The New GDS Source Tree

LSC Meeting, March 2002

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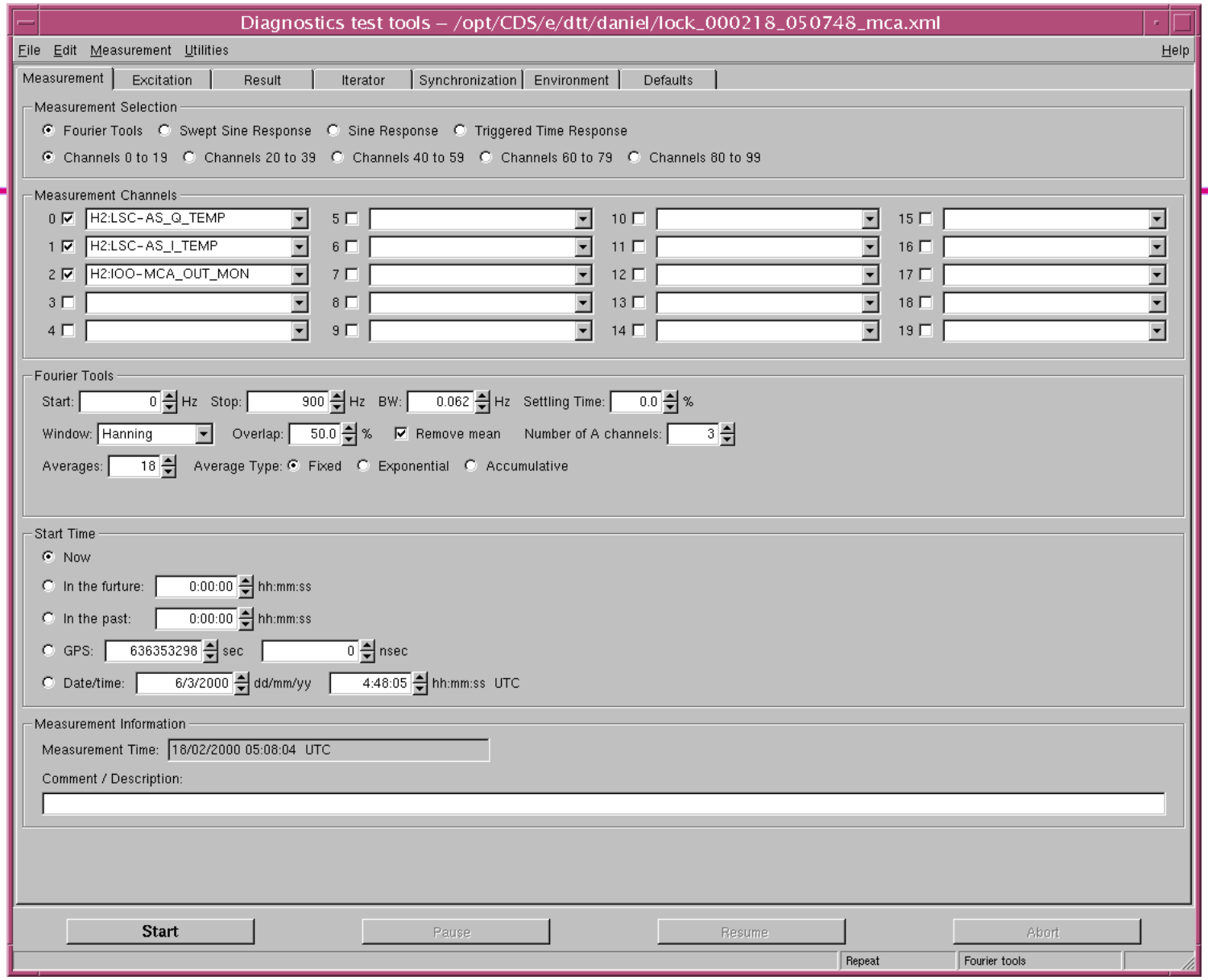
LIGO-G020061-00-D

