

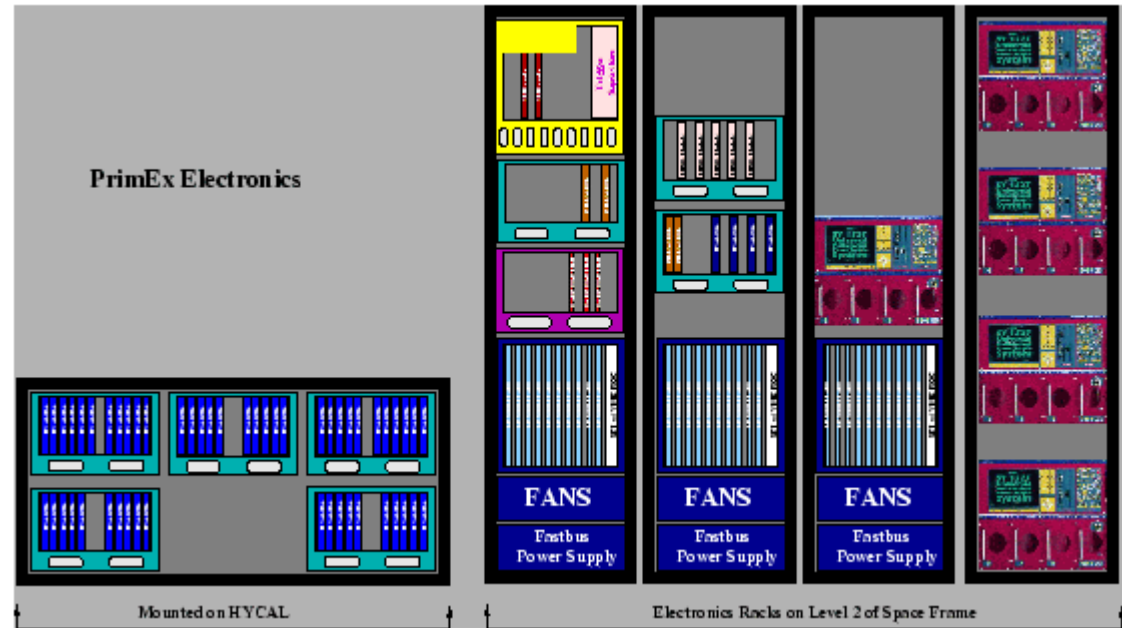
# DAQ Design for PRad

Chao Peng, Sergey Boiarinov

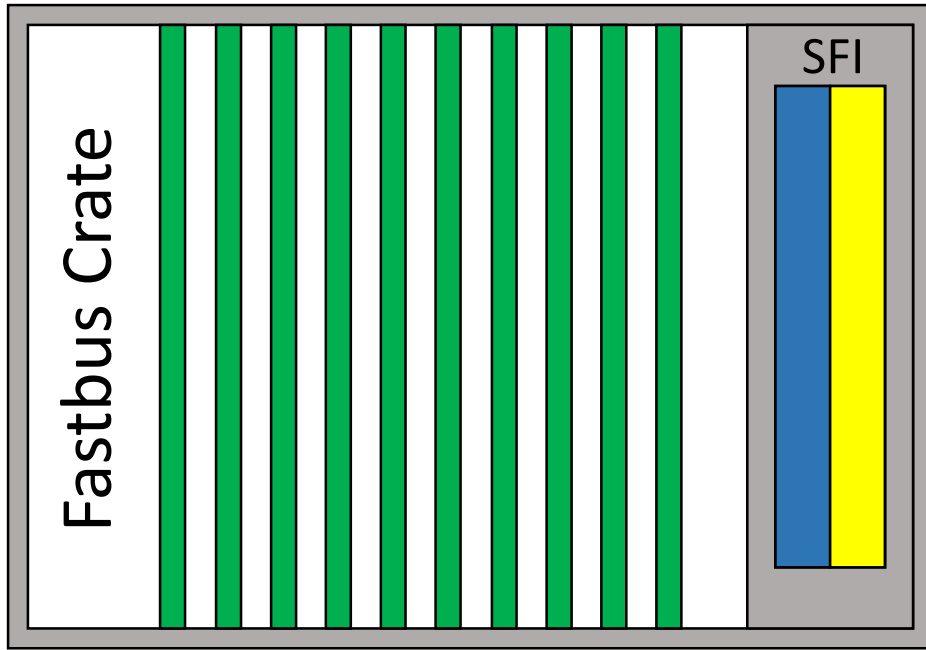
07/10/2014

# Previous DAQ in PrimEx

- 3 fastbus crates are needed to hold all 30 ADC modules and 1 LRS1877 TDC module
- A total of 56 UVA120A modules (36 input, 2 output linear fan-ins) and 4 UVA125A (quad 9 input linear fan-in with discriminator) modules, 6 high powered NIM crates for use with these modules

