions** list.

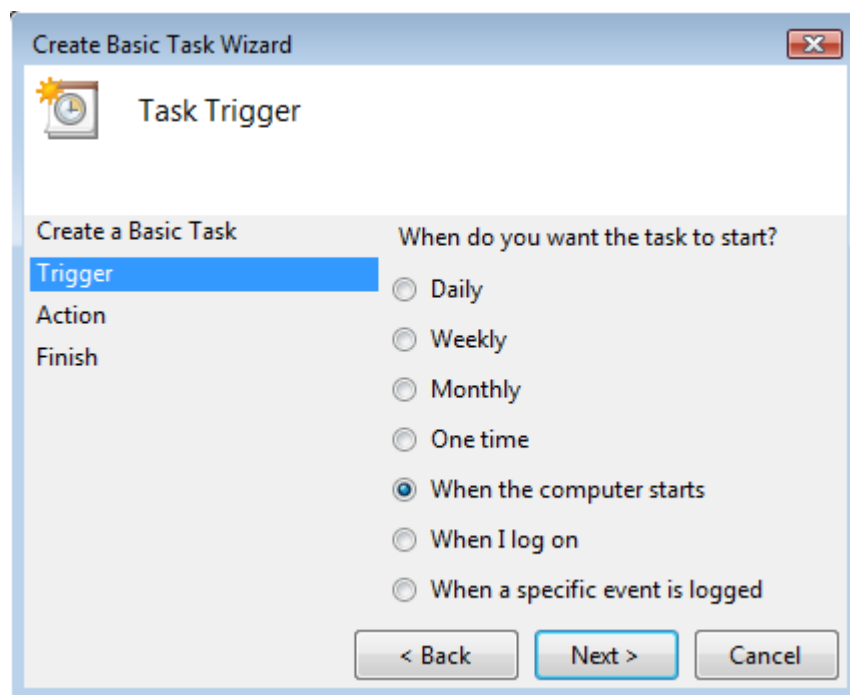


The Create Basic Task Wizard will be shown. Provide a name for your new task. Click the **Next** button.

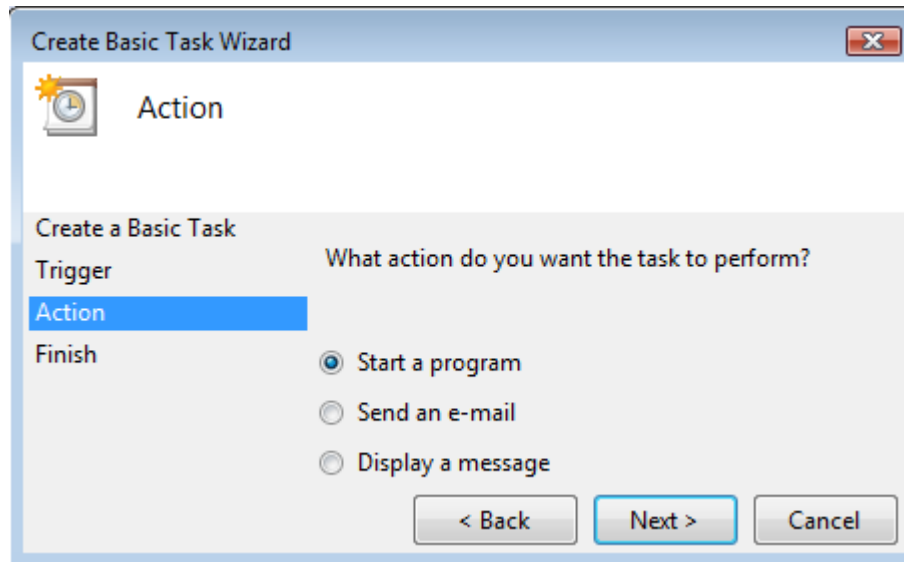


Select the Task Trigger to be **When the Computer Starts**. Click the **Next** button.

