

TINE Studio News

Feb 8, 2017

Archive Viewer

From last time ...

Archive any compound data format :

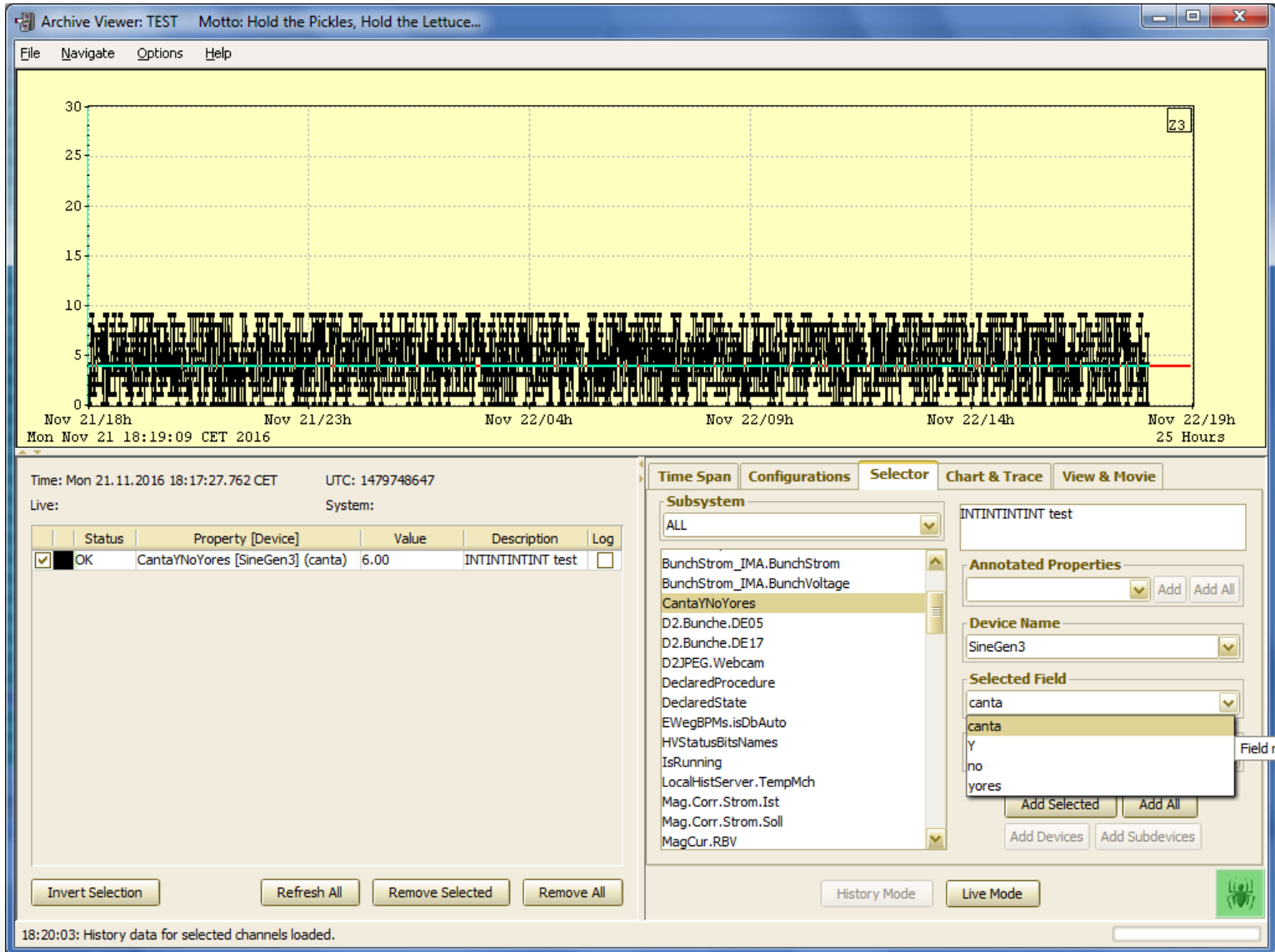
The screenshot shows the Archive Viewer application window. On the left, a table lists database entries with columns for Index, Active status, Device Server, Device Name, and Device Property. Entry 207 is highlighted, showing it is enabled on SineServer with device name SineGen0 and property CantaYNoYores.MEMBERS. A yellow callout box points to this entry with the text "Format CF_ADDRESS (aka: CF_III)".

On the right, the configuration panel for Index: 207 is shown. It includes sections for Data Collection Configuration (Context: TEST, Device: SineGen0, Property: CantaYNoYores.MEMBERS, Format: NAME64, Array Size: 4) and Property Viewing Configuration. The Property Viewing Configuration shows a list of field names: "CantaYNoYores.NAM.NAM,NAME64,4,,65000.0,0,0,0,0,0,LIN,1,0,0,0,INTINTINTINT field names,,,ALL". A yellow callout box at the bottom explains: "Supply field 'names' with .NAM.NAM decoration ...".

Index	Active	Device Server	Device Name	Device Property
173	ENABLED	PETRA/CIWegBPMs	M000	isDbAuto
174	ENABLED	PETRA/EWegBPMs	M000	isDbAuto.NAM
175	ENABLED	SineServer	#0	SineInfo
176	ENABLED	PETRA/Mag.Group.Corr-...	PeEX4.Corr	Psc.Status
177	ENABLED	PETRA/Mag.Group.Corr-...	PeEX4.Corr	GroupDevices
178	ENABLED	STATE	Pnotrunning	TIMECOUNTER.Procedure
179	ENABLED	STATE	Pnotrunning	TIMECOUNTER.Procedur...
180	ENABLED	STATE	Pnotrunning	BEAMCOUNTER.Procedure
181	ENABLED	STATE	Pnotrunning	TESTCOUNTER.Procedure
182				
183				
184				
186	ENABLED	ALARMSTATE	#0	NOTREADYRUNNING
187	ENABLED	ALARMSTATE	#0	DEVICES
188	ENABLED	ALARMSTATE	#0	NOTREADYCOUNT
189	ENABLED	LAB/VAC.ION_PUMP	#0	P
190	ENABLED	LAB/VAC.ION_PUMP	#0	P.NAM
191	ENABLED	LAB/VAC.ION_PUMP	#0	HV
192	ENABLED	LAB/VAC.ION_PUMP	#0	HV.NAM
193	ENABLED	LAB/VAC.ION_PUMP	#0	STATUS
194	ENABLED	LAB/VAC.ION_PUMP	#0	STATUS.NAM
195	ENABLED	STATE	name	DeclaredState
196	ENABLED	STATE	name	DeclaredProcedure
197	ENABLED	MVS/Data.Composites	#0	MassSpec.Header.Inc
198	ENABLED	MVS/Data.Composites	#0	MassSpec.Header.NAM
199	ENABLED	LocalHistServer	#0	TempMch
200	ENABLED	LocalHistServer	#0	TempMch.NAM
201	ENABLED	LocalHistServer	TempDevice5	TempMch
202	ENABLED	LocalHistServer	TempDevice5	TempMch.NAM
204	ENABLED	SineServer	SineGen0	CantaYNoYores
205	ENABLED	SineServer	SineGen0	SineInfo
207	ENABLED	SineServer	SineGen0	CantaYNoYores.MEMBERS
208	ENABLED	SineServer	SineGen6	SineInfo
209	ENABLED	REGAE/VAC.ION_PUMP	*	P
210	ENABLED	REGAE/VAC.ION_PUMP	*	

Archive Viewer

From last time ...



