

# Search Results Grid

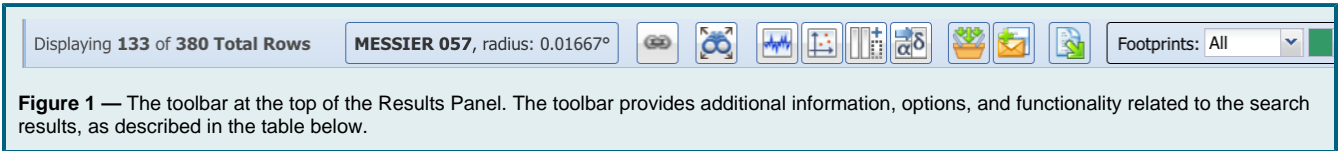
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After performing a search, the results display in a new Portal tab. The results tab consist of a main toolbar followed by a table of results from which you can perform various actions such as column / row toggling, column manipulation, loading data into visualization tools, and downloading data directly or in bulk using the download basket. This page describes how to navigate and interact with the table of search results.

## Results Toolbar




Each result tab has a toolbar that provides a variety of information, and actions that can be performed, as shown in Fig. 1.



Not all options apply for a given search or result (row). One or more buttons will be greyed out in such cases.

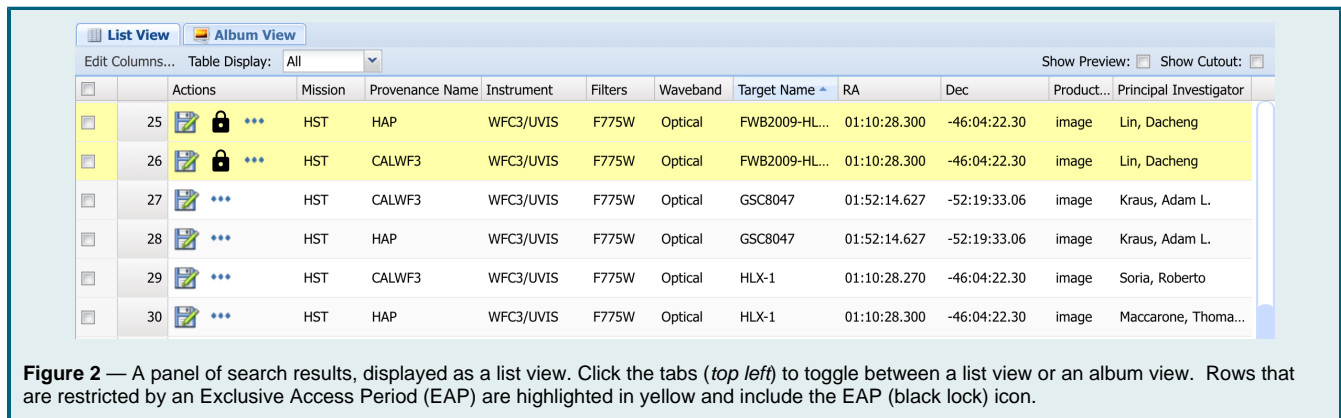
The toolbar provides the following items:

Item	Name	Description
Displaying 133 of 380 Total Rows	Result Count	Number of rows that match the search query.
MESSIER 057, radius: 0.01667°	Target button	Displays the canonical (resolved) target name and the search radius; expandable to show the target coordinates.
	Permalink	Creates a persistent link (URL) to search results. Use this link to share search results with collaborators, or for your own reference.
	Cross-Match	Cross-match the search results (or selected rows) against another catalog hosted at MAST (see <a href="#">Data Holdings</a> for a list of catalogs).
	Spectral Viewer	Display the spectrum, if the result is a spectral data product.
	Chart Tool	Display x-y scatter plots of search result column values.
	Column Manipulation	Perform column arithmetic, and remap position columns.
	Download Basket	Add selected row objects to the basket for downloading. Individual rows may also be added to the basket from the <b>A ctions</b> column pull-down menu.

 Add	<a href="#">Object Subscription</a>	Subscribe to receive notifications about the availability or status of a program or observation. Note: only available for products originating from the HST and JWST missions.
	<a href="#">Export Table button</a>	Export the search results (or a subset of them) to a local file, in one of a few common formats.
Footprints: All 	<a href="#">AstroView Controls</a>	Controls for AstroView footprints

## Results Table

A search produces a set of results displayed by default in a list format, as shown in Fig. 2. See below for a description of the column fields. Each row corresponds to a single match to the search criteria: e.g., an observation if searching MAST missions, or individual sources if searching catalogs.



## Table Column Fields and Descriptions

The Portal search results shows columns that are unified into a common nomenclature across missions. You can hover over each column name to see a pop-up with more information such as column description and column units, if any.

