

What is needed for end-to-end VGOS processing

VGOS Correlation Workshop

MIT Haystack Observatory

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Overview



- What are software versions we have been working with?
- Note: The versions specified have been used/tested, but are not necessarily required.
- Software release plan.

Software: Correlator



- DiFX (2.5.2)
- OpenMPI (1.4.5)
- IPP (7.0)
- CALC (9.1) ←comes with DiFX 2.5.2 distribution
- difx2mark4 ←comes with DiFX 2.5.2 distribution

Post-correlation software: HOPS



- HOPS (3.20)¹
- Dependencies
 - gcc (4.9.2) and make
 - PGPLOT (5.2) – requires gfortran (4.9.2)
 - FFTW (3.3.5)
 - Ghostscript (9.06) – Be aware there is a known fourfit-display bug with some later distributions (>9.22?). This is due to the maintainers disabling some postscript commands, a workaround exists but is system dependent (edit gs_init.ps).

¹We will provide a beta-release of VGOS related software based on HOPS-3.20.

Post-correlation software: scripts



The post-processing scripts which drive fourfit require Python.

- Python 2.7 or 3 is OK. (2.7.9) and (3.5.2)
- Package/script dependencies are:
 - python-future (0.15.2) or (0.17.1)
 - python-matplotlib (2.0.2) or (3.0.2)
 - python-numpy (1.13.1) or (1.15.4)
 - python-scipy (0.14.0) or (1.1.0)
 - python-progress (1.4)

Software release



- We will provide an beta-release of the post-processing software 1-2 weeks after the workshop.
- Will it make available via `ftp://gemini.haystack.mit.edu`.
- In the long-term, we plan to distribute it with the rest of HOPS, packaged with the DiFX release cycle.