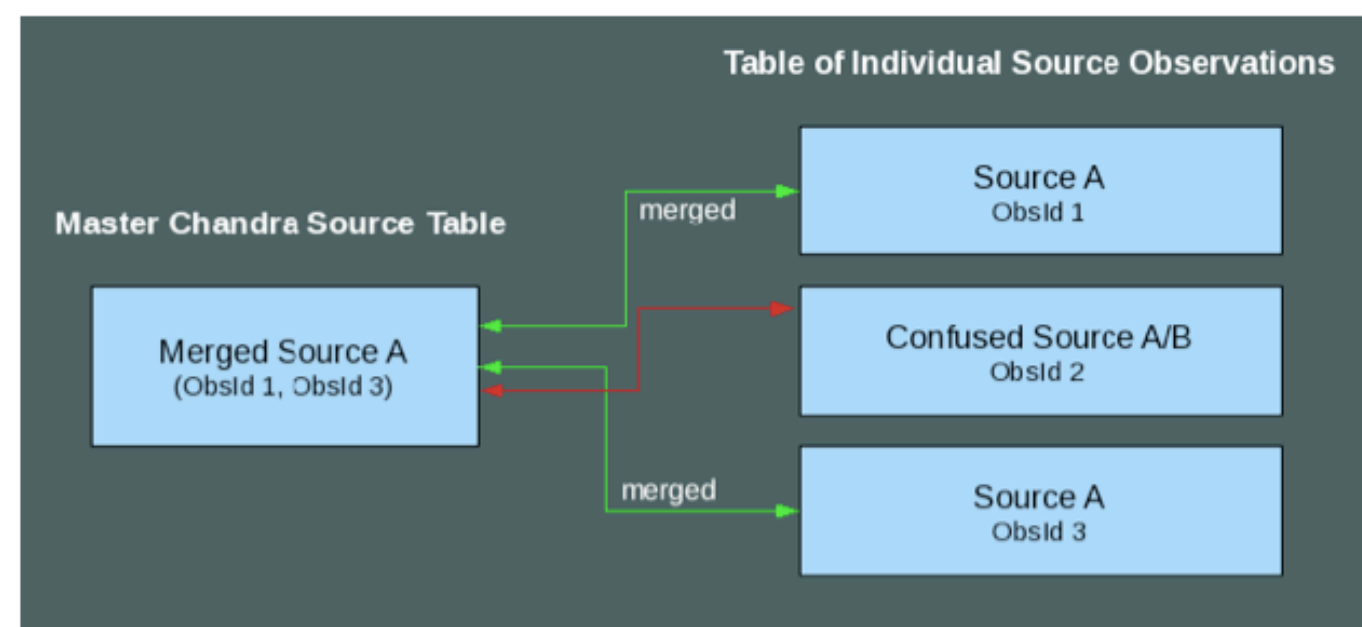


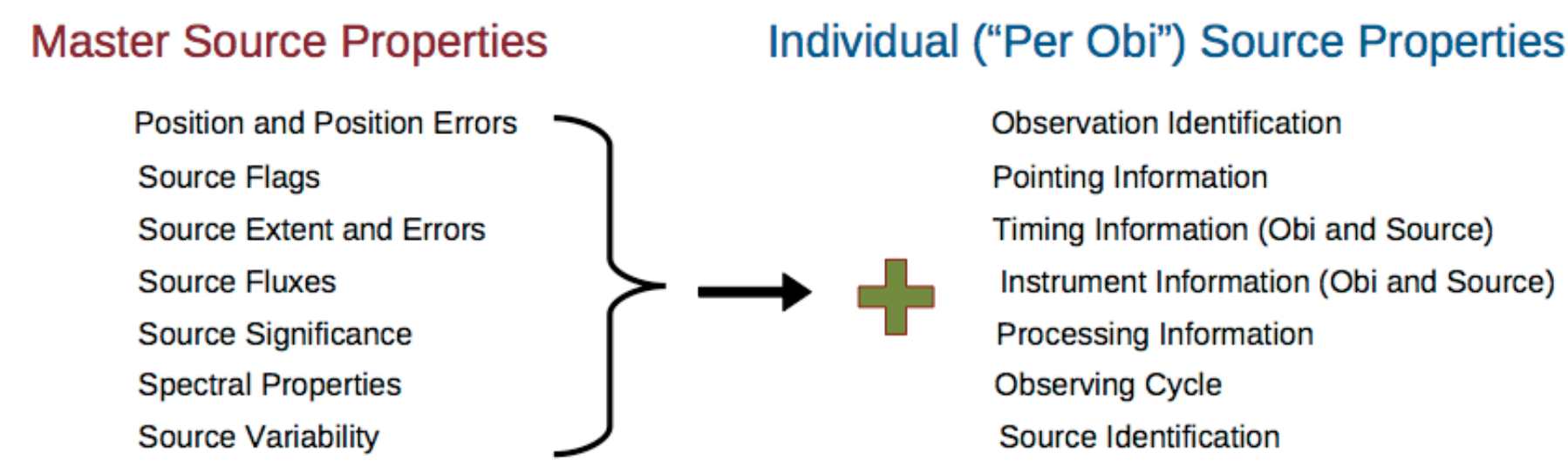
The Chandra Source Catalog (CSC) is ultimately intended to be the definitive catalog of all X-ray sources detected by Chandra. The CSC is presented to the user in two tables: the Master Chandra Source Table and the Table of Individual Source Observations. Each distinct X-ray source identified in the CSC is represented by a single "master source" entry and one or more individual ("per obs") source entries. If a source is unaffected by confusion or pile-up in multiple