From the User's Perspective

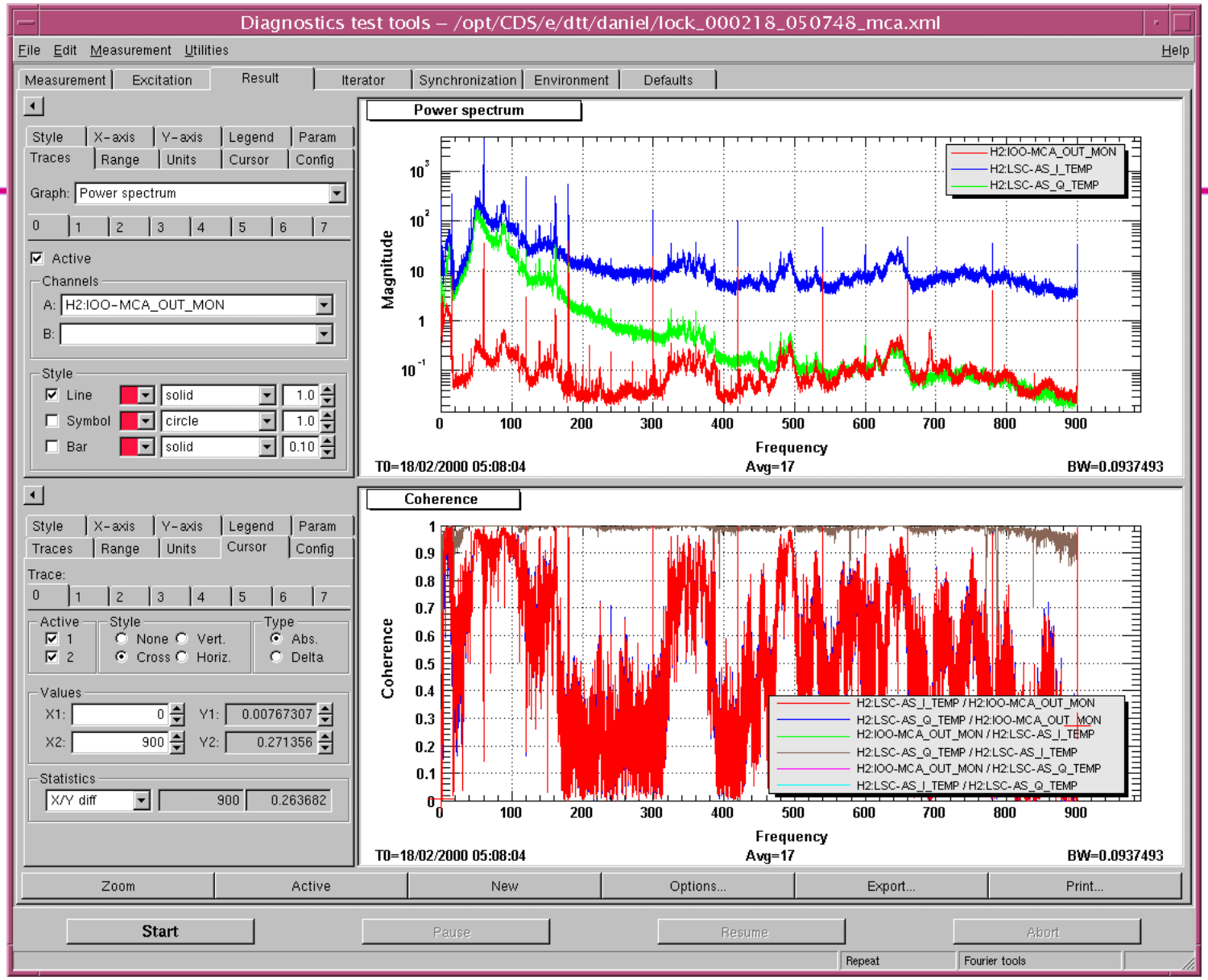
- DTT
- DMT Viewer
- Lidax
- (Data Viewer)

