From Virgo to AdvVirgo
- decabling ?
- software needs ?

Recabling Virgo

- **Shutdown around March 2012: occasion to reorganize the AdV cabling**

  - Talk of Flavio Nocera (VIR-0386A-11, July 2011)

    - easier/better to remove all cables and redo the cabling from scratch ?

    - separate trays as function of the signal carried in the cables ?

    - shared standards (no multiple connector adapters) ?

  - try to use optical fibers for long distance between sub-systems ?

    - better segregation of all sub-systems

    - no cross-talk in the cable trays

  - min/max distances between *captors/front-end/* digital electronics ?

  - what type of power supplies, distance from electronics ?

- **Need to know:**

  - when the different systems need to run or can be un-cabled

  - what cables need to be kept/replaced/removed/added

Ideas for software updates

- **New framework ?**

  - replace cm (communication manager) ? (TANGO, EPICS, ...VIR-0625A-09)

  - use and upgrades of cmt (Configuration Management Tool) ?

- **Web and GUI interface (CI) ?**

  - improve GUI (i.e. when lot of processes) ?

  - tool to easily visualize/follow the relations between all the processes ?

  - can it deal with processes dependence when start/stop ?

  - test of web interface (interface Java: VIR-0476A-10) ?

- **Re-organize (centralize) the locations of the config files ?**

Access	⚑	active	GPS 806344047 – Jul 25, 2005 (206) 18:27:14
50Hz stream			
Fbt50Moni	▷	Golden	fr:25809 (2.06 MB) latency:1 (Input=0.119s Process=0.282s Output=0.018s)
Fbt50Det	▷	Golden	fr:25808 (1.91 MB) latency:1 (Input=0.149s Process=0.147s Output=0.014s)
Fbt50Susp	▷	Golden	fr:25808 (1.77 MB) latency:1 (Input=0.076s Process=0.177s Output=0.040s)
Fbm50	▷	golden	fr:25808 (0.42 MB) latency:3 adc:1181 sms:1
Fbt50Write	▷	Golden	fr:25807 (0.42 MB) latency:2 (Input=0.018s Process=0.003s Output=0.003s)
Fm50Hz	▷	Golden	File V–806343600–25–Jul–2005–18h20–60F.50_NOT_YET_CLOSED increase – Last Check
Trend stream			
FbtMain	▷	Golden	fr:25804 (5.74 MB) latency:6s 7425 trend channels; ADC size:16.9MB; 0 frames in the output
FmTrend	▷	Golden	File V–806284800–25–Jul–2005–02h00–48F.T_NOT_YET_CLOSED increase – Last Check V
MdTrend	▷	Golden	latency:1645s; Waiting for new data since 1494s; Processing time=453s
FbtMinute	▷	Golden	Latency:58273 Last file processed:/data/trenddata/V–806198400–24–Jul–2005–02h00–48F.T
Online Data Access			
DetQa	▷	golden	fr:25808 (1.91 MB) latency:1 adc:335 sms:17 GPS:806344046 Waiting for data request
DetShift	▷	golden	fr:25808 (0.11 MB) latency:1 adc:335 sms:17 out:6 (ddisplay_virgorun_ctrl12_virgo_infn_it_:0
DetUsers	▷	golden	fr:25808 (1.91 MB) latency:1 adc:335 sms:17 GPS:806344046 Waiting for data request
MoniShift	▷	golden	fr:25808 (2.04 MB) latency:1 adc:367 sms:14 GPS:806344046 Waiting for data request
MoniUsers	▷	golden	fr:25809 (0.13 MB) latency:1 adc:367 sms:14 out:1 (virgorun_ctrl100_29942(136.771kB 0.009
SuspShift	▷	golden	fr:25808 (1.77 MB) latency:2 adc:637 sms:19 GPS:806344046 Waiting for data request
SuspUsers	▷	golden	fr:25808 (0.11 MB) latency:2 adc:637 sms:19 out:2 (ddisplay_virgorun_ctrl13_virgo_infn_it_:0
MainShift	▷	golden	fr:25808 (0.15 MB) latency:2 adc:1339 sms:52 out:2 (ddisplay_virgorun_ctrl12_virgo_infn_it_:
MainUsers	⚑	golden	fr:25808 (0.09 MB) latency:2 adc:1339 sms:52 out:1 (ddisplay_virgorun_ctrl14_virgo_infn_it_:
Fbm50Users	▷	golden	fr:25807 (0.42 MB) latency:2 adc:1181 sms:1 GPS:806344045 Waiting for data request
StDy	▷	golden	fr:25804 (0.27 MB) latency:6 adc:1339 sms:82 proc:3 out:1 (virgorun_ctrl9_virgo_infn_it_147
dataSender	▷	golden	I have 25 connections (total since start=814)

