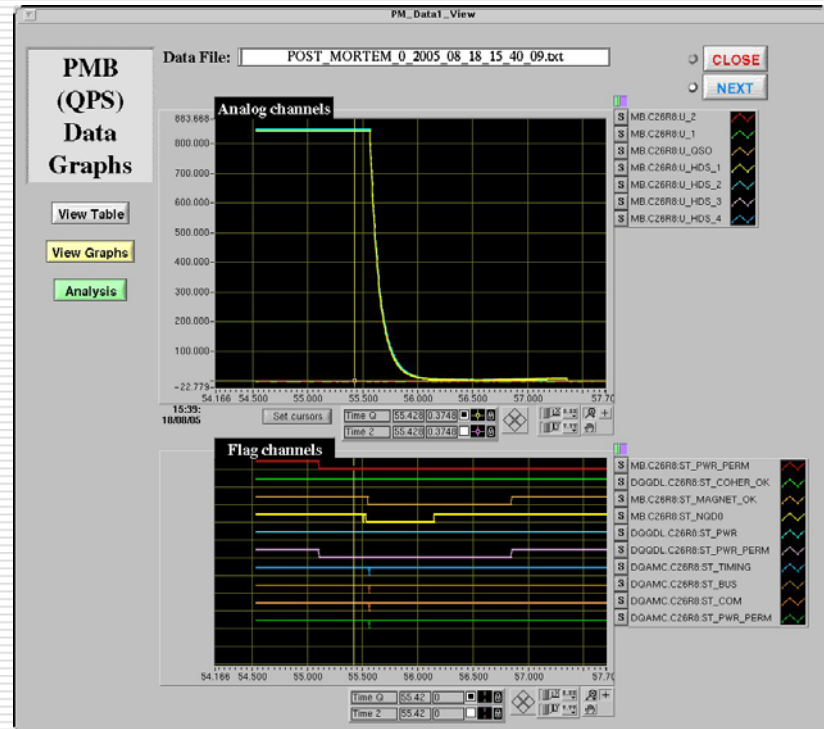
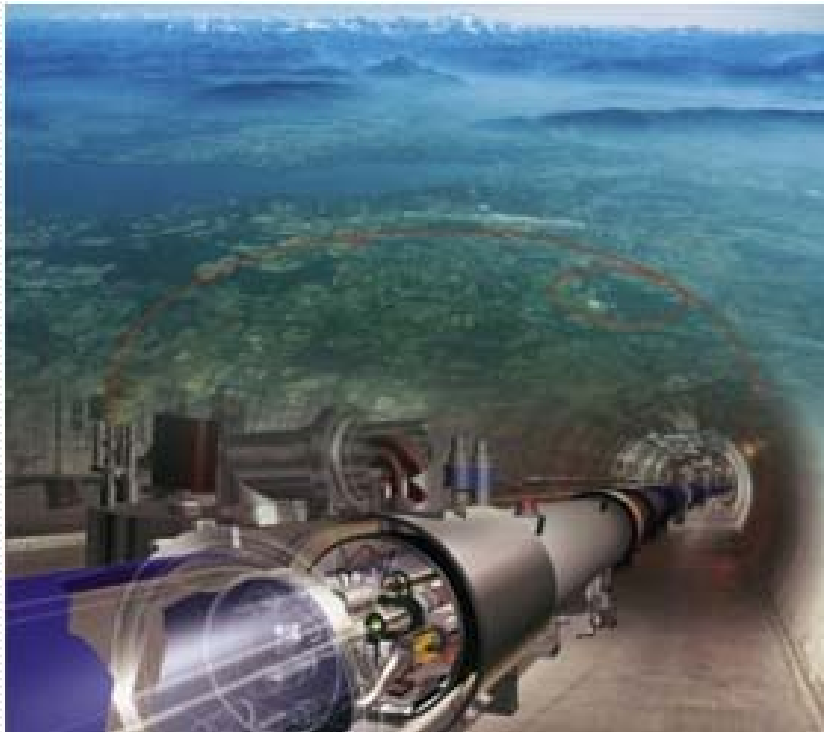


QPS Individual System Analysis



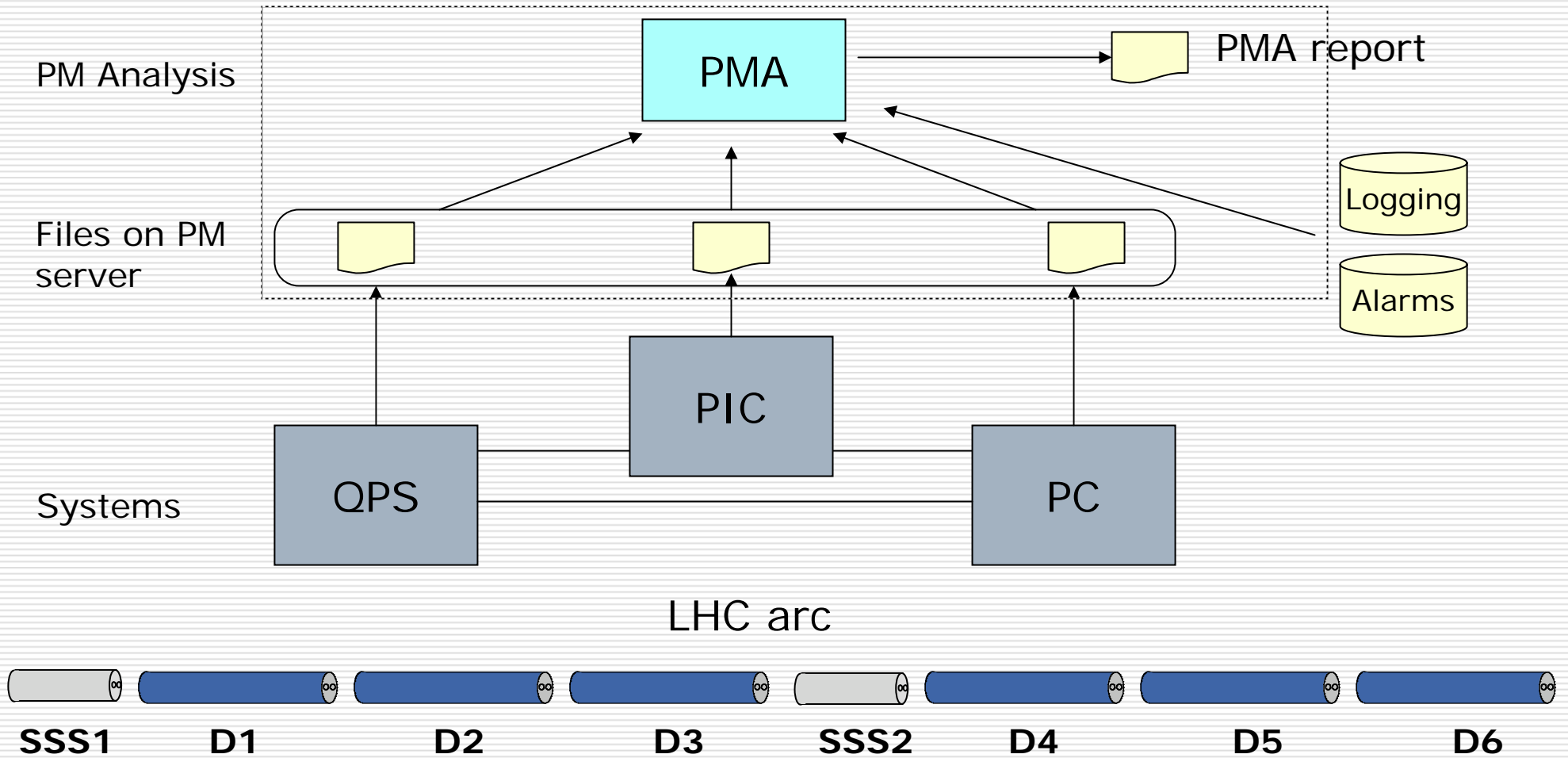


Outline

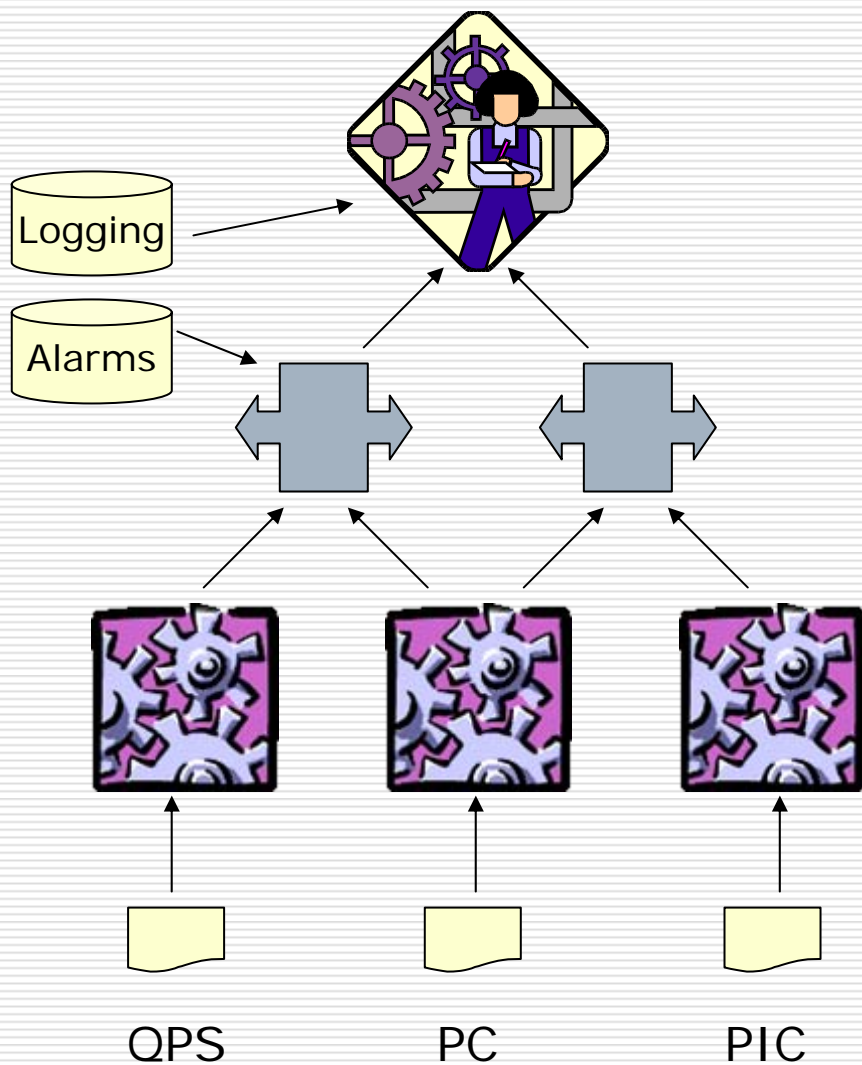
1. PM data flow
2. Data file verification and individual system analysis
3. Data viewer and analyser
4. Status



