IEC 61850 Standard Application Guide

For the Nexus® 1500+ Meter

V.1.01
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Electro Industries/GaugeTech
The Leader In Power Monitoring and Smart Grid Solutions

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Nexus® 1500+ Meter IEC 61850 Standard Application Guide V.1.01

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About Electro Industries/GaugeTech

Founded in 1975 by engineer and inventor Dr. Samuel Kagan, Electro Industries/ GaugeTech (EIG) changed the face of power monitoring forever with its first break-through innovation: an affordable, easy-to-use AC power meter.

Forty years since its founding, Electro Industries/GaugeTech, the leader in power monitoring and control, continues to revolutionize the industry with the highest quality, cutting edge power monitoring and control technology on the market today. An ISO 9001:2000 certified company, EIG sets the industry standard for advanced power quality and reporting, revenue metering and substation data acquisition and control. EIG products can be found on site at mainly all of today's leading manufacturers, industrial giants and utilities.

EIG products are primarily designed, manufactured, tested and calibrated at our facility in Westbury, New York.

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1: Introduction

This application guide contains detailed information on the IEC 61850 Standard implementation for the Electro Industries' Nexus® 1500+ meter. This information is intended as a supplemental aid for using this meter's IEC 61850 feature. For detailed information concerning the meter and the IEC 61850 Standard implementation for it, please refer to the *Nexus® 1500+ Meter Installation and Operation Guide*.

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2: Protocol Implementation Conformance Statement (PICS)

This chapter explains how the IEC 61850 interface in the Nexus® 1500+ device adheres to the IEC 61850 Standard.

2.1: Overview

The following Abstract Communications Service Interface (ACSI) conformance statements are used to provide an overview and details about the Nexus® 1500+ meter:

- ACSI basic conformance statement
- ACSI models conformance statement,
- ACSI service conformance statement

The statements specify the communication features mapped to IEC 61850-8-1.

2.2: ACSI Basic Conformance Statement

The basic conformance statement is defined in Table 2.1.

		Client/ Subscriber	Server/ Publisher	Value/ Comments
Client-Server roles				
B11	Server side (of TWO-PARTY-APPLICATION-ASSOCIATION)	___	Y	
B12	Client side of (TWO-PARTY-APPLICATION-ASSOCIATION)		___	
SCSMs supported				
B21	SCSM: IEC 6185-8-1 used		Y	
B22	SCSM: IEC 6185-9-1 used			
B23	SCSM: IEC 6185-9-2 used			
B24	SCSM: other			
Generic substation event model (GSE)				
B31	Publisher side	Y		
B32	Subscriber side		Y	
Transmission of sampled value model (SVC)				
B41	Publisher side	___		
B42	Subscriber side		___	
Y = supported N or empty = not supported ___ = not applicable				

Table 2.1: ACSI Basic Conformance Statement

2.3: ACSI Models Conformance Statement

The ACSI models conformance statement is defined in Table 2.2.

		Client/ Subscriber	Server/ Publisher	Value/ Comments
If Server or Client side (B11/12) supported				
M1	Logical device		Y	
M2	Logical node		Y	
M3	Data		Y	
M4	Data set		Y	
M5	Substitution		N	
M6	Setting group control		N	
	Reporting			
M7	Buffered report control		Y	
M7-1	sequence-number		Y	
M7-2	report-time-stamp		Y	
M7-3	reason-for-inclusion		Y	
M7-4	data-set-name		Y	
M7-5	data-reference		Y	
M7-6	buffer-overflow		Y	
M7-7	entryID		Y	
M7-8	BufTim		Y	
M7-9	IntgPd		Y	
M7-10	GI		Y	
M7-11	conf-revision		Y	
M8	Unbuffered report control		Y	
M8-1	sequence-number		Y	
M8-2	report-time-stamp		Y	
M8-3	reason-for-inclusion		Y	
M8-4	data-set-name		Y	
M8-5	data-reference		Y	
M8-6	BufTim		Y	
M8-7	IntgPd		Y	

		Client/ Subscriber	Server/ Publisher	Value/ Comments
M8-8	GI		Y	
M8-9	conf-revision		Y	
	Logging		N	
M9	Log control		N	
M9-1	IntgPd		N	
M10	Log		N	
M11	Control		Y	Status Only
If GSE (B31/32) is supported				
M12	GOOSE		Y	
M13	GSSE		N	
If SVC (41/42) is supported				
M14	Multicast SVC		N	
M15	Unicast SVC		N	
If Server or Client side (B11/12) supported				
M16	Time		Y	
M17	File Transfer		Y	
Y = service is supported N or empty = service is not supported				

Table 2.2: ACSI Models Conformance Statement

2.4: ACSI Service Conformance Statement

The ACSI service conformance statement is defined in Table 2.3 (dependent on the statements in Table 2.1).

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
Server					
S1	ServerDirectory	TP		Y	
Application association					
S2	Associate			Y	
S3	Abort			Y	
S4	Release			Y	
Logical device					
S5	LogicalDevice-Directory	TP		Y	
Logical node					
S6	LogicalNodeDi-rectory	TP		Y	
S7	GetAllDataVal-ues	TP		Y	
Data					
S8	GetDataValues	TP		Y	
S9	SetDataValues	TP		N	
S10	GetDataDirec-tory	TP		Y	
S11	GetDataDefini-tion	TP		Y	
Data set					
S12	GetDataSetVal-ues	TP		Y	

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S13	SetDataSetVal-ues	TP		N	
S14	CreateDataSet	TP		N	
S15	DeleteDataSet	TP		N	
S16	GetDataSetDi-rectory	TP		Y	
Substitution					
S17	SetDataValues	TP		N	
S18	SelectActiveSG	TP		N	
S19	SelectEditSG	TP		N	
S20	SetSGValues	TP		N	
S21	ConfirmEditS-GValues	TP		N	
S22	GetSGValues	TP		N	
S23	GetSGCBValues	TP		N	
Reporting					
Buffered report control block (BRCB)					
S24	Report	TP		Y	
S24-1	data-change (dchg)			Y	
S24-2	qchg-change (qchg)			Y	Quality attributes do not change after power up, so even though this bit is writable, no qual-ity events will be generated.
S24-3	data-update (dupd)			Y	This bit is writ-able; however, no attributes of Trgop = dupd are supported by the device model.
S25	GetBRCBValues	TP		Y	

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S26	SetBRCBValues	TP		Y	
Unbuffered report control block (URCB)					
S27	Report	TP		Y	
S27-1	data-change (dchg)			Y	
S27-2	qchg-change (qchg)			Y	Quality attributes do not change after power up, so even though this bit is writable, no quality events will be generated.
S27-3	data-update (dup			Y	This bit is writable; however, no attributes of Trgop = dupd are supported by the device model.
S28	GetURCBValues	TP		Y	
S29	SetURCBValues	TP		Y	
Logging					
Log control block					
S30	GetLCBValues	TP		N	
S31	SetLCBValues	TP		N	
Log					
S32	QueryLogBy-Time	TP		N	
S33	QueryLog-ByEntry	TP		N	
S34	GetLogSta-tusValues	TP		N	
Generic substation event model (GSE)					
GOOSE-CONTROL-BLOCK					
S35	SendGOOSE-Message	MC	Y	Y	

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S36	GetReference	TP	N	N	
S37	GetGOOSEEle-ment-Number	TP	N	N	
S38	GetGoCBValues	TP	N	Y	
S39	SetGoCBValues	TP	N	N	
GSSE-CONTROL-BLOCK					
S40	SendGSSEMes-sage	MC	N	N	
S41	GetReference	TP	N	N	
S42	GetGSSEEle-mentNumber	TP	N	N	
S43	GetGsCBValues	TP	N	N	
S44	SetGsCBValues	TP	N	N	
Transmission of sampled value model (SVC)					
Multicast SVC					
S45	SendMSVMes-sage	MC	N	N	
S46	GetMSVCBVal-ues	TP	N	N	
S47	SetMSVCBVal-ues	TP	N	N	
Unicast SVC					
S48	SendUSVMes-sage	TP	N	N	
S49	GetUSVCBVal-ues	TP	N	N	
S50	SetUSVCBVal-ues	TP	N	N	
Control					
S51	Select			N	
S52	SelectWithValue	TP		N	
S53	Cancel	TP		N	

	Services	AA: TP/MC	Client (C)	Server (S)	Comments
S54	Operate	TP		N	
S55	Command-Termination	TP		N	
S56	TimeActivated-Operate	TP		N	
File transfer					
S57	GetFile	TP		Y	
S58	SetFile	TP		N	
S59	DeleteFile	TP		N	
S60	GetFileAt-tributeValues	TP		Y	
Time					
T1	Time resolution of internal clock			13	nearest negative power of 2 in seconds
T2	Time accuracy of internal clock				T0
				T1	T1 (SNTP sync)
				T2	T2 (IRIG-B sync)
					T3
					T4
					T5
T3	Supported TimeStamp resolution			10	nearest negative power of 2 in seconds SNTP
				14	nearest negative power of 2 in seconds IRIG-B
Y = service is supported N or empty = service is not supported					

Table 2.3: ACSI Service Conformance Statement

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3: Protocol Implementation Extra Information for Testing (PIXIT)

This chapter specifies the PIXIT of the IEC 61850 interface in the Nexus® 1500+ meter. The table in each section specifies the PIXIT for the applicable ACSI service model as structured in IEC 61850-10.

3.1: Overview

Together with the PICS (see Chapter 2) and the MICS (see Chapter 6), the PIXIT forms the basis for a conformance test according to IEC 61850-10.

3.2: PIXIT for Association Model

ID	Description	Value / Clarification
As1	Maximum number of clients that can set up an association simultaneously	6
As2	TCP_KEEPALIVE value	180 seconds
As3	Lost connection detection time	60 seconds
As4	Is authentication supported?	N
As5	What association parameters are necessary for successful association?	Transport Selector Y Session selector Y Presentation selector Y AP Title N AE Qualifier N
As6	If association parameters are necessary for association, describe the correct values	Transport Selector * Session selector * Presentation selector * *=As specified in ICD file
As7	What is the maximum and minimum MMS PDU size?	Max MMS PDU size 32717 Min MMS PDU size 400
As8	What is the maximum start up time after a power supply interrupt?	45 seconds

3.3: PIXIT for Server Model

ID	Description	Value / Clarification
Sr1	Which analog value (MX) quality bits are supported (can be set by server)?	Validity: Y Good Y Invalid N Reserved N Questionable N Overflow N OutofRange N BadReference N Oscillatory N Failure N OldData N Inconsistent N Inaccurate Source: Y Process N Substituted N Test N OperatorBlocked
Sr2	Which status value (ST) quality bits are supported (can be set by server)?	Validity: Y Good Y Invalid N Reserved N Questionable N BadReference N Oscillatory N Failure N OldData N Inconsistent N Inaccurate Source: Y Process N Substituted N Test N OperatorBlocked
Sr3	What is the maximum number of data values in one GetDataValues request?	Limited only by PDU size
Sr4	What is the maximum number of data values in one SetDataValues request?	SetDataValues not supported
Sr5	Which Mode / Behavior values are supported?	Y On N Blocked N Test N Test/Blocked N Off

Note: MX measurements and ST values have differentiated update rates based upon their data type:

- Energy counters - updated at least every second.
- External digital input from external boards - updated at least every 10 msec.
- Alarms updated at least every 200 msec.
- Internal digital input - updated at least every 4.1 msec.
- "ls" in front of LN name stands for "low speed" - updated at least every 3 seconds.
- "ns" in front of LN name stands for "normal speed" - updated at least every second.
- "hs" in front of LN name stands for "high speed" - updated at least every 200 msec.

3.4: PIXIT for Data Set Model

ID	Description	Value / Clarification
Ds1	What is the maximum number of data elements in one data set (compare ICD setting)?	256
Ds2	How many persistent data sets can be created by one or more clients?	32
Ds3	How many non-persistent data sets can be created by one or more clients?	0

3.5: PIXIT for Reporting Model

ID	Description	Value / Clarification
Rp1	The supported trigger conditions are (compare PICS)	Y integrity Y data change Y quality change N data update Y general interrogation
Rp2	The supported optional fields are	Y sequence-number Y report-time-stamp Y reason-for-inclusion Y data-set-name Y data-reference Y buffer-overflow Y entryID Y conf-rev Y segmentation
Rp3	Can the server send segmented reports?	Y
Rp4	Mechanism on second internal data change notification of the same analogue data value within buffer period (Compare IEC 61850-7-2 $14.2.2.9)	Send report immediately
Rp5	Multi client URCB approach (compare IEC 61850-7-2 $14.2.1)	Each URCB is visible to all clients
Rp6	What is the format of EntryID?	X000YYYY for octets 1..8 YYYY values increment by random amount, X increments when YYYY rolls to its maximum value
Rp7	What is the buffer size for each BRCB or how many reports can be buffered?	20000 octets
Rp8	Pre-configured RCB attributes that cannot be changed online when RptEna = FALSE (see also the ICD report settings)	cbName (*)datSet (*)(*) - can be changed only by loading a new .cid file.
Rp9	May the reported data set contain: - structured data objects? - data attributes?	 Y Y
Rp10	What is the scan cycle for binary events? Is this fixed, configurable?	10 mseconds Fixed
Rp11	Does the device support pre-assigning an RCB to a specific client in the SCL?	N

3.6: PIXIT for Generic Substation Events Model

ID	Description	Value / Clarification
Go1	What elements of a subscribed GOOSE header are checked to decide the message is valid and the allData values are accepted? If yes, describe the conditions. Note: the VLAN tag may be removed by a ethernet switch and should not be checked	Y source MAC address N destination MAC address Y Ethertype = 0x88B8 N APPID Y gocbRef N timeAllowedtoLive N datSet Y goID N t N stNum N sqNum N test N confRev Y ndsCom N numDatSetEntries
Go2	Can the test flag in the published GOOSE be turned on / off	N
Go3	Does the DUT accept a configuration with a GOOSE control block with empty data set or too large data set?	Yes, but the GoEna cannot be set.
Go3	What is the behavior when the GOOSE publish configuration is incorrect?	DUT keeps GoEna=F
Go4	When is a subscribed GOOSE marked as lost?	message does not arrive prior to TAL (TAL = time allowed to live value from the last received GOOSE message).
Go5	What is the behavior when one or more subscribed GOOSE messages isn't received or syntactically incorrect (missing GOOSE)	Data is marked invalid.
Go6	What is the behavior when a subscribed GOOSE message is out-of-order	No special action is taken.
Go7	What is the behavior when a subscribed GOOSE message is duplicated	No special action is taken.
Go8	Does the device subscribe to GOOSE messages with/without the VLAN tag?	Y, with the VLAN tag. Y, without the VLAN tag.
Go9	May the GOOSE data set contain: - structured data objects (FCD)? - time stamp data attributes? NOTE: Data Attributes (FCDA) is mandatory.	Subscribed Published Y Y N Y