observations, the individual source observations are merged to produce a master source. In each table, a row represents a source, and each column a quantity that is officially part of the catalog.

Individual source observations are linked to a corresponding single, merged master source. However, the properties of **confused and/or piled-up** individual sources do not contribute to the reported **master source properties**.



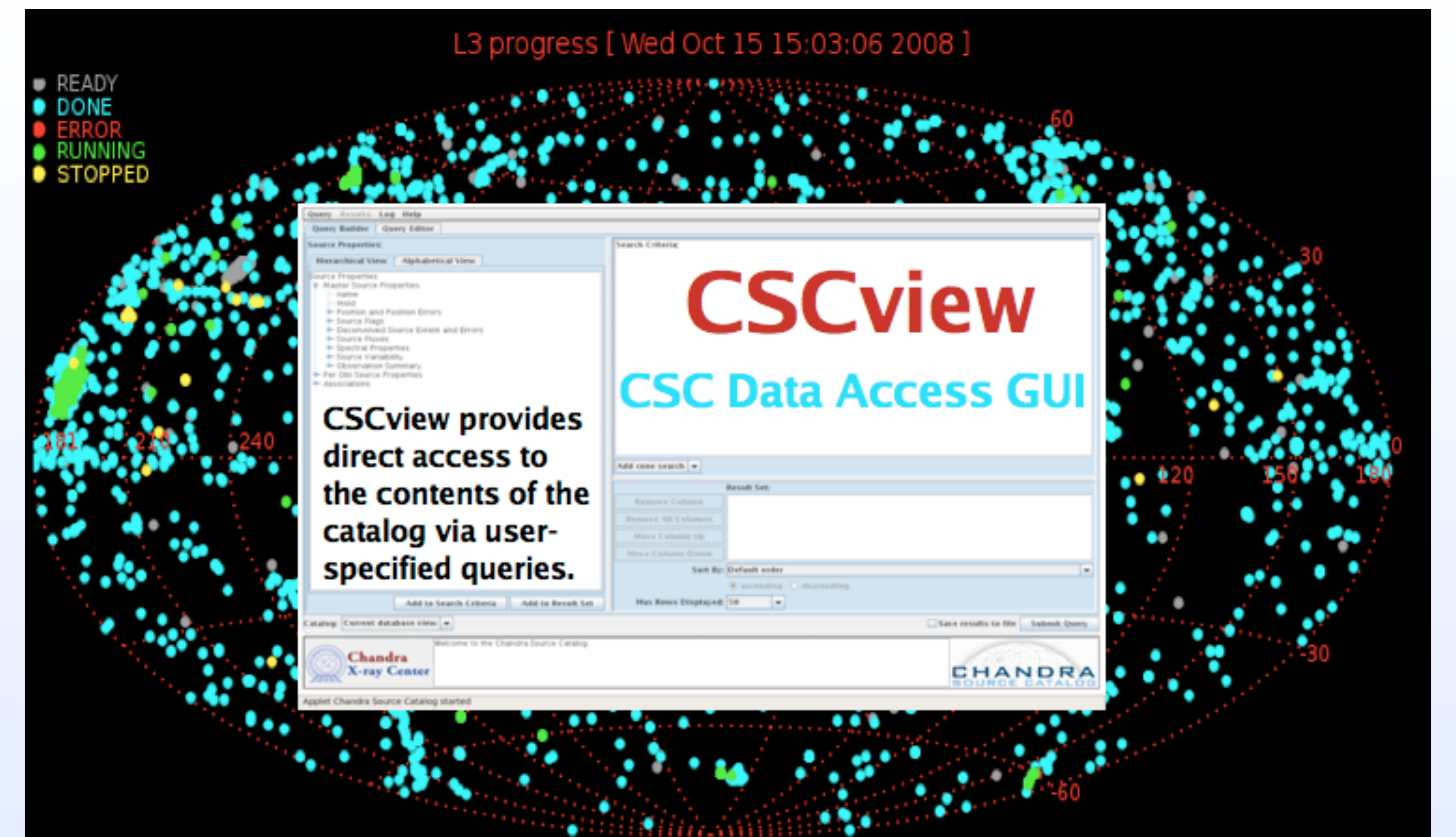
For more on the organization of the catalog, see:
<http://cxc.harvard.edu/csc/organization.html>

