ElkM1 URC Integration Guide

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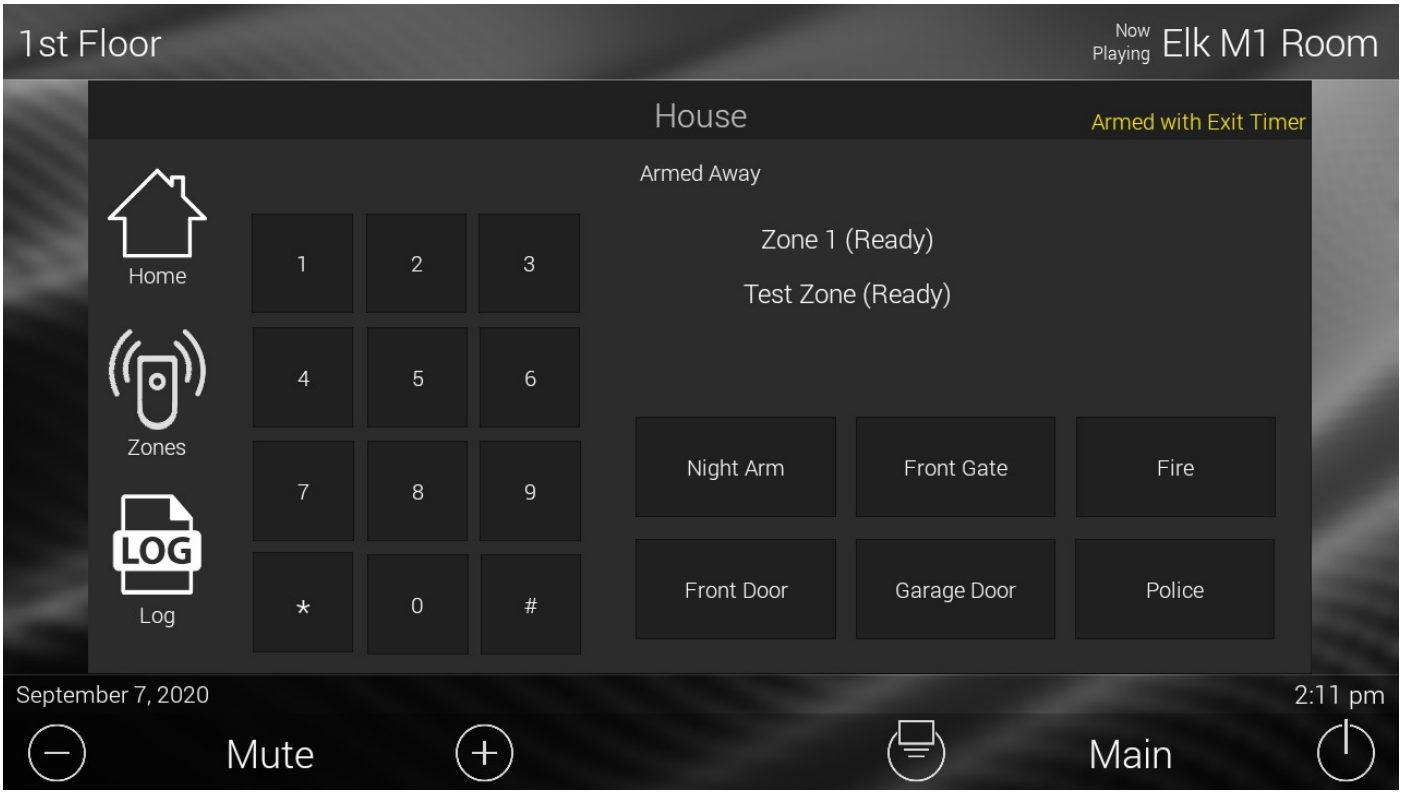
Overview

The ELK M1 URC IP module allows for full control over the ELK or Ness M1 Gold alarm panels. The module provides user interfaces for all of the current URC touchscreens, hand held remotes, phones and tablets. Using this touchscreen interface you can arm and disarm the panel, check the current status of any zone in the current partition and read through the logs. All six function buttons are also available on the home page for triggering common commands. The function buttons can have custom labels applied and the areas can also be named using system parameters.



The module is designed using the Core / Interface style. The Core module handles all communication and would typically live in your common room. The Interface modules can be placed in the room that is in the area they are associated with, for example you may have one in the living room, with a second interface in the garage. The module will only display the relevant zones and arm and disarm the correct area. The current status of the alarm will be shown on the interface, including displaying anything that might be blocking an action (zones that are in alarm while trying to arm for example).

