Field Guide to the Portal

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Elements of the Portal Graphical User Interface

Direct your browser to https://mast.stsci.edu/ to use the MAST Portal web application. The Portal graphical user interface (GUI) is annotated in Fig. 1 and described in the following sub-sections.

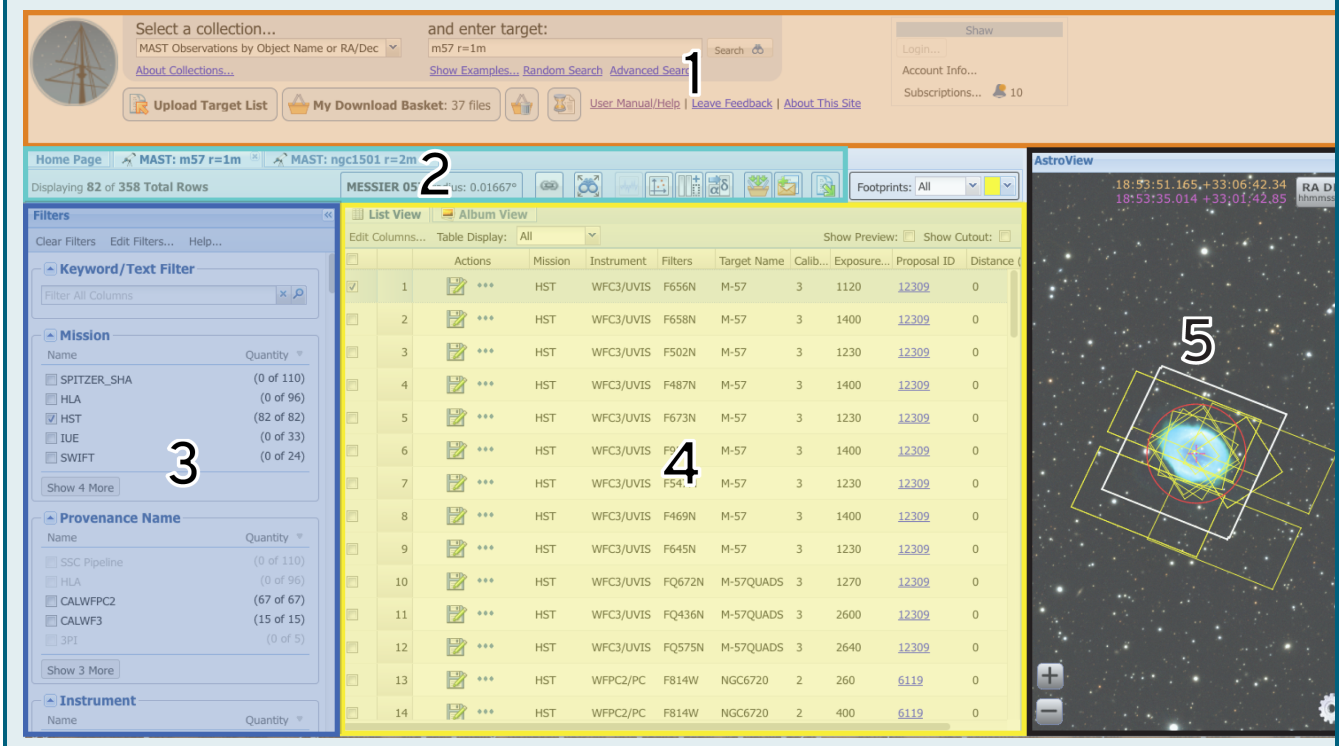


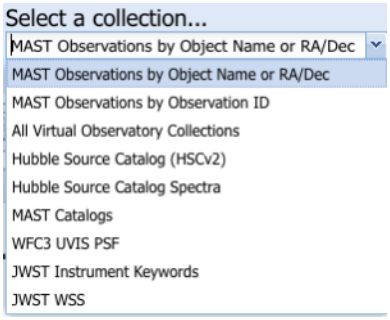
Figure 1 — The MAST Portal web application, showing the main components (after a successful search) with shaded/numbered boxes: the ***Search Panel*** (1: *top*), the ***Search Status and Action Bar*** (2: *second from top, left*); the ***Filters Panel*** (3: *left*), the ***Search Results Table*** (4: *center*), and the ***AstroView Tool*** (5: *right*).

