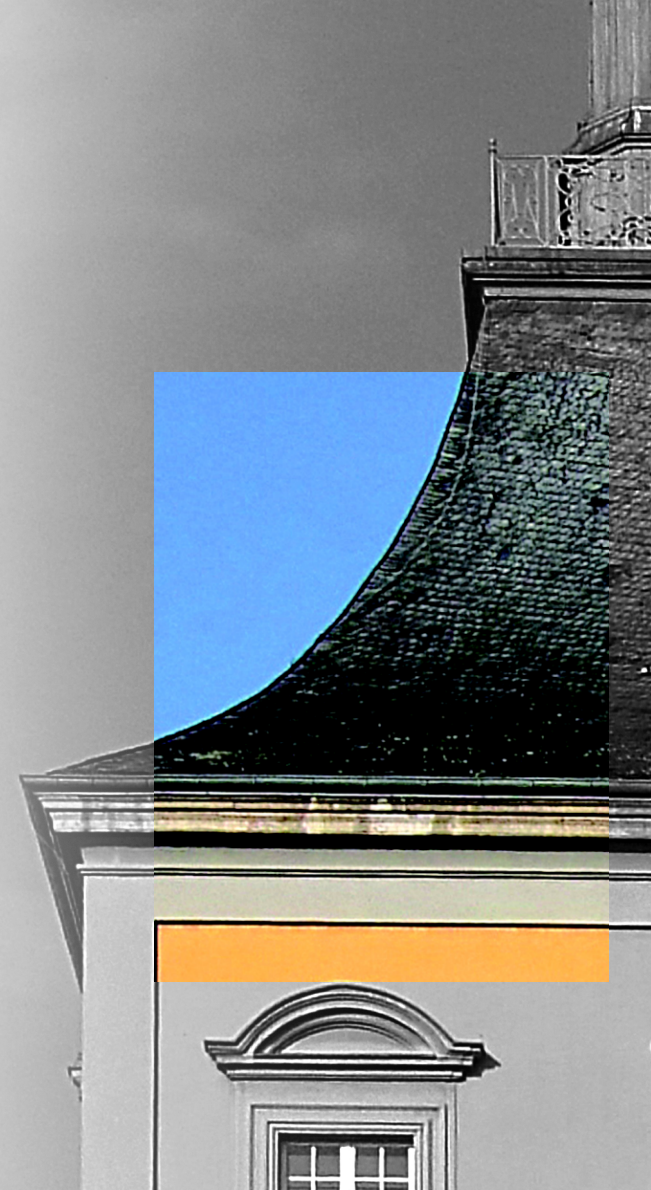# Update on the new Mimosa26 interpreter

Beam Telescopes Development Meeting,
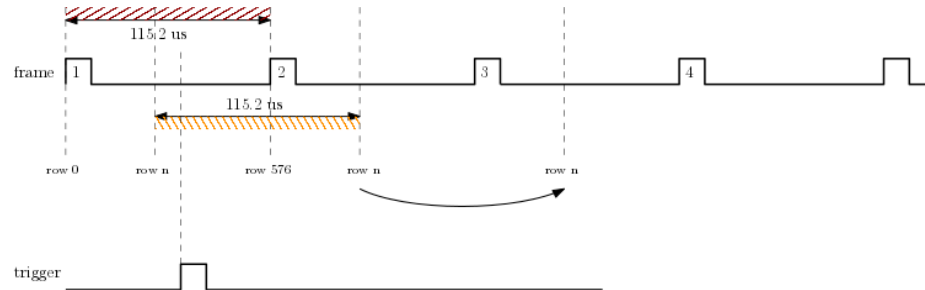30.08.2018

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MIMOSA26 INTERPRETER

- R/O system generates start of Mimosa26 frame time stamp (40 MHz)

- R/O system generates trigger time stamp (40 MHz)

- Idea of Mimosa26 interpreter:

  - Get time information for Mimosa26 data by assigning a (or multiple) trigger time stamp(s) to Mimosa26 frame (115.2 us)

MIMOSA26 INTERPRETER

- Status: Implementation of interpreter is finished

- Documentation is partially available

- Unit tests for interpretation are in preparation

- First verification was done (by Jens):

  - Determination of timing offset of M26 frame by maximizing correlation to time reference

  - As expected see peak in correlation

  - Further checks will be done

  - Offset: 2170 clock cycles

$$T_{start} = T_{M26\,frame} + row \times ROW\_UNIT\_CYCLE - 2 \times FRAME\_UNIT\_CYCLE - offset$$

$$T_{stop} = T_{start} + FRAME\_UNIT\_CYCLE + ROW\_UNIT\_CYCLE$$

Correlation Offset Scan