



Update from DAQ Group

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FADC Tests in Heidelberg (A. Burenkov, B.S.)

(see GRST 05-15 note)

	XIA Pixie-4	Struck SIS3301

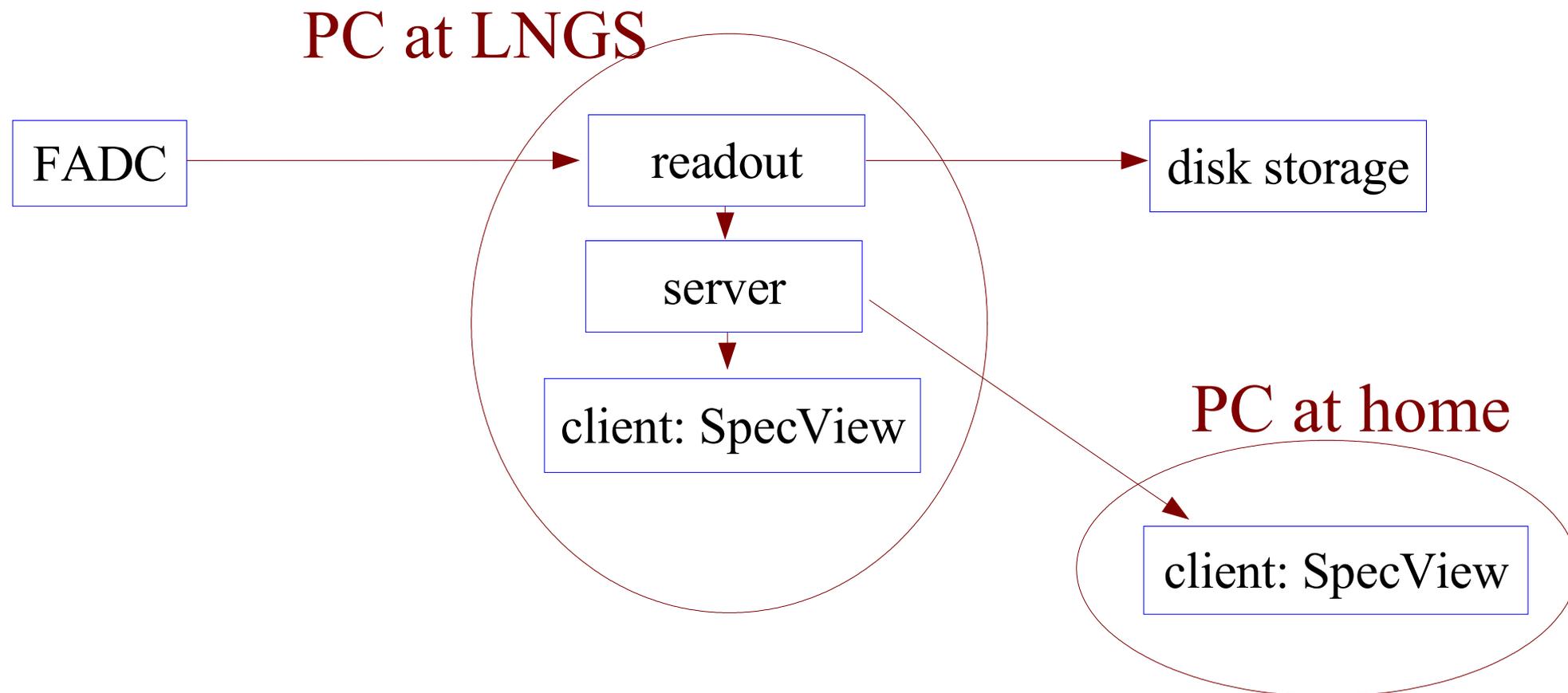
sampling rate	75 Msps	105 Msps
number of bits	14	14
differential non-linearity	4 LSB	2 LSB
integral non-linearity	<0.5 LSB	1 LSB
temperature drift	1.7×10^{-4}	2.7×10^{-4}
effective number of bits	-	11.2
FWHM resol. for pulser	$1-2 \times 10^{-4} (*)$	$1-2 \times 10^{-4}$
channel cross talk	-	<70 bB

(*) measurement done at MPI Munich, GRST 05-013

LSB = least significant bit

temperature drift = relative change of conversion factor [ADC count/ Volt]

DAQ Software development at INFN Padova



new features of SpecView:

- Mexican hat filter for SSE/MSE event analysis
- library of simulated pulsed for every 1mm x 1mm x 1mm position & χ^2 fit for locations of energy deposit(s) for SSE/MSE analysis
- considering “fuzzy logic” analysis

Summary

- FADC tests finished
- DAQ software + analysis software improvements in Padova
- INFN funding for Padova approved:
 - 14-bit 100 MHz FADC, computer, ...
- MPI in process of ordering Struck FADCs for phase 2