PMA: Data flow



PMA: Four levels of analysis



4. Event analysis

- Transient+ logging+alarms
- Generate event report

3. Interactions analysis

- Sequence of events
- Delays

2. Individual system analysis

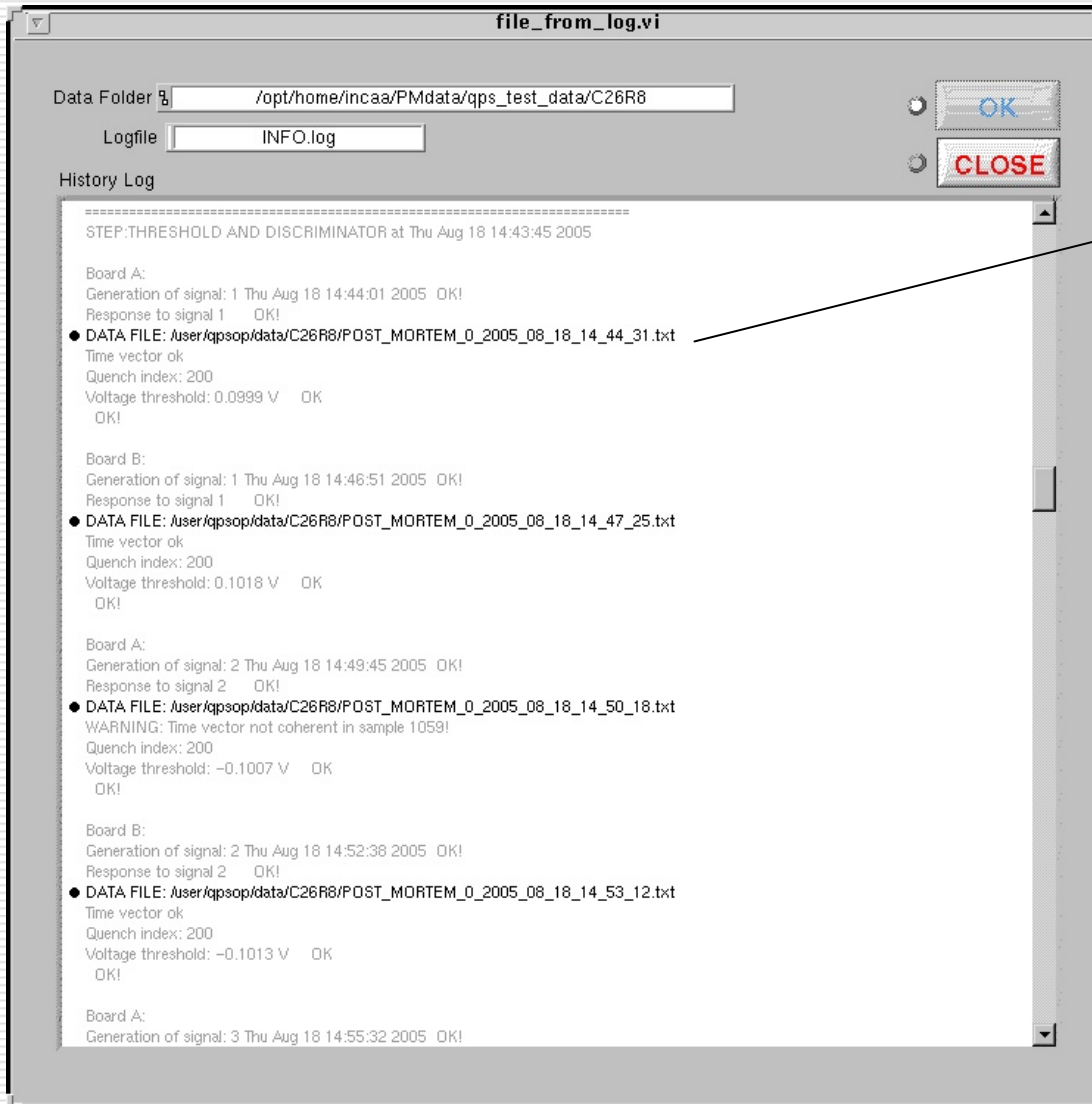
- Status flags
- Time stamps/sync
- Waveform analysis

