Comfort, the   Intelligent   Home   System

Comfort
to Z-Wave
Interface

UCM/Zwave3

Comfort to Z-Wave Interface

Introduction to the UCM/Zwave3 Interface

The Comfort system supports integration to Z-Wave devices via the UCM/Zwave3 module. The UCM/Zwave3 provides a two way interface to the Z-Wave network, providing the following benefits:

- allows control and status monitoring of Z-Wave nodes from keypads, telephone, iPad/iPhone/Android app, SMS (with UCM/GSM)
- allows control of Z-Wave by Time Programs.
- allows alarm conditions to be linked to Z-Wave switches for integration of alarm and lighting.
- Allows Z-wave Switches and remote controls to control Comfort by mapping to Counters, Sensors, Outputs, Responses, Virtual Inputs, Arm Security, Panic (New to UCM/Zwave3).
- Allows Z-wave sensors (Sensor Class) to update Comfort Sensors and trigger Responses

The UCM/Zwave3 is a two-way interface i.e. it allows Comfort to send commands to the Z-Wave network (up to 232 addresses), and also gets feedback on the state of Z-wave devices it controls and is able to associate with buttons on the Z-Wave remote control and other controllers. The UCM/Zwave3 is the 3rd generation of Comfort's Z-wave interface.

Specifications

- Size 108 x 88 mm baseboard with 72 x 44 mm daughterboard
- Power Supply: 12V 30 mA (supplied from Comfort)
- Frequencies available See Part Numbers for different regions.
- Sends commands to Z-Wave network and receives commands and status from Z-Wave network which can be mapped to Counters, Sensors, Outputs, Responses, Virtual Inputs, Arm Security, and Panic.
- Supports multichannel devices (like MK Astral)
- UCM/Zwave is a Secondary Bridge Controller in the Z-Wave network
- Controls Z-Wave Basic, Multichannel, Multi-level Switch and Multi-level Sensor Command Classes.
- Intelligently polls for status from Z-Wave when status is required by Comfort.

Zwave Specifications

The UCM/Zwave3 is a Secondary Controller which implements the Bridge Controller function, ie it can create Virtual Nodes within it so that other Zwave nodes can associate with the virtual nodes to control Comfort.

Supported Command Classes (6):
- Multi-Channel V3
- Sensor Multilevel V4
- Basic
- Manufacturer Specific
- Switch Multilevel V2
- Multilevel Switch

Controlled Command Classes (7):

- Multi-Channel V3
- Switch Multilevel V2
- Sensor Multilevel V4
- Multilevel Sensor
- Basic
- Multilevel Switch
- Multi Channel

☎ UCM/Zwave does not support AES-128 security eg Fibaro FGD212 Dimmer. These devices cannot be used with UCM/Zwave.

Part Numbers

- UCM/Zwave3-EU: EU, China, UAE, South Africa, Singapore 868.4 MHz.
- UCM/Zwave3-IN: India 865.2 MHz
- UCM/Zwave3-AU: Australia/NewZealand/Brazil 921.42 MHz
- UCM/Zwave3-MY: Malaysia 868.10 MHz
- UCM/Zwave3-US: US, Canada, Mexico 908.42 MHz
- UCM/Zwave3-HK: Hong Kong 919.82 MHz

Note that only UCM/Zwave-EU has been officially certified by Z-Wave, although the region does not affect the UCM/Zwave function or performance.

Contents of UCM/ZWave3

The UCM/ZWave3 consists of the following;

- UCM/Zwave Module with firmware version ZWAVE 7.xxx or above with the enhanced features described in this manual. Firmware can be upgraded using UCM/USB, UCM/ETH03 and Comfigurator 3.7.x and above.
- 900 MHz antenna with MMCX connector
- 4-way white RS485 cable assembly

Photo 1 - UCM/Zwave3

System Requirements

- UCM/Zwave version 7.072
- Comfort II Ultra firmware version 7.07x and above.
- UCM/USB or UCM/ETH02 or ETH03 version 7.xxx for programming.
- Comfigurator version 3.10.x and above.

History and Upgrading UCM/Zwave

The UCM/Zwave1 (2008) was only 1-way i.e. it could send commands to Zwave but was not able to accept commands from Zwave. There was no EEPROM (U2) to store Z-Wave configuration. The UCM/Zwave1 cannot be upgraded to UCM/Zwave3 as it does not have the U2 EEPROM.

UCM/Zwave2 (2009) allowed Comfigurator to read the Zwave network and configure assignments to Counters stored in the U2 EEPROM. Operation is still one way, i.e. Comfort to Z-Wave, with UCM/Zwave as Static Controller. To upgrade UCM/Zwave2 to UCM/Zwave3, check if the Controller Type is Bridge Controller. If so then the UCM/Zwave firmware can be upgraded to the Zwave 6.023 and above. If the Controller Type is Static Controller (not Bridge), then a ZW03 submodule must be purchased to replace the Zwave submodule on the UCM/Zwave. The firmware can be upgraded to the latest version. There is no difference in hardware between Zwave2 and 3 except for the U2 EEPROM.

UCM/Zwave 3 (2012) firmware >= 6.019 introduced 2-way communications which allows Zwave to control Comfort via Counters and sensor Responses and update status. The UCM/Zwave3 acts as Bridge Controller. The latest firmware 7.029 (2013) has further enhancements as described in this manual.

UCM/Zwave3 Version 7.031 (2013)

New features include

- Zwave Response Wizard can select Zwave Nodes by Description instead of numeric ID, and can select only valid commands for the Node Type. This simplifies the selection of commands and prevents illegal commands from being sent to Zwave nodes. For example, the channel parameter can be selected only for multi-channel devices.
- Zwave Get Status button can be enabled and disabled. Expanded the list of Zwave status that can be displayed on the status bar
- "Smart" polling of Zwave nodes so that the frequency of polling is increased when needed and reduced when there is no activity
- Zwave nodes can be controlled by loading values 0 to 255 into Counters that are mapped to Zwave.

☎ Comfigurator 3.10.x and above must be used with UCM/Zwave firmware version 7 and above to utilise the latest features. After upgrading the firmware to version 7 or above, repeat the LEARN process with the primary controller to update the Z-Wave network as described in "Inclusion/Replication in Zwave Network"

Z-Wave Fundamentals

The Z-Wave network can have up to 232 nodes. Each Network has a 32-bit Home ID. Nodes can be either Controllers, or Slaves.

Controllers can be either Primary or Secondary. There can be only 1 Primary controller which is usually a remote control or PC-based device, whose role is to set up and manage the network. Secondary controllers receive the network information from the primary controller.

Slaves are either Basic or Routing Slaves. Routing Slaves are able to transmit information or commands to other Z-Wave enabled devices without being requested to do so while Basic slaves can only send information when requested to do so. For example a Z-wave appliance module which is a basic slave may have a local button to toggle switch the connected device, but this will not send the status information to the network, whereas a Routing Slave will be able to do so.

Each node on the network is assigned a Node ID by the Primary Controller

The UCM/Zwave3 is a Secondary Controller in the Z-Wave network and has a Bridge Controller function. A Bridge Controller is a static controller that is able to represent up to 128 Virtual Nodes in the Z-wave Network. Note that Virtual Nodes will reduce the nodes available for the rest of the network, as the total number of nodes are limited to 232. Virtual Nodes are assigned to the UCM/Zwave3 which act as Slave nodes, allowing controllers and Routing Slaves to send commands or information to the virtual node.

Z-Wave Operations and Terminology

The following operations must be performed by the primary controller.

Inclusion

A new Z-Wave device must first be included in a Z-Wave network by the Primary controller. It is assigned a Node ID.

Replication

This is the process of copying the network information (Ids and routing) from a Primary to a Secondary Controller.

Association

This is the process of linking a source Z-Wave ID (controller or routing slave) to a target ID (Slave) so that pressing the controller or routing slave button controls the slave. Many Z-Wave Ids can be associated to a single Slave.

Disassociation

This is the process of removing the association between source and target.

Exclusion

This is the process of removing a Zwave Node from a network.

Virtual Nodes

Virtual Nodes can be created within the UCM/Zwave. Virtual Nodes are used so that other Zwave devices can send commands to Comfort by Association with the Zwave nodes. Virtual Nodes appear as real nodes to other Zwave devices.

Polling

In Zwave, a device does not automatically send its status across the network when it is changed. For example, if a Zwave lighting switch is manually operated, other devices which are monitoring its status will not be informed about the change. The controller has to poll the device for its status in order to know the status. However constant polling is not permitted as it would cause excessive RF traffic and could cause communications to be lost. The UCM/Zwave handles this problem by implementing "Smart Polling" which means that the Zwave devices are polled only when an application is using Comfort to look at the Zwave status. See the section on Poling later.

Settings

Connections

- JP3 - 12V/COM terminal block. Connect to 12V/COM on Comfort if JP2/2A not used. Do not connect if JP2/2A is used to connect back to Comfort Controller.

- JP4 - KA/KB terminal block. Connect to KA/KB on Comfort if JP2/2A not used. Do not connect if JP2/2A is used to connect back to Comfort Controller.

- JP2 and JP2A - 4 way headers (12V/COM/KA/KB). Either connector can be connected to Comfort's RS485 connector via the supplied cable when JP3 and JP4 are not used. This plug-in cable connection is used when the distance between the controller and Z-Wave interface is less than 30 cm. For longer distances, use the JP3 and JP4 terminal blocks.

Buttons

- SW1 - RESET. This button resets the UCM/Zwave module. It does not change any parameters in Comfort or Z-Wave.

LED Indicators

On Zwave Submodule

- D1 (Red) – power indicator for Z-wave daughterboard

On UCM Baseboard

- D1 "RDY" (Green) – status depends on network data

- D2 "BUSY1" (Red) – receiving incoming data from Zwave.

- D3 "BUSY2" (Red) – acknowledgment indicator.

- D4 "ERR" (Red) – error indicator.

- D9 (Red) – RS485 Transmit to Comfort

- D10 (Green) – RS485 Receive from Comfort

    For LED status D1 to D4 in the various modes, refer to tables in Inclusion/Replication In Z-Wave Network, and UCM/Zwave LED Indicators.

☎ UCM/Zwave Status can also be seen in Comfigurator > Zwave module page.

ICs on UCM Baseboard

- U1 - Microcontroller. Label shows the firmware version e.g. "Z-Wave 7.XXX".

- U5 - RS485 Interface to Comfort

- U2 - EEPROM for Configuration settings (from Z-wave 5.180+)

UCM ID Setting

Comfort is able to support up to 8 UCMs of different types. SW7 is a set of 4 DIP switches which determines the UCM ID, according to the table below:

ID	SW7-1	SW7-2	SW7-3	SW7-4
1	On	On	On	On
2	Off	On	On	On
3	On	Off	On	On
4	Off	Off	On	On
5	On	On	Off	On
6	Off	On	Off	On
7	On	Off	Off	On
8	Off	Off	Off	On
COPY Button	**Off**	**Off**	**Off**	**Off**

By convention, ID=1 is reserved for the UCM reading/writing configuration file. The UCM/Zwave should be set to ID 2 or above so that any RS485 comms failure can be reported by Comfort.