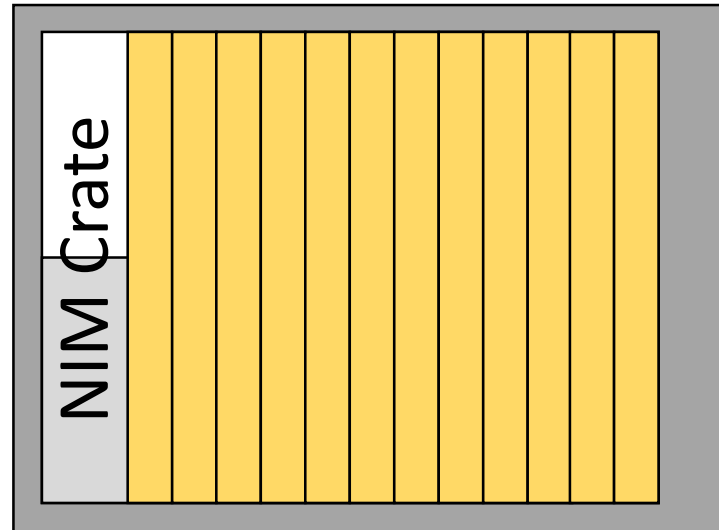


## 3x ADC Crates



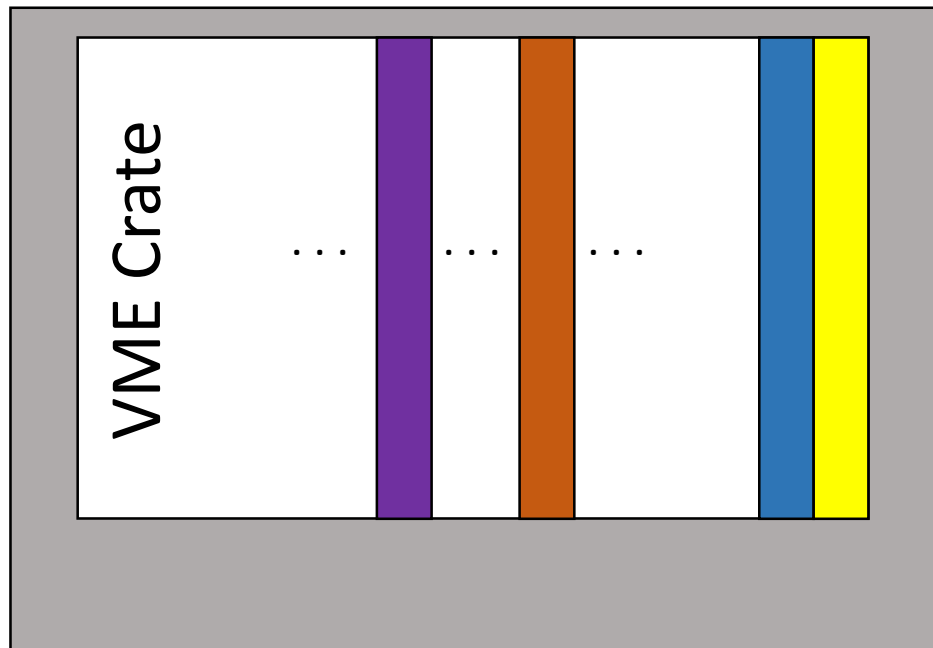
- 10x LRS1881M ADCs
- 1x MVME 5100 ROC
- 1x JLAB TI

