CHIPKIN

Hochiki Fire Panel
Media Gateway Driver
Using TCP/IP

For application with

FireNET Latitude
VES Latitude
VES Compas

FS-8705-59

salesgroup1@chipkin.com

Tel: +1 866 383 1657

Driver Version : 101aA
Document Revision : 6
March 2025

TABLE OF CONTENTS

NOTICE:

1. The General Configuration Manual provides supplemental information
2. Instructions on loading firmware, setting IP and taking a Diagnostic are found at this URL

https://store.chipkin.com/support/chipkin-simplified-support

Contents

1 Hochiki TCP Driver Description

This driver is for application with Hochiki Latitude, VES Latitude, and VES Compas fire alarm control units. The FieldServer gateway connects to the Media Gateway. The driver will maintain a database of active events. An event is active until a matching restore event occurs to clear it. The driver will not maintain a history log of all events.

Skip Ahead to section 4.9 Auto Configuration for a simple way to configure the FieldServer and get it to the point where it is ready to receive event notifications from the FACP which can be tested using BACnet.

The driver does not support auto discovery. This means that the FieldServer configuration may need to be changed if there are changes made to the Hochiki System such as the addition or removal of hardware devices.

There are 2 separate components to the driver.

Driver 1 is the alarm processor. On Startup it reads all active events and then listens passively for the fire panel to report events. Only Fire, Trouble, and Supervisory events are processed by the driver. All others are ignored.

For the most part, the driver will be configured to monitor activated and cleared events. If it is not correctly configured then events associated with a particular loop, addresses and sub addresses will not be stored. (However, an 'error' object will be provided so that downstream protocols such as BACnet will be aware of mis-configuration. E.g. If an alarm or other processed event for loop x address y is received and the driver configuration does not contain space for storing events from loop x then the event notification will be ignored).

Driver 2 is an Active Client driver. This means it will initiate all message transactions and expects the Hochiki System to respond to its messages. It is used to manage port monitoring and the sending of a heartbeat.

Max Nodes Supported

FIELDSERVER MODE	COMMENTS
Client	One Gateway can connect to a single Media Gateway. That media gateway can connect to up to 10 nodes. If more are required, contact support.
Server	This driver cannot be used to simulate a Fire System

2 Driver Scope of Supply

2.1 Supplied by Chipkin Automation for this driver

PART #	DESCRIPTION
FS-8915-36	Network patch cable & Accessories
FS-8705-59	Driver Manual.

2.2 Provided by the Supplier of 3rd Party Equipment

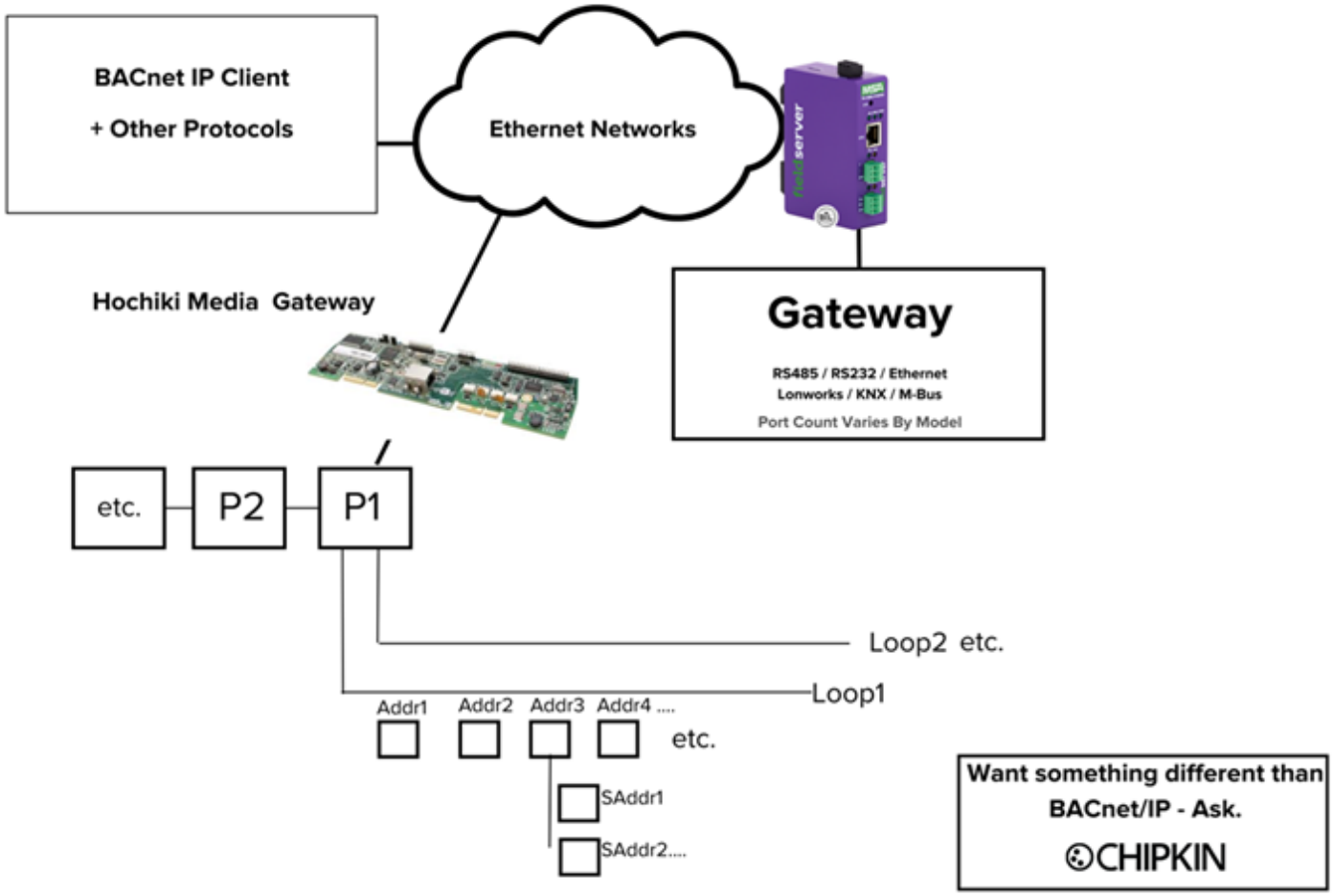
2.2.1 Required 3rd Party Hardware

PART #	DESCRIPTION
0101-01280 (S788)	Media Gateway connected to at least one Fire Panel

3 Hardware Connections

3.1 As Shipped Block Diagram

Multiple upstream protocols and connection supported. See the list of FieldServer Drivers.



4 Configuring the FieldServer

For a detailed discussion on FieldServer configuration, please refer to the FieldServer Configuration Manual. The information that follows describes how to expand upon the factory defaults provided in the configuration files included with the FieldServer (See ".csv" sample files provided with the FS).

This section documents and describes the parameters necessary for configuring the FieldServer to communicate with a Hochiki Media Gateway.

4.1 Data Arrays/Descriptors

The configuration file tells the FieldServer about its interfaces, and the routing of data required. In order to enable the gateway for Hochiki TCP Driver communications, the driver independent FieldServer buffers need to be declared in the "Data Arrays" section, the destination device addresses need to be declared in the "Client-Side Nodes" section, and the data required from the servers needs to be mapped in the "Client Side Map Descriptors" section. Details on how to do this can be found below.

Note that in the tables, * indicates an optional parameter, with the bold legal value being the default.

The use of this driver requires that Data Arrays follow strict naming conventions

_F is for Fire Events

_T is for Trouble Events

_S is for Supervisory Events

_C is active if there are Fire &/or Trouble &/or Supervisory active. (Common)

If there is not a suitably named Data Array to store its active state, an error will be recorded, and the event will be ignored.

Required Data Arrays for the Event Processor driver

Data_Arrays		
Data_Array_Name	Data_Format	Data_Array_Length
DA_POLLER[1]	Uint16	100

The following example is suitable for a 3 Node System

These Data Arrays are a loop summary. If one or more devices on the loop are active, the loop summary will be active.

E.g. If there is an active fire event for any device on P02 Loop 1 then Db_P02_F [1] will be non-zero, as will Db_P02_C [1].

Data_Arrays		
Data_Array_Name	Data_Format	Data_Array_Length
Db_P01_C	Uint16	257
Db_P01_F	Uint16	257
Db_P01_T	Uint16	257
Db_P01_S	Uint16	257
Db_P02_C	Uint16	257
Db_P02_F	Uint16	257
Db_P02_T	Uint16	257
Db_P02_S	Uint16	257
Db_P03_C	Uint16	257
Db_P03_F	Uint16	257
Db_P03_T	Uint16	257
Db_P03_S	Uint16	257

For a Fire system consisting of 3 nodes / panels

Panel 1 with 3 loops

Panel 2 with 1 loop

Panel 3 with 1 loop

the following Data Arrays are required:

Data_Arrays		
Data_Array_Name	Data_Format	Data_Array_Length
Db_P01_L01_C	Uint16	2850

[1] DA_POLLER is an example. Your data array names may be different.

Db_P01_L01_F	Uint16	2850
Db_P01_L01_T	Uint16	2850
Db_P01_L01_S	Uint16	2850
Db_P01_L01_CC	Uint16	257
Db_P01_L01_CF	Uint16	257
Db_P01_L01_CT	Uint16	257
Db_P01_L01_CS	Uint16	257
Db_P01_L02_C	Uint16	2850
Db_P01_L02_F	Uint16	2850
Db_P01_L02_T	Uint16	2850
Db_P01_L02_S	Uint16	2850
Db_P01_L02_CC	Uint16	257
Db_P01_L02_CF	Uint16	257
Db_P01_L02_CT	Uint16	257
Db_P01_L02_CS	Uint16	257
Db_P01_L03_C	Uint16	2850
Db_P01_L03_F	Uint16	2850
Db_P01_L03_T	Uint16	2850
Db_P01_L03_S	Uint16	2850
Db_P01_L03_CC	Uint16	257
Db_P01_L03_CF	Uint16	257
Db_P01_L03_CT	Uint16	257
Db_P01_L03_CS	Uint16	257
Db_P02_L01_C	Uint16	2850
Db_P02_L01_F	Uint16	2850
Db_P02_L01_T	Uint16	2850
Db_P02_L01_S	Uint16	2850
Db_P02_L01_CC	Uint16	257
Db_P02_L01_CF	Uint16	257
Db_P02_L01_CT	Uint16	257
Db_P02_L01_CS	Uint16	257
Db_P03_L01_C	Uint16	2850
Db_P03_L01_F	Uint16	2850
Db_P03_L01_T	Uint16	2850
Db_P03_L01_S	Uint16	2850
Db_P03_L01_CC	Uint16	257
Db_P03_L01_CF	Uint16	257
Db_P03_L01_CT	Uint16	257
Db_P03_L01_CS	Uint16	257

_CC _CF _CT _CS means – A common for any sub address for a particular address.