ID	Description	Value / Clarification
Go10	Published FCD supported common data classes / data types are:	SPS, SPC, INS, INC, DPL, MV, WYE, DEL, BCR, ASG BOOLEAN, INT8(ENUM), INT64, INT32U, FLOAT32 Time stamp, Quality
GO11	Subscribed FCD supported common data classes / data types are:	SPS BOOLEAN, INT32, FLOAT32
Go12	What is the slow retransmission time? Is it fixed or configurable?	30 seconds Fixed
Go13	What is the minimum supported retrans-mission time? What is the maximum supported retrans-mission time? Is it fixed or configurable?	10 milliseconds 30 seconds Fixed
Go14	Can the GOOSE publish be turned on / off by using SetGoCBValues(GoEna)?	N

3.7: PIXIT for Time and Time Synchronization Model

ID	Description	Value / Clarification
Tm1	What quality bits are supported (may be set by the IED)?	Y LeapSecondsKnown Y ClockFailure Y ClockNotSynchronized
Tm2	Describe the behavior when the time synchronization signal/messages are lost	When any time synch is lost, the IEC61850 timestamp sets "clock not synchronized" to 1 and "Time accuracy" to 7
Tm3	When is the time quality bit "ClockFailure" set?	Set if the meter UTC time is before 1-1-1970, with or without any external time synchronization
Tm4	When is the time quality bit "Clock not synchronized" set?	When the meter does not have either SNTP or IRIG-B external source synchronization the "clock not synchronized" is set
Tm5	Is the timestamp of a binary event adjusted to the configured scan cycle?	Y
Tm6	Does the device support time zone and daylight saving?	Y
Tm7	Which attributes of the SNTP response packet are validated?	N Leap indicator not equal to 3? Y Mode is equal to SERVER N OriginateTimestamp is equal to value sent by the SNTP client as Transmit Timestamp N RX/TX timestamp fields are checked for reasonableness Y SNTP version 3 Y Other (describe) Stratum >0 and Stratum<14

3.8: PIXIT for File Transfer Model

ID	Description	Value / Clarification
Ft1	What is structure of files and directories? Where are the COMTRADE files stored? Are comtrade files zipped and what files are included in each zip file?	Flat file system with pseudo folders No comtrade files available Not zipped
Ft2	Directory names are separated from the file name by	"/" or "\"
Ft3	The maximum file name size including path (recommended 64 chars)	1024 chars
Ft4	Are directory/file name case sensitive?	Case sensitive
Ft5	Maximum file size	No maximum size
Ft6	Is the requested file path included in the MMS fileDirectory respond file name?	Y
Ft7	Is the wild char supported MMS fileDirectory request?	N
Ft8	Is it allowed that 2 clients get a file at the same time?	Y

3.9: PIXIT Models Not Supported

The following models are not supported for the Nexus® 1500+ meter's IEC 61850 interface:

- Substitution model
- Setting group control model
- Logging model
- Control model

4: TISSUES (Technical Issues) Implementation Conformance Statement (TICS)

According to the UCA IUG QAP the TICS is required to perform a conformance test and is referenced on the certificate.

4.1: Mandatory IntOp TISSUES

The Table below shows mandatory IntOp TISSUES that are either implemented or not applicable to the Nexus® 1500+ meter's IEC 61850 Edition 1 server.

Part	TISSUE Number	Description	Implemented Y/NA
8-1	116	GetNameList with empty response?	Y
	165	Improper Error Response for GetDataSetValues	Y
	183	GetNameList error handling	Y
7-4	None		
7-3	28	Definition of APC	NA
	54	Point def xVal, not cVal	NA
	55	Ineut = Ires?	Y
	63	mag in CDC CMV	Y
	65	Deadband calculation of a Vector and trigger option	NA
	219	operTm in ACT	NA
	270	WYE and DEL rms values	Y

Part	TISSUE Number	Description	Implemented Y/NA
7-2	30	control parameter T	Y
	31	Typo	NA
	32	Typo in syntax	NA
	35	Typo Syntax Control time	NA
	36	Syntax parameter DSet-Ref missing	NA
	37	Syntax GOOSE "T" type	Y
	39	Add DstAddr to GoCB	Y
	40	GOOSE Message "AppID" to "GoID"	Y
	41	GsCB "AppID" to "GsID"	NA
	42	SV timestamp: "EntryTime" to "TimeStamp"	NA
	43	Control "T" semantic	NA
	44	AddCause - Object not sel	NA
	45	Missing AddCauses (neg range)	NA
	46	Synchro check cancel	NA
	47	"." in LD Name?	Y
	49	BRCB TimeOfEntry (part of #453)	NA
	50	LNName start with number?	Y
	51	ARRAY [0..num] missing	NA
	52	Ambiguity GOOSE SqNum	Y
	53	Add DstAddr to GsCB, SV	NA
	151	Name constraint for control blocks etc.	Y
	166	DataRef attribute in Log	NA
	185	Logging - Integrity periode	NA
	189	SV Format	NA
	190	BRCB: EntryId and TimeOfEntry (part of #453)	NA
	191	BRCB: Integrity and buffering reports (part of #453)	NA
	234	New type CtxInt (Enums are mapped to 8 bit integer)	Y
	275	Confusing statement on GI usage (part of #453)	NA
	278	EntryId not valid for a server (part of #453)	NA
6	1	Syntax	Y
	5	tExtensionAttributeNameEnum is restricted	Y
	8	SIUnit enumeration for W	NA
	10	Base type for bitstring usage	Y
	17	DAI/SDI elements syntax	Y
	169	Ordering of enum differs from 7-3	NA

4.2: Optional IntOp TISSUES

The Table below shows optional IntOp TISSUES that are either implemented or not applicable to the Nexus® 1500+ meter's IEC 61850 server Edition 1.

Part	TISSUE Number	Description	Implemented Y/NA
8-1	246	Control negative response (SBOns) with LastApplError	NA
8-1	545	Skip file directories with no files	Y
7-2	333	Enabling of an incomplete GoCB	Y
7-2	453	Combination of all reporting and logging tissues	N
6	245	Attribute RptId in SCL	N
6	529	Replace sev - Unknown by unknown	NA

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5: Data Objects List

This chapter provides detailed lists of the data objects for the Nexus® 1500+ meter's IEC 61850 implementation.

5.1: Overview

The Logical Nodes (LN) implemented in the Nexus® 1500+ IEC 61850 server are listed below:

- The node LLN0 keeps common information for the entire logical device. In this node Datasets, Reports and GOOSE control block can be defined, based on the limitations provided in the ICD file (see Section 5.3 for details).
- The node LPHD1 defines physical parameters such as vendor, serial number, device name plate and the software revision number.
- The node nsMMXU1 contains the "normal-speed" basic electrical measurements.
- The node hsMFLK1 is used for short term flicker (per phase) and long term flicker (per phase).
- The node nsMHAI1 groups together the THD per phase measurements taken at normal speed.
- The node lsMSQI1 is used for voltage/current symmetrical components per phase (zero, positive and negative).
- The node eneMMTR1 groups together all measurements related to energy counters, like +/- Watt-hours, +/- VAr-hours and Total VA-hours.
- The node intGGIO1 is used for the built-in high-speed digital inputs.
- The node extGGIO1 is used for the slot 3 option board's digital inputs;
- The node extGGIO2 is used for the slot 4 option board's digital inputs.
- The node vrtGGIO1 is used for internal virtual memory to map data from received GOOSE messages.
- The node alarmGGIO1 is used for limit state.

- The nodes setTCTR1, setTCTR2, setTCTR3 and setTCTR4 contain the ratio of the current used by the measuring device, for phases A,B,C and Neutral, respectively. In this way, the user can take the IEC measurements (primary) and convert them to Secondary using the ratios contained in these nodes.

- The nodes setTVTR1, setTVTR2 and setTVTR3 contain the ratio of the voltage used by the measuring device.

NOTES:

- The normal-speed in the Nexus® 1500+ meter are measurements taken every second.

- The energy counters are updated every second.

- "ls" in front of LN name stands for "low speed" (every 3 sec)

- "ns" in front of LN name stands for "normal speed" (every sec)

- "hs" in front of LN name stands for "high speed" (every 200 msec)

5.2: Detailed Data Objects List

The following tables show the data objects for each logical node.

5.2.1: Logic Node: IEC61850SRVMEAS/LLN0

OBJECT PATH	VALUE	COMMENT
LLN0		
IEC61850SRVMeas/LLN0CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/LLN0DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/LLN0DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/LLN0DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/LLN0DCNamPlt$d	"LOGICAL DEVICE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ LLN0DCNamPlt$configRev	1.0	Modified by client via .cid file
IEC61850SRVMeas/LLN0DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ LLN0DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/LLN0EXNamPlt$ldNs	"IEC61850-7-4:2003"	Read only. Constant
IEC61850SRVMeas/LLN0STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LLN0STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/LLN0STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/LLN0STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LLN0STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LLN0STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

IEC61850SRVMeas/LLN0STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LLN0STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/LLN0STMod$t	Meter timestamp (see note 1,2,3 below)	Update when server is up.

5.2.2: Logic Node: IEC61850SRVMEAS/LPHD1

OBJECT PATH	VALUE	COMMENT
LPHD1		
IEC61850SRVMeas/LPHD1DCPhyNam$model	Meter device model	Populated when server is up.
IEC61850SRVMeas/LPHD1DCPhyNam$serNum	Meter serial number	Populated when server is up.
IEC61850SRVMeas/LPHD1DCPhyNam$swRev	Comm runtime version	Populated when server is up.
IEC61850SRVMeas/LPHD1DCPhyNam$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/LPHD1DCPhyHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/LPHD1DCProxy$d	"TRUE IF THIS LD IS A PROXY FOR AN EXTERNAL DEVICE"	Read only. Constant
IEC61850SRVMeas/LPHD1STPhyHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ LPHD1STPhyHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LPHD1STPhyHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/LPHD1STProxy$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/LPHD1STProxy$stVal	F = "FALSE"	Read only. Constant
IEC61850SRVMeas/LPHD1STProxy$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.3: Logic Node: IEC61850SRVMEAS/MMTR1

OBJECT PATH	VALUE	COMMENT
MMTR1		
IEC61850SRVMeas/ eneMMTR1CFDmdVArh$pulsQty	1	Read only. Constant
IEC61850SRVMeas/ eneMMTR1CFDmdWh$pulsQty	1	Read only. Constant
IEC61850SRVMeas/eneMMTR1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ eneMMTR1CFSupVArh$pulsQty	1	Read only. Constant
IEC61850SRVMeas/ eneMMTR1CFSupWh$pulsQty	1	Read only. Constant
IEC61850SRVMeas/ eneMMTR1CFTotVAH$pulsQty	1	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCDmdVArh$d	"GENERATED VAR-HOURS"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCDmdWh$d	"GENERATED WATT-HOURS"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ eneMMTR1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCSupVArh$d	"COMSUMED VAR-HOURS"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCSupWh$d	"COMSUMED WATT-HOURS"	Read only. Constant
IEC61850SRVMeas/eneMMTR1DCTotVAh$d	"TOTAL VA-HOURS "	Read only. Constant
IEC61850SRVMeas/eneMMTR1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/eneMMTR1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/eneMMTR1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ eneMMTR1STDmdVArh$actVal	Primary positive VARh (Quadrant 1 + 2)	Update when DSP1 updates the energy.

IEC61850SRVMeas/eneMMTR1STDmdVArh$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update when DSP1 runtime health state change
IEC61850SRVMeas/eneMMTR1STDmdVArh$t	Meter timestamp (see note 1 below)	Update when either energy or quality value change
IEC61850SRVMeas/eneMMTR1STDmdWh$actVal	Primary positive watt-hour (Quadrant 1 + 4)	Update when DSP1 updates the energy.
IEC61850SRVMeas/eneMMTR1STDmdWh$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update when DSP1 runtime health state change
IEC61850SRVMeas/eneMMTR1STDmdWh$t	Meter timestamp (see note 1 below)	Update when either energy or quality value change
IEC61850SRVMeas/eneMMTR1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/eneMMTR1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/eneMMTR1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/eneMMTR1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/eneMMTR1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/eneMMTR1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ eneMMTR1STSupVArh$actVal	Primary negative VARh (Quadrant 3 + 4)	Update when DSP1 updates the energy.
IEC61850SRVMeas/eneMMTR1STSupVArh$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update when DSP1 runtime health state change
IEC61850SRVMeas/eneMMTR1STSupVArh$t	Meter timestamp (see note 1 below)	Update when either energy or quality value change
IEC61850SRVMeas/eneMMTR1STSupWh$actVal	Primary negative watt-hour (Quadrant 2 + 3)	Update when DSP1 updates the energy.
IEC61850SRVMeas/eneMMTR1STSupWh$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update when DSP1 runtime health state change
IEC61850SRVMeas/eneMMTR1STSupWh$t	Meter timestamp (see note 1 below)	Update when either energy or quality value change
IEC61850SRVMeas/ eneMMTR1STTotVAh$actVal	Primary Total VAH	Update when DSP1 updates the energy.
IEC61850SRVMeas/eneMMTR1STTotVAh$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update when DSP1 runtime health state change
IEC61850SRVMeas/eneMMTR1STTotVAh$$t	Meter timestamp (see note 1 below)	Update when either energy or quality value change