The new way of setting ID is when all SW7 1 to 4 are all in the OFF position. Press and hold the COPY button for 2 seconds until the LEDs change state to the next ID, e.g. ID=2 or BUSY1 only is on. Press and release to increment the ID until 8 and then back to 1. If the COPY button is not pressed for 4 seconds, the new ID is confirmed and all LEDs will momentarily turn on. If any SW7 switch is ON, the 'COPY' button will not work.
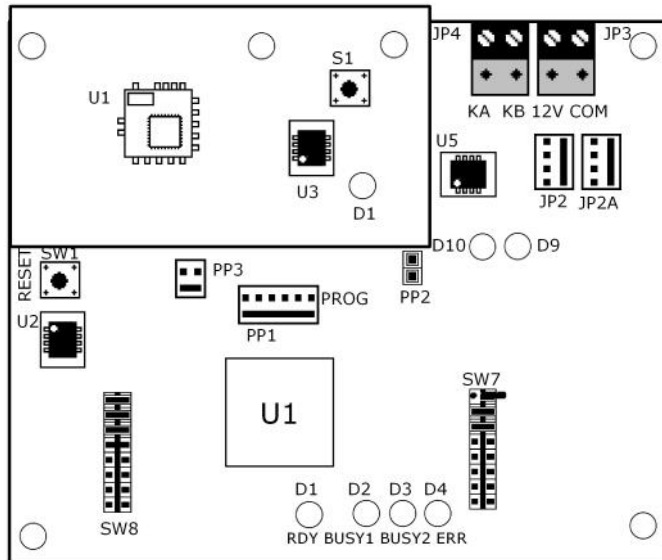
It is important that no two UCMs have the same ID as this will cause both UCMs to lose communications.

Press 'RESET' button on the UCM/Zwave after changing the ID settings by SW7. It is not necessary to reset if using the 'COPY' Button to change the ID.

Check the D9 and D10 LEDs are both blinking to indicate correct communications with Comfort.

Setup

UCM/Zwave3

1   Ensure that the Z-Wave network is already set up using the Primary Controller (e.g. remote control). Refer to the respective Z-Wave equipment installation and setup instructions from the manufacturer.

2   Connect the supplied antenna to the Z-Wave module by pushing the connector end into the mating connector on the Z-Wave module.

3   Before connecting to Comfort, set the ID of the UCM/Zwave using SW7 or set all shunts to OFF to use the COPY button later to set the UCM ID according to the previous section "UCM ID Setting"

4   The UCM/Zwave is connected to Comfort via the supplied 4 way white cable from the 4 pin header JP2/JP2A to Comfort's header J6, or Comfort II RS485 header. This supplies power to the UCM, as well as allowing communications between Comfort and the UCM/Zwave. It is not necessary to switch off power to Comfort before plugging in this connection.

5   Upon plugging in the 4 way cable, the red ERR LED will be turn on momentarily. After that the Green RDY LED on the UCM (D1) will flash; red Busy1 LED (D2) and red ERR LED (D4) will light up and remain on indicating no/invalid data in EEPROM.

6   If only the ERR LED turns on and fails to clear after a few seconds, it would indicate that the UCM baseboard has failed to communicate with Z-wave daughterboard; check the connection. If the RDY LED flashes, it means that the UCM/Zwave has no data of any Z-Wave network yet, which is expected for a new UCM/Zwave.

UCM/Zwave LED Indicators

The following table shows the various state of the LEDs after power on while not in learning mode;

LED				Explanation
RDY (D1)	Busy1 (D2)	Busy2 (D3)	ERR (D4)	
On	Off	Off	Off	Normal/No error. Module is in a Z-Wave network.
On	X	X	X	Module is in a Z-Wave network.

LED				Explanation
RDY (D1)	Busy1 (D2)	Busy2 (D3)	ERR (D4)	
Flash	X	X	X	Module is not in a Z-Wave network
Off	Off	Off	On	Command error between UCM baseboard and Zwave module
On	Off	On	Off	Command transmitted. waiting for ACK from Zwave
On	Off	On	On	Network busy/jammed (RF transmit error).
Off	Off	On	On	Unknown Zwave transmit error.
Flash/On	Off	Off	On	EEPROM is missing or faulty.
Flash/On	On	Off	On	Data in EEPROM is invalid.
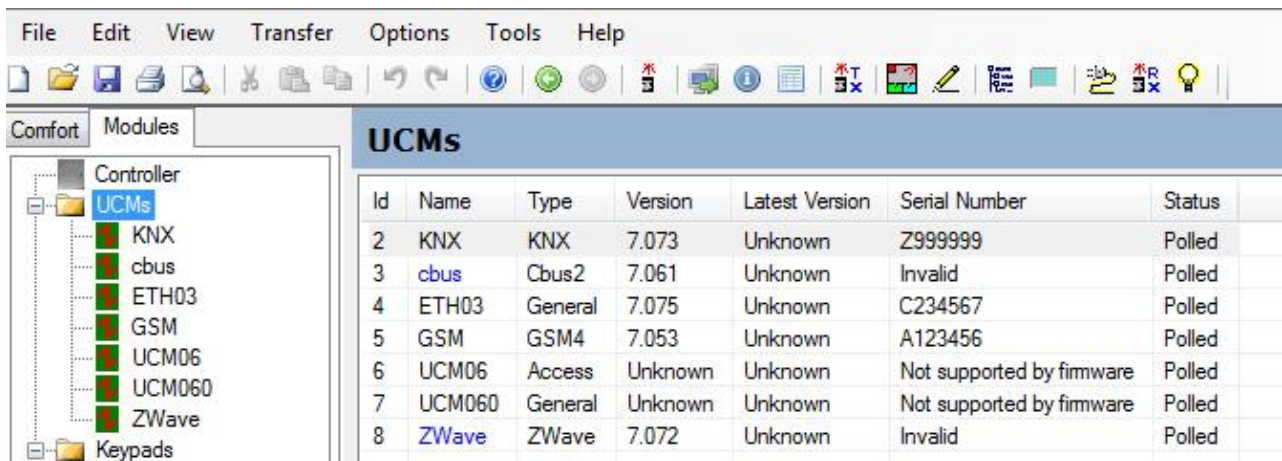
'X' = don't care

Table 2 Status LEDs

☏ In UCM/Zwave version 7 the Z-Wave status is automatically displayed on the Comfigurator (3.7.x) status bar when the 'Status' button is 'On'

Configuring UCM/Zwave with Comfigurator

☏ When using UCM/ETHxx for Comfigurator connection, the Connection Time-out in CS-Manager should be set to 5 minutes while setting up UCM/Zwave to avoid time-out while reading and Writing to EEPROM in UCM/Z-Wave.

In the Modules tab right-click on UCM and select SCAN for UCMs. Enter your user code in the login box. The Scan results are shown below (typical). The Z-Wave UCM should be shown in the UCMs list.

☏ After scanning you can check from the UCM's page if there is a newer version available (on Latest Version column) and upgrade it by right-clicking the respective UCM/Zwave on the left pane under UCM's folder and select 'Check for Firmware Updates'. Note that you need an Internet connection for this function.
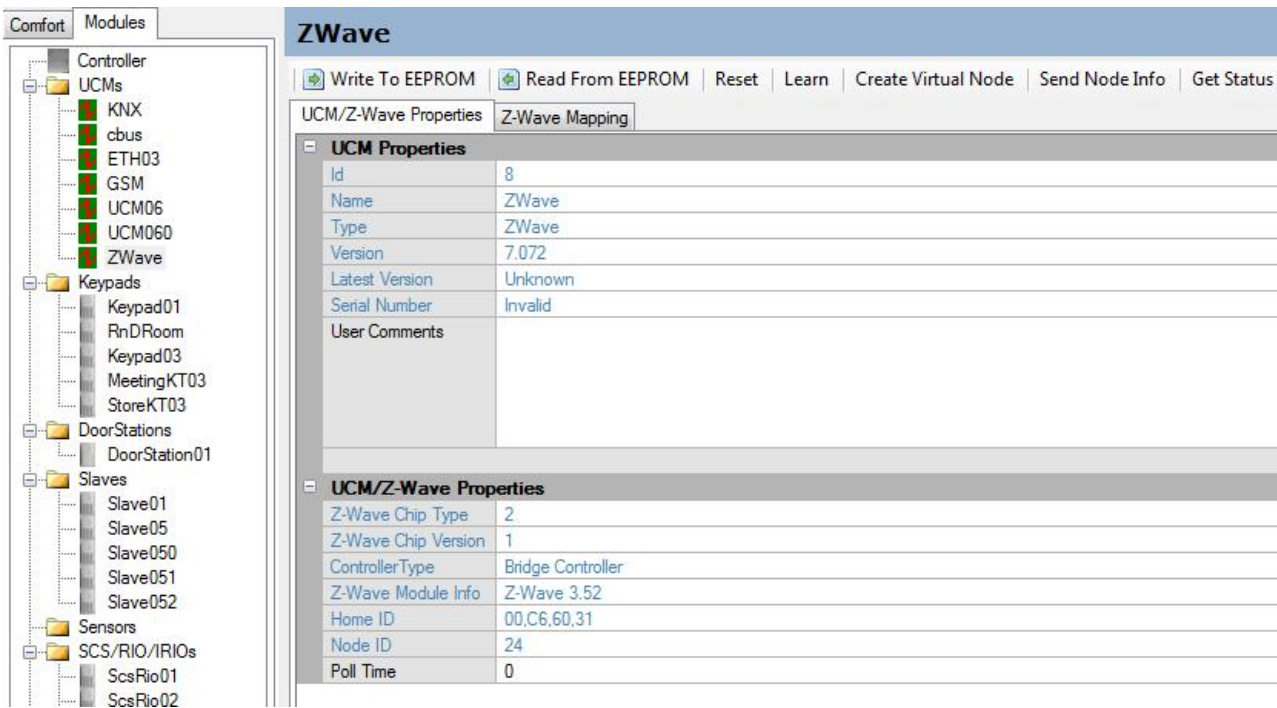

Scan Module Results (Example)

Click on the UCM icon on the left Panel corresponding to Z-Wave to show the Z-Wave Configuration screen below.

Comfort to Z-Wave Interface

UCM/Zwave Properties (Example)

Before the Z-Wave network has been learned, the Chip Type, Chip Version, Controller Type, Z-Wave Module Info, Home ID, Node ID will be blank, 0 or Unknown.

The tabs on the top of the screen are explained as follows;

Read From EEPROM

This reads the Z-wave configuration and Register assignment from the UCM/Zwave EEPROM (U2). Read from EEPROM is automatically performed after a Learn operation

Write to EEPROM

Write the Comfort Registers (Counter/Sensor/Response/Output/Virtual Input) mapping assignments to the UCM/Zwave EEPROM (U2 IC). This is necessary after changing the register assignments. Note that READ from EEPROM or LEARN operation is required before assigning registers and writing to EEPROM. Writing to EEPROM does NOT change the Z-wave properties, it affects only the Register assignments to Comfort.

Reset (Reset to Factory Default)

This resets the UCM/Zwave to Factory Default including the Z-wave properties and Counter assignments, i.e. it clears the UCM/Zwave EEPROM.

☎ This does not remove or exclude the UCM/Zwave from a Z-wave network. See the section on Leaving the Z-Wave Network for instructions on how to do so. AVOID the 'RESET' to default button without first leaving the network OTHERWISE A NEW LEARN OPERATION WILL ADD A DUPLICATE NODE to the Z-Wave Network. This button is only used as a last resort when the UCM/Zwave has been removed physically from the network without having excluded it first.

Learn (Learn Z-Wave Network)

This button is used to Include the UCM/Zwave into the Z-Wave network, to learn or copy the Z-wave network configuration from a Primary Controller, as well as to

leave (be Excluded from) the network. The detailed instructions are in the next section "Inclusion/Replication in Z-wave Network"

Create Virtual Node

This allows a Z-Wave Virtual Node to be created. The purpose of Virtual Nodes is to allow association with another Zwave device so that it can send commands to Comfort. Instructions are given later.