The module also provides a number of events that can be used for more advanced automation, like using the security sensors to trigger lights. In addition to the sensors there are events for the current arming status (Disarmed, Armed Away, Armed Stay, etc), the arming status (armed with Exit timer, Ready to Arm, etc), the alarm state (Burglary, Police, Fire, Entry Delay, etc) and the system state (AC Fail, Battery Low, Comms Failure, etc).

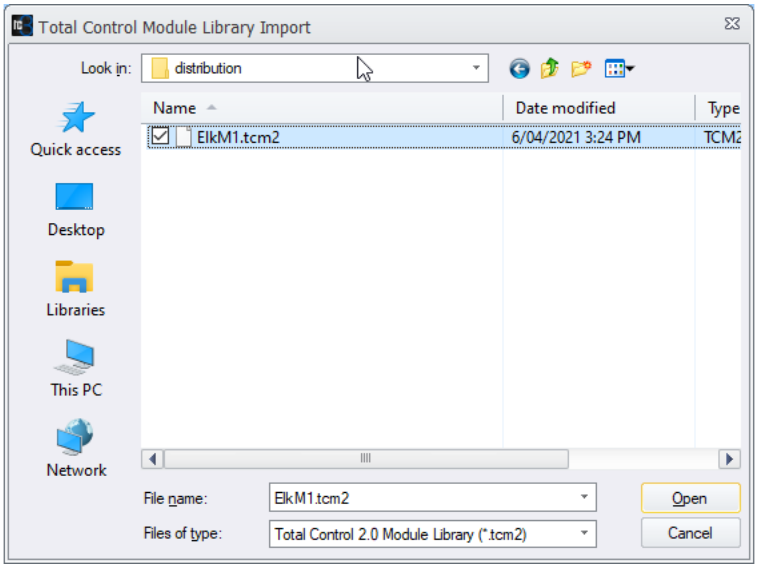
In addition to the automation events a full range of Two Way commands are available to turn zones on and off, trigger auxiliary outputs, run tasks, trigger the functions keys, send a text message to the LCD on the code pad and trigger lighting.

Installation

To install the module, you will need to do the following

Import TCM

From the file menu, Import TCM Files



Add the module to your project

In Step 4. Add Other Drivers. You will need to install both the Core module (once) into a shared room and then an interface module into all of the rooms you wish to use.