5.2.4: Logic Node: IEC61850SRVMEAS/GGIO1

OBJECT PATH	VALUE	COMMENT
GGIO1		
IEC61850SRVMeas/ intdiGGIO1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd1$d	"BUILT-IN DIGITAL INPUT: CHANNEL 1"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd2$d	"BUILT-IN DIGITAL INPUT: CHANNEL 2"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd3$d	"BUILT-IN DIGITAL INPUT: CHANNEL 3"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd4$d	"BUILT-IN DIGITAL INPUT: CHANNEL 4"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd5$d	"BUILT-IN DIGITAL INPUT: CHANNEL 5"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd6$d	"BUILT-IN DIGITAL INPUT: CHANNEL 6"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd7$d	"BUILT-IN DIGITAL INPUT: CHANNEL 7"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCInd8$d	"BUILT-IN DIGITAL INPUT: CHANNEL 8"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STInd1$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STInd1$stVal	High speed digital input, channel 1	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd1$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd2$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd2$stVal	High speed digital input, channel 2	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd2$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd3$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd3$stVal	High speed digital input, channel 3	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd3$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd4$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up

IEC61850SRVMeas/ intdiGGIO1STInd4$stVal	High speed digital input, channel 4	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd4$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd5$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd5$stVal	High speed digital input, channel 5	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd5$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd6$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd6$stVal	High speed digital input, channel 6	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd6$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd76$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd7$stVal	High speed digital input, channel 7	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd7$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STInd86$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ intdiGGIO1STInd8$stVal	High speed digital input, channel 8	Update at least once every 10 msec
IEC61850SRVMeas/ intdiGGIO1STInd8$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ intdiGGIO1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ intdiGGIO1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ intdiGGIO1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.5: Logic Node: IEC61850SRVMEAS/GGIO1

OBJECT PATH	VALUE	COMMENT
GGIO1		
IEC61850SRVMeas/ extdiGGIO1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/extdiGGIO1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd1$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 1"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd2$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 2"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd3$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 3"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd4$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 4"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd5$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 5"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd6$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 6"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd7$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 7"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd8$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 8"	Read only. Constant

IEC61850SRVMeas/ extdiGGIO1DCInd9$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 9"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd10$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 10"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd11$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 11"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd12$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 12"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd13$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 13"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd14$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 14"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd15$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 15"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCInd16$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 16"	Read only. Constant
IEC61850SRVMeas/extdiGGIO1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ extdiGGIO1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/extdiGGIO1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/extdiGGIO1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STInd1$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd1$stVal	High speed digital input, channel 1	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd1$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd2$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd2$stVal	High speed digital input, channel 2	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd2$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd3$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd3$stVal	High speed digital input, channel 3	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd3$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd4$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd4$stVal	High speed digital input, channel 4	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd4$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd5$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd5$stVal	High speed digital input, channel 5	Update at least once every 10 msec

IEC61850SRVMeas/ extdiGGIO1STInd5$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd6$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd6$stVal	High speed digital input, channel 6	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd6$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd7$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd7$stVal	High speed digital input, channel 7	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd7$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd8$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd8$stVal	High speed digital input, channel 8	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd8$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd9$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd9$stVal	High speed digital input, channel 9	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd9$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd10$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd10$stVal	High speed digital input, channel 10	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd10$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd11$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd11$stVal	High speed digital input, channel 11	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd11$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd12$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd12$stVal	High speed digital input, channel 12	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd12$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd13$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd13$stVal	High speed digital input, channel 13	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd13$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd14$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd14$stVal	High speed digital input, channel 14	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd14$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd15$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd15$stVal	High speed digital input, channel 15	Update at least once every 10 msec

IEC61850SRVMeas/ extdiGGIO1STInd15$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO1STInd16$q	0x00 (DI board present on slot 3); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO1STInd16$stVal	High speed digital input, channel 16	Update at least once every 10 msec
IEC61850SRVMeas/ extdiGGIO1STInd16$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/extdiGGIO1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.6 Logic Node: IEC61850SRVMEAS/GGIO2

OBJECT PATH	VALUE	COMMENT
GGIO2		
IEC61850SRVMeas/ extdiGGIO2CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd1$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 1"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd2$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 2"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd3$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 3"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd4$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 4"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd5$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 5"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd6$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 6"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd7$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 7"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd8$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 8"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCInd9$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 9"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd10$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 10"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd11$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 11"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd12$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 12"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd13$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 13"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd14$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 14"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd15$d	"OPTION BOARD (SLOT 3) DIGITAL INPUT: CHANNEL 15"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCInd16$d	"OPTION BOARD (SLOT 4) DIGITAL INPUT: CHANNEL 16"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ extdiGGIO2DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant

IEC61850SRVMeas/extdiGGIO2STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO2STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO2STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO2STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO2STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/extdiGGIO2STInd1$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd1$stVal	High speed digital input, channel 1	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd1$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd2$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd2$stVal	High speed digital input, channel 2	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd2$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd3$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd3$stVal	High speed digital input, channel 3	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd3$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd4$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd4$stVal	High speed digital input, channel 4	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd4$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd5$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd5$stVal	High speed digital input, channel 5	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd5$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd6$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd6$stVal	High speed digital input, channel 6	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd6$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd7$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd7$stVal	High speed digital input, channel 7	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd7$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd8$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd8$stVal	High speed digital input, channel 8	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd8$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STInd9$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd9$stVal	High speed digital input, channel 9	Update at least every 10msec
IEC61850SRVMeas/extdiGGIO2STInd9$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd10$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd10$stVal	High speed digital input, channel 10	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd10$t	Meter timestamp (see note 1 below)	Update when DI state changed

IEC61850SRVMeas/ extdiGGIO2STInd11$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd11$stVal	High speed digital input, channel 11	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd11$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd12$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd12$stVal	High speed digital input, channel 12	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd12$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd13$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd13$stVal	High speed digital input, channel 13	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd13$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd14$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd14$stVal	High speed digital input, channel 14	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd14$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd15$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd15$stVal	High speed digital input, channel 15	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd15$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/ extdiGGIO2STInd16$q	0x00 (DI board present on slot 4); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/ extdiGGIO2STInd16$stVal	High speed digital input, channel 16	Update at least every 10msec
IEC61850SRVMeas/ extdiGGIO2STInd16$t	Meter timestamp (see note 1 below)	Update when DI state changed
IEC61850SRVMeas/extdiGGIO2STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/ extdiGGIO2STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/extdiGGIO2STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.7: Logic Node: IEC61850SRVMEAS/GGIO1

OBJECT PATH	VALUE	COMMENT
IEC61850SRVMeas/vrtinG-GIO1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd1$d	"VIRTUAL INPUT: BOOLEAN #01"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd2$d	"VIRTUAL INPUT: BOOLEAN #02"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd3$d	"VIRTUAL INPUT: BOOLEAN #03"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd4$d	"VIRTUAL INPUT: BOOLEAN #04"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd5$d	"VIRTUAL INPUT: BOOLEAN #05"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd6$d	"VIRTUAL INPUT: BOOLEAN #06"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd7$d	"VIRTUAL INPUT: BOOLEAN #07"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd8$d	"VIRTUAL INPUT: BOOLEAN #08"	Read only. Constant

IEC61850SRVMeas/vrtinG-GIO1DCInd9$d	"VIRTUAL INPUT: BOOLEAN #09"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd10$d	"VIRTUAL INPUT: BOOLEAN #10	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd11$d	"VIRTUAL INPUT: BOOLEAN #11"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd12$d	"VIRTUAL INPUT: BOOLEAN #12"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd13$d	"VIRTUAL INPUT: BOOLEAN #13"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd14$d	"VIRTUAL INPUT: BOOLEAN #14"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd15$d	"VIRTUAL INPUT: BOOLEAN #15"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd16$d	"VIRTUAL INPUT: BOOLEAN #16"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd17$d	"VIRTUAL INPUT: SPS #01"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd18$d	"VIRTUAL INPUT: SPS #02"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd19$d	"VIRTUAL INPUT: SPS #03"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd20$d	"VIRTUAL INPUT: SPS #04"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd21$d	"VIRTUAL INPUT: SPS #05"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd22$d	"VIRTUAL INPUT: SPS #06"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd23$d	"VIRTUAL INPUT: SPS #07"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd24$d	"VIRTUAL INPUT: SPS #08"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd25$d	"VIRTUAL INPUT: SPS #09"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd26$d	"VIRTUAL INPUT: SPS #10"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd27$d	"VIRTUAL INPUT: SPS #11"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd28$d	"VIRTUAL INPUT: SPS #12"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd29$d	"VIRTUAL INPUT: SPS #13"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd30$d	"VIRTUAL INPUT: SPS #14"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd31$d	"VIRTUAL INPUT: SPS #15"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCInd32$d	"VIRTUAL INPUT: SPS #16"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn1$d	"VIRTUAL INPUT: INTEGER #01"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn2$d	"VIRTUAL INPUT: INTEGER #02"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn3$d	"VIRTUAL INPUT: INTEGER #03"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn4$d	"VIRTUAL INPUT: INTEGER #04"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn5$d	"VIRTUAL INPUT: INTEGER #05"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn6$d	"VIRTUAL INPUT: INTEGER #06"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn7$d	"VIRTUAL INPUT: INTEGER #07"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn8$d	"VIRTUAL INPUT: INTEGER #08"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn9$d	"VIRTUAL INPUT: INTEGER #09"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn10$d	"VIRTUAL INPUT: INTEGER #10"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn11$d	"VIRTUAL INPUT: INTEGER #11"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn12$d	"VIRTUAL INPUT: INTEGER #12"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn13$d	"VIRTUAL INPUT: INTEGER #13"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn14$d	"VIRTUAL INPUT: INTEGER #14"	Read only. Constant

IEC61850SRVMeas/vrtinG-GIO1DCAnIn15$d	"VIRTUAL INPUT: INTEGER #15"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn16$d	"VIRTUAL INPUT: INTEGER #16"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn17$d	"VIRTUAL INPUT: FLOAT #01"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn18$d	"VIRTUAL INPUT: FLOAT #02"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn19$d	"VIRTUAL INPUT: FLOAT #03"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn20$d	"VIRTUAL INPUT: FLOAT #04"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn21$d	"VIRTUAL INPUT: FLOAT #05"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn22$d	"VIRTUAL INPUT: FLOAT #06"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn23$d	"VIRTUAL INPUT: FLOAT #07"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn24$d	"VIRTUAL INPUT: FLOAT #08"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn25$d	"VIRTUAL INPUT: FLOAT #09"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn26$d	"VIRTUAL INPUT: FLOAT #10"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn27$d	"VIRTUAL INPUT: FLOAT #11"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn28$d	"VIRTUAL INPUT: FLOAT #12"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn29$d	"VIRTUAL INPUT: FLOAT #13"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn30$d	"VIRTUAL INPUT: FLOAT #14"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn31$d	"VIRTUAL INPUT: FLOAT #15"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCAnIn32$d	"VIRTUAL INPUT: FLOAT #16"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1DCNamPlt$swRev	Comm runtime version	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1MXAnIn1$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn1$stVal	Virtual Input: INTEGER data type #01	Update when receive GOOSE message: INTEGER #01 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn1$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #01 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn2$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn2$stVal	Virtual Input: INTEGER data type #02	Update when receive GOOSE message: INTEGER #02 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn2$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #02 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn3$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn3$stVal	Virtual Input: INTEGER data type #03	Update when receive GOOSE message: INTEGER #03 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn3$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #03 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn4$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn4$stVal	Virtual Input: INTEGER data type #04	Update when receive GOOSE message: INTEGER #04 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn4$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #04 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn5$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn5$stVal	Virtual Input: INTEGER data type #05	Update when receive GOOSE message: INTEGER #05 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn5$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #05 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn6$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up

IEC61850SRVMeas/vrtinG-GIO1MXAnIn6$stVal	Virtual Input: INTEGER data type #06	Update when receive GOOSE message: INTEGER #06 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn6$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #06 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn7$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn7$stVal	Virtual Input: INTEGER data type #07	Update when receive GOOSE message: INTEGER #07 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn7$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #07 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn8$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn8$stVal	Virtual Input: INTEGER data type #08	Update when receive GOOSE message: INTEGER #08 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn8$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #08 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn9$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn9$stVal	Virtual Input: INTEGER data type #09	Update when receive GOOSE message: INTEGER #09 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn9$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #09 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn10$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn10$stVal	Virtual Input: INTEGER data type #10	Update when receive GOOSE message: INTEGER #10 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn10$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #10 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn11$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn11$stVal	Virtual Input: INTEGER data type #11	Update when receive GOOSE message: INTEGER #11 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn11$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #11 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn12$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn12$stVal	Virtual Input: INTEGER data type #12	Update when receive GOOSE message: INTEGER #12 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn12$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #12 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn13$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn13$stVal	Virtual Input: INTEGER data type #13	Update when receive GOOSE message: INTEGER #13 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn13$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #13 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn14$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn14$stVal	Virtual Input: INTEGER data type #14	Update when receive GOOSE message: INTEGER #14 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn14$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #14 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn15$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn15$stVal	Virtual Input: INTEGER data type #15	Update when receive GOOSE message: INTEGER #15 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn15$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #15 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn16$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn16$stVal	Virtual Input: INTEGER data type #16	Update when receive GOOSE message: INTEGER #16 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn16$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: INTEGER #16 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn17$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn17$stVal	Virtual Input: FLOAT data type #01	Update when receive GOOSE message: FLOAT #01 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn17$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #01 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn18$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn18$stVal	Virtual Input: FLOAT data type #02	Update when receive GOOSE message: FLOAT #02 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn18$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #02 data type

