

Comfort, the Intelligent Home System

Comfort To C-Bus Interface

Comfort to C-Bus Interface

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Introduction to the C-Bus Interface

The Comfort system can be interfaced to Clipsal's C-Bus. This allows Comfort to control and monitor any Group Address on the C-Bus by connecting the C-Bus wires, without the C-Bus PC Interface. Comfort can act as a controller or gateway or the C-Bus system, providing the following benefits to a C-Bus system:

- telecontrol through any telephone inside or outside the premises to control and monitor the status of devices on the C-Bus
- Able to send any C-Bus command, activated by Comfort's keypads, Time Programs, Comfort iPhone app, telephone or any Comfort event
- allows alarm inputs and alarm conditions to be linked to C-Bus for true integration of alarm and lighting.
- allows C-Bus switches to trigger Comfort Responses, allowing control of non C-Bus appliances like air-conditioners, home entertainment systems, and linking to all of Comfort's security and control functions.
- allows C-Bus switches and inputs (e.g. temperature, light sensors) to trigger alarms to dial-out to programmed telephones when preset levels are exceeded.
- The C-Touch Mk2 touchscreen can be used as a keypad for Comfort, and can display zone and alarm status.
- Acts as a gateway to other systems e.g. KNX, Dynalite etc..
- functions as a central controller for C-Bus. C-Bus is a distributed system with each device having its own intelligence and able to respond according to its own device type and the way it is programmed. In an intelligent home or office environment, it can be desirable to have a controller which is able to co-ordinate the functions of all the subsystems including security, lighting, HVAC, and others. Comfort is able to take action based on conditional logic, for example, when the time is between 7 PM and 7 AM and the security system is armed, and when the front door is opened, turn on the hall lights for 3 minutes. This would not be possible with C-Bus using Group address linkage alone.
- UCM/CBus 5.216 and above is able to send Label commands to DLT (Dynamic Labelling Technology) switches to dynamically change the text on the LCD

Cytech is a CBus-Enabled Partner, and Comfort is a certified C-Bus Enabled product.

Specifications

- Size 108 x 88 mm UCM baseboard with C-Bus SIM (Serial Interface Module) daughterboard.
- Power Supply: 12V 30 mA (supplied from Comfort)
- Connected to C-Bus via bus cable (2 wires). Comfort is electrically isolated from C-Bus.
- Sends messages to 255 Group addresses for Lighting Application or other applications though local or remote network C-Bus Networks.
- Monitors Lighting Application Group Addresses for 255 Group addresses 0 to 254.
- Synchronises the date and time between Comfort and C-Bus via the Time/Date Application.
- Comfort implements the C-Bus Security application. Comfort automatically sends Alarm information which can be displayed on C-Touch. The following status messages are supported: Armed/disarmed, Exit Delay Started, Entry Delay Started, Alarm Active, Tamper active/Inactive, Panic Active, Battery Status, and Status Reports 1 & 2. The following Security Control messages are supported: Arm system, Activate/deactivate Tamper, Activate Panic, Emulate Keypad, Status 1 and 2 Request.
- C-Touch can simulate a keypad allowing entry of user code and arming/disarming of

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Comfort.

- Comfort automatically sends zone information to C-Bus using a user-defined application 01, allowing display of zones in real time on C-Touch.

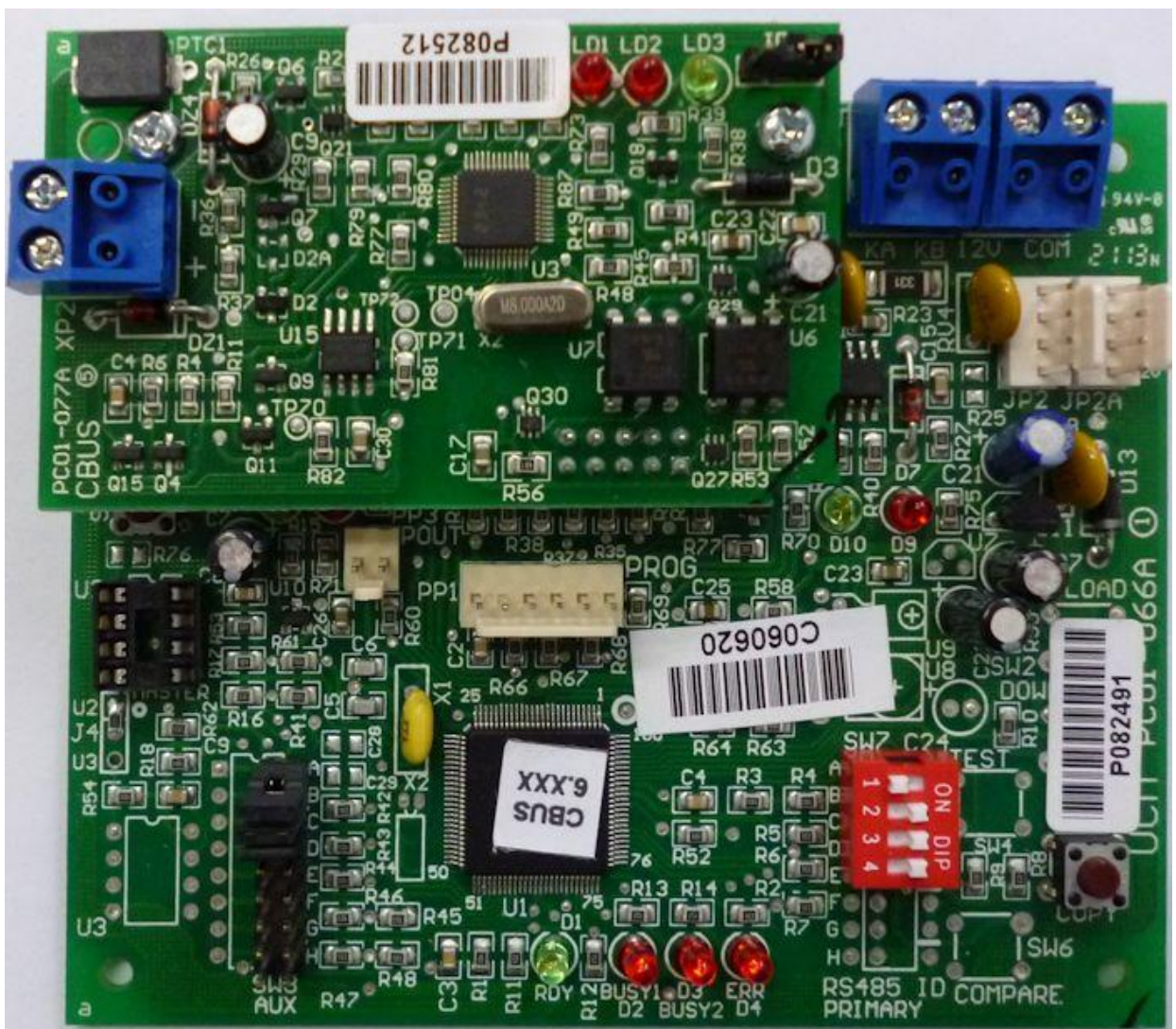
Equipment

The package includes

- UCM/CBus with plug-in C-Bus SIM module with firmware version UCM/CBus 6.xxx. This UCM type cannot be used to upload/download using Configurator. The function of this UCM is only to communicate with the C-Bus. The C-Bus SIM Module provides an interface between the UCM and the C-Bus network.

Comfort Requirements

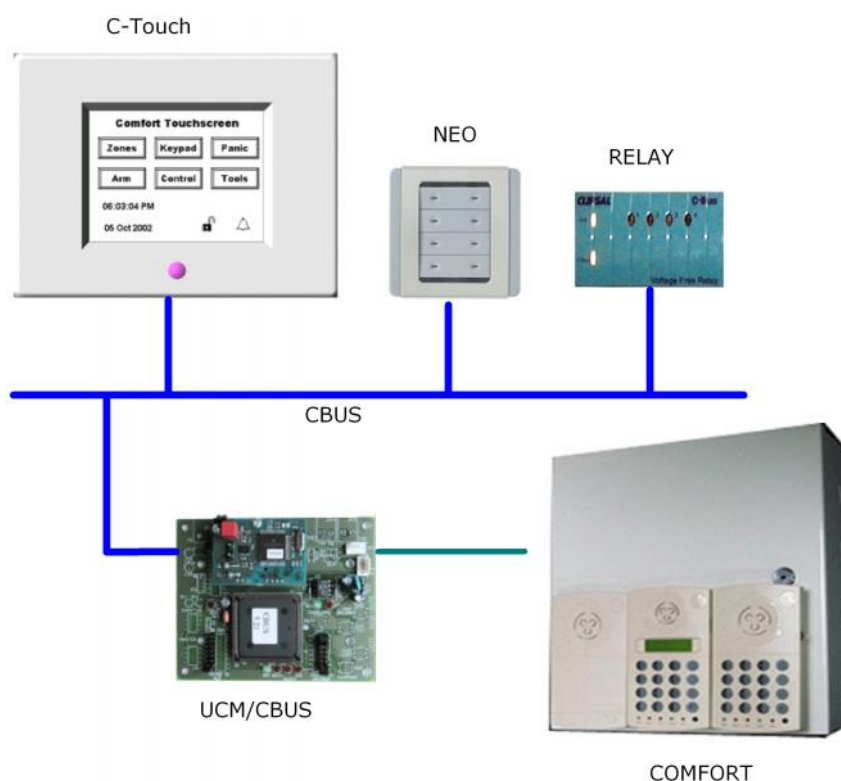
- Applicable to Comfort II, for all firmware versions. For Comfort I, firmware 4.204 and above only is compatible with the C-Bus Date/Time and Security Application, which are used for operation with the Clipsal C-Touch touchscreen.



UCM/CBus with CBus processor

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UCM Settings



Comfort in a C-Bus Network

Connections

- JP2 and JP2A - 4-way headers (12V/COM/KA/KB). Either connector can be connected to Comfort RS485 connector via the supplied cable when JP3 and JP4 are not used. This plug-in cable connection is used when the distance between Comfort and UCM is less than 0.3 meter. For longer distances, use the JP3 and JP4 terminal blocks.
- JP3 - 12V/COM terminal block. Connect to 12V/COM on Comfort.
- JP4 - KA/KB terminal block. Connect to KA/KB on Comfort.
- XP2 on SIM - 2 position terminal block for C-Bus cable. Polarity + and - is marked

Jumper Settings

- SW7 (RS485 ID Primary) - set according to ID of the UCM (see "UCM ID Switch" settings below) Comfort is able to support up to 8 UCMs. SW7 is a set of 4 headers or DIP Switches (later) which determines the UCM ID, according to the table below:

ID	SW7- A / DIP -1	SW7 - B / DIP - 2	SW7 - C / DIP - 3	SW7 - D / DIP - 4
1	Short / ON	Short / ON	Short / ON	Short / ON
2	Open / OFF	Short / ON	Short / ON	Short / ON
3	Short / ON	Open / OFF	Short / ON	Short / ON
4	Open / OFF	Open / OFF	Short / ON	Short / ON
5	Short / ON	Short / ON	Open / OFF	Short / ON
6	Open / OFF	Short / ON	Open / OFF	Short / ON
7	Short / ON	Open / OFF	Open / OFF	Short / ON
8	Open / OFF	Open / OFF	Open / OFF	Short / ON

By convention, UCM ID=1 is used for upload/download. The C-Bus UCM should be set to ID 2 or above so that any RS485 communications failure can be reported by Comfort. Press RESET on the UCM after changing the ID settings.

ID Setting using COPY Switch (from UCM/CBus 6.083)

From UCM/CBus Firmware 6.083, the UCM ID can be changed by use of the COPY

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switch. If SW7 1 to 4 are all OFF, then the UCM ID is determined by the saved setting in the U2 EEPROM. Pressing the COPY button momentarily will show the ID on its LEDS as shown below (in binary code)

ID	ERR (D4)	BUSY2 (D3)	BUSY1 (D2)	RDY (D1)
1	Off	Off	Off	On
2	Off	Off	On	Off
3	Off	Off	On	On
4	Off	On	Off	Off
5	Off	On	Off	On
6	Off	On	On	Off
7	Off	On	On	On
8	On	Off	Off	Off
Unassigned	On	On	On	On

To change the UCM ID assignment, press and hold the COPY button for at least 2 seconds. The UCM ID will be incremented to the next higher number up to 8. Press and release the COPY button to increment the ID until the desired ID is seen. If the COPY button is not pressed for 4 seconds, the ID is confirmed and the UCM is reset causing all the LEDs to momentarily turn on. This setting only works if the U2 EEPROM is present and the SW7 DIP switches are all off.

If the ID is unassigned, all LEDS are ON.

- The Number of UCMs in Configurator Modules and Settings should be programmed according to the number of UCMs connected. Up to 8 UCMs can be connected to the Comfort network.
- SW8 -G: set Shunt G On for scaling of Level announcement to range 0 -100. (Refer to the “Scaling” within section “Monitoring the C-Bus”).
- SW8-H: shunt H must NOT be inserted.
- JP1 on SIM: This is the C-Bus Network Burden jumper. The burden can be enabled by plugging the shunt on JP1 on the pins closer to the green LD3 LED and the centre pin. To disable the network burden place the shunt away from the green LD3 LED, or leave the shunt off altogether. Only 1 network burden can be enabled or connected on a C-Bus Network. The network burden is not required if the combined impedance of the C-Bus units on the network is below or equal to 1.5 K ohms, (about 70 standard C-Bus units). The C-Bus Installation calculator can be used to determine if the network requires a burden

Buttons

- SW1 - RESET. This button reinitialises the UCM/CBus. It does not change any parameters in Comfort or C-Bus.

LED Indicators on UCM

- D1 “RDY” (Green) should be on at all times.
- D2 “BUSY1” (Red) blinks if there is an incoming telegram from a monitored Group address.
- D3 “BUSY2” (Red) blinks when the UCM transmits a telegram to the C-Bus
- D4 “ERROR” (Red) Turns on if the C-Bus is not connected or power for the C-Bus is off.
- D9 (Red) RS485 Transmit to Comfort
- D10 (Green) RS485 Receive from Comfort
- D11 (Green) RS232 Receive Data from C-Bus.
- D12 (Red) RS232 Transmit Data to C-Bus.

LED Indicators on C-Bus SIM

- LD1 - indicates correct functioning of the SIM Module. This indicator also flashes briefly

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when a message is sent from the C-Bus network to the UCM.

- LD2 - indicates that the C-Bus supply voltage is sufficient (> 20V) and the network clock is present. If the C-Bus voltage is marginal (15 to 20V) the indicator will flash continuously.

ICs

- U1 - Microcontroller IC. Label indicates the firmware version number "UCM/C-Bus 6.xxx".
- U5 - RS485 Interface.