Search Panel

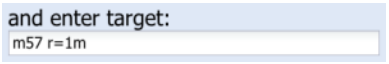
The Search Panel is the only panel visible at the beginning of a session, apart from a Home Page with status information, until a successful search is executed.

MAST Collections

The set of data collections available via the Portal is listed in the collection pull-down menu at upper left. The most often used is searching for a target by name or coordinates, which is described in Basic Search.



Target Specification



Targets may be searched by name or by celestial coordinates. Note that the search radius may optionally be specified. The allowed formats for target name and for coordinate syntax are described in Basic Search.

Execute Search



Click the **Search** button to execute the search, or the *Advanced Search* text to refine the search.

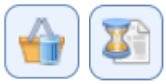
Target List Upload



A list of targets, including a name and the celestial coordinates, one per row, may be uploaded to the results grid. You can then cross-correlate them with MAST holdings all at once, as explained in Special Searches.

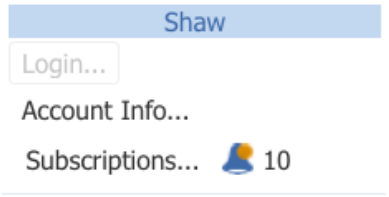
Download Basket Shortcuts





The **My Download Basket** button displays the current number of files in the Basket; click it to bring up the **Download Manager**. Two shortcuts to download manager functionality are available in the search panel: clear the download basket of all contents, and (if you are logged in) bring up your download history.

Login Status



At the far right of the search panel you can log in. If you are logged in you may subscribe to notifications about the status of programs (e.g., when the data become public, or have been reprocessed) by clicking the *Subscriptions...* text. You may view notifications by clicking the bell symbol.

Search Status and Action Bar

Search Tabs



The results of each search are preserved during a Portal session. View each search by clicking the tab at the top of the search results panel. The footprints from all searches will appear in AstroView.

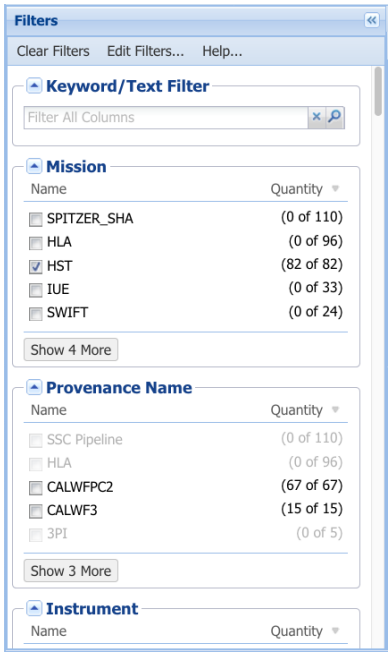
Action Bar



If the search is successful, the number of matching records, the (resolved) target name, the target coordinates (if the target name in the action bar is clicked), and the search radius will be displayed in the status area above the results table. Buttons in the ***Action Bar*** (to the right) provide additional functionality, as described in Search Results Grid.

Filters Panel

The **Filters Panel** enables a finer selection of matching observations using values or ranges of select metadata.