IEC61850SRVMeas/vrtinG-GIO1MXAnIn19$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn19$stVal	Virtual Input: FLOAT data type #03	Update when receive GOOSE message: FLOAT #03 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn19$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #03 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn20$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn20$stVal	Virtual Input: FLOAT data type #04	Update when receive GOOSE message: FLOAT #04 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn20$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #04 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn21$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn21$stVal	Virtual Input: FLOAT data type #05	Update when receive GOOSE message: FLOAT #05 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn21$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #05 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn22$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn22$stVal	Virtual Input: FLOAT data type #06	Update when receive GOOSE message: FLOAT #06 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn22$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #06 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn23$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn23$stVal	Virtual Input: FLOAT data type #07	Update when receive GOOSE message: FLOAT #07 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn23$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #07 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn24$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn24$stVal	Virtual Input: FLOAT data type #08	Update when receive GOOSE message: FLOAT #08 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn24$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #08 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn25$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn25$stVal	Virtual Input: FLOAT data type #09	Update when receive GOOSE message: FLOAT #09 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn25$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #09 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn26$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn26$stVal	Virtual Input: FLOAT data type #10	Update when receive GOOSE message: FLOAT #10 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn26$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #10 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn27$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn27$stVal	Virtual Input: FLOAT data type #11	Update when receive GOOSE message: FLOAT #11 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn27$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #11 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn28$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn28$stVal	Virtual Input: FLOAT data type #12	Update when receive GOOSE message: FLOAT #12 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn28$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #12 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn29$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn29$stVal	Virtual Input: FLOAT data type #13	Update when receive GOOSE message: FLOAT #13 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn29$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #13 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn30$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn30$stVal	Virtual Input: FLOAT data type #14	Update when receive GOOSE message: FLOAT #14 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn30$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #14 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn31$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn31$stVal	Virtual Input: FLOAT data type #15	Update when receive GOOSE message: FLOAT #15 data type

IEC61850SRVMeas/vrtinG-GIO1MXAnIn31$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #15 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn32$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1MXAnIn32$stVal	Virtual Input: FLOAT data type #16	Update when receive GOOSE message: FLOAT #16 data type
IEC61850SRVMeas/vrtinG-GIO1MXAnIn32$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: FLOAT #16 data type
IEC61850SRVMeas/vrtinG-GIO1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STInd1$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd1$stVal	Virtual Input: BOOLEAN data type #01	Update when receive GOOSE message: BOOLEAN #01 data type
IEC61850SRVMeas/vrtinG-GIO1STInd1$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #01 data type
IEC61850SRVMeas/vrtinG-GIO1STInd2$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd2$stVal	Virtual Input: BOOLEAN data type #02	Update when receive GOOSE message: BOOLEAN #02 data type
IEC61850SRVMeas/vrtinG-GIO1STInd2$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #02 data type
IEC61850SRVMeas/vrtinG-GIO1STInd3$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd3$stVal	Virtual Input: BOOLEAN data type #03	Update when receive GOOSE message: BOOLEAN #03 data type
IEC61850SRVMeas/vrtinG-GIO1STInd3$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #03 data type
IEC61850SRVMeas/vrtinG-GIO1STInd4$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd4$stVal	Virtual Input: BOOLEAN data type #04	Update when receive GOOSE message: BOOLEAN #04 data type
IEC61850SRVMeas/vrtinG-GIO1STInd4$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #04 data type
IEC61850SRVMeas/vrtinG-GIO1STInd5$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd5$stVal	Virtual Input: BOOLEAN data type #05	Update when receive GOOSE message: BOOLEAN #05 data type
IEC61850SRVMeas/vrtinG-GIO1STInd5$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #05 data type
IEC61850SRVMeas/vrtinG-GIO1STInd6$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd6$stVal	Virtual Input: BOOLEAN data type #06	Update when receive GOOSE message: BOOLEAN #06 data type
IEC61850SRVMeas/vrtinG-GIO1STInd6$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #06 data type
IEC61850SRVMeas/vrtinG-GIO1STInd7$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd7$stVal	Virtual Input: BOOLEAN data type #07	Update when receive GOOSE message: BOOLEAN #07 data type
IEC61850SRVMeas/vrtinG-GIO1STInd7$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #07 data type
IEC61850SRVMeas/vrtinG-GIO1STInd8$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd8$stVal	Virtual Input: BOOLEAN data type #08	Update when receive GOOSE message: BOOLEAN #08 data type
IEC61850SRVMeas/vrtinG-GIO1STInd8$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #08 data type
IEC61850SRVMeas/vrtinG-GIO1STInd9$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd9$stVal	Virtual Input: BOOLEAN data type #09	Update when receive GOOSE message: BOOLEAN #09 data type
IEC61850SRVMeas/vrtinG-GIO1STInd9$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #09 data type
IEC61850SRVMeas/vrtinG-GIO1STInd10$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up

IEC61850SRVMeas/vrtinG-GIO1STInd10$stVal	Virtual Input: BOOLEAN data type #10	Update when receive GOOSE message: BOOLEAN #10 data type
IEC61850SRVMeas/vrtinG-GIO1STInd10$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #10 data type
IEC61850SRVMeas/vrtinG-GIO1STInd11$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd11$stVal	Virtual Input: BOOLEAN data type #11	Update when receive GOOSE message: BOOLEAN #11 data type
IEC61850SRVMeas/vrtinG-GIO1STInd11$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #11 data type
IEC61850SRVMeas/vrtinG-GIO1STInd12$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd12$stVal	Virtual Input: BOOLEAN data type #12	Update when receive GOOSE message: BOOLEAN #12 data type
IEC61850SRVMeas/vrtinG-GIO1STInd12$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #12 data type
IEC61850SRVMeas/vrtinG-GIO1STInd13$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd13$stVal	Virtual Input: BOOLEAN data type #13	Update when receive GOOSE message: BOOLEAN #13 data type
IEC61850SRVMeas/vrtinG-GIO1STInd13$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #13 data type
IEC61850SRVMeas/vrtinG-GIO1STInd14$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd14$stVal	Virtual Input: BOOLEAN data type #14	Update when receive GOOSE message: BOOLEAN #14 data type
IEC61850SRVMeas/vrtinG-GIO1STInd14$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #14 data type
IEC61850SRVMeas/vrtinG-GIO1STInd15$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd15$stVal	Virtual Input: BOOLEAN data type #15	Update when receive GOOSE message: BOOLEAN #15 data type
IEC61850SRVMeas/vrtinG-GIO1STInd15$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #15 data type
IEC61850SRVMeas/vrtinG-GIO1STInd16$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd16$stVal	Virtual Input: BOOLEAN data type #16	Update when receive GOOSE message: BOOLEAN #16 data type
IEC61850SRVMeas/vrtinG-GIO1STInd16$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #16 data type
IEC61850SRVMeas/vrtinG-GIO1STInd17$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd17$stVal	Virtual Input: SPS data type #01	Update when receive GOOSE message: SPS #01 data type
IEC61850SRVMeas/vrtinG-GIO1STInd17$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #01 data type
IEC61850SRVMeas/vrtinG-GIO1STInd18$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd18$stVal	Virtual Input: SPS data type #02	Update when receive GOOSE message: SPS #02 data type
IEC61850SRVMeas/vrtinG-GIO1STInd18$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #02 data type
IEC61850SRVMeas/vrtinG-GIO1STInd19$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd19$stVal	Virtual Input: SPS data type #03	Update when receive GOOSE message: SPS #03 data type
IEC61850SRVMeas/vrtinG-GIO1STInd19$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #03 data type
IEC61850SRVMeas/vrtinG-GIO1STInd20$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd20$stVal	Virtual Input: SPS data type #04	Update when receive GOOSE message: SPS #04 data type
IEC61850SRVMeas/vrtinG-GIO1STInd20$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #04 data type
IEC61850SRVMeas/vrtinG-GIO1STInd21$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd21$stVal	Virtual Input: SPS data type #05	Update when receive GOOSE message: SPS #05 data type
IEC61850SRVMeas/vrtinG-GIO1STInd21$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #05 data type
IEC61850SRVMeas/vrtinG-GIO1STInd22$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd22$stVal	Virtual Input: SPS data type #06	Update when receive GOOSE message: SPS #06 data type
IEC61850SRVMeas/vrtinG-GIO1STInd22$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #06 data type

IEC61850SRVMeas/vrtinG-GIO1STInd23$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd23$stVal	Virtual Input: SPS data type #07	Update when receive GOOSE message: SPS #07 data type
IEC61850SRVMeas/vrtinG-GIO1STInd23$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #07 data type
IEC61850SRVMeas/vrtinG-GIO1STInd24$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd24$stVal	Virtual Input: SPS data type #08	Update when receive GOOSE message: SPS #08 data type
IEC61850SRVMeas/vrtinG-GIO1STInd24$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #08 data type
IEC61850SRVMeas/vrtinG-GIO1STInd25$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd25$stVal	Virtual Input: SPS data type #09	Update when receive GOOSE message: SPS #09 data type
IEC61850SRVMeas/vrtinG-GIO1STInd25$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #09 data type
IEC61850SRVMeas/vrtinG-GIO1STInd26$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd26$stVal	Virtual Input: SPS data type #10	Update when receive GOOSE message: SPS #10 data type
IEC61850SRVMeas/vrtinG-GIO1STInd26$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #10 data type
IEC61850SRVMeas/vrtinG-GIO1STInd27$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd27$stVal	Virtual Input: SPS data type #11	Update when receive GOOSE message: SPS #11 data type
IEC61850SRVMeas/vrtinG-GIO1STInd27$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #11 data type
IEC61850SRVMeas/vrtinG-GIO1STInd28$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd28$stVal	Virtual Input: SPS data type #12	Update when receive GOOSE message: SPS #12 data type
IEC61850SRVMeas/vrtinG-GIO1STInd28$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #12 data type
IEC61850SRVMeas/vrtinG-GIO1STInd29$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd29$stVal	Virtual Input: SPS data type #13	Update when receive GOOSE message: SPS #13 data type
IEC61850SRVMeas/vrtinG-GIO1STInd29$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #13 data type
IEC61850SRVMeas/vrtinG-GIO1STInd30$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd30$stVal	Virtual Input: SPS data type #14	Update when receive GOOSE message: SPS #14 data type
IEC61850SRVMeas/vrtinG-GIO1STInd30$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #14 data type
IEC61850SRVMeas/vrtinG-GIO1STInd31$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd31$stVal	Virtual Input: SPS data type #15	Update when receive GOOSE message: SPS #15 data type
IEC61850SRVMeas/vrtinG-GIO1STInd31$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #15 data type
IEC61850SRVMeas/vrtinG-GIO1STInd32$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STInd32$stVal	Virtual Input: SPS data type #16	Update when receive GOOSE message: SPS #16 data type
IEC61850SRVMeas/vrtinG-GIO1STInd32$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #16 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn01$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn01$stVal	Virtual Input: BOOLEAN data type #01	Update when receive GOOSE message: BOOLEAN #01 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn01$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #01 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn02$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn02$stVal	Virtual Input: BOOLEAN data type #02	Update when receive GOOSE message: BOOLEAN #02 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn02$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #02 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn03$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn03$stVal	Virtual Input: BOOLEAN data type #03	Update when receive GOOSE message: BOOLEAN #03 data type

IEC61850SRVMeas/vrtinG-GIO1STAnIn03$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #03 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn04$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn04$stVal	Virtual Input: BOOLEAN data type #04	Update when receive GOOSE message: BOOLEAN #04 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn04$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #04 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn05$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn05$stVal	Virtual Input: BOOLEAN data type #05	Update when receive GOOSE message: BOOLEAN #05 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn05$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #05 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn06$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn06$stVal	Virtual Input: BOOLEAN data type #06	Update when receive GOOSE message: BOOLEAN #06 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn06$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #06 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn07$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn07$stVal	Virtual Input: BOOLEAN data type #07	Update when receive GOOSE message: BOOLEAN #07 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn07$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #07 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn08$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn08$stVal	Virtual Input: BOOLEAN data type #08	Update when receive GOOSE message: BOOLEAN #08 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn08$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #08 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn09$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn09$stVal	Virtual Input: BOOLEAN data type #09	Update when receive GOOSE message: BOOLEAN #09 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn09$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #09 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn10$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn10$stVal	Virtual Input: BOOLEAN data type #10	Update when receive GOOSE message: BOOLEAN #10 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn10$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #10 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn11$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn11$stVal	Virtual Input: BOOLEAN data type #11	Update when receive GOOSE message: BOOLEAN #11 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn11$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #11 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn12$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn12$stVal	Virtual Input: BOOLEAN data type #12	Update when receive GOOSE message: BOOLEAN #12 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn12$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #12 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn13$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn13$stVal	Virtual Input: BOOLEAN data type #13	Update when receive GOOSE message: BOOLEAN #13 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn13$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #13 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn14$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn14$stVal	Virtual Input: BOOLEAN data type #14	Update when receive GOOSE message: BOOLEAN #14 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn14$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #14 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn15$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn15$stVal	Virtual Input: BOOLEAN data type #15	Update when receive GOOSE message: BOOLEAN #15 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn15$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #15 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn16$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up

IEC61850SRVMeas/vrtinG-GIO1STAnIn16$stVal	Virtual Input: BOOLEAN data type #16	Update when receive GOOSE message: BOOLEAN #16 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn16$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: BOOLEAN #16 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn17$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn17$stVal	Virtual Input: SPS data type #01	Update when receive GOOSE message: SPS #01 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn17$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #01 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn18$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn18$stVal	Virtual Input: SPS data type #02	Update when receive GOOSE message: SPS #02 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn18$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #02 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn19$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn19$stVal	Virtual Input: SPS data type #03	Update when receive GOOSE message: SPS #03 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn19$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #03 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn20$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn20$stVal	Virtual Input: SPS data type #04	Update when receive GOOSE message: SPS #04 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn20$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #04 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn21$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn21$stVal	Virtual Input: SPS data type #05	Update when receive GOOSE message: SPS #05 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn21$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #05 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn22$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn22$stVal	Virtual Input: SPS data type #06	Update when receive GOOSE message: SPS #06 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn22$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #06 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn23$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn23$stVal	Virtual Input: SPS data type #07	Update when receive GOOSE message: SPS #07 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn23$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #07 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn24$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn24$stVal	Virtual Input: SPS data type #08	Update when receive GOOSE message: SPS #08 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn24$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #08 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn25$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn25$stVal	Virtual Input: SPS data type #09	Update when receive GOOSE message: SPS #09 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn25$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #09 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn26$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn26$stVal	Virtual Input: SPS data type #10	Update when receive GOOSE message: SPS #10 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn26$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #10 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn27$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn27$stVal	Virtual Input: SPS data type #11	Update when receive GOOSE message: SPS #11 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn27$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #11 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn28$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn28$stVal	Virtual Input: SPS data type #12	Update when receive GOOSE message: SPS #12 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn28$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #12 data type