Connection Procedure

- 1 Before connecting the UCM to Comfort, set the ID on SW7 to the ID of the UCM according to the table in the previous section.
- 2 The UCM is connected to Comfort via the supplied 4-way white cable from 4-pin header JP2 to Comfort's header J15. This supplies power to the UCM, as well as allowing communications between Comfort and the UCM. It is not necessary to switch off the power to Comfort before plugging in this connection.
- 3 The Green RDY led on the UCM (D1) should light up and remain on. The LEDs D9 (red) and D10 (green) should blink rapidly showing that RS485 communications has been established between Comfort and the UCM. D9 (green) flashing shows that it is receiving communications from Comfort (poll). D10 (red) comes on when the UCM responds to a poll from Comfort.
- 4 The ERROR LED should come on if the C-Bus is not connected. BUSY1 and BUSY2 LEDs should remain off.
- 5 Screw in the C-Bus wires to the XP2 terminal block, taking care to ensure correct polarity. Plug in the terminal block to XP3 when the termination of the C-Bus is completed.
- 6 The ERROR LED should go off if the C-Bus is connected and is powered on. If the C-Bus is disconnected or the C-Bus power supply is turned off, and a command is sent to the C-Bus, the Error LED will come on.
- 7 The Green LED D11 flashes when there is data transmitted from the C-Bus, which will happen when there is any C-Bus activity, e.g. when a switch is pressed. The Red D12 LED flashes when there is data from Comfort to the C-Bus. D11 and D12 monitor raw communications with the C-Bus.
- 8 D2 (BUSY1) LED blinks when there is an incoming message from the C-Bus. D3 (BUSY2) LED blinks when a message is sent to the C-Bus.

C-Bus Configuration

The C-Bus Toolkit software (from Schneider) is used to configure and program the C-Bus network prior to programming the Comfort to C-Bus interface. The list of group addresses used in the network should be provided for the programming of the Comfort system for integration with C-Bus. Comfort cannot be programmed with the C-Bus programming tools; it needs to be programmed separately. Comfort will communicate with the C-Bus through these Group addresses.

The UCM/CBus SIM Module has a default factory unit address of FF (hex) and will probably be seen and identified as "INT_MIND". This should be changed via the C-Bus configuration software or C-Bus Toolkit to a unique unit address which does not conflict with any other device on the network. The C-Bus PCI (PC Interface) and C-Touch may also have the unit address FF by default.

- Note: If a PCI has the same unit address as a UCM/CBus, the C-Bus configuration software or C-Bus Toolkit will not detect the SIM Module and will not be able to resolve the conflict. If a standard C-Bus Dimmer or key input module has the same unit address as a UCM/CBus, the C-Bus configuration software or C-Bus Toolkit see

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the conflict and try to resolve it if the appropriate setting is enabled on the software. This applies to C-Bus V2 configuration software v 2.6

Programming Comfort to send C-Bus commands

For an understanding of the C-Bus concepts, please refer to the appropriate C-Bus documentation. It is beyond the scope of this manual to provide details of C-Bus messages, operation and programming.

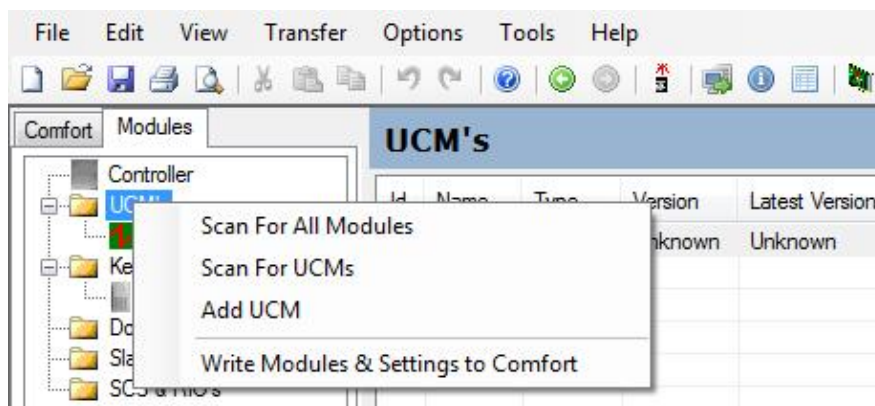
Comfort can be programmed to communicate with C-Bus via action codes using the keypad or through Configurator software programming tool.

Using Configurator

Use the Configurator software to program Comfort to communicate with C-Bus. The software can be downloaded from <http://www.cytech.biz/configurator.html>

A UCM/USB or UCM/Ethernet is required to connect to the computer running Configurator.

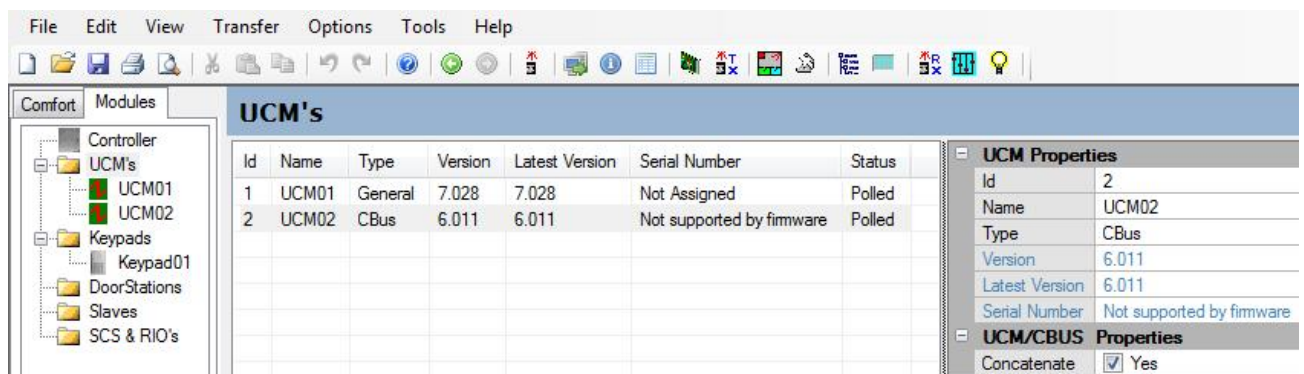
Run Configurator, go to the Modules Tab and right-click on UCMs folder symbol as shown below.



“Scan for All Modules” will automatically detect all UCMs including the UCM/CBus if the ID is set correctly without any conflict with other UCMs.

“Add UCM” allows you to manually add a UCM/CBus if not currently connected to Comfort, i.e. when doing programming off-line.

The result of scanning or adding a UCM/CBus is shown below for UCM Id 2;



When the cursor is placed on the “CBus” type UCM in the middle pane above, the UCM

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Properties are visible on the right pane.

“Name” is any text description for the UCM used to Identify it and serves no other function.

“Type” is the UCM Type which should be CBus

“Version” is the UCM/CBus firmware version which in this example shows 6.011. If the UCM/CBus was manually added instead of being scanned, the firmware information will not appear.

“Latest Version” is the latest release version available when internet connection is present.

“Serial Number” is the electronic serial number of UCM/Cbus, not implemented yet.

“Status” shows the status of UCM/Cbus. It is ‘Polled’ when the UCM/Cbus is detected and matched the number of UCMs programmed. ‘**Not Polled**’ will be displayed when the UCM/Cbus is detected by scanning but the number of UCMs programmed is less than the UCM/Cbus Id. ‘**Not Found**’ is shown when the UCM/Cbus is not connected to Comfort when scanning is done.

The “Concatenate” checkbox in UCM/CBus properties when checked will cause several messages to the same application to be combined in a single message to the bus thus reducing the sending time on the bus.

🔊 Concatenated commands reduces traffic on C-Bus and is recommended. Do not send more than 14 CBus On/Off commands or 10 Ramping i.e. dimming commands. If more C-Bus commands are required, use a Timer to set 1 to 2 seconds delay before the next concatenated command. This applies to concatenated and non-concatenated commands.

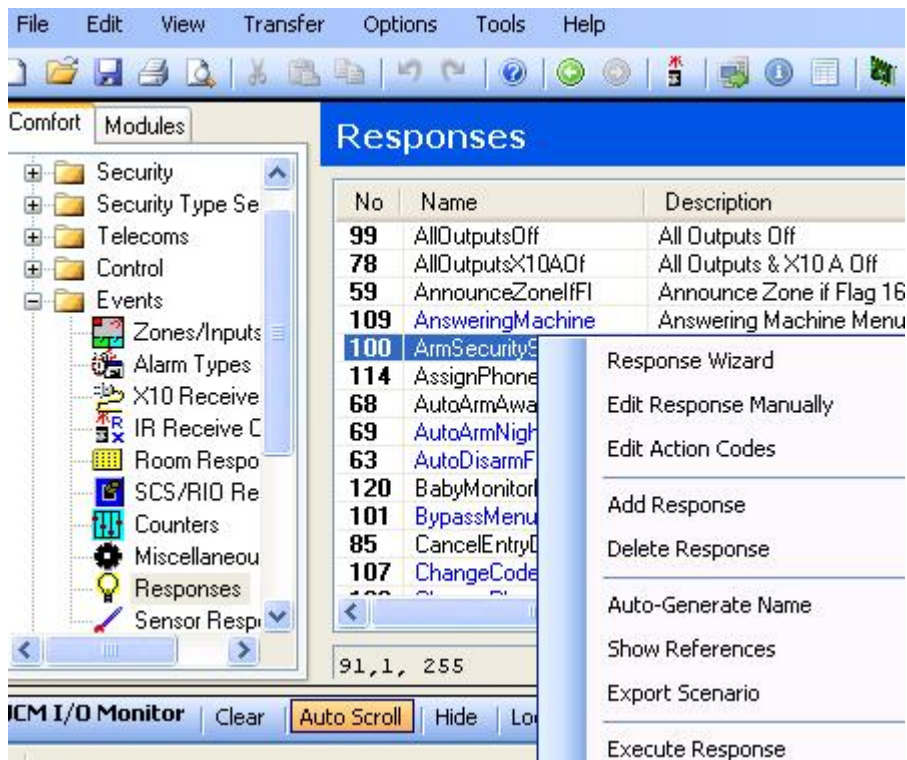
Sending Commands to C-Bus: The Response Wizard

Comfort Responses are programs that can be triggered by any Event in Comfort, e.g. Zones, Alarms, Time Programs, as well as combinations of events using logic e.g. If Time is 11 PM to 6 AM then turn on Lights 1 and 2 for 3 minutes when Motion is detected AND Security system is armed. This is a very important tool to configure a customised behaviour according to the customers needs.

The Response Wizard will allow valid commands to be sent to UCM/CBus

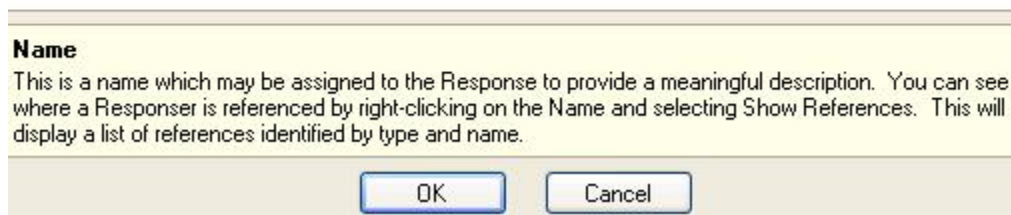
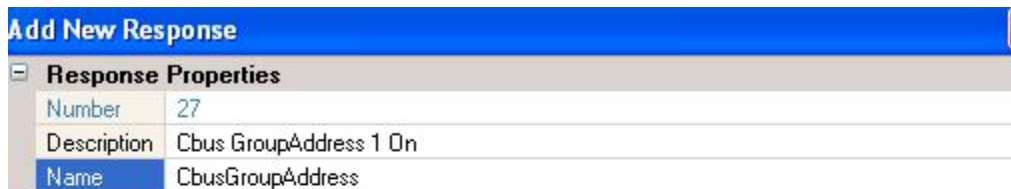
Go to Events > Responses, right click in the Responses Window

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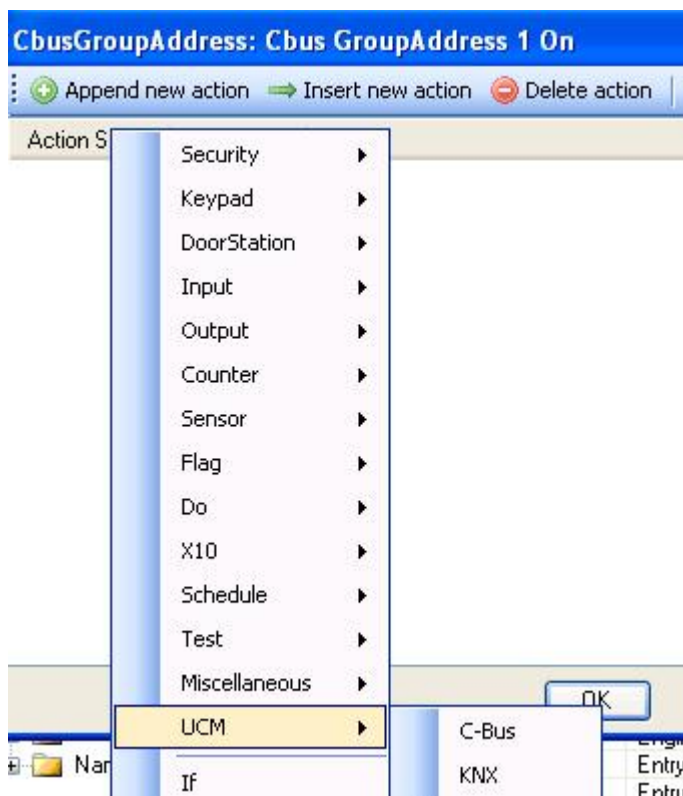
Select "Add Response" to create a new Response, or "Response Wizard" to edit the selected Response.

