odfbrowser

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Abstract

Interactive graphical viewer of an XMM-Newton Observation.
This tool allows the user to view the details of an observation.
Additionally, you may select one or more exposures within the observation, and run the procs on that selection.

1 Use

pipeline processing	no
interactive analysis	yes

2 Description

odfbrowser gives the user a graphical overview of the contents of an XMM-Newton Observation Data File (ODF).

You may use this tool to navigate through the exposures of the observation. Additionally you can select one or more exposures, which can then be processed by the instrument specific proc.

2.1 Using odfbrowser

This section explains how to start and use the odfbrowser.

2.1.1 Before you start...

Before you start the odfbrowser, you have to make sure that at least the environment variable `SAS_ODF` is pointing to an ODF summary file created by **odfingest**.

If you plan to run one or more procs on a selection of exposures, you will also have to point the environment variable `SAS_CCF` to a CCF file created by **cifbuild**.

For example (sh):

```
> export SAS_ODF=/data/0174_0080940401_SCX00000SUM.SAS
> export SAS_CCF=/data/ccf.cif
```

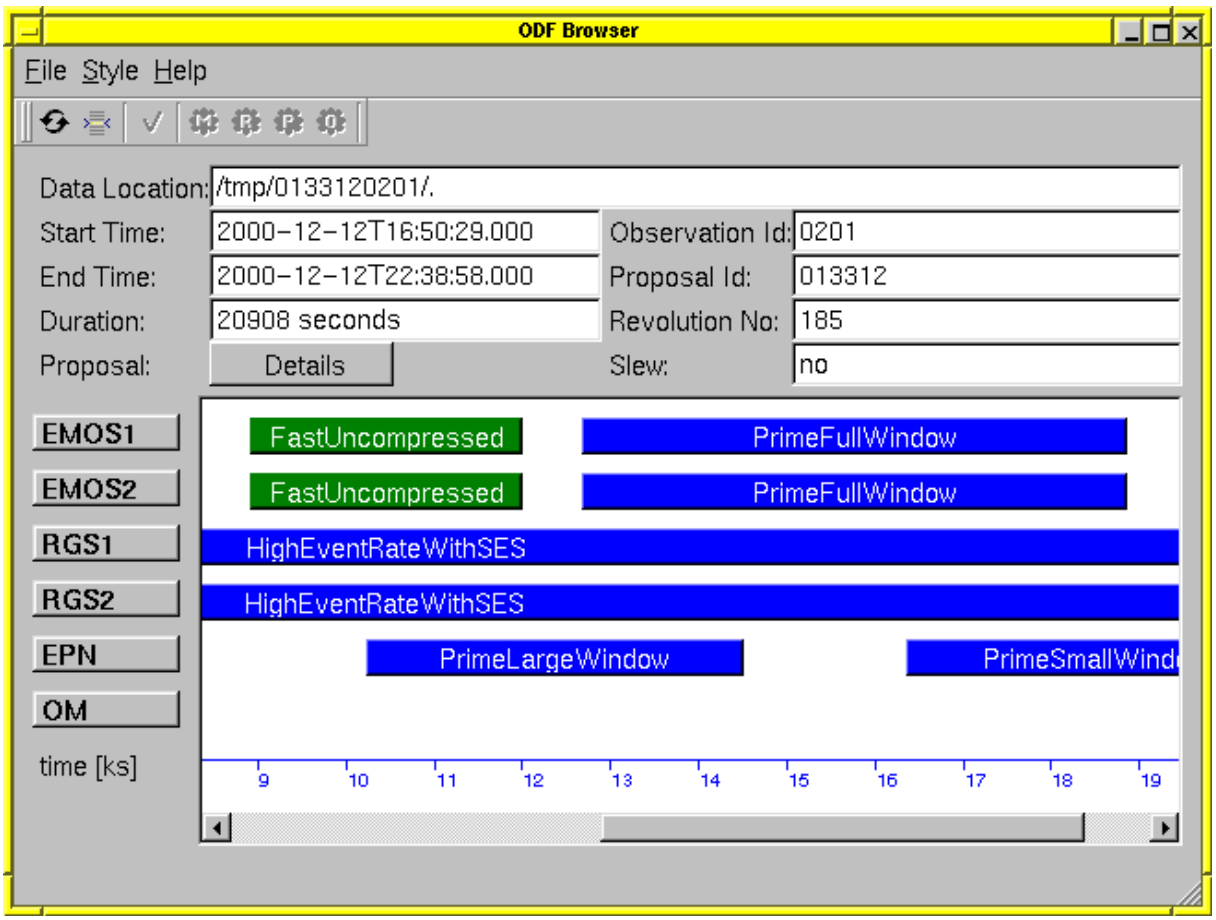
2.1.2 Starting the browser

After you have set your environment as discussed above, you can start the program by executing the command:

```
> odfbrowser
```

2.1.3 Graphical User Interface (GUI)

The main window shows all exposures of all instruments available in the observation, as denoted by `SAS_ODF`, together with some general information about the observation:



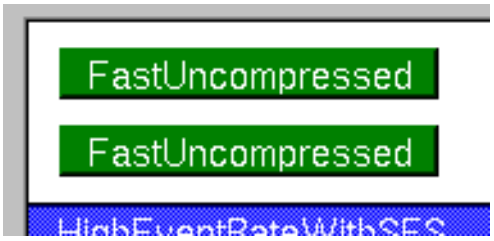
2.1.3.1 Toolbar The toolbar contains buttons, that allow the user to filter information and to configure and run the programs on the selected exposures.

If you hover your mouse over one of those buttons, some text will pop-up, that gives you additional information about the button.

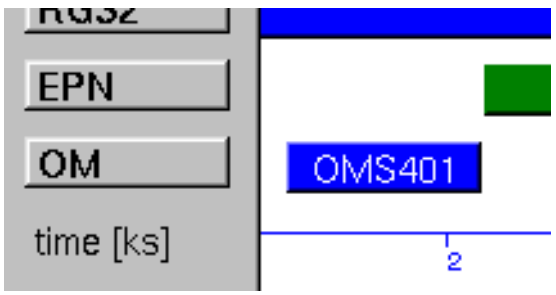