1. Data format verification

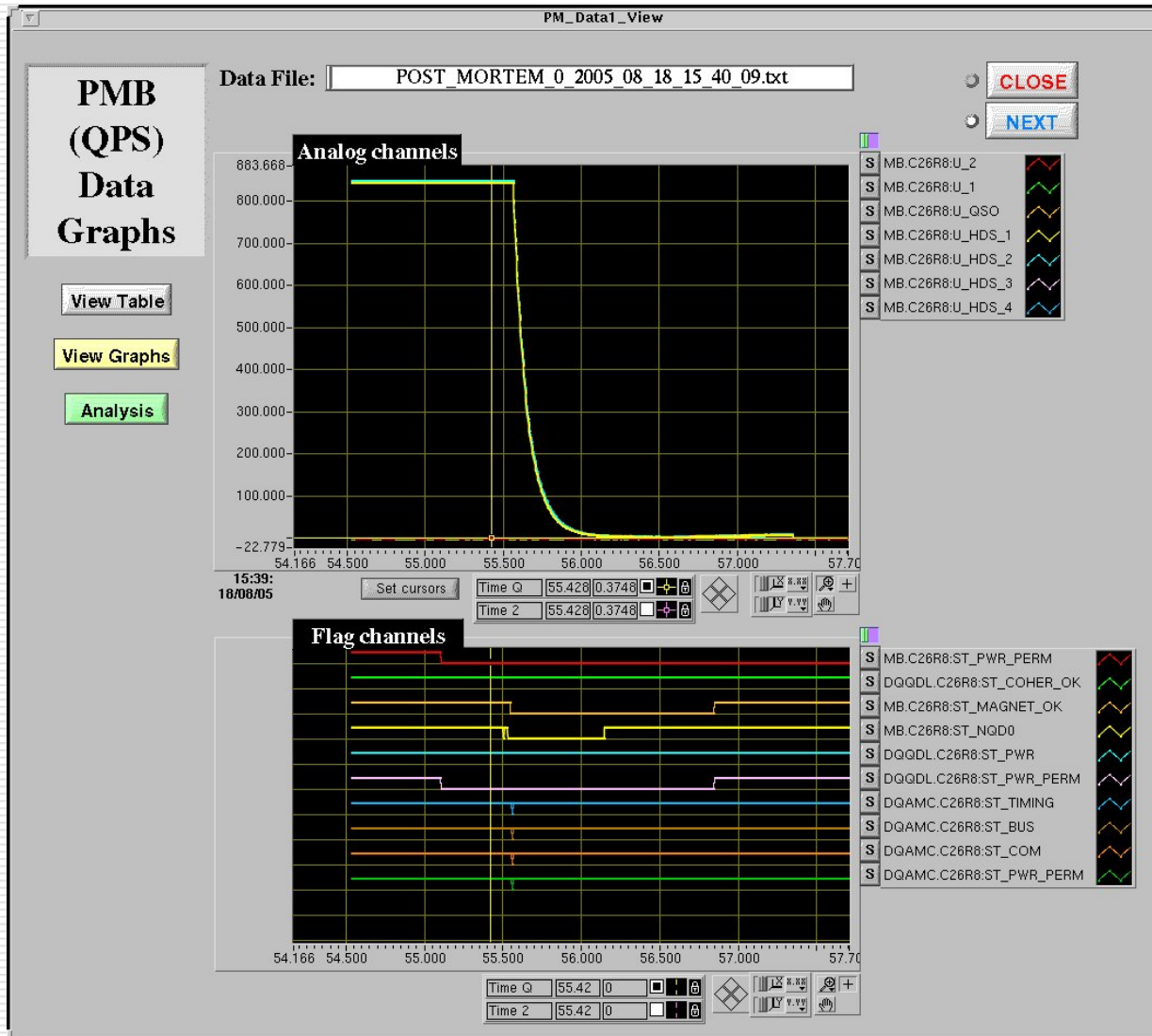
- Header
- Data structure



PMA: QPS Info file



Info file viewer, with pointers to data files for direct access.