To Add a new Response, enter the Response Description in the pop-up window and press ENTER. The Name will be automatically generated as shown;

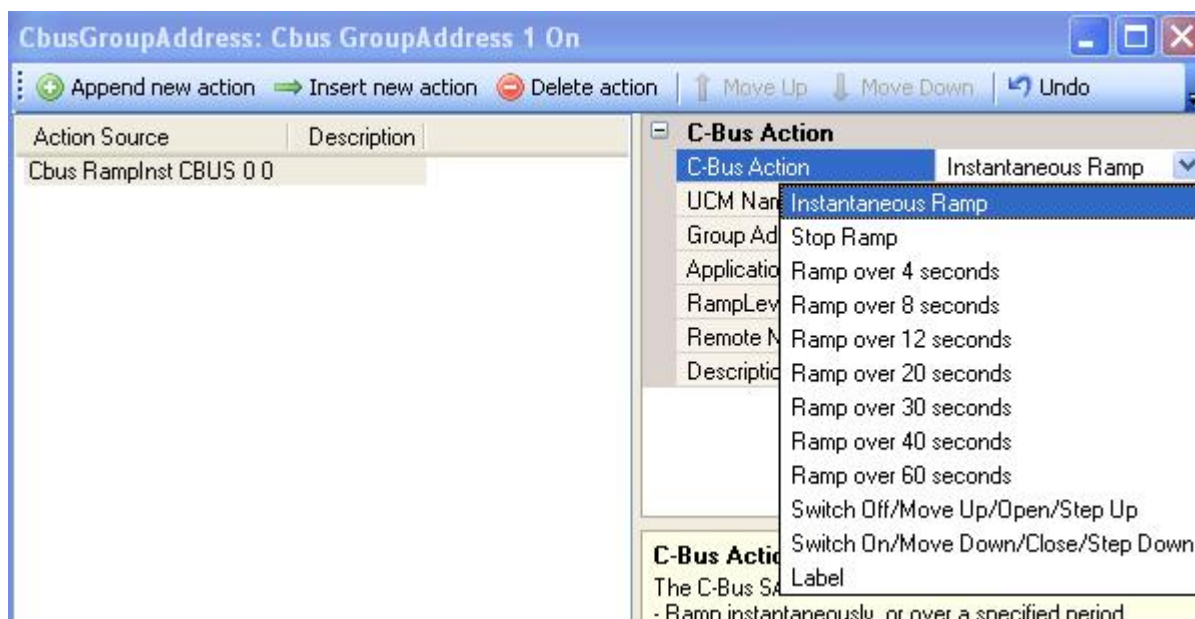


Press OK. A new window will Open to append new action. Select UCM and CBus as shown below. Note that this is visible only if the UCM/CBus has been added to the list of UCMs by scanning or manual addition.

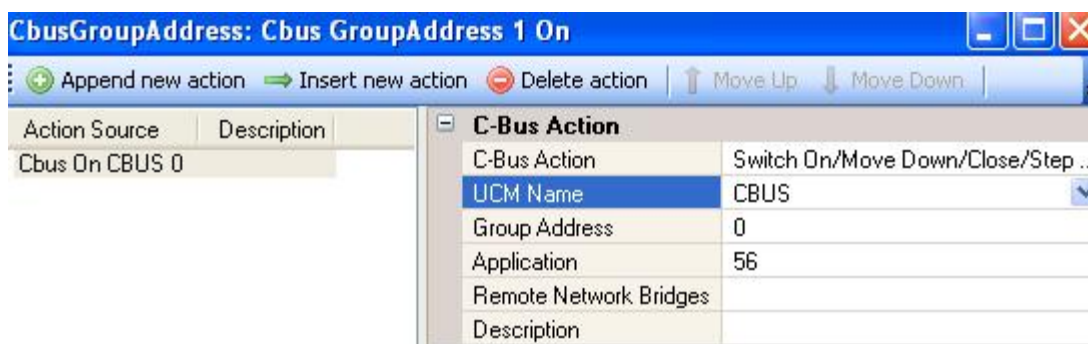
Comfort to C-Bus Interface



The list of valid C-Bus commands will appear as shown below



Select one of the commands. The parameters for the command can then be selected.



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C-Bus Action

This includes Instantaneous Ramp, Stop Ramp, Ramp over 4 seconds, Ramp over 8 seconds, Ramp over 12 seconds, Ramp over 20 seconds, Ramp over 40 seconds, Ramp over 60 seconds, Switch Off/Up, Switch On/Down

UCM Name

This is the name given to the UCM as an identification

Group Address

A Lighting Group address 0 to 254 is entered

Application

Enter a CBus Application ID Application 56 (Lighting) is the default value. Comfort can send messages to any Application ID, but can only receive messages from the Lighting, Time/Date and Security Application.

Remote Network Bridges

Enter the list of Remote Network Bridges if any

Description

This is a text description to identify the command, used as documentation.

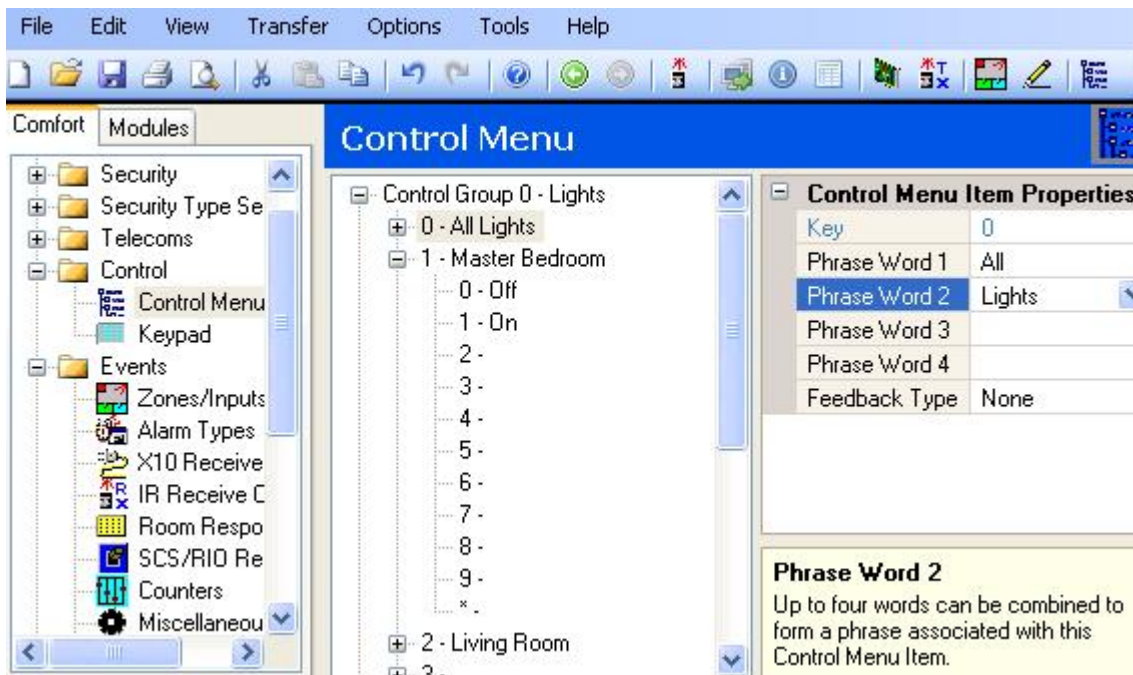
Control Menu for CBus

The Home Control Menu can be programmed to control Cbus addresses. The screenshot below shows an example of a Home Control Menu. Comfort Ultra has 6 Control Groups, which may be programmed as Lights, Aircons, Blinds etc.. Each Control Group can have 10 Control Keys e.g. for All lights, Living Room Light, Bedroom light etc., and each Control Key can have 10 Actions or commands e.g. On, Off, Dim, Bright, Up, Down etc.. Each Group, control key and Action Key can have words assigned for announcement.



The screenshot below shows the programming of the Control Group 0 "Lights" when expanded.

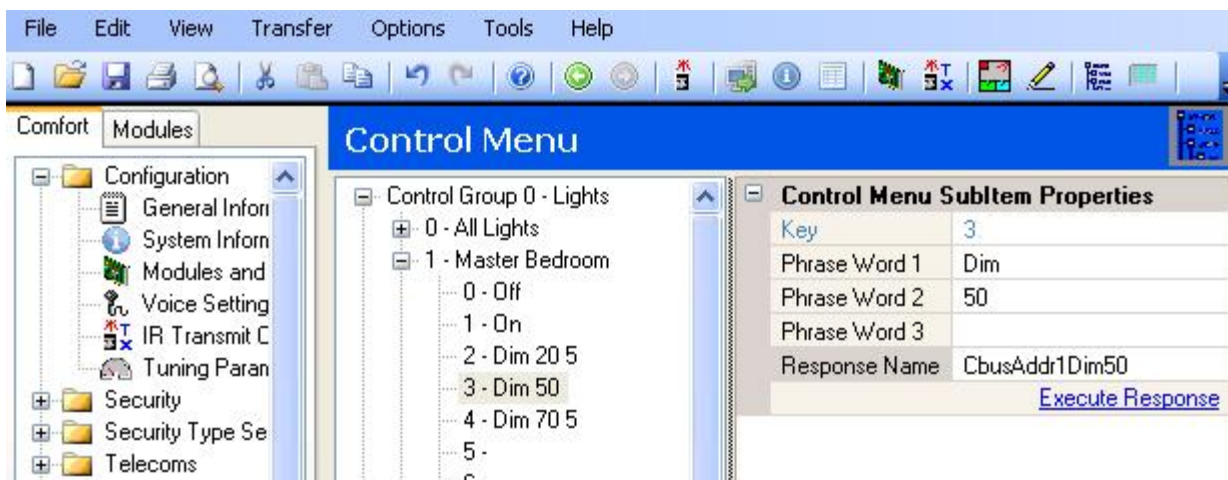
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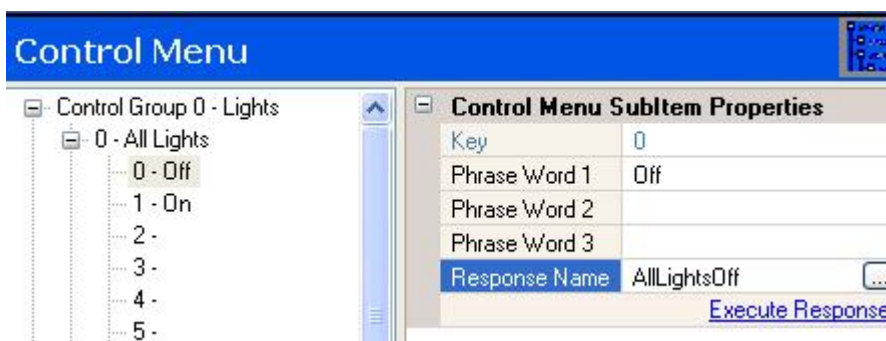
In the above screenshot, Control Group 0 “Lights”, Control Key 1 is Master Bedroom and action keys are 0 for Off and 1 for On.

The Off key and On key activates Responses to control the CBus Group Addresses

The example below shows how on, off and dimming to various levels can be programmed for a single Lighting address.



All Lights On and Off can be programmed to switch on and off all Cbus lights in the premises.



A Response can combine several previously programmed Responses, e.g. All Lights Off

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can have Do CbusGroupAddress1 Off and Do CbusGroupAddress2 Off as shown below;

Select a Response		
No	Name	Description
25	AllLightsOff	All Lights Off
16	AnsweringMachine	Answering Machine Menu
5	AutoArmNightFrom	Auto Arm Night from Security Off only
3	AutoDisarmFromNi	Auto Disarm from Night Mode only and not in Alarm
9	BypassMenu	Bypass Menu
21	CbusAdd1Dim25	CbusAdd1 Dim 25%
22	CbusAdd1Dim50	CbusAdd1 Dim 50%
23	CbusAddr2Off	CbusAddr2 Off
24	CbusAddr2On	CbusAddr2 On
2	CbusGroupAddr1Off	Cbus Group Addr 1 Off
1	CbusGroupAddress	Cbus GroupAddress 1 On
15	ChangeCodeMenu	Change Code Menu
14	ChangePhoneMenu	Change Phone Menu
19	ChangeTimeProgr0	Change Time Program
17	EngineerCodeEnab	Engineer Code Enable. Activate Alarm 30
13	EventLog	Event Log

Do CbusGroupAddr1Off
Do CbusAddr2Off

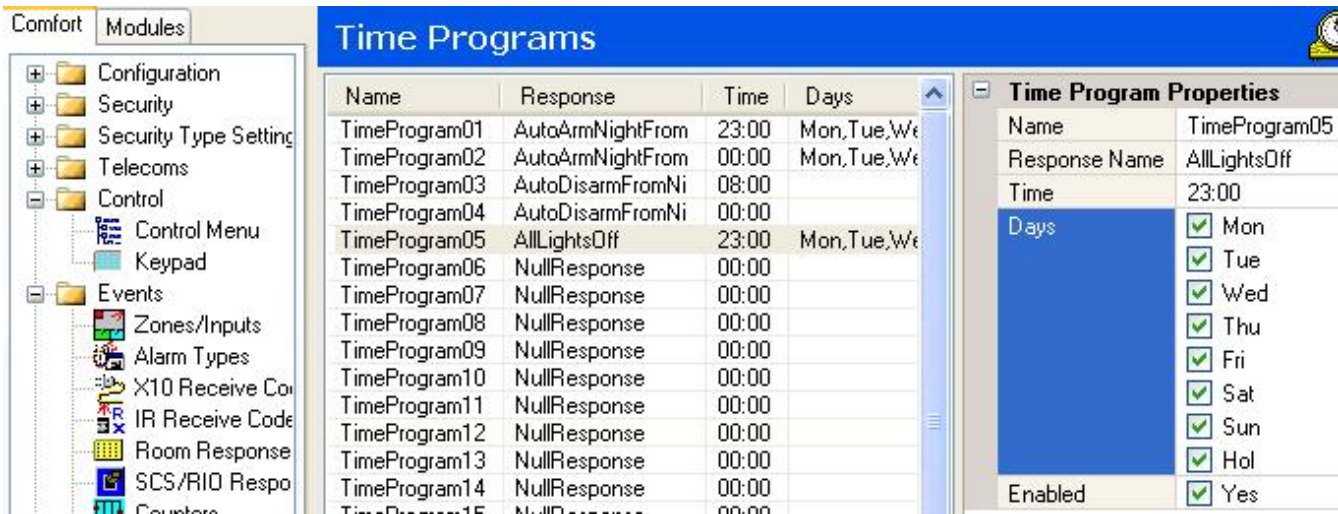
- 2 The Comfort iPhone App can also work on the programmed Home Control Menu to control and monitor the status of the programmed devices.

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Time Programs

Comfort Time Programs can be scheduled to send commands to CBus

In Configurator, go to Schedule > Time programs.



In the above example, Time Program 5 is programmed at 11 PM Monday to Sunday and Holidays to send All Lights Off command.