Install Core Module

Step 1 - select a room for the module

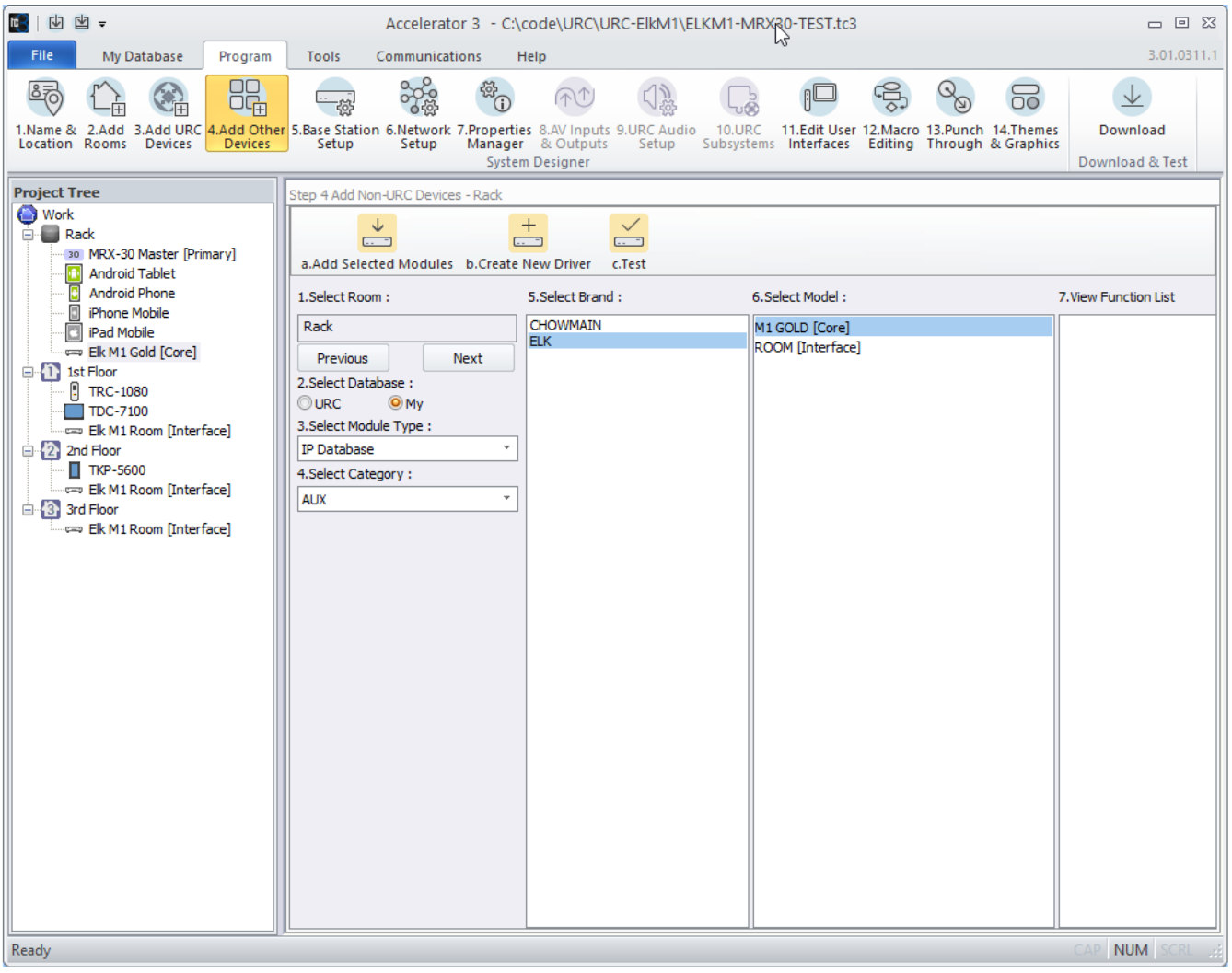
Step 2 - select My

Step 3 - select IP Database

Step 4 - select AUX

Step 5 - select ELK

Step 6 - M1 GOLD (double click)