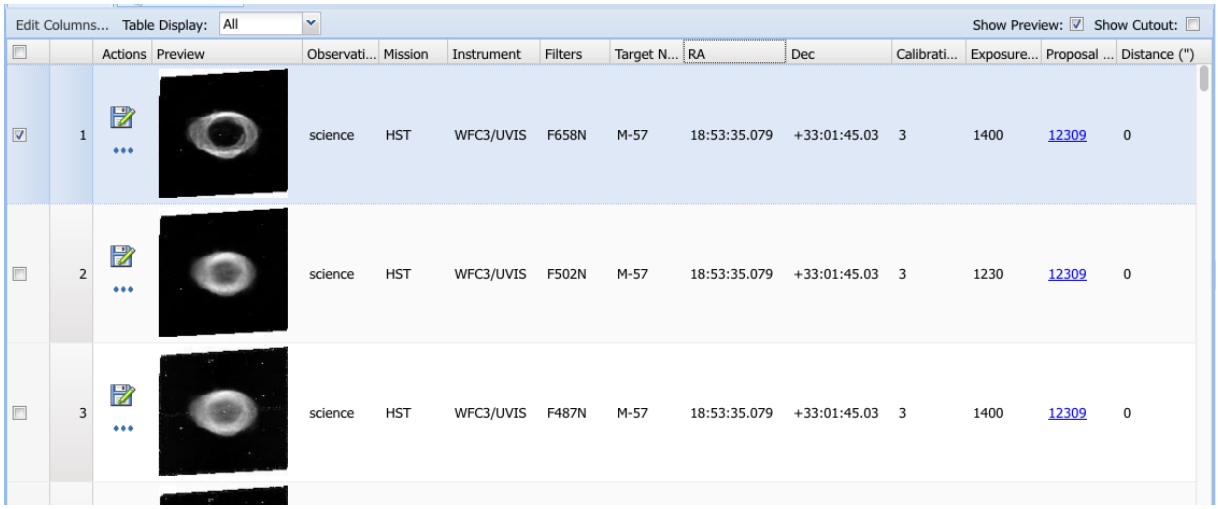
These metadata are identical in function to those available in the **Advanced Search** window (see the descriptions of filter types in the *Filters Panel* section). This panel may be hidden by clicking the left double arrow ( ). Each filter can be hidden or unhidden by either clicking *Edit Filters* at the top, or clicking up/down arrows next to each filter name.

The **Keyword/Text Filter** dialog near the top searches over all metadata values (including some values hidden from the user), and accepts case-insensitive regular expressions in Javascript format (see the w3schools definition of the RegExp object). For example:

- The expression `ngc` will match all records containing the string "ngc"
- The expression `ngc|m101` will find "ngc" or "m101".
- The expression `odk369fdq` will find this HST program identifier

Search Results

Observations in MAST that match the search criteria, as modified by the selections in the **Filters Panel**, are presented in a table, like the one below.



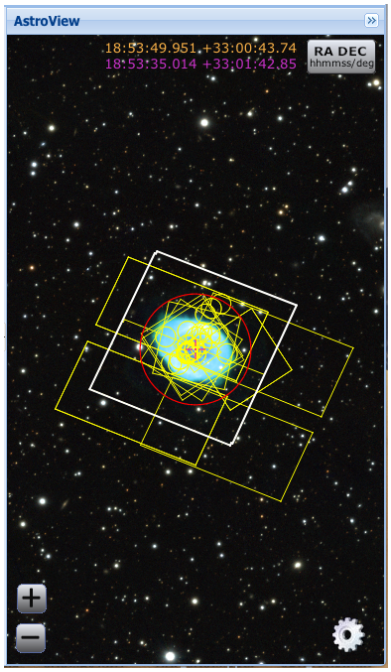
User-facing metadata for the observations are presented in separate columns; you may show or hide individual columns by clicking the *Edit Columns...* text and checking boxes next to the column names of interest. These choices will persist for the duration of your Portal session. Preview images will be displayed (if available, as they are in the figure) for each row by checking the **Show Preview** box at upper right.

Availability of previews

Preview images are not produced for certain types of data (e.g., long-slit spectra). Previews will not be displayed for Exclusive Access data except for authorized users.

AstroView Tool

The **AstroView Tool** displays a region of a (selectable) sky survey centered on the coordinates of the target. The tool may be hidden by clicking the double-right arrow on the upper-right of the tool. The AstroView page describes in detail how to use this tool.



Advanced Search Interface

The advanced search window provides a way to fine-tune a search using additional metadata, as shown in Fig. 2 below. Access this from the main Portal GUI by clicking the *Advanced Search* text.