Source properties are presented in the following categories:



The CSC Column Descriptions pages describe how each source property is determined.
<http://cxc.harvard.edu/csc/columns/index.html#coldestc>

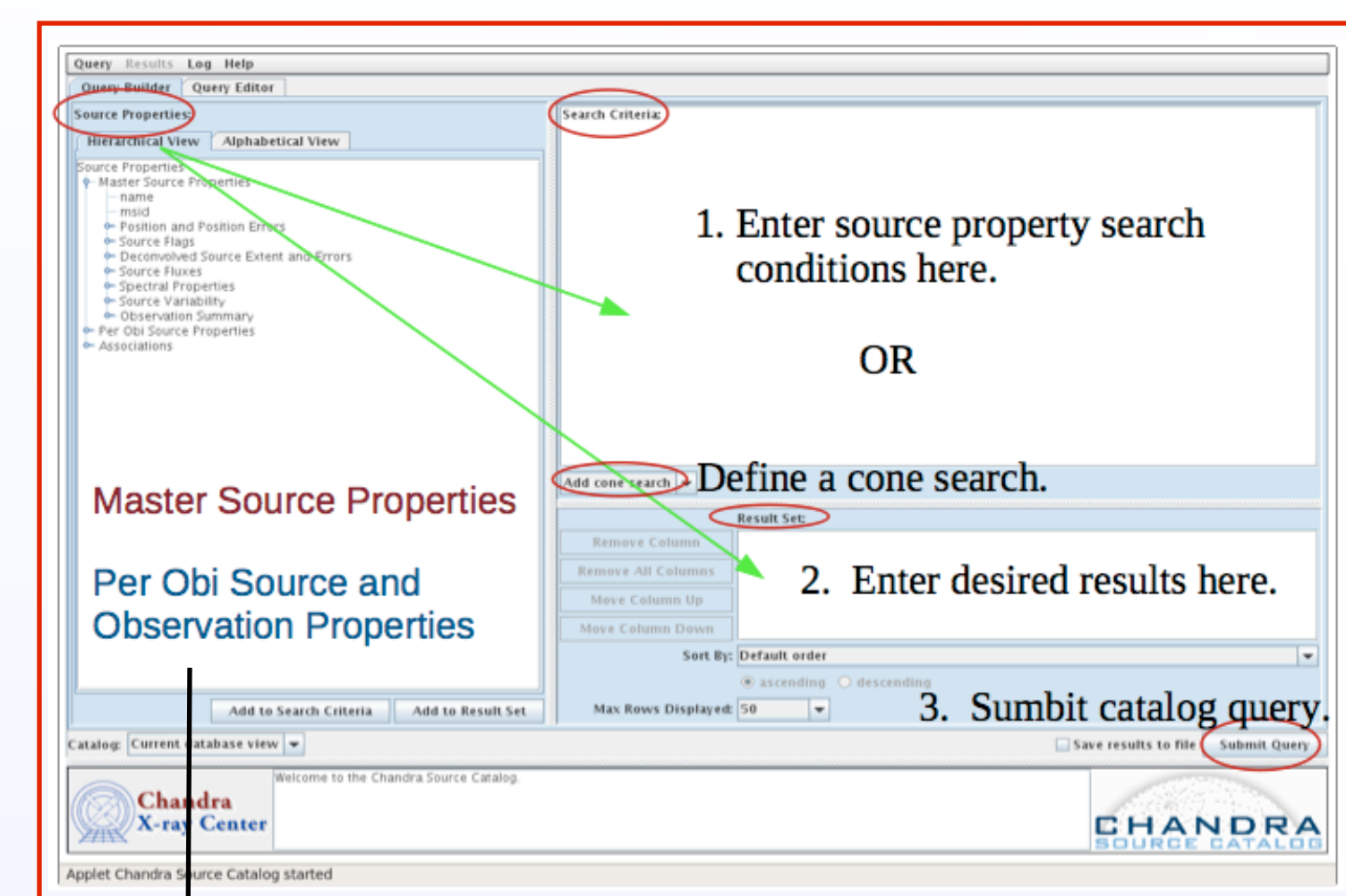
The CSC contains positions and multi-band fluxes for the sources, as well as derived spatial, spectral, and temporal source properties. The CSC also includes associated source region and full-field data products for each source, including images, photon event lists, light curves, and spectra. The master source properties represent the best estimates of the properties of a source, and are presented in the following categories: Position and Position Errors, Source Flags, Source Extent and Errors, Source Fluxes, Source Significance, Spectral Properties, and Source Variability.