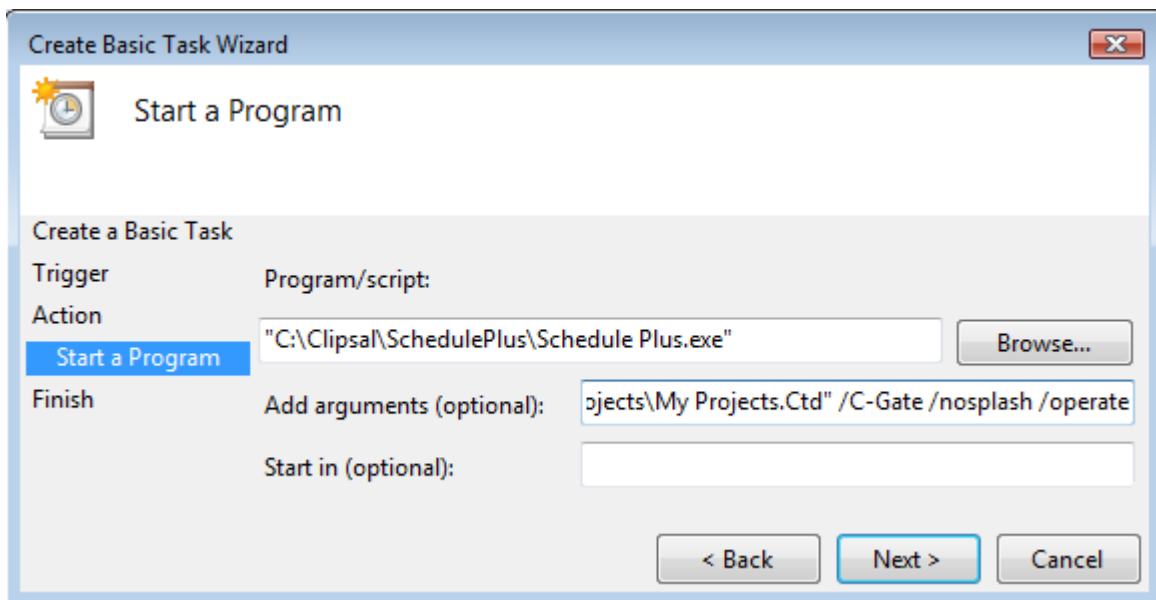
Note : If your computer requires you to log on, then you should select the option **When I log on**, otherwise your application will fail to run. If log-in is required at startup, then the automatic re-start of the software when the computer re-starts will not be possible unless you automate the log-in process.



Select the task action as **Start a program**. Click the **Next** button.

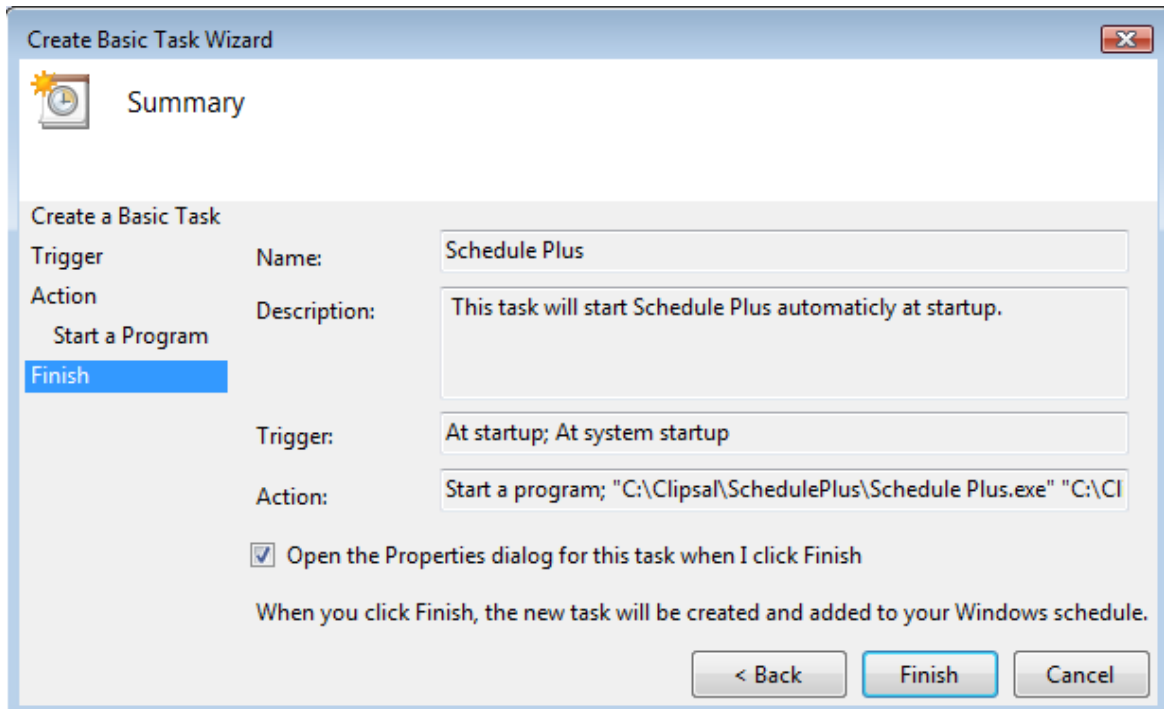


The Start a Program page will be displayed. Enter a path to the Schedule Plus software, or select the **browse** button and locate the Schedule Plus Program located in the installed directory (default C:\Clipsal\Schedule Plus).