Archive Viewer

From last time ...

Archive tagged structures :

Database Entries

Index	Active	Device Server	Device Name	Device Property
173	ENABLED	PETRA/EwegBPMs	M000	isDbAuto
174	ENABLED	PETRA/EwegBPMs	M000	isDbAuto.NAM
175	ENABLED	SineServer	#0	SineInfo
176	ENABLED	PETRA/Mag.Group.Corr...	PeEX4.Corr	Psc.Status
177	ENABLED	PETRA/Mag.Group.Corr...	PeEX4.Corr	GroupDevices
178	ENABLED	STATE	Pnotrunning	TIMECOUNTER.Procedure
179	ENABLED	STATE	Pnotrunning	TIMECOUNTER.Procedur...
180	ENABLED	STATE	Pnotrunning	BEAMCOUNTER.Procedure
181	ENABLED	STATE	Pnotrunning	TESTCOUNTER.Procedure
182	ENABLED	STATE	Pnotrunning	EVENTCOUNTER.Procedure
183	ENABLED	STATE	Pnotrunning	ERRCOUNTER.Procedure
184	ENABLED	ALARMSTATE	#0	ISREADY
186	ENABLED	ALARMSTATE	#0	NOTREADYRUNNING
187	ENABLED	ALARMSTATE	#0	DEVICES
188	ENABLED	ALARMSTATE	#0	NOTREADYCOUNT
189	ENABLED	LAB/VAC.ION_PUMP	#0	P
190	ENABLED	LAB/VAC.ION_PUMP	#0	P.NAM
191	ENABLED	LAB/VAC.ION_PUMP	#0	HV
192	ENABLED	LAB/VAC.ION_PUMP	#0	HV.NAM
193	ENABLED	LAB/VAC.ION_PUMP	#0	STATUS
194	ENABLED	LAB/VAC.ION_PUMP	#0	STATUS.NAM
195	ENABLED	STATE	name	DeclaredState
196	ENABLED	STATE	name	DeclaredProcedure
197	ENABLED	MVS/Data.Composites	#0	MassSpec.Header.Inc
198	ENABLED	MVS/Data.Composites	#0	MassSpec.Header.NAM
199	ENABLED	LocalHistServer	#0	TempMch
200	ENABLED	LocalHistServer	#0	TempMch.NAM
201	ENABLED	LocalHistServer	TempDevice5	TempMch
202	ENABLED	LocalHistServer	TempDevice5	TempMch.NAM
204	ENABLED	SineServer	SineGen0	CantaYNoYores
205	ENABLED	SineServer	SineGen0	SineInfo
207	ENABLED	SineServer	SineGen0	CantaYNoYores.MEMBERS
208	ENABLED	SineServer	SineGen6	SineInfo
209	ENABLED	REGAE/VAC.ION_PUMP	*	P
210	ENABLED	REGAE/VAC.ION_PUMP	*	P

Data Collection Configuration

Index: 205

Context: TEST Server: SineServer

Device: SineGen0 Property: SineInfo

Format: STRUCT Array Size: 10 Structure Tag: SineInfo Data Input:

Filtering of Data Storage

NEVER ONCE ALWAYS FAST

SLOW FIXTIME HRT STATUS

VOLATILE NOPOI TEST EXTEST

Access Rate: 1000 ms

Archive Heartbeat: 900 sec

Property Viewing Configuration

SineInfo,STRUCT,10,,0.0,0.0,0.0,0.0,LIN,1.0,0.0,Sine Generator Information,Sine.MessageText.NAM,,A

Maximum size [bytes]: 10 Remaining elements: 0

Keyword	Data Format	Size	Units	Max	Min
SineInfo	STRUCT	10		0.0	0.0

Abs. Tolerance: 0.0 Rel. Tolerance: 0.0 Plot Style: LIN Offset: 0.0 Scale: 1.0

Description: Sine Generator Information Subsystem: ALL Associate: Sine.MessageText.NAM

Bind To: Spectrum Axis:

Apply Add Remove

Archive Viewer

From last time ...

The screenshot displays the Archive Viewer application window. The title bar reads "Archive Viewer: TEST" with the motto "Hold the Pickles, Hold the Lettuce...". The menu bar includes "File", "Navigate", "Options", and "Help".

The main area is divided into two charts:

- Left Chart:** A line graph showing a constant value of approximately 340 over a 25-hour period from Nov 22/09h to Nov 23/05h. A vertical green line is positioned at Nov 22/19h.
- Right Chart:** A bar chart titled "SineInfo 21:08:04.009" showing values for SineGen0, SineGen4, and SineGen8. SineGen0 has a value of ~340, SineGen4 has ~255, and SineGen8 has ~335.

Below the charts is a table with the following data:

Status	Property [Device]	Value	Description	Log
OK	SineInfo [SineGen0] (amplitude)	338.00	Sine Generator Info...	

At the bottom, there are buttons for "Invert Selection", "Refresh All", "Remove Selected", and "Remove All".

On the right side, there are tabs for "Time Span", "Configurations", "Selector", "Chart & Trace", and "View & Movie". The "Selector" tab is active, showing a list of subsystems and a "Selected Field" dropdown menu.

At the bottom of the window, a status bar shows: "09:25:25: Array data for channel 'TEST/HISTORY/SineGen0/SineInfo' loaded."

Archive Database Manager

Data acquisition vs. Data storage ...

Always choose Multi-Channel Array access and storage over N x single element access and storage !!!

The screenshot displays the Archive Database Manager interface. On the left, a table lists database entries with columns for Index, Active status, Device Server, Device Name, and Device Property. Entry 1080 is highlighted, showing it is an Undulator on device PU00 with property Gap. On the right, the configuration panel for index 1080 is shown, including data collection context (PETRA), device (PU00), format (FLOAT), array size (18), and filtering options (ALWAYS, HRT). A table below shows the keyword 'Undulator.Gap.Test' with its data format, size, units, and tolerance. The interface also includes buttons for 'Reload DB', 'Write DB', 'Lock DB', and 'DB unlocked'.

