

Olympus Test Experiment (OTE)

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What do we want to achieve with the OTE?

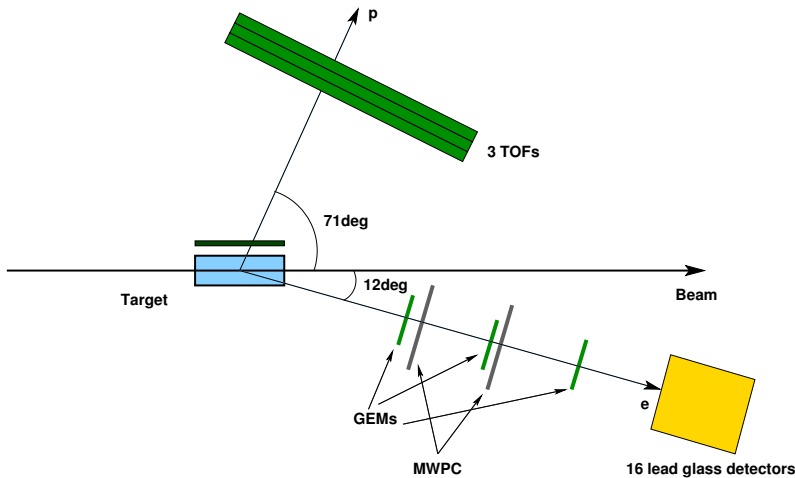
- Verify target operation and control
- Study background situation at IP
- Investigate machine parameters (beam species, stability, halo)
- Learn procedures for running at DORIS

What we plan to do for background studies

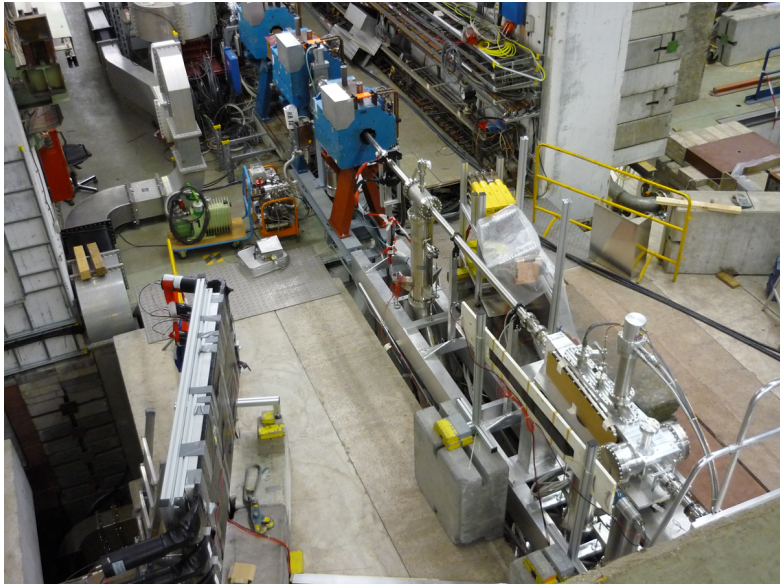
- Measure countrates with scintillators
 - Background sources
 - Beam quality
 - Beam stability
- TLDs → Radiation dose

What we plan to do for target studies

- Detect elastic ep events from the target



Setup at OLYMPUS IR



Status of OTE hardware

Proton Arm Detector (PAD)

- installed and cabled
- electronics installed
- ADC data good

Start Detector (SD)

- installed and cabled
- electronics connected and tested

GEMs

- all parts available
- waiting for mounting

MWPCs

- tested and mounted
- electronics installed

Lead Glass Calorimeter (LGC)

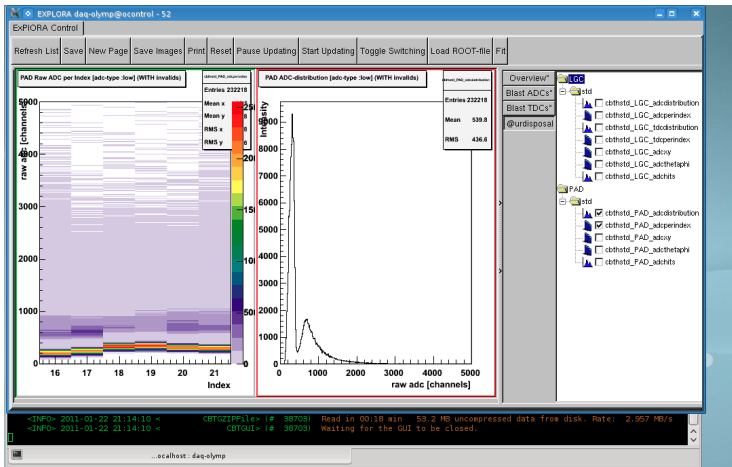
- installed and cabled
- electronics setup
- ADC data good

C5 counter

- installed and cabled

Status of OTE software

- Data acquisition system running
- Online data display in progress



Todo

- Hardware
 - Install GEMs with electronics & testing
 - Finish electronics and cabling
 - Adjust LGC gain to match 2 GeV dynamic range
 - Verify all discriminator thresholds
 - Beam commissioning
- Software
 - Finish online monitoring
 - Write analysis software

Time line

- OTE installation finished (ring close): 28 January
- First beam in DORIS: 10 February
- First run for OTE: 17-23 February
- Second run: 14-15 May
- Third run: 2 - 3 June

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Presentations of the results:

- 22 March (DPG spring meeting)
- 24 April (9APS meeting)
- end of April (DESY PRC)