Getting ACM BSAP Upload Information for a ControlWave Device from OpenBSI Netview

This article describes how to get information for the Meter Configuration object, Archive Field Configuration object, and BSAP Archive Access object. This article only describes how to get information from OpenBSI. For an in-depth explanation of how to set up the ACM objects, consult the ACM User Guide.

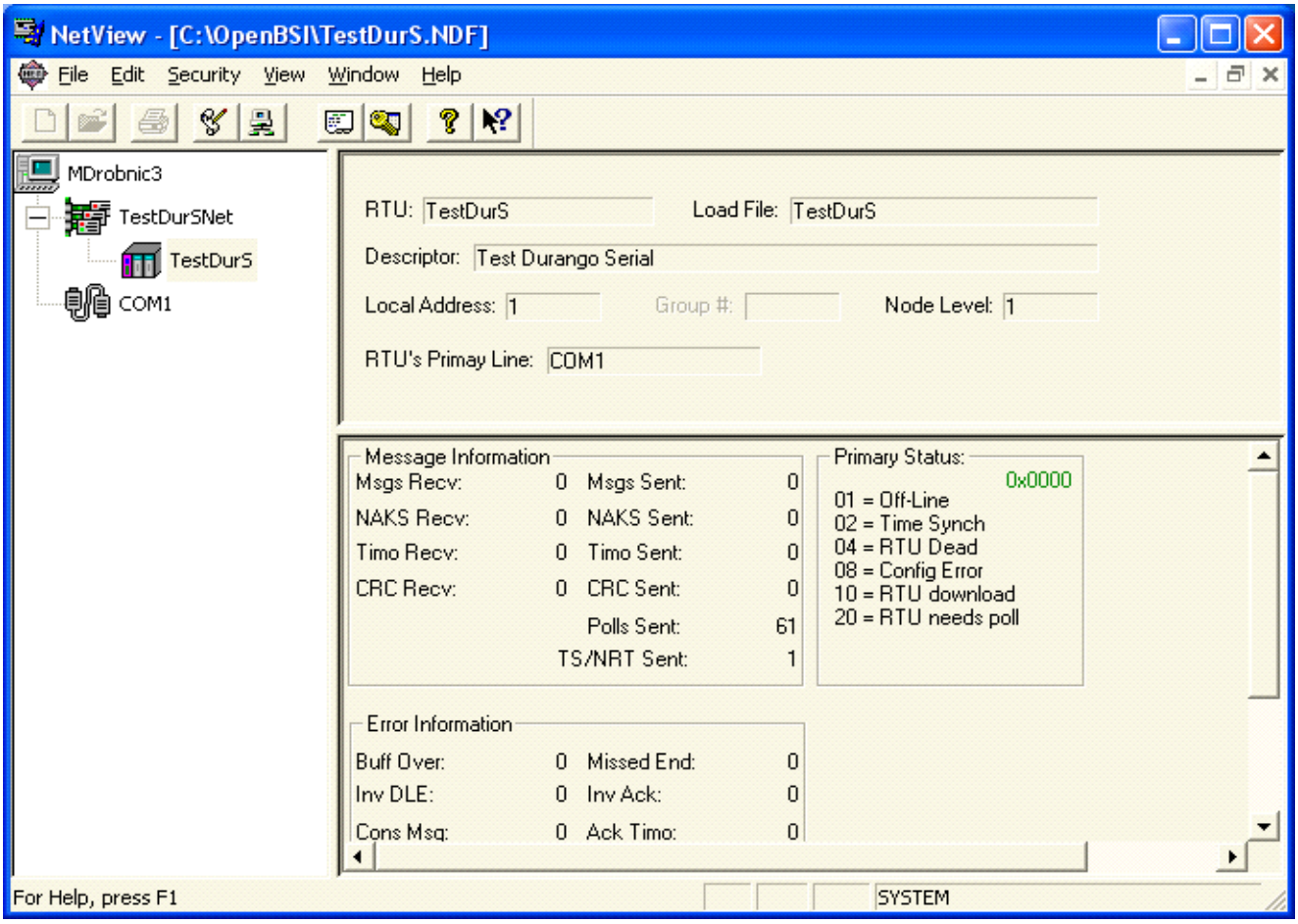
Meter Configuration Object

The Meter Configuration object maps data from signals defined within the BSAP device to the fields of the Flow-Cal configuration record. Each Flow-Cal configuration field that you want to fill with data from the device must be assigned the item name of the signal from the device that contains the data. The person who programmed the device will either have chosen their own signal name or accepted Emerson's default signal name for these values. The .sig file for the ControlWave device's load contains a list of all the programmed signal names, but no information on what values those signal names reference, other than educated guesses that can be made from the names themselves. This information must come from the programmer.