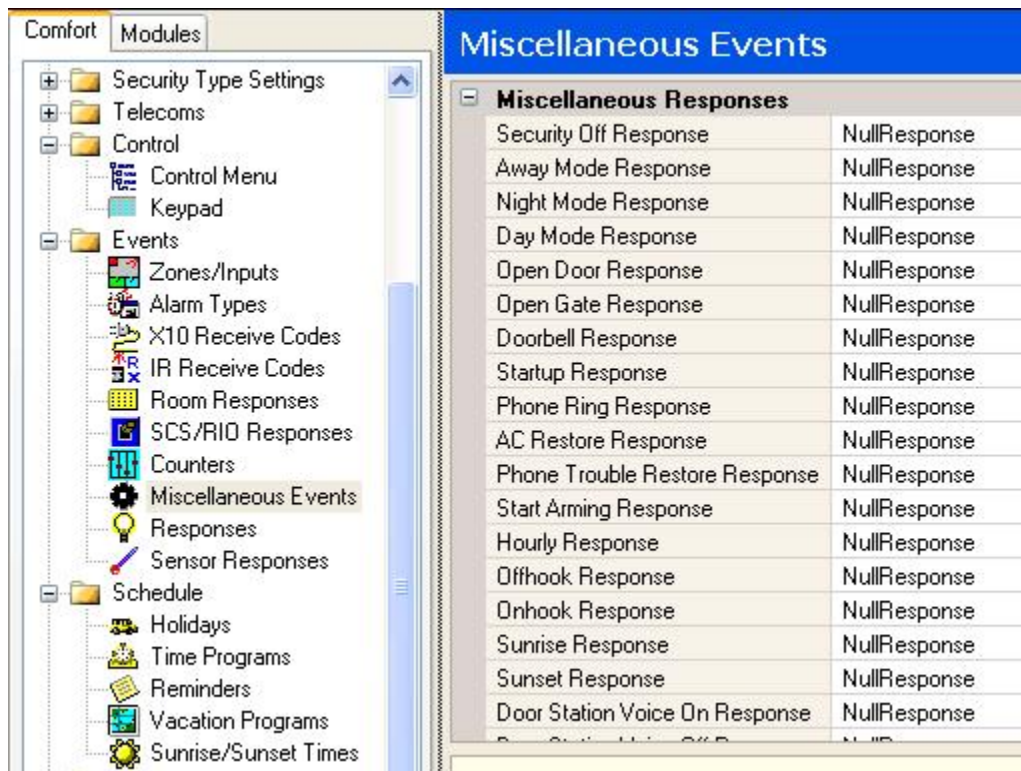
These are simple examples of how Comfort Responses can be triggered by Events to send commands to CBus

Other Events Trigger C-Bus

Other examples of Events which can trigger Responses to control CBus are;

- Zones (Inputs) triggered and Restored. See Security > Zones/ Inputs
- Alarms - each Alarm Type triggers an Alarm Response, see Security Types > Alarm Types.
- IR Receive Codes (using RC01 remote Control), see Events > IR Receive
- Sunrise and Sunset times, see Schedule > Sunrise/Sunset Times
- Hourly, see Events > Misc Events

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Monitoring C-Bus Status

UCM/CBus and above will monitor the C-Bus for Date and Timekeeping Application (DF) and Security Application (D0) as well as the Lighting Application (38). Date/Time and Security Applications require no programming as the behaviour is fixed based on the C-Bus communication protocol. Monitoring of the Lighting application is described here. At reset the UCM/C-Bus issues a Status request command to the C-Bus and receives the Status Reply, which reports the state of all Lighting Application Group addresses, which Group Addresses are unused, off, or their level if they are used. Then it sets Smart Mode on the PC Interface which causes it to report changes of group address levels. Subsequently, when the Group addresses are changed (for example by a key press), the UCM will receive the report from the C-Bus. These changes can be used to activate Comfort Responses, see "Activating Responses" below.

UCM/C-Bus is able to monitor commands from remote networks.

Comfort Counters

The Group addresses are monitored using Comfort Counters. Comfort 2 Ultra has 255 Counters (0 to 254) which are mapped directly to the corresponding Lighting Group Address (0 to 254). When a Group address on C-Bus changes its level due to a switch being pressed, the corresponding Comfort Counter is set to the same value. The level for any Group Address may be set to any value between 0 and 255. Switching On the light corresponds to a level of 255 and switching Off to a level of 0.

The status of the Light level can be heard on the Home Control menu by selecting Feedback Type = Counter and entering the appropriate Counter number for each Control Key. Each Control Key is associated with a Feedback Type and Feedback Value. These Feedback Locations can be used to announce the state of an Input, Output, or the value of an Analogue Input or Counter. When the feedback type is Counter and the Counter number is specified in the feedback location of a control key, the value of the counter will be announced when the key is selected. For example pressing "3 for Bedroom Lights" on the control menu gives the announcement "Bedroom Lights, 50" if

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the Group address has a value of 50. If the counter specified in the feedback location is 0 or 255, then instead of the numeric value, the words programmed for Action Key 0 (e.g.. “Off”) or Action key 1 (e.g.. “On”) will be announced. The control key will say (e.g..)

“Light is ON (or OFF),

Press 0 for Off, 1 for On”

If the light is dimmed the menu would be

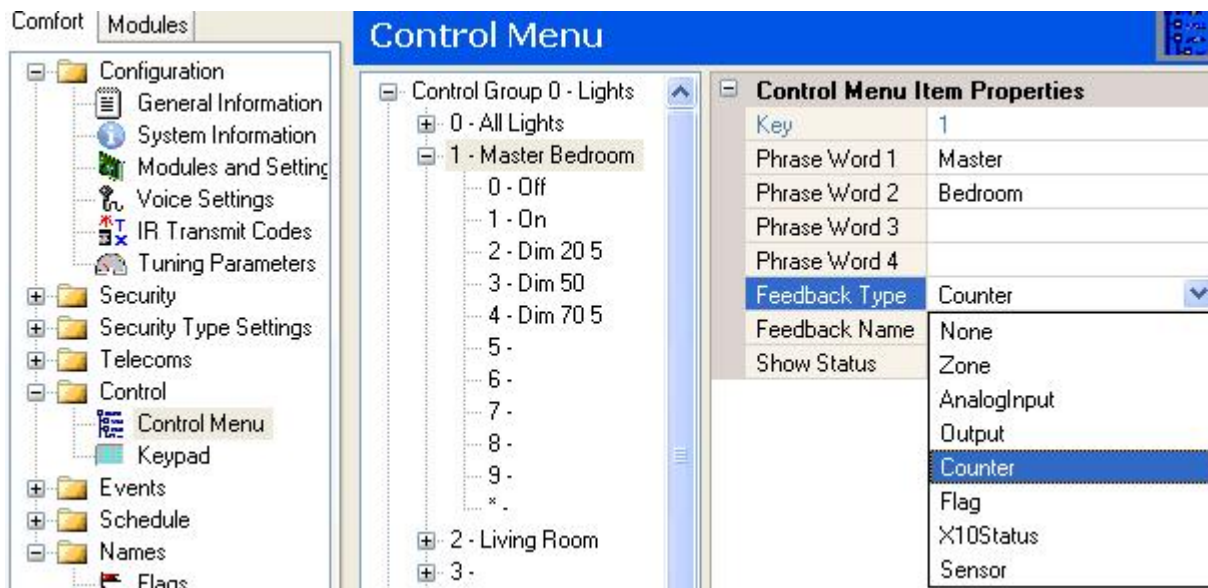
“Light is (number)

Press 0 for Off, 1 for On”

Where the number announced corresponds to the level from 1 to 254 of the Group address.

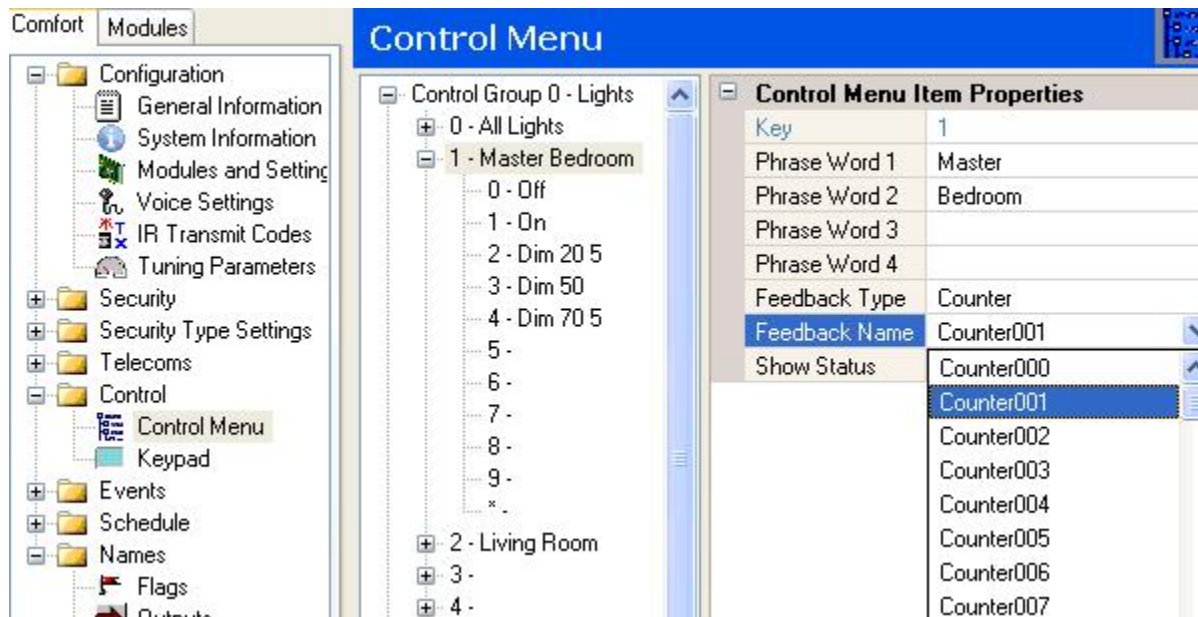
C-Bus Group address 0 corresponds with Counter 0, ..., Group address 63 corresponds to Counter 63 etc.

This can be easily programmed using Configurator. Select Control -> Control Menu, and select any control key which controls a C-Bus device. The example below shows Control Group 0 - Control Key 1 “Master Bedroom”.



For “Feedback Type”, select “Counter” from the list of possible Feedback Types in the dropdown list above. Next select a Counter from the list Counters in “Feedback Name” in the screenshot below.

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Comfort monitors C-Bus group addresses, and saves the contents of each Group address in the equivalent Counter corresponding to the group address number.

When Comfort sends a CBus command to change the level of a CBus Lighting group address, the corresponding Counter is also updated. E.g. If Comfort turns on the CBus Lighting Group Address 2, then Counter 2 is also changed to 255.

Scaling of Counter values

A Group address which is On has a value of 255, while a Group address which is off has a value of 0. For dimming Group addresses the value can be from 1 to 254.

There is an option to scale the level values (0 to 255) to a range of 0 to 100 corresponding to the percentage brightness which is readily understandable to most people. This is achieved by setting the shunt G in SW8. If the shunt is out, there is no scaling and if the shunt is inserted, scaling will be done. If scaling is selected, a level of 128 will correspond to a counter value of 50.

When Comfort receives an update of the counter values from the C-Bus Interface, it will broadcast the counter address and the new value to other UCMs so other applications, for example the CWM Comfort Webserver Module will know what is happening on the C-Bus and display the state of these devices.

Activating Comfort Responses by C-Bus Group Addresses

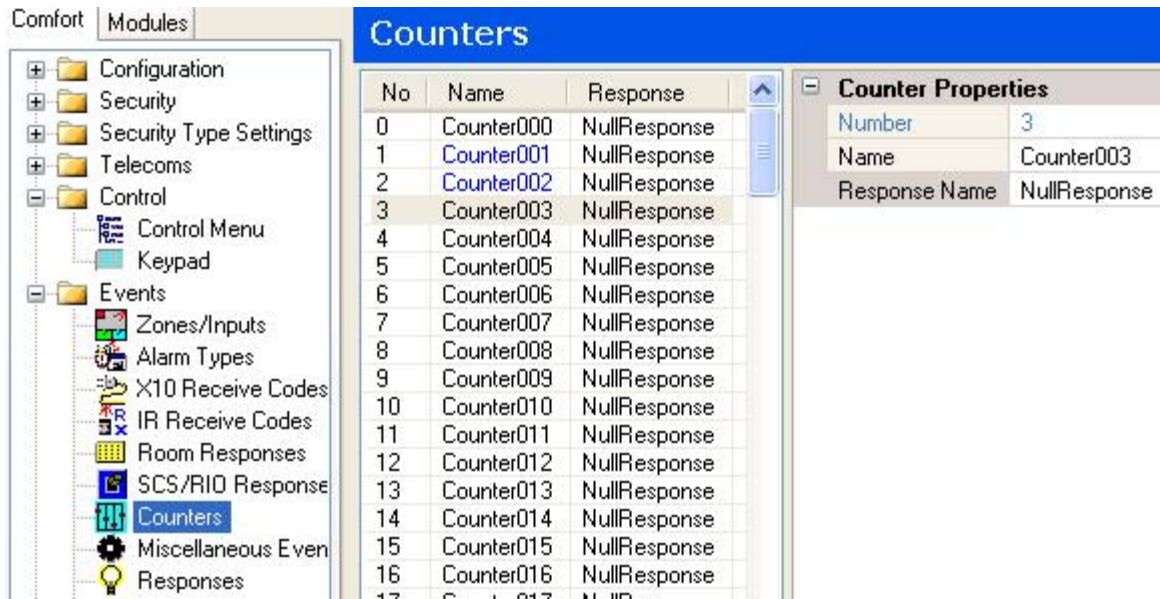
When a Lighting Group Address change is communicated to Comfort using the counter mechanism, a Counter Response can be activated which can then control other appliances not on the C-Bus, like air-conditioners, gates, home entertainment systems or perform any function which can be programmed in Comfort.

Each Counter 0 to 254 corresponding to a Group address activates a Response specified in Configurator > Counters.

