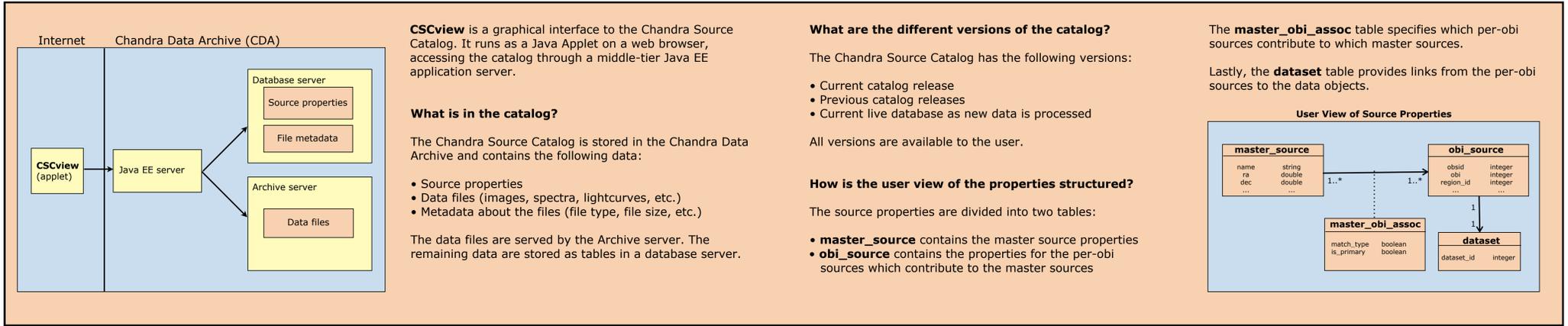




CSCview is a graphical user interface to the Chandra Source Catalog (CSC). The interface uses a Java applet which accesses the catalog in the Chandra Data Archive (CDA) servers through a middle-tier Java EE application server. The applet allows for a powerful and flexible web based interface using proven GUI design guidelines and taking advantage of the three-tier CDA architecture. A tabbed interface allows the user to navigate through the main features. The Catalog tab enables the user to select the live view or any released version of the CSC. In the Query tab, a standard query can be used or a custom query can be built from any of the ~900 source properties. The user can choose between a graphical query builder for ease of use or an ADQL editor for maximum flexibility. The cross-matching feature matches an imported list of sources with sources in the CSC. The Results tab displays the found sources and their properties. From here, the user can save the results, use the Source Preview for a quick view of source images, or choose data products for selected sources for retrieval. The Products tab shows the resulting list of data products which can be further selected from and downloaded as a single package.

CSCview can interoperate with other applications for further data searches, visualization and analysis by import and export of data in standard data formats and bidirectional SAMP messaging. User preferences at the application level allow for customization of various features and are persistent across sessions. A query can be saved and loaded across sessions or submitted at a command line interface. CSCview had its initial release in 2009 and is being updated to include new features and to accommodate evolving requirements.

## CSCview: Architecture Overview



## CSCview: The User Interface

The user interface consists of several pages:

- Catalog Page:** Users can select the version of the catalog (current release, previous releases, or current live database). It displays the current catalog release information, including the date and a description.
- Query Page:** Users can choose, combine, and modify any of the Standard Queries, or they can create their own custom query. The input table of point sources can be typed in, loaded from disk, or received from other applications with SAMP. There is a Show Language option to view the query in ADQL.
- Results Page:** Users can view the properties of the found sources and save them to disk in multiple formats (tab-separated value or VOTable). They can also preview their sources with the Source Preview.
- Products Page:** Users can select products to download to disk, either as individual files or as a single package. They can also send FITS images and tables to any SAMP-enabled application for further analysis.

**Other Features:** The Getting Started help screen launches by default on startup to guide the new user through using the application. The application also provides preferences which are persistent between sessions.

**Source Preview:** A window showing a detailed view of a source, including its name, coordinates, and various energy band images (Broad, Hard, Medium, Soft).

**Preferences:** A window for configuring the application, including options for Null Value Representation, Output Coordinate Format, Floating Point Format, Source Preview, Startup Query, Startup Help, and Toolbar Appearance.