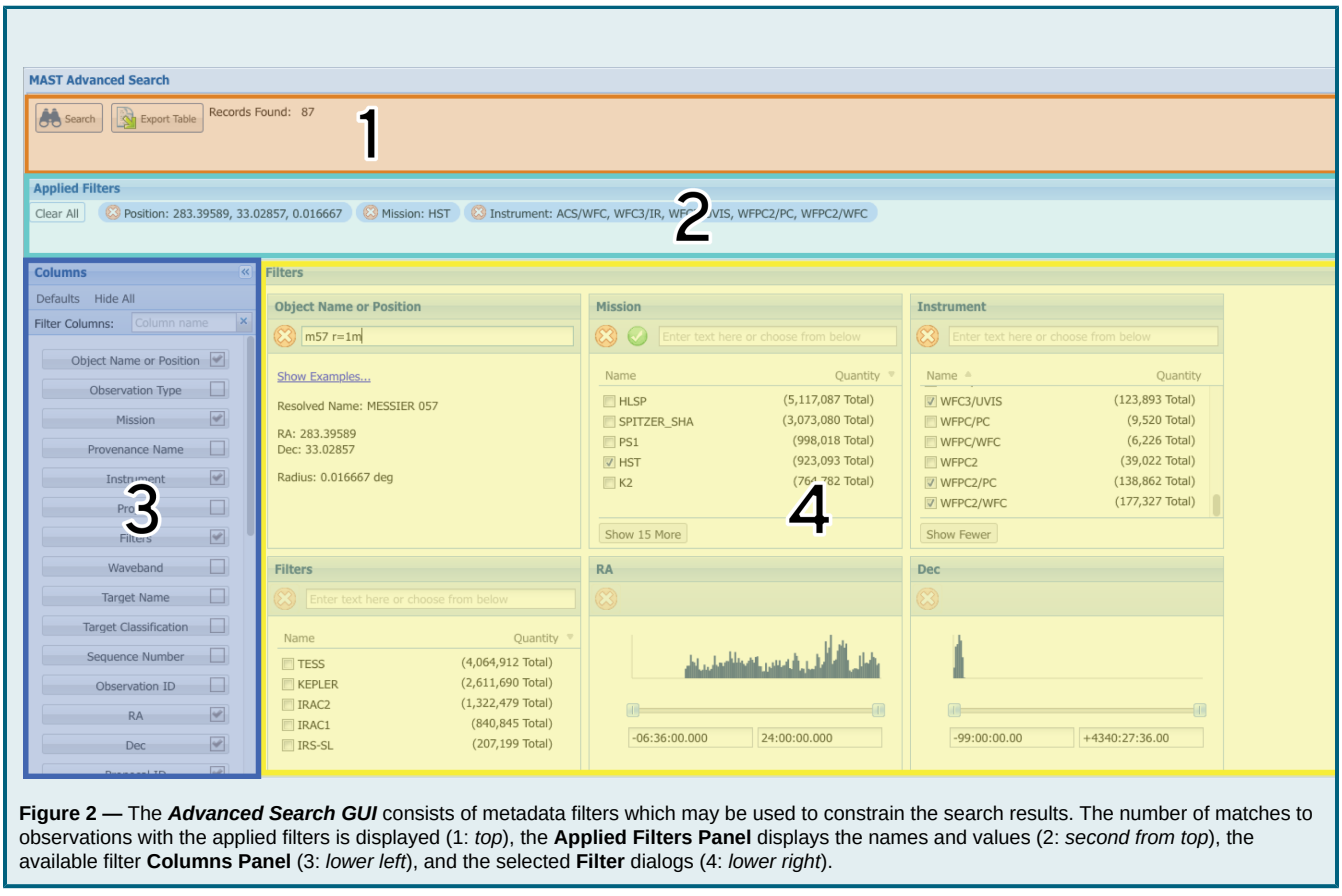


Figure 2 — The ***Advanced Search GUI*** consists of metadata filters which may be used to constrain the search results. The number of matches to observations with the applied filters is displayed (1: *top*), the **Applied Filters Panel** displays the names and values (2: *second from top*), the available filter **Columns Panel** (3: *lower left*), and the selected **Filter** dialogs (4: *lower right*).