CSCview provides direct access to the source properties and data products contained in the catalog. The user may query the catalog database via a web-style search or an SQL-like command-line query. Each query returns a table of source properties, along with the option to browse and download associated data products. The GUI is designed to run in a web browser with Java version 1.5 or higher, and may be accessed via a link on the CSC website homepage (<http://cxc.harvard.edu/csc/>). As an alternative to CSCview, the contents of the CSC may be accessed directly through a URL, using the command line tools cURL and Wget.

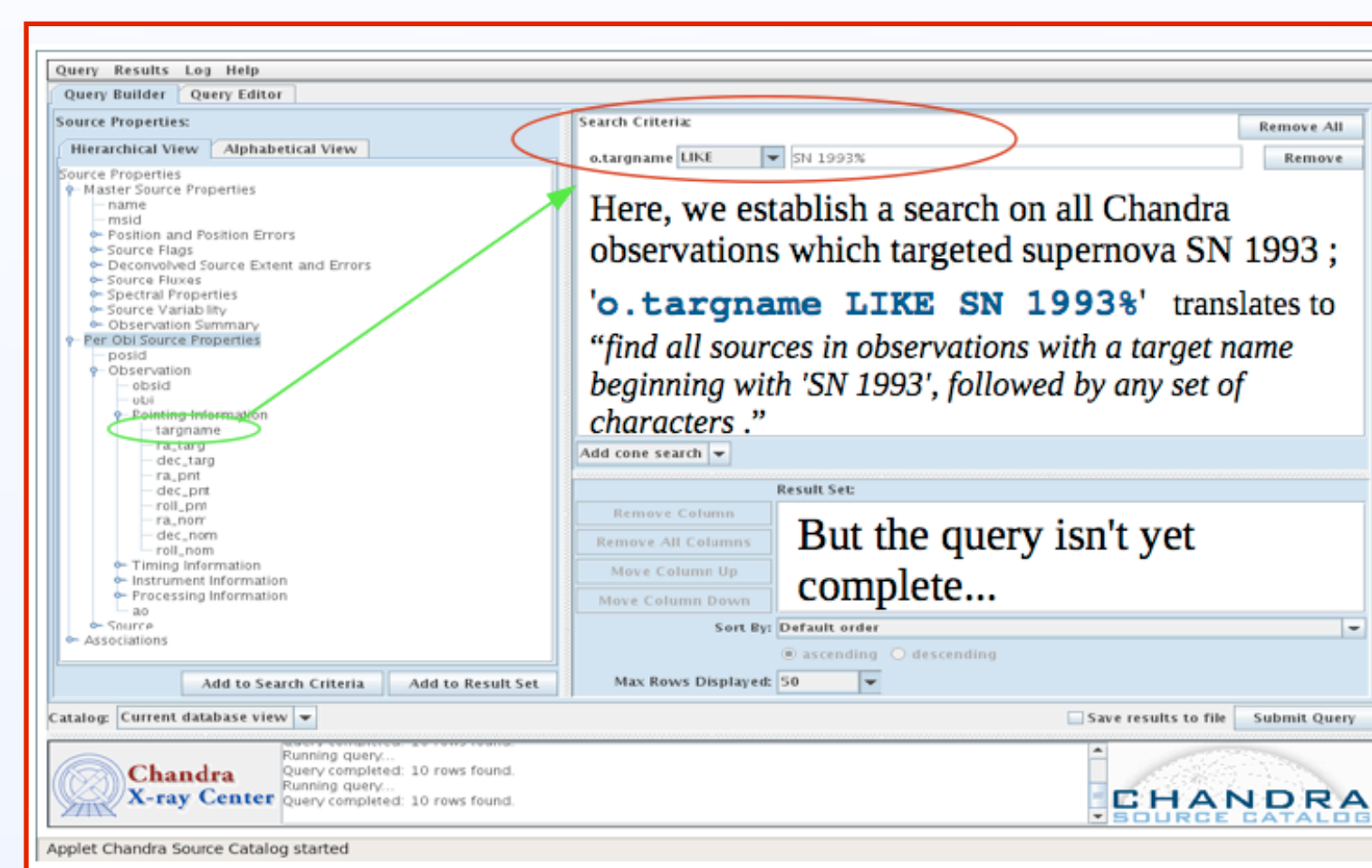
Access CSC source properties and data products with CSCview

