

SCANNING SETUP

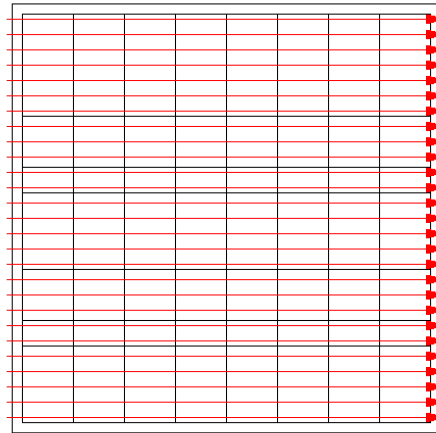
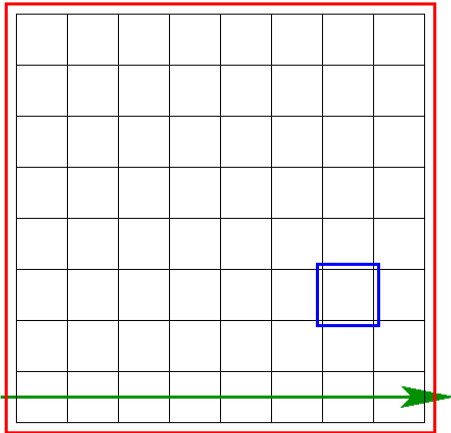
Jerry and I restarted the PMT scanning setup
in building 403

Light source:

Pilas pico-second laser in single photon mode;
 $\lambda=430\text{nm}$; pulse jitter FWHM $< 35\text{ps}/60\text{ps}$

Motion-controlled x/y stage:

typical scan step size $100\mu\text{m}$
repeatability $< 7\mu\text{m}$



Readout:

single-threshold LeCroy
discriminator
TDC: LeCroy 3377
(500ps per count)
(One dead channel in one TDC)

Protocol:

scan lines in x
before and after each line
calibrate by going to
DIRC or Photonis PMT

Analysis:

huge data volume
(20k trigger per point, typically
12-15k points)
save as compact file, convert to ROOT

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consistent result

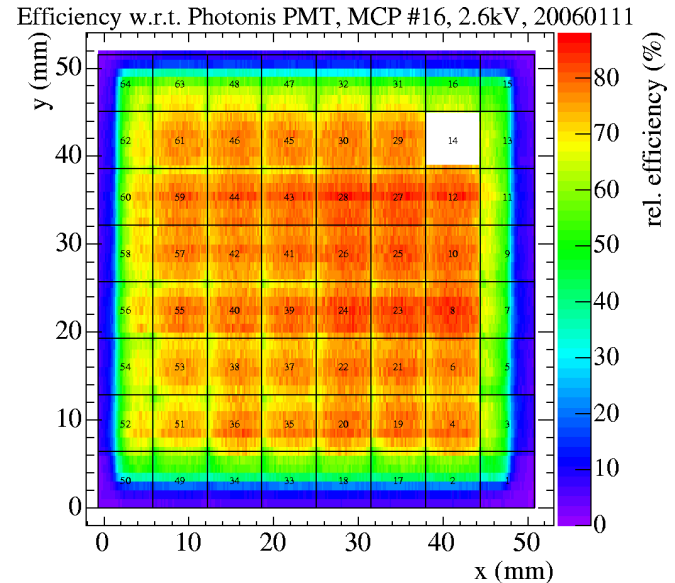
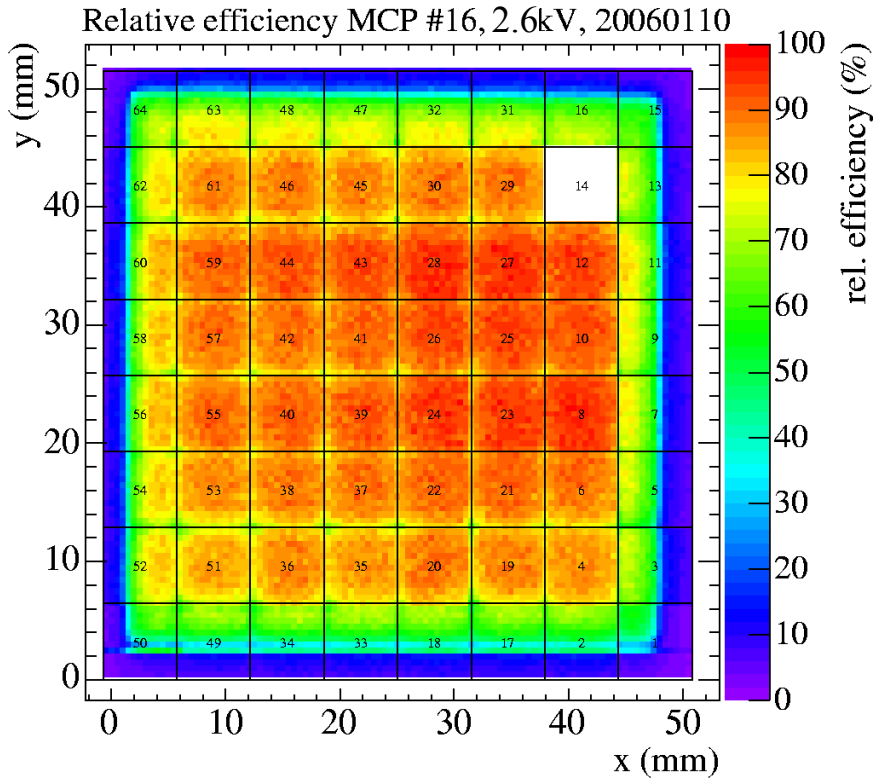
Scanned MCP #16 (has been in setup for more than one year)

Two scans, one with 0.2mm*1.0mm steps, one with 0.5mm*0.5mm steps

0.5ns/count TDC used only to reject background (no timing scan)

→ obtain results consistent with 2004 scans.

(MCP at slightly lower HV than last year, Photonis calibration PMT at lower HV)



old result:

