Chandra Data Archive

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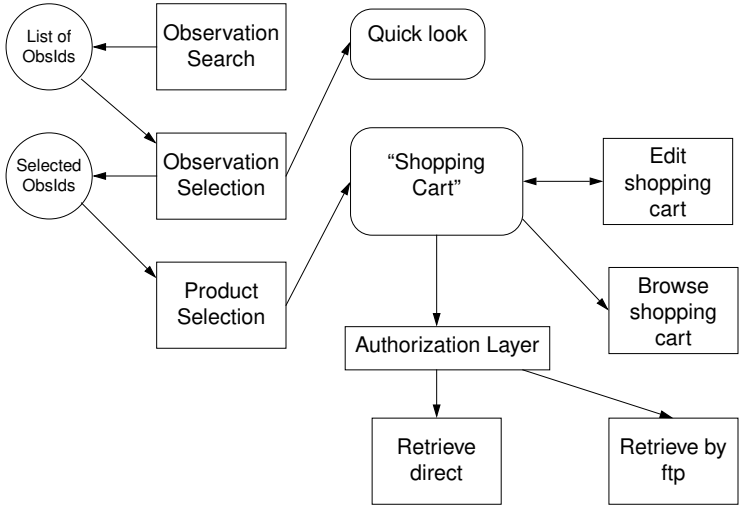
ChaSeR: Search and Retrieval Interface

ChaSeR, the *Chandra* Search and Retrieval tool, went into alpha testing in the first half of May and beta testing on June 1. A new beta version will come out on July 2.

To briefly summarize its functionality:

- Search for observations
- Select observations; quick-look image display
- Select products for selected observations and put in shopping cart (retrieval list)
- Edit and browse contents of the shopping cart
- Retrieve contents of the shopping cart - either direct or by staged ftp



Installation and Platforms

The installation process of *ChaSeR* follows common practice, i.e., download-and-click. The user has the option to include the required Java JRE version; especially for individual users this is the recommended mode since one then does not have to worry about Java issues.

The intent is to make *ChaSeR* self-updating; i.e., when it senses that there is a new release available, it will give the user the option to update.

ChaSeR has been installed and run successfully on the following platforms:

- Solaris 2.6 with patches, window manager CDE/dtwm
- Solaris 2.6 with patches, window manager olwm
- Solaris 2.8, window manager CDE/dtwm
- Linux RedHat 6.2, 7.0, 7.1, window manager KDE
- Linux Slackware 7.1
- Linux SuSe 7.0
- Dec Alpha under True64 4.0F and Java 1.3.1 beta
- Windows 98
- Windows NT

Past Fixes

Some 40 issues have been addressed in versions 0.1 through 0.3. From the point of view of the user, the most significant ones are:

- Prevent display from freezing when *Cancel* button is pressed too soon
- Summary products made available
- Linking help buttons to web pages
- *New Search* relabeled to *Next Search*
- Reposition window on small-size screens
- Redefined product selection buttons
- Allow the observation catalog to be searched by time
- Make change login dialogue more user-friendly
- Print message when image is not found
- Container frames should not be resizable
- List ObsIds in user log
- Limit tar file size to 2 GB (not all users' ftp installations can handle large files)
- Consolidate data products lists (no distinction between ACIS and HRC)

- Clear button on *Display Retrieval List* should be removed
- Hide tar file while it is being created so as not to confuse the user
- Output file format should be fully *RDB* compatible
- Retain save directory information during session
- Allow change of password from the GUI
- Display the total number of bytes in the browse window
- Correct data product description

Future Fixes

The following issues are in the queue to be addressed; these need to be sized and prioritized

- Text fields appear collapsed on certain window setup
- Support *ChaSeR* browse and retrieve from mirror sites
- Implementation of *ChaSeR* auto-update
- Provide links to ADS
- Provide links to issues table
- Add ascending/descending option to ordering menu
- Make input target file format more user-friendly
- Change the input filename text box to a file chooser
- Provide tar file size information for direct downloads
- Indicate ObsIds for which selected products are in the shopping cart
- Enable scroll bars on windows, allow resizing
- Allow configurable output columns to be written to file
- Pipeline logs are to be included in the packages

Remaining Issues

A number of issues are beyond our control:

- Like all Java applications, ChaSeR will not work (well) with certain older window managers like (tv)twm since they are not fully X11-compliant and are not being supported anymore
- Cutting and pasting between Java windows and X11 Xterms just does not work; we have tried to address this problem by writing important information in a logfile.
- The problem with RedHat 7.1 has been solved.

Two more issues have dependencies on other parts of the system:

- V&V reports cannot be viewed or downloaded; the reason is simply that they are not yet being archived
- Improve the appearance of the thumb nail images

Web-based Search and Retrieval

Development is starting on a family of web-based S&R tools which are more special-purpose than *ChaSeR*. These are not intended to have the full range of flexibility that *ChaSeR* has. The first will be one that allows retrieval of Primary and/or Secondary data products for a list of ObsIds. Next will be some basic search facilities. At that point we would want to evaluate the demand.

It is expected that the first of these tools will become available in September 2001. Until that time we will support the web-based Provisional S&R Interface.