<http://cxc.harvard.edu/csc/>



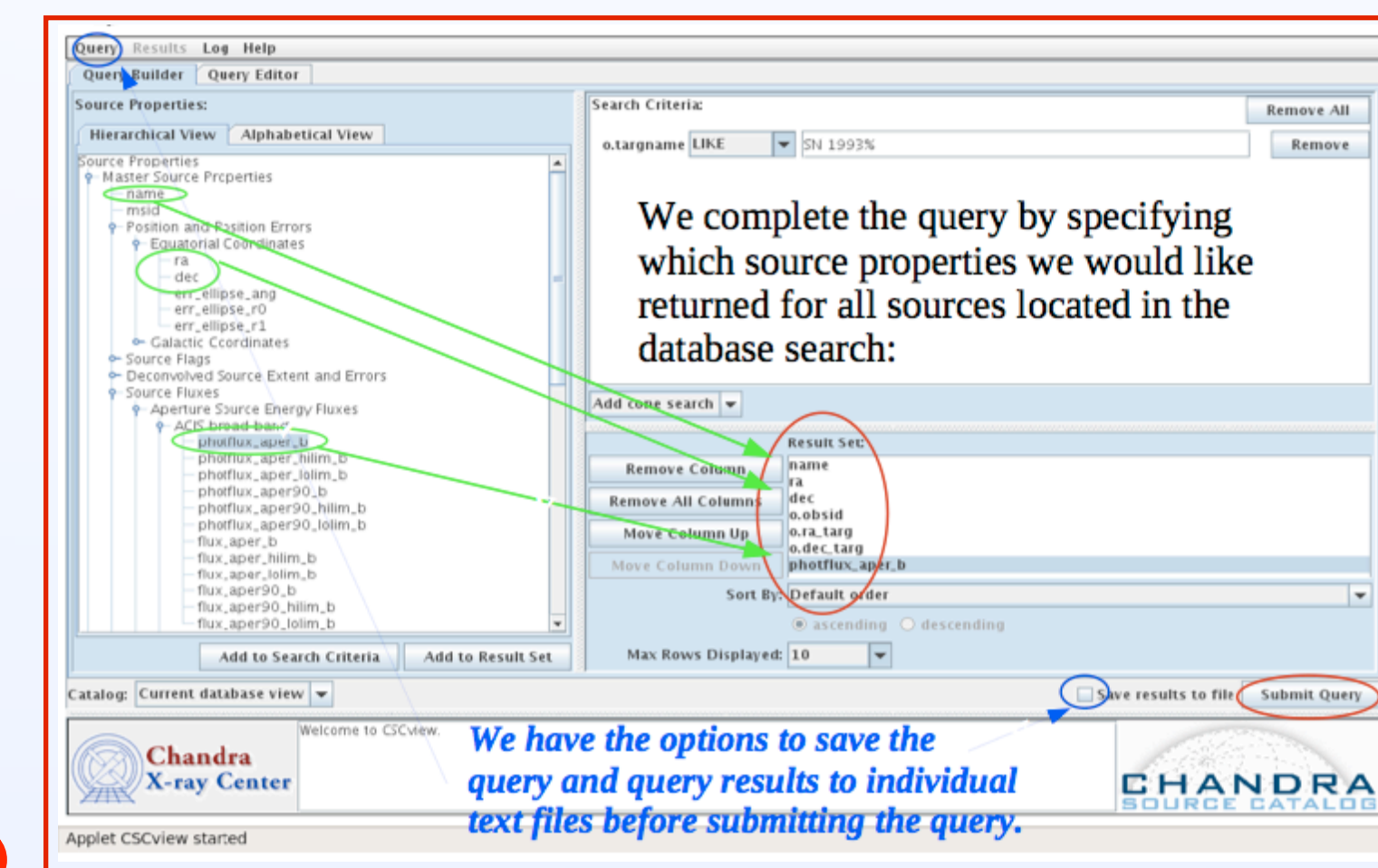
Find source property definitions and units

<http://cxc.harvard.edu/csc/columns/master.html> <http://cxc.harvard.edu/csc/columns/persrc.html>