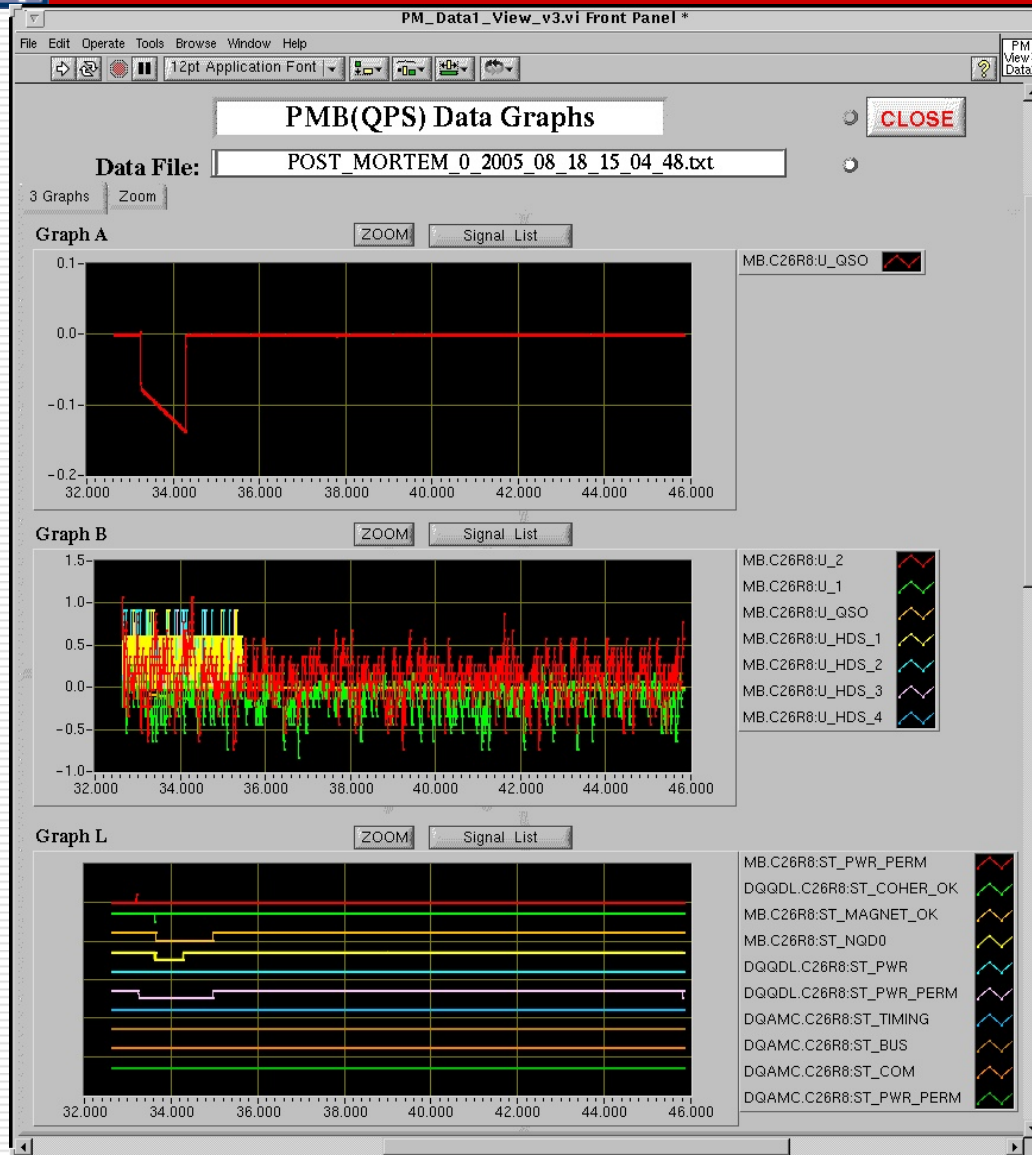


Analogue graph with selection, hide and zoom functions. First cursor locked on trigger-time.