Index	Active	Device Server	Device Name	Device Property
1047	ENABLED	LBRENV.RPT	#0	DEVICES
1048	ENABLED	SRINT1.JPEG	Output	Frame
1049	ENABLED	TempP3Extension	#0	Temp2015
1050	ENABLED	TempP3Extension	#0	Temp2015.NAM
1051	ENABLED	Collimators.NO	#0	Position
1052	ENABLED	Collimators.NO	#0	Position.NAM
1057	ENABLED	P960_LFB	long	TUNE_SPEKTRUM
1058	ENABLED	P960_TFB	ver	TUNE_SPEKTRUM
1059	ENABLED	P960_TFB	hor	TUNE_SPEKTRUM
1060	ENABLED	SERVICE/FREQser-VXW	PETRA0	FREQ-Stepwait
1061	ENABLED	FREQ-VXW	DORIS3	AD
1066	ENABLED	TOPIUP	#0	BunchPatternDef
1067	ENABLED	SITE/VibrADCs.Guralp	#0	RMSBinBlkB1
1068	ENABLED	SITE/VibrADCs.Guralp	#0	RMSBinBlkB2
1069	ENABLED	SITE/VibrADCs.Guralp	#0	RMSBinBlkB3
1070	ENABLED	SITE/VibrADCs.Guralp	#0	RMS_McaB2
1074	ENABLED	TempP3Emittanz	#0	Temp2015
1075	ENABLED	TempP3Emittanz	#0	Temp2015.NAM
1076	ENABLED	SITE/VibrADCs.Guralp	#0	RMS_McaB2.NAM
1077	ENABLED	Nebenbunche	TH200	ArrayAtStop.SCH
1078	ENABLED	NebenbuncheP01	TH200	ArrayAtStop.SCH
1079	ENABLED	Undulator	PU00	Gap.NAM
1080	ENABLED	Undulator	PU00	Gap
1081	ENABLED	Undulator	PU00	Taper
1082	ENABLED	Undulator	PU00	Shift
1083	ENABLED	Undulator	PU00	CtrlByte
1084	ENABLED	SITE/VibrADCs.Guralp	#0	RMSBinLimitNames
1085	ENABLED	SITE/VibrADCs.Guralp	#0	DEVICES
1086	ENABLED	NebenbuncheP01	NB-8ns	NebBunche.SCH
1087	ENABLED	NebenbuncheP01	NB-8ns	NebBunche.SCH.NAM
1088	ENABLED	Cms.PsGroup	PeMain	GroupStatus
1089	ENABLED	Cms.PsGroup	RING	GroupStatus
1090	ENABLED	Cms.PsGroup	SKEWQ	GroupStatus
1091	ENABLED	Cms.PsGroup	NordOstQ	GroupStatus

Index: 1080

Data Collection Configuration

Context: PETRA, Undulator

Device: PU00, Property: Gap

Format: FLOAT, Array Size: 18, Input Format: NULL, Data Input: [Empty]

Filtering of Data Storage: NEVER, ONCE, ALWAYS, FAST, SLOW, FIXTIME, HRT, STATUS, VOLATILE, NOPOI, BEAM, RUNNING

Access Rate: 1000 ms, Archive Heartbeat: 900 sec

Property Viewing Configuration

Undulator.Gap.Test, FLOAT, 1, mm, 220.0, 9.5, 1.0, 0.0, LIN, 1.0, 0.0, Gap Width in mm, Experiments

Undulator.Gap, FLOAT, 17, mm, 220.0, 9.5, 0.01, 0.0, LIN, 1.0, 0.0, Gap Width, Experiments

Maximum size [bytes]: 72, Remaining elements: 0

Keyword	Data Format	Size	Units	Max	Min
Undulator.Gap.Test	FLOAT	1	mm	220.0	9.5

Abs. Tolerance: 1.0, Rel. Tolerance: 0.0, Plot Style: LIN, Offset: 0.0, Scale: 1.0

Description: Gap Width in mm, Subsystem: Experiments, Associate: [Empty]

Bind To: [Empty], Spectrum Axis: [Empty]

Buttons: Apply, Add, Remove

Archive Database Manager

Best to 'pad' array length for MCA properties ...

Archive Database Manager: PETRA

File Configurations Navigate Options Help

Database Entries

Index	Active	Device Server	Device Name	Device Property
21	ENABLED	ALARMSTATE	#0	NOTREADYRUNNING
22	ENABLED	ALARMSTATE	#0	DEVICES
23	ENABLED	BunchCurrents	Bunch-1	SummedCurrent
24	ENABLED	Bunche_EWeg	IMA-E03	BunchParticlesE9
26	ENABLED	Bunche_EWeg	#0	BunchParticlesE9.NAM
28	ENABLED	GlobalsCollector	keyword	MachineStateText
29	ENABLED	GlobalsCollector	keyword	BeamPermissionText
30	ENABLED	GlobalsCollector	keyword	MagnetCurrentPermissio...
38	ENABLED	BunchCurrents	Bunch-1	NumberBunches
39	ENABLED	GlobalsCollector	#0	Energy
40	ENABLED	VAC.ION_PUMP	*	P
41	ENABLED	VAC.ION_PUMP	*	P
46	ENABLED	PiCoPy	halleNIDclosed	expertState
47	ENABLED	Idc	#0	Ladung
60	ENABLED	Cms.PsGroup	EwCorr	GroupDevices
61	ENABLED	Cms.PsGroup	EwCorr	Strom.Ist
62	ENABLED	Cms.PsGroup	EwCorr	Strom.Ims
63	ENABLED	Cms.PsGroup	EwCorr	Strom.Soll
64	ENABLED	Cms.PsGroup	EwMain	GroupDevices
65	ENABLED	Cms.PsGroup	EwMain	Strom.Ist
66	ENABLED	Cms.PsGroup	EwMain	Strom.Ims
67	ENABLED	Cms.PsGroup	EwMain	Strom.Soll
74	ENABLED	NEG.ABSCHNITTE	#0	GpDruck.NAM
75	ENABLED	NEG.ABSCHNITTE	#0	GpDruck
76	ENABLED	NEG.STROMKREISE	#0	CAct.NAM
77	ENABLED	NEG.STROMKREISE	#0	CAct
78	ENABLED	NEG.STROMKREISE	#0	VAct
84	ENABLED	TermoLogger	#0	TERMLOG_ARRAY
85	ENABLED	TermoLogger	#0	DEVICES
86	ENABLED	VAC.ION_PUMP	SEK.*	P.MEAN
87	ENABLED	VAC.ION_PUMP	SEK.*	P.MEAN
88	ENABLED	Kicker	Kicker1_Inj	DelayAllIARC
89	ENABLED	Kicker	#0	DEVICES
90	ENABLED	Kicker	Kicker1_Inj	HVall

Reload DB Write DB Lock DB DB unlocked

Index: 41 Tweak Clone New Add MCA Names

Data Collection Configuration

Context: PETRA Server: VAC.ION_PUMP

Device: * Property: P

Format: FLOAT Array Size: 500 Input Format: NULL Data Input: [Empty]

Filtering of Data Storage

NEVER ONCE ALWAYS FAST
 SLOW FIXTIME HRT STATUS
 VOLATILE NOPOI BEAM RUNNING

Access Rate: 2000 ms
Archive Heartbeat: 900 sec

Property Viewing Configuration

Vac.IonPumps.Pressure,FLOAT,500,mb,1.0E-4,1.0E-14,0.0,0.25,LOG,1.0,0.0,,,,,Vacuum

Maximum size [bytes]: 2000 Remaining elements: 0

Keyword	Data Format	Size	Units	Max	Min
-.IonPumps.Pressure	FLOAT	500	mb	1.0E-4	1.0E-14

Abs. Tolerance	Rel. Tolerance	Plot Style	Offset	Scale
0.0	0.25	LOG	0.0	1.0

Description: [Empty] Subsystem: Vacuum Associate: [Empty]

Bind To: [Empty] Spectrum Axis: [Empty] [Empty] [Empty]

Apply Add Remove

Archive Database Manager

Best to use device number "'#0'" in MCA property acquisition ...