Db_P02_L02_CF [7] = 1 if any SubAddr for Addr=7 on Loop=2 on Panel-2 is active

Where Data is stored - Example 1

Panel 3 loop 1 Address 4 Sub Address 0 – Fire event active

An active Fire would be stored in

Db_P03_L01_F [4*11+0] for the specific address and specific subpoint

Db_P03_L01_C [4*11+0] for the specific address and specific subpoint whether it be fire/trbl/super

Db_P03_L01_CF [4] for the specific address and any subpoint

Db_P03_L01_CC [4] for the specific address and any subpoint whether it be fire/trbl/super

Db_P03_F [1] for fire on any addr and subpoint on loop 1

Db_P03_C [1] for fire on any addr and subpoint on loop 1 whether it be fire/trbl/super

4.3 Where Data is stored - Example 2

Panel 1 loop 2 Address 3 Sub Address 5 Trouble event active

An active Trouble would be stored in

Db_P01_L02_T [3*11+5] for the specific address and specific subpoint

Db_P01_L02_C [3*11+5] for the specific address and specific subpoint whether it be fire/trbl/super

Db_P01_L02_CT [3] for the specific address and any subpoint

Db_P01_L02_CC [3] for the specific address and any subpoint whether it be fire/trbl/super

Db_P01_T[2] for fire on any addr and subpoint on loop 2

Db_P01_C [2] for fire on any addr and subpoint on loop 2 whether it be fire/trbl/super

4.4 Where Data is stored - As a generalization

Panel = X

Loop = Y

Address = A

Sub Address = S

An active Fire will be stored in a specific place for each sub address with Address A Loop Y on Panel X

Offset into Data Array = A * 11 + subAddress

Db_P0X_L0Y_F [(A*11) +S]

Db_P0X_L0Y_C [(A*11) +S]

A summary of all sub address on Loop Y on Panel X for a particular Address A

Db_P0X_L0Y_CF [A]

Db_P0X_L0Y_CC [A]

A summary for each loop Y on Panel X

Db_P0X_C [Y]

Db_P0X_F [Y]

Examples

A device with address=10 has 2 subAddress = 0 and 1 is on loop=2 on Node=1

You want to know where a Fire event will be stored for each subAddress

For subAddress=0

Db_P01_L02_F [(10*11) +0]

Db_P01_L02_C [(10*11) +0]

For subAddress=1

Db_P01_L02_F [(10*11) +1]

Db_P01_L02_C [(10*11) +1]

You attach BACnet objects to these locations.

When a fire/trouble/supervisory is active this can be reported as an Off Normal irrespective of the cause.

That means when a _F Data array is updated then the _C data array will also be updated.

If you don’t need to know the sub-address on a device – for example, Address=3 on loop=3 on node=2 - you can attach BACnet objects to these locations:

Db_P02_L03_CF [3] for fire

Or

Db_P02_L03_CC [3] common object to indicate all event types, fire/trouble/Supervisory

4.5 Client Side Connection Descriptions

Create one adapter for each Ethernet port. Each connection can only be used to connect to a single Hochiki Media Gateway.

SECTION TITLE
Connections

COLUMN TITLE	FUNCTION	LEGAL VALUES
Adapter	Some Fieldserver models have 2x Ethernet Ports.	N1, N2
Port	No need to specify which Ethernet Port the device is connected to on the gateway.	Hardcoded to a value of 100
Protocol	Specify protocol used	hoctcp_Alarms
Timeout	If no response to a poll is received at all during this period, there will be a retry based on the retry settings	3s
HOCTCP1_System_Id	This identifier is used for some messages.	A value of 1500 was used during testing.

Example

```
Connections
Adapter, protocol         , timeout , HOCtcp1_System_Id
N1    ,  hoctcp_Alarms    , 3s      , 1500
```

4.6 Client Side Node Descriptors

Create one Node per Hochiki Node/Panel in the fire system.

SECTION TITLE
Nodes

COLUMN TITLE	FUNCTION	LEGAL VALUES
Node_Name	Provide name for node	Up to 32 alphanumeric characters
IP_Address	The Media Gateway's IP	xxx.xxx.xxx.xxx
Node_ID	This is the Node/Panel number	Whole Number
Protocol	Specify protocol used	hoctcp_Alarms
Adapter	Specify which port the Media Gateway is connected to on the gateway	N1

Example

```
Nodes
Node_Name     , IP_Address     ,Node_ID , Protocol       , Adapter ,
Primary_node , 192.168.2.200 ,       1 , hoctcp_Alarms , N1      ,
Panel_02     , 192.168.2.200 ,       2 , hoctcp_Alarms , N1      ,
Panel_03     , 192.168.2.200 ,       3 , hoctcp_Alarms , N1      ,
```

4.7 Client-Side Map Descriptors

4.7.1 FieldServer Related Map Descriptor Parameters

COLUMN TITLE	FUNCTION	LEGAL VALUES
Map_Descriptor_Name	Name of this Map Descriptor	Up to 32 alphanumeric characters
Data_Array_Name	Name of Data Array where data is to be stored in the FieldServer	DA_ALM_TASK
Data_Array_Offset	Starting location in Data Array	0
Function	Function of Client Map Descriptor.	RDB Read on startup

4.7.2 Driver Related Map Descriptor Parameters

COLUMN TITLE	FUNCTION	LEGAL VALUES
Node_Name	Name of Node to fetch data from	The node names specified in "Client Node Descriptor" above
Data_Type	This commonly used parameter is not used by this driver.	
Length	Length of Map Descriptor	1
Address	This commonly used FieldServer parameter is not used by this protocol.	

4.7.3 Timing Parameters

COLUMN TITLE	FUNCTION	LEGAL VALUES
Scan_Interval	This commonly used FieldServer parameter is not used by this protocol.	0.0

4.8 Manual Configuration

It is possible to manually construct or edit the configuration file.

You will need to review other chapters in this manual as well as the manual(s) for the 'other' protocol such as BACnet/IP, Modbus, MQTT, OPC, SNMP etc. You will find these manuals here:

https://store.chipkin.com/articles/manuals-index-page

Chipkin will help you make / complete / support your configuration:

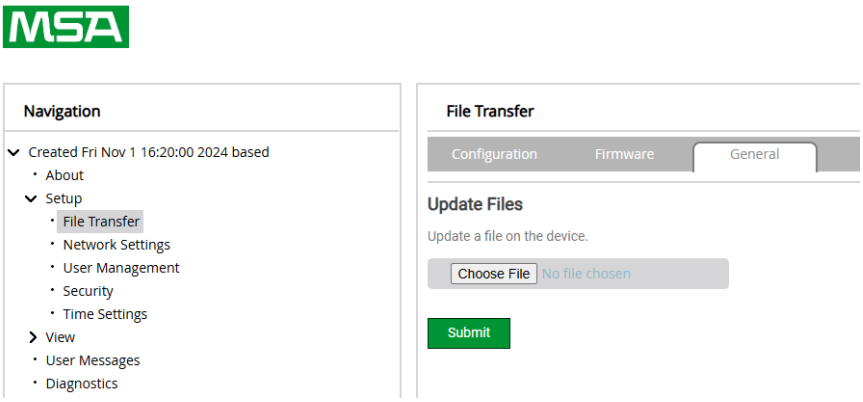
support@chipkin.com

4.9 Auto Configuration

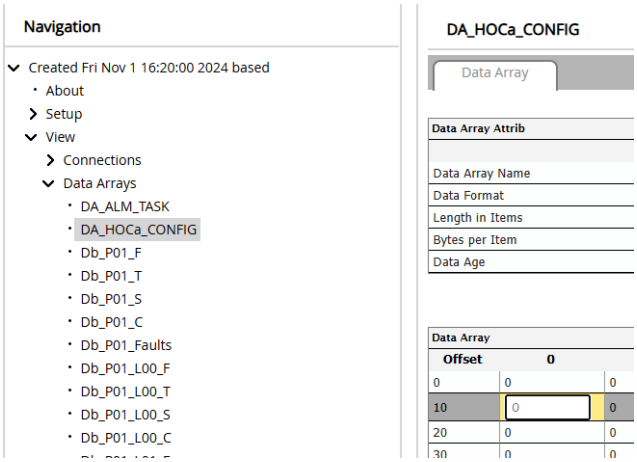
(Auto configuration must be enabled before it can be triggered – See 4.14 Enabling Auto Config)

There is a manually triggered auto configuration process. This process works as follows

1. Auto configuration is a 2-step process. First you generate the new config then you install it and restart the gateway to take effect. DO NOT perform step 2 unless you have - at the very least - performed a review of the auto-generated config. This REVIEW action is to ensure you do not make a change at an installation which depends on monitoring the Panel events via the FieldServer gateway.
2. Normally your gateway will be shipped with the auto configuration file pre-installed. Install the supplied file autoconfig.csv if directed.
3. Export the XML configuration from your fire panel. You will use the Hochiki Loop Explorer 2 program for this. See the next page for additional information.
4. Rename the XML file to hoc.ini (lower case)
5. To install the file use the gateway UI - 'Setup', 'File Transfer', General Tab.



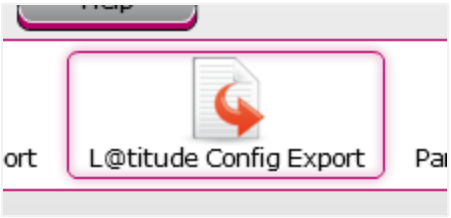
6. When complete, navigate to view the Data Array DA_HOCa_CONFIG
7. Enable Data Editing.
8. Change the value at offset 6 from zero to 1. That action enables the trigger.
9. Change the value at offset 10 from zero to 2. That action will trigger the gateway to create a new configuration. Restart the gateway to load the new configuration. (the gateway should automatically restart)
10. The obscurity of these actions ensure that the auto config process will not be done accidentally.



