

Data Timestamping for Fast Data Acquisition (sniffer archiver)

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In the context of the new BPM readout electronics deployment on the machine, the fast data capture (Diamond Sniffer Archiver) is becoming obsolete and will be replaced with enhanced capability for Soleil II :

- the storage of any types of data: BPM, PSC (instructions and/or re-read values), LLRF (?)
- coming from different equipments,
- for several days (currently 2 weeks)

Main purposes of this “fast archiver” is to:

- investigate in case of problems: search for repetitive patterns
- perform measurements to identify the machine (fast matrix, BBA, etc.)
- perform analyses to understand the machine

Two architectures are currently evaluated in term of performance at Soleil. But there is still an open question

:

which time source should be used to timestamp the data ?

Granularity issue, synchronisation, strategy, philosophy... Let's discuss!

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