Install Interface Module

Step 1 - select a room for the module

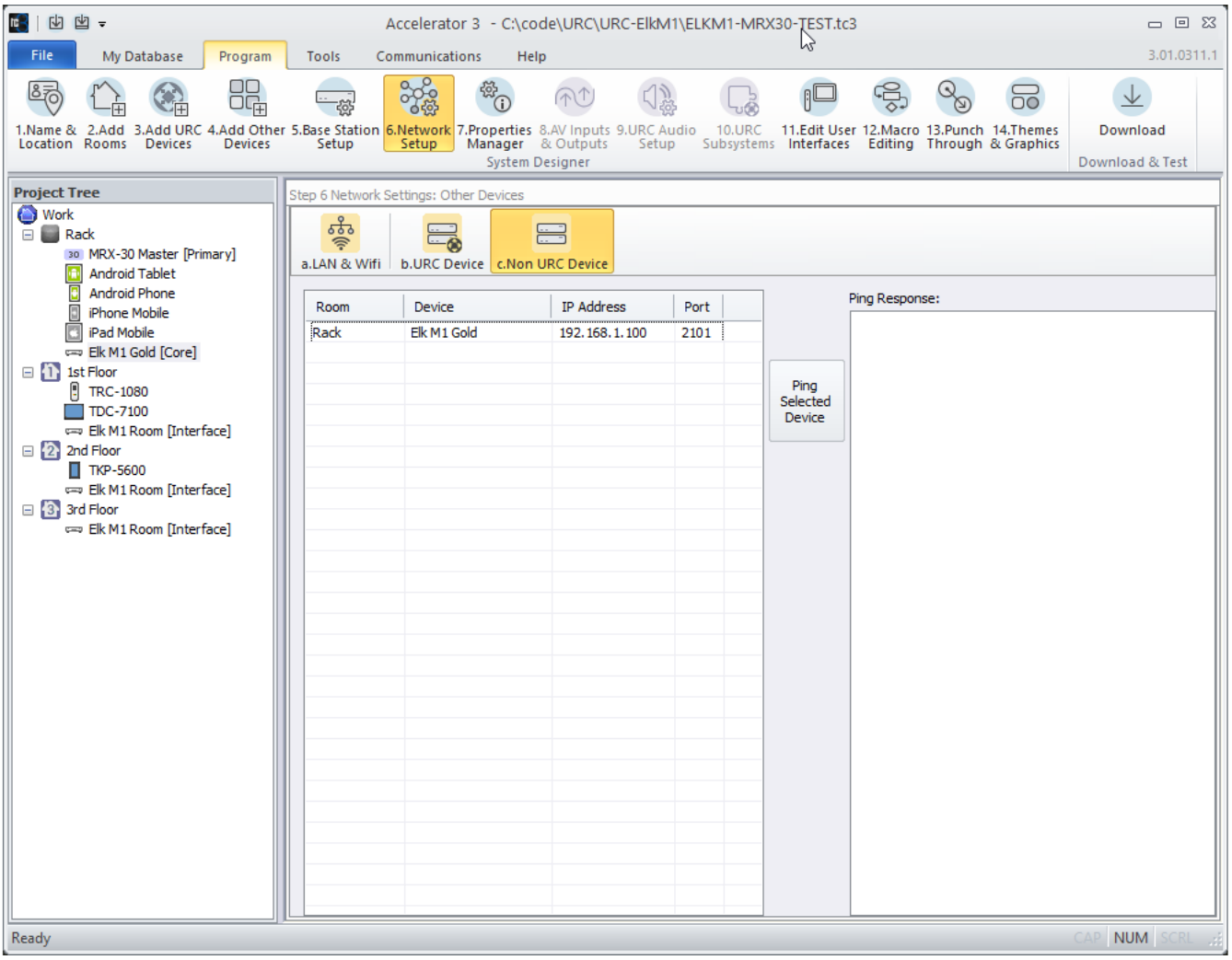
Step 2 - select My

Step 3 - select IP Database

Step 4 - select AUX
Step 5 - select ELK
Step 6 - ROOM (double click)

Network Settings

Finally go to Step 6. Network Settings and Choose Non URC Devices. In the IP Address field enter the IP address for the M1 Gold. Optionally you can enter a value for the port (if you've require something different from the default) or just leave it on the default - 2101.



System Parameters

Core Module

The ElkM1 core module does not require any parameters, but there are several available.

All system parameters are entered in the following format

```
KEY=VALUE
```

The following table details the system parameters that work with this module.

KEY	VALUE
LICENCE	The licence code
F[NUM]	Change the label for the specified function key
CODE_LENGTH	Specify the length of the user codes (4 or 6)
CONNECTION_TIMER	Specify the time in seconds for connection checks
DEBUG	Puts the module into its debug mode

Licence [requried]

The licence code you were given when you purchased the module. If this is left blank the module will automatically enter a trial period.

Function Key Text [optional]

The text that appears on the function keys in the URC screens can be set using the F1, F2, F3, F4, F5 and F6 system parameters. For example

```
F1=Lock Door
```

Code Length [optional]

By default the system accepts 4 digits as the length of code for the purposes of arming or disarming. If you have used a different code length you can configure that with the CODE_LENGTH parameter. If this is left blank the driver will defaujlt to using 4 digits.

```
CODE_LENGTH=6
```

Ethernet Reconnection Timer [optional]

There is a timer in place that regularly checks the ethernet link to the panel and forces a reconnect if the connection gets lost. By default this check happens one every 60 seconds, but it can be configured using the CONNECTION_TIMER parameter. The time is in seconds.

```
CONNECTION_TIMER=120
```

Debug mode and logging [optional]

TO enable logging from module startup, you need to add the DEBUG parameter and set it to ON. This is important to make sure we capture all the details at the module initialisation, including the results of the licence connection, and the initial connection to the device. This will write log files to the processor that can be retrieved by URC support. If you need to fetch the logs, please add this parameter and restart the processor. You will need to contact URC support to fetch the logs for you.

```
DEBUG=ON
```

Interface Modules

The Interface module has a number of optional parameters but its likely you will want to set the AREA parameter to suit your system. The default is 1 but if you have more than one area it is a required setting. It is best practice to set this parameter even if you are only using one area.

KEY	VALUE
AREA	Set this interface to the specified ELK area
NAME	Sets the name of the area
ZONE_LIST_DELAY	Sets the time the zone list stays visible after the system returns to ready to arm

Area Number [required]

Each interface module needs to have an area associated with it, in the same way you would associate a keypad with an area. The parameters requires the area number only, do not use the name. The parameter name is AREA and is set in the Module Parameters section. For example

```
AREA=1
```

Area Name [optional]

The area name defaults to Area 1, Area 2 etc. Using the NAME parameter you can set the label that gets displayed int he user interface to a name that you specify. This parameter is for changing the user interface only, it does not need to match anything in your Elk project. For example, if you want the label in the user interface to be Main House you would use

```
NAME=Main House
```

Zone List Delay [optional]

The zone list is displayed when arming if any of the zones are not sealed. It stays visible until the system is ready to arm at which point, after a short delay, the list is cleared. You can change the time it takes before the list is cleared using this parameter. The delay is specified in seconds, so the example below would leave the list of zones visible for 5 seconds after the system is Ready To Arm.

```
ZONE_LIST_DELAY=5
```

Two Way Commands

The ElkM1 module has a number of Two Way commands that can be used to turn devices on and off as well as setting scenes.