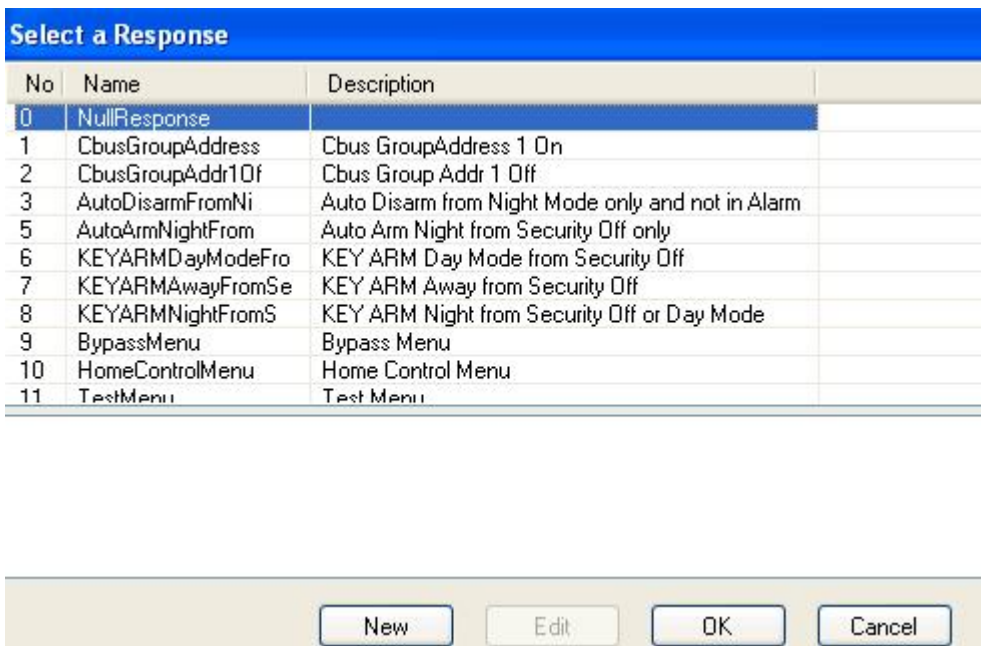
The list of 255 Counters, each with a Counter Response appears as shown below. For each counter, you can specify a Response which will be activated when a Group address corresponding to the Counter is received from the C-Bus. For example, when C-Bus Lighting Group address 3 switch to ON is received from C-Bus, Counter 3 is loaded with the value 255. The Counter Response for Counter 3 will be activated. When C-Bus Lighting Group address 3 OFF is received from C-Bus, Counter 3 is loaded with the

Comfort to C-Bus Interface

value 0. The Counter Response for Counter 3 will be activated.

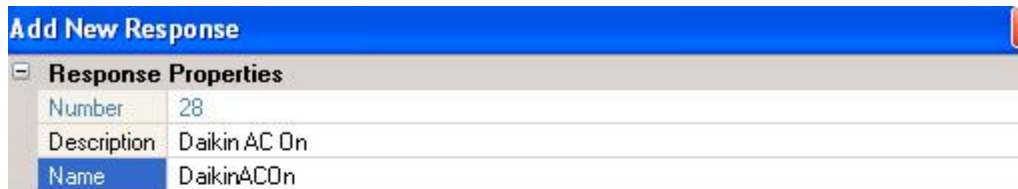


In the example above, Counter 3 Response Name is “NullResponse” which means there is No Response activated. To change this and create a Response which switches on an Airconditioner by IR when CBus Lighting Group Address 3 is received from CBus, click on the Response Name on the Right Pane. A window “Select a Response” pops up as shown below.



Either scroll through the Responses list to select an existing Response, or select the “New” button. This opens a new Window titled “Add New Response”. Enter a Description for the Response and press Enter to auto-generate the Name and press OK

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Add New Response

Response Properties	
Number	28
Description	Daikin AC On
Name	DaikinACOn

Name

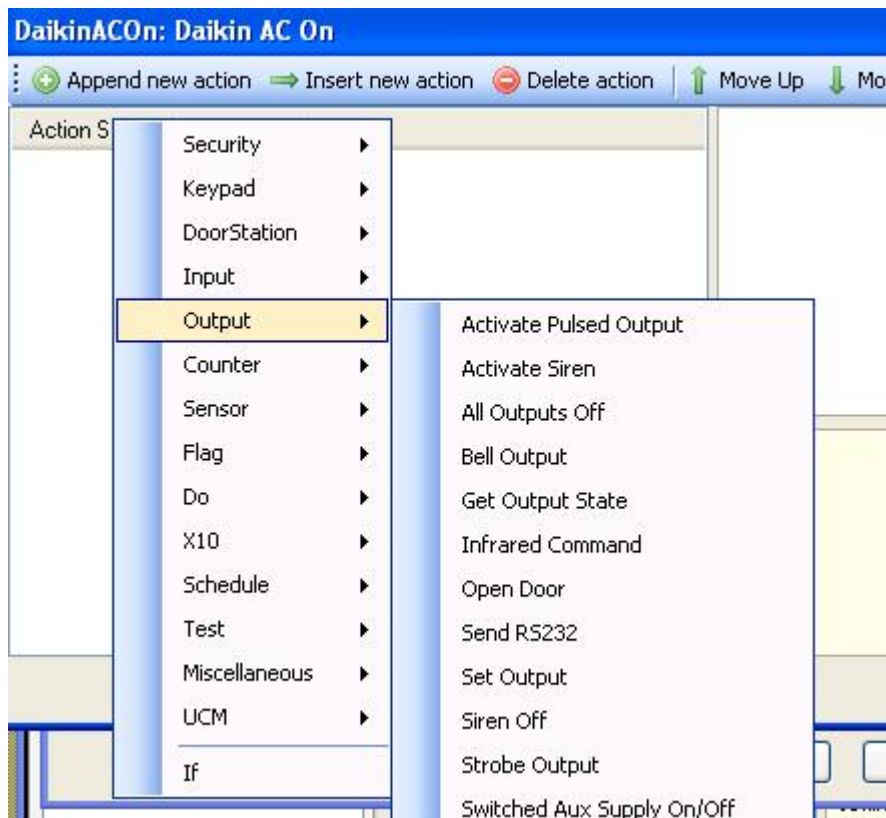
This is a name which may be assigned to the Response to provide a meaningful description. You can see where a Responder is referenced by right-clicking on the Name and selecting Show References. This will display a list of references identified by type and name.

OK

Cancel

Press Append New Action.

A list of Actions appears as shown below. In this example, to send an IR signal to an Output, select “Output” and “Infrared Command”

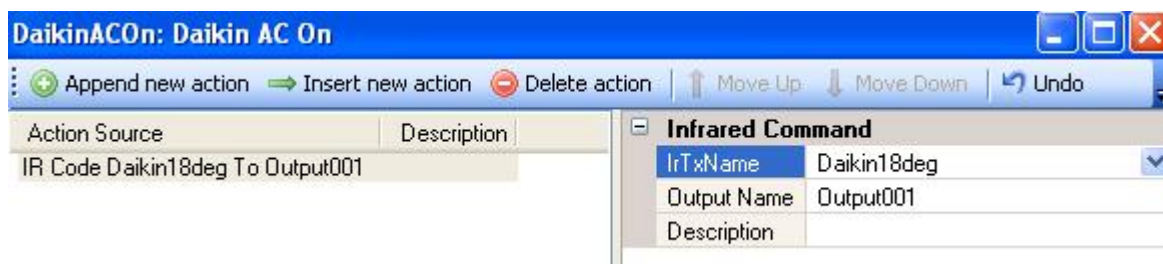


DaikinACOn: Daikin AC On

Append new action Insert new action Delete action Move Up Move Down

Action Source	Description
Security	
Keypad	
DoorStation	
Input	
Output	Activate Pulsed Output
Counter	Activate Siren
Sensor	All Outputs Off
Flag	Bell Output
Do	Get Output State
X10	Infrared Command
Schedule	Open Door
Test	Send RS232
Miscellaneous	Set Output
UCM	Siren Off
If	Strobe Output
	Switched Aux Supply On/Off

The next screen allows you to select the list of IR codes (which are defined in Configuration > IR Transmit Codes). Select the Output Name.



DaikinACOn: Daikin AC On

Append new action Insert new action Delete action Move Up Move Down Undo

Action Source	Description
IR Code Daikin18deg To Output001	

Infrared Command

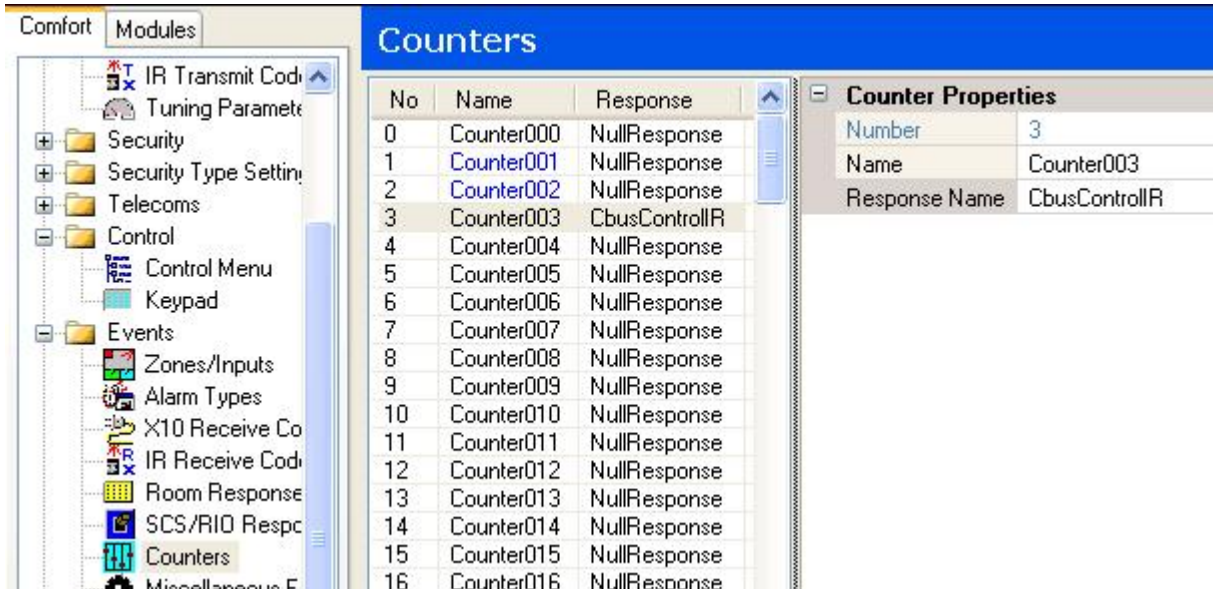
IrTxName	Daikin18deg
Output Name	Output001
Description	

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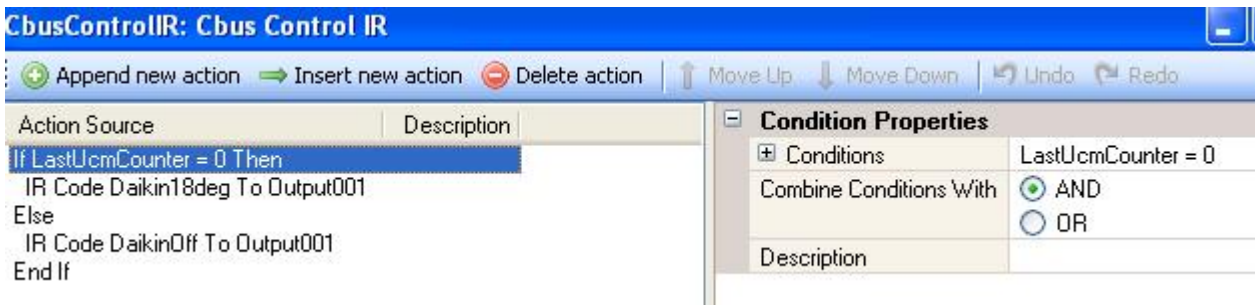
Click OK. This example shows how to create a Response to send an IR signal to any output when a CBus Lighting Group address is received.

In practice, the system would be programmed to switch on the Aircn when the CBus button is switched to the ON state and vice versa. This can be done using the conditional logic capability of Comfort.

See the following example on how this can be done.



In the example above, Counter 3 Response is named “CbusControlIR” with the programming as shown below.



If Last UCM Counter = 0 means if the Value of the Counter that triggered the Response is 0. Hence the above Response will do “IRCodeDaikin18deg to Output001” when the CBus command is OFF and do “IRCodeDaikinOff to Output001” when the CBus command to the group address is On.

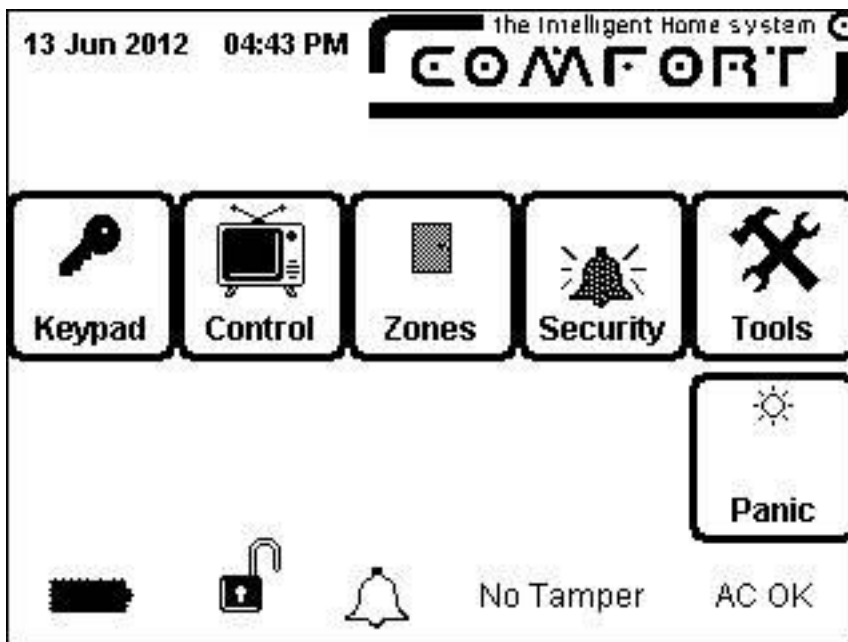
- ☛ Sending CBus commands to a Lighting Group Address will change the corresponding Counter, but will not activate the Counter Response.

Programming C-Touch for Security Integration

The C-Touch Colour and B&W touchscreens can be used as a keypad for Comfort, or to display zone and alarm information from Comfort, as well as to set the time and date in Comfort. To demonstrate the capabilities which are possible, a sample file `comfort.cdt` in a zip archive is provided which can be downloaded from http://www.cytech.biz/product_details.php?item_id=148

PICED software version 3.8.0 or above should be used. Comfort II supports the C-Bus Security and Date/Time Applications.

Load the file using the PICED software. You may encounter a warning message saying that "There is no Unit Address selected. A unit address will be needed if downloading via C-Bus". If so, click on "OK" and proceed.



on the main page, 5 buttons are displayed, namely Keypad, Control, Zones, Security, Panic, and Tools. The date and time are also shown on the screen for all pages will be updated upon any change in change in date and time for Comfort and, similarly, for Comfort, any change in date and time for C-Touch will change the time for Comfort.

The Battery, Arm State, and Alarm State icons, as well as text indicators for Tamper Alarm and AC Failure indicate the current status of Comfort. A Low Battery condition will result in a change of the battery icon from  to .

When Comfort is armed (be it Away, Night, Day or Vacation), the lock symbol switches from  to . In

alarm conditions, the Bell icon will then be changed from  to . For cases of Tamper alarm, the text "No Tamper" will indicate "TAMPER" instead. Similarly, the "AC OK" text will become "AC Fail" when Comfort encounters an AC power failure (in cases where the Standby Battery provides the backup power).