UCM/Zwave Status

When the Zwave screen is in focus, the UCM/Zwave status information is shown in the status bar on bottom left of Comfigurator screen as shown below.
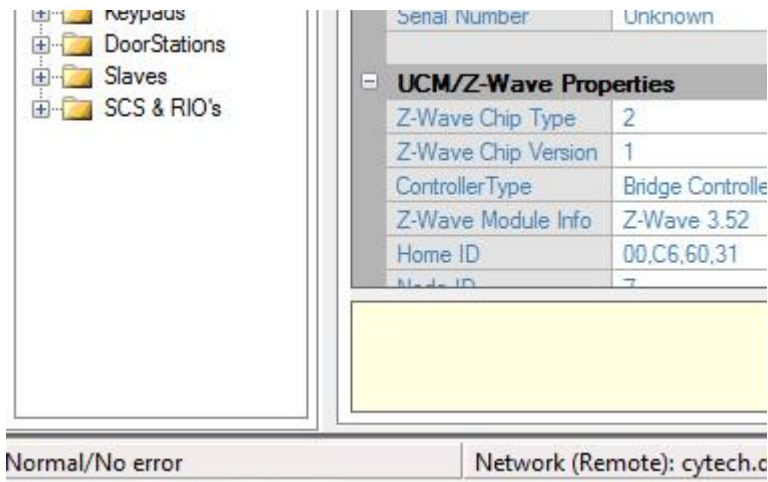
Z-wave Status

The possible Status values in the status bar and their meanings are listed below

- "Normal/No error" - UCM/Zwave is in a Zwave Network with no error.
- "EEPROM missing/faulty" - U2 EEPROM missing.
- "EEPROM insufficient capacity" - U2 EEPROM problem.
- "EEPROM data invalid" - Zwave data in the U2 EEPROM is invalid.
- "Communication error between UCM baseboard and Z-wave sub-module" - Problem with the Zwave submodule.
- "UCM/Zwave not in any Network" - UCM/Zwave has not gone through "Learn"
- "Waiting to receive network data" - Seen during the Learn Process.
- "Receiving network data" - Seen during the Learn Process.
- "Writing EEPROM" - Seen during the Learn Process.
- "Learn process success" - Learn has been completed.
- "Learn process completed with errors" - Error in Learn. Repeat learning.
- "Command transmitted - Waiting for ACK" - A Z-Wave command has been transmitted and is waiting for a response from the Z-Wave network.
- "Z-Wave network busy/jammed (RF transmit error)" - Indicates there is a Z-Wave network problem.
- "Unknown Transmit Error"
- "Please wait. Backing up Z-Wave module data first... xx% completed"
- "Z-Wave module data is bad. Restoring it now... xx% completed)"
- "Restoring Z-Wave module data completed."
- "Learn mode has ended. Checking if restoring Z-Wave module data is needed..."
- "Comfort response contains invalid node."

- "Comfort response contains virtual node."
- "Comfort response contains non-supported Command Class in node."
- "Z-Wave transmit queue overflow"
- "Transmit complete without ACK"
- "Too many Z-Wave commands to process"
- "Z-Wave admin buffer overflow"

Inclusion/Replication in Z-Wave Network

The UCM/Zwave acts as a Secondary (Bridge) Controller in the Z-Wave network. It must first be Included in a Z-Wave network and it must learn (Copy) the Z-wave network from the primary controller (usually a remote control e.g. MK Astral LRC14S) which has been used to set up the Z-Wave Network. This uses the 'Learn' button in Z-Wave Configurator.

1 Ensure that the Z-Wave network is already set up and functioning correctly before including the UCM/Zwave into the network. The UCM/Zwave acts as a Secondary Controller in the Z-Wave network. It needs to learn the Z-Wave network from the Primary Controller (remote control) which was used initially to set up the network.

2 Check that the UCM/Zwave is not part of another Z-wave network. You can check the Zwave status using Comfigurator by pressing the 'Get Status' button on the Zwave Configurator Menu. The message "UCM/Zwave not in any network" should be seen in the status bar. This should be the case for a new UCM/Zwave from the factory. If the UCM/Zwave has previously been included the status message should be "Normal/No Error".

3 If the UCM/Zwave has already been included in a different network, it should be removed from the existing Z-Wave network before being included into a new network (see instructions in "Leaving a Zwave Network") If the UCM/Zwave is not in a network but the EEPROM has been written with data from a previous network, then Reset the EEPROM to Default (See instructions in "Reset UCM/Zwave to Default".)

4 Important - Make sure that all Z-wave modules are connected to power during learning, otherwise, the multichannel properties of these nodes will not be discovered, as the UCM/Zwave needs to query the individual Zwave nodes. Plug in wall modules should be plugged in and the power switched on. It is not necessary to switch on the loads or lights connected to the Z-Wave module.

5 Press the 'Learn' button. Press 'Yes' to continue. The Status bar will show "Backing up Z-wave module data first…". Wait until you see "Waiting to receive network data" on the status bar.

6 Activate the sending of system information from the controller using the procedures given by the Z-Wave device manufacturer. The section at the back called "Inclusion and Replication for various Manufacturers" shows examples of how to do this.

7 During the transfer, the status bar will show "Receiving network data."

8   The status bar will show "Writing EEPROM" when the received Z-Wave network data is being written to the UCM/Zwave EEPROM after the UCM/Zwave has received the network data.

9   Upon completion, the status bar shows "Learn Process Success". In the event of error, the status bar will show "Learn Process Completed with Errors"

10 When completed, Comfigurator will automatically start reading the data from EEPROM as shown in the popup window.
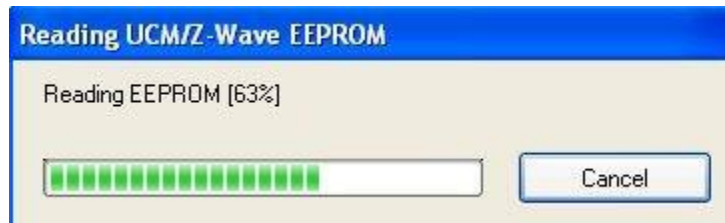
11 When completed, the Z-wave Configuration screen will show the Z-wave Ids in the network. The operation described includes the UCM/Zwave into the network and Replicates the Z-wave network from the Primary Controller.

12 If a new Z-wave mode is added to the network or a node has been removed by the primary controller, repeat the Learn process with all Z-wave modules with power applied.

A summary of the LEDs during the copying process is shown in the following table. The Status Bar on the bottom left will show the appropriate status as shown in the table during the Learn Process.

UCM/Zwave LEDs				Display on Status Bar
Ready	Busy1	Busy2	Error	
Off	Off	On	Off	Waiting to receive new Z-Wave network data.
Flash	Off	On	Off	Receiving network data.
Flash	On	On	Off	Writing EEPROM.
On	Off	Off	Off	Learn Process Success
Off	Off	On	On	Learn Process Completed with Errors

Table 3 - Status during Learn Mode

☎ If the UCM/Zwave is already in the Z-Wave network, repeating the LEARN process described above will update the UCM/Zwave with latest Z-Wave node information so there is no harm in doing this.

☎ Do NOT learn a different Z-Wave network before leaving the existing network.

The screenshot below shows what the configuration screen looks like after the learning Process.

Zwave Configurator after Learn

The meaning of the fields in UCM/Zwave Properties is explained below;

Z-Wave Chip Type and Version.

This is information about the Z-Wave Module hardware

Controller Type

Should show Bridge Controller. Older UCM/Zwave1 modules may show Static Controller. This will not be able to assign Virtual Nodes so the extra function of the UCM/Zwave3 will not be available. This can be upgraded to Bridge Controller by buying a ZW03 plug in Submodule to replace the Z-Wave submodule.

Z-Wave Module Info

This is the Z-Wave Library Version on the submodule (not the UCM/Zwave Firmware).

☎ The minimum Library version is 3.22 for Z-Wave Switches with Multi-channel Class, e.g. multi-gang MK Astral or Vitrum to be identified correctly. In Library Version 2.40, the Multi-channel Class device is identified wrongly as Basic Class. The newer Z-Wave Library i.e. 3.22 and above fixed the bug on 2.40. Cytech will upgrade the Z-Wave Library without charge, except for the cost of transport. Please contact support@cytech.biz for assistance.

Home ID

This is the 32 bit unique ID of the network assigned by the Primary controller

Node ID

This is the Node ID of the UCM/Zwave 1 to 232 assigned by the Primary controller during inclusion (Learn).

Poll Time/ Smart Polling

This is the time interval in 10 seconds interval for the UCM/Zwave to poll the relevant Z-Wave nodes for status to be mapped to counters. Nodes without "Listening" Property and Virtual Nodes will NOT be polled regardless of the Poll Time setting. Controllers are polled (from Zwave 7.016 onwards). Setting Poll Time to

255 means there will be no polling.

☎ From Zwave 7.072 onwards if Poll Time is 0, "Smart" Polling is activated. The Zwave nodes are polled when required by Comfort e.g. in Control Menu or by iPhone/iPad/android app. If there is no Zwave activity, the nodes are polled less frequently. This is the recommended setting.
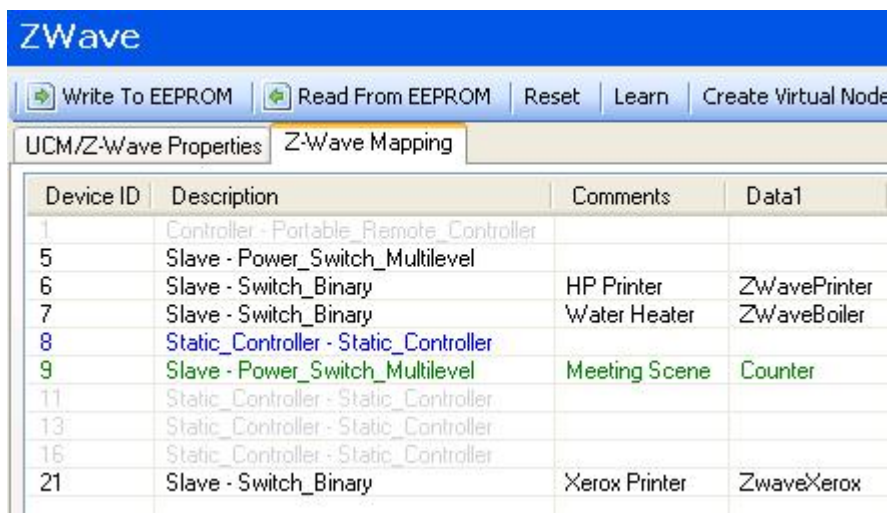
Z-Wave Mapping

Click on the Z-Wave Mapping tab. This shows the Z-Wave nodes in a typical network. In the example, Node 1 is the Primary controller. Node 6 is a Slave - Switch Binary, which is a Z-wave appliance module. Node 8 Static Controller is the UCM/Zwave3.

The colours indicate what type of node is shown;

- Controllers - Gray
- UCM/Zwave Controller (as in Properties Page Node ID) - Blue
- Virtual Nodes - green
- Slaves - Normal (black)

The screenshot below shows the different colours available in Comfigurator onwards.

ZWave

| Device ID	Description	Comments	Data1
1	Controller - Portable_Remote_Controller		
5	Slave - Power_Switch_Multilevel		
6	Slave - Switch_Binary	HP Printer	ZWavePrinter
7	Slave - Switch_Binary	Water Heater	ZWaveBoiler
8	Static_Controller - Static_Controller		
9	Slave - Power_Switch_Multilevel	Meeting Scene	Counter
11	Static_Controller - Static_Controller		
13	Static_Controller - Static_Controller		
16	Static_Controller - Static_Controller		
21	Slave - Switch_Binary	Xerox Printer	ZwaveXerox

Zwave Mapping

☎ The Comments field can be used to identify the Z-wave Node which is saved in the UCM/Zwave EEPROM.