The screenshot displays the Archive Database Manager interface. On the left, a table lists database entries with columns for Index, Active status, Device Server, Device Name, and Device Property. Entry 119 is highlighted, showing it is enabled, on device VAC.ION_PUMP #0, with property P. On the right, the configuration panel for Index 119 is shown. It includes sections for Data Collection Configuration (Context: XFEL, Device: #0, Property: P, Format: FLOAT, Array Size: 800, Input Format: NULL) and Filtering of Data Storage (options: NEVER, ONCE, ALWAYS, FAST, SLOW, FIXTIME, HRT, STATUS, VOLATILE, NOPOI). The VOLATILE and ALWAYS options are circled in red. The Property Viewing Configuration section shows the property: Vac.IonPumps.Pressure, FLOAT, 800, mbar, 1.0E-4, 1.0E-14, 0.0, 0.1, LOG, 1.0, 0.0, pressure,, Vacuum. At the bottom, there are buttons for Reload DB, Write DB, Lock DB, and a status indicator 'DB unlocked'.

Index	Active	Device Server	Device Name	Device Property
114	ENABLED	RadMonIP.Luft	#0	Socket.LateResponses
115	ENABLED	RadMonIP.Luft	#0	MCA.HighRateWarningTi...
116	ENABLED	RadMonIP.Luft	#0	MCA.InterlockedTimeSum...
117	ENABLED	RadMonIP.Luft	#0	MCA.DoseSumTotal.NAM
118	ENABLED	RadMonIP.Luft	#0	MCA.ProbeErrCounter
119	ENABLED	VAC.ION_PUMP	#0	P
120	ENABLED	VAC.ION_PUMP	#0	P.NAM
121	ENABLED	VAC.ION_PUMP	#0	HV
122	ENABLED	VAC.ION_PUMP	#0	STATUS
123	ENABLED	VAC.ION_PUMP	#0	STATUS_HW
124	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATUS_II
125	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATUS_INSTR_II
126	ENABLED	VAC.ION_PUMP_SEK	#0	STATUS_FLAG_II
127	ENABLED	VAC.ION_PUMP	#0	AB_IP_P_THR
128	ENABLED	CPS.GRP.CORR	ALL	pscValue.ist
129	ENABLED	CPS.GRP.CORR	ALL	Members
130	ENABLED	CPS.GRP.CORR	ALL	pscValue.soll
131	ENABLED	CPS.GRP.CORR	ALL	pscValue.status
132	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
133	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
134	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
135	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
138	ENABLED	VAC.ION_PUMP_FR	#0	VOLTAGE
139	ENABLED	VAC.ION_PUMP_SEK	#0	V51_ALARM_MASK_THR
140	ENABLED	VAC.ION_PUMP_SEK	#0	V51_ALARM_MASK_THR....
141	ENABLED	VAC.ION_PUMP_SEK	#0	V52_ALARM_MASK_THR
142	ENABLED	VAC.ION_PUMP_SEK	#0	V53_ALARM_MASK_THR
143	ENABLED	VAC.ION_PUMP_SEK	#0	V54_ALARM_MASK_THR
144	ENABLED	VAC.ION_PUMP_SEK	#0	V51LEFT_RELEASE_MAS...
145	ENABLED	VAC.ION_PUMP_SEK	#0	V52LEFT_RELEASE_MAS...
146	ENABLED	VAC.ION_PUMP_SEK	#0	V53LEFT_RELEASE_MAS...
147	ENABLED	VAC.ION_PUMP_SEK	#0	V54LEFT_RELEASE_MAS...
148	ENABLED	VAC.ION_PUMP_SEK	#0	V51RIGHT_RELEASE_MA...
149	ENABLED	VAC.ION_PUMP_SEK	#0	V52RIGHT_RELEASE_MA...

Archive Database Manager

Always get the device names with a '.NAM' call ...

Archive Database Manager: XFEL

File Configurations Navigate Options Help

Database Entries

Index	Active	Device Server	Device Name	Device Property
114	ENABLED	RadMonIP.Luft	#0	Socket.LateResponses
115	ENABLED	RadMonIP.Luft	#0	MCA.HighRateWarningTi...
116	ENABLED	RadMonIP.Luft	#0	MCA.InterlockedTimeSum...
117	ENABLED	RadMonIP.Luft	#0	MCA.DoseSumTotal.NAM
118	ENABLED	RadMonIP.Luft	#0	MCA.ProbeErrCounter
119	ENABLED	VAC.ION_PUMP	#0	P
120	ENABLED	VAC.ION_PUMP	#0	P.NAM
121	ENABLED	VAC.ION_PUMP	#0	HV
122	ENABLED	VAC.ION_PUMP	#0	STATUS
123	ENABLED	VAC.ION_PUMP	#0	STATUS_HW
124	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATUS_II
125	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATUS_INSTR_II
126	ENABLED	VAC.ION_PUMP_SEK	#0	STATUS_FLAG_II
127	ENABLED	VAC.ION_PUMP	#0	AB_IP_P_THR
128	ENABLED	CPS.GRP.CORR	ALL	pscValue.list
129	ENABLED	CPS.GRP.CORR	ALL	Members
130	ENABLED	CPS.GRP.CORR	ALL	pscValue.soll
131	ENABLED	CPS.GRP.CORR	ALL	pscValue.status
132	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
133	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
134	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
135	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
138	ENABLED	VAC.ION_PUMP_FR	#0	VOLTAGE
139	ENABLED	VAC.ION_PUMP_SEK	#0	V51_ALARM_MASK_THR
140	ENABLED	VAC.ION_PUMP_SEK	#0	V51_ALARM_MASK_THR...
141	ENABLED	VAC.ION_PUMP_SEK	#0	V52_ALARM_MASK_THR
142	ENABLED	VAC.ION_PUMP_SEK	#0	V53_ALARM_MASK_THR
143	ENABLED	VAC.ION_PUMP_SEK	#0	V54_ALARM_MASK_THR
144	ENABLED	VAC.ION_PUMP_SEK	#0	V51LEFT_RELEASE_MAS...
145	ENABLED	VAC.ION_PUMP_SEK	#0	V52LEFT_RELEASE_MAS...
146	ENABLED	VAC.ION_PUMP_SEK	#0	V53LEFT_RELEASE_MAS...
147	ENABLED	VAC.ION_PUMP_SEK	#0	V54LEFT_RELEASE_MAS...
148	ENABLED	VAC.ION_PUMP_SEK	#0	V51RIGHT_RELEASE_MA...
149	ENABLED	VAC.ION_PUMP_SEK	#0	V52RIGHT_RELEASE_MA...

Index: 120

Tweak Clone New Add MCA Names

Data Collection Configuration

Context: XFEL Server: VAC.ION_PUMP

Device: #0 Property: P.NAM

Format: NAME64 Array Size: 800 Input Format: NULL Data Input: [Empty]

Filtering of Data Storage

NEVER ONCE ALWAYS FAST

SLOW FIXTIME HRT STATUS

VOLATILE NOPOI

Access Rate: 1000 ms

Archive Heartbeat: 36096 sec

Property Viewing Configuration

Vacs.IonPumps.Pressure.NAM,NAME64,800,mbar,1.0E-4,1.0E-11,0.0,0.1,LOG,1.0,0.0,pressure,,,Vacuum

Maximum size [bytes]: 51200 Remaining elements: 0

Keyword	Data Format	Size	Units	Max	Min
Pumps.Pressure.NAM	NAME64	800	mbar	1.0E-4	1.0E-11

Abs. Tolerance: 0.0 Rel. Tolerance: 0.1 Plot Style: LOG Offset: 0.0 Scale: 1.0

Description: pressure Subsystem: Vacuum Associate: [Empty]

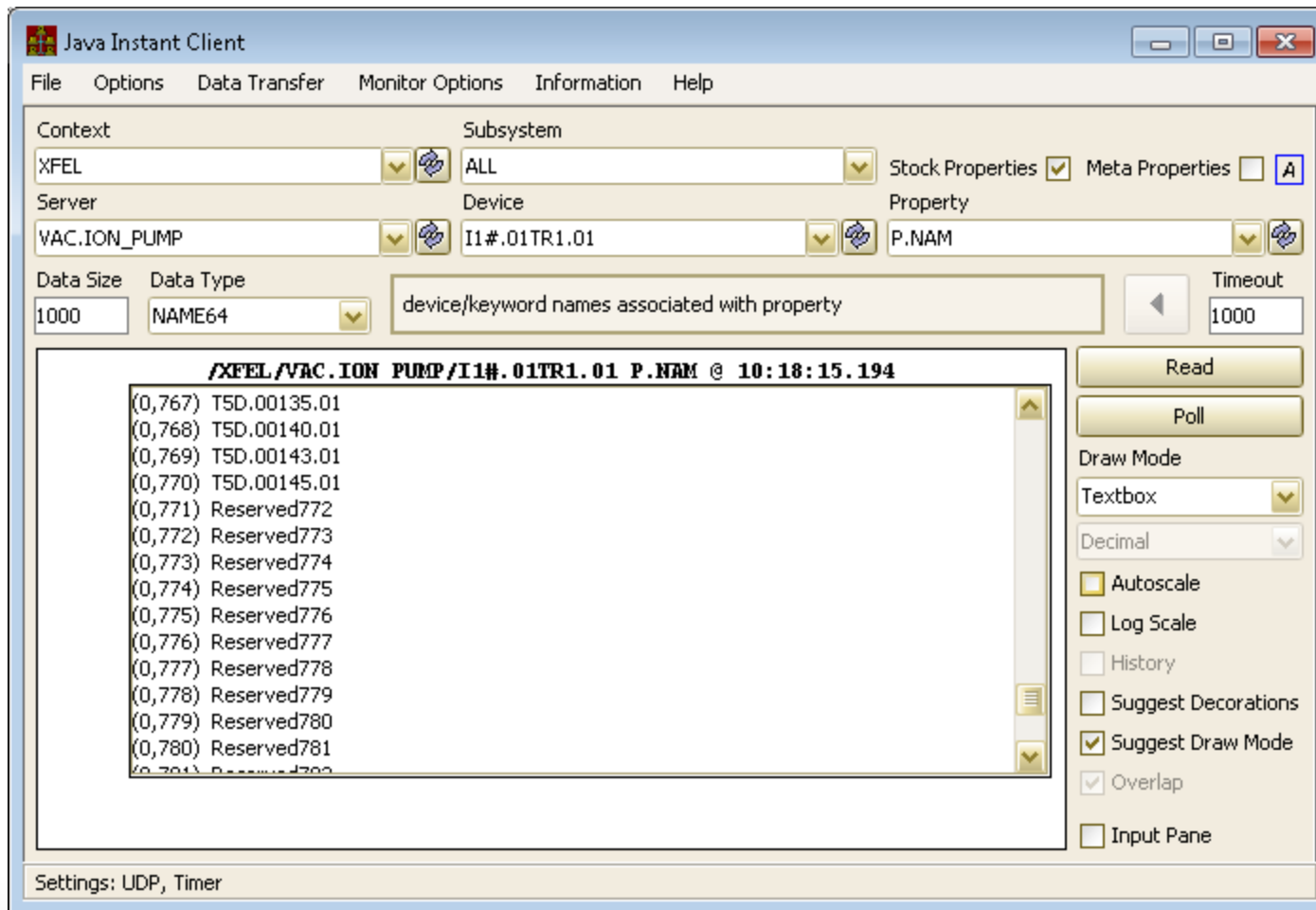
Bind To: [Empty] Spectrum Axis: [Empty] Min: [Empty] Max: [Empty] Units: [Empty]

Apply Add Remove

Reload DB Write DB Lock DB DB unlocked

Getting past the java device server wizard ...

- Pad the server with 'reserved' devices:



Archive Database Manager help ...

The screenshot displays the Archive Database Manager interface for XFEL. The main window is titled "Archive Database Manager: XFEL" and features a menu bar with "File", "Configurations", "Navigate", "Options", and "Help".

The "Database Entries" table is visible, listing various database records. A red arrow points from the "Help" menu to the "About" option, which has opened a help window. The help window contains the following text:

Archive Database Manager

- Archive Database Manager (full demo: ~6 minutes)
- How to add a simple scalar keyword
- How to add a Multi-Channel keyword
- How to add two Multi-Channel keywords to a single target
- How to tweak a keyword
- How to add Multi-Channel keywords with a common name list
- How to add a Multi-Channel keyword from a doocs server
- How to add a spectrum keyword
- How to remove a keyword
- How to clone a keyword

The interface also shows a "Data Collection Configuration" section with buttons for "Tweak", "Clone", and "New", and a "Property Viewing Configuration" section with various input fields and a table for keyword configuration.

Index	Active	Device Server	Name	Device Property
114	ENABLED	RadMonIP.Luft	#0	Socket.LateResponses
115	ENABLED	RadMonIP.Luft	#0	MCA.HighR
116	ENABLED	RadMonIP.Luft	#0	MCA.Interf
117	ENABLED	RadMonIP.Luft	#0	MCA.Dose
118	ENABLED	RadMonIP.Luft	#0	MCA.Probe
119	ENABLED	VAC.ION_PUMP	#0	P
120	ENABLED	VAC.ION_PUMP	#0	P.NAM
121	ENABLED	VAC.ION_PUMP	#0	HV
122	ENABLED	VAC.ION_PUMP	#0	STATUS
123	ENABLED	VAC.ION_PUMP	#0	STATUS_H
124	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATU
125	ENABLED	VAC.ION_PUMP_SEK	#0	IO_STATU
126	ENABLED	VAC.ION_PUMP_SEK	#0	STATUS_F
127	ENABLED	VAC.ION_PUMP	#0	AB_IP_P_T
128	ENABLED	CPS.GRP.CORR	ALL	pscValue.id
129	ENABLED	CPS.GRP.CORR	ALL	Members
130	ENABLED	CPS.GRP.CORR	ALL	pscValue.soll
131	ENABLED	CPS.GRP.CORR	ALL	pscValue.status
132	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
133	ENABLED	LLRF.CONTROLLER	*	VFORW.AMPL.SAMPLE
134	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
135	ENABLED	LLRF.CONTROLLER	*	VREFL.AMPL.SAMPLE
138	ENABLED	VAC.ION_PUMP_FR	#0	VOLTAGE
139	ENABLED	VAC.ION_PUMP_SEK	#0	VS1_ALARM_MASK_THR
140	ENABLED	VAC.ION_PUMP_SEK	#0	VS1_ALARM_MASK_THR....
141	ENABLED	VAC.ION_PUMP_SEK	#0	VS2_ALARM_MASK_THR
142	ENABLED	VAC.ION_PUMP_SEK	#0	VS3_ALARM_MASK_THR
143	ENABLED	VAC.ION_PUMP_SEK	#0	VS4_ALARM_MASK_THR
144	ENABLED	VAC.ION_PUMP_SEK	#0	VS1LEFT_RELEASE_MAS...
145	ENABLED	VAC.ION_PUMP_SEK	#0	VS2LEFT_RELEASE_MAS...
146	ENABLED	VAC.ION_PUMP_SEK	#0	VS3LEFT_RELEASE_MAS...
147	ENABLED	VAC.ION_PUMP_SEK	#0	VS4LEFT_RELEASE_MAS...
148	ENABLED	VAC.ION_PUMP_SEK	#0	VS1RIGHT_RELEASE_MA...
149	ENABLED	VAC.ION_PUMP_SEK	#0	VS2RIGHT_RELEASE_MA...

Archive Viewer

Why MCA storage is preferred !

The screenshot displays the Archive Viewer software interface. The window title is "Archive Viewer: PETRA Motto: Hold the Pickles, Hold the Lettuce...". The menu bar includes "File", "Navigate", "Options", and "Help".

The main area is divided into two charts. The left chart shows a time series plot from Feb 07/10h to Feb 08/06h. The y-axis ranges from 0 to 100. A red horizontal line is at approximately 50, and a black horizontal line is at approximately 40. Vertical lines in green, red, and blue are present. The x-axis is labeled "25 Hours".

The right chart is titled "Vac.IonPumps.Pressure 15:07:00.993". The y-axis is logarithmic, ranging from $1e-14$ to $1e-4$. The x-axis has labels: "0L153.7", "SOR119_125", "WR055.2A12", and "NOL011.5_008.7". The plot shows a blue line with high-frequency noise and a red shaded area below it.

Below the charts is a control panel with the following sections:

- Time Span**: Time: Tue 07. Feb 2017 14:39:36.805 CET, UTC: 1486474776, Live: System:
- Table**:

Status	Property [Device]	Value	Description	Log
<input checked="" type="checkbox"/>	OK	Vac.IonPumps.Pressure [OL15...	7.33E-11 mb	<input checked="" type="checkbox"/>
- Charts**:
 - Main Chart
 - Correlation Chart
 - Array Chart
- Array Chart Options**:
 - Axis Scale: LOG
 - Bit Breakdown
 - Lock Axis
 - SimpleHistogram
- Corr. Chart Options**:
 - Axis Scale (X-Y): LIN-LIN
- Array Options**:
 - All Devices Devices Subdevices
 - Start Movie / Stop Movie buttons
 - Slider: 762 / 949
 - Display Ref Sub Ref
 - Save Ref button
 - Ref: 07. Feb 2017 20:11:00.930
 - Data Options... button
- Buttons**: Invert Selection, Refresh All, Remove Selected, Remove All, History Mode, Live Mode, and a Live icon.

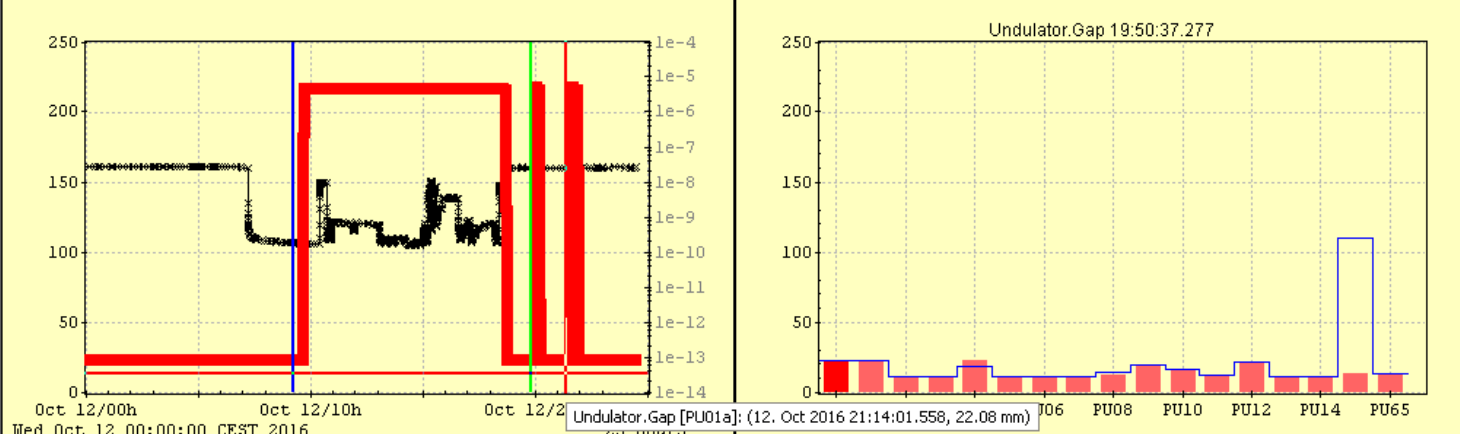
At the bottom left, a status message reads: "10:29:32: Array data for channel 'PETRA/HISTORY/OL153.7/Vac.IonPumps.Pressure' loaded."

Archive Viewer

Why MCA storage is preferred !

Archive Viewer: PETRA Motto: Hold the Pickles, Hold the Lettuce...

File Navigate Options Help



Undulator.Gap [PU01a]: (12. Oct 2016 21:14:01.558, 22.08 mm)

Time: Wed 12. Oct 2016 21:21:49.090 CEST UTC: 1476300109
Live: System:

Status	Property [Device]	Value	Description	Log
<input checked="" type="checkbox"/>	OK	Vac.IonPumps.Pressure [OL15...]	2.59E-08 mb	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	OK	Undulator.Gap [PU01a]	22.08 mm	Gap Width <input type="checkbox"/>

Invert Selection Refresh All Remove Selected Remove All

10:32:30: Array data for channel 'PETRA/HISTORY/PU01a/Undulator.Gap' loaded.

Time Span **Configurations** **Selector** **Chart & Trace** **View & Movie**

Charts

- Main Chart
- Correlation Chart
- Array Chart

Array Chart Options

Axis Scale: LIN

- Bit Breakdown
- Lock Axis
- SimpleHistogram

Corr. Chart Options

Axis Scale (X-Y): LIN-LIN

Array Options

All Devices Devices Subdevices

Start Movie Stop Movie

932 1370

Display Ref Sub Ref

Save Ref

Ref: 12. Oct 2016 09:13:42.216

Data Options...

History Mode Live Mode

Archive Viewer

Correlate with 'the eye' or with a correlation chart ...

Archive Viewer: PETRA Motto: Hold the Pickles, Hold the Lettuce...

File Navigate Options Help

Time Span Configure

Charts

- Main Chart
- Correlation Chart
- Array Chart

Array Chart Options

Axis Scale:

Bit Breakdown

Lock Axis

SimpleHistogram

Corr. Chart Options

Axis Scale (X-Y):

LOG-LIN

Function: x^2

Help

Function expects 'x' or 'y' as a variable
If function area is empty, identity is used

Available functions:

- abs*: absolute value
- acos*: arc cosine
- asin*: arc sine
- atan*: arc tangent
- cbrt*: cubic root
- ceil*: nearest upper integer
- cos*: cosine
- cosh*: hyperbolic cosine
- exp*: euler's number raised to the power (e^x)
- floor*: nearest lower integer
- log*: logarithmus naturalis (base e)
- sin*: sine
- sinh*: hyperbolic sine
- sqrt*: square root
- tan*: tangent
- tanh*: hyperbolic tangent
- pi*: 3.14159265358979323846

Available operators:

- Addition*: $x + 2$
- Subtraction*: $x - 2$
- Multiplication*: $x * 2$
- Division*: $x / 2$
- Exponentiation*: $x ^ 2$
- Unary Minus, Plus (Sign Operators)*: $-x$ (-2)
- Modulo*: $x \% 2$

Clear Apply OK Close

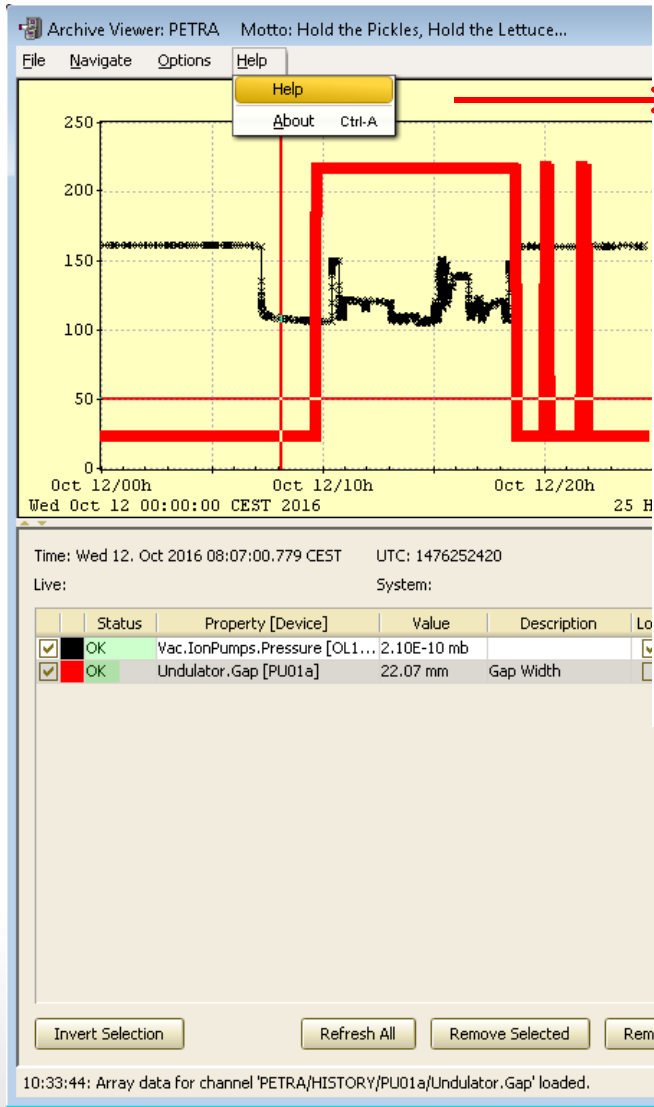
Status	Property [Device]	Value	Description	Log	X	Y
<input checked="" type="checkbox"/> OK	Vac.IonPumps.Pressure [OL1...]	2.10E-10 mb		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> OK	Undulator.Gap [PU01a]	22.07 mm	Gap Width	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Invert Selection Refresh All Remove Selected Remove All

10:33:44: Array data for channel 'PETRA/HISTORY/PU01a/Undulator.Gap' loaded.

Archive Viewer help ...

The Archive Viewer



- Archive Viewer (full demo: ~20 minutes)
- selecting channels
- displaying channels
- scalar channels
- array channels
- text channels
- bit-field channels
- spectrum array channels
- Multi-channel arrays (example 1: dense array)
- Multi-channel arrays (example 2: sparse array)
- video image channels
- How to display relative to a reference
- How to display the storage tolerance
- How to display relative to another keyword
- How to correlate two keywords
- How to annotate channels
- How to flag channel annotations as active
- How to remove annotations
- How to use different data plotting styles
- How to see the keyword status
- How to control the time range used in data acquisition
- How to see how much data is being plotted
- How to plot versus the system stamp
- How to apply mathematical transformations to the displayed data
- Normalized vs. Absolute view: How to shift and scale selected keywords
- How to quickly add multiple keywords
- How to set the time range used in the trend display
- How to save archive data into a file

The settings panel includes the following options:

- Plot Style: LIN (dropdown)
- Bit Breakdown
- Lock Axis
- SimpleHistogram (dropdown)
- Corr. Chart Options: Axis Scale (X-Y): LOG-LIN (dropdown)
- Display Ref
- Sub Ref
- Save Ref (button)
- Ref: (text field)
- Data Options... (button)
- History Mode (button)
- Live Mode (button)
- Green bug icon (button)

Archive Request Form (ARF)

From e.g.

- Instant Client
- An acopbean
- (later) a jddd widget

Central Archive Request Form

Data Retrieval

Context: PETRA Subsystem: ALL

Server: BLM Device: PJ011 Property: LossRates

Data Storage

Data Type: INT32

Size/Capacity: 32

Description: get BLM losses

Absolute Tolerance:

Relative Tolerance:

Destination Context: PETRA

Subsystem: ALL

Keyword: BLM.LossRates

Get MCA Device Names?

Data Browsing in Viewer

Units: cnts

Default Plotting Min: 0.0

Default Plotting Max: 32767.0

Configure in Multi Channel Analyzer?

Configure in Scope Trace Viewer?

Drop Area

Add Remove

Send Request

Default suggestion: <server>.<property>
PLEASE give this some thought !

Suggested name for the property in the archive system

ARF noticed that this property is an MCA

Archive Request Form (ARF)

Central Archive Request Form

Data Retrieval

Context: PETRA
Subsystem: ALL
Server: BLM
Device: PU01I
Property: Status

Data Storage

Data Type: INT16
Size/Capacity: 32
Description: get BLM module status
Absolute Tolerance: 0
Relative Tolerance: 0
Destination Context: PETRA
Subsystem: ALL
Keyword: BLM.Status
Get MCA Device Names?

Data Browsing in Viewer

Units:
Default Plotting Min: 0.0
Default Plotting Max: 0.0
Configure in Multi Channel Analyzer?
Configure in Scope Trace Viewer?