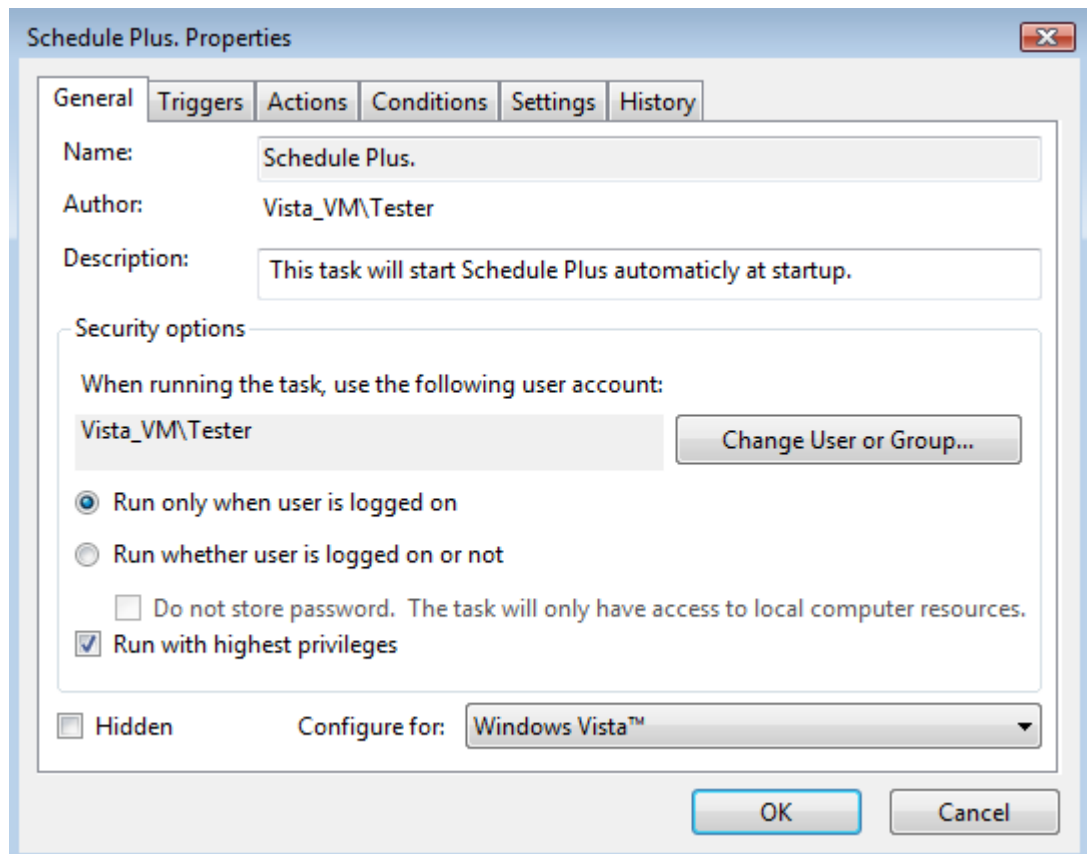


Add the require command line arguments for Schedule Plus start up actions to the "**Add Arguments (optional)**" box (see Command Line Parameters for details). Click the **Next** button.