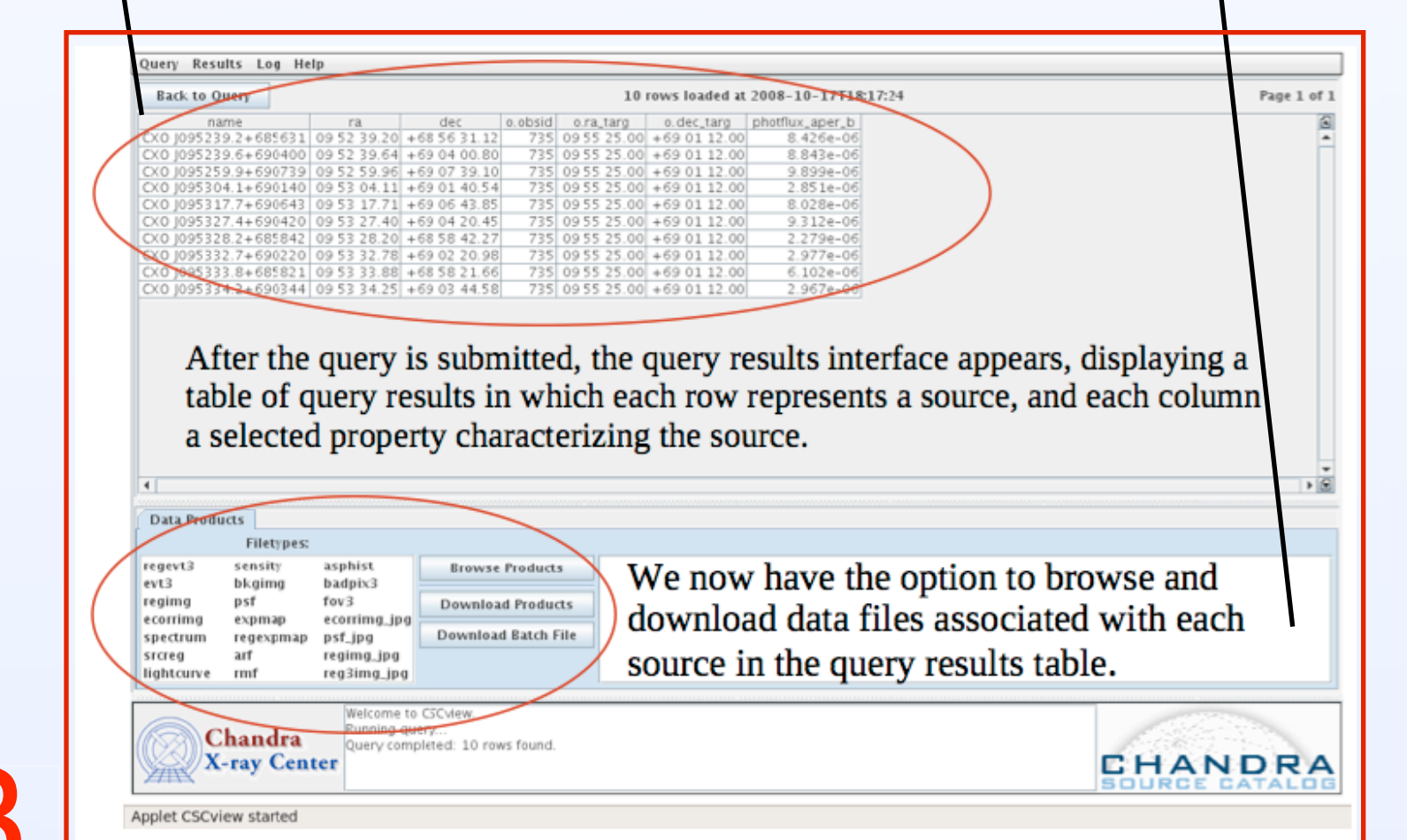
