Usage of VGOS DB files in VieVS

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VieVS

What is VGOS DB?

- Database to store, archive and exchange VLBI data
- Developed by the IVS Working group
- More modern, flexible and extensible data format
- Data format that meets current and anticipated requirements (VGOS)
- Will replace the existing mark3/4 database and will be the sole data format for exchange and long term storage of VLBI data (IVS Directing Board)
- VieVS is ready to read and use VGOS DB for processing

VieVS

How does the VGOS DB format look like?

- Data is split into many small files, each containing a few data items
- Folder organization: station related parameters, observation related parameters
    - For example, each station has a Met.nc file which contains temperature, pressure and humidity at the site.
    - For example, VLBI observation parameters like the group delay for X and S band are stored in the ObsEdit/ folder
- Data is stored in a Network Common Data Form (NetCDF, .nc), which is a machine-independent data format that supports the creation, access, and sharing of array-oriented scientific data.

VieVS

VieVS VGOS DB analyzer

- Start *VieVS 3.0*
- Load VGOS DB file with *File/Set input files* and click on the *VGOS-DB* button
- Add the session you want to process and click *Done*
- Load VieVS VGOS DB analyzer with right click on session in the list of loaded sessions and click on *Analyze NetCDF file*
- You can open wrapper files which contain lists of all of the relevant files
- You can plot the values of the variables stored in a NetCDF file:
  - Name of variables
  - Type (Dimensions)
  - Value

Processing a VGOS DB file in VieVS

- The data content of the ngs file used for VieVS processing is the same than in VGOS DB format, the results are the same
- The VGOS DB file is labeled with *[vgosDB]*
- The ngs file is labeled with *_N004*
- After processing we compare the chi-squared of main solution

Lecture VGOS DB in VieVS

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