⚠ Only a few MAST collections support an advanced search option.

The main elements of the advanced search are listed below, and explained in detail on the Advanced Search page.

- Applied Filters Panel
- Columns Panel
- Filters Panel

Download Manager Interface

Clicking the basket icon  will add one or more selected observations to the basket and bring up the **Download Manager** window. This GUI shows all files that are associated with each observation and provides various tools for selecting files of interest, and provides multiple methods to download the selected files. See the Download Basket page for details.

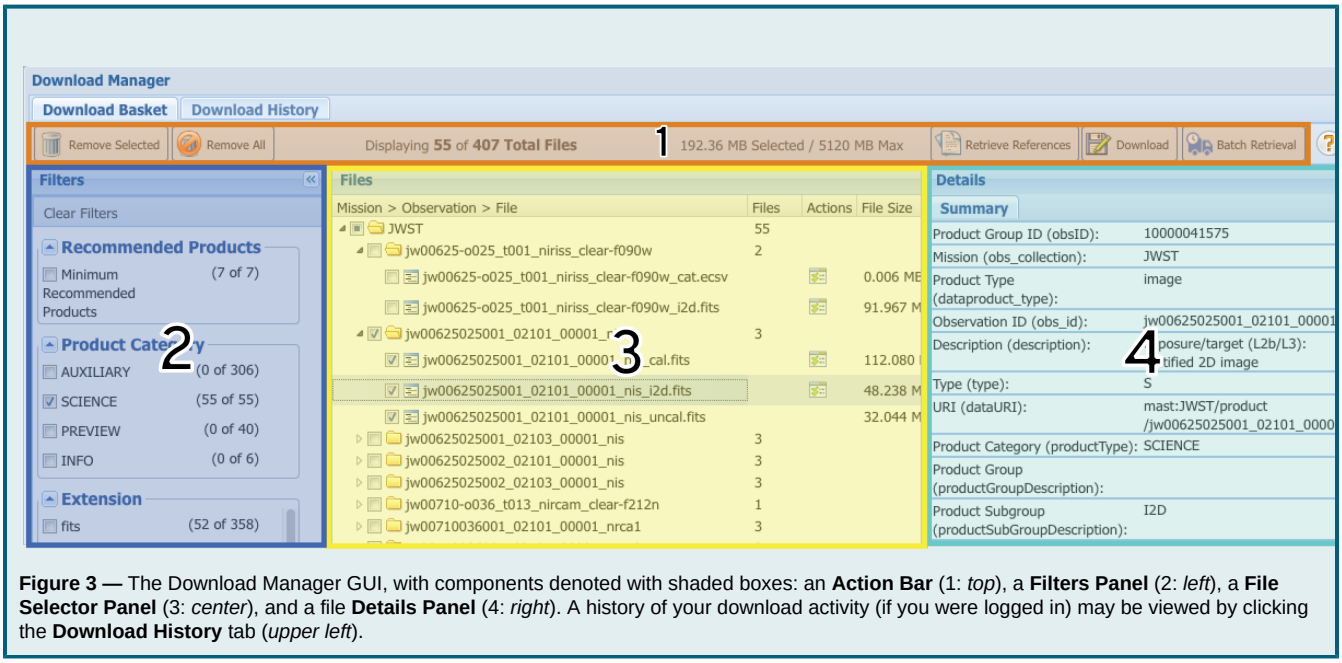


Figure 3 — The Download Manager GUI, with components denoted with shaded boxes: an **Action Bar** (1: *top*), a **Filters Panel** (2: *left*), a **File Selector Panel** (3: *center*), and a file **Details Panel** (4: *right*). A history of your download activity (if you were logged in) may be viewed by clicking the **Download History** tab (*upper left*).