Status Icons

This section serves to illustrate how the various status's shown on the main page is depicted.

Arm Status

This status shows the current arm status, but does not show the security mode. The

Comfort to C-Bus Interface

icon is used is a lock and its status is reflected as such:

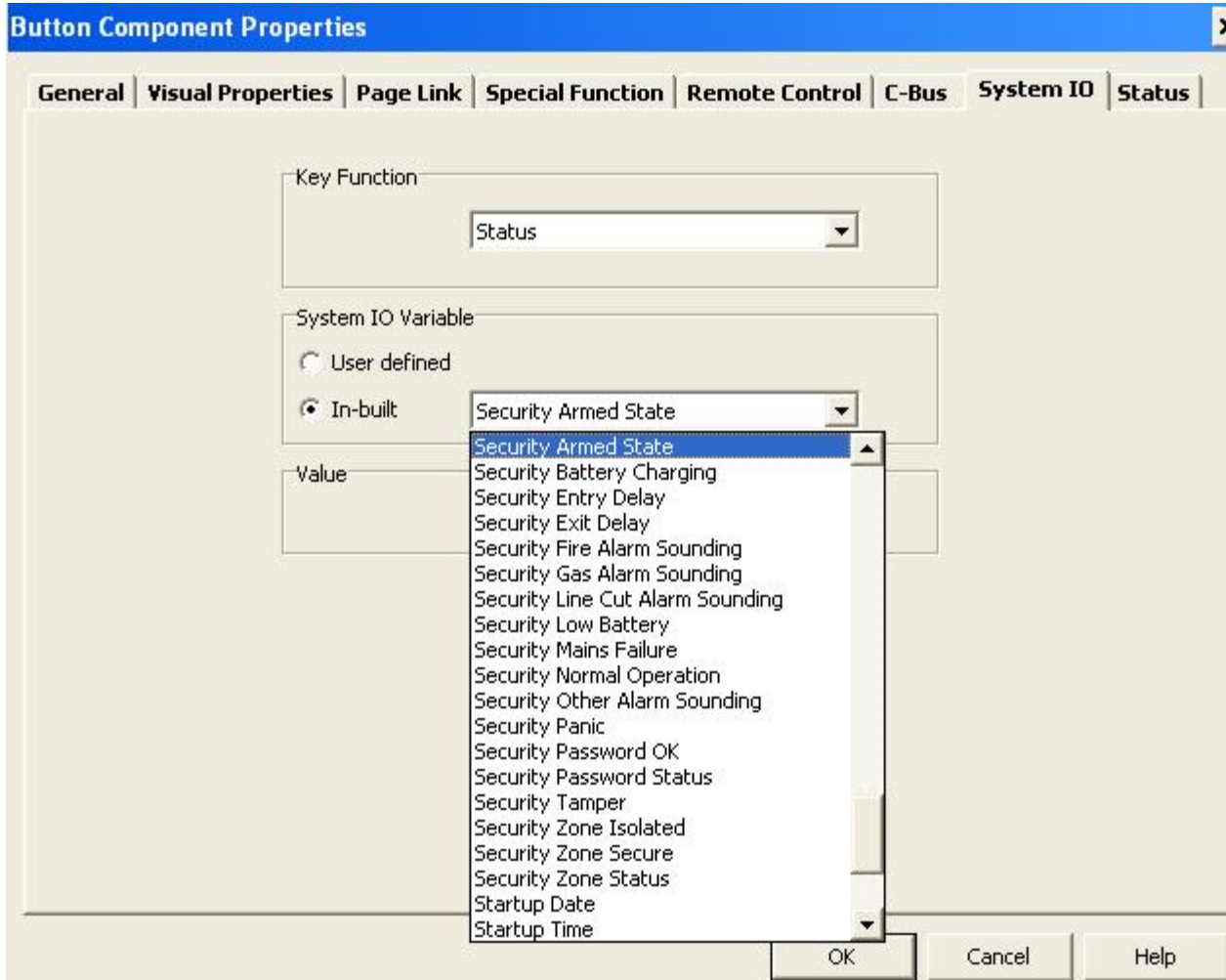


: System is disarmed



: System is armed.

This status utilises the Security Application. To program the status, double-click on the lock icon to bring up the following page. Select the System IO Tab.

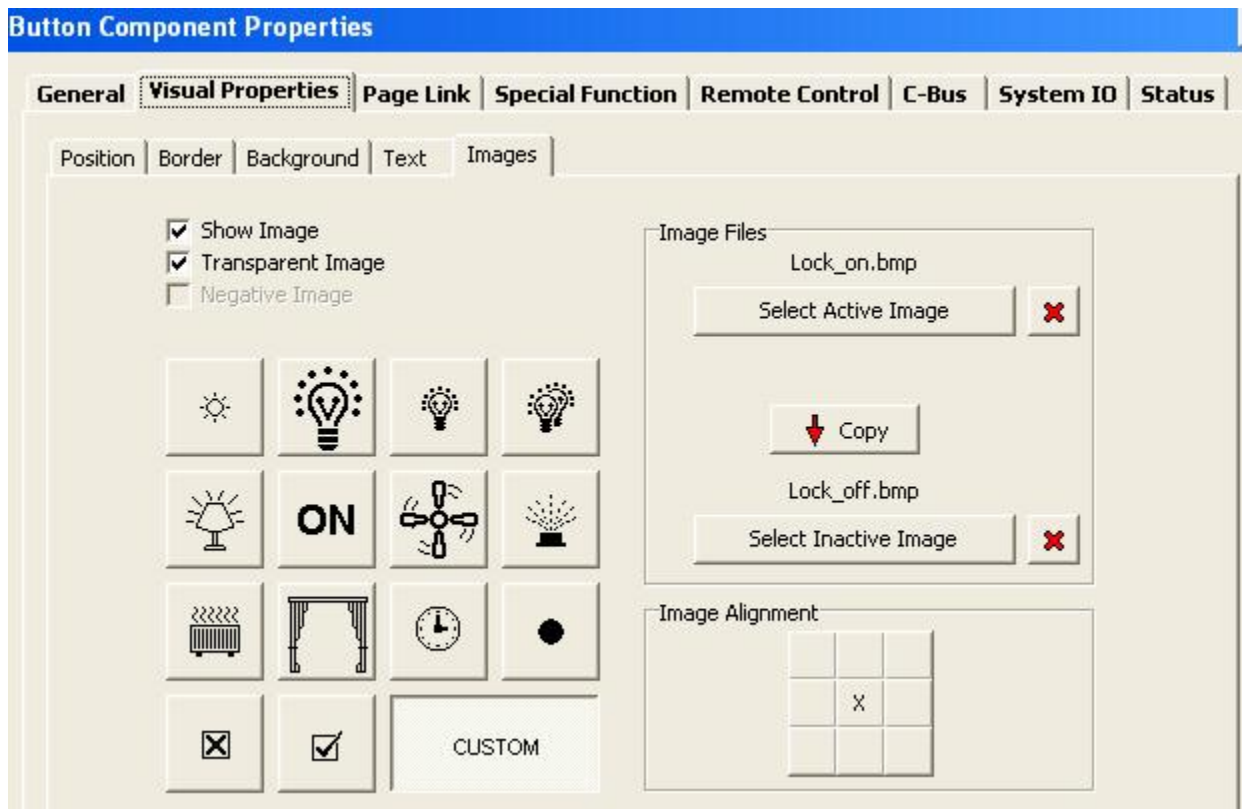


To show the Security arm status, the following must be set:

- Key function: Status
- System I/O Variable = In-built, Security Armed State
- Value N/A

To show the images for Armed and Disarmed states, select Visual Properties Tab, select Images sub-tab. To use custom images, select CUSTOM, then select Active Image (for system Armed) and Inactive Image (for system disarmed)

Comfort to C-Bus Interface



Alarm State

This icon serves to show when the system is in Alarm.

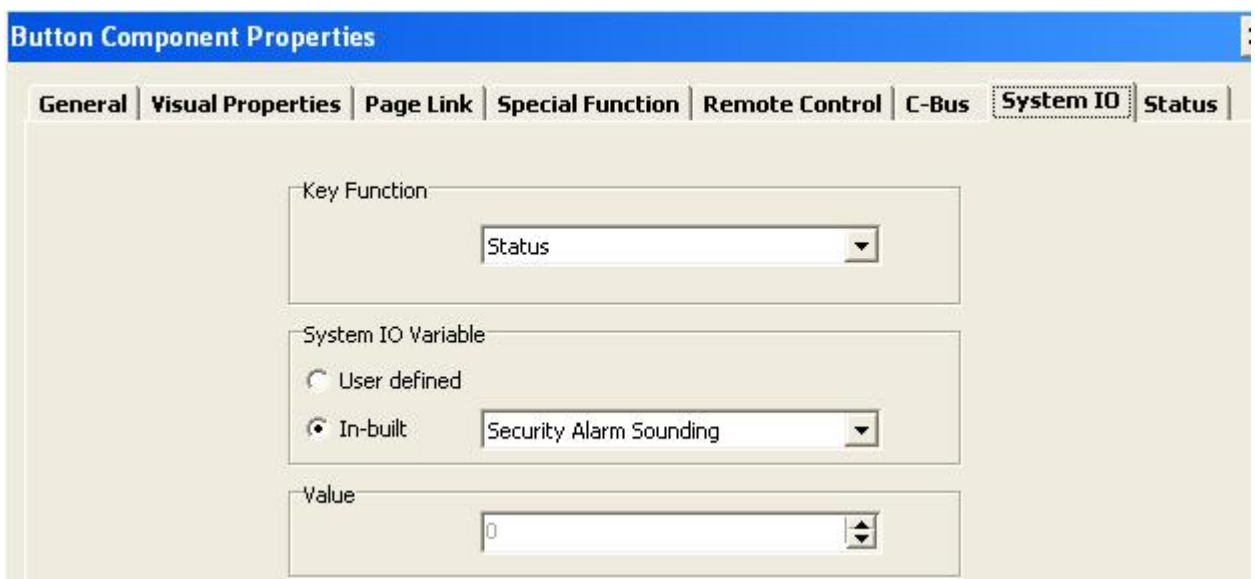


: System is not in alarm (idle, trouble, or alert)



: System is in alarm.

To program the status, double-click on the lock icon to bring up the following page. Select the System IO Tab.



To show the alarm status, the following must be set:

- Key function: Status

Comfort to C-Bus Interface

- System I/O Variable = In-built, Security Alarm Sounding
- Value - N/A

To show the images for Armed and Disarmed states, select Visual Properties Tab, select Images sub-tab. To use custom images, select CUSTOM, then select Active Image (Alarm) and Inactive Image (No Alarm)

Battery State

This reflects the current battery condition.

: Battery is in normal condition (i.e. no low battery condition). If no battery is connected, the low battery will not appear.

: Battery is low.

Programming the battery state is similar to the arm and alarm status, double-click the battery icon. Select the System IO Tab

To show the battery status, the following must be set:

- Key function: Status
- System I/O Variable = In-built, Security Low Battery
- Value - N/A

To show the images for Armed and Disarmed states, select Visual Properties Tab, select Images sub-tab. To use custom images, select CUSTOM, then select Active Image (Low Battery) and Inactive Image (Battery OK)

Mains Failure

The sample C-Touch program uses the Text Font Status to indicate the mains status (AC OK for mains normal, AC FAIL for mains failure situations).

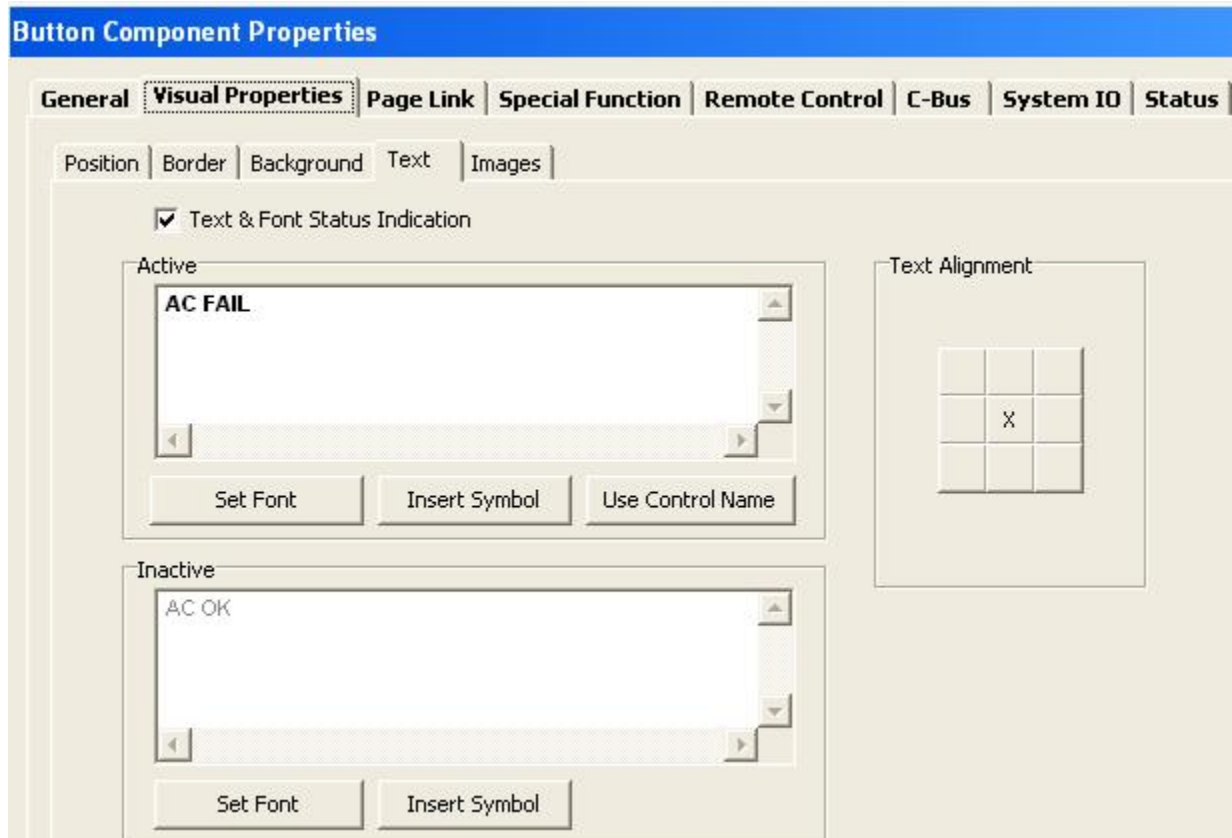
Programming the mains status is similar to the previous example, double-click on the text (AC OK) Select the System IO Tab.