Zone Trigger

The zone trigger command allows you to override a zone as if it had been triggered directly. This requires the zone number as a parameter.

Output ON

This command can be used to trigger an auxilliary output to turn on for a period of time, set by the Timeout parameter. Alternatively, if the timeout is set to 0 the output will remain on. This command requires two parameters, the output number and the timeout in seconds.

Output OFF

This command can be used to trigger an auxilliary output to turn off. This command requires one parameter, the output number.

Function Key Control

The Function Key Control command allows you to trigger one of the four function keys programmed into the specified keypad. This command requires two parameters, the function key number and the keypad number.

Activate Task

The Activate Task command can be used to activate one of your pre-programmed tasks. This command requires one parameter, the task number.

Send Message to LCD

This command allows you to send a text message to be displayed on the sp[ecified LCD keypad. The message can be up to 2 lines and can include a beep tone to be played on the keypad. You can also determine how the message gets cleared. The command requires 6 parameters, The keypad number, a timeout for the message in seconds (this may be ignored depending on what you select for the last option), message line 1 and 2 for the actual text you wish to display, a choice if whether to add a bepp from the keypad when the message is displayed, and finally how the message will be cleared.

Lighting ON

The lighting ON command can be used to turn on the load with the address you specify. The addresses need to be entered in X10 format so you will need to check how to translate those addresses for the lighting system you are using.

Lighting OFF

The lighting OFF command can be used to turn off the load with the address you specify. The addresses need to be entered in X10 format so you will need to check how to translate those addresses for the lighting system you are using.

Lighting Toggle

The lighting OFF command can change the state of the load with the address you specify. If the load is currently on this will turn it off, alternatively if it is off this will turn it on. The addresses need to be entered in X10 format so you will need to check how to translate those addresses for the lighting system you are using.

Device Events

Arm State

The Arm State event will trigger when the current state of the alarm matches the option set in the state parameter is met for the area you specify. This event takes two parameters, the area number you want to track and the arm state you are need to raise the event for.

Events
Disarmed
Armed Away
Armed Stay
Armed Stay Instant
Armed Night
Armed Night Instant
Armed Vacation

Arming Status

The Arming status event event will trigger when the status of the panel matches the option set in the state parameter is met for the area you specify. Be careful when using this event as these states change very regularly. This event covers the exit delay which can be useful for turning off lights, etc. This event takes two parameters, the area number you want to track and the arming state you are need to raise the event for.

Events
Not Ready
Ready
Ready for Force Arm
Armed with Exit Timer
Armed Fully
Armed with Force Arm
Armed with Bypass

Alarm State

The Alarm State event will trigger when the current alarm type matches the option set in the state parameter is met for the area you specify. This event also covers the Entry delay which can be used for turnming on lights, etc. This event takes two parameters, the area number you want to track and the alarm state you are need to raise the event for.

Events

Entry Delay

Alarm Abort Delay

Fire Alarm

Medical Alarm

Police Alarm

Burglar Alarm

Aux1 Alarm

Aux2 Alarm

Aux3 Alarm

Aux4 Alarm

Carbon Monoxide Alarm

Emergency Alarm

Freeze Alarm

Gas Alarm

Heat Alarm

Water Alarm

Fire Supervisory

Verify Fire

System State

The System State event will trigger when the current system state matches the option set in the state parameter. This event covers the Low Battery Warning which is useful to associate with a notification macro

(our Notification Suite for example) to let you know the batter needs to be replaced. This event takes one parameter, the Trouble state you want to raise the event for.

Events

AC Fail

Box Tamper

Comms Failure

EEPROM Fail

Low Battery

Low Battery Transmitter

Over Current

Phone Fault

Out2 Trouble

Missing Keypad

Zone Expander Trouble

Output Expander Trouble

Remote Access

Common Not Armed

Flash Memory Error

Security Alert

Serial Port Trouble

Lost Transmitter

GE Smoke CleamMe

Ethernet Trouble

Zone Status

The Zone Status event will trigger when the specified zone status matches the state in the status parameter. This event can be used to check if a zone has triggered normally, for example to use the sensor as a lighting

sensor, but also to test if there is a fault or the zone has been tampered with. This event takes two parameters, the zone number you want to track and the status you are need to raise the event for.

Events

Normal Unconfigured

Normal Open

Normal EOL

Normal Short

Not Used

Trouble Open

Trouble EOL

Trouble Short

Not Used

Violated Open

Violated EOL

Violated Short

Not Used

Bypassed Open

Bypassed EOL

Bypassed Short