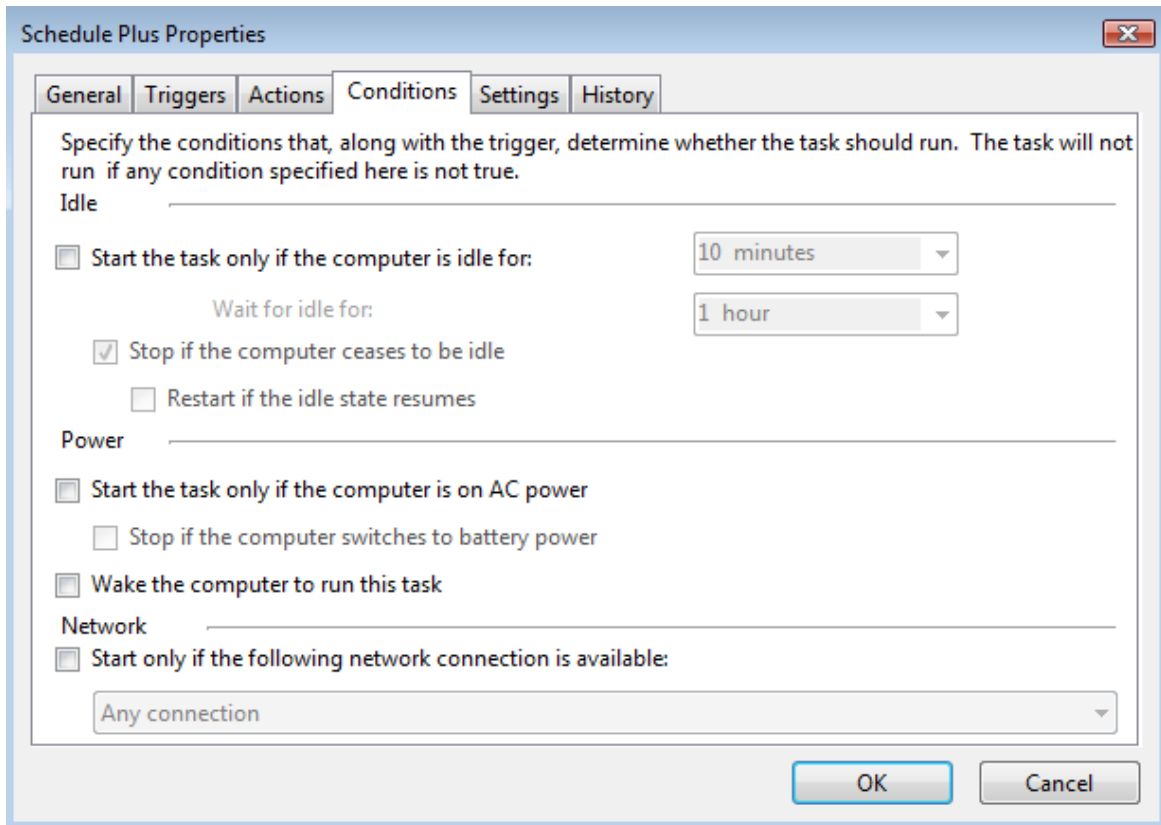
A summary of the task will be displayed. Select the "**Open the Properties form for this task when I click Finish**" check box. Click the **Finish** button.



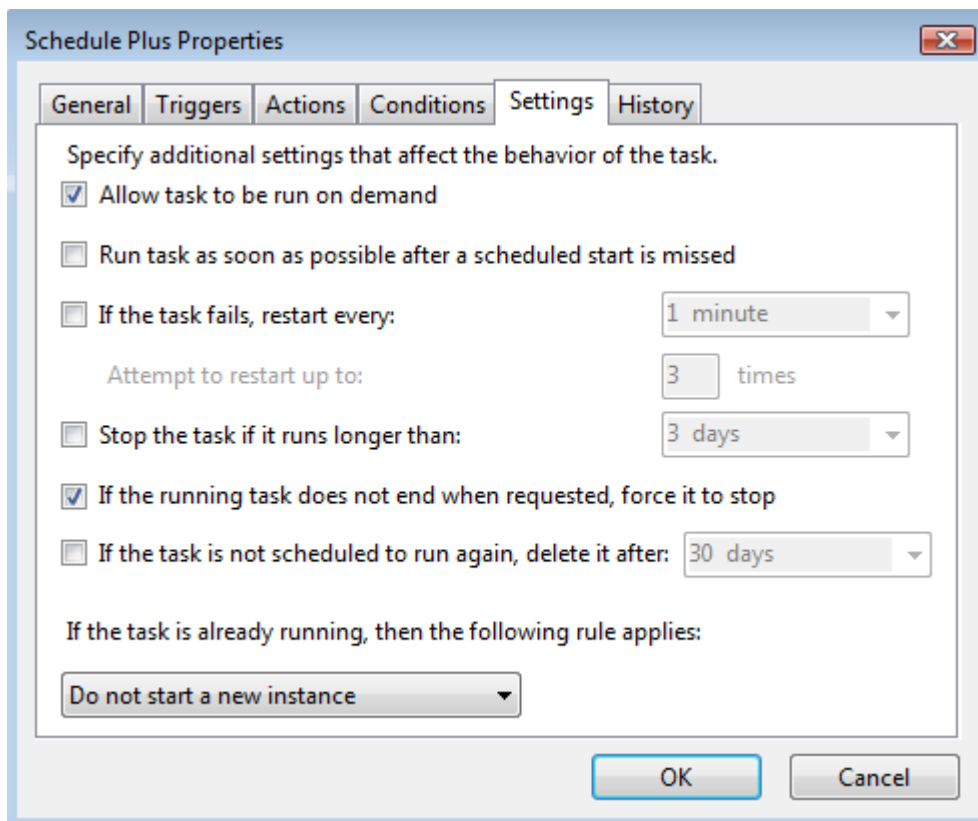
The properties of your new task will be shown. From the **General** tab, select **Run with highest privileges**.