Archive Field Configuration Object

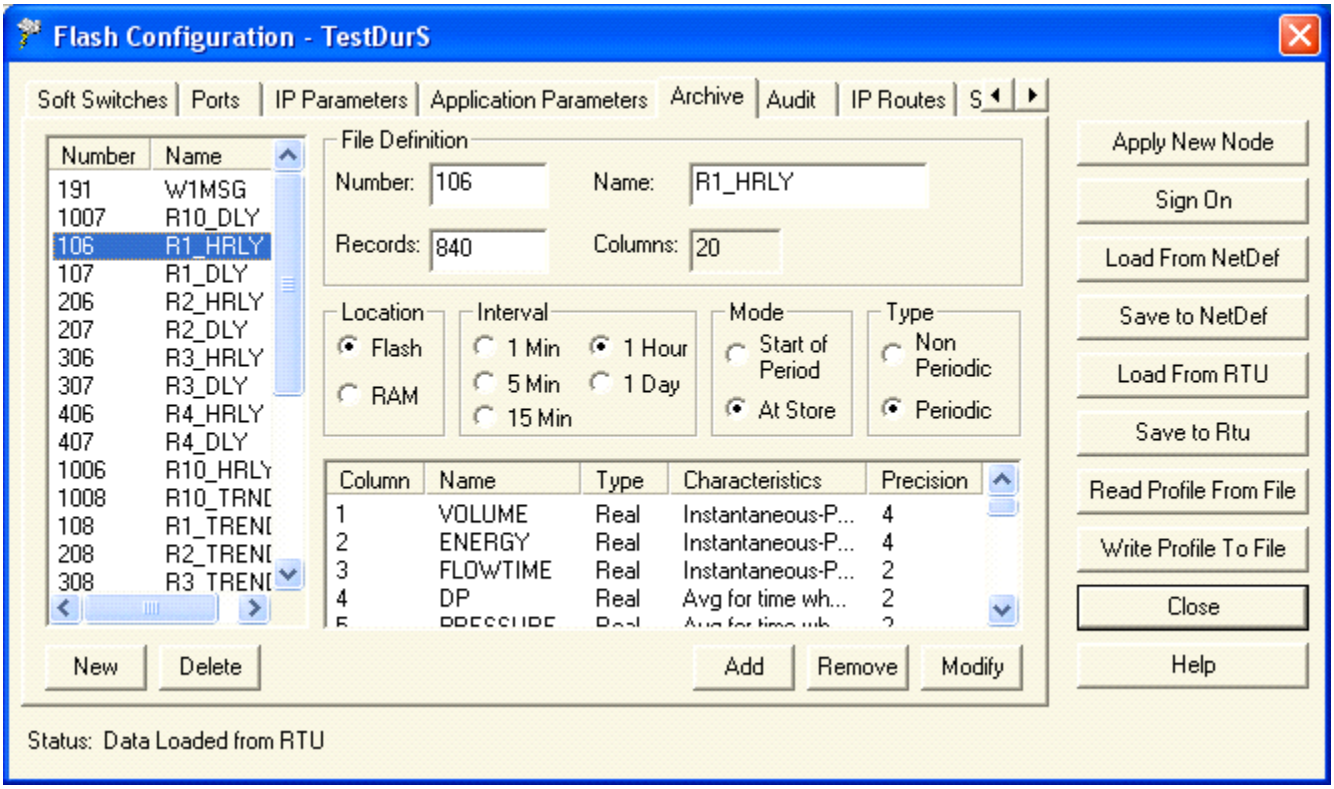
The Archive Field Configuration object maps data from archive files in the device to the fields of the Flow-Cal history record. This information can be read from the device using OpenBSI. Note: Screen captures below are taken from OpenBSI Netview, version 5.6. Screens from other versions or different OpenBSI programs may not match exactly.

a) Start Netview and open the .NDF file that was used to communicate with the BSAP device. This will bring up a tree list containing the OpenBSI network configuration.


NetView - [C:\OpenBSI\TestDurS.NDF]
File Edit Security View Window Help
MDrobnic3
TestDurSNet
TestDurS
COM1
RTU: TestDurS
Load File: TestDurS
Descriptor: Test Durango Serial
Local Address: 1
Group #:
Node Level: 1
RTU's Primay Line: COM1
Message Information
Msgs Recv: 0
Msgs Sent: 0
NAKS Recv: 0
NAKS Sent: 0
Timo Recv: 0
Timo Sent: 0
CRC Recv: 0
CRC Sent: 0
Polls Sent: 61
TS/NRT Sent: 1
Primary Status:
0x0000
01 = Off-Line
02 = Time Synch
04 = RTU Dead
08 = Config Error
10 = RTU download
20 = RTU needs poll
Error Information
Buff Over: 0
Missed End: 0
Inv DLE: 0
Inv Ack: 0
Cons Msg: 0
Ack Timo: 0
For Help, press F1
SYSTEM

b) Open the network list and select the device that is being configured in ACM. Settings for that device will appear in the window to the right of the tree list.