Z-Wave Mapping

A Z-Wave (controller or Slave) Node can be assigned to a Comfort Counter for monitoring by polling. Click on the UCM/Zwave in the left pane to show its properties in the right pane. The screen below shows a Z-Wave Mapping table with Node 5 as Routing Slave - Routing Sensor Binary.
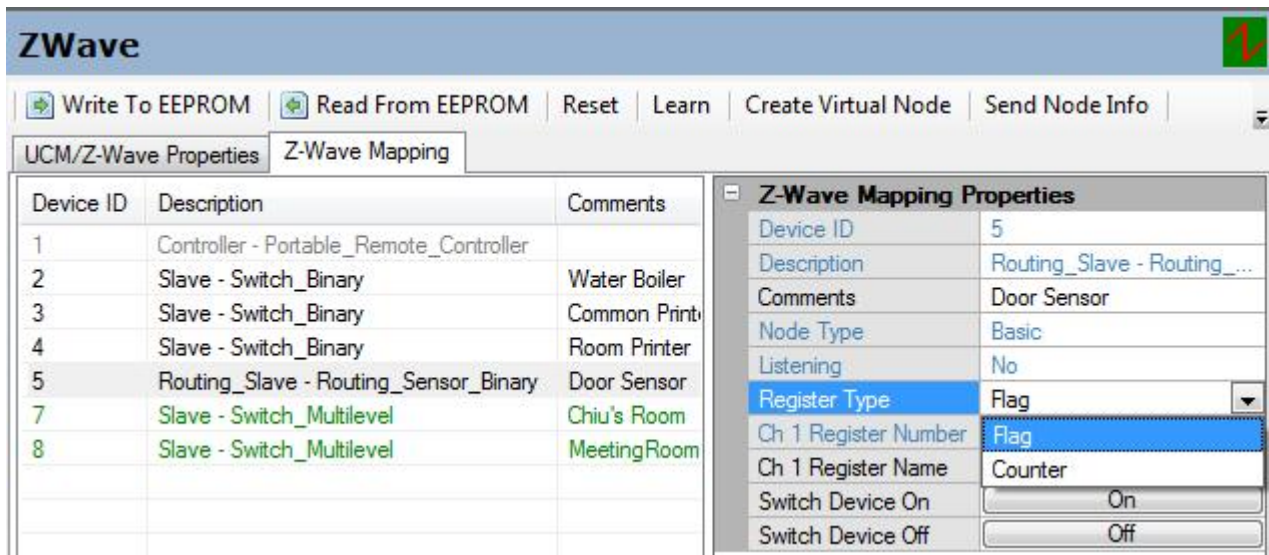
Z-wave Mapping

Node Types

Node Types are Basic, Multichannel, Virtual or Sensor. This is read-only.

1. Basic means it is a normal Z-wave Node.
2. Multichannel means it is a multichannel device with more than 1 output.
3. Virtual means it is a Virtual Node created by UCM/Zwave.
4. Sensor means it supports the Zwave Multilevel sensor command class (e.g. Door sensor, Temperature and power sensor)

A Multichannel node is shown below;

Zwave Multichannel Node

In the right pane, select a Counter or Flag to be mapped to the Zwave node. Unassigned counter or flag numbers are set to 255. The assigned counter/flag will be updated with the value 0 to 255 of the Z-wave device, where 0 means off, 255 means ON, and 1 to 254 means a dimming level.

☎ Zwave 7.072 - Note the counters mapped to Multilevel Switch e.g. Nodes 2,4,5 etc. above will have values of 0 to 254 corresponding to levels 0 to 99 for Zwave and vice versa. This conversion allows the Comfort app to use the full scale sliders from 0 to 255. Setting a counter to 255 will turn on the multilevel switch to the last remembered value. Note that this does not apply to Binary switches e.g. Node 3 above.

The counter or flag mapped to the Zwave node in this way is updated by UCM/Zwave polling the node. Counters and Flags should be mapped only when their status is required in Comfort, because UCM/Zwave will poll these mapped nodes which causes unnecessary additional delay and RF traffic.

Multi-channel devices are supported (Multichannel Command Class) for up to 8 channels for devices with more than 1 output. For Multichannel nodes, each channel can only be mapped to the same register type, e.g. Counter or Flag, and not a combination of both.

☎ After the Counters and flags have been assigned, remember to press the button 'Write to EEPROM'. After the Write operation is completed, the UCM/Zwave will automatically reset itself.

The "Switch Device On" and "Switch Device Off" buttons allow identification of control of the Z-Wave device for the purpose of testing. For multichannel devices, only channel 1 is addressed by this button.

☎ Make sure that all the Z-wave devices are powered on during the learning process, otherwise the properties of the node will not be discovered. Also if any

polled Zwave device is switched off during operation, this will cause a delay in the polling cycle of up to 7 seconds due to waiting for the device to respond.

The Control Menu can be used to monitor the status of the Z-wave device by selecting Feedback Type = Counter and selecting the Counter assigned, as shown below
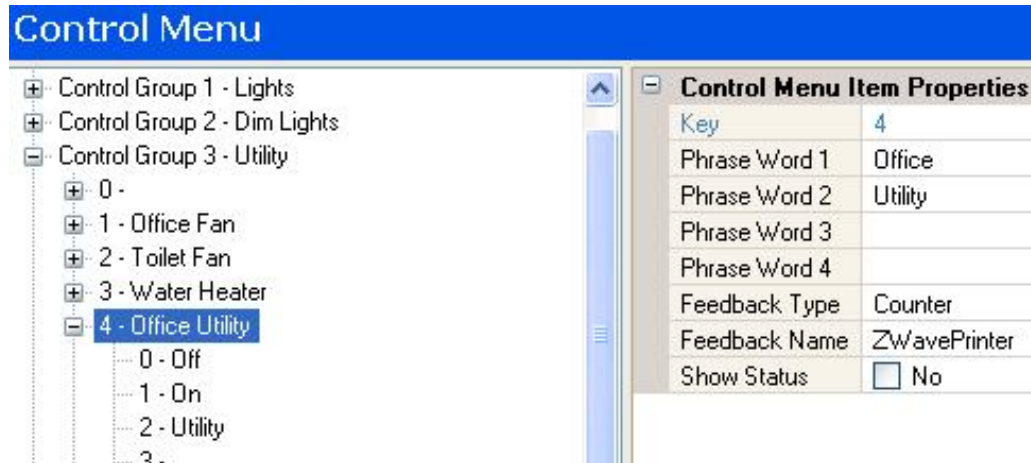
Zwave Status Feedback

☎ From UCM/Zwave 7.061, setting values into counters and flags which are mapped to Z-Wave nodes will set the Z-Wave device to the counter value. See "Sending Z-Wave Commands via Counter/flag"

Listening

This indicates if the slave is a Listening Type. Listening means that the slave is always powered on and so can be polled by UCM/ZWave. If the slave is not listening, it may only turn on periodically like a motion sensor or temperature sensor. Non-listening devices will not be polled.

Register Type

When the node type is Virtual Node, Register Type can be Counters, Sensors, Virtual Inputs, Outputs, Responses, Arm and Panic. Refer to "Mapping Comfort Registers to Virtual Nodes". For non-virtual Nodes, only Counter and Flag can be selected.

Virtual Node Info - SEND

This button is used to associate the virtual node with a button or another routing slave. This is described below.

Setting up Virtual Nodes

Virtual Nodes are Z-Wave nodes created within UCM/Zwave. The purpose of Virtual Nodes is to allow other Z-wave devices (e.g. switches or remote controls) to send commands to Comfort or Zwave sensors to send Sensor values to Comfort Sensors. Note that there is no difference to the Zwave network between normal nodes and Virtual nodes on UCM/Zwave.

The UCM/Zwave3 is able to assign up to 128 Virtual Nodes to itself. To create a virtual node, use the primary controller to Include a new Node. For MK LRC14S, press and hold the INC button at the back until the led above it turns on to show it is in Inclusion Mode. Press the 'Create Virtual Node' button in Zwave Configurator. This adds a Z-Wave Node to the network, which is a Virtual Node in UCM/Zwave. The leds on the UCM/Zwave will blink during the process.

Comfort to Z-Wave Interface

If the operation fails, a message "Request Failed" pops up. This could be due to the Primary Controller not in Inclusion mode. If successful, Comfigurator will automatically read the new Zwave Network from EEPROM.

More virtual nodes can be added in the same way, with the Primary Controller in Inclusion mode. When completed press and hold INC on the MK LRC14S to turn off the Include LED.

Note that adding Virtual Nodes creates the nodes in the Z-Wave network. You need to Associate the virtual nodes to make them useful.

Z-wave Virtual Node

The screenshot example above has 3 virtual nodes 8, 9, 13 which appear in green to indicate virtual node. Note that the Node Type is Virtual. Virtual Nodes are NOT polled.

☎ Virtual Nodes can be polled by other Zwave nodes to get the status of the mapped Comfort register

Associating Virtual Nodes to Controller Buttons

In order to make the Virtual Node useful, it must be associated with another device e.g. a button on the remote controller and/or a Routing Slave. Remember that a Virtual Node appears to other Zwave devices like another Z-wave Slave device.

1   Put the controller into Associate Mode. For MK LRC14S, press and hold the ASC button until its LED stays on.
2   Press the button on the primary controller to be associated e.g. for MK LRC14S, press one of the group/appliance buttons
3   Select the Virtual Node in Zwave Configurator and press its Virtual Node Info - SEND button seen in the right pane for the selected Virtual Node (Do NOT press the 'Send Node Info' button in the top menu). This is equivalent to pressing a button on a light switch to associate with the primary controller. The leds on the UCM/Zwave will blink during the process. The leds on the primary controller will also show the progress of the association.

There is no need to update the network using the 'Learn' button after Association because the network information has not changed. Association creates a relationship between two nodes (a Controller or Routing Slave and a Slave). Note that the same button on the primary controller can be associated with several physical as well as Virtual nodes in the network.

Associating Virtual Nodes to Routing Slaves

Routing Slaves are able to send information like their own state to the Z-Wave network without being polled by the UCM/Zwave.

1. A local button used to toggle the state of a switch can send its state to the network. This can be used to update the state of the Comfort register when its state changes.
2. A Satellite slave (i.e. a switch button which is not directly connected to a load) can be programmed to control Comfort.

To use a Primary Controller to associate a Routing Slave to a Virtual Node; The procedure below is for the MK LR14S controller - other devices will have their own procedure which is found in their instruction manuals.

1. Put the Controller into Association Mode by pressing and hold the ASC button until its ASC led turns on Yellow.
2. Press the button on the Target slave node to be associated, i.e. UCM/Zwave. This is the Virtual Node Info - SEND button. The ASC led will flash green 3 times to indicate receiving of the target device data.
3. Repeat for other target devices to be associated with the Source device, i.e. other Z-Wave slave devices. A source device can be associated with many target devices.
4. Press and release (not HOLD) the ASC button. The ASC led will turn Red to indicate that the next device to be received will be the source node.
5. Press the button on the source slave node to be associated to the Virtual Node.
6. The ASC led will flash green 2 times to indicate receiving of the source slave data and will turn off to indicate exit from Association Mode.

☎ Note that Routing Slaves associated with Virtual Nodes will update the Virtual node (which has its own mapping). Hence the associated Routing Slave should NOT be mapped to any Counter.