Some buttons will only become active once you selected one or more exposures.

2.1.3.2 Observation pane On the lower-left side of the window, you will see a list of all scientific instruments available.

On the right side you will find all exposures of each instrument:



The exposures are aligned as bars with some text information. The size of the bar is related to the duration of the exposure, and the position of each bar depend on the instrument it belongs to and the start time of the exposure.



As such, the browser generates a visual representation of the ODF summary. Each bar contains some text, that tells you what exposure you are dealing with.

Note, that the duration of some exposures can be quite short, such that the text in the bar is not always readable. However, if the you hover your mouse over an exposure, some extra information about that

exposure will pop up.

A toggle button in the tool bar will change the information presented in the xposure bars. This text can be the **exposure id**, **instrument filter**, or **instrument mode**.

2.1.4 Using exposures

You can simply (de-)select exposures by clicking on them.

Selecting one or more exposures activates one or more configuration buttons in the tool bar. These buttons allow you to adapt the procs to your needs.At the same time, a *start* button is enabled. By pressing this button, **odfbrowser** will launch all procs that are needed to process these exposures sequentially.

2.2 The procs

Each instrument creates its own set of data files. To handle these data files, we developed a program (that we call a proc) for each instrument.

More information about the **proc**s and how to configure them, you can find at:

- **emproc**: EPIC-MOS instrument specific
- **epproc**: EPIC-PN instrument specific
- **rgsproc**: RGS instrument specific
- **omproc** is not yet implemented

3 Input Files

This task does not take any input files; however it needs the environment variable `SAS_ODF` in order to show an observation.

4 Output Files

The output files are generated by underlying procs.

References