## 5x Linear Sum Crates



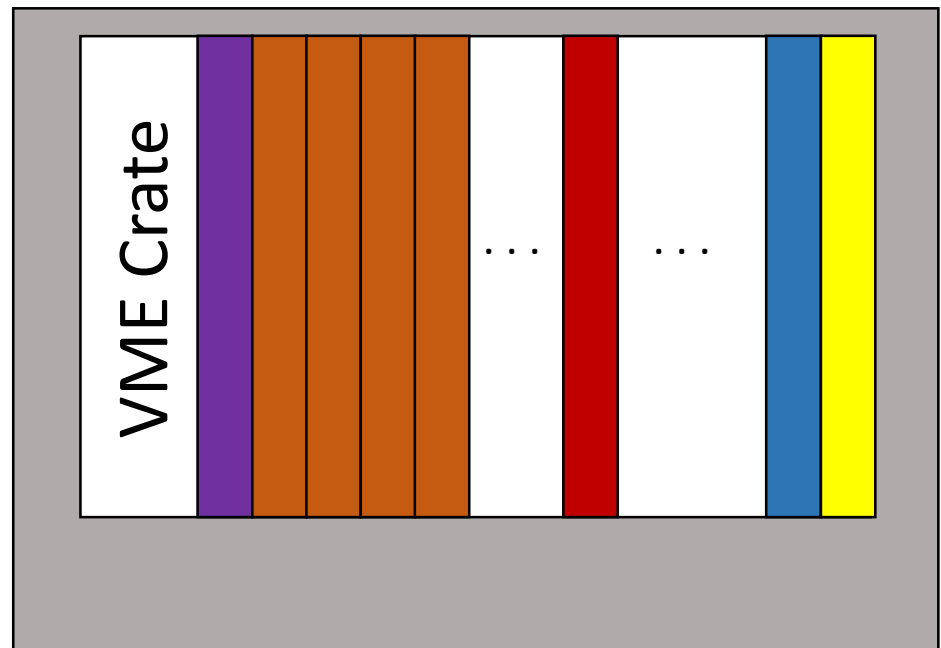
- 8x ~ 12x UVA 120A
- (52 in total)
- Linear sum modules

# 1 or 2 Tagger Crates



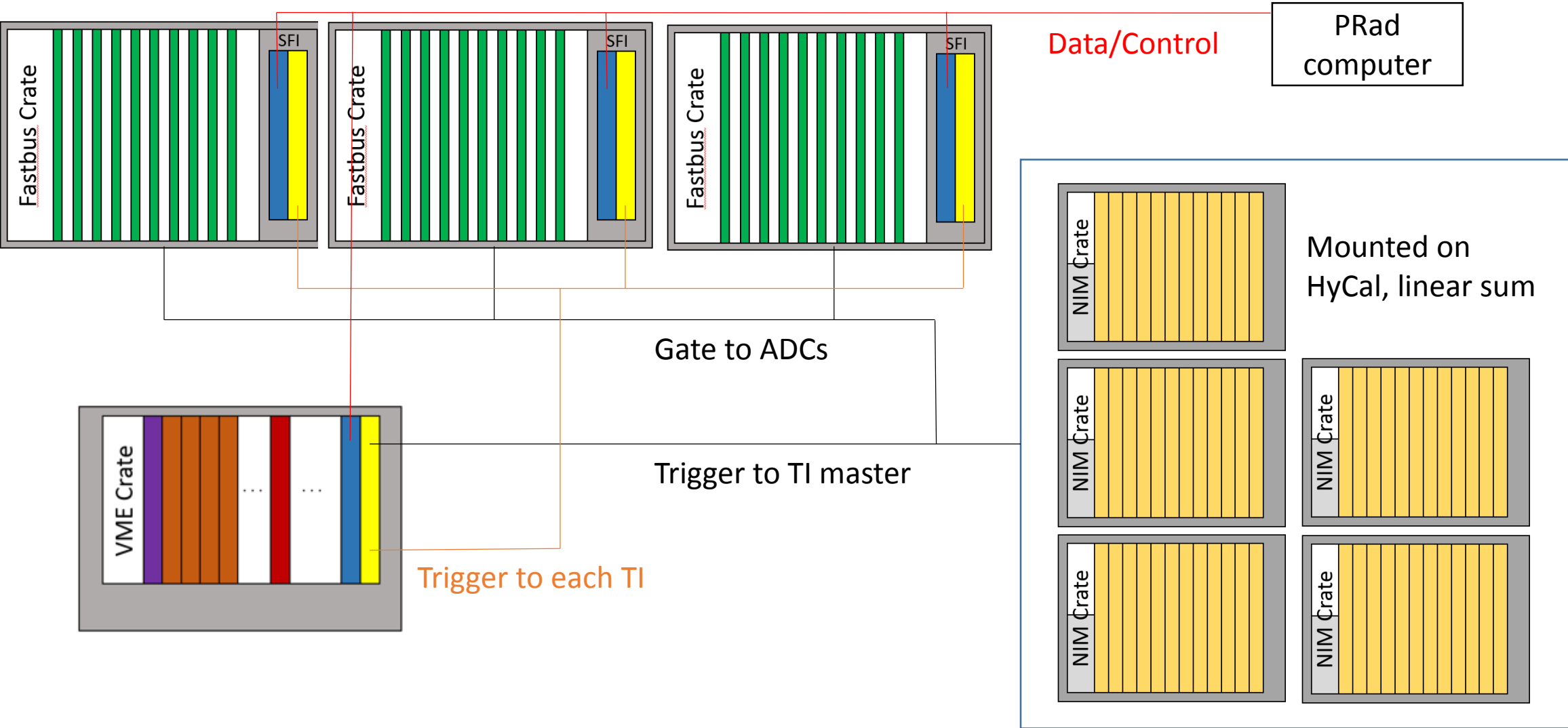
- 1x ROC
- 1x JLAB TI (TRIGGER MASTER)
- ?x DISCRIMINATORS
- ?x TDCs