Example of client

Full DAQ diagram
→ now a gif image
Interactif tool ?
Track path between 2 processes ?
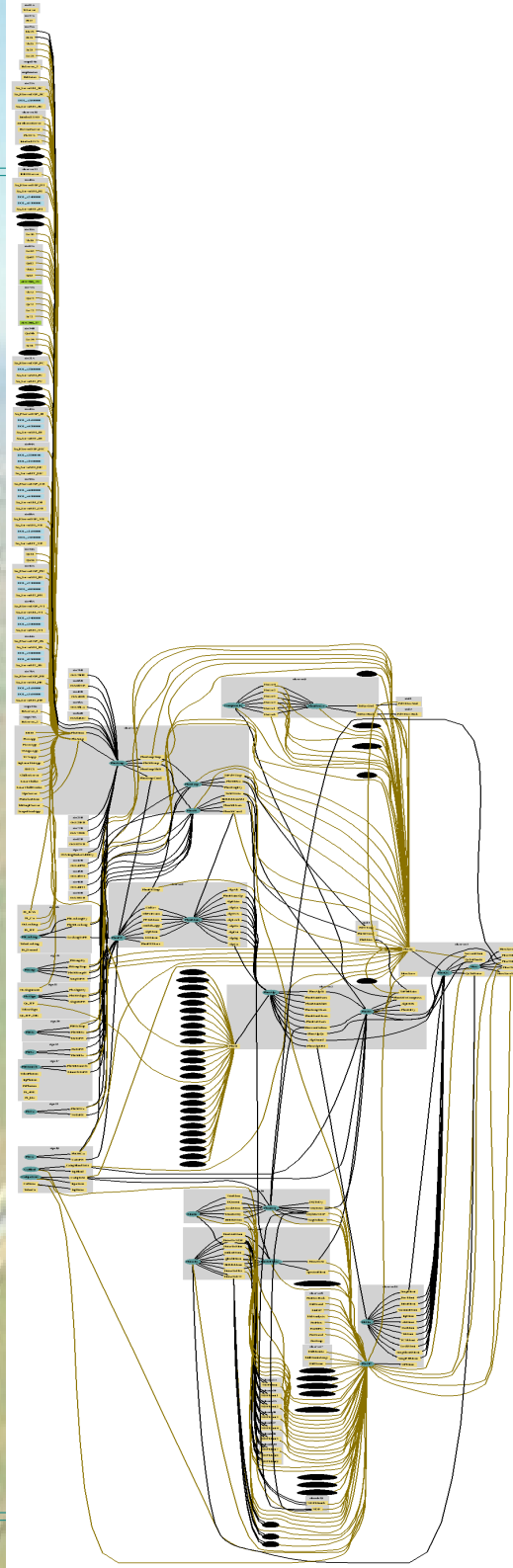
Ideas for software updates

