TINE Release 4.0 News

(May 8, 2009: That was the week that was !)

“What a long, strange trip it’s been ….”

From the last meeting …

TINE 4.0.10: up and coming …

- 1) Solving the ‘132 MB transfer problem’
  - CM_STREAM transfer doesn’t work beyond a ‘magic number’ of bytes : 132461899
  - (S. Weisse)

Solved!

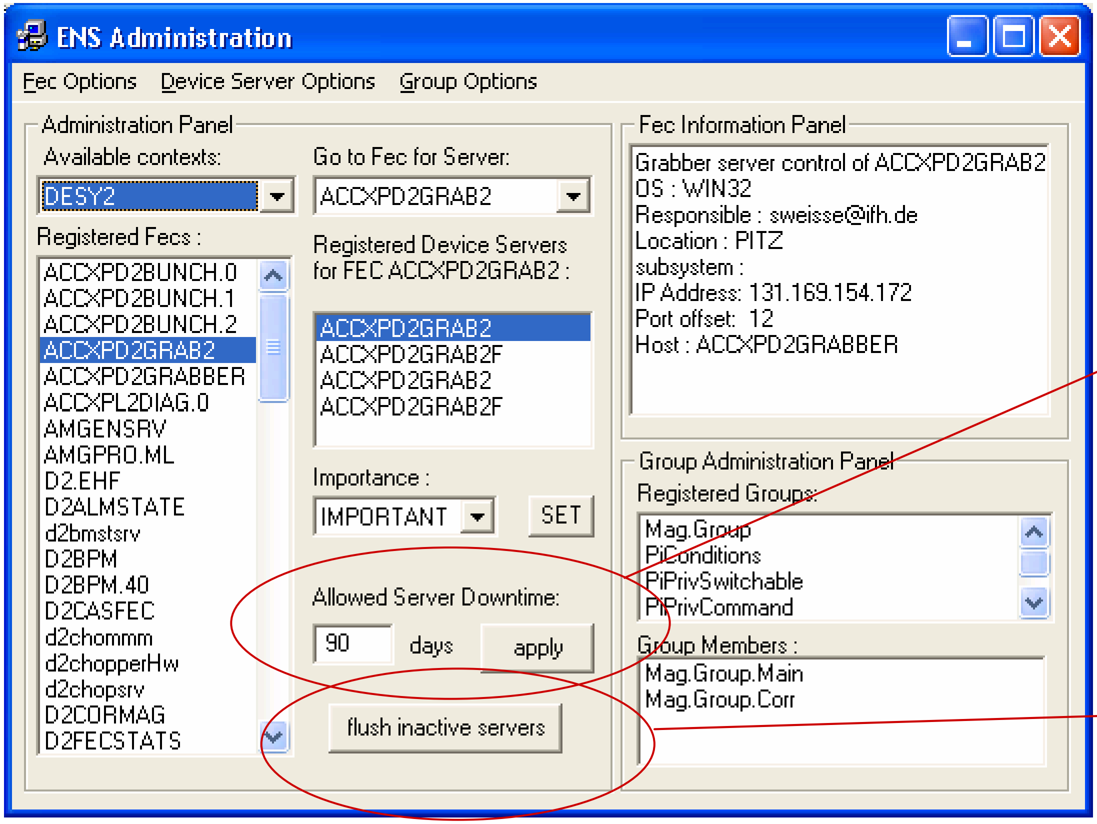
- 2) Implementing the ‘multi-channel array’ background logic.
  - Properties registered as multi-channel arrays being accessed ‘pro channel’
    - e.g. Vacuum Pressure, BPM positions, etc. can be obtained with a single contract instead of 300 contracts!

Done in Std Lib!

- 3) History calls using CF_HISTORY
  - Allow any format type to be archived and retrieved
  - Allow access to the ‘system stamp’ and ‘user stamp’ (along with the timestamp) stored with the data.
- 3) Variable length formats in structs
  - CF_STRING, CF_IMAGE, CF_SPECTRUM
- Services:
  - ENS deadweight checker
    - Periodically ping all servers and record ‘last alive’ timestamp
    - Remove ‘dead’ entries (e.g. 3 months since ‘last alive’)

Done!

ENS Deadweight Checker



Administration Panel

Available contexts: DESY2

Go to Fec for Server: ACCXPD2GRAB2

Registered Fecs :

ACCXPD2BUNCH.0
ACCXPD2BUNCH.1
ACCXPD2BUNCH.2
ACCXPD2GRAB2
ACCXPD2GRABBER
ACCXPL2DIAG.0
AMGENSRV
AMGPRO.ML
D2.EHF
D2ALMSTATE
d2bmstsrv
D2BPM
D2BPM.40
D2CASFEC
d2chommm
d2chopperHw
d2chopsrv
D2CORMAG
D2FECSTATS

Registered Device Servers for FEC ACCXPD2GRAB2 :

ACCXPD2GRAB2
ACCXPD2GRAB2F
ACCXPD2GRAB2
ACCXPD2GRAB2F

Importance : IMPORTANT

Allowed Server Downtime: 90 days

Fec Information Panel

Grabber server control of ACCXPD2GRAB2
OS : WIN32
Responsible : sweisse@ifh.de
Location : PITZ
subsystem :
IP Address: 131.169.154.172
Port offset: 12
Host : ACCXPD2GRABBER

Group Administration Panel

Registered Groups:

Mag.Group
PiConditions
PiPrivSwitchable
PiPrivCommand

Group Members :

Mag.Group.Main
Mag.Group.Corr

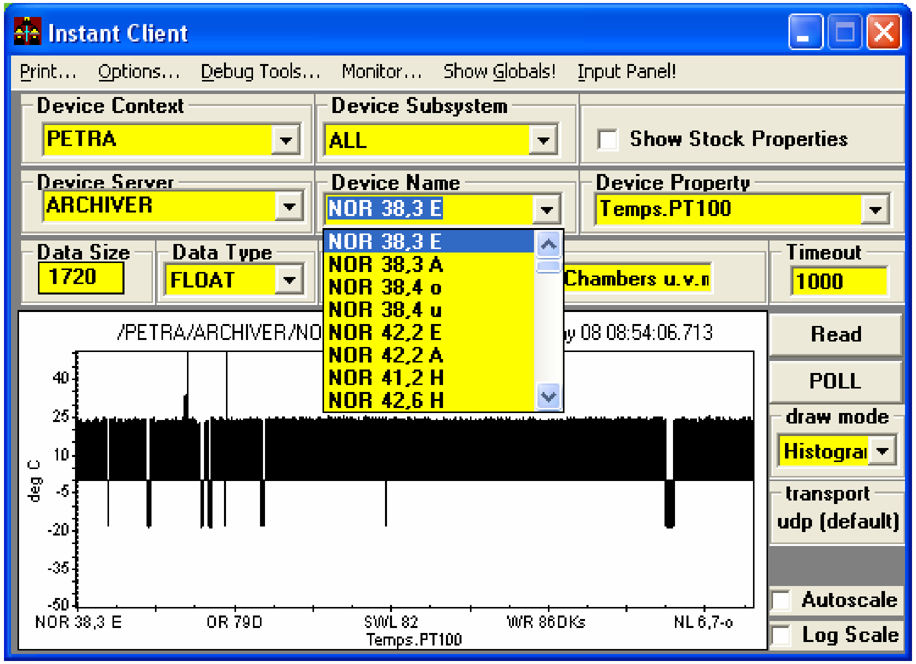
Flush (all) entries which have not responded (hourly pings) within the last 90 days

Ping all servers (this context) now and remove those which do not respond.

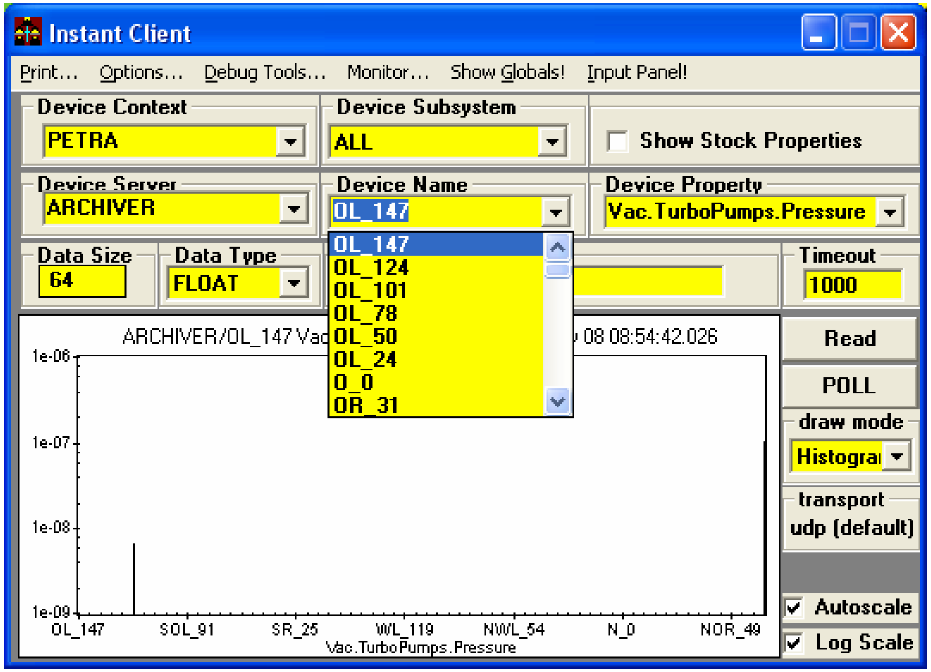
What are Multi-Channel Arrays?

- Property “XYZ” is an array of 100 floats. What kind of array?
  - Collection (structured, unstructured)
    - e.g. First value is Number of particles, second value is something else, next 10 are something else, etc.
    - Can’t know anything about this property a priori.
  - Trace (aka Spectrum, Waveform)
    - e.g. profile (bunch, tune); trend (transient recorders); etc.
    - x and y units, ranges
    - plot as ‘poly-line’
  - Multi-Channel Array (vector)
    - Each element refers to a monitor (matches one-to-one with <property>.NAM (or DEVICES)
    - e.g. All BPMs, Vacuum Pressures, Temperature sensor readings, etc.
    - y units, ranges; x axis is the number of ‘devices’
    - Plot as ‘histogram’
    - Can get ALL elements OR Section (e.g. just one!) beginning with the device name selected. (n.b. Multi-Channel Arrays can Wrap).

What are Multi-Channel Arrays?



Device Context: PETRA
Device Subsystem: ALL
□ Show Stock Properties
Device Server: ARCHIVER
Device Name: NOR 38,3 E
Device Property: Temps.PT100
Data Size: 1720
Data Type: FLOAT
Timeout: 1000
draw mode: Histogra
transport: udp (default)
□ Autoscale
□ Log Scale

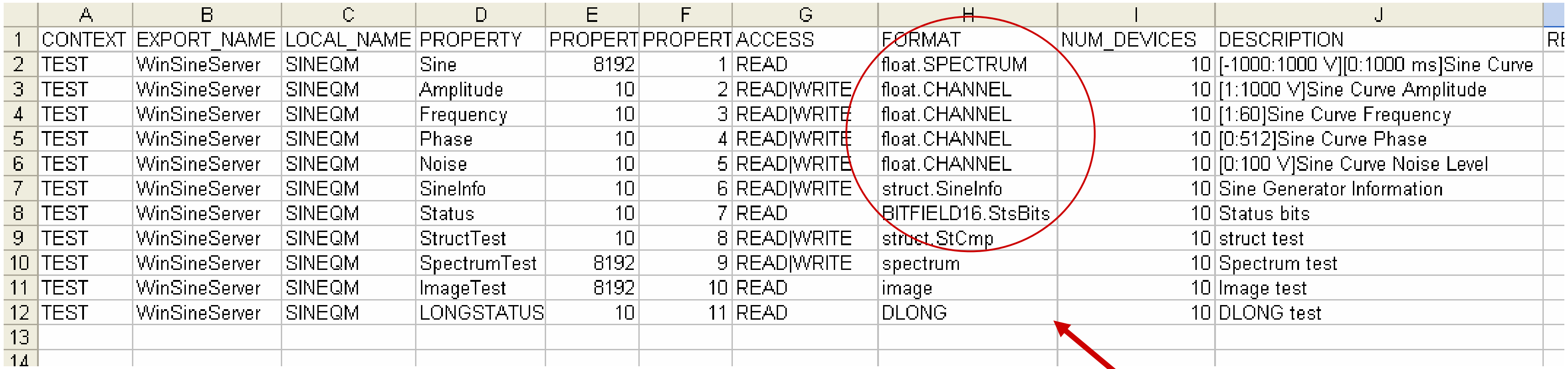


Device Context: PETRA
Device Subsystem: ALL
□ Show Stock Properties
Device Server: ARCHIVER
Device Name: OL_147
Device Property: Vac.TurboPumps.Pressure
Data Size: 64
Data Type: FLOAT
Timeout: 1000
draw mode: Histogra
transport: udp (default)
☑ Autoscale
☑ Log Scale

- **"Channel Names" given by <property>.NAM**
  - **e.g. Temps.PT100.NAM or Vac.TurboPumps.Pressure.NAM**
  - **(collapses to "DEVICES" if no property name list registered)**

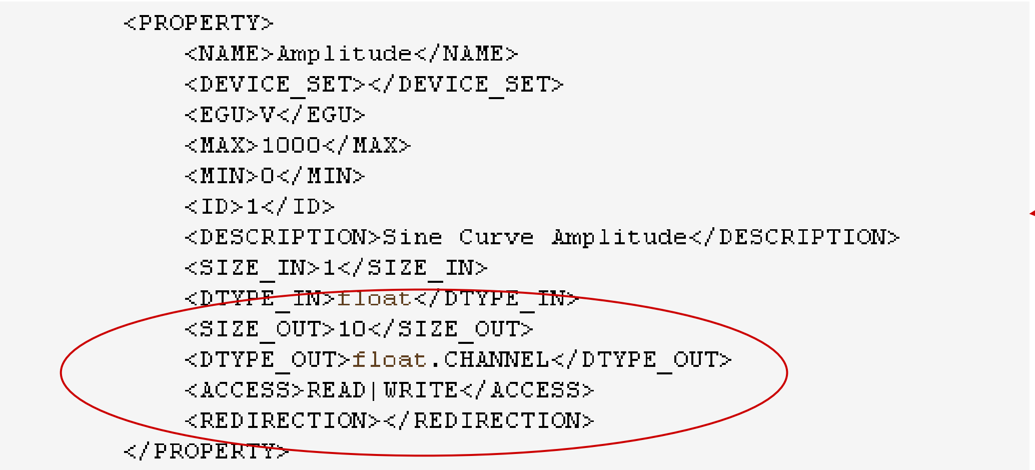
What are Multi-Channel Arrays?

Property Registration (per config File):



	A	B	C	D	E	F	G	H	I	J	RE
1	CONTEXT	EXPORT_NAME	LOCAL_NAME	PROPERTY	PROPERT	PROPERT	ACCESS	FORMAT	NUM_DEVICES	DESCRIPTION	RE
2	TEST	WinSineServer	SINEQM	Sine	8192	1	READ	float.SPECTRUM	10	[-1000:1000 V][0:1000 ms]Sine Curve	
3	TEST	WinSineServer	SINEQM	Amplitude	10	2	READ|WRITE	float.CHANNEL	10	[1:1000 V]Sine Curve Amplitude	
4	TEST	WinSineServer	SINEQM	Frequency	10	3	READ|WRITE	float.CHANNEL	10	[1:60]Sine Curve Frequency	
5	TEST	WinSineServer	SINEQM	Phase	10	4	READ|WRITE	float.CHANNEL	10	[0:512]Sine Curve Phase	
6	TEST	WinSineServer	SINEQM	Noise	10	5	READ|WRITE	float.CHANNEL	10	[0:100 V]Sine Curve Noise Level	
7	TEST	WinSineServer	SINEQM	SineInfo	10	6	READ|WRITE	struct.SineInfo	10	Sine Generator Information	
8	TEST	WinSineServer	SINEQM	Status	10	7	READ	BITFIELD16.StsBits	10	Status bits	
9	TEST	WinSineServer	SINEQM	StructTest	10	8	READ|WRITE	struct.StCmp	10	struct test	
10	TEST	WinSineServer	SINEQM	SpectrumTest	8192	9	READ|WRITE	spectrum	10	Spectrum test	
11	TEST	WinSineServer	SINEQM	ImageTest	8192	10	READ	image	10	Image test	
12	TEST	WinSineServer	SINEQM	LONGSTATUS	10	11	READ	DLONG	10	DLONG test	
13											
14											

exports.csv

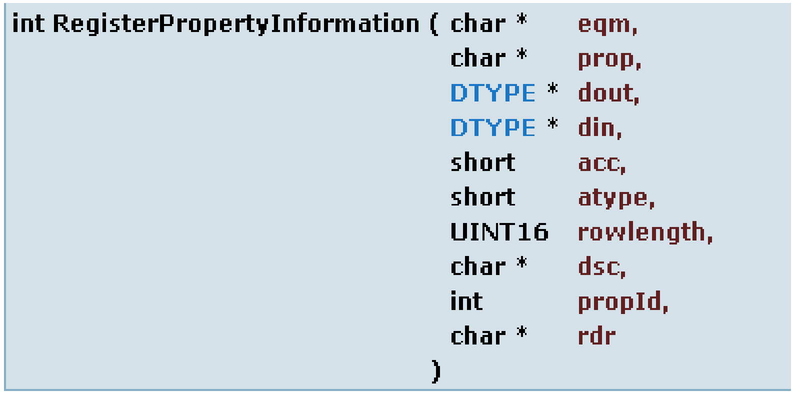


```
<PROPERTY>
    <NAME>Amplitude</NAME>
    <DEVICE_SET></DEVICE_SET>
    <EGU>V</EGU>
    <MAX>1000</MAX>
    <MIN>0</MIN>
    <ID>1</ID>
    <DESCRIPTION>Sine Curve Amplitude</DESCRIPTION>
    <SIZE_IN>1</SIZE_IN>
    <DTYPE_IN>float</DTYPE_IN>
    <SIZE_OUT>10</SIZE_OUT>
    <DTYPE_OUT>float.CHANNEL</DTYPE_OUT>
    <ACCESS>READ|WRITE</ACCESS>
    <REDIRECTION></REDIRECTION>
</PROPERTY>
```

fec.xml

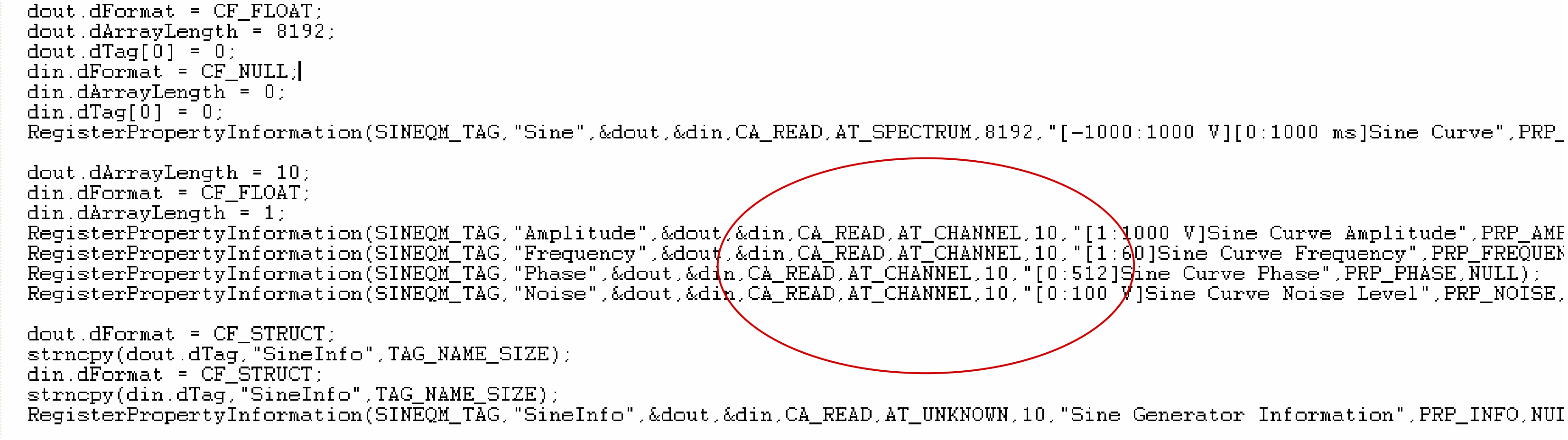
What are Multi-Channel Arrays?

Property Registration (per API):



```
int RegisterPropertyInformation ( char *    eqm,
                                  char *    prop,
                                  DTYPE *   dout,
                                  DTYPE *   din,
                                  short     acc,
                                  short     atype,
                                  UINT16    rowlength,
                                  char *    dsc,
                                  int       propId,
                                  char *    rdr
                                )
```

C, C++

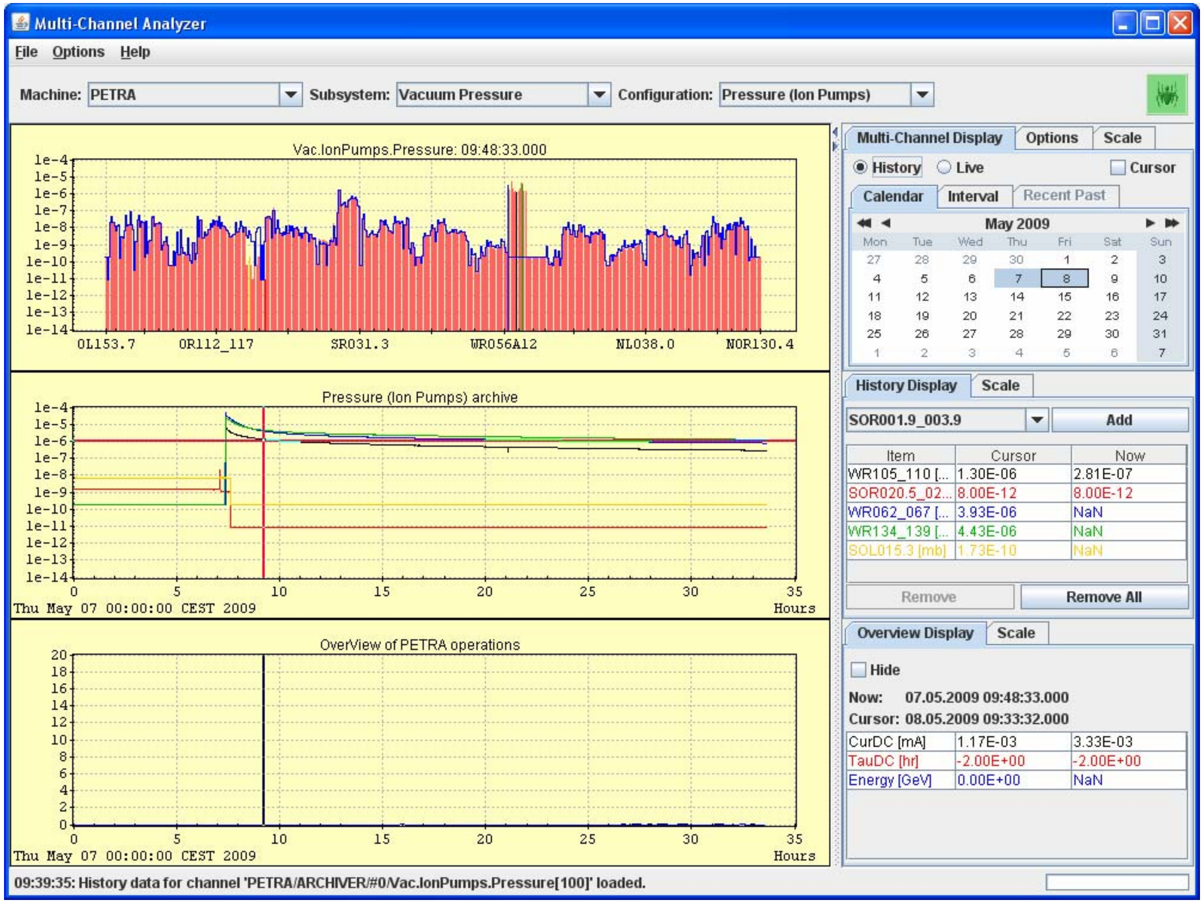


```
dout.dFormat = CF_FLOAT;
dout.dArrayLength = 8192;
dout.dTag[0] = 0;
din.dFormat = CF_NULL;
din.dArrayLength = 0;
din.dTag[0] = 0;
RegisterPropertyInformation(SINEQM_TAG,"Sine",&dout,&din,CA_READ,AT_SPECTRUM,8192,"[-1000:1000 V][0:1000 ms]Sine Curve",PRP_

dout.dArrayLength = 10;
din.dFormat = CF_FLOAT;
din.dArrayLength = 1;
RegisterPropertyInformation(SINEQM_TAG,"Amplitude",&dout,&din,CA_READ,AT_CHANNEL,10,"[1:1000 V]Sine Curve Amplitude",PRP_AMP
RegisterPropertyInformation(SINEQM_TAG,"Frequency",&dout,&din,CA_READ,AT_CHANNEL,10,"[1:60]Sine Curve Frequency",PRP_FREQUEN
RegisterPropertyInformation(SINEQM_TAG,"Phase",&dout,&din,CA_READ,AT_CHANNEL,10,"[0:512]Sine Curve Phase",PRP_PHASE,NULL);
RegisterPropertyInformation(SINEQM_TAG,"Noise",&dout,&din,CA_READ,AT_CHANNEL,10,"[0:100 V]Sine Curve Noise Level",PRP_NOISE,

dout.dFormat = CF_STRUCT;
strncpy(dout.dTag,"SineInfo",TAG_NAME_SIZE);
din.dFormat = CF_STRUCT;
strncpy(din.dTag,"SineInfo",TAG_NAME_SIZE);
RegisterPropertyInformation(SINEQM_TAG,"SineInfo",&dout,&din,CA_READ,AT_UNKNOWN,10,"Sine Generator Information",PRP_INFO,NUL
```

What are Multi-Channel Arrays?

- Deduced Array Types
  - Parse the property description string (config File OR API call):
    - “[-100:100 V][0:100 ms]induced voltage”
      - Is Array Type **AT_SPECTRUM**
    - “[1e-14:1e-4 mb][CHANNEL]pressure”
      - Is Array Type **AT_CHANNEL**

Multi-Channel Array Benefits



Machine: PETRA Subsystem: Vacuum Pressure Configuration: Pressure (Ion Pumps)

● History ○ Live □ Cursor

May 2009

Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

SOR001.9_003.9

Item	Cursor	Now
WR105_110 [...	1.30E-06	2.81E-07
SOR020.5_02...	8.00E-12	8.00E-12
WR062_067 [...	3.93E-06	NaN
WR134_139 [...	4.43E-06	NaN
SOL015.3 [mb]	1.73E-10	NaN

□ Hide

Now: 07.05.2009 09:48:33.000

Cursor: 08.05.2009 09:33:32.000

CurDC [mA]	1.17E-03	3.33E-03
TauDC [hr]	-2.00E+00	-2.00E+00
Energy [GeV]	0.00E+00	NaN

09:39:35: History data for channel 'PETRA/ARCHIVER/#0/Vac.IonPumps.Pressure[100]' loaded.

Multi-Channel Analyzer

All values in ONE call !

Forcing Multi-Channel Access

- Some Apps (e.g. jDDD, MatLab, others?) want to get each element separately !
- Vacuum server, BPM server dispatch routines then get ~600 interrupts (@ 5 Hz?) instead of 2 !!
- Server diagnostics (get contracts) get more muddled.
    - Now you're looking for a needle and you've created a haystack
- Wasting (some) band width
    - Contract overhead ~ 44 bytes (times 600 – 2) = 26 KB

Forcing Multi-Channel Access

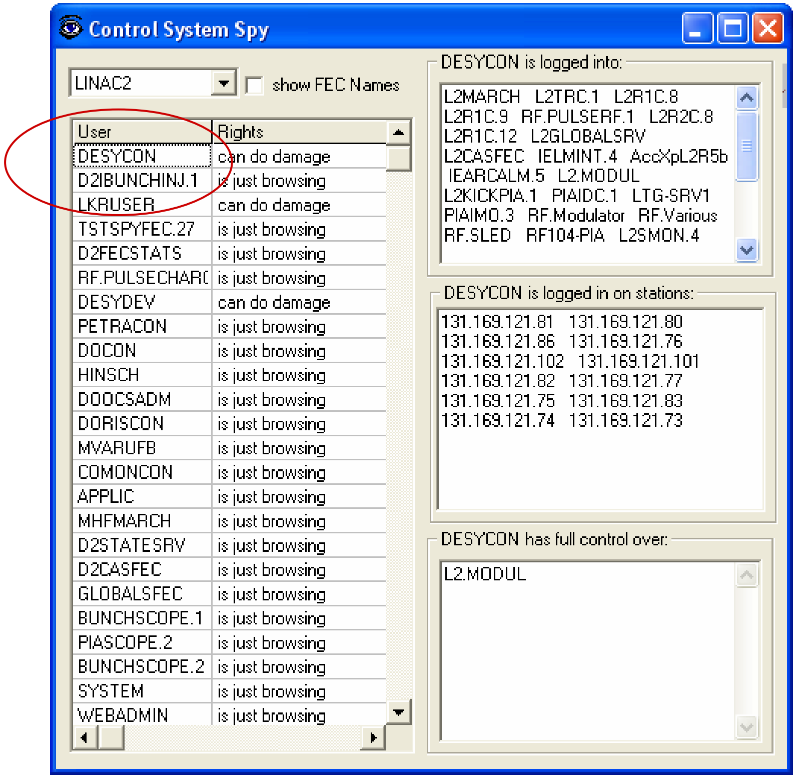
- Solution:
  - Server sees link request for 1 element from a **known** multi-channel array
  - Server ‘**informs**’ client of the element index and how large the array should be
  - Client re-issues the link and pulls the element data from the returned buffer
  - All individual requests then collapse to a **single link**.
- But:
  - Asking for CF_DEFAULT will already return the ‘whole array’ (what does jDDD do?)
  - Implemented but not in play until release 4.0.11 or higher.

Central Alarm Server

- Can now **disable** specific alarm types.
  - Because specific hardware is being repaired, etc. and operators do not want to see spurious FATAL alarms.
- Currently being integrated into the Alarm Viewer.

Up and Coming …

- Control System SPY (view #1)



Control System Spy

LINAC2 ▾ □ show FEC Names

User	Rights
DESYCON	can do damage
D2IBUNCHINJ.1	is just browsing
LKRUSER	can do damage
TSTSPYFEC.27	is just browsing
D2FECSTATS	is just browsing
RF.PULSECHAR	is just browsing
DESYDEV	can do damage
PETRACON	is just browsing
DOCON	is just browsing
HINSCH	is just browsing
DOOCSADM	is just browsing
DORISCON	is just browsing
MVARUFB	is just browsing
COMONCON	is just browsing
APPLIC	is just browsing
MHFMARCH	is just browsing
D2STATESRV	is just browsing
D2CASFEC	is just browsing
GLOBALSFEC	is just browsing
BUNCHSCOPE.1	is just browsing
PIASCOPE.2	is just browsing
BUNCHSCOPE.2	is just browsing
SYSTEM	is just browsing
WEBADMIN	is just browsing

DESYCON is logged into:

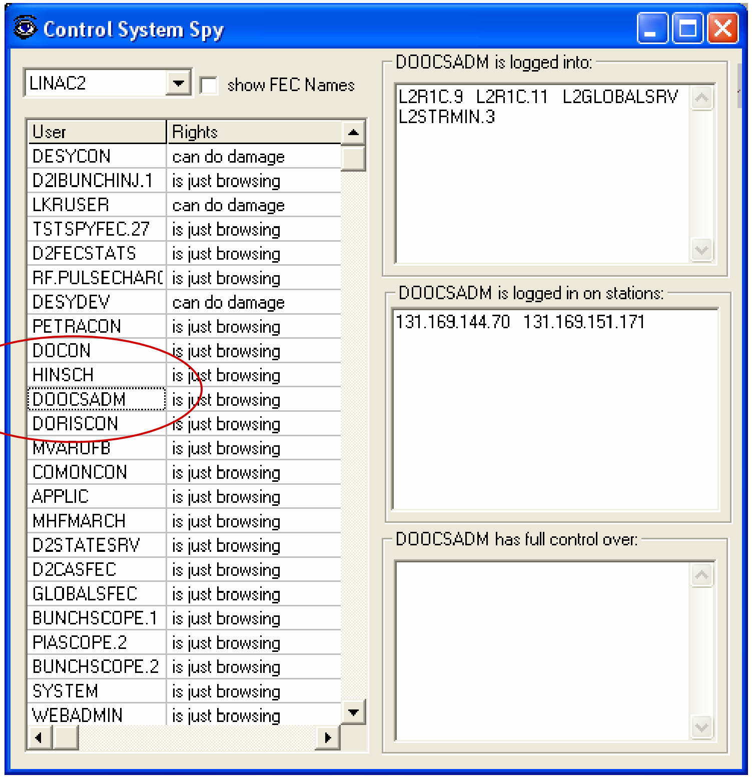
L2MARCH L2TRC.1 L2R1C.8
L2R1C.9 RF.PULSERF.1 L2R2C.8
L2R1C.12 L2GLOBALSRV
L2CASFEC IELMINT.4 AccXpL2R5b
IEARCALM.5 L2.MODUL
L2KICKPIA.1 PIAIDC.1 LTG-SRV1
PIAIMO.3 RF.Modulator RF.Various
RF.SLED RF104-PIA L2SMON.4

DESYCON is logged in on stations:

131.169.121.81 131.169.121.80
131.169.121.86 131.169.121.76
131.169.121.102 131.169.121.101
131.169.121.82 131.169.121.77
131.169.121.75 131.169.121.83
131.169.121.74 131.169.121.73

DESYCON has full control over:

L2.MODUL



Control System Spy

LINAC2 ▾ □ show FEC Names

User	Rights
DESYCON	can do damage
D2IBUNCHINJ.1	is just browsing
LKRUSER	can do damage
TSTSPYFEC.27	is just browsing
D2FECSTATS	is just browsing
RF.PULSECHAR	is just browsing
DESYDEV	can do damage
PETRACON	is just browsing
DOCON	is just browsing
HINSCH	is just browsing
DOOCSADM	is just browsing
DORISCON	is just browsing
MVARUFB	is just browsing
COMONCON	is just browsing
APPLIC	is just browsing
MHFMARCH	is just browsing
D2STATESRV	is just browsing
D2CASFEC	is just browsing
GLOBALSFEC	is just browsing
BUNCHSCOPE.1	is just browsing
PIASCOPE.2	is just browsing
BUNCHSCOPE.2	is just browsing
SYSTEM	is just browsing
WEBADMIN	is just browsing

DOOCSADM is logged into:

L2R1C.9 L2R1C.11 L2GLOBALSRV
L2STRMIN.3

DOOCSADM is logged in on stations:

131.169.144.70 131.169.151.171

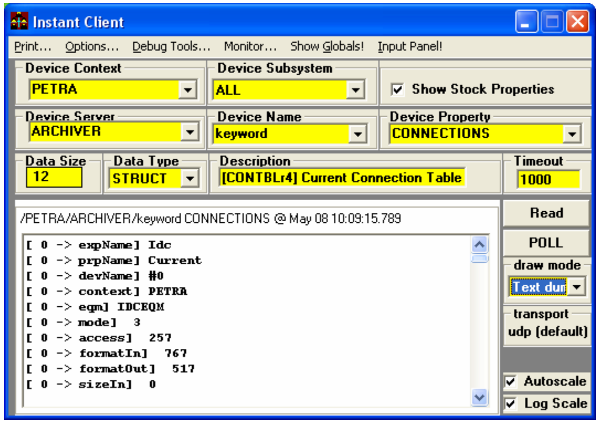
DOOCSADM has full control over:

Up and Coming …

- Control System SPY (view #2)
  - Connectivity hierarchy among the device servers
  - Information is (essentially) there, GUI in the design phase

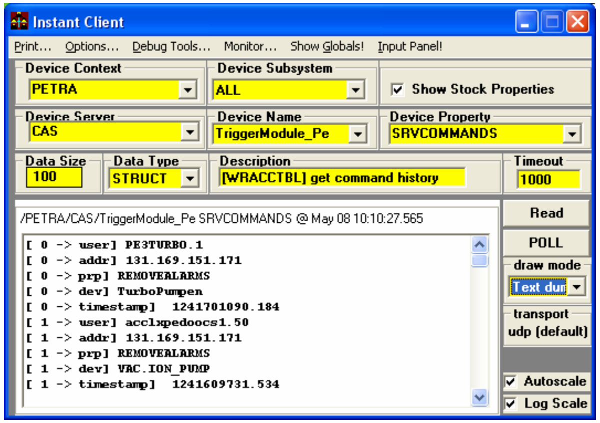
Related Additions in 4.0.10

- New Stock Properties:
  - “CONNECTIONS”
    - Returns a server’s client-side connection table (if the server is also a client)
  - “SRVCOMMANDS”
    - Returns last 100 commands handled by the server



Device Context: PETRA
Device Subsystem: ALL
☑ Show Stock Properties
Device Server: ARCHIVER
Device Name: keyword
Device Property: CONNECTIONS
Data Size: 12
Data Type: STRUCT
Description: [CONTBLr4] Current Connection Table
Timeout: 1000

```
/PETRA/ARCHIVER/keyword CONNECTIONS @ May 08 10:09:15.789
[ 0 -> expName] Idc
[ 0 -> prpName] Current
[ 0 -> devName] #0
[ 0 -> context] PETRA
[ 0 -> eqm] IDCEQM
[ 0 -> mode]  3
[ 0 -> access]  257
[ 0 -> formatIn]  767
[ 0 -> formatOut]  517
[ 0 -> sizeIn]  0
```



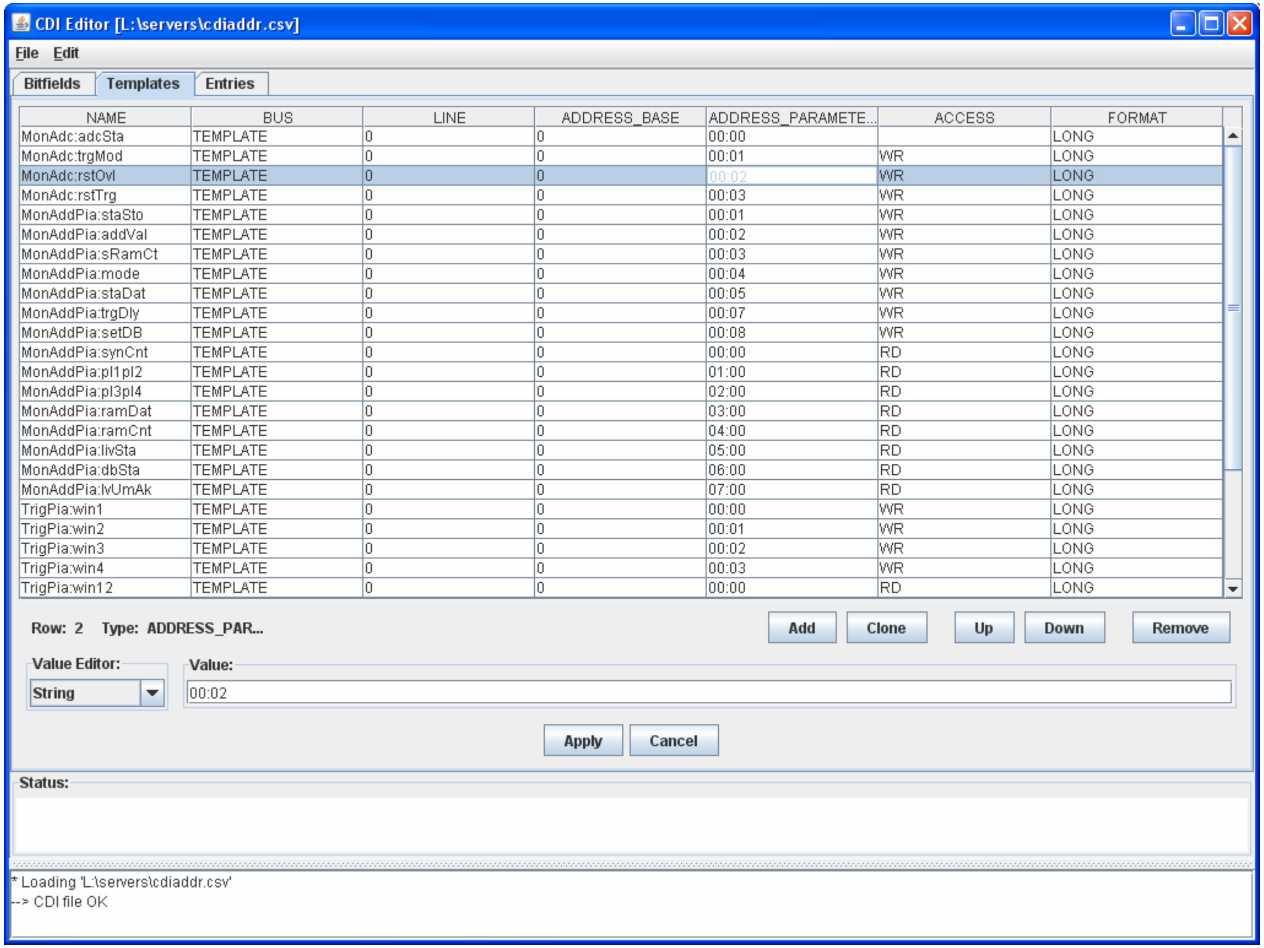
Device Context: PETRA
Device Subsystem: ALL
☑ Show Stock Properties
Device Server: CAS
Device Name: TriggerModule_Pe
Device Property: SRVCOMMANDS
Data Size: 100
Data Type: STRUCT
Description: [WRACCTBL] get command history
Timeout: 1000

```
/PETRA/CAS/TriggerModule_Pe SRVCOMMANDS @ May 08 10:10:27.565
[ 0 -> user] PE3TURBO.1
[ 0 -> addr] 131.169.151.171
[ 0 -> prp] REMOVEALARMS
[ 0 -> dev] TurboPumpen
[ 0 -> timestamp]  1241701090.184
[ 1 -> user] acclxpedoocs1.50
[ 1 -> addr] 131.169.151.171
[ 1 -> prp] REMOVEALARMS
[ 1 -> dev] VAC.ION_PUMP
[ 1 -> timestamp]  1241609731.534
```

Video System News

- ‘130 MB’ problem solved !
  - Not ALL avenues of ‘flow control’ handled by ‘send()’.
- Java servers can NOW also use data type CF_IMAGE !
  - Various bugs fixed regarding this issue.

CDI Editor



NAME	BUS	LINE	ADDRESS_BASE	ADDRESS_PARAMETE...	ACCESS	FORMAT
MonAdc:adcSta	TEMPLATE	0	0	00:00		LONG
MonAdc:trgMod	TEMPLATE	0	0	00:01	WR	LONG
MonAdc:rstOvl	TEMPLATE	0	0	00:02	WR	LONG
MonAdc:rstTrg	TEMPLATE	0	0	00:03	WR	LONG
MonAddPia:staSto	TEMPLATE	0	0	00:01	WR	LONG
MonAddPia:addVal	TEMPLATE	0	0	00:02	WR	LONG
MonAddPia:sRamCt	TEMPLATE	0	0	00:03	WR	LONG
MonAddPia:mode	TEMPLATE	0	0	00:04	WR	LONG
MonAddPia:staDat	TEMPLATE	0	0	00:05	WR	LONG
MonAddPia:trgDly	TEMPLATE	0	0	00:07	WR	LONG
MonAddPia:setDB	TEMPLATE	0	0	00:08	WR	LONG
MonAddPia:synCnt	TEMPLATE	0	0	00:00	RD	LONG
MonAddPia:pl1pl2	TEMPLATE	0	0	01:00	RD	LONG
MonAddPia:pl3pl4	TEMPLATE	0	0	02:00	RD	LONG
MonAddPia:ramDat	TEMPLATE	0	0	03:00	RD	LONG
MonAddPia:ramCnt	TEMPLATE	0	0	04:00	RD	LONG
MonAddPia:livSta	TEMPLATE	0	0	05:00	RD	LONG
MonAddPia:dbSta	TEMPLATE	0	0	06:00	RD	LONG
MonAddPia:lvUmAk	TEMPLATE	0	0	07:00	RD	LONG
TrigPia:win1	TEMPLATE	0	0	00:00	WR	LONG
TrigPia:win2	TEMPLATE	0	0	00:01	WR	LONG
TrigPia:win3	TEMPLATE	0	0	00:02	WR	LONG
TrigPia:win4	TEMPLATE	0	0	00:03	WR	LONG
TrigPia:win12	TEMPLATE	0	0	00:00	RD	LONG

Row: 2 Type: ADDRESS_PAR...

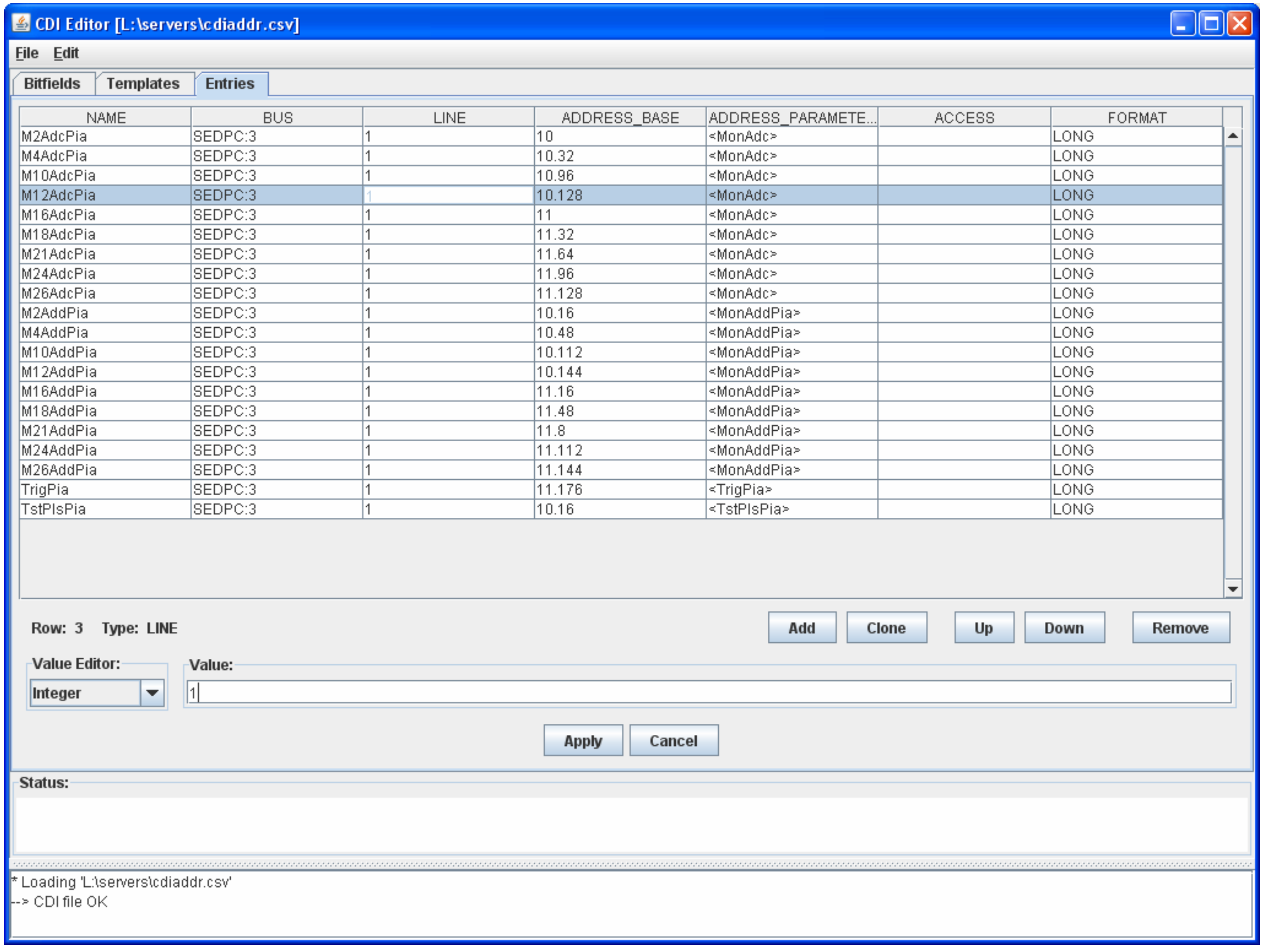
Value Editor: String

Value: 00:02

Status:

```
* Loading 'L:\servers\cdiaddr.csv'
--> CDI file OK
```

CDI Editor



NAME	BUS	LINE	ADDRESS_BASE	ADDRESS_PARAMETE...	ACCESS	FORMAT
M2AdcPia	SEDPC:3	1	10	<MonAdc>		LONG
M4AdcPia	SEDPC:3	1	10.32	<MonAdc>		LONG
M10AdcPia	SEDPC:3	1	10.96	<MonAdc>		LONG
M12AdcPia	SEDPC:3	1	10.128	<MonAdc>		LONG
M16AdcPia	SEDPC:3	1	11	<MonAdc>		LONG
M18AdcPia	SEDPC:3	1	11.32	<MonAdc>		LONG
M21AdcPia	SEDPC:3	1	11.64	<MonAdc>		LONG
M24AdcPia	SEDPC:3	1	11.96	<MonAdc>		LONG
M26AdcPia	SEDPC:3	1	11.128	<MonAdc>		LONG
M2AddPia	SEDPC:3	1	10.16	<MonAddPia>		LONG
M4AddPia	SEDPC:3	1	10.48	<MonAddPia>		LONG
M10AddPia	SEDPC:3	1	10.112	<MonAddPia>		LONG
M12AddPia	SEDPC:3	1	10.144	<MonAddPia>		LONG
M16AddPia	SEDPC:3	1	11.16	<MonAddPia>		LONG
M18AddPia	SEDPC:3	1	11.48	<MonAddPia>		LONG
M21AddPia	SEDPC:3	1	11.8	<MonAddPia>		LONG
M24AddPia	SEDPC:3	1	11.112	<MonAddPia>		LONG
M26AddPia	SEDPC:3	1	11.144	<MonAddPia>		LONG
TrigPia	SEDPC:3	1	11.176	<TrigPia>		LONG
TstPlsPia	SEDPC:3	1	10.16	<TstPlsPia>		LONG

Row: 3 Type: LINE

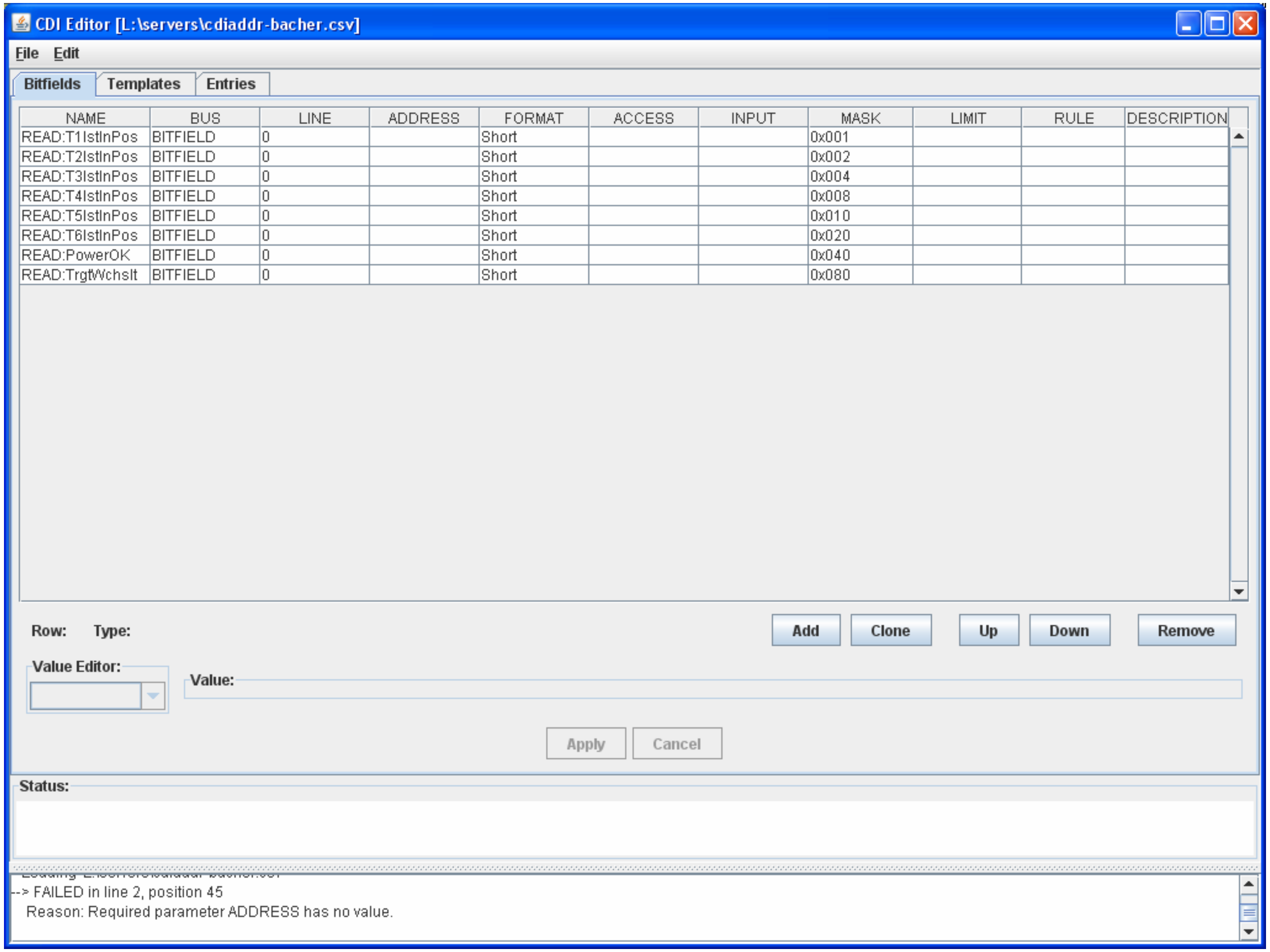
Value Editor: Integer

Value: 1

Status:

```
* Loading 'L:\servers\cdiaddr.csv'
--> CDI file OK
```

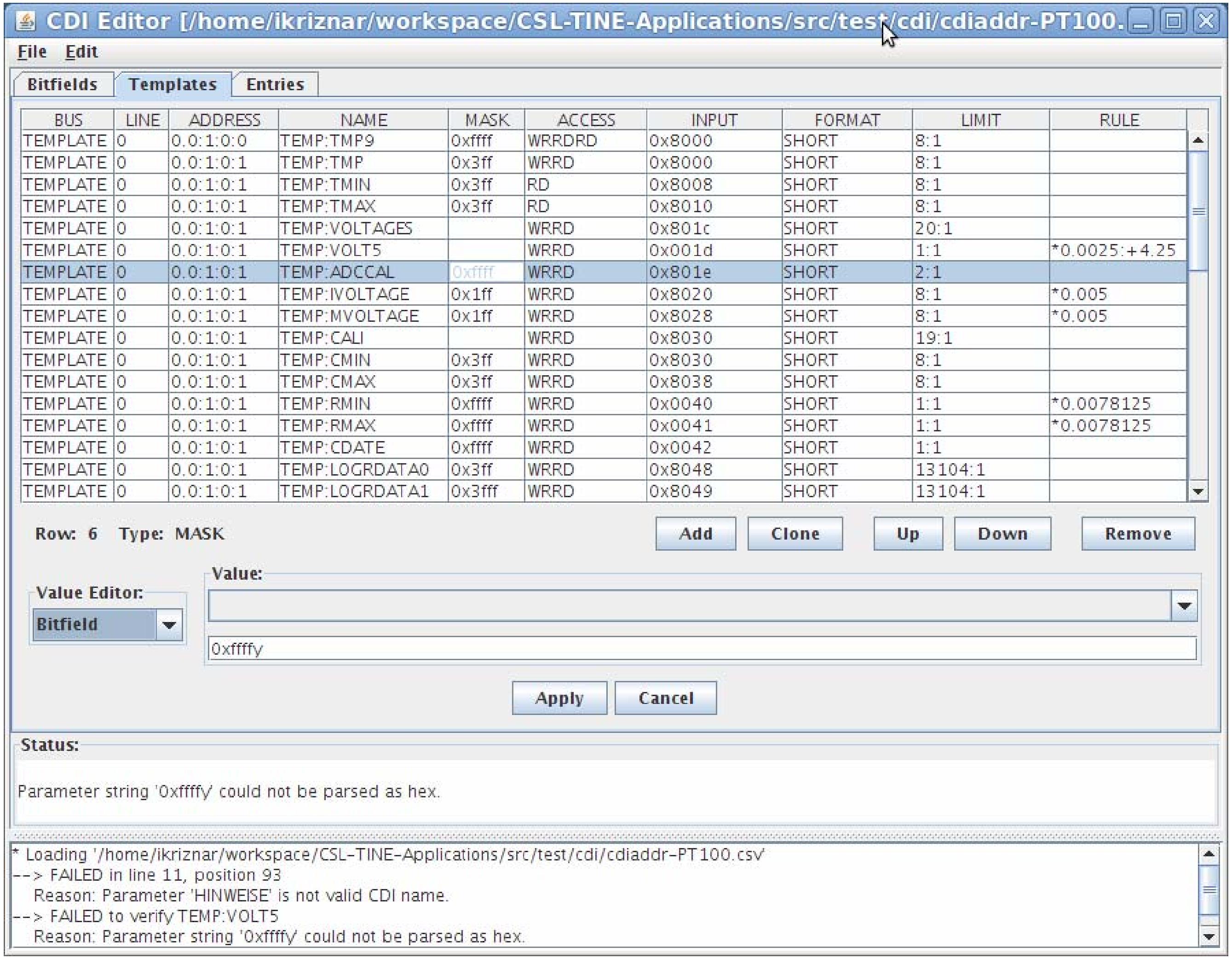
CDI Editor



NAME	BUS	LINE	ADDRESS	FORMAT	ACCESS	INPUT	MASK	LIMIT	RULE	DESCRIPTION
READ:T1IstInPos	BITFIELD	0		Short			0x001			
READ:T2IstInPos	BITFIELD	0		Short			0x002			
READ:T3IstInPos	BITFIELD	0		Short			0x004			
READ:T4IstInPos	BITFIELD	0		Short			0x008			
READ:T5IstInPos	BITFIELD	0		Short			0x010			
READ:T6IstInPos	BITFIELD	0		Short			0x020			
READ:PowerOK	BITFIELD	0		Short			0x040			
READ:TrgtWchslt	BITFIELD	0		Short			0x080			

```
Loading L:\servers\cdiaddr-bacher.csv
--> FAILED in line 2, position 45
  Reason: Required parameter ADDRESS has no value.
```

CDI Editor



CDI Editor [/home/ikriznar/workspace/CSL-TINE-Applications/src/test/cdi/cdiaddr-PT100.

BUS	LINE	ADDRESS	NAME	MASK	ACCESS	INPUT	FORMAT	LIMIT	RULE
TEMPLATE	0	0.0:1:0:0	TEMP:TMP9	0xffff	WRRDRD	0x8000	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:TMP	0x3ff	WRRD	0x8000	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:TMIN	0x3ff	RD	0x8008	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:TMAX	0x3ff	RD	0x8010	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:VOLTAGES		WRRD	0x801c	SHORT	20:1	
TEMPLATE	0	0.0:1:0:1	TEMP:VOLT5		WRRD	0x001d	SHORT	1:1	*0.0025:+4.25
TEMPLATE	0	0.0:1:0:1	TEMP:ADCCAL	0xffff	WRRD	0x801e	SHORT	2:1	
TEMPLATE	0	0.0:1:0:1	TEMP:IVOLTAGE	0x1ff	WRRD	0x8020	SHORT	8:1	*0.005
TEMPLATE	0	0.0:1:0:1	TEMP:MVOLTAGE	0x1ff	WRRD	0x8028	SHORT	8:1	*0.005
TEMPLATE	0	0.0:1:0:1	TEMP:CALI		WRRD	0x8030	SHORT	19:1	
TEMPLATE	0	0.0:1:0:1	TEMP:CMIN	0x3ff	WRRD	0x8030	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:CMAX	0x3ff	WRRD	0x8038	SHORT	8:1	
TEMPLATE	0	0.0:1:0:1	TEMP:RMIN	0xffff	WRRD	0x0040	SHORT	1:1	*0.0078125
TEMPLATE	0	0.0:1:0:1	TEMP:RMAX	0xffff	WRRD	0x0041	SHORT	1:1	*0.0078125
TEMPLATE	0	0.0:1:0:1	TEMP:CDATE	0xffff	WRRD	0x0042	SHORT	1:1	
TEMPLATE	0	0.0:1:0:1	TEMP:LOGRDATA0	0x3ff	WRRD	0x8048	SHORT	13104:1	
TEMPLATE	0	0.0:1:0:1	TEMP:LOGRDATA1	0x3fff	WRRD	0x8049	SHORT	13104:1	

Row: 6 Type: MASK

Value Editor: Bitfield

Value: 0xffffy

Status:

Parameter string '0xffffy' could not be parsed as hex.

```
* Loading '/home/ikriznar/workspace/CSL-TINE-Applications/src/test/cdi/cdiaddr-PT100.csv'
--> FAILED in line 11, position 93
    Reason: Parameter 'HINWEISE' is not valid CDI name.
--> FAILED to verify TEMP:VOLT5
    Reason: Parameter string '0xffffy' could not be parsed as hex.
```