Select the **conditions** tab and disable all options.

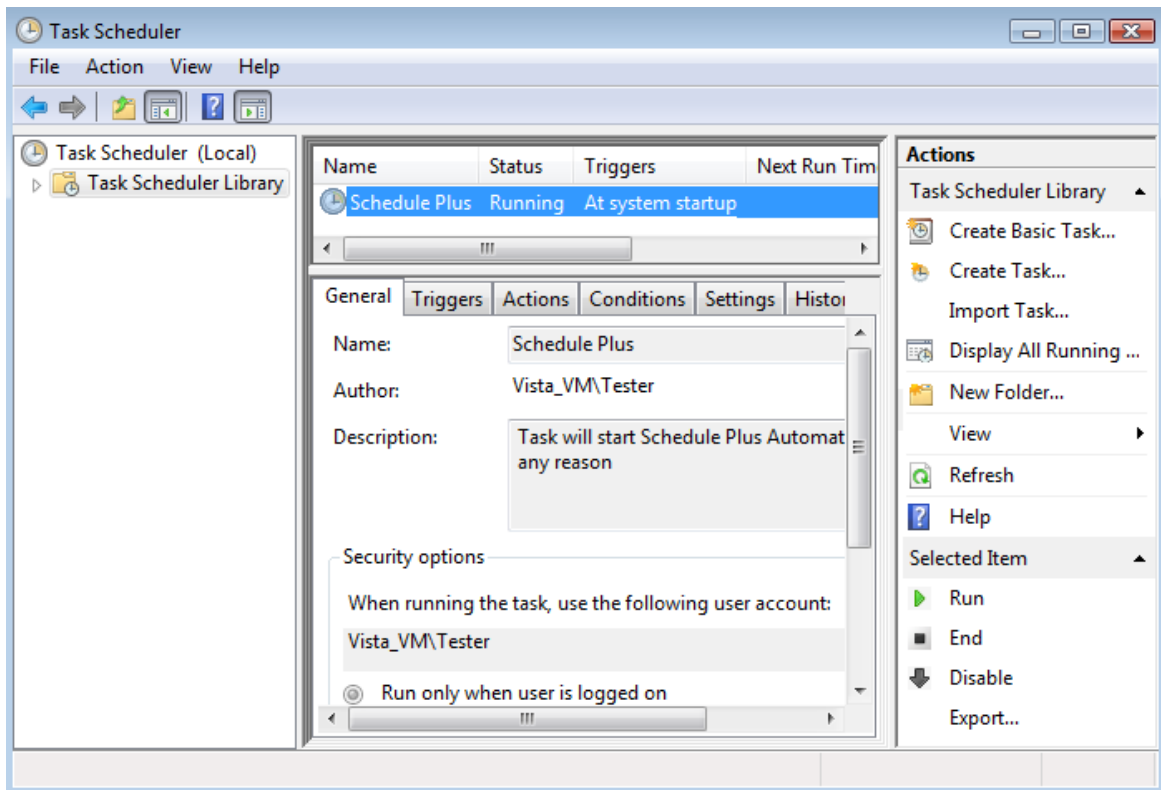


Select the **Settings** tab. Select only **Allow task to be run on demand** and **If the running task does not stop when requested, force it to stop**. Click on **OK** to finish.



You can now view your new task by selecting the **Task Scheduler Library** from the left hand side

menu.



The task can be tested by selecting your task and selecting the **Action | Run** menu item.

Once the application is running correctly, you should test the entire process by re-starting the computer and ensuring that the process works as required.

Installation Path

Windows Vista prefers that applications be installed in the Program Files folder. This can cause problems for the current version of the Frequently Asked Questions software. It is recommended that you install in the default path c:\Clipsal.

1.4.12 Other Sources of Information

There are several sources of information related to the **PICED** software :

- Help files (supplied with the software)
- PDF Manuals (supplied with the software)
- Example projects (supplied with the software)
- Clipsal Australia Website <http://www.clipsal.com/cis/literature.php3>
- C-Bus Forums <http://www.cbusforums.com/forums/>

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