- **dataDisplay**
    - stop using SIESTA for computations ?
    - manage FrVect with not-submultiple frequencies
    - open 2 (n?) ffl files together
    - track for bugs to reduce the crash frequency
    - use faster tools for display ?
        - are ROOT, xform ok ?
        - what is SciPy ?
        - what is baudline ?   (see talk VIR-0420B-11, G. Vedovato)
    - easy installation on laptops, low dependence to other packages...
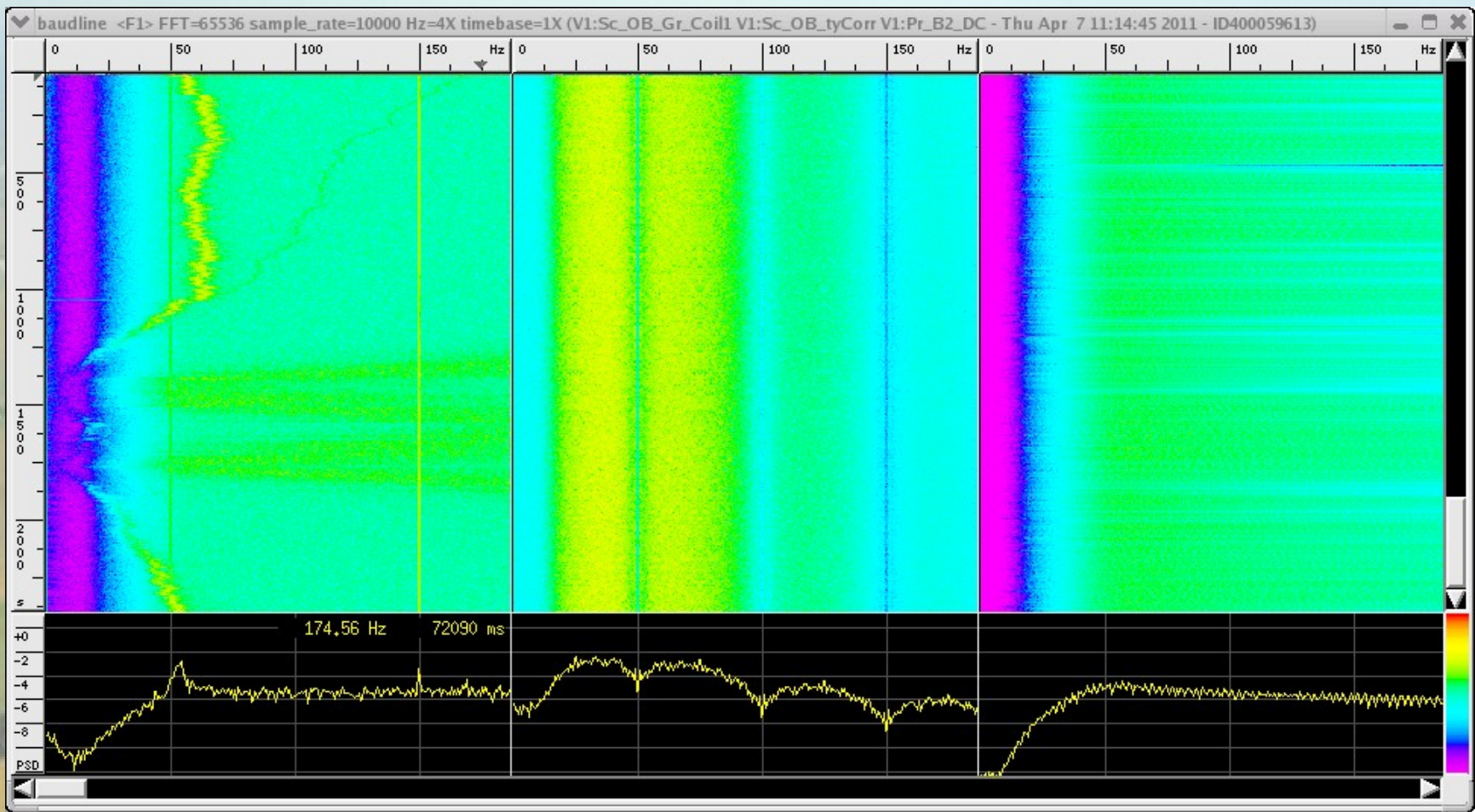
Plot from VIR-0420B-11
FFT vs time of 3 channels
Below: projection of FFT at a given time