- DMT Environment
- Event Tool
- Fantom
- Monitors
- Frame Utilities
  - FrDir, FrDump, FrTest, FrWriter
  - fdir, fextract, finfo, fsettime,…
- Shared Memory Utilities
  - DpushM, smdump, smrepair, …
- Net Services
  - webview, mathnds, (nds proxy), …

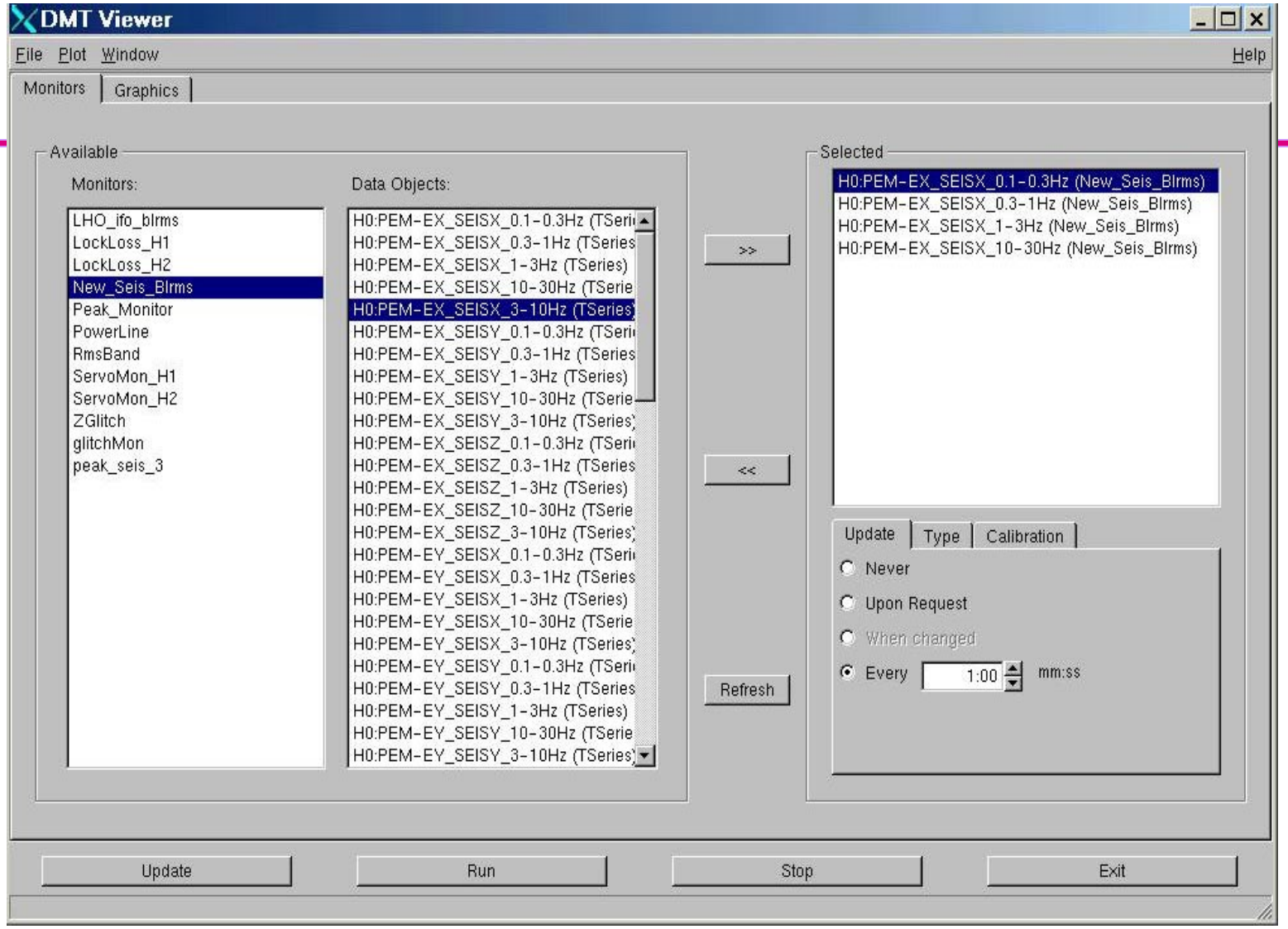
DTT Setup


Diagnostics test tools – /opt/CDS/e/dtt/daniel/lock_000218_050748_mca.xml
File Edit Measurement Utilities Help
Measurement Excitation Result Iterator Synchronization Environment Defaults
Measurement Selection
Fourier Tools Swept Sine Response Sine Response Triggered Time Response
Channels 0 to 19 Channels 20 to 39 Channels 40 to 59 Channels 60 to 79 Channels 80 to 99
Measurement Channels
0 H2:LSC-AS_Q_TEMP
1 H2:LSC-AS_I_TEMP
2 H2:IOO-MCA_OUT_MON
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
Fourier Tools
Start: 0 Hz Stop: 900 Hz BW: 0.062 Hz Settling Time: 0.0 %
Window: Hanning Overlap: 50.0 % Remove mean Number of A channels: 3
Averages: 18 Average Type: Fixed Exponential Accumulative
Start Time
Now
In the furture: 0:00:00 hh:mm:ss
In the past: 0:00:00 hh:mm:ss
GPS: 636353298 sec 0 nsec
Date/time: 6/3/2000 dd/mm/yy 4:48:05 hh:mm:ss UTC
Measurement Information
Measurement Time: 18/02/2000 05:08:04 UTC
Comment / Description:
Start
Pause
Resume
Abort
Repeat
Fourier tools

