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Special files in VieVS

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Outline

- process lists
 - GUI
 - mk_list
- parameter files
- OPT files

Creating your own process list

- sometimes it is good to have predefined lists of sessions which you process often (e.g. all R1/R4, CONT sessions or all intensive sessions)
- simply choose this list in the GUI
- predefined process lists should be saved in the */WORK/PROCESSLIST/directory* (default directory)

Creating process lists with VIE_SETUP

- Start VIE_SETUP with:
»vievS
- select the sessions you want to include in the list
File/set input files and press *Browse for sessions*
- the process list can be saved with
File/Parameter files/Save parameters as...
- and loaded by clicking on *Browse for prodcess_list*
- by default process lists are saved to the directory
/WORK/PROCESSLIST/

Creating process lists with `mk_list`

- with the MATLAB script `mk_list.m` (located in the `/WORK` directory) you can create individual process lists
- useful for creating lists of e.g. all R1/R4 sessions, or all sessions with a specific station.
- the created list will only include sessions that exist as NGS-files in the `/DATA/NGS` directory.

Syntax of `mk_list`

- `[process_list, sess]=mk_list(s1,s2,...)` where `s1`, `s2`, etc. are strings containing the types of sessions you want to include (e.g. 'R1', 'EURO', 'RDV',...). Use 'all' to get all sessions.
`process_list` is the list of sessions
`sess` contains the session names
- to make the process list available in the VieVS GUI, save it in the `/WORK/PROCESSLIST` directory:
`save PROCESSLIST/mylist2.mat process_list`

Options & examples for `mk_list`

- to only include sessions from specific years:

```
process_list=mk_list(...,'YEARS',yrs)
```

where `yrs` is an array with the years you want to include,
e.g. Create a list of all R1/R4 between 2003 and 2007:

```
process_list=mk_list('R1','R4','YEARS',2003:2007)
```

- to only include sessions with a specific station:

```
process_list=mk_list(...,'REQSTAT',sta)
```

where `sta` is the two-letter ns-code of the station, e.g. all
sessions of 2011 which METSAHOV has participated in:

```
process_list=mk_list('all',  
    'REQSTAT','Mh','YEARS',2011)
```

Options & examples for `mk_list`

- to include all versions of the NGS files, not just the latest:

```
process_list=mk_list(...,'ALLVERSIONS')
```

e.g. All CONT11 sessions, including all versions of the NGS files (in case there are more than one):

```
process_list=mk_list('C11','ALLVERSIONS')
```

- to exclude some sessions specified in a list:

```
process_list=mk_list(...,'EXCLUDE',excllist)
```

where `excllist` is the file name of the list containing the sessions to be excluded, e.g. All R1/R4 in 2009, except those listed in `exclude.txt`:

```
process_list=mk_list('R1','R4',  
    'YEARS',2009,'EXCLUDE','exclude_views.txt')
```


Format of file with excluded sessions

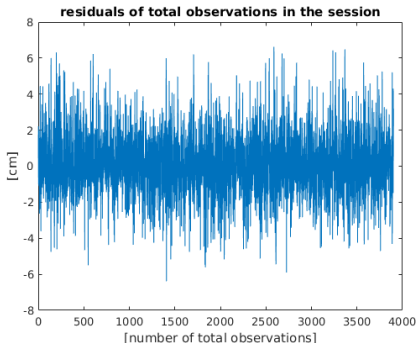
- same format as: `http://lupus.gsfc.nasa.gov/files_IVS-AC/eop_exclusion.txt` (list of sessions not suitable for EOP determination)
- test file `exclude_TEST.txt` (to exclude some stations from CONT11)
 - \$11SEP15XA
 - \$11SEP16XA
 - \$11SEP21XA
 - \$11SEP27XA

Creating parameter files

- run VIE_SETUP:
»views
- select the options you like under *Parameters* and *Estimation*
- save the parameter file in the */PARAMETERS/* directory by choosing *File/Parameter files/Save parameters as ...*
- you can then load the file by choosing *File/Parameter files/Load parameters...*

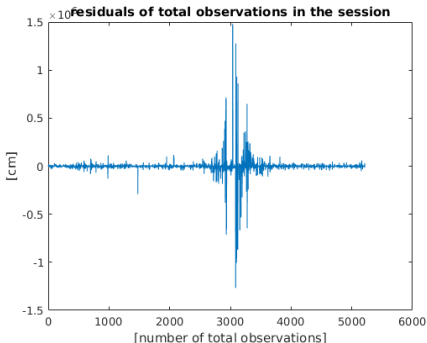
Detecting and solving problems using OPT (option) files

In most cases, everything works fine



- residuals of main solution less than a few cm
- chi-squared of main solution below 3
- occasional outliers can exist

In some cases, problems occurs...



- many large residuals
- chi-squared of main solution much larger than 3
- this indicates that there is a problem with the session that needs to be fixed

Problematic VLBI session

- problems that can occur:
 - clock breaks
 - bad stations, sources, baselines,...
 - only a few observations for one station
 - ...
- identifying the problem:
 - investigation of the data (residual plots etc.)
 - correlation reports, analysis reports etc.
 - divine inspiration...

OPT files

Now let's analyse a session together.



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