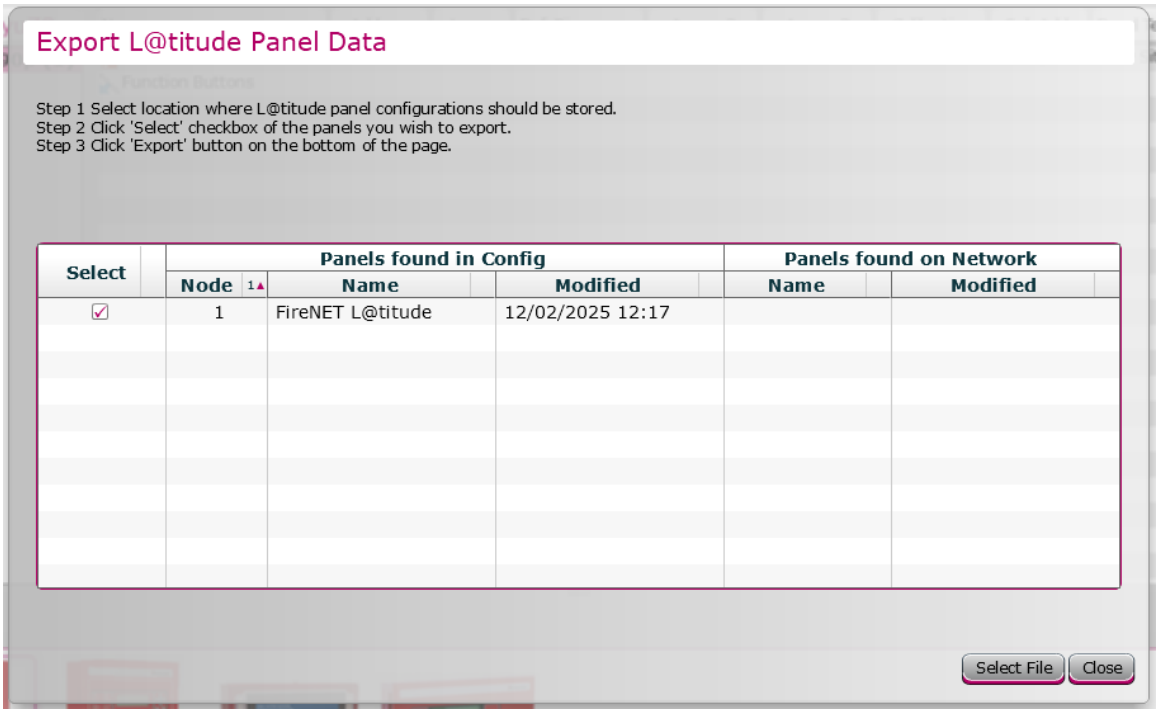
Loop Explorer 2 is the software used to configure the Hochiki Latitude fire alarm control unit. To export the XML configuration, follow these steps:

1) Create and save the configuration for the Latitude (or Compas) control unit.

2) On the Tools tab, select L@titude Config Export



3) Click “Select File” and save the file using the default format of .xml. This is the file you will rename in step 4 above.



Contact Hochiki Asia Pacific for questions about obtaining and using Loop Explorer 2 software.

sales@hochikiasiapacific.com

4.10 Object names and auto configuration.

The maximum length of an object name is 37 characters. To work around this limitation the driver has a system that can use abbreviations.

For example, 'Fourth' can be reduced to '4'

Or 'Fourth Floor' to 'flr4'

The driver loads a table of abbreviations on startup. It is used as part of the auto configuration process

Here is a sample:

```
// line that begin // are ignored. Use for comments
// use equal signr as a separator
// make sure there are no trailing space charachters
//
// Use only lower case in this file
//
floor=flr
room=rm
lobby=llby
office=offc
stairs=strs
alarm=alm
trouble=trbl
supervisory=supr
fault=flt
smoke detector=smoke
pull station=pull
controller=ctrlr
station=stn
detector=detc
first=1st
second=2nd
third=3rd
fourth=4th
fifth=5th
sixth=6th
seventh=7th
eighth=8th
ninth=9th
tenth=10th
// double quote is replace with nothing
"=
// back slash is replace with nothing
\=
// comma is replace with nothing
,=
```

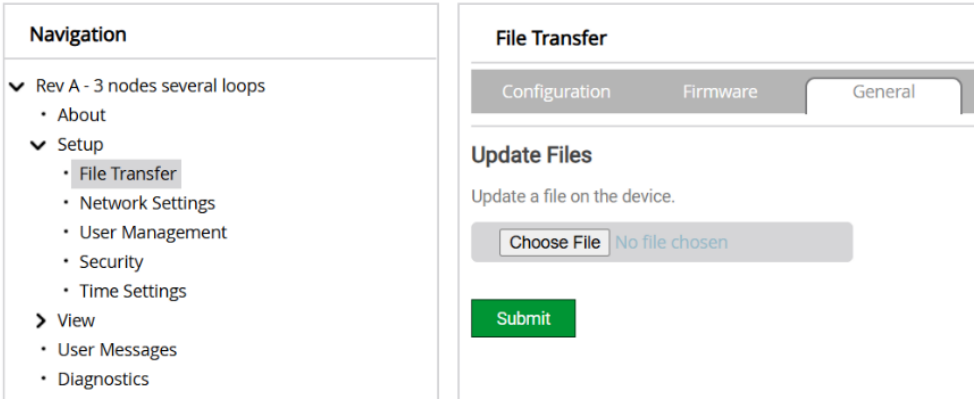
You can edit the abbreviations file. Its name is abbrev.ini and it is installed using the UI.

Lower case must be used in the file for the sake of comparison. Object names will not be converted to lower case

E.g. You enter 'floor' in this file. If the auto config process finds 'floor' it will abbreviate it as 'flr'.

The object name cannot contain commas, double quote mark or backslashes. Hence the last 3 rows in the example above. There may be other special characters that are not permitted. They will cause configuration errors.

Any line that begins with 2 forward slashes (//) is treated as a comment.



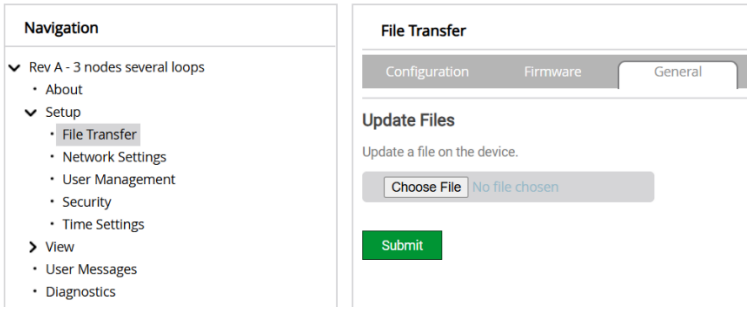
4.11 Panel Faults and auto configuration.

Over the course of time, Hochiki may add new Panel Faults to the firmware. To accommodate this the driver allows the user to update the list. A file called panelflts.ini may be edited and installed on the gateway. It looks like this:

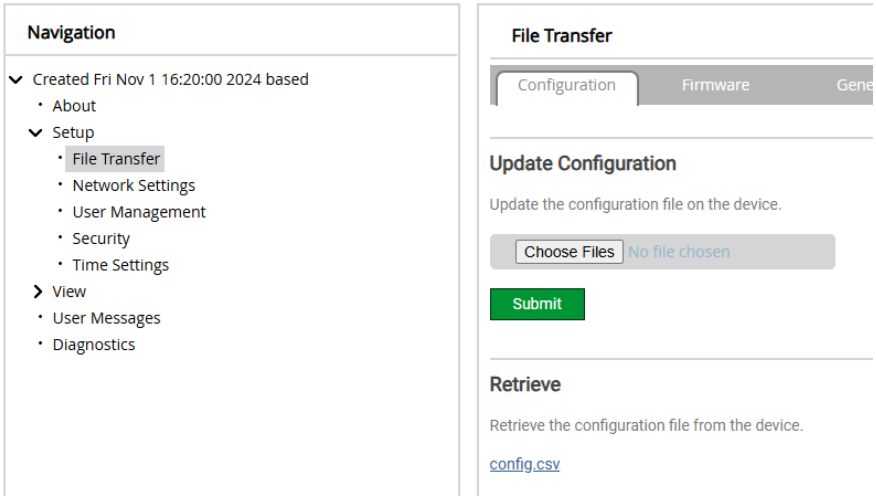
```
-------------- Top of File --------------
// 20240ct17 Rev A
//
// Lines that begin // are ignored and can be used for comments
//
// Instructions
//        Comment out event codes you do not with to be regarded as panel faults
//        Do not leave any empty lines.
//
//
//
//0,none
1,ps_fault
2,calibration_fault
3,output_1_open_fault
4,output_1_short_fault
5,output_2_open_fault
6,output_2_short_fault
7,input_open_fault
8,input_short_fault
9,internal_fault
10,maintenance_fault
11,detector_fault
12,slave_open_fault
13,slave_short_fault
14,slave_1_short_fault
15,slave_2_short_fault
16,disconnected_fault
17,double_address_fault
18,monitored_output_fault
19,unknown_device_fault
20,unexpected_device_fault
21,wrong_device_fault
22,initialising_device
//23,start
//24,autolearn
25,pc_config
26,earth_fault
27,loop_wiring_fault
28,loop_short_cct_fault
29,loop_open_cct_fault
```

The fault names (column 2) are used as the BACnet object names.

Install the file as shown below. Restart the gateway to give effect to the updated file.