Digital graph that remain synchronised with the analogue plot during zooming.



PMA: Multi-graph



Two analogue graphs with different scales and one digital for faster visual inspection.



PMA: Data file details

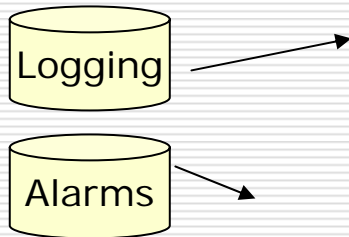
PM (QPS) Table Text

Data File: POST_MORTEM_0_2005_08_18_15_10_36.txt

Columns to show: All Act Sel(#1)

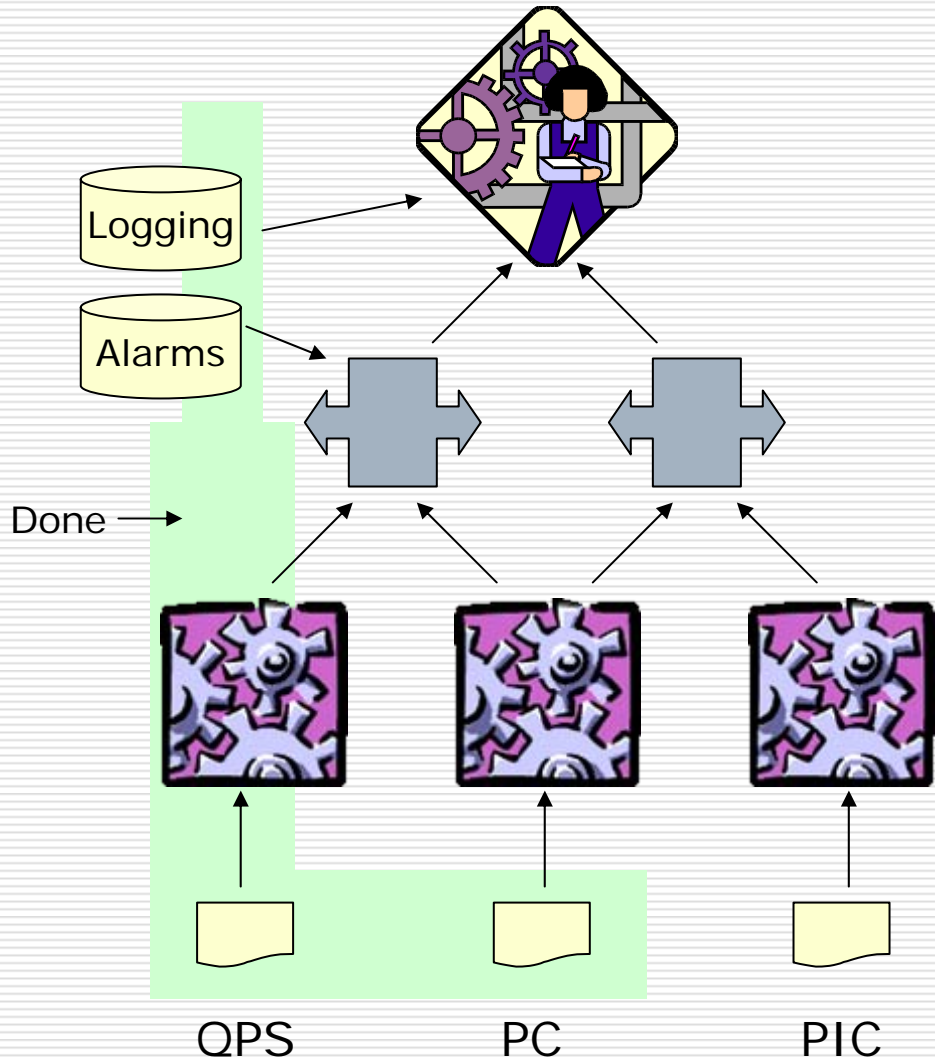
	[0] TIMESTAMP _GTW sec	[1] TIMESTAMP _GTW ns	[2] SERVICES	[3] BACOUNTER	[4] BUFFER_NBR	[5] SUBBUF_NBR	[6] TIMESTAMP _ACQ sec	[7] TIMESTAMP _ACQ ms	M ST_
20.647	1124370636	72894000	16	95257	1	0	1124370620	647	
20.652	1124370636	72894000	16	95257	1	1	1124370620	652	
20.657	1124370636	72894000	16	95257	1	2	1124370620	657	
20.662	1124370636	72894000	16	95257	1	3	1124370620	662	
20.666	1124370636	272910000	16	95258	5	0	1124370620	666	
20.673	1124370636	272910000	16	95258	5	1	1124370620	673	
20.678	1124370636	272910000	16	95258	5	2	1124370620	678	
20.683	1124370636	272910000	16	95258	5	3	1124370620	683	
20.689	1124370636	472899000	16	95259	9	0	1124370620	689	
20.694	1124370636	472899000	16	95259	9	1	1124370620	694	
20.699	1124370636	472899000	16	95259	9	2	1124370620	699	
20.704	1124370636	472899000	16	95259	9	3	1124370620	704	
20.709	1124370636	672893000	16	95260	13	0	1124370620	709	
20.714	1124370636	672893000	16	95260	13	1	1124370620	714	
20.720	1124370636	672893000	16	95260	13	2	1124370620	720	
20.725	1124370636	672893000	16	95260	13	3	1124370620	725	
20.730	1124370636	872886000	16	95261	17	0	1124370620	730	
20.735	1124370636	872886000	16	95261	17	1	1124370620	735	