Associating Virtual Nodes to Controller + Routing Slaves

A virtual node can be associated with controller buttons and a routing slave. For example a remote control is used to control a Z-wave light switch. The remote control needs to be associated to the Zwave light which is a Routing slave. We want to map a Comfort counter to the light so that the status of the device can be updated instantaneously regardless of whether the device is controlled by the controller, or by its local switch.

This can be done by associating the Controller button to the Virtual node AND associating the same virtual node with the Z-wave device as described above.

Mapping Comfort Registers to Virtual Nodes

For each virtual node that has been associated through the primary controller, select a Register Type as Counter, Sensor, Virtual Input, Output, Response, Arm, or Panic.
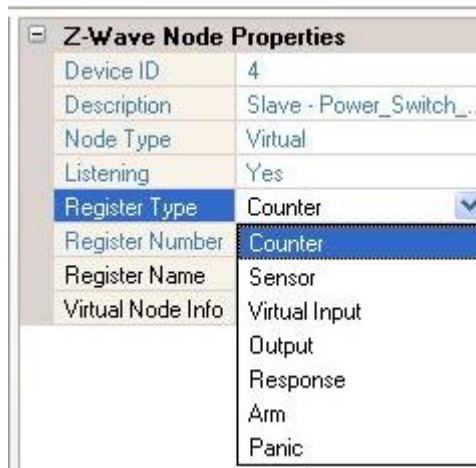
Comfort Register Types

Counter

Select Counter 0 to 254 and a Counter Name to map to the Virtual Node. Counter 255 is default which means NO Counter. When a command is sent from the associated button or device, a value of 0 for OFF, 255 for ON, or 1 to 99 for level is updated to the counter. The associated Counter Response will be activated, hence allowing a Zwave device to control Comfort.

Sensor

Select Sensor and a Sensor Name to map to the Virtual Node. The sensor value from the Zwave Sensor will be written into the mapped Comfort Sensor. The associated Sensor Response will be activated, hence allowing a Zwave device to control Comfort. Every Comfort Sensor can have a Sensor Response which is activated when a sensor change is received from Zwave.

Virtual Input

Select Virtual Input and an Input/Zone Name to map to the Virtual Node. When a command is sent from the associated button or device, the associated zone will be set to ON or OFF just like being activated by a physical Input. In Security > Zone/Inputs, the mapped zone will be shown as Virtual, and the physical zone will be disabled and will have no effect. The zone will behave according to the Zone Type settings and will trigger Zone Responses and activate its Alarm Type as well. This allows a Z-Wave door/window/motion sensor to trigger a zone in Comfort.

Output

Select Output and an Output Name to map to the Virtual Node. When a command is sent from the associated button or device, an ON command will turn on the mapped output and an OFF command will turn off the mapped output.

Response

Select Response and a Response Name to map to the Virtual Node. When a command is sent from the associated button or device, it will trigger the mapped Response. This is similar to the Counter and Sensor mapping except that a Response is triggered directly without updating a counter or sensor. Also the value of the command i.e. 0 for OFF, 255 for ON, 1 to 99 for level is sent as a Parameter to the Response so that the Response can act on the value received, e.g.

If Last Action Value = 0 then

...

Else

...

End If

It is recommended not to map to Responses because when responses are edited, the Response number can change. When mapping to Responses, remember to Write to EEPROM to ensure Response number changes are updated.

Arm

Select Arm and a Mode Away, Night, Day, or Vacation to arm the security system to. When a command is sent from the associated button or device, it will arm the system to the specified mode regardless of off or on command.

Panic

If panic is selected (no additional parameters) the command will immediately activate a panic alarm

Write to EEPROM

After mapping Comfort Registers to all virtual nodes, do Write to EEPROM. This may take a while depending on the number of nodes.

Writing to EEPROM

Save File

Always remember to save your cclx file after any change in order to avoid losing your work.

Leaving the Z-wave Network - Exclusion

If the UCM/Zwave3 is to be removed from the Z-Wave network, either physically because the module is to be taken away or if the module is in place but is not to take part in any Z-Wave operations, it must be excluded using the Primary Controller. If it is not excluded, the UCM/Zwave will continue to occupy a Node ID in the network and associated devices will try to send messages to it.

☎ Before excluding the UCM/Zwave from a network, be sure to first exclude all Virtual Nodes created by UCM/Zwave.

The following procedure shows how to Exclude Virtual Nodes from the network. The procedure depends on the Primary controller being used. Here the steps for MK LRC14S are described.

1 Press and hold the EXC button until its yellow LED remains on.
2 Select the Virtual Node in Zwave Configurator and press the Virtual Node Info - SEND button seen in the right pane for the selected Virtual Node (Do NOT press the Send Node Info button in the top menu).
3 The leds on the UCM/Zwave will blink.
4 Repeat until all Virtual Nodes are excluded.
5 Press the EXC button again on the controller to exit from the Exclude Mode.

The following procedure shows how to Exclude the UCM/Zwave from the network.

1 Press and hold the EXC button until its yellow LED remains on.
2 Press the Learn Button on the Z-Wave Configurator.
3 The leds on the UCM/Zwave will blink.
4 There will be a message "Invalid data in EEPROM. Please Learn Again"
5 Press the EXC button again to exit from the Exclude Mode.

Reset UCM/Zwave to Default Settings

This is done only when the UCM/Zwave from a network has data in its EEPROM because it has not been excluded from the other network. The proper procedure is always to Exclude the UCM/Zwave from a network before removing the UCM/Zwave to another site. See previous section on Leaving the Z-Wave Network. In short, never "RESET UCM/Zwave to Default Settings" without first Excluding it from the Zwave Network.

1 Use Comfigurator > Modules Tab, UCM and click on the UCM icon on list of UCMs on the left pane corresponding to the UCM/Zwave. The Z-Wave Configuration Screen is seen.
2 Press 'Reset' button on the top row, select 'Yes' to continue and login with the Comfort user code (default: 1234). This clears the UCM/Zwave EEPROM to blank or default configuration. Pressing the 'Status Off' button will show "UCM/Zwave not in a network" on the status bar.

Sending Z-Wave Commands by Response Wizard

Comfort can be programmed to communicate with the Z-Wave devices via action codes using the Comfigurator software programming tool.

The Comfigurator Response Wizard helps to program the Actions which make up a Response to control Z-Wave devices. Select Events -> Responses, right-click on any response and select Add Response to create a new Response, as shown in the following screenshot:

Add Response

Enter the Description of the new Response. The Name is automatically created from

the Description, although you can change it. Click OK. The Response Wizard dialogue will appear. Click Append New Action and select UCM > Z-Wave.
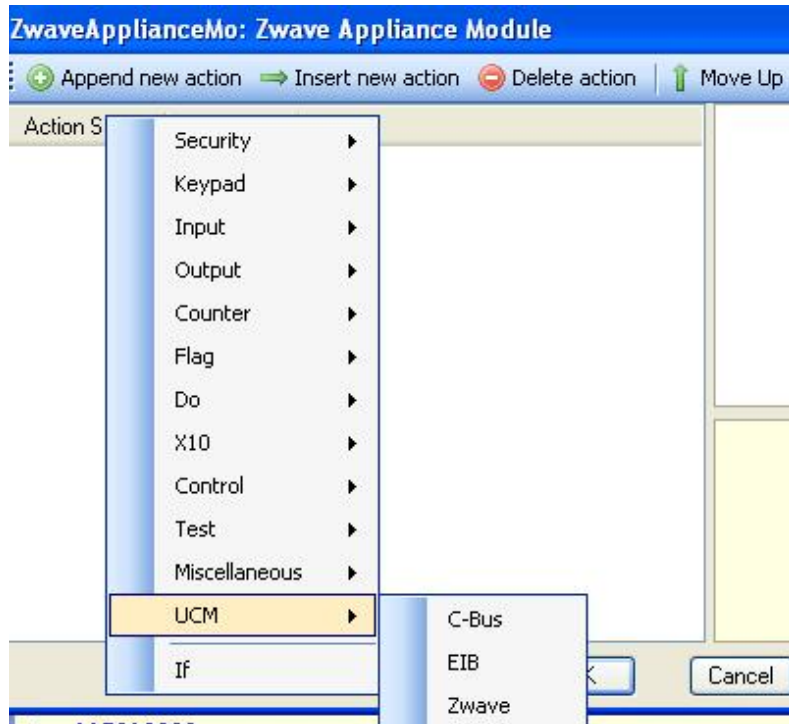
Zwave Response Wizard

The Z-Wave action dialogue appears as shown below:

Click on "Device Ids" to show a dropdown list of the Zwave Modules in the Mapping Table.
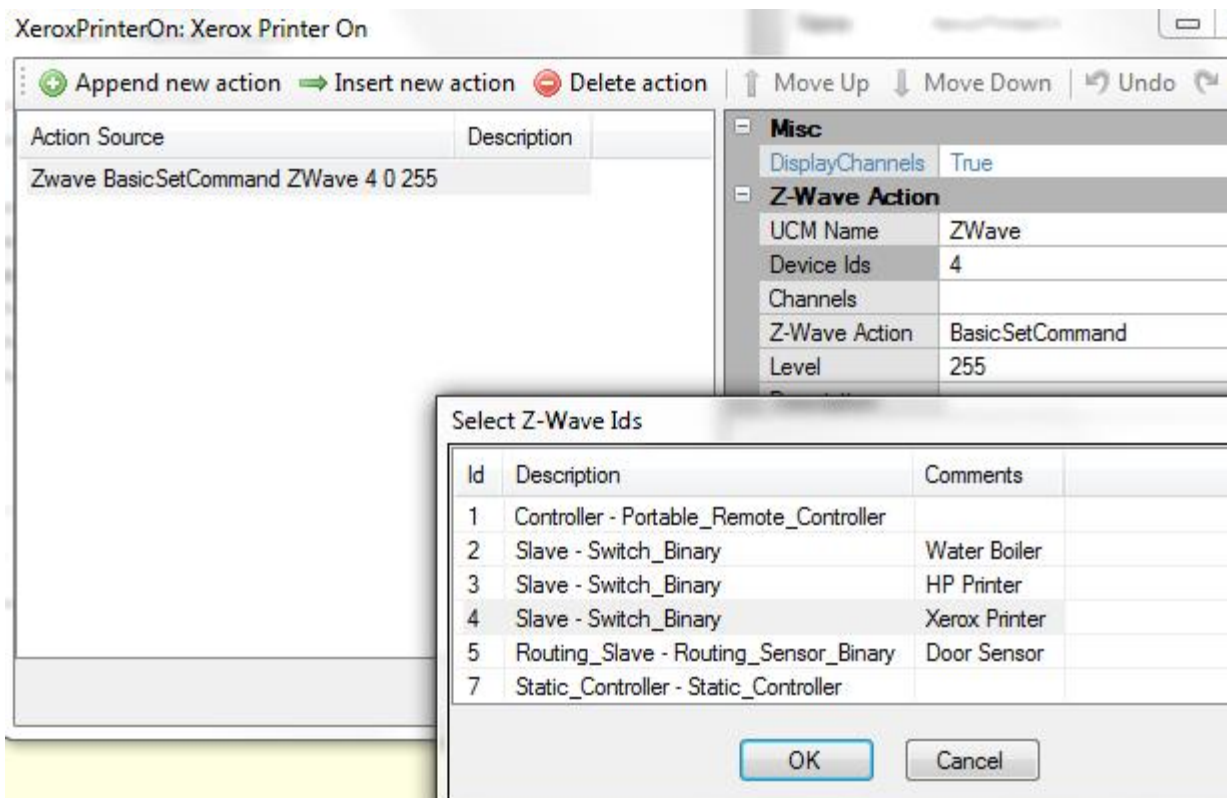
Select the desired Zwave ID by name.

You can even select multiple Zwave Ids by pressing the Control Key and selecting

several devices in the list as shown below
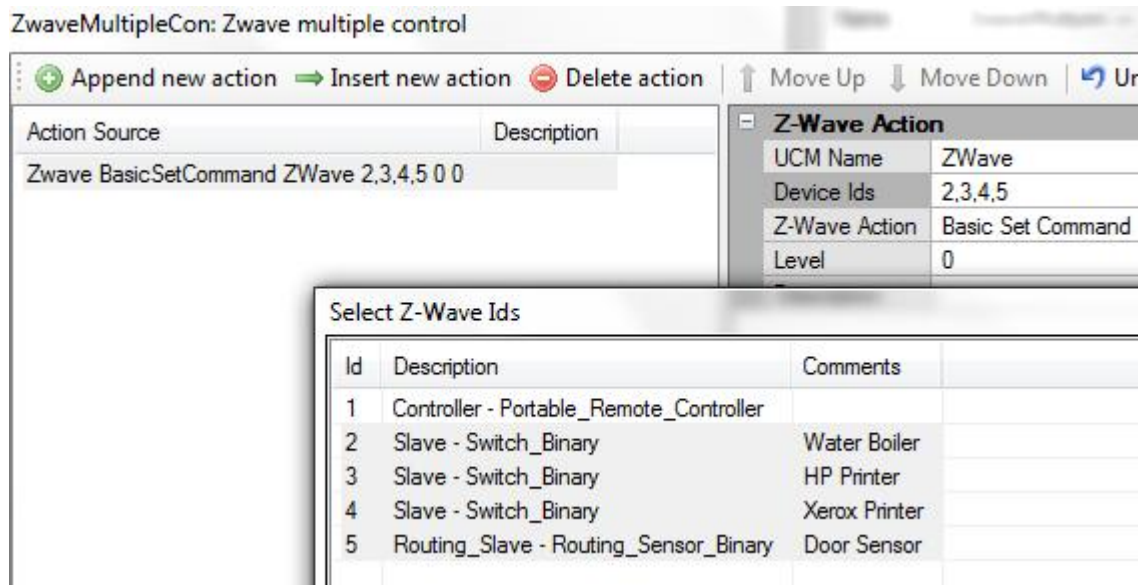
Next, select the Zwave command as shown below;
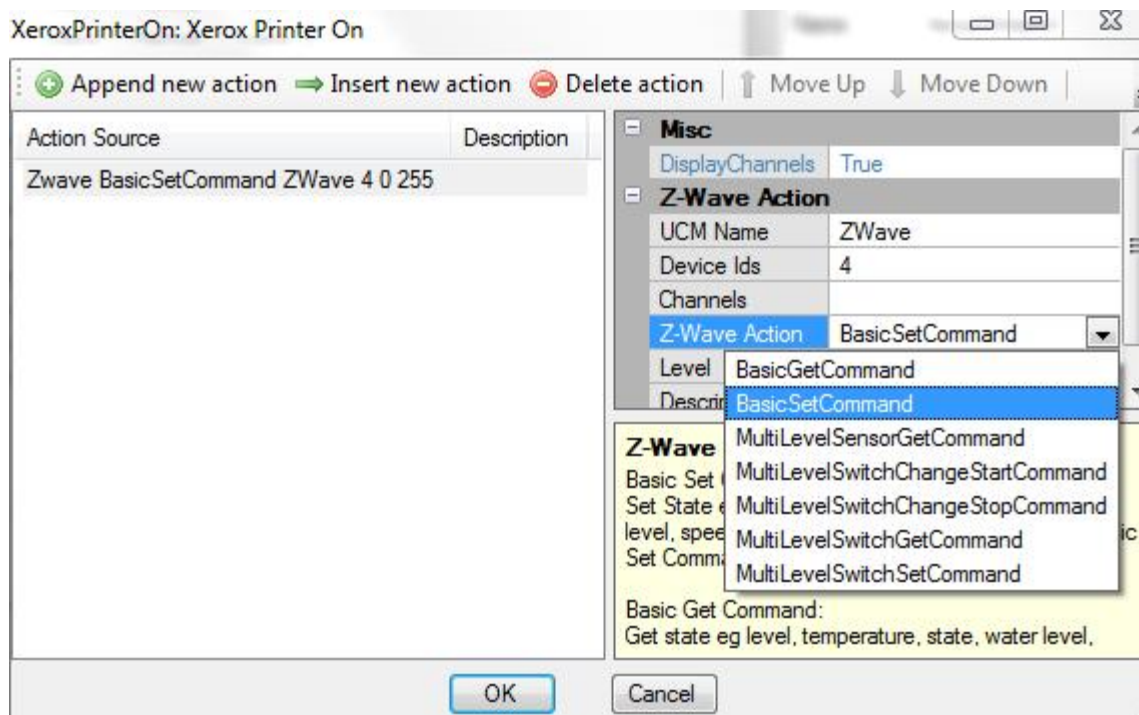
Zwave Commands

The commands supported are: Basic Get, Basic Set, Multi-Level Sensor Get, Multi-Level Switch Change Start, Multi-Level Switch Change Stop, Multi-Level Switch Get, Multi-Level Switch Set depending on the individual Node Type.

☎ Only valid commands for the Z-Wave Node can be selected for Zwave firmware 7.028 and above

Basic Set Command
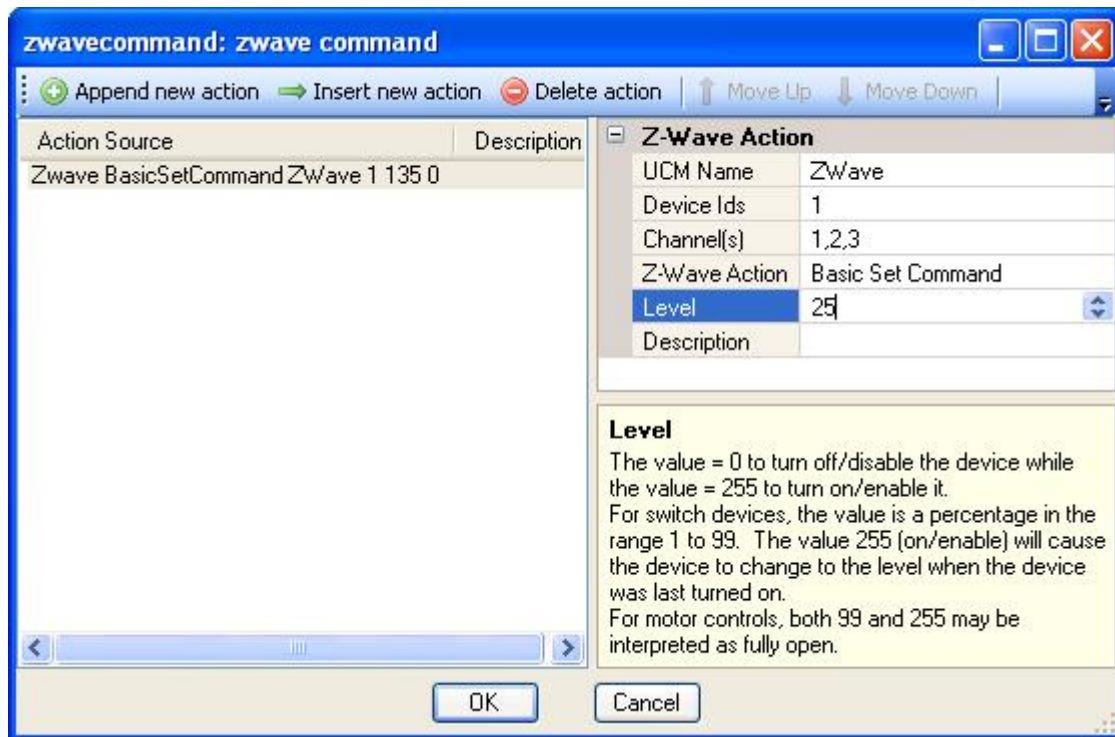
The Basic SET Command is supported by all Z-Wave devices. This sends an On (level 255) or Off (level 0) or level 1 to 99 % (for dimmable devices) to one or more Zwave device Ids in a single command. The number of Ids in a single message should be limited to 32 Ids. The screenshot example sends a 25% level to Zwave Device Ids 1 channel 1,2,3 for a Multi-Channel device. Note that not all Zwave lighting devices are Multi-Channel. Leave the Channels value blank if the device has no channels.

Basic Get Command

The Basic Get command sends a Request for status to one of more Z-Wave devices, so that their status can be updated to the mapped Counter (see Z-Wave Mapping screen). This command is normally not needed in Comfort.

Multi-Level Switch Set Command

Sets the level and Dimming Duration in a Z-Wave multilevel switch device. The level is 0 to 99 or 255 as in the Basic Set Command. The Dimming Duration is the interval from the start until the specified level is reached. 0 =Instant, 1-127 = 1-127 seconds, 128-254 = 1-127 minutes, and 255 = Default factory dimming duration for the device. Dimming duration is manufacturer dependent, e.g.. specifying 4 seconds may give you instantaneous if the device does not support "controlled" dimming.
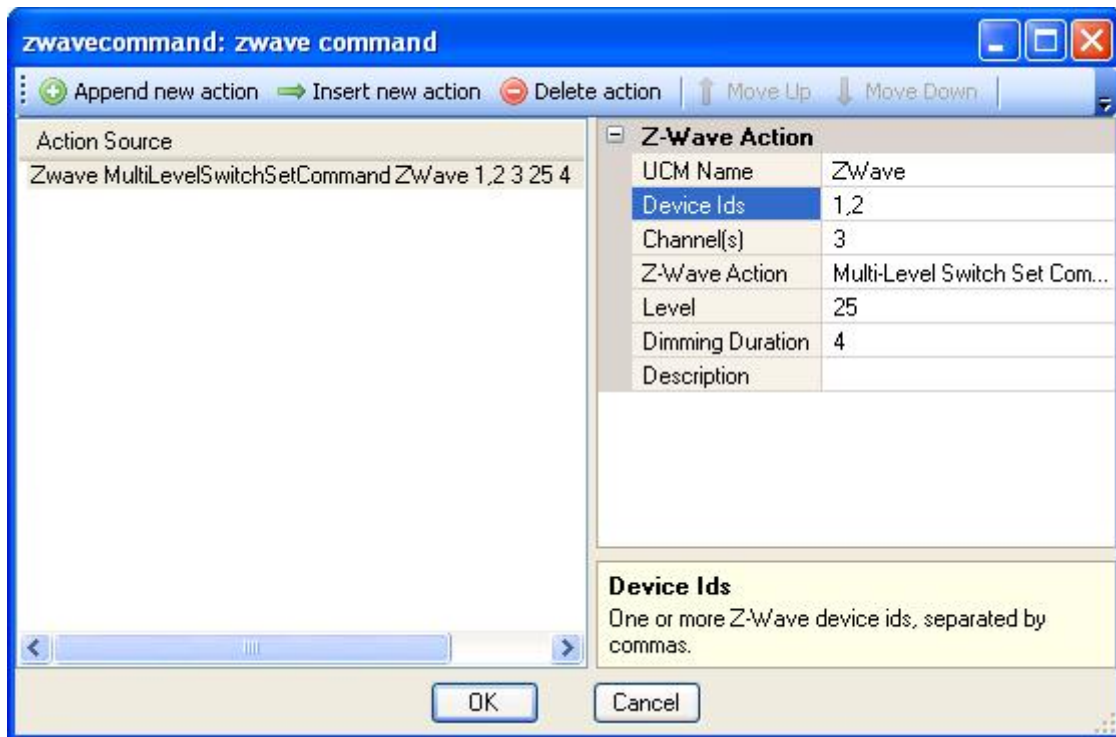
The above screenshot sets 25% dimming to Ids 1 and 2 for channel 3 (for a multichannel lighting device). Leave the Channels value blank if the device has no channels.