IEC61850SRVMeas/vrtinG-GIO1STAnIn29$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn29$stVal	Virtual Input: SPS data type #13	Update when receive GOOSE message: SPS #13 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn20$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #13 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn30$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn30$stVal	Virtual Input: SPS data type #14	Update when receive GOOSE message: SPS #14 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn30$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #14 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn31$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn31$stVal	Virtual Input: SPS data type #15	Update when receive GOOSE message: SPS #15 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn31$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #15 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn32$q	0x00 (received at least once); 0x40 (otherwise)	Populated when server is up
IEC61850SRVMeas/vrtinG-GIO1STAnIn32$stVal	Virtual Input: SPS data type #16	Update when receive GOOSE message: SPS #16 data type
IEC61850SRVMeas/vrtinG-GIO1STAnIn32$t	Meter timestamp (see note 1 below)	Update when receive GOOSE message: SPS #16 data type
IEC61850SRVMeas/vrtinG-GIO1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/vrtinG-GIO1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/vrtinG-GIO1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.8: Logic Node: IEC61850SRVMEAS/GGIO1

OBJECT PATH	VALUE	COMMENT
GGIO1		
IEC61850SRVMeas/alarmG-GIO1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm1$d	"LIMIT STATE: CHANNEL 1"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm2$d	"LIMIT STATE: CHANNEL 2"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm3$d	"LIMIT STATE: CHANNEL 3"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm4$d	"LIMIT STATE: CHANNEL 4"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm5$d	"LIMIT STATE: CHANNEL 5"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm6$d	"LIMIT STATE: CHANNEL 6"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm7$d	"LIMIT STATE: CHANNEL 7"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm8$d	"LIMIT STATE: CHANNEL 8"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm9$d	"LIMIT STATE: CHANNEL 9"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm10$d	"LIMIT STATE: CHANNEL 10"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm11$d	"LIMIT STATE: CHANNEL 11"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm12$d	"LIMIT STATE: CHANNEL 12"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm13$d	"LIMIT STATE: CHANNEL 13"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm14$d	"LIMIT STATE: CHANNEL 14"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm15$d	"LIMIT STATE: CHANNEL 15"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm16$d	"LIMIT STATE: CHANNEL 16"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm17$d	"LIMIT STATE: CHANNEL 17"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm18$d	"LIMIT STATE: CHANNEL 18"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm19$d	"LIMIT STATE: CHANNEL 19"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm20$d	"LIMIT STATE: CHANNEL 20"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm21$d	"LIMIT STATE: CHANNEL 21"	Read only. Constant
IEC61850SRVMeas/alarmG-GIO1DCAlm22$d	"LIMIT STATE: CHANNEL 22"	Read only. Constant

IEC61850SRVMeas/alarmGGIO1DCAlm23$d	"LIMIT STATE: CHANNEL 23	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm24$d	"LIMIT STATE: CHANNEL 24"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm25$d	"LIMIT STATE: CHANNEL 25"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm26$d	"LIMIT STATE: CHANNEL 26"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm27$d	"LIMIT STATE: CHANNEL 27"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm28$d	"LIMIT STATE: CHANNEL 28"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm29$d	"LIMIT STATE: CHANNEL 29"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm30$d	"LIMIT STATE: CHANNEL 30"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm31$d	"LIMIT STATE: CHANNEL 21"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCAlm32$d	"LIMIT STATE: CHANNEL 32"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1DCNamPlt$swRev	Comm runtime version	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.
IEC61850SRVMeas/alarmGGIO1STAlm1$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm1$stVal	Limit State, channel 1	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm1$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm2$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm2$stVal	Limit State, channel 2	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm2$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm3$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm3$stVal	Limit State, channel 3	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm3$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm4$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm4$stVal	Limit State, channel 4	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm4$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm5$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm5$stVal	Limit State, channel 5	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm5$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm6$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm6$stVal	Limit State, channel 6	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm6$t	Meter timestamp (see note 1 below)	Update when Limit state changed

IEC61850SRVMeas/alarmGGIO1STAlm7$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm7$stVal	Limit State, channel 7	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm7$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm8$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm8$stVal	Limit State, channel 8	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm8$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm9$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm9$stVal	Limit State, channel 9	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm9$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm10$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm10$stVal	Limit State, channel 10	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm10$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm11$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm11$stVal	Limit State, channel 11	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm11$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm12$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm12$stVal	Limit State, channel 12	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm12$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm13$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm13$stVal	Limit State, channel 13	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm13$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm14$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm14$stVal	Limit State, channel 14	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm14$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm15$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm15$stVal	Limit State, channel 15	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm15$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm16$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm16$stVal	Limit State, channel 16	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm16$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm17$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm17$stVal	Limit State, channel 17	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm17$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm18$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm18$stVal	Limit State, channel 18	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm18$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm19$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmG-GIO1STAlm19$stVal	Limit State, channel 19	Update when Limit state changed

IEC61850SRVMeas/alarmGGIO1STAlm19$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm20$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm20$stVal	Limit State, channel 20	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm20$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm21$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm21$stVal	Limit State, channel 21	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm21$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm22$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm22$stVal	Limit State, channel 22	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm22$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm23$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm23$stVal	Limit State, channel 23	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm23$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm24$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm24$stVal	Limit State, channel 24	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm24$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm25$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm25$stVal	Limit State, channel 25	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm25$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm26$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm26$stVal	Limit State, channel 26	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm26$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm27$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm27$stVal	Limit State, channel 27	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm27$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm28$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm28$stVal	Limit State, channel 28	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm28$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm29$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm29$stVal	Limit State, channel 29	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm29$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm30$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm30$stVal	Limit State, channel 30	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm30$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm31$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/alarmGGIO1STAlm31$stVal	Limit State, channel 31	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm31$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STAlm32$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up

IEC61850SRVMeas/alarmG-GIO1STAlm32$stVal	Limit State, channel 32	Update when Limit state changed
IEC61850SRVMeas/alarmG-GIO1STAlm32$t	Meter timestamp (see note 1 below)	Update when Limit state changed
IEC61850SRVMeas/alarmGGIO1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up.
IEC61850SRVMeas/alarmG-GIO1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/alarmGGIO1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up.

5.2.9: Logic Node: IEC61850SRVMEAS/MMXU1

OBJECT PATH	VALUE	COMMENT
MMXU1		
IEC61850SRVMeas/ nsMMXU1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/nsMMXU1CFA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFA$phsA$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFA$phsB$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFA$phsC$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFA$neut$db	Deadband = 100000 = 100%	Modified by client via .cid file

IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFA$neut$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFAresdb	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFAresrangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFAresrangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFAresrangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFAresrangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFAresrangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFAresrangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFHz$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$min$f	45	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFHz$rangeC$max$f	69	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPhV$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPhV$phsA$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPhV$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeC$hhLim$f	0	Read only. Constant

IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPhV$phsB$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPhV$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPhV$phsC$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPF$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeCminf	-1	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPF$phsA$rangeCmaxf	1	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPF$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeCminf	-1	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPF$phsB$rangeCmaxf	1	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFPF$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeC$hLim$f	0	Read only. Constant

IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeCminf	-1	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPF$phsC$rangeCmaxf	1	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsAB$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsBC$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFPPV$phsCA$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFTotPF$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$lLim$f	0	Read only. Constant

IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$min$f	-1	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFTotPF$rangeC$max$f	1	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFTotVA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$min$f	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFTotVA$rangeC$max$f	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFTotVAr$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$min$f	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFTotVAr$rangeC$max$f	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFTotW$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$min$f	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFTotW$rangeC$max$f	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeC$llLim$f	0	Read only. Constant

IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFVA$phsA$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFVA$phsB$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFVA$phsC$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVAr$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFVAr$phsA$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVAr$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up

IEC61850SRVMeas/ nsMMXU1CFVAr$phsB$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFVAr$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFVAr$phsC$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFW$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFW$phsA$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFW$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFW$phsB$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/nsMMXU1CFW$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeCminf	-32768*CT_PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/ nsMMXU1CFW$phsC$rangeCmaxf	32768*CT_PT_RATIO	Read only. Populated when server is up

IEC61850SRVMeas/nsMMXU1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ nsMMXU1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ nsMMXU1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPhV$phsA$d	"PHASE A-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPhV$phsB$d	"PHASE B-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPhV$phsC$d	"PHASE C-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCA$phsA$d	"PHASE A CURRENT"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCA$phsB$d	"PHASE B CURRENT"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCA$phsC$d	"PHASE C CURRENT"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCA$neut$d	"MEASURED NEUTRAL CURRENT"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCAresd	"CALCULATED NEUTRAL CURRENT"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPPV$phsAB$d	"PHASE A-B Voltage"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPPV$phsBC$d	"PHASE B-C Voltage"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPPV$phsCA$d	"PHASE C-A Voltage"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVA$phsA$d	"PHASE A ACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVA$phsB$d	"PHASE B ACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVA$phsC$d	"PHASE C ACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCTotVA$d	"PHASE TOTAL ACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVAr$phsA$d	"PHASE A REACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVAr$phsB$d	"PHASE B REACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCVAr$phsC$d	"PHASE C REACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCTotVAr$d	"PHASE TOTAL REACTIVE POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCW$phsA$d	"PHASE A REAL POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCW$phsB$d	"PHASE B REAL POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCW$phsC$d	"PHASE C REAL POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCTotW$d	"PHASE TOTAL REAL POWER"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCHz$d	"FREQUENCY"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPF$phsA$d	"PHASE A POWER FACTOR"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPF$phsB$d	"PHASE B POWER FACTOR"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCPF$phsC$d	"PHASE C POWER FACTOR"	Read only. Constant
IEC61850SRVMeas/nsMMXU1DCTotPF$d	"TOTAL POWER FACTOR"	Read only. Constant

IEC61850SRVMeas/ nsMMXU1MXA$phsA$instCValmagf	One seconds Phase A Current: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXA$phsA$cValmagf	One seconds Phase A Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXA$phsA$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXA$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXA$phsB$instCValmagf	One seconds Phase B Current: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXA$phsB$cValmagf	One seconds Phase B Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXA$phsB$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXA$phsB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXA$phsC$instCValmagf	One seconds Phase C Current: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXA$phsC$cValmagf	One seconds Phase C Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXA$phsC$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXA$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXA$neut$instCValmagf	One seconds Measured Neutral Current: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXA$neut$cValmagf	One seconds Measured Neutral Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXA$neut$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXA$neut$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXAresinstCValmagf	One seconds Calculated Neutral Current: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXArescValmagf	One seconds Calculated Neutral Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXAresq	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXArest	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXHz$instMag$mag$f	One seconds Frequency: InstMag	Update at least every second
IEC61850SRVMeas/nsMMXU1MXHzmaf	One seconds Frequency: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXHz$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change

IEC61850SRVMeas/nsMMXU1MXHz$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" change
IEC61850SRVMeas/ nsMMXU1MXPF$phsA$instCValmagf	One seconds Phase A Power Factor: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPF$phsA$cValmagf	One seconds Phase A Power Factor: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPF$phsA$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPF$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPF$phsB$instCValmagf	One seconds Phase B Power Factor: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPF$phsB$cValmagf	One seconds Phase B Power Factor: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPF$phsB$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPF$phsB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPF$phsC$instCValmagf	One seconds Phase C Power Factor: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPF$phsC$cValmagf	One seconds Phase C Power Factor: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPF$phsC$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPF$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPhV$phsA$instCValmagf	One seconds Phase A-N Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPhV$phsA$cValmagf	One seconds Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPhV$phsA$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPhV$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPhV$phsB$instCValmagf	One seconds Phase B-N Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPhV$phsB$cValmagf	One seconds Phase B-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPhV$phsB$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPhV$phsB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPhV$phsC$instCValmagf	One seconds Phase C-N Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPhV$phsC$cValmagf	One seconds Phase C-N Voltage: Mag	Update when InstMag out of deadband

IEC61850SRVMeas/nsMMXU1MXPhV$phsC$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPhV$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXPPV$phsAB$instCValmagf	One seconds Phase A-B Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPPV$phsAB$cValmagf	One seconds Phase A-B Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPPV$phsAB$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPPV$phsAB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-ph change
IEC61850SRVMeas/ nsMMXU1MXPPV$phsBC$instCValmagf	One seconds Phase B-C Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPPV$phsBC$cValmagf	One seconds Phase B-C Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPPV$phsBC$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPPV$phsBC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-ph change
IEC61850SRVMeas/ nsMMXU1MXPPV$phsCA$instCValmagf	One seconds Phase C-A Voltage: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXPPV$phsCA$cValmagf	One seconds Phase C-A Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXPPV$phsCA$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXPPV$phsCA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-ph change
IEC61850SRVMeas/ nsMMXU1MXTotPF$instMag$mag$f	One seconds Total Power Factor: InstMag	Update at least every second
IEC61850SRVMeas/nsMMXU1MXTotPFmaf	One seconds Total Power Factor: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXTotPF$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXTotPF$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" change
IEC61850SRVMeas/ nsMMXU1MXTotVA$instMag$mag$f	One seconds Total Active Power: InstMag	Update at least every second
IEC61850SRVMeas/nsMMXU1MXTotVAmaf	One seconds Total Active Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXTotVA$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXTotVA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" change
IEC61850SRVMeas/ nsMMXU1MXTotVAr$instMag$mag$f	One seconds Total Reactive Power: InstMag	Update at least every second
IEC61850SRVMeas/nsMMXU1MXTotVArmaf	One seconds Total Active Power: Mag	Update when InstMag out of deadband

IEC61850SRVMeas/nsMMXU1MXTotVAr$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXTotVAr$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" change
IEC61850SRVMeas/ nsMMXU1MXTotW$instMag$mag$f	One seconds Total Real Power: InstMag	Update at least every second
IEC61850SRVMeas/nsMMXU1MXTotWmaf	One seconds Total Real Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXTotW$q	0x00 (DSP1 runtime health); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXTotW$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" change
IEC61850SRVMeas/ nsMMXU1MXVA$phsA$instCValmagf	One seconds Phase A Active Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXVA$phsA$cValmagf	One seconds Phase A Active Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVA$phsA$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXVA$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXVA$phsB$instCValmagf	One seconds Phase B Active Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXVA$phsB$cValmagf	One seconds Phase B Active Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVA$phsB$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update in changes on DSP1 runtime health state
IEC61850SRVMeas/nsMMXU1MXVA$phsB$t	Meter timestamp (see note 1 below)	Update either deadband or quality from whatever phase change
IEC61850SRVMeas/ nsMMXU1MXVA$phsC$instCValmagf	One seconds Phase C Active Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXVA$phsC$cValmagf	One seconds Phase C Active Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVA$phsC$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXVA$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXVAr$phsA$instCValmagf	One seconds Phase A Reactive Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXVAr$phsA$cValmagf	One seconds Phase A Reactive Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVAr$phsA$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXVAr$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXVAr$phsB$instCValmagf	One seconds Phase B Reactive Power: InstMag	Update at least every second