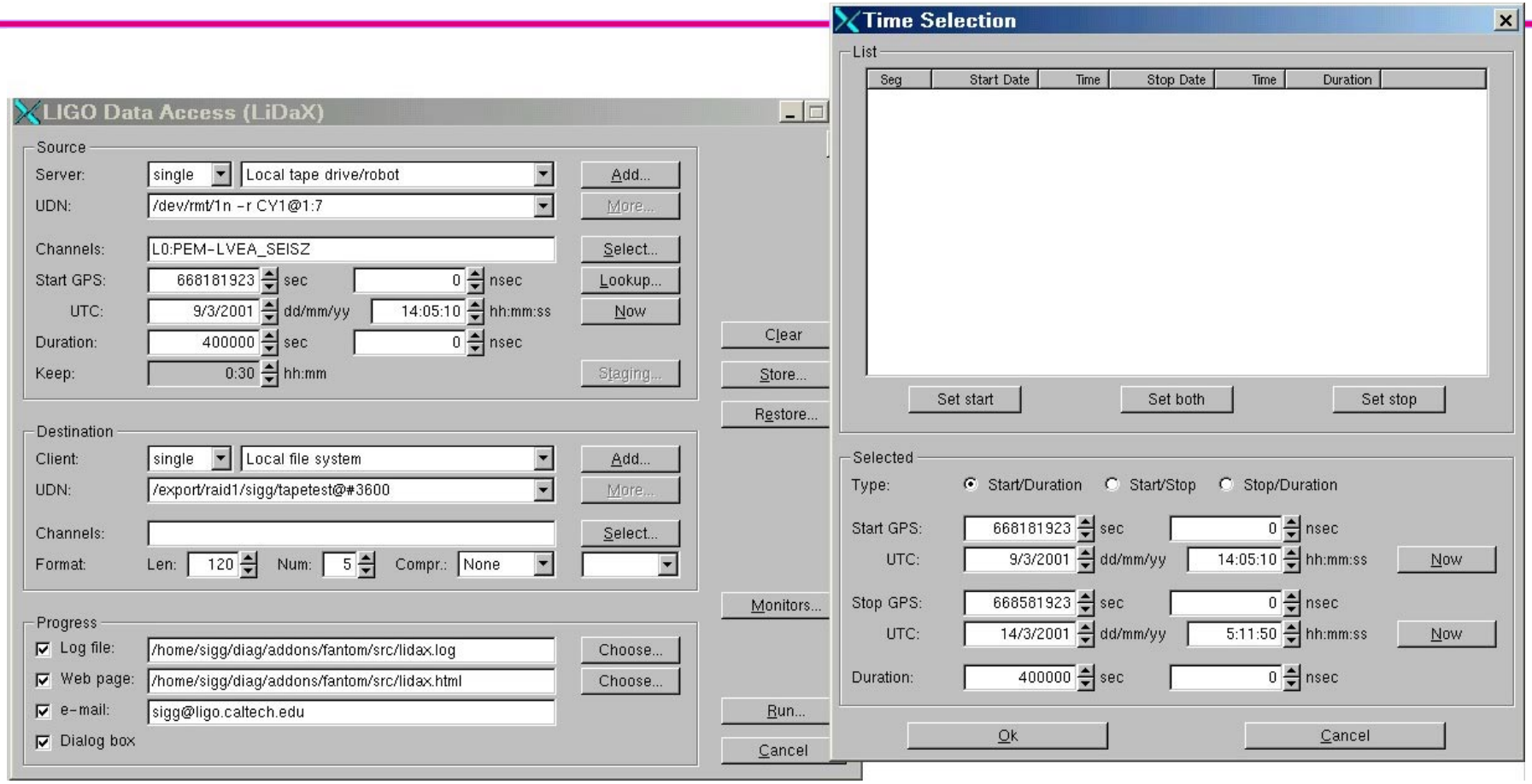
DTT Plot


Diagnostics test tools – /opt/CDS/e/dtt/daniel/lock_000218_050748_mca.xml
File Edit Measurement Utilities Help
Measurement Excitation Result Iterator Synchronization Environment Defaults
Style X-axis Y-axis Legend Param
Traces Range Units Cursor Config
Graph: Power spectrum
Active
Channels
A: H2:IOO-MCA_OUT_MON
B:
Style
Line solid 1.0
Symbol circle 1.0
Bar solid 0.10
Power spectrum
H2:IOO-MCA_OUT_MON
H2:LSC-AS_I_TEMP
H2:LSC-AS_Q_TEMP
Magnitude
Frequency
T0=18/02/2000 05:08:04
Avg=17
BW=0.0937493
Trace:
Active 1 2
Style None Vert. Cross Horiz.
Type Abs. Delta
Values
X1: 0
Y1: 0.00767307
X2: 900
Y2: 0.271356
Statistics
X/Y diff 900 0.263682
Coherence
H2:LSC-AS_I_TEMP / H2:IOO-MCA_OUT_MON
H2:LSC-AS_Q_TEMP / H2:IOO-MCA_OUT_MON
H2:IOO-MCA_OUT_MON / H2:LSC-AS_I_TEMP
H2:LSC-AS_Q_TEMP / H2:LSC-AS_I_TEMP
H2:IOO-MCA_OUT_MON / H2:LSC-AS_Q_TEMP
H2:LSC-AS_I_TEMP / H2:LSC-AS_Q_TEMP
Zoom Active New Options... Export... Print...
Start Pause Resume Abort
Repeat Fourier tools