4.12 Auto Configuration Options

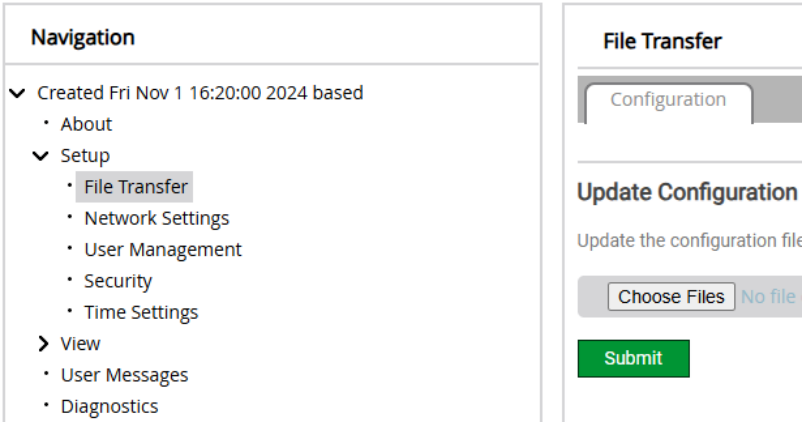


1. Retrieve the configuration file or use the autoconfig.csv file provided to you
2. Use Notepad (preferred) or Excel to open the file. Page down to the bottom of the file. You will find this:

```
482  END
483
484  Do not remove the 'end' statement above !!!!!!!!
485
486  This section is very format sensitive.
487  You should only edit the yes/no at the end of each line
488
489  auto_config ip=192.168.0.162
490  include fire points=yes
491  include trbl points=yes
492  include supr points=yes
493  include off_normal_points=yes
494  include points without consideration of subaddr=no
495  include panel faults=yes
496  include loop summary for all adddresses & sub addr=yes
497  include modbus 3xxxx points in modmap=yes
```

3. Edit the settings by changing the yes/no. Do NOT make other changes.

4.
5. The ‘auto_config ip’ should be set to the IP Address of the Hochiki Panel’s Media Gateway.
6. Choose your options and save the file.
7. Now install the autoconfig.csv and restart the gateway.
8. When it has been restarted you can trigger the auto configuration process as discussed in 4.9, Auto Configuration



4.13 Auto Configuration Options Explained.

Each addressed device may have zero or up to 10 sub addresses.

We refer to each addr=x subAddr=0 OR addr=x SubAddr=y as a point

Each point may be in a Fire, Trouble or Supervisory state. A 4th state is also available – An off normal state which is active if the point is in a Fire or Trouble or Supervisory state.

If you want a BACnet object for all points Fire state, set include fire points=yes

Likewise, for Trouble and Supervisory:

include trbl points=yes

include supr points=yes

include off_normal_points=yes

A loop summary point is also available for each loop on each panel. This point is active if any point on that loop is active. Once again there are 4 possible BACnet objects. Which of the 4 objects are created depends on the sections above.

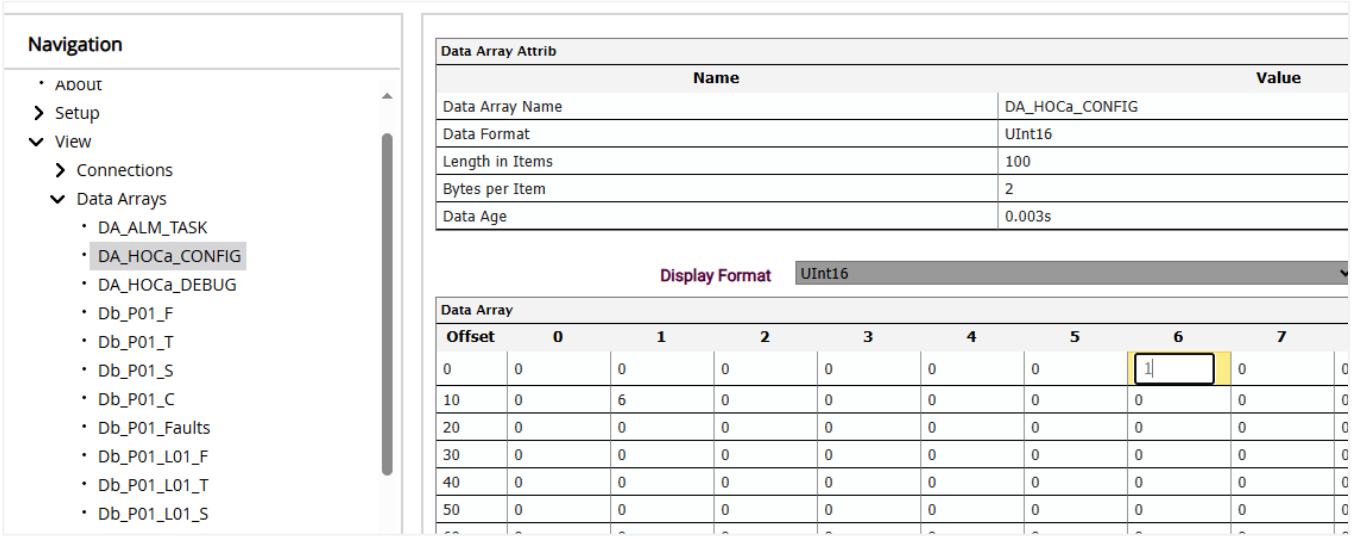
If you want the loop summary, set include loop summary for all addresses & sub addr=yes

Finally, a set of BACnet objects are available for panel troubles (faults). If you want these BACnet objects, set include panel faults=yes

include modbus 3xxxx points in modmap=yes. This will result in the Modbus Map including the sections of points for each specific subAddr. Some customers prefer the summary points. See Section 4.15 for information about Modbus point reporting.

4.14 Enabling Auto Config

Auto Config must be enabled before it can be triggered. This is done by setting offset 6 of the Data Array named HOCa_CONFIG. Navigate to the array and click the Enable Data Editing button.



Follow the instructions in Section 4.9 to complete the auto configuration process.

4.15 Modbus and Auto Config

Support for Modbus TCP is built into the driver from firmware version 741bG.

Modbus is not a self-documenting protocol like BACnet. To allocate meaning to a Modbus point a 'Points List' must be provided to the system consuming the Modbus data. The points list is regenerated each time auto config is performed.

The map can be downloaded using a browser at this URL: yourIP/modmap.txt. It is a comma separated file and can be opened in Excel. Rename it to .csv.

One Modbus node is created for each Hochiki node. The Modbus node number will be the same as the Hochiki node number. The point list for each node has the same structure. What differs is the Tag name allocated to the points. The various Fire, Trbl, Supr and Common states are served by Modbus 1xxxx (Binary Inputs) and 3xxxx (Analog inputs) objects. Modbus has the limitation that there can be no more than 65535 points of each type. An entry is the points list is made for each Loop, Address and SubAddress found in the configuration file that is used for auto config purposes – hoc.ini. The following examples are based on a small panel configuration used for testing the driver

State of a Specific SubAddr

These are
offsets.
As in Modbus Function Code = 4 offset = 10258
Add 300,001 to get the modbus address

Example			SubAddr in FIRE State F	SubAddr in TRBL State T	SubAddr in SUPR State S	SubAddr in FIRE/TRBL/SUPR State C
Loop	Addr	**257*loop+addr**	**Offset**	**Offset**	**Offset**	**Offset**
1	1	258	10258	20258	30258	40258
1	2	259	10259	20259	30259	40259
2	1	515	10515	20515	30515	40515
2	2	516	10516	20516	30516	40516
9	256	2569	12569	22569	32569	42569
1	45	302	10302	20302	30302	40302
1	45	302	10302	20302	30302	40302
3	45	816	10816	20816	30816	40816
30	45	7755	17755	27755	37755	47755

In General	Fire = 10,000 + 257*loop + addr	Trbl = 10,000 + 257*loop + addr	Supr = 30,000 + 257*loop + addr	Offnormal =40,000 + 257*loop + addr
	SubAddr = bit number in the 16 bit value	SubAddr = bit number in the 16 bit value	SubAddr = bit number in the 16 bit value	SubAddr = bit number in the 16 bit value

Example
Loop 1 Addr 45 subAddr 9 Fire Activated
Offser 10302 = 0x0200

State for a Specific Address as a Common to all subAddresses

These are offsets.

As in Modbus Function Code = 4 offset = 10258

Add 100,001 to get the modbus address

Loop	Addr	257*loop+addr	FIRE State CF	TRBL State CT	SUPR State CS	FIRE/TRBL/SUPR State CC
Example			**Offset**	**Offset**	**Offset**	**Offset**
1	1	##	10258	20258	30258	40258
1	2	##	10259	20259	30259	40259
2	1	##	10515	20515	30515	40515
2	2	##	10516	20516	30516	40516
9	##	##	12569	22569	32569	42569
1	45	##	10302	20302	30302	40302
1	45	##	10302	20302	30302	40302
3	45	##	10816	20816	30816	40816
30	45	##	17755	27755	37755	47755
In General			Fire = 10,000 + 257*loop + addr	Trbl = 10,000 + 257*loop + addr	Supr = 30,000 + 257*loop + addr	Offnormal =40,000 + 257*loop + addr

State of a Loop as a Common for All Addsresses on a Loop

These are offsets.

As in Modbus Function Code = 2 offset = 51001

Add 100,001 to get the modbus address

Example	State F Offset	State T Offset	State S Offset	State C Offset
Loop				
1	51001	52001	53001	54001
2	51002	52002	53002	54002
3	51003	52003	53003	54003
9	51009	52009	53009	54009
30	51030	52030	53030	54030
In General	Fire = 51000+ loop	trbl = 51000+ loop	Supr = 51000+ loop	Fire = 54000+ loop

MODBUS PANEL FAULT / TRBLS (247)

These are offsets.