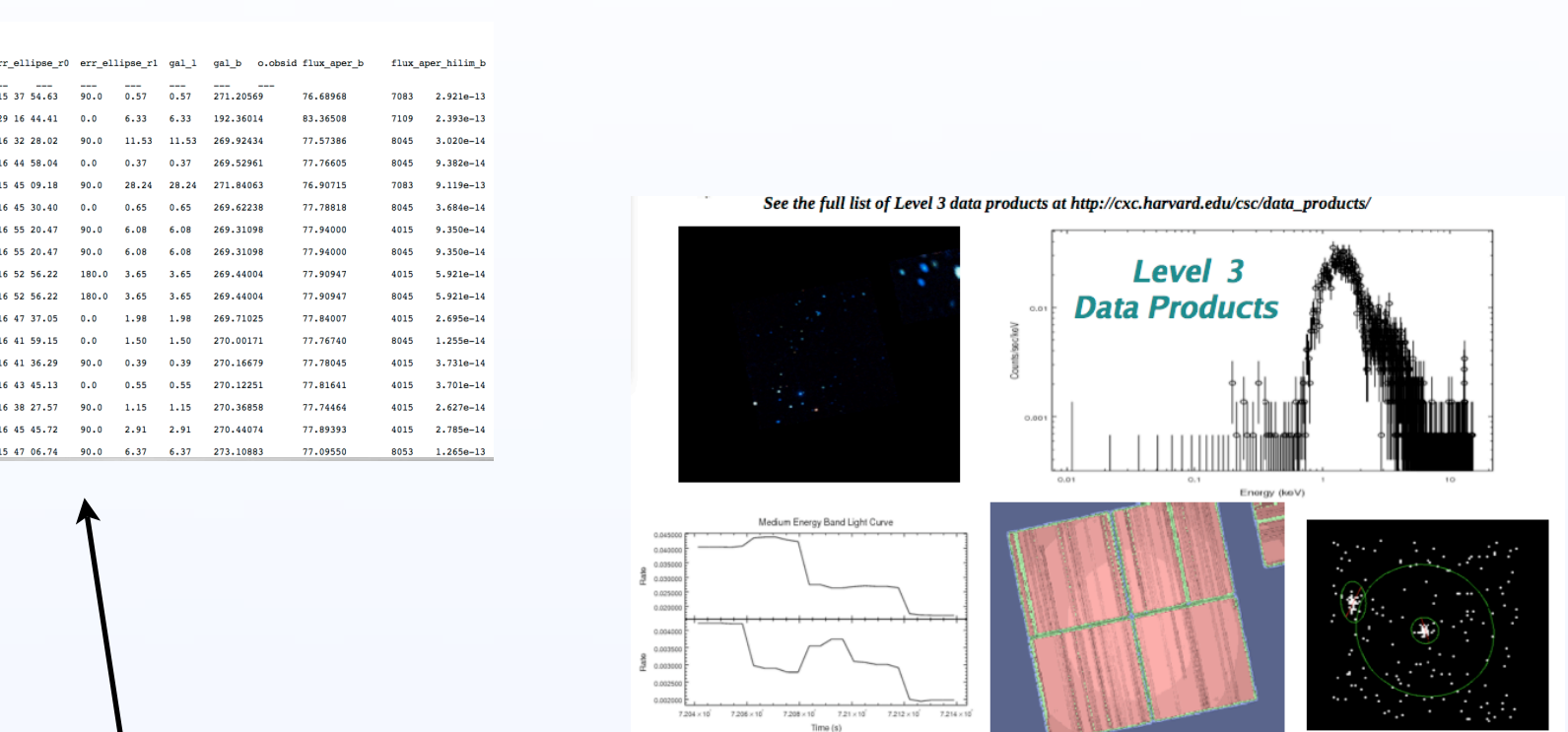