20.740	1124370636	872886000	16	95261	17	2	1124370620	740	
20.746	1124370636	872886000	16	95261	17	3	1124370620	746	
20.751	1124370637	72894000	16	95262	21	0	1124370620	751	
20.756	1124370637	72894000	16	95262	21	1	1124370620	756	
20.761	1124370637	72894000	16	95262	21	2	1124370620	761	
20.766	1124370637	72894000	16	95262	21	3	1124370620	766	
20.771	1124370637	272894000	16	95263	25	0	1124370620	771	
20.777	1124370637	272894000	16	95263	25	1	1124370620	777	
20.782	1124370637	272894000	16	95263	25	2	1124370620	782	
20.787	1124370637	272894000	16	95263	25	3	1124370620	787	
20.792	1124370637	472892000	16	95264	29	0	1124370620	792	
20.797	1124370637	472892000	16	95264	29	1	1124370620	797	
20.802	1124370637	472892000	16	95264	29	2	1124370620	802	
20.808	1124370637	472892000	16	95264	29	3	1124370620	808	
20.813	1124370637	673131000	16	95265	33	0	1124370620	813	
20.818	1124370637	673131000	16	95265	33	1	1124370620	818	
20.823	1124370637	673131000	16	95265	33	2	1124370620	823	
20.828	1124370637	673131000	16	95265	33	3	1124370620	828	
20.833	1124370637	873370000	16	95266	37	0	1124370620	833	
20.839	1124370637	873370000	16	95266	37	1	1124370620	839	
20.844	1124370637	873370000	16	95266	37	2	1124370620	844	

Table view of data file with quick selection of columns of interest (Selected in graphs, external signals, ...)



- Logging data will be accessed from the PMA program by an Oracle interface in C within LabVIEW (Alessandro and Alastair).

- Alarm data will be accessed through a SDDS dump file produced by the LASER system (Niall).



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