As in Modbus Function Code = 2 offset = 51001

Add 100,001 to get the modbus address

Label	Offset
Panel04 Flt001 ps fault	60001
Panel04 Flt002 calibration flt	60002
Panel04 Flt003 output 1 open flt	60003
Panel04 Flt004 output 1 short flt	60004
Panel04 Flt005 output 2 open flt	60005
Panel04 Flt006 output 2 short flt	60006
Panel04 Flt007 input open flt	60007
Panel04 Flt008 input short flt	60008
Panel04 Flt009 internal flt	60009
Panel04 Flt010 maintenance flt	60010
Panel04 Flt011 detector flt	60011
Panel04 Flt012 slave open flt	60012
Panel04 Flt013 slave short flt	60013
Panel04 Flt014 slave 1 short flt	60014
Panel04 Flt015 slave 2 short flt	60015
Panel04 Flt016 disconnected flt	60016
Panel04 Flt017 double address flt	60017
Panel04 Flt018 monitored output flt	60018
Panel04 Flt019 unknown device flt	60019
Panel04 Flt020 unexpected device flt	60020
Panel04 Flt021 wrong device flt	60021
Panel04 Flt022 initialising device	60022
Panel04 Flt023 start	60023
Panel04 Flt024 autolearn	60024
Panel04 Flt025 pc config	60025
Panel04 Flt026 earth flt	60026
Panel04 Flt027 loop wiring flt	60027
Panel04 Flt028 loop short cct flt	60028
Panel04 Flt029 loop open cct flt	60029
Panel04 Flt030 mains failed flt	60030
Panel04 Flt031 low battery flt	60031
Panel04 Flt032 battery disconnected flt	60032
Panel04 Flt033 battery overcharge flt	60033
Panel04 Flt034 aux 24v fuse flt	60034
Panel04 Flt035 charger flt	60035
Panel04 Flt036 rom flt	60036

Panel04 Flt037 ram flt	60037
Panel04 Flt038 watch dog operated	60038
Panel04 Flt039 bad data flt	60039
Panel04 Flt040 unknown event flt	60040
Panel04 Flt041 modem active	60041
Panel04 Flt042 printer flt	60042
Panel04 Flt043 en54 version flt	60043
Panel04 Flt044 pre alarm	60044
Panel04 Flt045 calibration failed flt	60045
Panel04 Flt046 modem flt	60046
Panel04 Flt047 init device	60047
Panel04 Flt048 input activated	60048
Panel04 Flt049 optical element flt	60049
Panel04 Flt050 heat element flt	60050
Panel04 Flt051 both element flt	60051
Panel04 Flt052 self test failed flt	60052
Panel04 Flt053 ce active	60053
Panel04 Flt054 loop protocol flt	60054
Panel04 Flt055 loop miss	60055
Panel04 Flt056 loop unexpected	60056
Panel04 Flt057 sub address limit	60057
Panel04 Flt058 io mod miss	60058
Panel04 Flt059 io mod unexpected	60059
Panel04 Flt060 serial input	60060
Panel04 Flt061 net unexpected node	60061
Panel04 Flt062 net unknown type	60062
Panel04 Flt063 net miss node	60063
Panel04 Flt064 net unexpected card	60064
Panel04 Flt065 net miss card	60065
Panel04 Flt066 net wrong address	60066
Panel04 Flt067 net broken	60067
Panel04 Flt068 net comms flt	60068
Panel04 Flt069 net comms timeout	60069
Panel04 Flt070 net invalid address	60070
Panel04 Flt071 sounder board unexpected	60071
Panel04 Flt072 relay board unexpected	60072
Panel04 Flt073 sounder board miss	60073
Panel04 Flt074 relay board miss	60074
Panel04 Flt075 zone io unexpected	60075
Panel04 Flt076 zone io miss	60076
Panel04 Flt077 system flt	60077
Panel04 Flt078 disable device	60078
Panel04 Flt079 disable zone	60079
Panel04 Flt080 disable loop	60080
Panel04 Flt081 disable sounders	60081

Panel04 Flt082 disable panel input	60082
Panel04 Flt083 disable panel output	60083
Panel04 Flt084 disable ce	60084
Panel04 Flt085 disable buzzer	60085
Panel04 Flt086 disable printer	60086
Panel04 Flt087 disable earth flt	60087
Panel04 Flt088 day night disable	60088
Panel04 Flt089 general disablement	60089
Panel04 Flt090 oem device	60090
Panel04 Flt091 test	60091
Panel04 Flt092 zone io unexpected usa	60092
Panel04 Flt093 zone io miss usa	60093
Panel04 Flt094 disable immediate output	60094
Panel04 Flt095 memory write enable on	60095
Panel04 Flt096 annun miss	60096
Panel04 Flt097 annun unexpected	60097
Panel04 Flt098 lcd power flt	60098
Panel04 Flt099 module power supply flt	60099
Panel04 Flt100 output short flt	60100
Panel04 Flt101 output open flt	60101
Panel04 Flt102 addressing	60102
Panel04 Flt103 auto addressing failure	60103
Panel04 Flt104 dev battery low	60104
Panel04 Flt105 dev tamper flt	60105
Panel04 Flt106 dev ext interference	60106
Panel04 Flt107 dev fata flt	60107
Panel04 Flt108 isolator open	60108
Panel04 Flt109 micro processor flt	60109
Panel04 Flt110 prism reflector trgetting	60110
Panel04 Flt111 alignment mode	60111
Panel04 Flt112 high speed flt	60112
Panel04 Flt113 contamination reached	60113
Panel04 Flt114 audio flt	60114
Panel04 Flt115 head miss flt	60115
Panel04 Flt116 tamper flt	60116
Panel04 Flt117 signal strenght flt	60117
Panel04 Flt118 rad battery flt	60118
Panel04 Flt119 sounder miss flt	60119
Panel04 Flt120 dev back battery low	60120
Panel04 Flt121 slave exp loss	60121
Panel04 Flt122 8zone mimic miss	60122
Panel04 Flt123 8zone mimic unexpected	60123
Panel04 Flt124 16zone mimic miss	60124
Panel04 Flt125 16zone mimic unexpected	60125
Panel04 Flt126 batt imp failed	60126

Panel04 Flt127 aerial tamper flt	60127
Panel04 Flt128 back ground out of range	60128
Panel04 Flt129 head flt	60129
Panel04 Flt130 head dirty compensation	60130
Panel04 Flt131 tamper input flt	60131
Panel04 Flt132 receiver flt	60132
Panel04 Flt133 battery flt	60133
Panel04 Flt134 fuse trip	60134
Panel04 Flt135 current limit flt	60135
Panel04 Flt136 voltage limit flt	60136
Panel04 Flt137 weak open ckt	60137
Panel04 Flt138 weak short ckt	60138
Panel04 Flt139 open ckt flt	60139
Panel04 Flt140 short ckt flt	60140
Panel04 Flt141 board a miss	60141
Panel04 Flt142 board b miss	60142
Panel04 Flt143 loop comms timeout	60143
Panel04 Flt144 all output disabled	60144
Panel04 Flt145 all sounders disabled	60145
Panel04 Flt146 all zone disabled	60146
Panel04 Flt147 loop prim under voltage	60147
Panel04 Flt148 loop sec under voltage	60148
Panel04 Flt149 loop board miss	60149
Panel04 Flt150 loop board unexpected	60150
Panel04 Flt151 psu earth flt	60151
Panel04 Flt152 extinguishant activated	60152
Panel04 Flt153 psu flt	60153
Panel04 Flt154 user logged in	60154
Panel04 Flt155 autolearn device	60155
Panel04 Flt156 class wiring flt	60156
Panel04 Flt157 ifam miss	60157
Panel04 Flt158 communicator miss	60158
Panel04 Flt159 comms failure	60159
Panel04 Flt160 comms restored	60160
Panel04 Flt161 vnet trbl	60161
Panel04 Flt162 vnet open	60162
Panel04 Flt163 vnet shorted	60163
Panel04 Flt164 vnet restored	60164
Panel04 Flt165 vnet trans failure	60165
Panel04 Flt166 vnet node miss	60166
Panel04 Flt167 vnet extra node	60167
Panel04 Flt168 vnet trans restored	60168
Panel04 Flt169 lan not connected	60169
Panel04 Flt170 lan net not recognised	60170
Panel04 Flt171 lan gateway access fail	60171

Panel04 Flt172 lan to dc comms fail	60172
Panel04 Flt173 lan to dc comms restored	60173
Panel04 Flt174 dc comms failure	60174
Panel04 Flt175 dc comms restored	60175
Panel04 Flt176 phone line 1 trbl	60176
Panel04 Flt177 phone line 1 restored	60177
Panel04 Flt178 phone line 2 trbl	60178
Panel04 Flt179 phone line 2 restored	60179
Panel04 Flt180 verification	60180
Panel04 Flt181 all plant output disabled	60181
Panel04 Flt182 event log cleared	60182
Panel04 Flt183 bootloader update	60183
Panel04 Flt184 bootloader failed	60184
Panel04 Flt185 delay extended	60185
Panel04 Flt186 disable module io channel	60186
Panel04 Flt187 miss io mod taktis sounder	60187
Panel04 Flt188 miss io mod taktis zone	60188
Panel04 Flt189 miss io mod taktis relay	60189
Panel04 Flt190 miss io mod taktis multi io	60190
Panel04 Flt191 unexpected io mod taktis sounder	60191
Panel04 Flt192 unexpected io mod taktis zone	60192
Panel04 Flt193 unexpected io mod taktis relay	60193
Panel04 Flt194 unexpected io mod taktis multi io	60194
Panel04 Flt195 mgw act1 coms trbl	60195
Panel04 Flt196 mgw act1 conf trbl	60196
Panel04 Flt197 mgw act2 coms trbl	60197
Panel04 Flt198 mgw act2 conf trbl	60198
Panel04 Flt199 mgw act3 coms trbl	60199
Panel04 Flt200 mgw act3 conf trbl	60200
Panel04 Flt201 mgw act4 coms trbl	60201
Panel04 Flt202 mgw act4 conf trbl	60202
Panel04 Flt203 mgw ipnet conf trbl	60203
Panel04 Flt204 mgw ipnet coms trbl	60204
Panel04 Flt205 mgw internal trbl	60205
Panel04 Flt206 mgw miss	60206
Panel04 Flt207 mgw disabled	60207
Panel04 Flt208 net outp partial short ckt flt	60208
Panel04 Flt209 net outp partial open ckt flt	60209
Panel04 Flt210 net outp full short ckt flt	60210
Panel04 Flt211 net outp full open ckt flt	60211
Panel04 Flt212 net outp connection flt	60212
Panel04 Flt213 net outp communication flt	60213
Panel04 Flt214 net inp partial short ckt flt	60214
Panel04 Flt215 net inp partial open ckt flt	60215
Panel04 Flt216 net inp full short ckt flt	60216