Target Name	Target Classification	Observed
MS0419.3+1		00085
MS0419.3+1		00085
MS0419.3+1		00085
3FGLJ0421.6+1950		00084

Target Name

name: target\_name

datatype: char[\*]

Content Type: Identifier, name or designation.

utype: ObsPointing.target.name

Click the link below to show the available columns and their descriptions:

Name	Description	Type
Checkbox	click to select rows	
<a href="#">Actions</a>	a set of available actions to perform	
Observation Type	whether the observation was for science or for calibration	string
Provenance Name	Software or team that produced the data	string
Mission	Mission that produced the observation	string
Instrument	Name of instrument that produced the observation	string
Project	The mission project that produced the data products	string
Filters	The instrument optical elements (e.g., filters or dispersers) used	string
Waveband	The wavelength regime	string

Target Name	The target/field name or identifier	string
Target Classification	The target classification (e.g. star, galaxy, cluster) as specified in the observing proposal	string
Observation ID	An observation identifier given by the mission	string
RA	Target Right Ascension	float
Dec	Target Declination	float
Product Type	Category of data product produced	string
Principal Investigator	Name of the Principal Investigator for the observing program that obtained the data	string
Calibration Level	The pipeline calibration level	int
Start Time	Date-time of exposure start	datetime
End Time	Date-time of exposure end	datetime
Exposure Length	Duration of exposure (s)	int
Min. Wavelength	Minimum wavelength of passband (nm)	float
Max. Wavelength	Maximum wavelength of passband (nm)	float
Observation Title	Title of the observing program from the proposal	string
Release Date	Date-time when the data become public	datetime
Proposal ID	The mission-assigned ID of the observing proposal/program	string
Proposal Type	The mission-assigned category of the observing proposal (e.g., GO, SNAP, DD)	string
Sequence Number	A mission-specific sequence number, (e.g. Kelper quarter or TESS sector)	int
Data Rights	Status of the data availability, e.g. <i>public</i> or <i>exclusive access</i>	string
Moving Target	Is the observation of a moving target?	boolean
Product Group ID	Database identifier for the observation ID	int
Distance (")	Angular separation (arcsec) from searched coordinate to the matched observation	float

## Changing the Columns Displayed

Hover on the checkbox column to show a dropdown menu containing a "Columns" entry. Click to select which columns to display/hide. Alternatively use the "Edit Columns" dropdown menu to display/hide specific columns. Column order may be changed by click-dragging a column to a new position.

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## Changing the Rows Displayed

Select the rows with the checkboxes on the left and use the "Table Display" dropdown to display only the selected or unselected rows.

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## Action Options

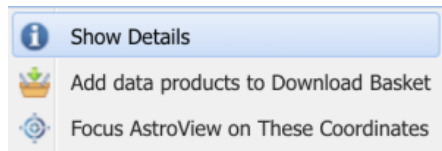
The "Actions" column indicates other actions that can be performed for the given observation. The available actions depend upon the type of results in the row, but in general are:

Icon	Name	Description
	Download Data Products	Directly download the data products associated with this observation
	Time-series Viewer	View a time-series in the time-series visualization tool
	Spectral Viewer	View a spectrum in the spectral visualization tool
	Load Catalog Data	Load any catalog data for this observation in new tabs
	Toggle Overlay Image	Toggle an overlay of the associated image in AstroView

...	More Actions	A list of other available actions: see below
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The following figure shows more actions that can be performed:

- Display detailed information about the observation,
- Add the data products for the observation to the download basket,
- Focus the AstroView tool on the coordinates of the observation.



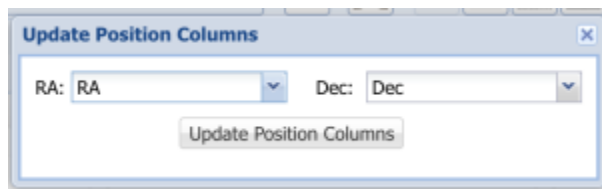
## Create New Columns [blocked URL](#)

The "Create Columns" tool allows the user to perform arithmetic operations on one or two columns at a time. Operations such as addition, subtraction, multiplication and division are supported for two columns, or one column with a user-specified constant. Logarithms and exponentiation are also available for single columns.

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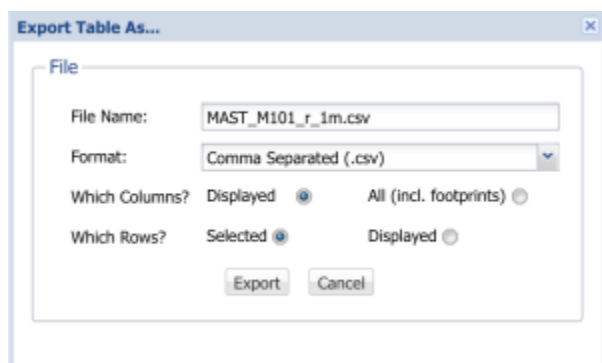
## Remap Position Columns [blocked URL](#)

For some result tables, e.g. when performing a cross-match or when adding offsets to the original RA/Dec, there may be some ambiguity as to which columns should be used as the primary position columns. Clicking the **Choose Position** button allows you to specify the columns to use for the RA /Dec.



## Export Table [blocked URL](#)

To export the table of search results, click the "Export Table" button. This brings up a new pop-up window with options for exporting. The available file formats are **csv**, **xml**, **json**, **html**. The default filename will be the name displayed in the results tab, i.e. collection + filter condition, or you can set your own file name for the table. You can also select which columns and rows to include in the exported table.



## For Further Reading...

- [Refining Results with Filters](#)