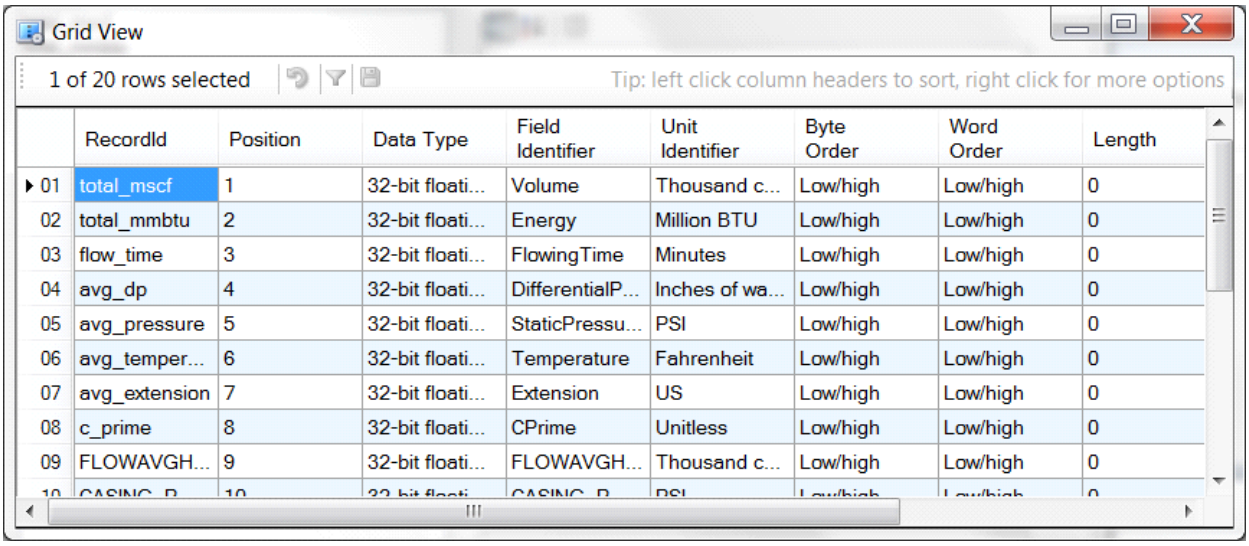
c) Right-click on the device icon and select RTU | RTU Configuration Parameters. The Flash Configuration window will be displayed:



d) Press the "Load from RTU" button.

e) When all the parameters have been read, go to the Archive tab. On the left is a list of the archives within the device. Select the archive that you're configuring the mapping file for. On the lower right is a list of the columns in the archive. The first column will be the first record in the Archive Field Configuration, the second column will be the second record, etc.

For example, the Archive Field Configuration for the device in the screen capture above would be:



	RecordId	Position	Data Type	Field Identifier	Unit Identifier	Byte Order	Word Order	Length
▸ 01	total_mscf	1	32-bit floati...	Volume	Thousand c...	Low/high	Low/high	0
02	total_mmbtu	2	32-bit floati...	Energy	Million BTU	Low/high	Low/high	0
03	flow_time	3	32-bit floati...	FlowingTime	Minutes	Low/high	Low/high	0
04	avg_dp	4	32-bit floati...	DifferentialP...	Inches of wa...	Low/high	Low/high	0
05	avg_pressure	5	32-bit floati...	StaticPressu...	PSI	Low/high	Low/high	0
06	avg_temper...	6	32-bit floati...	Temperature	Fahrenheit	Low/high	Low/high	0
07	avg_extension	7	32-bit floati...	Extension	US	Low/high	Low/high	0
08	c_prime	8	32-bit floati...	CPrime	Unitless	Low/high	Low/high	0
09	FLOWAVGH...	9	32-bit floati...	FLOWAVGH...	Thousand c...	Low/high	Low/high	0

Note: The "Field Identifier" can be either a pre-defined value from the list or a String object that you've created yourself. However, to be correctly published in an EFM format, the field identifier must be one of the pre-defined values.

BSAP Archive Access Object

Most ControlWaves use archive files to store their uploads. The BSAP Archive Access object can be configured to use either the file number or the file name with the "Archive Type" field. The archive file number or name goes in the "Array or File ID" field. The archive file number is found in the "Number" field of the Flash Configuration screen shown above; the archive file name is found in the "Name" field.