1

2



Save a table of query results to a text file



3

The Chandra Source Catalog (CSC) is presented to the user in two table views: the **Master Chandra Source Table** and the **Table of Individual Source Observations**

Column Name	Type	Units	Description
Source Name	string		Source name in the Master Chandra Source Table
ObsID	integer		Observation ID (ObsID)
RA	float	deg	Right Ascension (J2000)
DEC	float	deg	Declination (J2000)
FLUX	float	counts/s	Source flux
ERR	float	counts/s	Source flux error
...

Master source properties represent the best estimates of the properties of a source, based on data derived from all observations in which a source has been detected.

In the Table of Individual Source Observations, source properties are recorded on a per-observation basis; i.e., it contains multiple entries for a source, one for each individual observation in which it has been detected.

As an alternative to submitting web-style queries in the Query Builder of CSCview, users may enter SQL-like query expressions in the Query Editor of CSCview. For example,

```
'SELECT m.name, m.ra, m.dec, o.obsid, m.photflux_aper_b FROM cscat WHERE o.targname LIKE "SN 1993*"'
```

translates to "return the master source catalog name, equatorial coordinates and broad band photon flux, and the per obs ObsID associated with all sources found in observations with a target name beginning with 'SN 1993'."

OR

Link to pages with high-level source property descriptions

<http://cxc.harvard.edu/csc/columns>

Equivalent to steps 1 - 2

Equivalent to steps 1 - 3

If the CSCview GUI is to be avoided altogether, the user may access tables of catalog data and file-based data products from the command line, using cURL or Wget.

```
unix$ curl --form query='SELECT TOP 10 m.name, m.ra, m.dec, o.obsid, o.ra_targ, o.dec_targ, m.photflux_aper_b FROM cscat WHERE o.targname LIKE "SN 1993*"' http://cxc.harvard.edu/cscview/getProperties'
```

cURL and Wget are tools which allow a user to retrieve files with URL syntax from the command line, simulating the user's actions at a web browser.

```
unix$ wget -O out.file 'http://cxc.harvard.edu/cscview/getProperties?query=SELECT TOP 10 m.name, m.ra, m.dec, o.obsid, o.ra_targ, o.dec_targ, m.photflux_aper_b FROM cscat WHERE o.targname LIKE "SN 1993*"' http://cxc.harvard.edu/cscview/getProperties'
```