

HST Basic Search

This page shows two side-by-side examples of a basic search in the Classic and New ("Missions") Search forms.

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Search Parameters

In this example search, we'll be looking for UV observations of the edge-on galaxies M102 and M104. The left column will follow this process in the classic search form, while the right column will do the same in the new search form.

Entering your Target(s)

Manually

The classic search form has several input fields: 'Target Name' with 'M102, M104' entered; 'Resolver' with a 'Resolve' button; 'Radius (arcmin)' with '3.0' entered; 'Right Ascension' and 'Declination' fields; and 'Equinox' with 'J2000' selected from a dropdown.

In the old search form, there were three fields you could fill with information about the target(s): 'Target Name', 'Right Ascension', and 'Declination'. To avoid resolving a target (for example, when looking for a Solar System object), you could select 'Don't Resolve' from the dropdown menu.

The 'Equinox' box allowed you to specify the equinox of your choice: either B1900, B1950, or J2000.

Search 'Radius' had to be entered in arcminutes, and could be either an integer or floating point number.

The new search form features a dark interface. It includes an 'Object Name(s) and/or RA and Dec pair(s)' field with two entries: 'M102 (210.80227 54.34896)' and 'M104 (189.99763 -11.62305)'. There is an 'UPLOAD LIST OF OBJECTS' button, a 'RESOLVE' checkbox which is checked, and a 'Search radius (max: 30 arcminutes)' field set to '3' with a unit dropdown set to 'arcminutes'. A status bar at the bottom indicates 'All 2 targets resolved.'

The new 'Object Name' box allows you to search by target name, or enter the coordinates directly. With the 'Resolve' box checked, the names will be resolved by a query using [Simbad](#), [NED](#), and several databases internal to MAST. The box will turn green if the target is successfully resolved, or yellow if it is not. You can uncheck the box to turn off the resolve function, allowing you to search by direct matches of the target names as submitted in the proposals; this is especially useful when looking for Solar System targets. Wildcards are supported using '*' if the Resolve box is not checked.

There is no 'Equinox' option in the new search; all searches are assumed to be J2000.

'Search radius' can now be specified in either arcminutes or arcseconds. Any inputs will be rounded up, to the nearest integer.

By Uploading a File

The 'File Upload Form' is shown with tabs for 'Standard Form' and 'File Upload Form'. The 'File Upload Form' tab is active. It includes a 'Search' button, a 'Reset' button, and a 'Clear Form' button. Below these are fields for 'Local File Name (required)' with a 'Choose File' button, 'Delimiter' with a dropdown set to 'Tab', 'RA, Target or Data ID Column #' with a dropdown set to '1', 'Dec Column # (if used)' with a dropdown set to '2', 'File Contents' with a dropdown set to 'Coordinates', 'Resolver' with a dropdown set to 'Resolve', 'Radius (arcmin)' with a text input set to '3.0', and 'Equinox' with a dropdown set to 'J2000'.

To upload a file required switching to the 'File Upload Form'. From here, you could upload your file, then edit the search fields to reflect your file structure.

A close-up of the new search form showing the 'UPLOAD LIST OF OBJECTS' button and the 'RESOLVE' checkbox, which is checked.

The 'Upload List of Objects' button is located above the search bar, to the left of the 'Resolve' checkbox. When you click it, you're given the option to select your CSV file containing a list of targets. The first row of this CSV should be a header containing the column names. For more details about acceptable formatting, and to see examples, see the [Upload List Search page](#).

Selecting Instruments

The instrument selection form has several sections: 'Data Types' with buttons for 'ALL', 'SPECTRUM', and 'IMAGE'; 'Active Instruments' with buttons for 'ACS', 'COS', 'F08', 'STIS', and 'WFC3'; 'Legacy Instruments' with buttons for 'F06', 'F08', 'GRS', 'HSP', 'NICMOS', 'WFPC1', and 'WFPC2'; and 'Observations' with buttons for 'ALL', 'SCIENCE', and 'CALIBRATION'.

| Imagers | | Spectrographs | | Other | |
|--|--|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| <input type="button" value="ALL"/> | <input type="button" value="NONE"/> | <input type="button" value="ALL"/> | <input type="button" value="NONE"/> | <input type="button" value="ALL"/> | <input type="button" value="NONE"/> |
| <input type="checkbox"/> STIS | <input type="checkbox"/> STIS | <input type="checkbox"/> FGS | | | |
| <input type="checkbox"/> NICMOS | <input type="checkbox"/> NICMOS | <input type="checkbox"/> HSP | | | |
| <input type="checkbox"/> WFPC2 | <input type="checkbox"/> GHRS | | | | |
| <input type="checkbox"/> WF/PC | <input type="checkbox"/> FOS | | | | |
| <input type="checkbox"/> FOC | <input type="checkbox"/> FOC | | | | |
| <input type="checkbox"/> ACS | <input type="checkbox"/> ACS | | | | |
| <input checked="" type="checkbox"/> WFC3 | <input checked="" type="checkbox"/> WFC3 | | | | |
| <input type="checkbox"/> COS | <input type="checkbox"/> COS | | | | |

Instrument selection was divided into three sections: 'Imagers', 'Spectrographs', and 'Other'. To get all data from the WFC3, as we do in the example, you must select it in both the 'Imagers' and 'Spectrographs' columns.

The new instrument collection field is notably changed from its predecessor: you first select the type of data you want (i.e. Spectrum, Image, or All), then select the associated instruments. This has the advantage of making it a single-click selection.

In the upper right of the instrument selection, there are two checkboxes; the left option is used to select all instruments, while the right option

deselects all instruments.



These search fields also present an opportunity to select Science data, Calibration data, or All. These categories are set by the data processing pipeline; generally, you will want to specify 'All' or 'Science'.

Filtering by Given Fields: Exposure Time

| Start Time | Exp Time | Proposal ID | Release Date |
|----------------------|--|--|----------------------|
| <input type="text"/> | <input type="text" value="> 1000"/> | <input type="text"/> | <input type="text"/> |
| Dataset | Filters/Gratings | Obset ID | Archive Date |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Target Descrip | Apertures | Observations | |
| <input type="text"/> | <input type="text"/> | <input checked="" type="checkbox"/> Science <input type="checkbox"/> