

Release 4.0 News

(That was the week that was)

Central Archive Server

- Central Archive System
 - Lots of code refactoring !
 - MARCH FEC (Data Acquisition)
 - Registers as “ARCHIVER” in designated context
 - Local equipment module “DAQEQM”
 - ARCSRV FEC (Archive readout)
 - Registers as “HISTORY” in designated context
 - Local equipment module “HSTEQM”
 - Manages archive configurations !!!
 - Archive Viewers :
 - Avoid local configuration files
 - Query ENS for contexts
 - Query ENS for servers called “HISTORY” in each context
 - Query the HISTORY server for configurations
 - TODO:
 - Allow millisecond timestamp data storage and faster access
 - Complex data types

Viewer Configuration Files

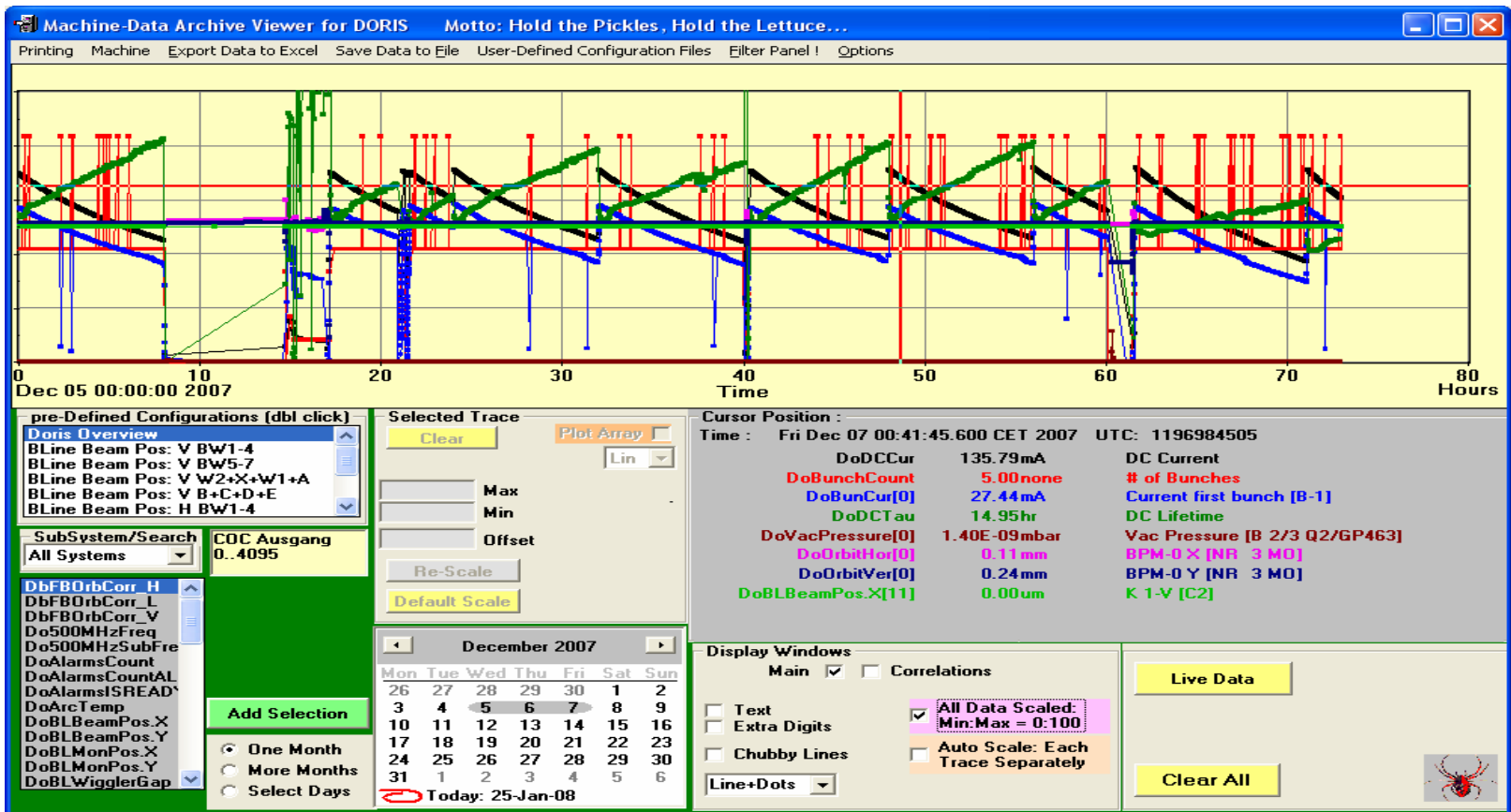
The screenshot shows a file explorer window with a folder tree on the left and a file list on the right. The folder tree includes 'Archive-D2', 'database', 'CONFIGS', 'Diag-Strom', 'RF', 'info', 'input', 'MCA', 'Archive-D3', 'Archive-L2', and 'Archive-L3'. The file list shows various CSV files and folders.

Name	Size	Type	Date Modified
OverviewDESY2.csv	1 KB	Microsoft Excel Com...	23-Jan-08 16:27
D2RF.csv	1 KB	Microsoft Excel Com...	23-Jan-08 16:26
D2PeTrig.csv	1 KB	Microsoft Excel Com...	23-Jan-08 16:26
D2MagEnergy.csv	1 KB	Microsoft Excel Com...	23-Jan-08 16:25
D2DoTrig.csv	1 KB	Microsoft Excel Com...	23-Jan-08 16:25
configs.csv	1 KB	Microsoft Excel Com...	22-Jan-08 12:03
HST_C.csv	1 KB	Microsoft Excel Com...	22-Jan-08 11:58
HST_AB.csv	1 KB	Microsoft Excel Com...	22-Jan-08 11:57
groups.csv	1 KB	Microsoft Excel Com...	21-Jan-08 14:35
RF		File Folder	23-Jan-08 16:52
Diag-Strom		File Folder	23-Jan-08 16:52

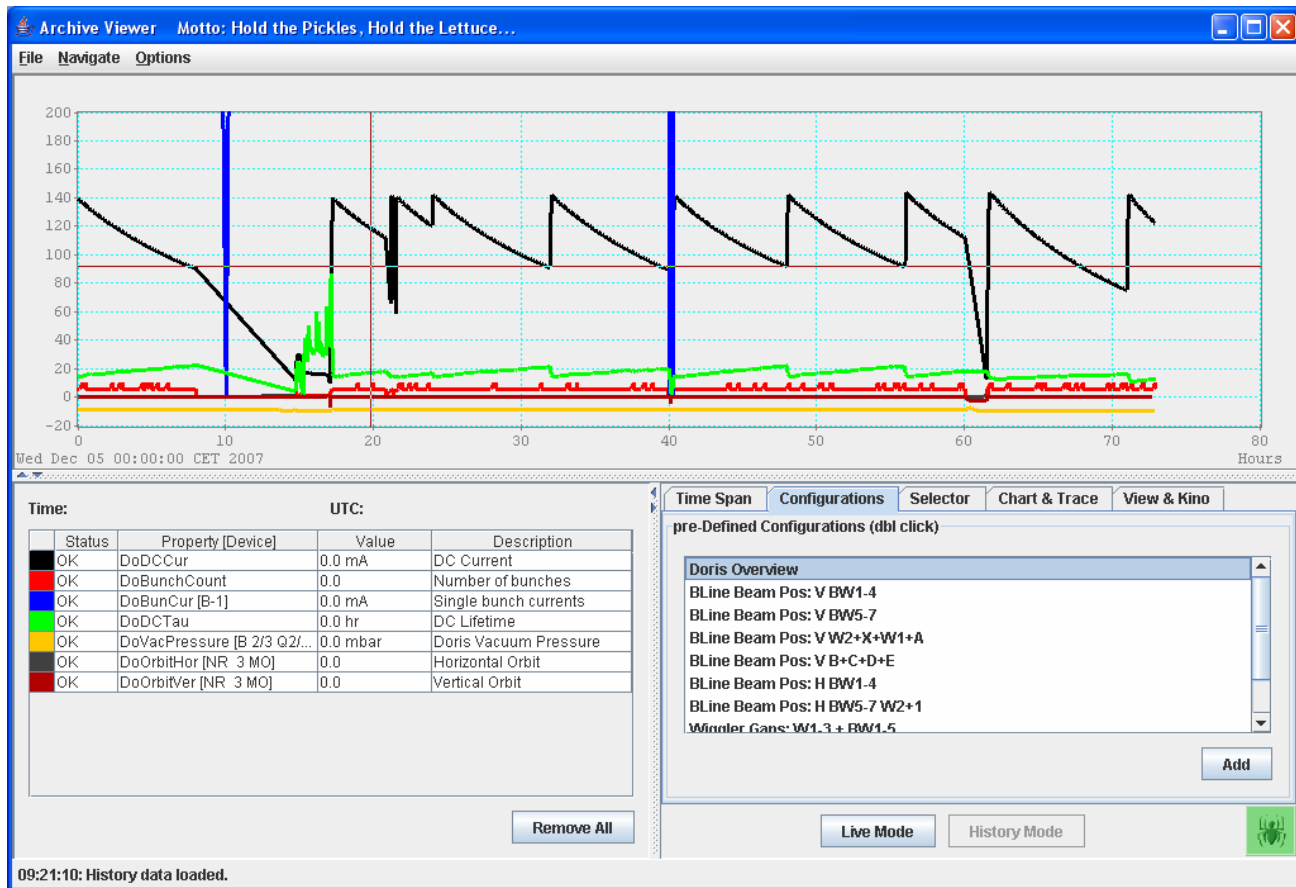
Annotations:

- Archive Viewer configurations (points to CONFIGS folder)
- History Group configurations (points to input folder)
- Multi-Channel Analyzer configurations (points to MCA folder)

Archive Viewer (windows)



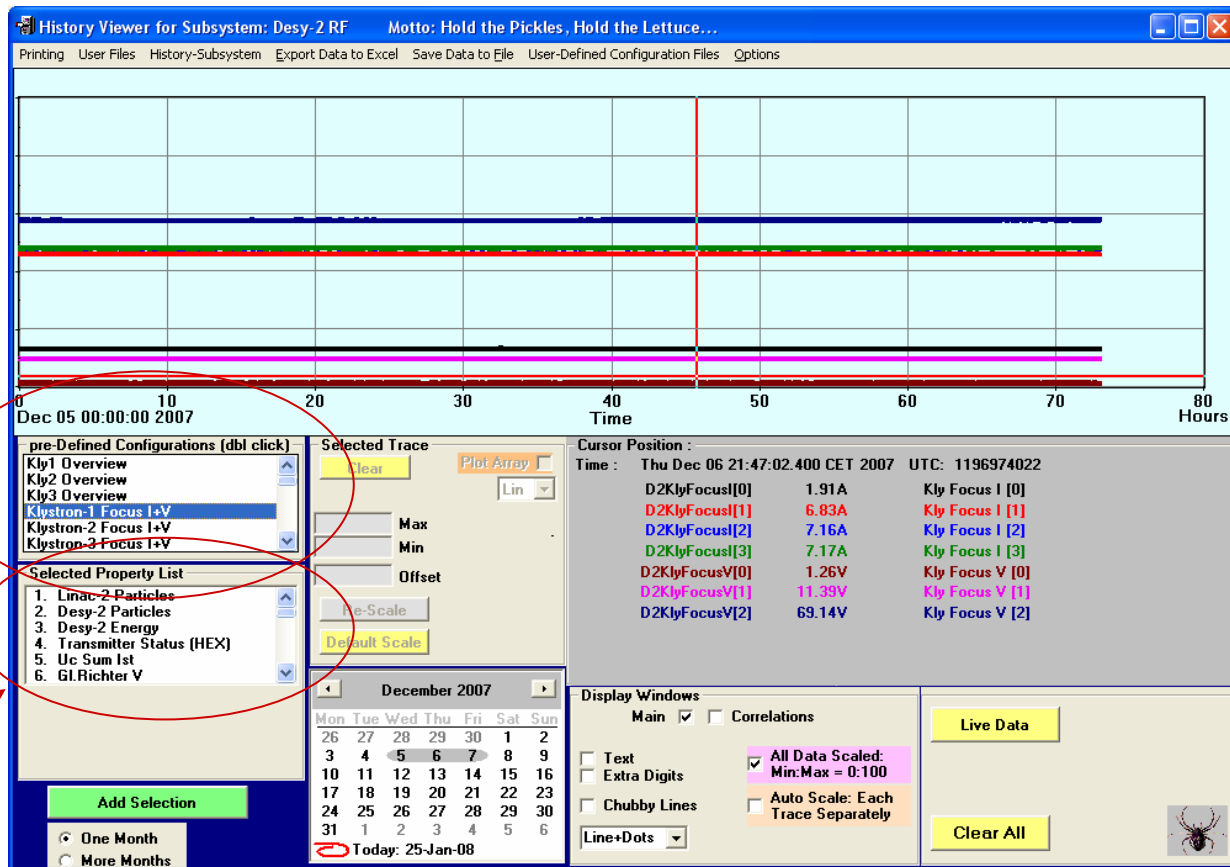
[Archive Viewer (java)]



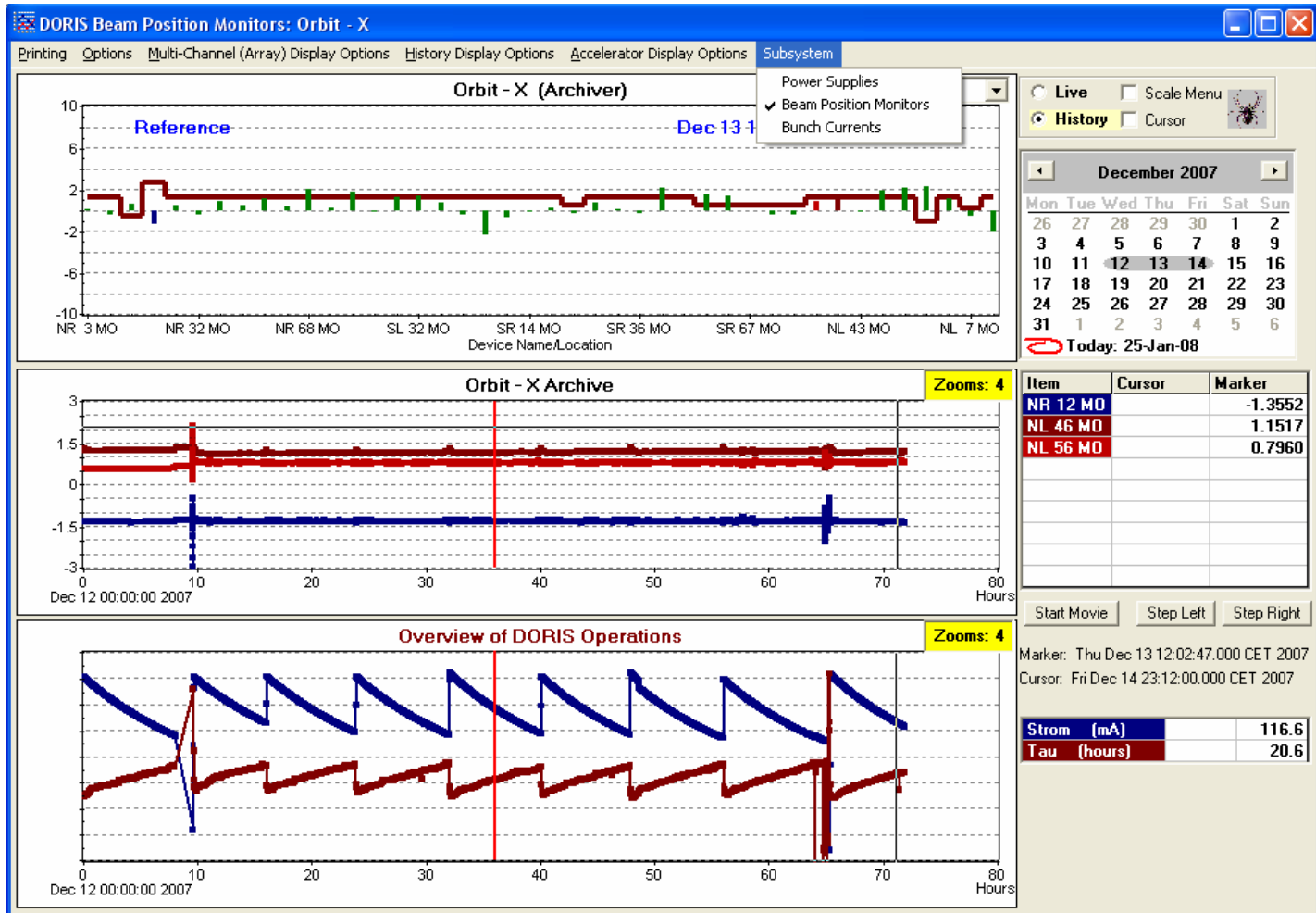
History Viewer (windows)

Subsystem :
DESY 2 RF

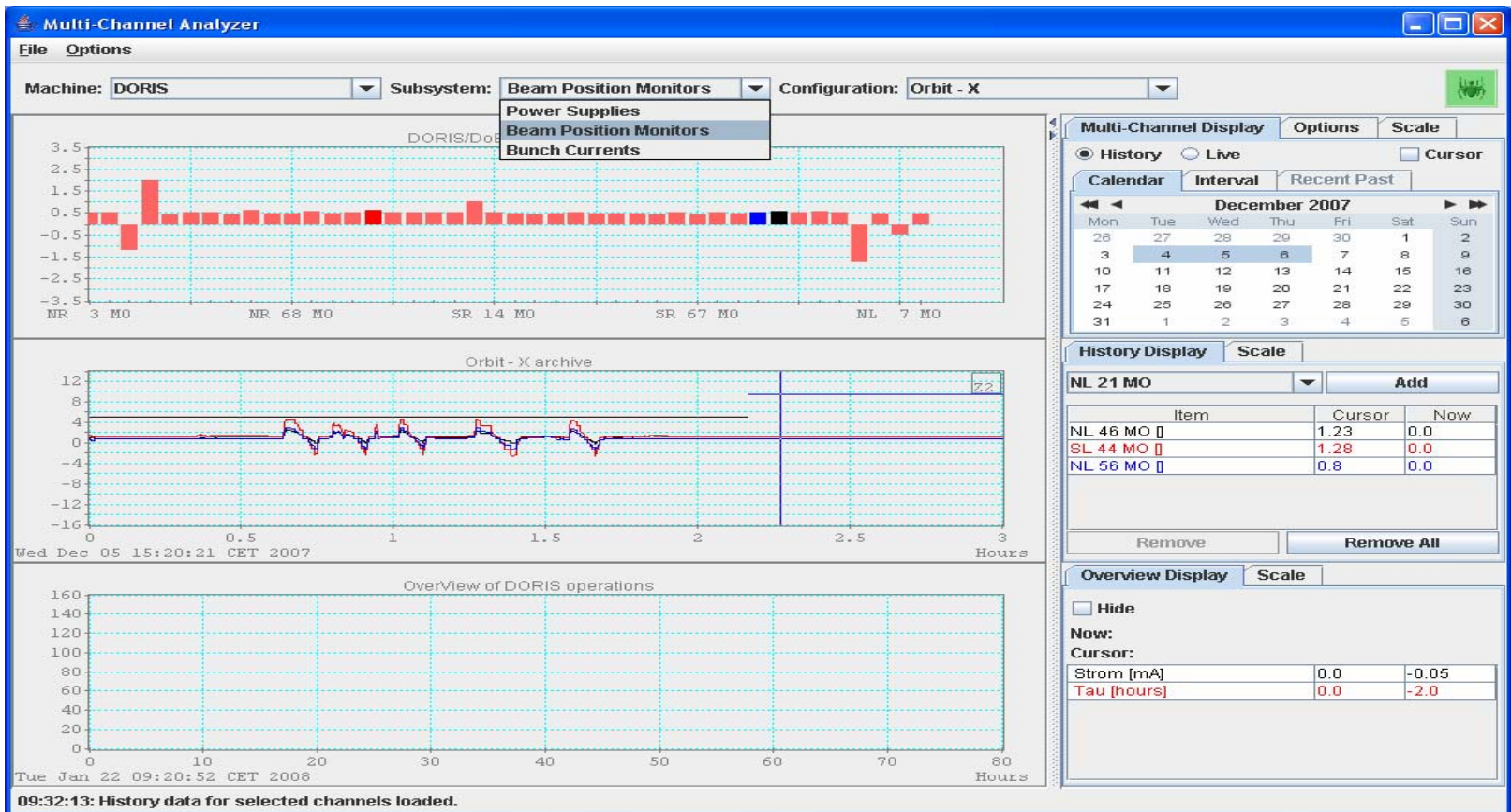
Relevant
Properties



Multi-Channel Analyzer (windows)



Multi-Channel Analyzer (java)



Configurations Management

The screenshot displays the 'Instant Client' application window. The interface includes a menu bar with 'Print ...', 'Options ...', 'Debug Tools ...', 'Show Globals!', and 'Input Panel!'. Below the menu bar are several configuration panels:

- Device Context:** DORIS
- Device Subsystem:** ALL
- Device Server:** HISTORY
- Device Name:** Doris Overview
- Device Property:** CONFIGURATION
- Data Size:** 100
- Data Type:** STRUCT
- Timeout:** 1000

A dropdown menu is open over the 'Device Name' field, listing the following options:

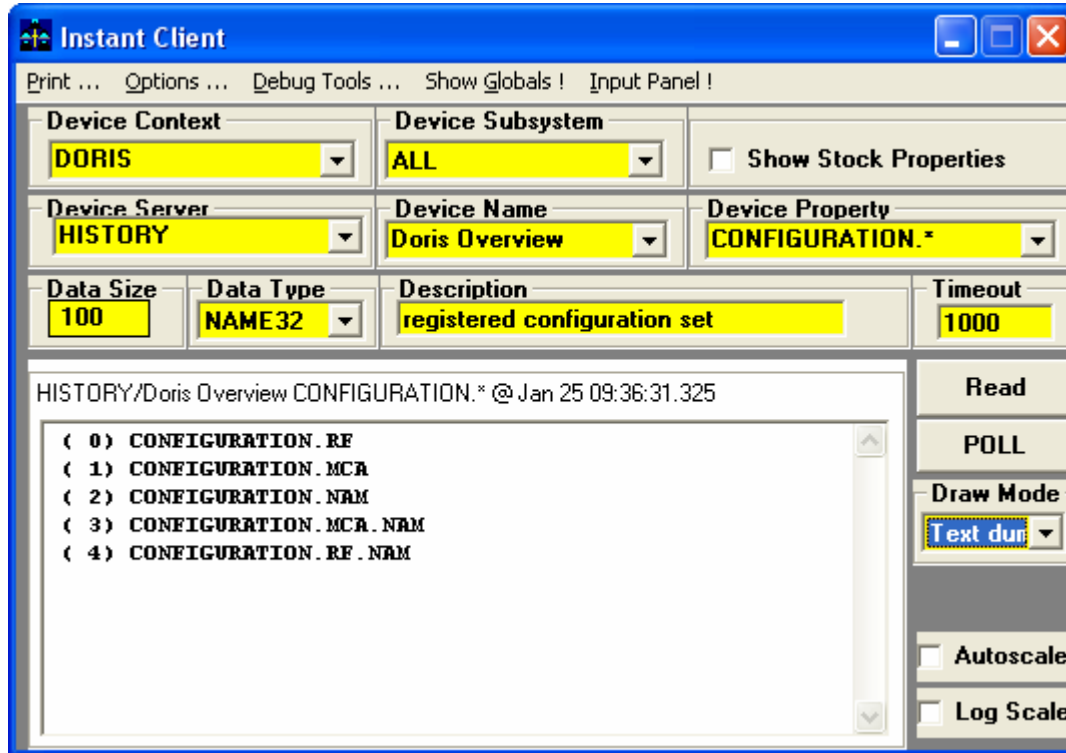
- Doris Overview
- BLine Beam Pos: V B'
- BLine Beam Pos: V B'
- BLine Beam Pos: V W
- BLine Beam Pos: V B'
- BLine Beam Pos: H B'
- BLine Beam Pos: H B'
- Wiggler Gaps: W1-3

The main display area shows a terminal window with the following text:

```
DORIS/HISTORY/Doris Overview C
[ 0 -> context] DORIS
[ 0 -> server] DORISHIST
[ 0 -> device]
[ 0 -> property] DoDCCur
[ 0 -> units] mA
[ 0 -> help] DC Current
[ 0 -> index] 0
[ 0 -> subIndex] 0
[ 0 -> scale] 1
[ 0 -> offset] 0
```

On the right side of the interface, there are buttons for 'Read', 'POLL', and 'Draw Mode' (set to 'Text dun'). At the bottom right, there are checkboxes for 'Autoscale' and 'Log Scale'.

Configuration Management



Wildcard query for
'decorated'
CONFIGURATION
properties !

[Notes:]

- Central Archive systems have been split into their individual facilities
 - DESY ->
 - DESY2, LINAC2
 - DESY3, LINAC3 (retired)
 - Keywords and server names no longer begin with e.g. “D2”
 - D2Cur -> Cur in Context DESY2
 - DESYDATA -> ARCHIVER in context DESY2
 - Etc.

[Globals Server]

- Globals Server
 - Is a “MARCH” Server with
 - A globals list
 - Multicasting enabled
 - Registered as “GLOBALS” in designated context
 - “Site” globals server in “SERVICE”
 - Reference to the Time Server (also sent on the Site Globals multicast group)
 - “Context” globals
 - Each context can have a globals server with its own multicast group

DESY Site Globals



Parameter	Value
L2ENERGY	6.287604E+26
L2CURRENT	0
L2TEXT	Positronen Betrieb
PIACUR-EJ	-6.669871E-03
D2ENERGY	1.77E+30
D2CURRENT	0
D2TEXT	Positronen Standby
DOENERGY	0
DOCURRENT	-5.315745E-02
DOTEXT	SHUTDOWN
DONextFill	21.12.07 16:00:00

What else ?

Context Specific Globals
Server for:

- 1) LINAC2
- 2) DESY2
- 3) DORIS
- 4) PETRA3
- 5) FLASH

[Central Services]

- Central Logging Server

- To be commissioned soon!

- C API:

- int clslog(context, tag, logger, priority, status, text)

- Context = "PETRA" (32 char)

- Tag = "RF" (32 char)

- Logger = "Operator" or "Bacher", etc. (32 char)

- Priority = 1

- Status = 0

- Text = "bla bla"

[Central Logger]



Possible status and priority definitions (?)

```
#define CLOG_STATUS_NONE 0
#define CLOG_STATUS_INFO 1
#define CLOG_STATUS_WARN 2
#define CLOG_STATUS_ERR 3

#define CLOG_PRIORITY_NONE 0
#define CLOG_PRIORITY_USEFUL 1
#define CLOG_PRIORITY_IMPORTANT 2
#define CLOG_PRIORITY_URGENT 3
```

This is NOT an Alarm System !

Automatic central logging :

- 1) State Changes (State Server)
- 2) Events (Event Archive Server)
- 3) Some Alarms (configured at the CAS, e.g. server down alarm?)
- 4) Restart of 'important' FECs
- 5) ????