Panel04 Flt217 net inp full open ckt flt	60217
Panel04 Flt218 net inp connection flt	60218
Panel04 Flt219 net inp communication flt	60219
Panel04 Flt220 network miss nodes	60220
Panel04 Flt221 network connection flt	60221
Panel04 Flt222 network repeat address	60222
Panel04 Flt223 led miss board	60223
Panel04 Flt224 miss io mod fan	60224
Panel04 Flt225 miss io mod ancillery	60225
Panel04 Flt226 miss io mod led	60226
Panel04 Flt227 unexpected io mod fan	60227
Panel04 Flt228 unexpected io mod ancillery	60228
Panel04 Flt229 unexpected io mod led	60229
Panel04 Flt230 test on output	60230
Panel04 Flt231 test on led	60231
Panel04 Flt232 test on isolator	60232
Panel04 Flt233 storage inserted	60233
Panel04 Flt234 monitored input flt	60234
Panel04 Flt235 import read	60235
Panel04 Flt236 import write	60236
Panel04 Flt237 export write	60237
Panel04 Flt238 mgw unexpected	60238
Panel04 Flt239 mgw co element flt	60239
Panel04 Flt240 co life flt	60240
Panel04 Flt241 eeprom flt	60241
Panel04 Flt242 positive alarm disabled	60242
Panel04 Flt243 ce not running	60243
Panel04 Flt244 mgw licence miss	60244
Panel04 Flt245 mgw dialer disabled	60245
Panel04 Flt246 loop power off	60246
Panel04 Flt247 disable network	60247

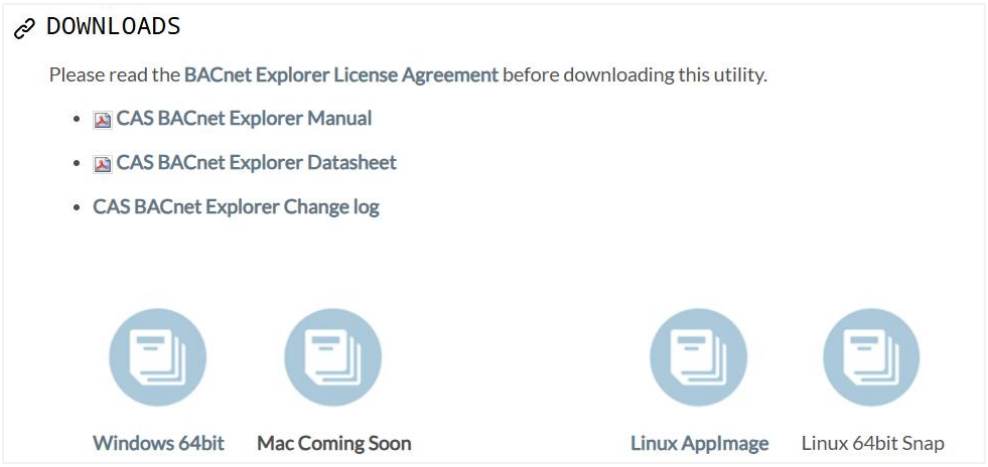
Extracts from a sample Modbus Map.

```
FC 4th flr smoke offc 404 , Any Sub Addr    , Db_P01_1xxxxx [ 10044] , 01 , 110044          , Node=1 , Loop= 1 , Addr= 44 , FIRE      , FIRE
TC 4th flr smoke offc 404 , Any Sub Addr    , Db_P01_1xxxxx [ 20044] , 01 , 120044          , Node=1 , Loop= 1 , Addr= 44 , TRBL      , TRBL
SC 4th flr smoke offc 404 , Any Sub Addr    , Db_P01_1xxxxx [ 30044] , 01 , 130044          , Node=1 , Loop= 1 , Addr= 44 , SUPR      , SUPR
CC 4th flr smoke offc 404 , Any Sub Addr    , Db_P01_1xxxxx [ 40044] , 01 , 140044          , Node=1 , Loop= 1 , Addr= 44 , COMN      , COMN
F  4th flr smoke offc 404 , Sub Address 00  , Db_P01_3xxxxx [ 10044] , 01 , 310044 , bit00  , Node=1 , Loop= 1 , Addr= 44 , FIRE      , FIRE
T  4th flr smoke offc 404 , Sub Address 00  , Db_P01_3xxxxx [ 20044] , 01 , 320044 , bit00  , Node=1 , Loop= 1 , Addr= 44 , TRBL      , TRBL
S  4th flr smoke offc 404 , Sub Address 00  , Db_P01_3xxxxx [ 30044] , 01 , 330044 , bit00  , Node=1 , Loop= 1 , Addr= 44 , SUPR      , SUPR
C  4th flr smoke offc 404 , Sub Address 00  , Db_P01_3xxxxx [ 40044] , 01 , 340044 , bit00  , Node=1 , Loop= 1 , Addr= 44 , COMN      , COMN
FC 4th flr smoke offc 405 , Any Sub Addr    , Db_P01_1xxxxx [ 10045] , 01 , 110045          , Node=1 , Loop= 1 , Addr= 45 , FIRE      , FIRE
TC 4th flr smoke offc 405 , Any Sub Addr    , Db_P01_1xxxxx [ 20045] , 01 , 120045          , Node=1 , Loop= 1 , Addr= 45 , TRBL      , TRBL
SC 4th flr smoke offc 405 , Any Sub Addr    , Db_P01_1xxxxx [ 30045] , 01 , 130045          , Node=1 , Loop= 1 , Addr= 45 , SUPR      , SUPR
CC 4th flr smoke offc 405 , Any Sub Addr    , Db_P01_1xxxxx [ 40045] , 01 , 140045          , Node=1 , Loop= 1 , Addr= 45 , COMN      , COMN
F  4th flr smoke offc 405 , Sub Address 00  , Db_P01_3xxxxx [ 10045] , 01 , 310045 , bit00  , Node=1 , Loop= 1 , Addr= 45 , FIRE      , FIRE
T  4th flr smoke offc 405 , Sub Address 00  , Db_P01_3xxxxx [ 20045] , 01 , 320045 , bit00  , Node=1 , Loop= 1 , Addr= 45 , TRBL      , TRBL
S  4th flr smoke offc 405 , Sub Address 00  , Db_P01_3xxxxx [ 30045] , 01 , 330045 , bit00  , Node=1 , Loop= 1 , Addr= 45 , SUPR      , SUPR
C  4th flr smoke offc 405 , Sub Address 00  , Db_P01_3xxxxx [ 40045] , 01 , 340045 , bit00  , Node=1 , Loop= 1 , Addr= 45 , COMN      , COMN
F  4th flr smoke offc 405 , Sub Address 01  , Db_P01_3xxxxx [ 10045] , 01 , 310045 , bit01  , Node=1 , Loop= 1 , Addr= 45 , FIRE      , FIRE
T  4th flr smoke offc 405 , Sub Address 01  , Db_P01_3xxxxx [ 20045] , 01 , 320045 , bit01  , Node=1 , Loop= 1 , Addr= 45 , TRBL      , TRBL
S  4th flr smoke offc 405 , Sub Address 01  , Db_P01_3xxxxx [ 30045] , 01 , 330045 , bit01  , Node=1 , Loop= 1 , Addr= 45 , SUPR      , SUPR
C  4th flr smoke offc 405 , Sub Address 01  , Db_P01_3xxxxx [ 40045] , 01 , 340045 , bit01  , Node=1 , Loop= 1 , Addr= 45 , COMN      , COMN
F  4th flr smoke offc 405 , Sub Address 09  , Db_P01_3xxxxx [ 10045] , 01 , 310045 , bit09  , Node=1 , Loop= 1 , Addr= 45 , FIRE      , FIRE
T  4th flr smoke offc 405 , Sub Address 09  , Db_P01_3xxxxx [ 20045] , 01 , 320045 , bit09  , Node=1 , Loop= 1 , Addr= 45 , TRBL      , TRBL
S  4th flr smoke offc 405 , Sub Address 09  , Db_P01_3xxxxx [ 30045] , 01 , 330045 , bit09  , Node=1 , Loop= 1 , Addr= 45 , SUPR      , SUPR
C  4th flr smoke offc 405 , Sub Address 09  , Db_P01_3xxxxx [ 40045] , 01 , 340045 , bit09  , Node=1 , Loop= 1 , Addr= 45 , COMN      , COMN
F  4th flr smoke offc 405 , Sub Address 10  , Db_P01_3xxxxx [ 10045] , 01 , 310045 , bit10  , Node=1 , Loop= 1 , Addr= 45 , FIRE      , FIRE
T  4th flr smoke offc 405 , Sub Address 10  , Db_P01_3xxxxx [ 20045] , 01 , 320045 , bit10  , Node=1 , Loop= 1 , Addr= 45 , TRBL      , TRBL
S  4th flr smoke offc 405 , Sub Address 10  , Db_P01_3xxxxx [ 30045] , 01 , 330045 , bit10  , Node=1 , Loop= 1 , Addr= 45 , SUPR      , SUPR
C  4th flr smoke offc 405 , Sub Address 10  , Db_P01_3xxxxx [ 40045] , 01 , 340045 , bit10  , Node=1 , Loop= 1 , Addr= 45 , COMN      , COMN
FC 4th flr smoke offc 406 , Any Sub Addr    , Db_P01_1xxxxx [ 10046] , 01 , 110046          , Node=1 , Loop= 1 , Addr= 46 , FIRE      , FIRE
TC 4th flr smoke offc 406 , Any Sub Addr    , Db_P01_1xxxxx [ 20046] , 01 , 120046          , Node=1 , Loop= 1 , Addr= 46 , TRBL      , TRBL
SC 4th flr smoke offc 406 , Any Sub Addr    , Db_P01_1xxxxx [ 30046] , 01 , 130046          , Node=1 , Loop= 1 , Addr= 46 , SUPR      , SUPR
CC 4th flr smoke offc 406 , Any Sub Addr    , Db_P01_1xxxxx [ 40046] , 01 , 140046          , Node=1 , Loop= 1 , Addr= 46 , COMN      , COMN
F  4th flr smoke offc 406 , Sub Address 00  , Db_P01_3xxxxx [ 10046] , 01 , 310046 , bit00  , Node=1 , Loop= 1 , Addr= 46 , FIRE      , FIRE
T  4th flr smoke offc 406 , Sub Address 00  , Db_P01_3xxxxx [ 20046] , 01 , 320046 , bit00  , Node=1 , Loop= 1 , Addr= 46 , TRBL      , TRBL
S  4th flr smoke offc 406 , Sub Address 00  , Db_P01_3xxxxx [ 30046] , 01 , 330046 , bit00  , Node=1 , Loop= 1 , Addr= 46 , SUPR      , SUPR
C  4th flr smoke offc 406 , Sub Address 00  , Db_P01_3xxxxx [ 40046] , 01 , 340046 , bit00  , Node=1 , Loop= 1 , Addr= 46 , COMN      , COMN
```

```
MODBUS LOOP SUMMARY


F Panel/Node 01 Loop 01 One or more FIRE  , Db_P01_1xxxxx [ 51001] , 01 , 151001 ,        , Node=1 , Loop=01 , Addr=Any , FIRE
T Panel/Node 01 Loop 01 One or more TRBL  , Db_P01_1xxxxx [ 52001] , 01 , 152001 ,        , Node=1 , Loop=01 , Addr=Any , TRBL
S Panel/Node 01 Loop 01 One or more SUPR  , Db_P01_1xxxxx [ 53001] , 01 , 153001 ,        , Node=1 , Loop=01 , Addr=Any , SUPR
C Panel/Node 01 Loop 01 One or more COMN  , Db_P01_1xxxxx [ 54001] , 01 , 154001 ,        , Node=1 , Loop=01 , Addr=Any , COMN
F Panel/Node 01 Loop 02 One or more FIRE  , Db_P01_1xxxxx [ 51002] , 01 , 151002 ,        , Node=1 , Loop=02 , Addr=Any , FIRE
T Panel/Node 01 Loop 02 One or more TRBL  , Db_P01_1xxxxx [ 52002] , 01 , 152002 ,        , Node=1 , Loop=02 , Addr=Any , TRBL
S Panel/Node 01 Loop 02 One or more SUPR  , Db_P01_1xxxxx [ 53002] , 01 , 153002 ,        , Node=1 , Loop=02 , Addr=Any , SUPR
C Panel/Node 01 Loop 02 One or more COMN  , Db_P01_1xxxxx [ 54002] , 01 , 154002 ,        , Node=1 , Loop=02 , Addr=Any , COMN


MODBUS  PANEL FAULT / TRBLS  (247)


                                                ,    ,                    ,      ,Modbus
                                                ,    ,                    ,Modbus,6digit
  Label                                         ,    , DataArrayName [ offset],Node,  Addr  ,
  Panel01 Flt001 ps fault                       ,    , Db_P01_1xxxxx [ 60001] , 01 , 160001 ,
  Panel01 Flt002 calibration flt                ,    , Db_P01_1xxxxx [ 60002] , 01 , 160002 ,
  Panel01 Flt003 output 1 open flt              ,    , Db_P01_1xxxxx [ 60003] , 01 , 160003 ,
  Panel01 Flt004 output 1 short flt             ,    , Db_P01_1xxxxx [ 60004] , 01 , 160004 ,
  Panel01 Flt005 output 2 open flt              ,    , Db_P01_1xxxxx [ 60005] , 01 , 160005 ,
  Panel01 Flt006 output 2 short flt             ,    , Db_P01_1xxxxx [ 60006] , 01 , 160006 ,
  Panel01 Flt007 input open flt                 ,    , Db_P01_1xxxxx [ 60007] , 01 , 160007 ,
  Panel01 Flt008 input short flt                ,    , Db_P01_1xxxxx [ 60008] , 01 , 160008 ,
  Panel01 Flt009 internal flt                   ,    , Db_P01_1xxxxx [ 60009] , 01 , 160009 ,
  Panel01 Flt010 maintenance flt                ,    , Db_P01_1xxxxx [ 60010] , 01 , 160010 ,
  Panel01 Flt011 detector flt                   ,    , Db_P01_1xxxxx [ 60011] , 01 , 160011 ,
  Panel01 Flt012 slave open flt                 ,    , Db_P01_1xxxxx [ 60012] , 01 , 160012 ,
  Panel01 Flt013 slave short flt                ,    , Db_P01_1xxxxx [ 60013] , 01 , 160013 ,
  Panel01 Flt014 slave 1 short flt              ,    , Db_P01_1xxxxx [ 60014] , 01 , 160014 ,
  Panel01 Flt015 slave 2 short flt              ,    , Db_P01_1xxxxx [ 60015] , 01 , 160015 ,
  Panel01 Flt016 disconnected flt               ,    , Db_P01_1xxxxx [ 60016] , 01 , 160016 ,
  Panel01 Flt017 double address flt             ,    , Db_P01_1xxxxx [ 60017] , 01 , 160017 ,
```