Multi-Level Switch Change Start Command

Start dimming in a multi-level switch device. This works together with Multi-level Switch Change Stop Command. Select the Channel for Multi-channel devices. Leave the Channels value blank if the device has no channels.

Parameters:

- Up/Down: Level Up or Down
- Ignore Start Level: If Yes, the device should start from the current level in the device; If No, the start level is specified in the command.
- <Start level>: The Initial Level of the device (affected by Ignore Start Level)
- Dimming Duration: (same as Mutlilevel switch Set command)

The above example shows a command to dim up from level 0 in 4 seconds for Z-Wave device ID 3 channel 1

Multi-Level Switch Change Stop command

Stop dimming in a multi-level switch device. This works with Multi-level Switch Change Start Command. Select the Channel for Multi-channel devices. Leave the Channels value blank if the device has no channels.
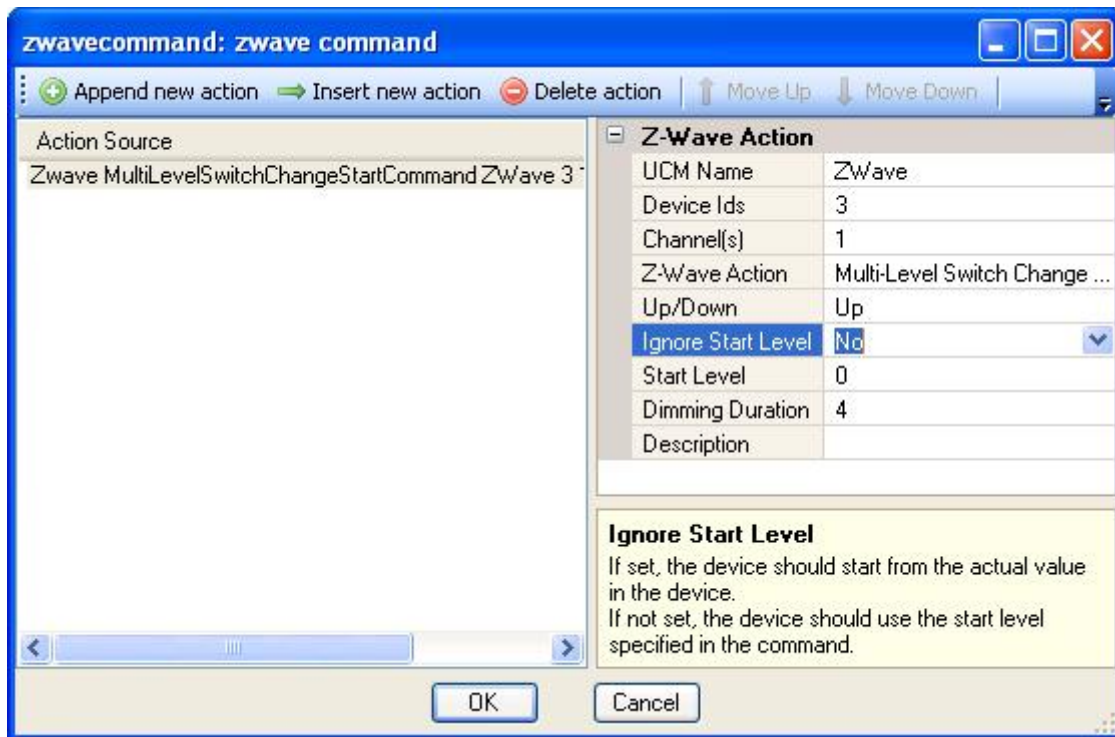
Parameters: None

The screenshot below shows Stop dimming command for Z-wave Device ID3 channel 1
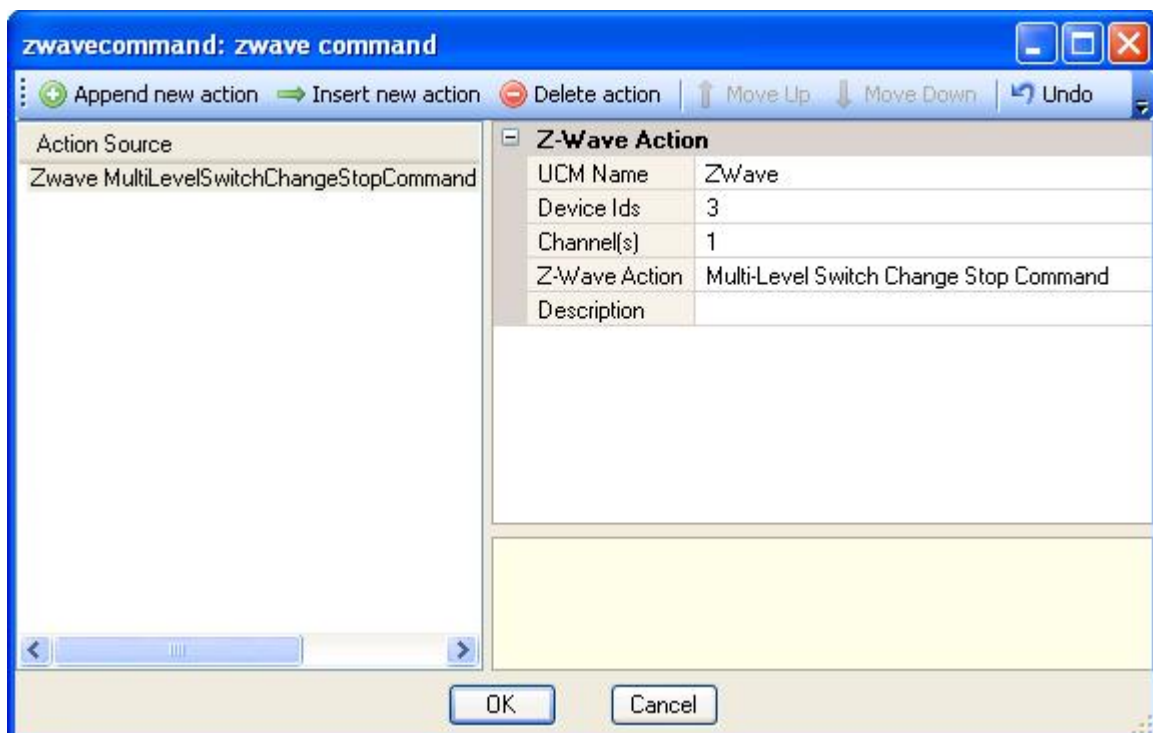
Multi-Level Switch Get Command

Get Level of a Zwave Device. This value is updated to the mapped Comfort counter.

Multi-Level Sensor Get Command

Get Level of a Zwave Sensor. This value is updated to the mapped Comfort Sensor.

Sending Z-Wave Commands via Counters and Flags

From Zwave 7.061 onwards changing the value of counters that are mapped to Z-Wave nodes will also send commands to the node according to the value of the Counter. For example, if a Zwave Basic Node is mapped to Counter 1, then setting the Counter 1 to 0 will send the OFF command and setting Counter 1 to 255 will send the ON command to the device. If the Zwave node is a dimmable multilevel switch, then setting the counter to value of 1 to 254 will dim the device accordingly. Setting the counter value to 255 will turn on the device to the last level in memory. The example shows the Response Wizard Counter commands list.

"Initialise Counter" will set a value into the counter. "Load Counter with Last Action Value" will load a value obtained by other actions into a counter.
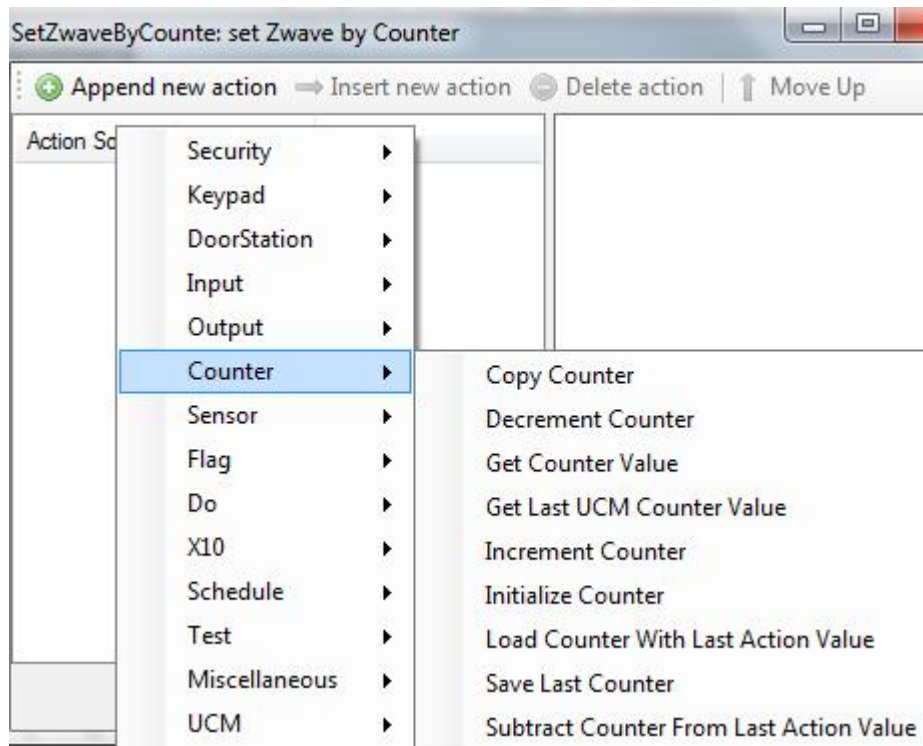
Setting The value of Flags to on and off will also switch on or off the mapped Zwave node.

Z-Wave Status
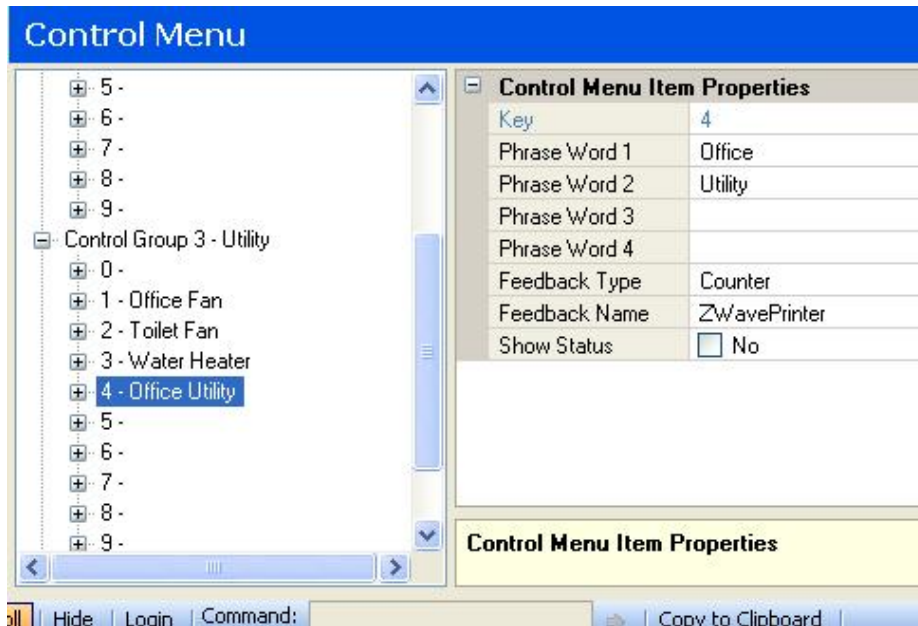
Zwave Device Status

This may be used in the Control Menu to announce or see the status of the device. To do so, in Comfigurator, select Control -> Control Menu as shown above. Select one of the Control Keys and set the Feedback Type to Counter or Flag and the Feedback Name to the counter/flag where the status is stored.