IEC61850SRVMeas/ nsMMXU1MXVAr$phsB$cValmagf	One seconds Phase B Reactive Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVAr$phsB$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXVAr$phsB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXVAr$phsC$instCValmagf	One seconds Phase C Reactive Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXVAr$phsC$cValmagf	One seconds Phase C Reactive Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXVAr$phsC$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXVAr$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXW$phsA$instCValmagf	One seconds Phase A Real Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXW$phsA$cValmagf	One seconds Phase A Real Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXW$phsA$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXW$phsA$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXW$phsB$instCValmagf	One seconds Phase B Real Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXW$phsB$cValmagf	One seconds Phase B Real Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXW$phsB$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXW$phsB$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ nsMMXU1MXW$phsC$instCValmagf	One seconds Phase C Real Power: InstMag	Update at least every second
IEC61850SRVMeas/ nsMMXU1MXW$phsC$cValmagf	One seconds Phase C Real Power: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/nsMMXU1MXW$phsC$q	0x00 (DSP1 runtime health and WYE hookup); 0x40 (otherwise)	Update if DSP1 runtime health state change
IEC61850SRVMeas/nsMMXU1MXW$phsC$t	Meter timestamp (see note 1 below)	Update either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/nsMMXU1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Update when server is up
IEC61850SRVMeas/nsMMXU1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/nsMMXU1STBeh$t	Meter timestamp (see note 1,2,3 below)	Update when server is up.
IEC61850SRVMeas/nsMMXU1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Update when server is up
IEC61850SRVMeas/ nsMMXU1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Update when server is up

IEC61850SRVMeas/nsMMXU1STHealth$t	Meter timestamp (see note 1,2,3 below)	Update when server is up.
IEC61850SRVMeas/nsMMXU1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Update when server is up
IEC61850SRVMeas/nsMMXU1STMod$stVal	1 = "ON"	Read only. Constant
nsMMXU1STMod$t	Meter timestamp (see note 1,2,3 below)	Update when server is up.

5.2.10: Logic Node: IEC61850SRVMEAS/MFLK1

OBJECT PATH	VALUE	COMMENT
MFLK1		
IEC61850SRVMeas/ hsMFLK1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPltsphArangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsA$rangeCmaxf	32767	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPltsphBrangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsB$rangeCmaxf	32767	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPltsphCrangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPlt$phsC$rangeCmaxf	32767	Read only. Populated when server is up

IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsA$rangeCmaxf	32767	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsB$rangeCmaxf	32767	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1CFPhPst$phsC$rangeCmaxf	32767	Read only. Populated when server is up
IEC61850SRVMeas/hsMFLK1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/hsMFLK1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/hsMFLK1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/hsMFLK1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCPhPst$phsA$d	"SHORT TERM FLICKER VAN"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCPhPst$phsB$d	"SHORT TERM FLICKER VBN"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCPhPst$phsC$d	"SHORT TERM FLICKER VCN"	Read only. Constant

IEC61850SRVMeas/ hsMFLK1DCPhPlt$phsA$d	"LONG TERM FLICKER VAN"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCPhPlt$phsB$d	"LONG TERM FLICKER VBN"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1DCPhPlt$phsC$d	"LONG TERM FLICKER VCN"	Read only. Constant
IEC61850SRVMeas/hsMFLK1EXNamPlt$LnNs	"IEC 61850-7-4:2010"	Read only. Constant
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsA$instCValmagf	200 msec Long Term Flicker Phase A-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsA$cValmagf	200 msec Long Term Flicker Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsB$instCValmagf	200 msec Long Term Flicker Phase B-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsB$cValmagf	200 msec Long Term Flicker Phase B-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsC$instCValmagf	200 msec Long Term Flicker Phase C-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsC$cValmagf	200 msec Long Term Flicker Phase C-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPlt$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsA$instCValmagf	200 msec Short Term Flicker Phase A-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsA$cValmagf	200 msec Short Term Flicker Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsB$instCValmagf	200 msec Short Term Flicker Phase B-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsB$cValmagf	200 msec Short Term Flicker Phase B-N Voltage: Mag	Update when InstMag out of deadband

IEC61850SRVMeas/ hsMFLK1MXPhPst$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsC$instCValmagf	200 msec Short Term Flicker Phase C-N Voltage: InstMag	Update at least every 200 msec
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsC$cValmagf	200 msec Short Term Flicker Phase C-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ hsMFLK1MXPhPst$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/hsMFLK1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/hsMFLK1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/hsMFLK1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/hsMFLK1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ hsMFLK1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Update when server is up
IEC61850SRVMeas/hsMFLK1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/hsMFLK1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/hsMFLK1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/hsMFLK1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.11: Logic Node: IEC61850SRVMEAS/MHAI1

OBJECT PATH	VALUE	COMMENT
MHAI1		
IEC61850SRVMeas/ lsMHAI1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFTddA$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file

IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFTddA$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFTddA$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeC$hhLim$f	0	Read only. Constant

IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdA$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnA$phsC$rangeCmaxf	100	Read only. Populated when server is up

IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPhV$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeC$hhLim$f	0	Read only. Constant

IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsAB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsBC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdEvnPPV$phsCA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeC$llLim$f	0	Read only. Constant

IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddA$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file

IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPhV$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsAB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeC$hLim$f	0	Read only. Constant

IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsBC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdOddPPV$phsCA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$db	Deadband = 100000 = 100%	Modified by client via .cid file

IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPhV$phsC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsAB$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsBC$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeCminf	0	Read only. Populated when server is up

IEC61850SRVMeas/ lsMHAI1CFThdPPV$phsCA$rangeCmaxf	100	Read only. Populated when server is up
IEC61850SRVMeas/lsMHAI1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/lsMHAI1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/lsMHAI1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/lsMHAI1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/lsMHAI1DCNomA$d	"TDD MAXIMUM DEMAN REFERENCE VALUE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCTddA$phsA$d	"TDD PHASE A CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCTddA$phsB$d	"TDD PHASE B CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCTddA$phsC$d	"TDD PHASE C CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdA$phsA$d	"THD PHASE A CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdA$phsB$d	"THD PHASE B CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdA$phsC$d	"THD PHASE C CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnA$phsA$d	"THD EVEN PHASE A CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnA$phsB$d	"THD EVEN PHASE B CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnA$phsC$d	"THD EVEN PHASE C CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPhV$phsA$d	"THD EVEN PHASE A-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPhV$phsB$d	"THD EVEN PHASE B-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPhV$phsC$d	"THD EVEN PHASE C-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPPV$phsAB$d	"THD EVEN PHASE A-B VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPPV$phsBC$d	"THD EVEN PHASE B-C VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdEvnPPV$phsCA$d	"THD EVEN PHASE C-A VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddA$phsA$d	"THD ODD PHASE A CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddA$phsB$d	"THD ODD PHASE B CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddA$phsC$d	"THD ODD PHASE C CURRENT"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPhV$phsA$d	"THD ODD PHASE A-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPhV$phsB$d	"THD ODD PHASE B-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPhV$phsC$d	"THD ODD PHASE C-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPPV$phsAB$d	"THD ODD PHASE A-B VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPPV$phsBC$d	"THD ODD PHASE B-C VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdOddPPV$phsCA$d	"THD ODD PHASE C-A VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdPhV$phsA$d	"THD PHASE A-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdPhV$phsB$d	"THD PHASE B-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdPhV$phsC$d	"THD PHASE C-N VOLTAGE"	Read only. Constant

IEC61850SRVMeas/ lsMHAI1DCThdPPV$phsAB$d	"THD PHASE A-B VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdPPV$phsBC$d	"THD PHASE B-C VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1DCThdPPV$phsCA$d	"THD PHASE C-A VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMHAI1MXTddA$phsA$instCValmagf	3 seconds TDD Phase A Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXTddA$phsA$cValmagf	3 seconds TDD Phase A Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXTddA$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXTddA$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXTddA$phsB$instCValmagf	3 seconds TDD Phase B Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXTddA$phsB$cValmagf	3 seconds TDD Phase B Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXTddA$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXTddA$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXTddA$phsC$instCValmagf	3 seconds TDD Phase C Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXTddA$phsC$cValmagf	3 seconds TDD Phase C Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXTddA$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXTddA$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdA$phsA$instCValmagf	3 seconds THD Phase A Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdA$phsA$cValmagf	3 seconds THD Phase A Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdA$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdA$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdA$phsB$instCValmagf	3 seconds THD Phase B Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdA$phsB$cValmagf	3 seconds THD Phase B Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdA$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdA$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdA$phsC$instCValmagf	3 seconds THD Phase C Current: InstMag	Update at least every 3 seconds

IEC61850SRVMeas/ lsMHAI1MXThdA$phsC$cValmagf	3 seconds THD Phase C Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdA$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdA$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsA$instCValmagf	3 seconds THD (EVEN) Phase A Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsA$cValmagf	3 seconds THD (EVEN) Phase A Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsB$instCValmagf	3 seconds THD (EVEN) Phase B Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsB$cValmagf	3 seconds THD (EVEN) Phase B Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsC$instCValmagf	3 seconds THD (EVEN) Phase C Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsC$cValmagf	3 seconds THD (EVEN) Phase C Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnA$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsA$instCValmagf	3 seconds THD (EVEN) Phase A-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsA$cValmagf	3 seconds THD (EVEN) Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsA$t	Meter timestamp (UTC since 01/01/1970 00:00:00)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsB$instCValmagf	3 seconds THD (EVEN) Phase B-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsB$cValmagf	3 seconds THD (EVEN) Phase B-N Voltage: Mag	Update when InstMag out of deadband

IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsC$instCValmagf	3 seconds THD (EVEN) Phase C-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsC$cValmagf	3 seconds THD (EVEN) Phase C-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPhV$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsAB$instCValmagf	3 seconds THD (EVEN) Phase A-B Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsAB$cValmagf	3 seconds THD (EVEN) Phase A-B Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsAB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsAB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsBC$instCValmagf	3 seconds THD (EVEN) Phase B-C Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsBC$cValmagf	3 seconds THD (EVEN) Phase B-C Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsBC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsBC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsCA$instCValmagf	3 seconds THD (EVEN) Phase C-A Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsCA$cValmagf	3 seconds THD (EVEN) Phase C-A Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsCA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdEvnPPV$phsCA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsA$instCValmagf	3 seconds THD (ODD) Phase A Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsA$cValmagf	3 seconds THD (ODD) Phase A Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up

IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsB$instCValmagf	3 seconds THD (ODD) Phase B Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsB$cValmagf	3 seconds THD (ODD) Phase B Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsC$instCValmagf	3 seconds THD (ODD) Phase C Current: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsC$cValmagf	3 seconds THD (ODD) Phase C Current: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddA$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsA$instCValmagf	3 seconds THD (ODD) Phase A-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsA$cValmagf	3 seconds THD (ODD) Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsB$instCValmagf	3 seconds THD (ODD) Phase B-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsB$cValmagf	3 seconds THD (ODD) Phase B-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsC$instCValmagf	3 seconds THD (ODD) Phase C-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsC$cValmagf	3 seconds THD (ODD) Phase C-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPhV$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change

IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsAB$instCValmagf	3 seconds THD (ODD) Phase A-B Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsAB$cValmagf	3 seconds THD (ODD) Phase A-B Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsAB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsAB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsBC$instCValmagf	3 seconds THD (ODD) Phase B-C Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsBC$cValmagf	3 seconds THD (ODD) Phase B-C Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsBC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsBC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsCA$instCValmagf	3 seconds THD (ODD) Phase C-A Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsCA$cValmagf	3 seconds THD (ODD) Phase C-A Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsCA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdOddPPV$phsCA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsA$instCValmagf	3 seconds THD Phase A-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsA$cValmagf	3 seconds THD Phase A-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsB$instCValmagf	3 seconds THD Phase B-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsB$cValmagf	3 seconds THD Phase B-N Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsC$instCValmagf	3 seconds THD Phase C-N Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsC$cValmagf	3 seconds THD Phase C-N Voltage: Mag	Update when InstMag out of deadband

IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPhV$phsC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsAB$instCValmagf	3 seconds THD Phase A-B Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsAB$cValmagf	3 seconds THD Phase A-B Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsAB$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsAB$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsBC$instCValmagf	3 seconds THD Phase B-C Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsBC$cValmagf	3 seconds THD Phase B-C Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsBC$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsBC$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsCA$instCValmagf	3 seconds THD Phase C-A Voltage: InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsCA$cValmagf	3 seconds THD Phase C-A Voltage: Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsCA$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/ lsMHAI1MXThdPPV$phsCA$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever ph-n change
IEC61850SRVMeas/ lsMHAI1SPNomA$setMag$f	Device profile: TDD maximum demand reference value (Current)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/lsMHAI1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ lsMHAI1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMHAI1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/lsMHAI1STMod$t	Meter timestamp (see note 1,2,3 below)	Update when server is up

5.2.12: Logic Node: IEC61850SRVMEAS/MSQI1

OBJECT PATH	VALUE	COMMENT
MSQI1		
IEC61850SRVMeas/lsMSQI1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/lsMSQI1CFSeqA$c1$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqA$c1$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1CFSeqA$c2$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqA$c2$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1CFSeqA$c3$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqA$c3$rangeCmaxf	2.1*CT_RATIO (For Class 2) / 21*CT_RATIO (for Class 20)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1CFSeqV$c1$db	Deadband = 100000 = 100%	Modified by client via .cid file

IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqV$c1$rangeCmaxf	720*PT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1CFSeqV$c2$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqV$c2$rangeCmaxf	720*CT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1CFSeqV$c3$db	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$dbAng	Deadband = 100000 = 100%	Modified by client via .cid file
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeC$hhLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeC$hLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeC$lLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeC$llLim$f	0	Read only. Constant
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeCminf	0	Read only. Populated when server is up
IEC61850SRVMeas/ lsMSQI1CFSeqV$c3$rangeCmaxf	720*CT_RATIO	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ lsMSQI1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant

IEC61850SRVMeas/lsMSQI1DCSeqA$c1$d	"POSITIVE SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqA$c2$d	"NEGATIVE SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqA$c3$d	"ZERO SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqA$d	"SYMM. COMP. MAG/ANG PH-N CURRENT"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqV$c1$d	"POSITIVE SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqV$c2$d	"NEGATIVE SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqV$c3$d	"ZERO SEQUENCE"	Read only. Constant
IEC61850SRVMeas/lsMSQI1DCSeqV$d	"SYMM. COMP. MAG/ANG PH-N VOLTAGE"	Read only. Constant
IEC61850SRVMeas/ lsMSQI1MXSeqA$c1$instCValmagf	3 seconds symm. comp. MAG PH-N Current (+ seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c1$instCValangf	3 seconds symm. comp. MAG PH-N Current (+ seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c1$cValmagf	3 seconds symm. comp. ANG PH-N Current (+ seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqA$c1$cValangf	3 seconds symm. comp. ANG PH-N Current (+ seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqA$c1$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1MXSeqA$c1$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/ lsMSQI1MXSeqA$c2$instCValmagf	3 seconds symm. comp. MAG PH-N Current (- seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c2$instCValangf	3 seconds symm. comp. MAG PH-N Current (- seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c2$cValmagf	3 seconds symm. comp. ANG PH-N Current (- seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqA$c2$cValangf	3 seconds symm. comp. ANG PH-N Current (- seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqA$c2$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1MXSeqA$c2$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/ lsMSQI1MXSeqA$c3$instCValmagf	3 seconds symm. comp. MAG PH-N Current (0 seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c3$instCValangf	3 seconds symm. comp. MAG PH-N Current (0 seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqA$c3$cValmagf	3 seconds symm. comp. ANG PH-N Current (0 seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqA$c3$cValangf	3 seconds symm. comp. ANG PH-N Current (0 seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqA$c3$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up

IEC61850SRVMeas/lsMSQI1MXSeqA$c3$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/lsMSQI1MXSeqA$seqT	0 = "POS-NEG-ZERO"	Read only. Constant
IEC61850SRVMeas/ lsMSQI1MXSeqV$c1$instCValmagf	3 seconds symm. comp. MAG PH-N Voltage (+ seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c1$instCValangf	3 seconds symm. comp. MAG PH-N Voltage (+ seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c1$cValmagf	3 seconds symm. comp. ANG PH-N Voltage (+ seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqV$c1$cValangf	3 seconds symm. comp. ANG PH-N Voltage (+ seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqV$c1$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1MXSeqV$c1$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/ lsMSQI1MXSeqV$c2$instCValmagf	3 seconds symm. comp. MAG PH-N Voltage (- seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c23$instCValangf	3 seconds symm. comp. MAG PH-N Voltage (- seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c2$cValmagf	3 seconds symm. comp. ANG PH-N Voltage (- seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqV$c2$cValangf	3 seconds symm. comp. ANG PH-N Voltage (- seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqV$c2$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1MXSeqV$c2$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/ lsMSQI1MXSeqV$c3$instCValmagf	3 seconds symm. comp. MAG PH-N Voltage (0 seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c3$instCValangf	3 seconds symm. comp. MAG PH-N Voltage (0 seq): InstMag	Update at least every 3 seconds
IEC61850SRVMeas/ lsMSQI1MXSeqV$c3$cValmagf	3 seconds symm. comp. ANG PH-N Voltage (0 seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/ lsMSQI1MXSeqV$c3$cValangf	3 seconds symm. comp. ANG PH-N Voltage (0 seq): Mag	Update when InstMag out of deadband
IEC61850SRVMeas/lsMSQI1MXSeqV$c3$q	0x00 (Comm runtime health, bit 5); 0x40 (otherwise)	Read only. Populated when server is up
IEC61850SRVMeas/lsMSQI1MXSeqV$c3$t	Meter timestamp (see note 1 below)	Update when either "Mag" or "q" from whatever phase change
IEC61850SRVMeas/lsMSQI1MXSeqV$seqT	0 = "POS-NEG-ZERO"	Read only. Constant
IEC61850SRVMeas/lsMSQI1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STBeh$stVal	1 = "ON"	Read only. Constant

IEC61850SRVMeas/lsMSQI1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/lsMSQI1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/lsMSQI1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.13: Logic Node: IEC61850SRVMEAS/TCTR1

OBJECT PATH	VALUE	COMMENT
TCTR1		
IEC61850SRVMeas/ ctrtanTCTR1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1DCRat$d	"CT RATIO PHASE A"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1SPRat$setMag$f	Device profile setting: CT Ratio IA,B,C	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtanTCTR1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ ctrtanTCTR1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.14: Logic Node: IEC61850SRVMEAS/TCTR2

OBJECT PATH	VALUE	COMMENT
TCTR2		
IEC61850SRVMeas/ ctrtbnTCTR2CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ctrtbnTCTR2DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ctrtbnTCTR2DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2DCRat$d	"CT RATIO PHASE B"	Read only. Constant
IEC61850SRVMeas/ ctrtbnTCTR2SPRat$setMag$f	Device profile settings: CT Ratio IA,B,C	Populated when server is up
IEC61850SRVMeas/ctrtbnTCTR2STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtbnTCTR2STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ctrtbnTCTR2STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtbnTCTR2STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ctrtbnTCTR2STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ctrtbnTCTR2STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtbnTCTR2STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtbnTCTR2STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.15: Logic Node: IEC61850SRVMEAS/TCTR3

OBJECT PATH	VALUE	COMMENT
TCTR3		
IEC61850SRVMeas/ ctrtcnTCTR3CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ctrtcnTCTR3DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ctrtcnTCTR3DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ctrtcnTCTR3DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ctrtcnTCTR3DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ctrtcnTCTR3DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ctrtcnTCTR3DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ctrtcnTCTR3DCRat$d	"CT RATIO PHASE C"	Read only. Constant
IEC61850SRVMeas/ ctrtcnTCTR3SPRat$setMag$f	Device profile settings: CT Ratio IA,B,C	Populated when server is up

IEC61850SRVMeas/ctrtcnTCTR3STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtcnTCTR3STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtcnTCTR3STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ctrtcnTCTR3STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtcnTCTR3STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtcnTCTR3STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ctrtcnTCTR3STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtcnTCTR3STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtcnTCTR3STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.16: Logic Node: IEC61850SRVMEAS/TCTR4

OBJECT PATH	VALUE	COMMENT
TCTR4		
IEC61850SRVMeas/ ctrtnnTCTR4CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ctrtnnTCTR4DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ctrtnnTCTR4DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4DCRat$d	"CT RATIO NEUTRAL"	Read only. Constant
IEC61850SRVMeas/ ctrtnnTCTR4SPRat$setMag$f	Device profile settings: CT Ratio IN	Populated when server is up
IEC61850SRVMeas/ctrtnnTCTR4STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtnnTCTR4STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ctrtnnTCTR4STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtnnTCTR4STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ctrtnnTCTR4STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ctrtnnTCTR4STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ctrtnnTCTR4STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ctrtnnTCTR4STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.17: Logic Node: IEC61850SRVMEAS/TVTR1

OBJECT PATH	VALUE	COMMENT
TVTR1		
IEC61850SRVMeas/ ptrtanTVTR1CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ptrtanTVTR1DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ptrtanTVTR1DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ptrtanTVTR1DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ptrtanTVTR1DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ptrtanTVTR1DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ptrtanTVTR1DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ptrtanTVTR1DCRat$d	"PT RATIO PHASE A"	Read only. Constant
IEC61850SRVMeas/ ptrtanTVTR1SPRat$setMag$f	Device profile settings: PT Ratio VA,B,C	Populated when server is up
IEC61850SRVMeas/ptrtanTVTR1STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtanTVTR1STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtanTVTR1STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ptrtanTVTR1STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtanTVTR1STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtanTVTR1STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ptrtanTVTR1STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtanTVTR1STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtanTVTR1STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.18: Logic Node: IEC61850SRVMEAS/TVTR2

OBJECT PATH	VALUE	COMMENT
TVTR2		
IEC61850SRVMeas/ ptrtbnTVTR2CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ptrtbnTVTR2DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ptrtbnTVTR2DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ptrtbnTVTR2DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ptrtbnTVTR2DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ptrtbnTVTR2DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ptrtbnTVTR2DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ptrtbnTVTR2DCRat$d	"PT RATIO PHASE B"	Read only. Constant
IEC61850SRVMeas/ ptrtbnTVTR2SPRat$setMag$f	Device profile settings: PT Ratio VA,B,C	Update when server is up
IEC61850SRVMeas/ptrtbnTVTR2STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtbnTVTR2STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtbnTVTR2STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ptrtbnTVTR2STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtbnTVTR2STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtbnTVTR2STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ptrtbnTVTR2STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtbnTVTR2STMod$stVal	1 = "ON"	Read only. Constant

5.2.19: Logic Node: IEC61850SRVMEAS/TVTR3

OBJECT PATH	VALUE	COMMENT
TVTR3		
IEC61850SRVMeas/ ptrtcnTVTR3CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ptrtcnTVTR3DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ptrtcnTVTR3DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ptrtcnTVTR3DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ptrtcnTVTR3DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ptrtcnTVTR3DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ptrtcnTVTR3DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ptrtcnTVTR3DCRat$d	"PT RATIO PHASE C"	Read only. Constant
IEC61850SRVMeas/ ptrtcnTVTR3SPRat$setMag$f	Device profile settings: PT Ratio VA,B,C	Update when server is up
IEC61850SRVMeas/ptrtcnTVTR3STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up

IEC61850SRVMeas/ ptrtcnTVTR3STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtcnTVTR3STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ptrtcnTVTR3STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtcnTVTR3STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtcnTVTR3STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ptrtcnTVTR3STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtcnTVTR3STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtcnTVTR3STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

5.2.20: Logic Node: IEC61850SRVMEAS/TVTR4

OBJECT PATH	VALUE	COMMENT
TVTR4		
IEC61850SRVMeas/ ptrtaxTVTR4CFMod$ctlModel	0 = "STATUS-ONLY"	Read only. Constant
IEC61850SRVMeas/ptrtaxTVTR4DCBeh$d	"OPERATING MODE BEHAVIOR"	Read only. Constant
IEC61850SRVMeas/ ptrtaxTVTR4DCHealth$d	"1=OK, 2=WARNING, 3=ALARM"	Read only. Constant
IEC61850SRVMeas/ptrtaxTVTR4DCMod$d	"OPERATING MODE"	Read only. Constant
IEC61850SRVMeas/ ptrtaxTVTR4DCNamPlt$d	"LOGICAL NODE NAMEPLATE"	Read only. Constant
IEC61850SRVMeas/ ptrtaxTVTR4DCNamPlt$swRev	Comm runtime version	Read only. Constant
IEC61850SRVMeas/ ptrtaxTVTR4DCNamPlt$vendor	"ELECTRO INDUSTRIES"	Read only. Constant
IEC61850SRVMeas/ptrtaxTVTR4DCRat$d	"PT RATIO PHASE AUX"	Read only. Constant
IEC61850SRVMeas/ ptrtaxTVTR4SPRat$setMag$f	Device profile settings: PT Ratio VAUX	Populated when server is up
IEC61850SRVMeas/ptrtaxTVTR4STBeh$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtaxTVTR4STBeh$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtaxTVTR4STBeh$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ ptrtaxTVTR4STHealth$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtaxTVTR4STHealth$stVal	1 (Comm runtime health); 2 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtaxTVTR4STHealth$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up
IEC61850SRVMeas/ptrtaxTVTR4STMod$q	0x00 (Comm runtime health); 0x40 (Comm runtime not health)	Populated when server is up
IEC61850SRVMeas/ ptrtaxTVTR4STMod$stVal	1 = "ON"	Read only. Constant
IEC61850SRVMeas/ptrtaxTVTR4STMod$t	Meter timestamp (see note 1,2,3 below)	Populated when server is up

NOTES:

- The timestamp is an UTC timestamp since epoch: 01/01/1970 00:00:00.
- The timestamp fraction of seconds currently is equal to zero and the quality bits should be equal to "00100111" (LeapSecondKnown(L)=0; ClockFailure(F)=0; ClockNotSynchronized(N)=1; TimeAccuracyOfFractionsOfSeconds = 00111).
- The startup timestamp is few seconds later than meter "onTime."

5.3: Additional Information

The following sections explain some of the terms, and additional aspects, of the Nexus® 1500+ meter's IEC 61850 implementation.

5.3.1: Dataset

The Nexus® 1500+ IEC 61850 server supports dataset, which is a collection of references of either data object or data attribute, or both, from the same or different logic node (LN). The server just allows creation/deletion of datasets via IED configurator software. There are no pre-defined datasets, therefore the user is allowed to configure up to 32 datasets with a maximum number of 256 items (data attribute) in each.

5.3.2: Report

The server supports event-driven exchange of information from the server to one connected client, also known as a report. The event is the condition for when to send the report, based on the client's trigger option: data change, interval (Integrity), and request (General Interrogation - GI); and/or event buffer time. The exchanged information contains, among others things, a set of data (data attribute) values referenced by a dataset that is monitored by the server.

When and how the report is sent to one client is established by a report control block (RCB). Instances of RCB are configured via IED configurator software. Only one client at a time can "own" that instance when it is connected to the server. Up to 32 report control blocks are supported.

The following table shows all RBC parameters retrievable by a client. Some of them are set at configuration time only, others online only, and others in both conditions. There are two types of RCB: buffered (BRCB) and unbuffered (URCB).

- **BRCB**

  Reports are immediately sent to the connected client based on trigger options: data change, interval (Integrity), and request (General Interrogation - GI). For the data change trigger option, those events shall be buffered up to the practical limit, to avoid loss of information due, for instance, to loss of connection.

