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\Te	estDurS.NDF]		
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	CRC Recv:	0 CRC Sent: 0 10 = RTU download	
		Polls Sent: 61 20 = RTU needs poll	
		TS/NRT Sent: 1	
	Error Information		_
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	Inv DLE:	0 Inv Ack: 0	
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r For Help, press F1	<u> </u>	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.

Flash Configuration - TestDurS	X
Soft Switches Ports IP Parameters Application Parameters Archive Audit IP Routes S • • Number Name File Definition Name: R1_HRLY 1007 R10_DLY Number: 106 Name: R1_HRLY 106 R1_HRLY Records: 840 Columns: 20 107 R1_DLY Records: 840 Columns: 20 106 R1_HRLY Records: 840 Columns: 20 107 R1_DLY Records: 840 Columns: 20 107 R1_DLY Records: 840 Columns: 20 107 R2_DLY Records: 840 Columns: 20 107 R3_DLY Flash C 1 Min 1 Hour Statt of Periodic Non Periodic 108 R1_HRLY RAM C 15 Min At Store Periodic 108 R1_HRLY VOLUME Real Instantaneous-P 4 108 R1_HRLY DP Real Arg for time wh 2 <t< td=""><td>Apply New Node Sign On Load From NetDef Save to NetDef Load From RTU Save to Rtu Read Profile From File Write Profile To File Close Help</td></t<>	Apply New Node Sign On Load From NetDef Save to NetDef Load From RTU Save to Rtu Read Profile From File Write Profile To File Close Help

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:

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of 20 rows selec	ted 🦻 🔊	1	Tip:	left click colum	in headers to	sort, right click	c for more opt	tion
RecordId	Position	Data Type	Field Identifier	Unit Identifier	Byte Order	Word Order	Length	
total_mscf	1	32-bit floati	Volume	Thousand c	Low/high	Low/high	0	
total_mmbtu	2	32-bit floati	Energy	Million BTU	Low/high	Low/high	0	
flow_time	3	32-bit floati	FlowingTime	Minutes	Low/high	Low/high	0	
avg_dp	4	32-bit floati	DifferentialP	Inches of wa	Low/high	Low/high	0	
avg_pressure	5	32-bit floati	StaticPressu	PSI	Low/high	Low/high	0	
avg_temper	6	32-bit floati	Temperature	Fahrenheit	Low/high	Low/high	0	
avg_extension	7	32-bit floati	Extension	US	Low/high	Low/high	0	
c_prime	8	32-bit floati	CPrime	Unitless	Low/high	Low/high	0	
FLOWAVGH	9	32-bit floati	FLOWAVGH	Thousand c	Low/high	Low/high	0	
	10	20 bit flooti		nei	Low/biab	Low/biab	0	
	d View f 20 rows select RecordId total_mscf total_mmbtu flow_time avg_dp avg_op avg_pressure avg_temper avg_extension c_prime FLOWAVGH	d View f 20 rows selected 9 9 9 RecordId Position total_mscf 1 total_mmbtu 2 flow_time 3 avg_dp 4 avg_pressure 5 avg_temper 6 avg_extension 7 c_prime 8 FLOWAVGH 9 CASING P 10	d View f 20 rows selected Position Data Type total_mscf 1 32-bit floati total_mmbtu 2 32-bit floati flow_time 3 32-bit floati avg_dp 4 32-bit floati avg_temper 6 32-bit floati avg_extension 7 32-bit floati avg_extension 7 32-bit floati ELOWAVGH 9 32-bit floati	d View f 20 rows selected ♥ ♥ ♥ ■ Tip: RecordId Position Data Type Field Identifier total_mscf 1 32-bit floati Volume total_mmbtu 2 32-bit floati Energy flow_time 3 32-bit floati FlowingTime avg_dp 4 32-bit floati DifferentialP avg_pressure 5 32-bit floati Temperature avg_extension 7 32-bit floati Temperature avg_extension 7 32-bit floati Extension c_prime 8 32-bit floati CPrime FLOWAVGH 9 32-bit floati FLOWAVGH	d View f 20 rows selected version ver	d View f 20 rows selected Image:	d View f 20 rows selected Image: Selected image: Selected	Image: Colspan="4">Image: Colspan="4" Image: Colspan="4">Tip: left click column headers to sort, right click for more opt Recordld Position Data Type Field Identifier Unit Identifier Word Order Length total_mscf 1 32-bit floati Volume Thousand c Low/high Low/high Conder Colspan="4">Colspan="4"Colspan="4">Colspan="4"Colspan="4"Colspan="4">Colspan="4"Co

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.