This will allow the status to be announced when the Control Key is selected on the keypad. For example, if the Office Utility is On, pressing "4 for Office Utility" will announce "Office Utility is On".

Inclusion/Replicating for Various Manufacturers

The procedures below show how to Include the UCM/ZWave in a new Z-Wave network and to copy the network info from the Primary controller. The Z-wave Configurator is set in the Learn Mode, waiting for information to be transferred from the Z-Wave primary remote control.

ACT HomePro ZTH200

1   Press Menu > Setup > Copy Remote Control > Send Information > Only System Information.
2   Press the OK key.
3   The status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.
☎   The ACT Homepro may have a problem when trying to include UCM/Zwave in a large network e.g. more than 10 nodes. This product is not recommended except for small networks.

Logitech Harmony 890

1   From the welcome screen, press OK until the Activities Menu is seen.
2   Press System Options, RF Network Tools -> to view more options.
3   Press Add a Secondary Controller. If you do not see this option, it means you are not using the primary controller/remote.

4   When the process is completed, press OK.

Logitech Harmony 895

The procedure differs from that of Harmony 890. There is no procedure to add a secondary remote. The following is a workaround;

1   Set up a new Z-Wave device on the web interface as the UCM/Zwave.
2   Pair the remote control with the new device (UCM/Zwave). This transfers the system information about the Z-Wave IDs to the UCM/Zwave.

MK Electric Astral LRC14S

This also applies to Vitrum.

For information on the MK Electric Astral system (see http://astral.mkelectric.com/)

1   On the back side of the remote control, hold down the INC button for 2 seconds until the indicator turn yellow and release.
2   The indicator will be flashing when the transfer is in progress. Press and hold INC to switch off the indicator when completed.

Aeon Labs Z-Stick Series 2

For information on the Aeon Labs system (see http://aeotec.com/z-wave-home-automation)

1   Unplug the Z-stick from the USB connector (if any) before tapping once on the button. The LED on the Z-stick will flash slowly.
2   The LED on the Z-stick blinks faster and stays steady on for 3 seconds when the transfer is successful.
3   Tap the button on the Z-stick to turn off its inclusion mode.
4   Homeseer or other software is needed to order to perform other functions like association.

Aeon Labs Minimote

1   Slide down the bottom-slide door of the Minimote and press 'Include' button. The blue LED will flash slowly.
2   The blue LED will flash quickly and stay steady on for 2 seconds when the inclusion is successful. If there is error, the red LED will stay steady for 2 seconds instead.
3   Press the 'Include' button on Minimote to exit from inclusion mode.

Merten CONNECT Radio system (Up to 5 devices)

For information on the Merten Connect Radio (Z-Wave) system (see http://www.merten.com/CONNECT-radio-system.24.0.html)

1   Press the button on the radio transmitter (e.g. Radio Push Button 502619) three times consecutively within 1.5 seconds. The LED on the button will turn red indicating the data is being sent and when finished it will turn green and eventually off.
2   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.

Merten remote control configured with Easy Connect

1   For remote control (e.g. Funk-System CONNECT 506923) configured with Easy Connect.
2   Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.
3   The display now shows EASY CONNECT? And the upper left corner shows

SETUP. Activate EASY CONNECT? by clicking the OK key on the remote control. The display shows ROOM 1? (assuming other Z-wave receivers are programmed in ROOM 1).

4   Activate ROOM 1? Activate CONNECT KEY? Activate PRESS 1TO9/SCENE? Press any number from 1 to 9 or scene 1 to 3. The display shows WAIT RCV. If the connection is established successfully STARTED appears on the display followed by OK.

5   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed. .

6   If the connection is not established successfully, repeat step 2.

7   Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten remote control configured with Easy Link

1   Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.

2   Activate EASY LINK? Activate ADD? Activate WRITE PB? The display shows WAIT PB. If the connection is established successfully STARTED appears on the display followed by OK.

3   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.

4   If the connection is not established successfully, repeat step 2.

5   Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten remote control configured with Easy Tool

1   Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.

2   Activate EASY TOOL? Activate PROG MODE? The display shows WAIT TOOL. If the connection is established successfully STARTED appears on the display followed by OK.

3   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.

4   If the connection is not established successfully, repeat step 2.

5   Exit the configuration mode by pressing SETUP key for 3 seconds

Merten remote control configured with Advanced

1   Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.

2   Activate ADVANCED? Activate COPY REMOTE? The display shows WAIT REMOTE? If the connection is established successfully STARTED appears on the display followed by OK.

3   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.

4   If the connection is not established successfully, repeat step 2.

5   Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten CONNECT Radio USB data interface

1   For radio USB data interface (e.g. 506801) with CONNECT radio configurator,

2   Run CONNECT radio configurator software. Connect the radio USB data interface to the computer.

3   In radio configurator software, create a new project and the building structure.

4   Go to Actions > Capture devices to enable capturing of the device which will receive system administration function. Activate the learning mode on the device.

5   Always do the capturing of UCM/Zwave after all other devices (the last device to be captured).

6   At UCM/Zwave configurator the status bar shall show "Receiving network data". Once completed, "Learn process success" shall be displayed.

7   In radio configurator software, all the Z-Wave devices will be shown under Devices view. Drag devices to their corresponding room. Go to View > Current View > Connections to make the necessary connections between controllers and devices.

8   After the connections have been set up, program all the devices through Actions > Program devices. Activate the learning mode on each device in which the radio configurator requests for. For UCM/Zwave click on 'Learn' in Comfigurator software.

9   When completed, exit from radio configurator software through Actions > Disconnect from radio system.

For Vera Controller

1   Go to Add/Remove Devices, select "Add Zwave devices such as light switches, door locks, controllers, sensors etc.." And select Next

2   In the next screen select the option which says "For battery operated handheld remotes and scene controllers you have 2 options…" Select "Add One". Then bring Vera Controller next to the UCM/Zwave and press Learn.

Troubleshooting

Virtual Nodes changed to Basic Nodes

If virtual Nodes that were created have been changed to Basic Nodes in Zwave Mapping table, the possible causes are:

1   You have done RESET UCM/Zwave to Default Settings.

2   You have Reset the Primary Controller to default without excluding all Zwave devices from the network, and then started to learn the devices again. The Zwave devices that were in the network may still use the same Ids when they are included in the network again and conflict with the Virtual Nodes. When you wish to start learning a network again from scratch, always Exclude all Ids from the network before Resetting the primary controller, or alternatively Reset all devices to default

Error Message "No Response from Z-wave Network"

This may be due to the following possibilities

1   There may be a duplicate UCM with the same ID as the UCM/Zwave. Check that the UCM ID (SW7) is not the same as any other UCM in the system

2   There may be a bad connection between the Z-Wave submodule and the UCM baseboard. Reset the UCM/ZWave3. Click on the 'Status Off' button on the configurator page to see the status.

Firmware History

Zwave 7.072 (19 July 2015)
1   Support Counters and Flags for mapping to non-virtual nodes. Smart Polling fixed. Prevent racing condition for counters and Flags. Multilevel switch node levels are converted to 0 to 255 for Counters

Zwave 7.031 (10 Oct 2013)
1   Supports new features in Comfigurator 3.7.x

Zwave 7.016 (25 April 2013)
1   Firmware changes to comply with Z-Wave certification

Zwave 7.008 (14 January 2013)
1   Implemented new features to work with Comfigurator 3.6.3

Zwave 6.024 (29 June 2012)
1   Implemented change in Multisensor Command GET command
2   Fixed bug which causes ERR led to turn on during learn

Zwave 6.023 (2 June 2012)

These features require Comfigurator 3.5.x

1   Implemented Get Status Button to show Zwave Module status in status Bar
2   Automatically display Zwave status during Learn Mode
3   Added Comment Field for each Device in Zwave Mapping Table to identify the node, which is saved in EEPROM
4   Reduce Read/Write to EEPROM Time by max node to read/write.
5   Warning when RESET to Default Button is pressed.

Zwave 6.019 (21 February 2012)
1   Implemented Bridge Controller Mode and Virtual Nodes, Requires Zwave firmware on Zwave Module to be updated to Bridge Controller function.

Z-wave 5.218 (22 July 2010)
1   Slow down node polling speed to allow Z-wave Modules to cope
2   Sync string ID after time-out, in case of errors. Initialises polling parameters during reset.
3   Skip polling controllers for multichannel support (unnecessary)
4   Stop polling devices during learn mode so led status is correct.
5   Fixed bug for multichannel polling
6   Supports Z-wave Multi-channel Command Class (MK Astral)

Z-wave 5.184 (13 May 2009)
1   Fixed problem of counter update even if value is not changed.

Z-wave 5.180 (5 March 2009)
1   Supports Z-wave Configurator with EEPROM in UCM/Zwave. Requires Comfigurator 3.2.3
2   AUX 'H' shunt no longer needed for copy operation.
3   New commands activated from Z-wave Configurator software : Abort, factory default, learn, node info.
4   Fixed wrong LED indication showing receiving information in learn mode when it is not (Only happens for modules which are not learnt previously)
5   Supports Scanning of Modules by Comfigurator

Document Version History

- Version 3.0.8 (19 May 2019) added Zwave specs. Non compatible with AES Security including FGD212
- Version 3.0.7 (20 July 2015) documented new features for Zwave 7.072
- Version 3.0.6 (5 Feb 2014) extra note that modules must be powered on before learning.
- Version 3.0.5 (2 Dec 2013) Revised new Comfigurator 3.7.x and new firmware features. Add select Multiple ID by pressing Control Key
- Version 3.0.2 (30 April 2013) Revised Zwave actions and other operations for Zwave certification
- Version 3.0.0 (14 Jan 2013) UCM/Zwave Firmware 7, Comfigurator 3.6.3. Changes in Zwave status display, Commands, Virtual Node creation.
- Version 2.12 (2 July 2012) - UCM/Zwave firmware 6.023. Screenshots for multichannel Z-wave device, Comfigurator 3.5.0 Upgrade from older versions documented. Improved Response Wizard explanation. Multi-channnel command class can control 7 channels in same command or a single channel up to 127 using Comfigurator 3.5.1. Added Troubleshooting - Virtual Nodes become Basic. Version 2.04 (28 February 2012) - applicable for UCM/Zwave3. Updated information for Polling.
- Version 1.2.0 (24 August 2011) Warnings on Reset to Default. Error message "No Response to Z-wave Request"
- Version 1.1.7 (30 July 2010): Added instructions for MK Electric Astral and new feature of multichannel command class.
- Version 1.1.6 (24 May 2009) - Current firmware Z-wave 5.184 sends counter updates to Comfort only when the Counters associated with Z-wave is changed.
- Version 1.1.5 (31 March 2009): Updated instructions and photo for new firmware version 5.180 which uses Comfigurator 3 for Z-Wave configuration applicable to UCM/Zwave2 firmware 5.180 and above. Added D1 LED indicator on Z-wave daughterboard, Counter assignment., buttons of UCM/Zwave configuration screen. Update table on LEDs status
- Version 1.0.6 (25 August 2008): Added instructions for Merten
- Version 1.0.5 (14 July 2008): Instructions for copying Primary controllers
- Version 1.0.3 (20 April 2008): Initial Release UCM/Zwave v1

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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