- **URCB**

  Reports are immediately sent with the "best effort" to the connected client, based on trigger options: data changed, interval (Integrity) and request (General Interrogation - GI).

Report Control Block				
Parameters	Type		Configured	Online
	BRCB	URCB		
Control block name (RCBName)	x	x	No	No
Report Identifier (RptID)	x	x	Yes	Yes
Report Enabled (RptEna)	x	x	No	Yes
Data-set reference (DatSet)	x	x	Yes	No
Configuration revision (ConfRev)	x	x	Yes	No
Optional Fields to include in report (OptFlds)	x	x	Yes	Yes
Buffer Timer (BufTm)	x	x	Yes	Yes
Sequence number (SeqNum)	x	x	No	No
Trigger option enable (TrgOps)	x	x	Yes	Yes
Integrity period (intgPd)	x	x	Yes	Yes
General interrogation enable(GI)	x	x	Yes	Yes
Purge buffer (PurgeBuf)	x		Yes	Yes
Entry Identification (EntryID)	x		Yes	Yes
Time of entry (TimeOfEntry)	x	x	Yes	Yes

5.3.3: GOOSE (Generic Object Oriented Substation Event)

The Nexus® 1500+ meter supports IEC 61850 GOOSE, a server/client model called publisher/subscriber, for rapid exchange of information.

- The meter, acting as a publisher, sends out new GOOSE messages via LAN multicast (publishing) when an event occurs (i.e., data from a referenced data-set has changed), with no user intervention. That GOOSE message is repeatedly sent, with no acknowledge message being sent back by a subscriber.

- The meter, acting as a subscriber, can accept GOOSE messages from a programmed publisher.

The meter is configured as a GOOSE publisher/subscriber based upon the settings in the user's CID file. For example, when acting as a subscriber the meter can listen to messages from multiple publishers, but will only accept messages from a publisher that has been programmed into the CID file.

- The meter supports up to 10 publishers, each one configured by the GOOSE control block (GoCB). Instances of GoCB are configured via IED configurator software. The

following table shows all GoBC parameters retrievable by a client. Some of them are set in configuration time only, others are set online.

- The maximum number of received data that can be processed is 64. That data can be from a GOOSE message from one publisher or GOOSE messages from different publishers. That maximum number of data is divided in 4 different groups based upon the data type: 16 Boolean, 16 SPS (single point status), 16 integer and 16 float. All those 64 data points are mapped into the "vrtGGIO" logic node, and can be retrieved by an IEC 61850 client.

- The meter as a publisher supports up to 10 subscribers.

GOOSE Control Block		
Parameters	**Configured**	**Online**
GOOSE control block name (GoCBName)	Yes	No
GOOSE control block reference(GoCBRef)	Yes	No
GOOSE Enabled(GoEna)	Yes	YES
GOOSE Identification (GoID)	Yes	YES
Data-set reference (DatSet)	Yes	YES
Configuration revision (ConfRev)	Yes	No
Need commissioning (NdsCom)	Yes	No

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6: Links to Supporting Files

This chapter provides links to files related to the Nexus® 1500+ meter's IEC 61850 implementation.

6.1: Link to MICS File

This is the link to the Model Implementation Conformance Statement (MICS) html file: http://electroind.com/products/Nexus_1500+/IEC%2061850%20Standard%20Support/IEC%2061850%20MICS%20Nexus_1500+(05112015-Release-ver1p1).htm.

6.2: Link to .ICD File

This is the link to the Nexus® 1500+ meter's .icd file: http://electroind.com/products/Nexus_1500+/IEC%2061850%20Standard%20Support/iedsrv(ver2_0__rev3_1).ICD.

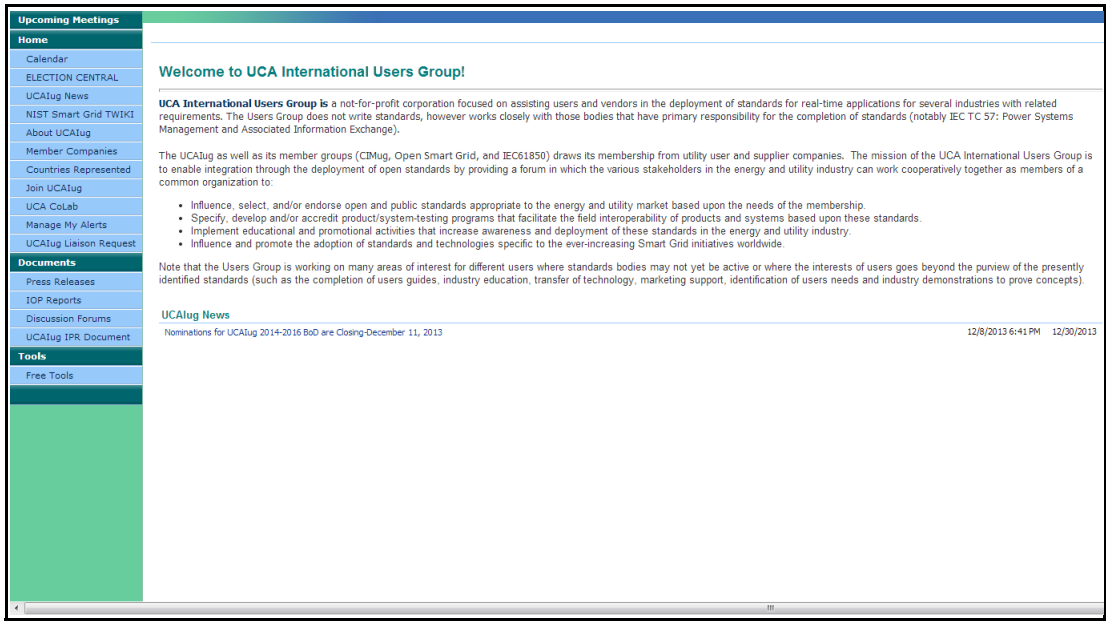
6.3: Link to .CID File

This is the link to the Nexus® 1500+ meter's .cid file: .http://electroind.com/products/Nexus_1500+/IEC%2061850%20Standard%20Support/iedsrv(ver2_0__rev3_1).cid.

6.4: Link to SCD to CID Converter

You can access a free SCD to CID converter tool through the Internet. Follow these steps:

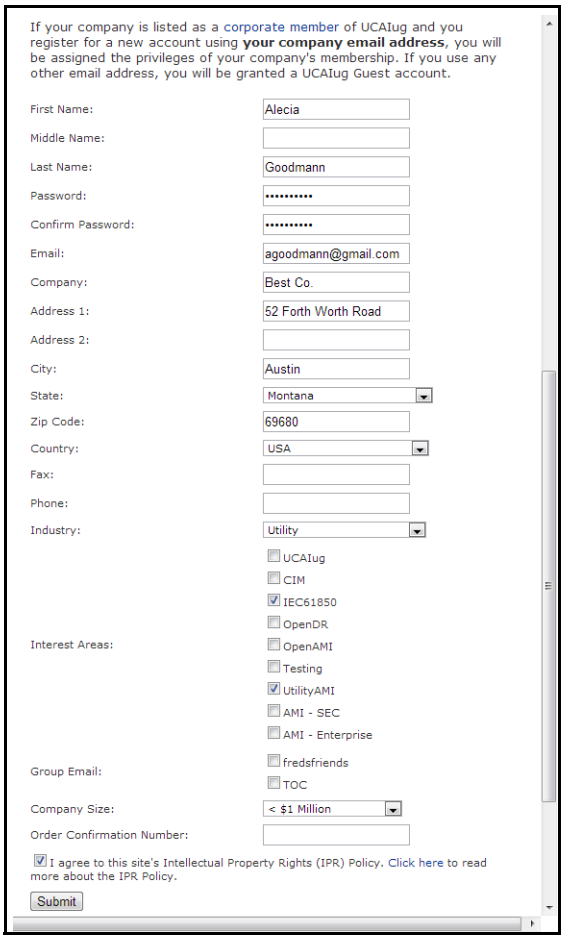
1. Go to the website http://www.ucaiug.org.



2. If this is your first time logging in, follow the steps below; otherwise, proceed to step 3.

a. Fill in the information needed to create an account in the Register for an Account section in the right bottom side of the webpage.

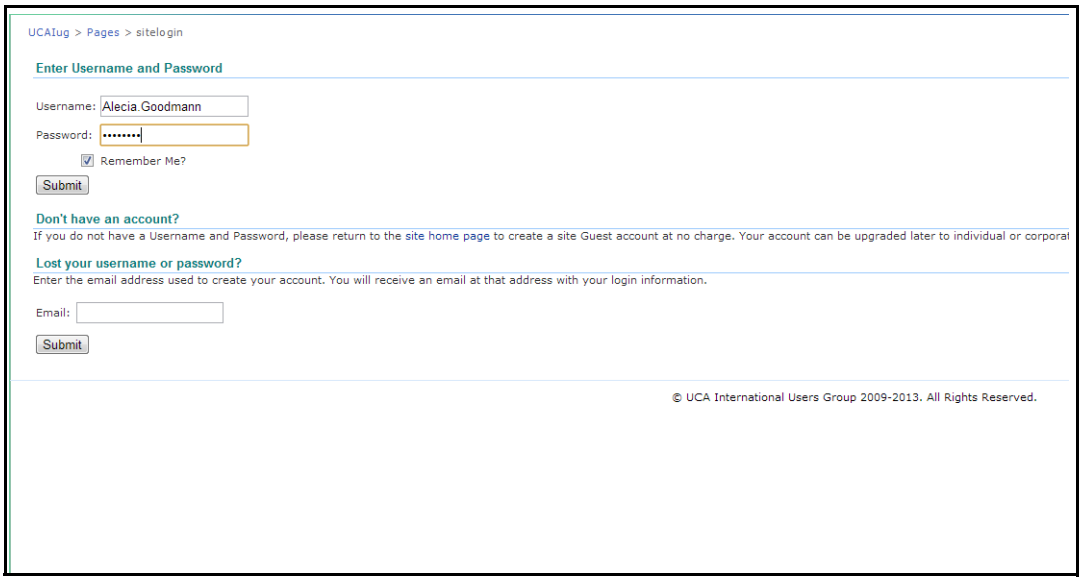
NOTE: The password you enter must be at least six characters in length.



b. Click Submit. Once the information is processed the webpage shows the message User Successfully Created above the Register for an Account section.

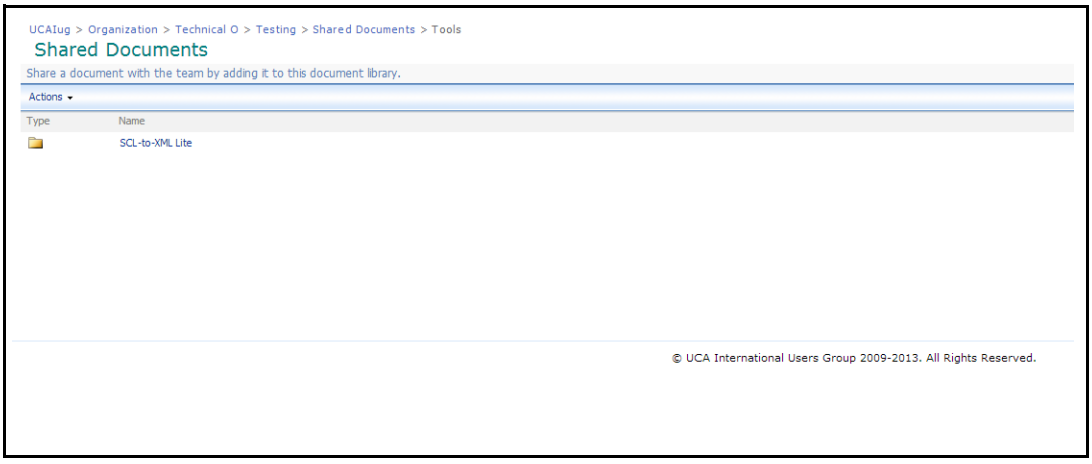
NOTE: If your company is registered with this site and you use your company email when you register, you will have a registered account rather than a guest account. This will give you access to more than just the free application.

3. Click Free Tools on the bottom left side of the webpage. You will see the screen shown below.



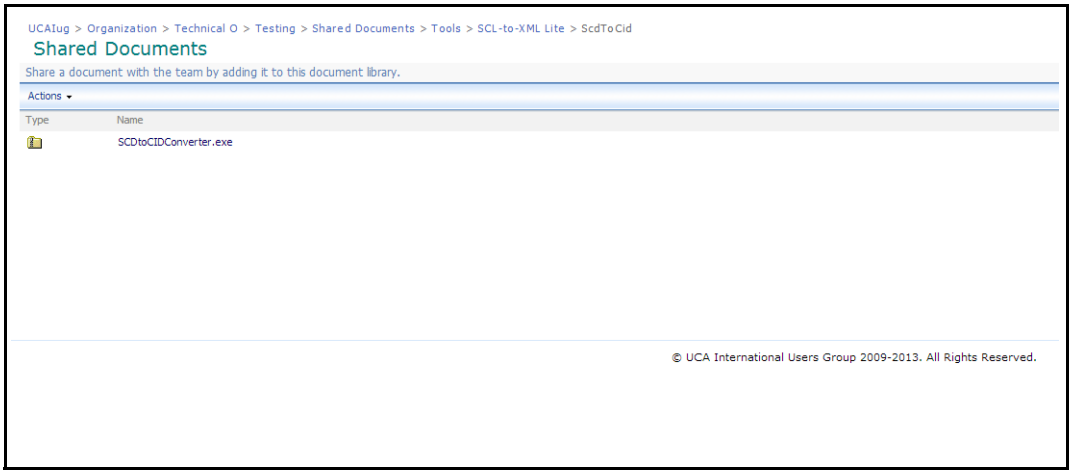
4. Log in with your username, which is your First Name.Last Name, and the password you used to create the account, and click Submit.

5. You will see the screen shown below. Click on SCL-to-XML Lite.



6. You will see the screen shown below. Click on ScdToCid.

7. You will see the screen shown below. Click on SCDtoCIDconverter.exe to download the application.



NOTE: If you log in with a paid account, you can see the source code for the CSD-to-CID converter and you get the full version of the SCL-viewer.

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