4.16 Testing

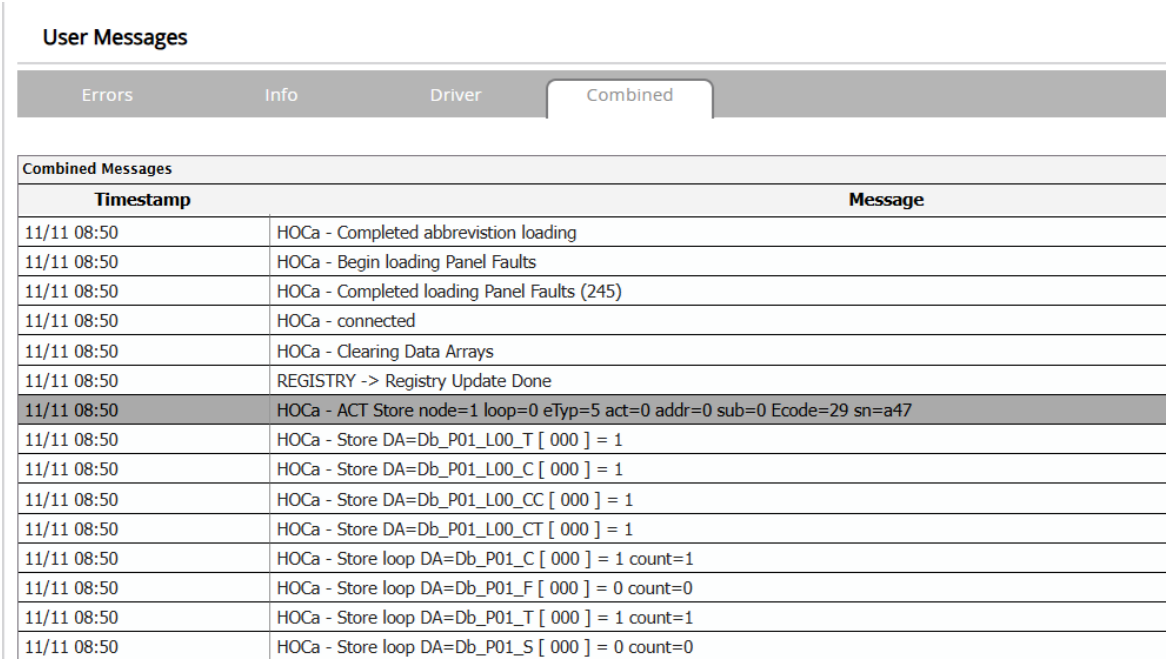
Testing is easily done by using the CAS BACnet Explorer. Use this tool to discover the FieldServer, its object and their properties (one of which is the 'Present Value'. In the list of objects, find the one you are about to test, right click on it and 'Add it to the monitor List'. This will continuously monitor the object so you can easily see the changes to the Present Value. The tool is available here.



A second way of testing is to ensure that the events are being seen by the FieldServer. The following notes inform you about this process

Whenever an event is received the driver reports the event in the User Message – Combined Log part of the FieldServer UI

HOCa - ACT Store node=1 loop=0 eTyp=5 act=0 addr=0 sub=0 Ecode=29 sn=a47



Combined Messages

Timestamp	Message
11/11 08:50	HOCa - Completed abbrevistion loading
11/11 08:50	HOCa - Begin loading Panel Faults
11/11 08:50	HOCa - Completed loading Panel Faults (245)
11/11 08:50	HOCa - connected
11/11 08:50	HOCa - Clearing Data Arrays
11/11 08:50	REGISTRY -> Registry Update Done
11/11 08:50	HOCa - ACT Store node=1 loop=0 eTyp=5 act=0 addr=0 sub=0 Ecode=29 sn=a47
11/11 08:50	HOCa - Store DA=Db_P01_L00_T [000] = 1
11/11 08:50	HOCa - Store DA=Db_P01_L00_C [000] = 1
11/11 08:50	HOCa - Store DA=Db_P01_L00_CC [000] = 1
11/11 08:50	HOCa - Store DA=Db_P01_L00_CT [000] = 1
11/11 08:50	HOCa - Store loop DA=Db_P01_C [000] = 1 count=1
11/11 08:50	HOCa - Store loop DA=Db_P01_F [000] = 0 count=0
11/11 08:50	HOCa - Store loop DA=Db_P01_T [000] = 1 count=1
11/11 08:50	HOCa - Store loop DA=Db_P01_S [000] = 0 count=0

4.17 Example Configuration - Complete config for a single node with 1 loop

Minimum Configuration Required for a single node / panel with panel number = 1 and with one loop number = 1

This example does not include the BACnet part of the configuration. Note that this is provided only for reference and as an example. Your config.csv file will be unique to your project.

```
Data_Arrays
Data_Array_Name , Data_Format , Data_Array_Length
DA_ALM_TASK     , Uint16      , 100


Data_Arrays
Data_Array_Name , Data_Format , Data_Array_Length
Db_P01_C  , Uint16      , 257
Db_P01_F  , Uint16      , 257
Db_P01_T  , Uint16      , 257
Db_P01_S  , Uint16      , 257


Data_Arrays
Data_Array_Name , Data_Format , Data_Array_Length
Db_P01_L01_C   , Uint16      , 2850
Db_P01_L01_F   , Uint16      , 2850
Db_P01_L01_T   , Uint16      , 2850
Db_P01_L01_S   , Uint16      , 2850
Db_P01_L01_CC  , Uint16      , 257
Db_P01_L01_CF  , Uint16      , 257
Db_P01_L01_CT  , Uint16      , 257
Db_P01_L01_CS  , Uint16      , 257


Connections
Adapter, protocol                  , timeout , HOCtcp1_System_Id
N1,    , hoctcp_Alarms             , 3s      , 1500


Nodes
Node_Name    , IP_Address    ,Node_ID , Protocol               , Adapter ,
Primary_node , 192.168.2.200 ,      1 , hoctcp_Alarms , N1      ,



Map_Descriptors
Map_Descriptor_Name , Scan_Interval , Data_Array_Name , Data_Array_Offset , Function , Node_Name       , Length ,
Monitor Alarms      , 0.0           , DA_ALM_TASK     , 0                 , rdb      , Primary_node    , 1      ,
```