To show the Mains OK/Failure Status, the following must be set:

- Key function: Status
- System I/O Variable = In-built, Security Mains Failure
- Value - N/A

To show the Text Status for AC Fail and AC OK, select Visual Properties Tab, select Text sub-tab. Enter the Active Text (AC Failure) and Inactive Text (AC OK)

Comfort to C-Bus Interface



Tamper Status

The status of the tamper inputs can be displayed as well. This is programmed in the same way as the previous status with the following settings:

- Key function: Status
- System I/O Variable = In-built, Security Tamper
- Value - N/A

To show the Text Status for AC Fail and AC OK, select Visual Properties Tab, select Text sub-tab. Enter the Active Text ("Tamper") in BOLD and Inactive Text (Tamper OK)

Arm Ready Status

This is used to inform the user whether the system is ready to be armed or not (i.e. when there are open zones).

To program for such a display, a button or a text display can be created, with the following settings set for the C-Bus settings under its Component Properties:

- Key function: Status
- System I/O Variable = In-built, Security Arm Ready
- Value - N/A

This status is active if all monitored zones are closed and hence the security system can be armed.

To show the Text Status for this, select Visual Properties Tab, select Text sub-tab. Enter the Active Text (Arm Ready) and Inactive Text (Arm Not Ready)

Entry Delay Status

This is used to inform the user when an Entry Delay is active, i.e. when an Entry door is opened while the system is armed.

To program for such a display, a button or a text display can be created, with the following settings set for the C-Bus settings under its Component Properties:

Comfort to C-Bus Interface

- Key function: Status
- System I/O Variable = In-built, Security Entry Delay
- Value - N/A

To show the Text or Image Status for this, select Visual Properties Tab, select Text sub-tab or Image subtab.

Exit Delay Status

This is used to inform the user when an Exit Delay is active, i.e. when the security system is being armed but before completion of the arming process.

To program for such a display, a button or a text display can be created, with the following settings set for the C-Bus settings under its Component Properties:

- Key function: Status
- System I/O Variable = In-built, Security Exit Delay
- Value - N/A

To show the Text or Image Status for this, select Visual Properties Tab, select Text sub-tab or Image subtab.

Password OK Status

This is used to inform the user when a valid code has been entered

To program for such a display, a button or a text display can be created, with the following settings set for the C-Bus settings under its Component Properties:

- Key function: Status
- System I/O Variable = In-built, Security Password OK
- Value - N/A

To show the Text or Image Status for this, select Visual Properties Tab, select Text sub-tab or Image subtab.

Keypad Emulation

The Keypad Button directs the user to the Keypad Page as shown below:



Here the various buttons work as if they were pressed via a Comfort keypad . When the system is armed, entering the user code will disarm the system.

In PICED, double-click on the key or button to access the Button Properties page. Select the Special Function Tab.

Comfort to C-Bus Interface

The screenshot shows the 'Button Component Properties' window with the 'Special Function' tab selected. The 'Special Function' dropdown menu is set to 'Security Keypad'. Below it, the 'Keypad Key' dropdown menu is open, displaying a list of keys: 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #, Enter, Shift, Panic, Fire, and Arm. The key '1' is highlighted in blue, indicating it is the selected key.

Select the fields as follows;

- Special function: Security Keypad
- Keypad Key: select a key function from the dropdown list

The following keys can be implemented on the simulated keypad;

0 to 9, *, #, Enter, Panic, Fire, Arm, Away, Night, Day, Vacation

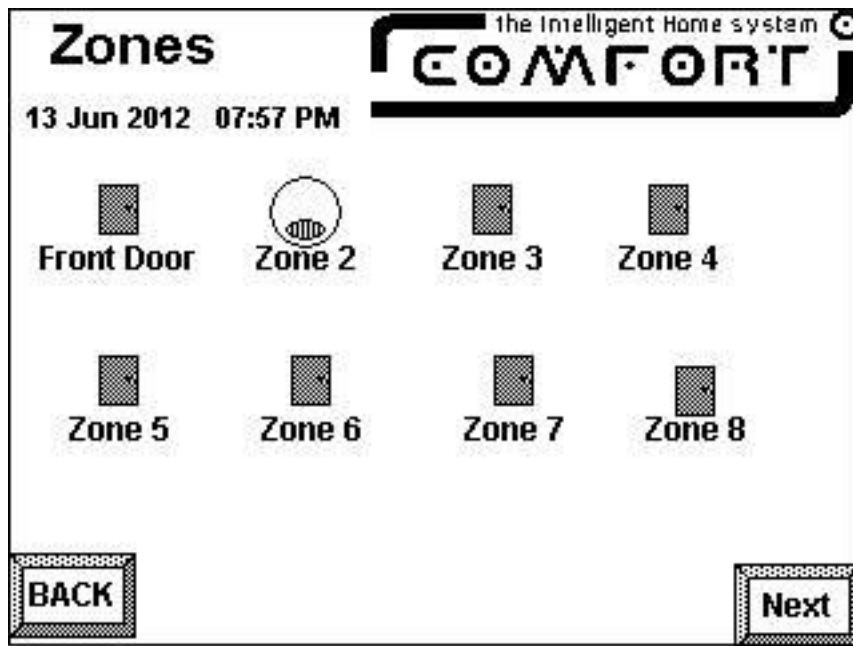
Away, Night and Day, Vacation keys arm to the selected mode, and the Panic and Fire keys will activate the Panic and Fire alarm respectively. Arm key will arm to Away Mode. The # key acts like the # key on the keypad. Pressing the code and # key when the system is not armed will play the voice menu on the “keypad” but as there is no speaker on C-Touch, the voice menu will not be heard. The Enter key is like the # key i.e. it will enter the code, except that the system will not try to play the voice menu

Panic and Fire keys will activate an Immediate Panic and Fire alarm respectively.

Zone Status

The security page allows users to monitor Comfort zones on C-Touch. The status shown is their real-time status.

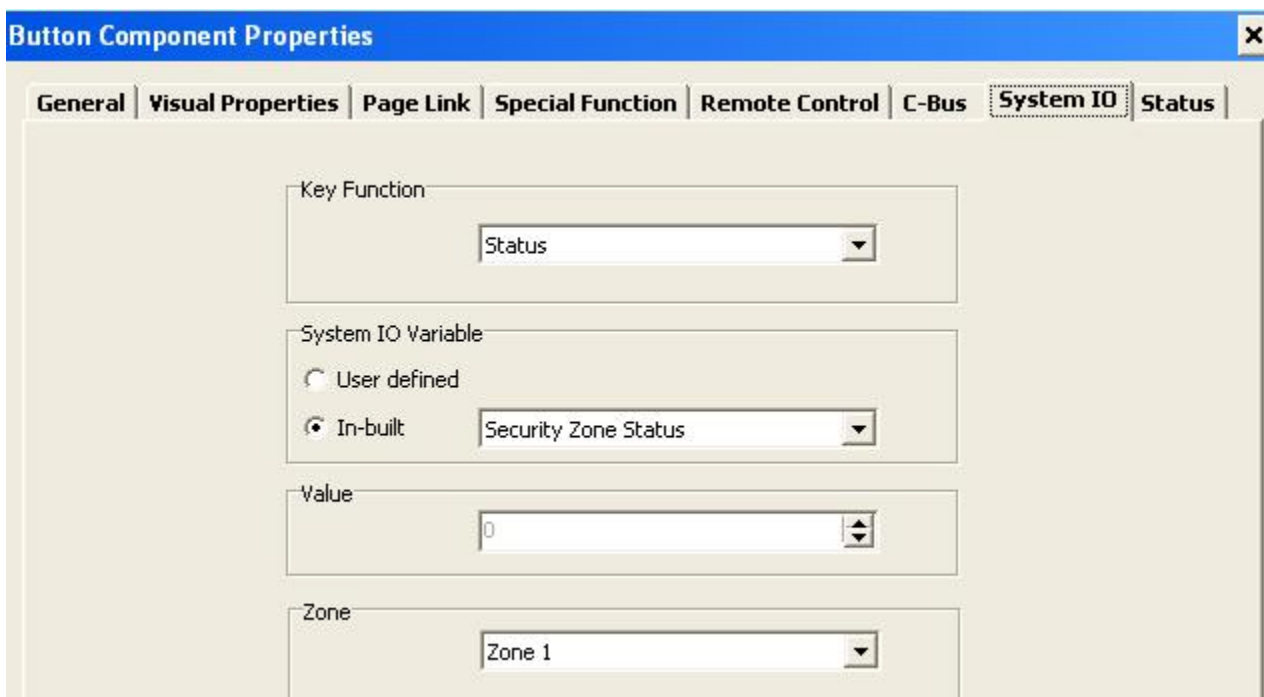
Comfort to C-Bus Interface



In this example, 8 security zones are monitored. Any number of zones can be monitored subject to the size of the touchscreen. The zones can be split up into be several pages denoting different levels or areas in the home. It is possible to design a bitmap for the layout of the rooms in the house and to position the sensors in the appropriate locations.

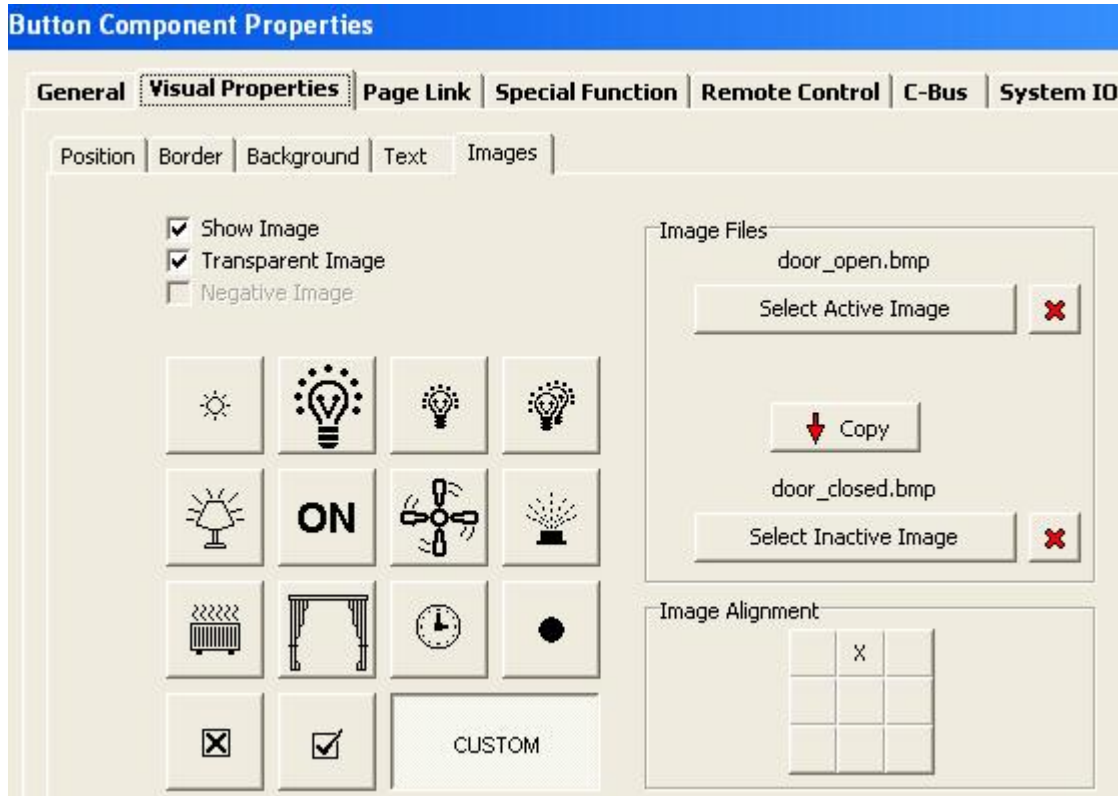
To select the zones to be monitored, double-click on any zone to show the Button Properties page. Select the System IO Tab.

- Key function: Status
- System I/O Variable = In-built, Security Zone Status
- Value - N/A
- Zone - Select Zone Number



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Under the Visual Properties Tab, the visual appearance for the button can be customised to display the zone status when the zone is on and off. Select Custom and select the Active Image (zone open) and Inactive Image (zone closed). On the Text Tab you can enter the fixed text to identify the zone, e.g. "Front Door".



Time and Date Synchronisation

When the date and time is changed via C-Touch, it is similarly updated in Comfort and vice versa. In Comfort, enter the user code, go into Program menu (user menu 9), then select 2 to change date and time. Changes in the system time will result in a change in C-Touch displayed time. The Clocks / timekeeping Application is used to relay this information.

Summary of Security Application Messages

Security Status Messages (Comfort -> C-Bus)

Table 2: Security Status Messages

Security Status Messages	Group Address (hex)	C-Touch Key Function	Status
System Armed/ Disarmed	80	Status	Disarmed=OFF, Armed = On
Exit Delay Started	81	-	ON when exit delay started
Entry Delay Started	82	-	ON when entry delay started
Alarm Status	83	Status	Idle, Trouble, Alert = OFF, Alarm state = ON
Tamper	84	Status	Tamper = On, No Tamper = OFF
Panic activated	85	Status	On when Panic activated
Zone Not Ready	86	Dimmer	Ready = OFF, Not ready = Zone number
Zone "unsealed"	86	Replaced by Zone Not Ready function	
Zone "sealed"	87	Not implemented	
Zone open circuit	88	Not implemented	
Zone short circuit	89	Not implemented	
Zone Isolated	8A		Not used for C-Touch
Battery	8B	Status	Low = ON, OK = OFF
Battery Charging	8C	Not implemented	
Zone Name	8D	Not implemented	
Status Report 1	8E	-	Not used for C-Touch
Status Report 2	8F	-	Not used for C-Touch
Password Entry	90	-	1- Valid 2 - Invalid (See Note) 3 - Disabled 4 - re-enabled, not implemented
Mains Failure	91	Status	OK = Off, Mains Fail = On
Arm Ready/Not Ready	92	Dimmer	Ready = OFF, Not ready = Zone number
Line Cut	94	Status	OK = Off, Cut = On
Arm Fail	95	-	Arm Fail =On
Status Report 1	AC	-	
Status Report 2	AD		

Note: The Invalid Password Entry message is received when there is a wrong sign-in code entered from C-Touch, or after pressing the F-key as Comfort expects another key after the F, or if a key is pressed while another keypad is active.