# TDC/Trigger Crate

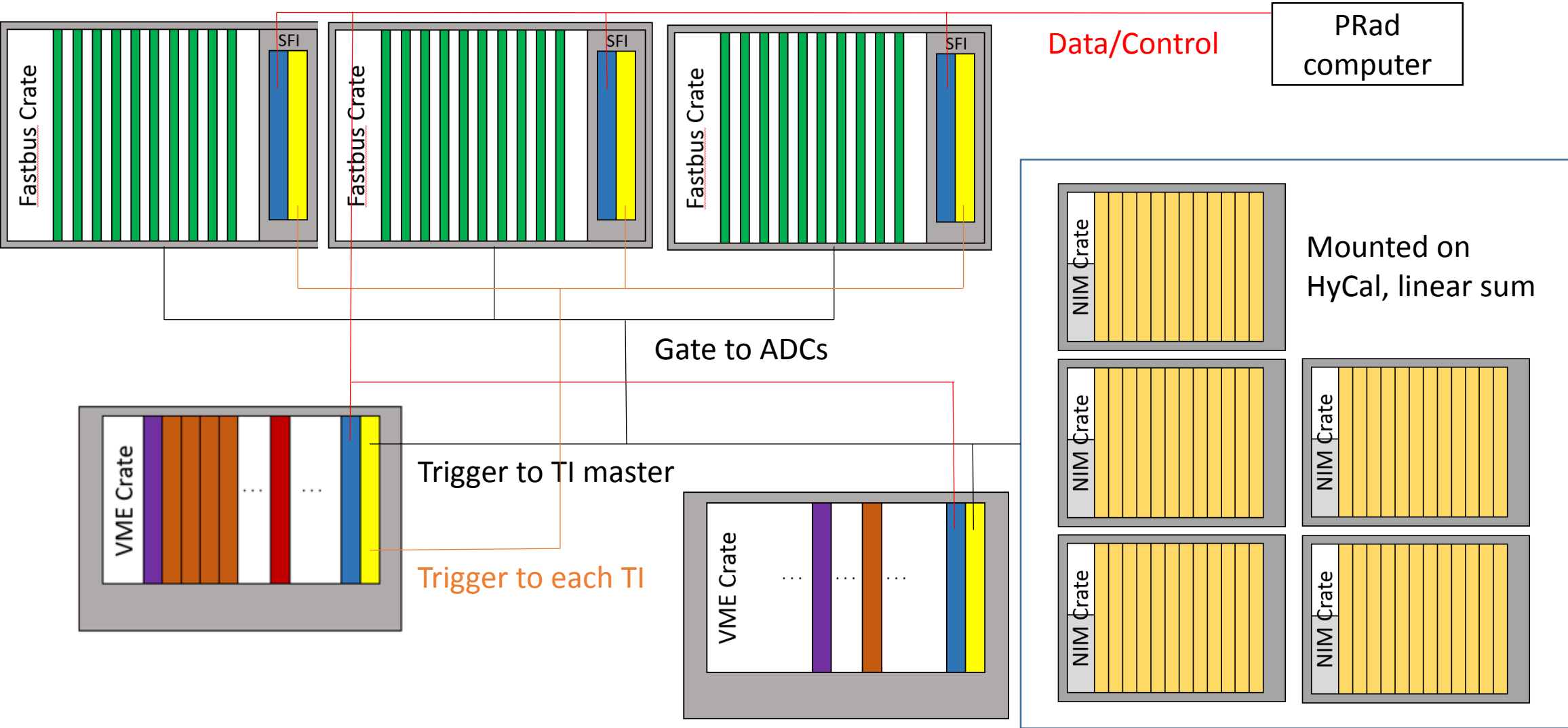


- 1x v1190 TDC
- 1x MVME 2436 ROC
- 1x JLAB TI (TRIGGER MASTER)
- 4x DISCRIMINATORS
- ?x SCALORS

# DAQ system for production run



# DAQ system for calibration run



# DAQ electronics list

## Production run

- ✓ 30x LRS1881M ADC boards
- ✓ 52 UVA 120A modules
- 4x TIs
- 1x 1190 TDC board
- 4x JLab Discriminators
- ?x Scalars
- △ 4x ROCs, (have 2 MVME 5100, 1 MVME 2436)

- ✓ we have
- will get from JLab
- △ we need

## Additional in calibration run

- 1x ~ 2x ROCs
- 1x ~ 2x TIs
- ?x TDC boards
- ?x JLab Discriminators