4.18 Example Configuration - Complete config for 3 nodes with several loops

This example does not include the BACnet part of the configuration. Note that this is provided only for reference and as an example. Your config.csv file will be unique to your project.

```
Bridge
Title                       ,System_Node_ID , Network_Number
3 nodes sevral loops Rev A,389001         , 5


Data_Arrays
Data_Array_Name , Data_Format , Data_Array_Length
DA_ALM_TASK     , Uint16      , 100
DA_HOC_DEBUG    , Uint16      , 100



Data_Arrays
Data_Array_Name , Data_Format , Data_Array_Length
Db_P01_C  , Uint16      , 257
Db_P01_F  , Uint16      , 257
Db_P01_T  , Uint16      , 257
Db_P01_S  , Uint16      , 257

Db_P02_C  , Uint16      , 257
Db_P02_F  , Uint16      , 257
Db_P02_T  , Uint16      , 257
Db_P02_S  , Uint16      , 257

Db_P03_C  , Uint16      , 257
Db_P03_F  , Uint16      , 257
Db_P03_T  , Uint16      , 257
Db_P03_S  , Uint16      , 257

Db_P01_L00_C   , Uint16      , 2850
Db_P01_L00_F   , Uint16      , 2850
Db_P01_L00_T   , Uint16      , 2850
Db_P01_L00_S   , Uint16      , 2850
Db_P01_L00_CC  , Uint16      , 257
Db_P01_L00_CF  , Uint16      , 257
Db_P01_L00_CT  , Uint16      , 257
Db_P01_L00_CS  , Uint16      , 257
```

```
Db_P01_L01_C   , Uint16      , 2850
Db_P01_L01_F   , Uint16      , 2850
Db_P01_L01_T   , Uint16      , 2850
Db_P01_L01_S   , Uint16      , 2850
Db_P01_L01_CC  , Uint16      , 257
Db_P01_L01_CF  , Uint16      , 257
Db_P01_L01_CT  , Uint16      , 257
Db_P01_L01_CS  , Uint16      , 257

Db_P01_L02_C   , Uint16      , 2850
Db_P01_L02_F   , Uint16      , 2850
Db_P01_L02_T   , Uint16      , 2850
Db_P01_L02_S   , Uint16      , 2850
Db_P01_L02_CC  , Uint16      , 257
Db_P01_L02_CF  , Uint16      , 257
Db_P01_L02_CT  , Uint16      , 257
Db_P01_L02_CS  , Uint16      , 257

Db_P01_L03_C   , Uint16      , 2850
Db_P01_L03_F   , Uint16      , 2850
Db_P01_L03_T   , Uint16      , 2850
Db_P01_L03_S   , Uint16      , 2850
Db_P01_L03_CC  , Uint16      , 257
Db_P01_L03_CF  , Uint16      , 257
Db_P01_L03_CT  , Uint16      , 257
Db_P01_L03_CS  , Uint16      , 257

Db_P02_L01_C   , Uint16      , 2850
Db_P02_L01_F   , Uint16      , 2850
Db_P02_L01_T   , Uint16      , 2850
Db_P02_L01_S   , Uint16      , 2850
Db_P02_L01_CC  , Uint16      , 257
Db_P02_L01_CF  , Uint16      , 257
Db_P02_L01_CT  , Uint16      , 257
```

```
Db_P03_L01_C   , Uint16      , 2850
Db_P03_L01_F   , Uint16      , 2850
Db_P03_L01_T   , Uint16      , 2850
Db_P03_L01_S   , Uint16      , 2850
Db_P03_L01_CC  , Uint16      , 257
Db_P03_L01_CF  , Uint16      , 257
Db_P03_L01_CT  , Uint16      , 257
Db_P03_L01_CS  , Uint16      , 257

Connections
Adapter, protocol                 , timeout , HOCtcp1_System_Id
N1     , hoctcp_Alarms            , 3s     , 1500

Nodes
Node_Name    , IP_Address    ,Node_ID , Protocol              , Adapter , HOCTCP_connection_monitoring_freq
Primary_node , 192.168.2.200 ,      1 , hoctcp_Alarms         , N1      , 0
Alm_Node_2   , 192.168.2.200 ,      2 , hoctcp_Alarms         , N1      , 0
Alm_Node_3   , 192.168.2.200 ,      3 , hoctcp_Alarms         , N1      , 0

Map_Descriptors
Map_Descriptor_Name , Scan_Interval , Data_Array_Name , Data_Array_Offset , Function , Node_Name       ,  Loop , Length
Monitor Alarms      , 0             , DA_ALM_TASK     , 0                 , rdb      , Primary_node    ,  0    , 1
Node1 Loop 1 Alms   , -             , DA_ALM_TASK     , 1                 , Passive  , Primary_node    ,  1    , 1
Node1 Loop 2 Alms   , -             , DA_ALM_TASK     , 2                 , Passive  , Primary_node    ,  2    , 1
Node1 Loop 3 Alms   , -             , DA_ALM_TASK     , 3                 , Passive  , Primary_node    ,  3    , 1
Node2 Loop 1 Alms   , -             , DA_ALM_TASK     , 4                 , Passive  , Alm_Node_2      ,  1    , 1
Node3 Loop 1 Alms   , -             , DA_ALM_TASK     , 5                 , Passive  , Alm_Node_3      ,  1    , 1

Connections
Adapter , Protocol
N1      , Bacnet_IP
```

```
Nodes
Node_Name , Node_ID , Protocol
vPanel_01 , 1001  , Bacnet_IP
vPanel_02 , 1002  , Bacnet_IP
vPanel_03 , 1003  , Bacnet_IP

Map_Descriptors
Map_Descriptor_Name                  , Description                        , Data_Array_Name   , Data_Array_Offset , Function , Node_Name , Data_Type , Object_ID , Property      ,



Blding 1 lobby smoke Fire            , Node=1 Loop=0 Addr=1 SubAddr=1       , Db_P01_L00_F      , 12                , Server   , vPanel_01 , Bi        , 10001     , Present_Value ,
Blding 1 lobby smoke Trbl            , Node=1 Loop=0 Addr=1 SubAddr=1       , Db_P01_L00_T      , 12                , Server   , vPanel_01 , Bi        , 10002     , Present_Value ,
Blding 1 lobby pull Fire             , Node=1 Loop=0 Addr=5 SubAddr=0       , Db_P01_L00_F      , 55                , Server   , vPanel_01 , Bi        , 10003     , Present_Value ,
Blding 1 lobby pull Supervisory      , Node=1 Loop=0 Addr=5 SubAddr=0       , Db_P01_L00_S      , 55                , Server   , vPanel_01 , Bi        , 10004     , Present_Value ,
Blding 1 room 1 Fire/Trbl/Supr       , Node=1 Loop=0 Addr=6 SubAddr=0       , Db_P01_L00_C      , 66                , Server   , vPanel_01 , Bi        , 10005     , Present_Value ,



Blding 2 lobby smoke Fire            , Node=2 Loop=1 Addr=1 SubAddr=0       , Db_P01_L00_F      , 11                , Server   , vPanel_02 , Bi        , 20001     , Present_Value ,
Blding 2 lobby pull Fire             , Node=2 Loop=1 Addr=7 SubAddr=1       , Db_P01_L00_F      , 78                , Server   , vPanel_02 , Bi        , 20002     , Present_Value ,



Blding 3 lobby smoke Fire            , Node=3 Loop=1 Addr=1 SubAddr=0       , Db_P01_L00_F      , 11                , Server   , vPanel_03 , Bi        , 30001     , Present_Value ,
Blding 3 lobby pull Fire             , Node=3 Loop=1 Addr=4 SubAddr=10      , Db_P01_L00_F      , 54                , Server   , vPanel_03 , Bi        , 30002     , Present_Value ,
```

5 Errors and Support

Hochiki Asia Pacific provides the primary support to customer installations.

5.1 When an Error occurs

Take a diagnostic using the UI. During the diagnostic generate the condition that causes the error.

Instructions are found at this URL

https://store.chipkin.com/support/chipkin-simplified-support

Record the “FSExxxxx” reference number on the gateway and contact sales@hochikiasiapacific.com

Chipkin Automation Systems Inc provide support for Hochiki and ordinarily we do not provide support direct to customers. Hochiki will decide when it Is appropriate to escaslate the support issue.

When establishing a connection to the Hochiki Media Gateway there are often a couple of errors.

They may report

That a socket could not be found

Connection failed

That there was an unexpected NAK

It looks like this

HOCa - connected
HOCa - Clearing Data Arrays
REGISTRY -> Registry Update Done
HOCa - err timeout on incoming
-------error state drv_node->mas_sock_handle=11
HOCa - err Closed Socket on error
HOCa - connected
HOCa - Clearing Data Arrays
HOCa - ACT Store node=1 loop=0 eTyp=5 act=0 addr=0 sub=0 - fault sn=96b

This is common and can be considered ‘Normal’

5.2 Generating data for Debugging

The Data Array baned DA_HOCa_Config is used to turn on or to supress various debug information,

Offset 0 – When the value is 2 this causes the driver to print a line for each location where data is stored when an event is processed.

Offset 9 – When this value is set to 2 then the driver will not print a message when a new event is received.

5.3 Driver seems to be doing nothing and is ignoring events

When you look at the connection view and you see zero msgs sent and received for Hochiki driver. Then if you see the connection errors steadily increase and the error's are 'No Start' then this probably means that the IP address in the config file is wrong.

6 Revision History

This table summarizes the update history for this document. Please contact Chipkin for an updated version of this document if required.

DATE	RESP	DRIVER VER.	DOC. REV.	COMMENT
2024JSep03	PMC	1.00	1	1st Draft
2024JSep25	PMC	1.00cE	2	Initial Release
2024Npv14	PMC	1.01eA	3	Release with auto config
2025Feb18	PMC	1.01iA	4	For customer review
2025	PMC	1.01mA	5	Mobus Map
Dec 2025	PMC	1.01mA	6	Minor formatting and LE2 info