Security Control Messages (C-Bus -> Comfort)

Table 3: Security Control Messages

Security Control Messages	Group Address (hex)	Key Function	Tag
Status 1 request	A0		Not used for C-Touch
Status 2 Request	A1		Not Used for C-Touch
Arm System	A2	Preset, Instantaneous	Away=1, Night=2, Day = 3
Tamper On/Off	A3	On/Off	-
Activate Alarm (Panic)	A4	On	-
Keypad Emulation	A5	Preset, Instantaneous	Keypad digit
Display Messages	A6	Not implemented	
Request Zone Name	A7	Not implemented	

C-Bus Communications Notes

When the C-Bus UCM starts, it puts the C-Bus Interface into Basic Mode, i.e. without monitoring of the C-Bus, then requests for a Status Report of all Group Addresses. The C-Bus PC Interface then reports the state of all Group addresses used in the system. Comfort saves the state (but not the level) of each Group address in the respective Counter (which corresponds to the Group address number). However, only the ON/OFF status of each Group address is reported, and not the level if it is not fully on or off (for dimming lights). When the Status report has been received, Comfort puts the PC Interface into Smart Mode which means all Group address changes are reported to the PCI Interface and hence to Comfort. Comfort will then keep track of all group address changes in the respective counter. If the C-Bus power supply is not switched on when Comfort is powered up or reset, the UCM/C-Bus will continue to request for C-Bus Status until a Status Reply is received.

If the C-Bus network switched off, the BUSY and ERROR LED on UCM/CBus come on when a command to C-Bus is sent but not acknowledged. When the C-Bus comes on line again, UCM/CBus will request for a status report in order to synchronise with the state of the monitored group addresses. This can be seen from activity on the BUSY and ERROR LEDs.

There are several types of C-Bus SIM which may be used with UCM/CBus;

- 1 Firmware Version 3 with marking 1551/1 on the SIM Module
- 2 Firmware Version 4 and higher

There are minor differences in protocol between these versions, the most important difference being the Power-Up Notification message is available for version 4. Both are supported by UCM/CBus and detected automatically. For SIM firmware Version 3, when C-Bus is powered off when Comfort remains on, the BUSY and ERROR LEDs will turn on after 10 seconds. This does not occur for SIM firmware version 4 because Power-Up Notification allows UCM/CBus to know when the C-Bus network has been powered off. In either case, UCM/CBus is able to take the appropriate action to set the SIM to the correct mode if the C-Bus network has been powered off and back on.

The BUSY1 LED blinks when a monitored group address in the Lighting, Time/Date or Security Application is received. The BUSY2 LED turns on when UCM/C-Bus sends a message to C-Bus. BUSY2 LED is turned off when the acknowledgement from C-Bus is received indicating that the message was transmitted successfully. If a message was not acknowledged in time, the command is resent once (The C-Bus SIM has its own retransmission mechanism).

UCM/C-Bus is able to send and receive messages to and from remote networks through bridges. It can send and receive concatenated messages in the supported applications

Technical Note: Action Code 197

Action 197 is used to send commands to the C-Bus. For single group addresses, this has 3 to 5 parameters

Single Command Format for Local Network

Format: 197, <ID>, <GroupAddress>, <SAL command> [, <ramplevel>] [, <application>]

The parameters within the square brackets [] are optional depending on the message.

<ID> is the ID of the UCM, i.e.. 17 = UCM 1, 18 = UCM 2 etc..

<GroupAddress>

Comfort to C-Bus Interface

Valid values range from 00 to 254. Refer to C-Bus documentation for a full description of the Group address concept. Group addresses link C-Bus output units to input units. Comfort can send commands to all 255 Group addresses.

<SAL Command>

SAL Command	Function
1	Switch Off
121 (79H)	Switch On
2	Instantaneous Ramp to <ramplevel>
10	Ramp over 4 seconds to <ramplevel>
18	Ramp over 8 seconds to <ramplevel>
26	Ramp over 12 seconds to <ramplevel>
34	Ramp over 20 seconds to <ramplevel>
42	Ramp over 30 seconds to <ramplevel>
50	Ramp over 40 seconds to <ramplevel>
58	Ramp over 60 seconds to <ramplevel>

<ramplevel>

is the ramp level for a SAL ramp Command. This ranges from 0 for Off, 255 for On, and any value in-between for intermediate dim levels. If the SAL command is ON or OFF, this parameter can be left out. It will be ignored if included. <ramplevel> can be left out if <SAL Command> is 01 or 121.

<Application>

is the C-Bus application ID. If not specified, 56 (38H) for Lighting is used. <Application> is required only if the Application is not the default 56. If <application> is included, <ramplevel> must also be included, but if ramplevel is included, application may be left out

Examples

197, 18, 1, 121, 255 sets Group address 1 ON for UCM ID=2

197, 19, 16, 1, 255 sets Group address 16 OFF for UCM ID=3

197, 18, 2, 10, 128, 255 sets Group address 2 to ramp over 4 seconds level 128 for UCM ID=2

197, 18, 3, 18, 200, 56,255, sets Group address 3 to ramp 8 seconds to level 200 for Application 38 for UCM ID=2. <Application> is not needed unless an application different than the default of 56 (38H) is specified.

“Escape” Character 15 within Action 197

In Action 197, 15 is an “escape” character - it has a special meaning.

15, 254 terminates the action 197. This is needed as action 197 can have a variable number of parameters, so 15,254 ends the action string and allows other actions to be added after Action 197. If there are no actions following action 197 with its parameters, 255 can be entered as a terminator.

i If action 197 is not the last action in the response, terminate it (action 197) with 15,254 before adding the next action

e.g. 197, 18,1,121,15,254, 128,1,1,255. After setting Group address 1 ON, the Comfort Response “Output 1 ON” follows.

e.g. 197, 18, 1, 121, 255 sets Group address 1 to ON and terminates. Since there is no action following this, there is no need to enter 15,254 to end the action string.

15, 253 sends 255 (FF in hexadecimal) without terminating the response. You cannot send 255 by entering 255# because that is taken by Comfort as a terminator.

e.g. 197, 19, 15, 253, 121, 255 sets Group address 255 to ON for UCM id=3.

Comfort to C-Bus Interface

15,15, i.e.. “escape character” 15 followed by 15 sends 15

E.g. 197, 17, 15, 15, 121, 255 sets Group address 15 to ON for UCM ID=1.

15, value will send the value itself provided it is not 253 or 254 which have special meanings as explained above.

Concatenated Command Format:

Format: 197, <ID>, <GroupAddress1>, <SALcommand1>, <ramplevel1> , <application>, [GroupAddress2], [SALcommand2], [ramplevel2], [GroupAddress3], [SALcommand3], [ramplevel3],...

UCM/C-Bus 5.45 and above supports concatenated commands, where more than 1 C-Bus command can be sent on the same line in order to reduce traffic on the C-Bus and speed up the execution of multiple C-Bus commands. For concatenated commands, the ramplevel and application arguments of the first command are mandatory, unlike the single command format. For the second and subsequent commands, the ramplevel is mandatory even if it is not needed for ON and OFF commands (where it is ignored). The application for all the commands on the line must be the same, and is specified once.

Example 1 - Non-concatenated

197, 18, 1, 121, 15, 254, 197, 18, 3, 2, 128, 15, 254, 197, 18, 5, 10, 64, 15, 254, 197, 18, 4, 1, 255.

This shows a non-concatenated command string with 4 C-Bus commands. The first command is Group address 1 ON. 15,254 is the escape string for termination of C-Bus command. The second command is for Group address 3 to ramp instantaneously to level 128 (50%). The 3rd command is for Group address 5 to ramp to 64 (25%) over 4 seconds. The 4th command is for Group address 4 to switch off.

Example 2 - Concatenated

197, 18, 1, 121, 0, 56, 3, 2, 128, 5, 10, 64, 4, 1, 255.

This example shows how the same 4 commands can be concatenated. Only commands to the same Application can be concatenated. Each command must contain the ramp level, even if the command is on/off, in which case the ramp level information is ignored. The first command is an ON command. The ramplevel 0 for the command is ignored. Note that the last command does not need a ramplevel, as it is not followed by another concatenated command.

Concatenation shortens the response and also reduces traffic on C-Bus. The C-Bus SIM has limited buffer space so if too many commands are sent to it, some may be lost.

Do not put more than 7 concatenated commands on the same line.

Concatenated commands are supported from Comfigurator 1.1.6.

Command Format for Remote Network:

Format: 197, <ID>, <15> <253>, <no of bridges N>, <bridge1>, <bridge2>, ..., <bridgeN>, <Group Address>, <SAL Command>,...

UCM/C-Bus 4.45 and above supports network routing for transmitted commands to C-Bus.

The escape sequence 15,253 sends value 255 as the group address which means the command is for a Remote network. This is followed by the number of bridges (up to a maximum of 6), and the unit addresses of the bridges. After the routing network has been specified, the rest of the commands follow, starting with SAL command.

Group address 255 cannot be addressed because 255 is used to indicate network routing. UCM/C-Bus is limited to group addresses 0 to 254.

Example:

Comfort to C-Bus Interface

197,18,15,253, 3, 25,31, 62, 1,121,255

The above line sends a command through 3 bridges via addresses 25, 31 and 62. The command turns on group address 1 on the remote network

It is also possible to send concatenated commands can also be sent to a remote network using the format specified above, but this should be avoided as it may complicate the network messages

Commands for Remote networks are supported from Comfigurator 1.1.6.

Comfort to C-Bus Interface

Version History

Note: Always check for the latest version of this manual on
<http://www.cytech.biz/manuals.html>

UCM/CBus 6.083

- 1 Improved Upgrade Firmware by Bus
- 2 Scaling of counter value from cbus removed
- 3 Implemented use of COPY ID to set UCM ID if ID shunts are removed AND EEPROM is in U2
- 4 Allows update by 96 zones from Comfort without disabling the Zones application (Fixed BUG with previous firmware)

UCM/CBus 6.011

- 1 3 sets of initialisation Options also blink BUSY2 and turn on ERR. Only last option did before
- 2 If 3 option replies are not received within 2 seconds, reset UCM/CBUS to ensure that initialisation works
- 3 If SW8 is shunted SIM will reinitialise immediately
- 4 Improved firmware upgrade by Comfort Bus with better error handling

UCM/CBus 6.010 (29/8/2011)

- 1 Blink RDY led when CAL message received
- 2 When CBus power up, reset UCM/CBus in 5 seconds
- 3 Resend smart mode and options commands every 60 secs in case of problem of SIM in wrong state, reported by a few users.
- 4 Improved setting SIM options during initialisation and handle acknowledgement replies.
- 5 Completely decipher smart mode and basic mode commands include ack \$32
- 6 If received header does not match with expected SIM mode, re-initialise SIM
- 7 Send initialisation string to reset EXSTAT so SIM which have EXSTAT set at factory can be reset. This works for all SIM versions.
- 8 Check extended Status reply but do not handle it yet
- 9 Firmware can be upgraded by Comfort Bus method.

UCM/CBus 5.235 (8 June 2011)

- 1 Complies with CBus Clocks and Timekeeping application timing and updating requirements. Responds to Refresh Request Date and Time message from CBus. UCM/CBus sends Daylight Saving Time value to CBus as unknown and processes DST value from CBus. Fixed BUG UCM/CBus used to send DST value of 0 and ignored DST value from CBus.
- 2 Works with older SIM firmware 3 and 4 but not all features may be supported in older SIMs.
- 3 SIM V3 when CBus is removed and reconnected can re-initialise after a command is sent to CBus. Note: CBUS SIM V4 which supports the PUN (Power Up Notification) message recovers by itself when CBus is reconnected.
- 4 UCM/CBus supports AUD01
- 5 UCM/CBus can receive several messages from Comfort RS485 bus if busy.
- 6 Fixed Bug when sending group address to any application not just lighting, counter is updated
- 7 Fixed BUG where at UCM/CBus RESET, only 8 CBus group addresses are updated to their counters because of a status request
- 8 Fixed BUG where CBus commands received are with delays and do not work after a long time
- 9 Read SIM firmware version from SIM for Internal use

UCM/CBUS 5.216 (16 June 2010)

Comfort to C-Bus Interface

- Fixed Bug Day of week in time sent to C-Bus was wrong
- Fixed bug - Time from CBUS to Comfort did not set the seconds value
- Sends Text Label CBUS command for DLT switches
- This firmware is not compatible with SIMs labelled 1223/7, 1223,4, 1151/1.
Compatible with 1477/1 and ST7 version

UCM/CBUS 5.208 (25 April 2010)

- Security Armed State will have values 1 to 4 depending on security mode instead of common 1 when armed.
- If zone is bypassed at UCM/CBUS reset, this is reported to CBUS.
- Multiple CBUS messages can be received and handled.
- Existing Line cut, AC Failure and low battery alarms are notified to C-Bus when C-Bus is connected to Comfort.
- Zone states are reported to CBUS when CBUS is connected
- Faster initialisation of CBUS interface especially when the Security Application is not present on the C-Bus (e.g. C-Touch)
- Fixed bug when CBUS addresses > 128 not reported correctly
- Added STOP ramp SAL command, handle Label DLT message
- Messages to C-Bus larger than 45 bytes (concatenated messages are aborted in keeping with the CBUS serial interface spec.
- Security Application Password Good/Bad supported
- Does NOT work with ST7 SIM Module (applies to older firmware as well)

UCM/CBUS 5.202 (12 January 2010)

- Supports new SIM Module with ST7 IC

UCM/CBus 5.200 (13 October 2009)

- UCM/CBUS will not send date and time to C-Bus when C-Bus changes date and time unless the date and time is changed, to prevent multiple date and time messages on C-Bus caused by either Comfort or C-Bus changing date and time.
- CBUS Transmit Buffer increased from 254 to 600 bytes
- All Comfort zones reported at UCM/CBUS Reset. Note that the BUSY2 led will remain on while Comfort zones are being updated. This may take 30 seconds or so
- UCM/CBUS supports scanning of UCMs in Configurator 3.1.3 and reports Type, firmware version and revision

UCM/CBus 5.154 (30 July 2007)

- Can send commands to group address up to 255. Previously limited to 127.
- New Flash Firmware can be upgraded using UCM

Document History

3.2.2 - 116 Jan 2014

Update descriptions to the new Cbus daughterboard and the new way of setting ID using Copy button

3.2.1 - 10 Oct 2013

New UCM with DIP switch for ID

3.0.7 - 13 June 2012

Complete revision to reflect Configurator 3 programming, and C-Touch Mk 2 piced Programming

3.0.5 - 31 October 2011

- Updated to firmware 6.011

3.0.1 - 16 February 2010

- Removed reference to 128 counters for Comfort I Pro/Outside

2.2.8 – 12 October 2008

- Corrected Error in Keypad keys description

2.2.7 – 20 March 2008

- Update for Flash version

Comfort to C-Bus Interface

2.2.6 – 28 June 2007

- Included PICED for Keypad Emulation and programming, Updated on using PICED to program C-Touch, Included starting address for C-Bus SIM

2.2.5 - 5 November 2006

- Removed reference to PC Interface in Introduction

2.2.4 - June 2004

- amendments

Important Note

The printed manual may not always be the most current version. Please check and download the latest version from <http://www.cytech.biz/manuals.html>

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