DMT Viewer


DMT Viewer
File Plot Window Help
Monitors Graphics
Available
Monitors:
Data Objects:
LHO_ifo_blrms
LockLoss_H1
LockLoss_H2
New_Seis_Blrms
Peak_Monitor
PowerLine
RmsBand
ServoMon_H1
ServoMon_H2
ZGlitch
glitchMon
peak_seis_3
H0:PEM-EX_SEISX_0.1-0.3Hz (TSeri
H0:PEM-EX_SEISX_0.3-1Hz (TSeries
H0:PEM-EX_SEISX_1-3Hz (TSeries)
H0:PEM-EX_SEISX_10-30Hz (TSerie
H0:PEM-EX_SEISX_3-10Hz (TSeries)
H0:PEM-EX_SEISY_0.1-0.3Hz (TSeri
H0:PEM-EX_SEISY_0.3-1Hz (TSeries
H0:PEM-EX_SEISY_1-3Hz (TSeries)
H0:PEM-EX_SEISY_10-30Hz (TSerie
H0:PEM-EX_SEISY_3-10Hz (TSeries)
H0:PEM-EX_SEISZ_0.1-0.3Hz (TSeri
H0:PEM-EX_SEISZ_0.3-1Hz (TSeries
H0:PEM-EX_SEISZ_1-3Hz (TSeries)
H0:PEM-EX_SEISZ_10-30Hz (TSerie
H0:PEM-EX_SEISZ_3-10Hz (TSeries)
H0:PEM-EY_SEISX_0.1-0.3Hz (TSeri
H0:PEM-EY_SEISX_0.3-1Hz (TSeries
H0:PEM-EY_SEISX_1-3Hz (TSeries)
H0:PEM-EY_SEISX_10-30Hz (TSerie
H0:PEM-EY_SEISX_3-10Hz (TSeries)
H0:PEM-EY_SEISY_0.1-0.3Hz (TSeri
H0:PEM-EY_SEISY_0.3-1Hz (TSeries
H0:PEM-EY_SEISY_1-3Hz (TSeries)
H0:PEM-EY_SEISY_10-30Hz (TSerie
H0:PEM-EY_SEISY_3-10Hz (TSeries)
>>
<<
Refresh
Selected
H0:PEM-EX_SEISX_0.1-0.3Hz (New_Seis_Blrms)
H0:PEM-EX_SEISX_0.3-1Hz (New_Seis_Blrms)
H0:PEM-EX_SEISX_1-3Hz (New_Seis_Blrms)
H0:PEM-EX_SEISX_10-30Hz (New_Seis_Blrms)
Update Type Calibration
Never
Upon Request
When changed
Every 1:00 mm:ss
Update Run Stop Exit

Lidax


LIGO Data Access (LiDaX)
Source
Server: single Local tape drive/robot
UDN: /dev/rmt/1n -r CY1@1:7
Channels: L0:PEM-LVEA_SEISZ
Start GPS: 668181923 sec 0 nsec
UTC: 9/3/2001 dd/mm/yy 14:05:10 hh:mm:ss
Duration: 400000 sec 0 nsec
Keep: 0:30 hh:mm
Add... More... Select... Lookup... Now Staging...
Destination
Client: single Local file system
UDN: /export/raid1/sigg/tapetest@#3600
Channels:
Format: Len: 120 Num: 5 Compr.: None
Add... More... Select...
Progress
Log file: /home/sigg/diag/addons/fantom/src/lidax.log
Web page: /home/sigg/diag/addons/fantom/src/lidax.html
e-mail: sigg@ligo.caltech.edu
Dialog box
Choose... Choose...
Clear Store... Restore... Monitors... Run... Cancel
Time Selection
List
Seg Start Date Time Stop Date Time Duration
Set start Set both Set stop
Selected
Type: Start/Duration Start/Stop Stop/Duration
Start GPS: 668181923 sec 0 nsec
UTC: 9/3/2001 dd/mm/yy 14:05:10 hh:mm:ss Now
Stop GPS: 668581923 sec 0 nsec
UTC: 14/3/2001 dd/mm/yy 5:11:50 hh:mm:ss Now
Duration: 400000 sec 0 nsec
Ok Cancel

Data Monitoring Environment

- ROOT command line
- Support for time/frequency series, PSD, histograms
- Data input from SM and file (frames)
- Trigger and event analysis
- Signal processing library
- ROOT graphics, DTT plots, DTT GUI widgets
- XML IO, html output, trend output, monitor data server