



BI readiness for run 2a

12th AWAKE Instrumentation meeting

BI for run 2a

- Digital cameras
- ChDR BPM
- Streak line upstream plasma cell
- Motors
- Expansion volume interfaces
- Spectrometer camera test
- Replacement of screens BTVs 426 & 442
- Installation of ICT

BI for run 2a

- **Digital cameras**

- server & 10 gbps fibre connection OK
- timing distribution finalised
- software: tested. Functionalities missing (profile fit, tagging of SPS shot, camera power cycling). New PJAS start in Aug 21
- design of mechanical parts for BTVs done.
- Plan: electron BTVs (using PPOT cables), exp. volume cameras, common line BTVs.

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- **ChDR BPM**
 - Eugenio's presentation

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- **Streak line upstream plasma cell**

- Realigned in May. Protons and electrons visible (but >600 pC for electrons)
- try to improve signal by: steering e- beam. Transport with Optics studio, additional lens ordered
- remote controlled slit: should be back to CERN mid July

For both cameras:

- Issue with Hamamatsu software ("RemoteEX") crashing. Possible conflict with Frame grabber, to be followed up with Hamamatsu

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- **Motors**

- all motors checked by Eugenio and Michele. All installed motors are functioning properly, however a few motors have limit switches not working properly or missing (BI streak line final mirror and focus, MPP line XY mirror).
- at present 20 channels available

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- **Expansion volume interfaces**

- cables for cameras (coax for trigger, eth for data and power) *should* have been pulled
- new cables for motors not needed, re-use existing cables (patch cables and panels being produced)
- one actuator recuperated from CTF / CLEAR. Vacuum cleaning and testing

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- **Spectrometer camera test**
 - camera and lenses all available. Support is being finalised. All will be installed this week.
 - all cables for cameras (coax for trigger, eth for data & power) *should have been pulled*
 - SW will run on local PC (purchased) in streak room awaiting BI digital camera readout. SW developed by David

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- **Replacement of screens BTVs 426 & 442**

- BTV 426: replace OTR with YAG. Parts not ready yet, unlikely to be ready for July. Replacement must be re-scheduled
- BTV442: replace composite screen with OTR. Replaced week 7-12 June. Optical line to be re-aligned

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- **Installation of ICT**

- installation of ICT for spectrometer calibration. Initial proposal: install two ICTs CF6"-60.4-40-070-UHV from Bergoz Instrumentation. one close to plasma cell, other to spectrometer
- Inspection with vacuum: cannot install ICT upstream OTR/CTR table
- ICT close to spectrometer: limit of 5 mt (transverse) for ICT. Measurement of magnetic field to be scheduled
- Installation to be scheduled (YETS?)