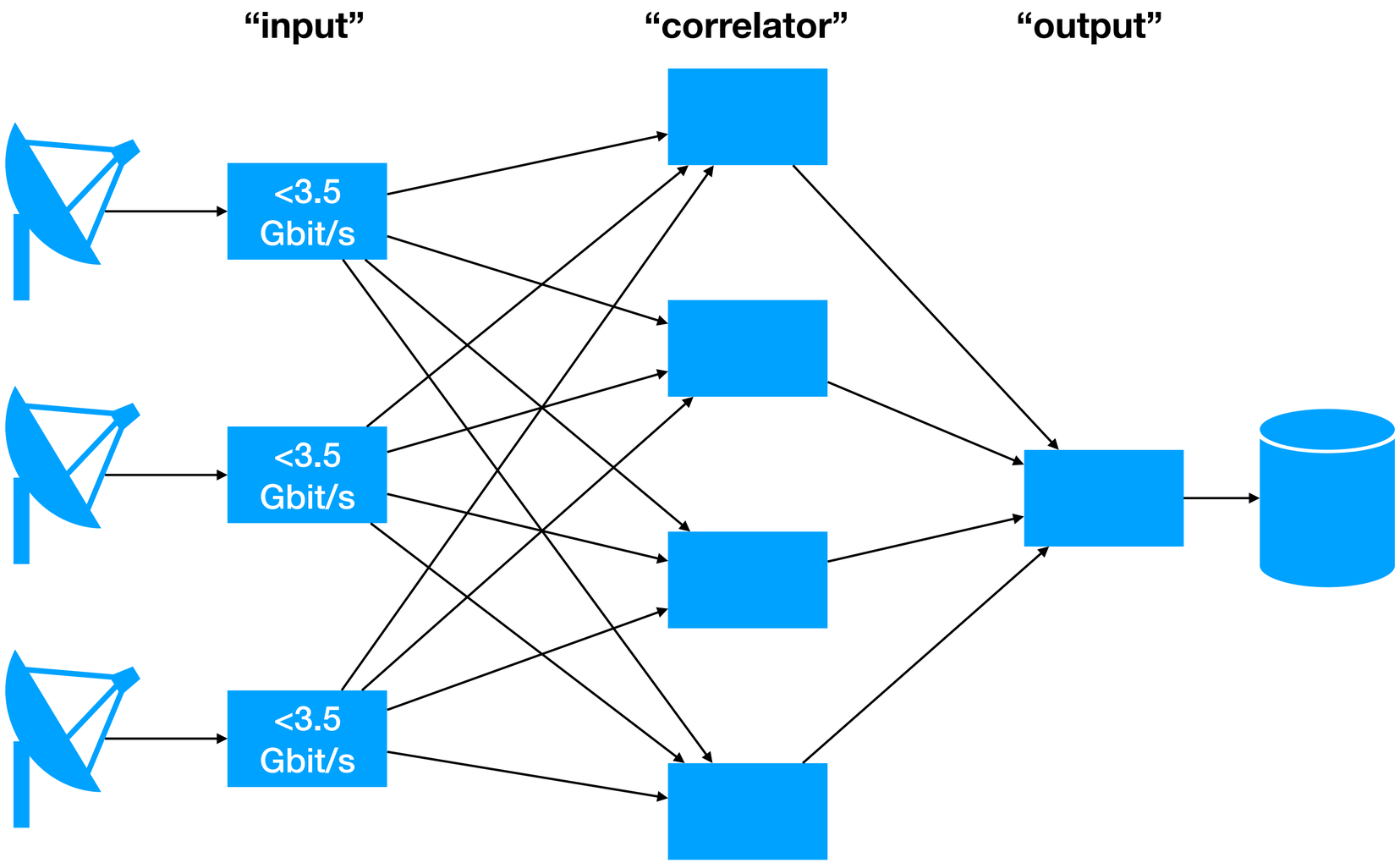
4 Gbit/s e-VLBI

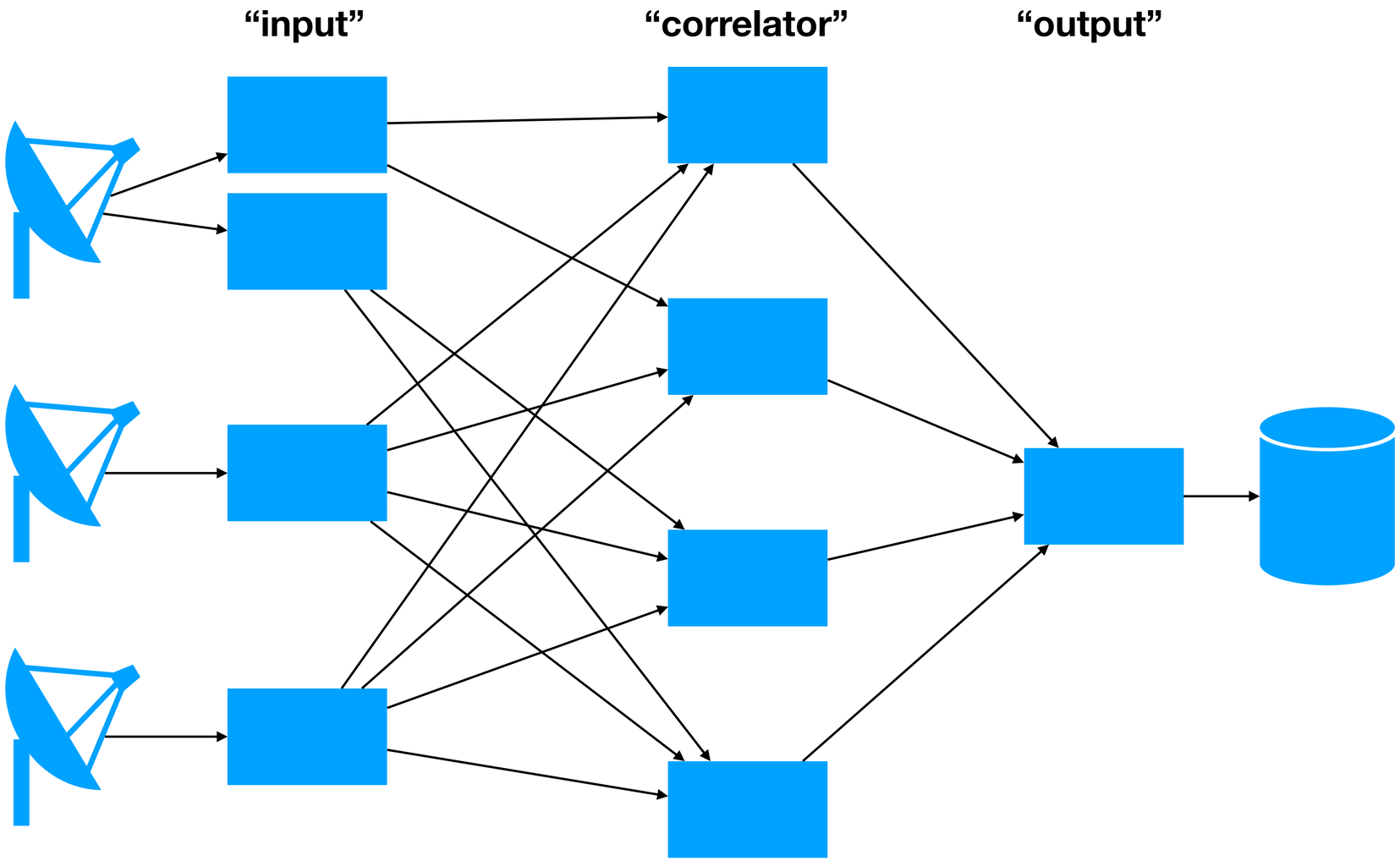
Progress

Mark Kettenis, EVN TOG, 24 November 2020

SFXC Parallelization



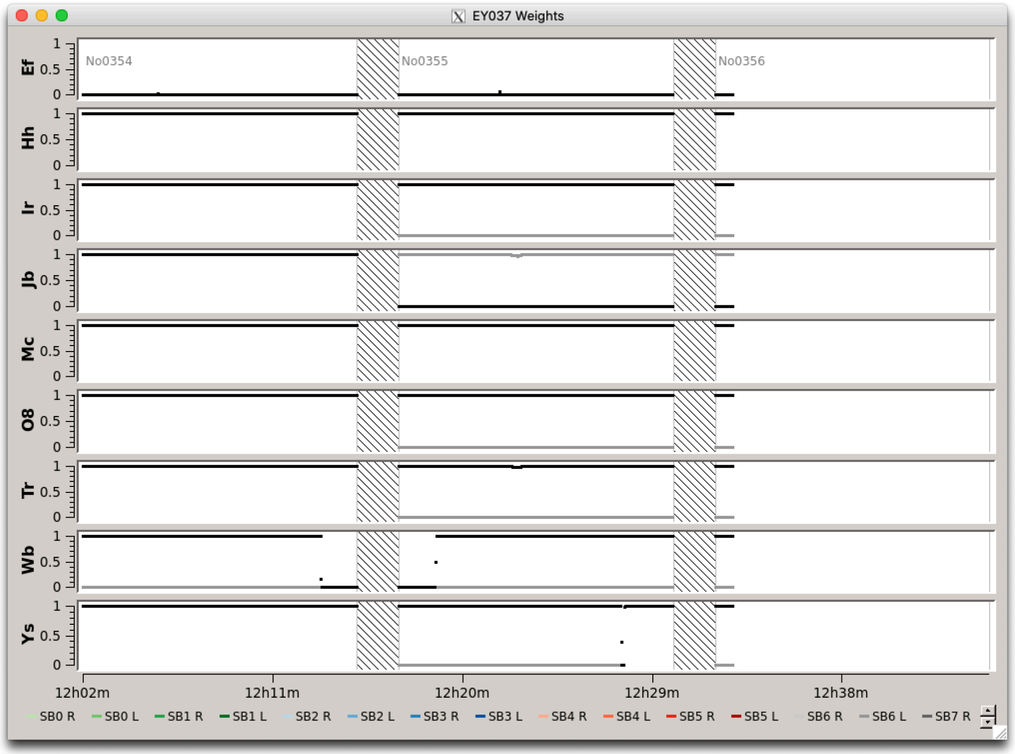
SFXC Multiple Inputs

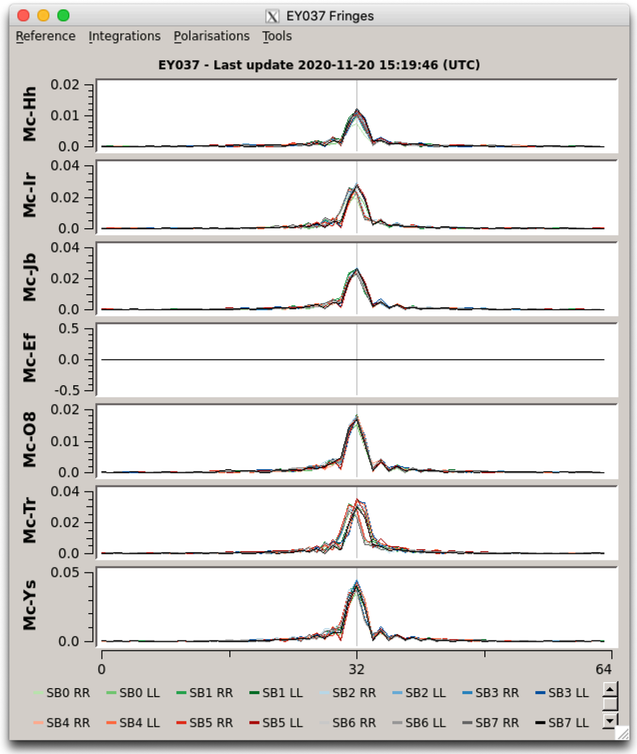


Testing

- July 2020: Simulated e-VLBI with 8 stations at 4 Gbit/s
  - Spare correlator capacity; maybe 12 stations is achievable
  - Even a bit more with some stations at 1 Gbit/s or 2 Gbit/s
- October 2020: FiLa10G splitting tests with Westerbork at 4 Gbit/s
  - Succesful!
- November 2020: 2Gbit/s splitting during e-VLBI session

2Gbit/s Splitting





- Mc works fine this time!
- Ef doesn’t work despite same FiLa10G version

Conclusions

- Splitting the data streams works
- Need up to date FiLa10G firmware (2.8.0, Nov 22 2018 13:06:37)
- Need to make sure there are no fila10g_mode commands in setup01
- Splitting 1Gbit/s doesn’t work
  - But we don’t need this
- Need to investigate problems @Ef
- Ready for a real 4Gbit/s e-VLBI test soon?