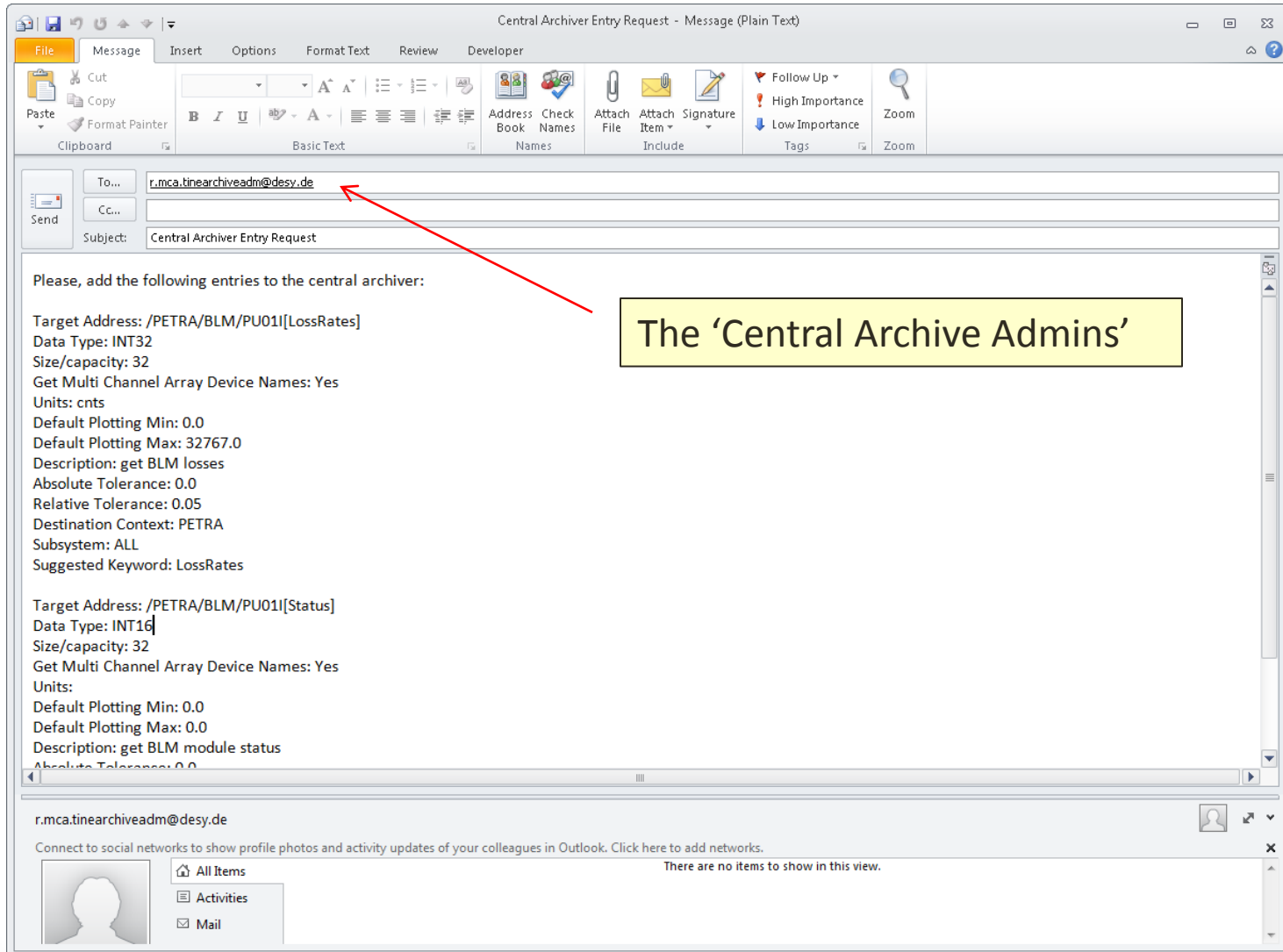
Drop Area

- PETRA/BLM/PU01I[LossRates]
- PETRA/BLM/PU01I[Status]

Add Remove

Send Request

Archive Request Form (ARF)



Central Archiver Entry Request - Message (Plain Text)

To: r.mca.tinearchiveadm@desy.de

Subject: Central Archiver Entry Request

Please, add the following entries to the central archiver:

Target Address: /PETRA/BLM/PU011[LossRates]
Data Type: INT32
Size/capacity: 32
Get Multi Channel Array Device Names: Yes
Units: cnts
Default Plotting Min: 0.0
Default Plotting Max: 32767.0
Description: get BLM losses
Absolute Tolerance: 0.0
Relative Tolerance: 0.05
Destination Context: PETRA
Subsystem: ALL
Suggested Keyword: LossRates

Target Address: /PETRA/BLM/PU011[Status]
Data Type: INT16
Size/capacity: 32
Get Multi Channel Array Device Names: Yes
Units:
Default Plotting Min: 0.0
Default Plotting Max: 0.0
Description: get BLM module status
Absolute Tolerance: 0.0

r.mca.tinearchiveadm@desy.de

Connect to social networks to show profile photos and activity updates of your colleagues in Outlook. Click here to add networks.

All Items
Activities
Mail

There are no items to show in this view.

The 'Central Archive Admins'

Archive Request Form (ARF)

drag-and-drop from the email!

Archive Database Manager: PETRA

File Configurations Navigate Options Help

Database Entries

Index	Active	Device Server	Device Name	Device Property
1	ENABLED	Idc	#0	Current
2	ENABLED	Idc	#0	Tau
3	ENABLED	Idc	#0	TauArray
12	ENABLED	BunchCurrents	Bunch-1	BunchCurrents
13	ENABLED	BunchCurrents	Bunch-1	BunchCurrents.NAM
19	ENABLED	ALARMSTATE	#0	ISREADY
20	ENABLED	ALARMSTATE	#0	NOTREADYCOUNT
21	ENABLED	ALARMSTATE	#0	NOTREADYRUNNING
22	ENABLED	ALARMSTATE	#0	DEVICES
23	ENABLED	BunchCurrents	Bunch-1	SummedCurrent
24	ENABLED	Bunche_EWeg	IMA-E03	BunchParticlesE9
26	ENABLED	Bunche_EWeg	#0	BunchParticlesE9.NAM
28	ENABLED	GlobalsCollector	keyword	MachineStateText
29	ENABLED	GlobalsCollector	keyword	BeamPermissionText
30	ENABLED	GlobalsCollector	keyword	MagnetCurrentPermissio...
38	ENABLED	BunchCurrents	Bunch-1	NumberBunches
39	ENABLED	GlobalsCollector	#0	Energy
40	ENABLED	VAC.ION_PUMP	*	P
41	ENABLED	VAC.ION_PUMP	*	P
46	ENABLED	PiCoPy	halleNIDclosed	expertState
47	ENABLED	Idc	#0	Ladung
60	ENABLED	Cms.PsGroup	EwCorr	GroupDevices
61	ENABLED	Cms.PsGroup	EwCorr	Strom.Ist
62	ENABLED	Cms.PsGroup	EwCorr	Strom.Ims
63	ENABLED	Cms.PsGroup	EwCorr	Strom.Soll
64	ENABLED	Cms.PsGroup	EwMain	GroupDevices
65	ENABLED	Cms.PsGroup	EwMain	Strom.Ist
66	ENABLED	Cms.PsGroup	EwMain	Strom.Ims
67	ENABLED	Cms.PsGroup	EwMain	Strom.Soll
74	ENABLED	NEG.ABSCHNITTE	#0	GpDruck.NAM
75	ENABLED	NEG.ABSCHNITTE	#0	GpDruck
76	ENABLED	NEG.STROMKREISE	#0	CAct.NAM
77	ENABLED	NEG.STROMKREISE	#0	CAct
78	ENABLED	NEG.STROMKREISE	#0	VAct

Reload DB Write DB Lock DB DB unlocked

Please, add the following entries to the central archiver:

Target Address: /PETRA/BLM/PU01I[LossRates]

Data Type: INT32

Size/capacity: 32

Get Multi Channel Array Device Names: Yes

Units: cnts

Default Plotting Min: 0.0

Default Plotting Max: 32767.0

Description: get BLM losses

Absolute Tolerance: 0.0

Relative Tolerance: 0.05

Destination Context: PETRA

Subsystem: ALL

Suggested Keyword: LossRates

Target Address: /PETRA/BLM/PU01I[Status]

Data Type: INT16

Size/capacity: 32

Get Multi Channel Array Device Names: Yes

Maximum size [bytes]: 0 Remaining elements: 0

Keyword	Data Format	Size	Units	Max	Min
	NULL	0		1	0

Abs. Tolerance: Rel. Tolerance: Plot Style: LIN Offset: 0 Scale: 0

Description: Subsystem: Associate:

Bind To: Spectrum Axis: Min: Max: Units:

Apply Add Remove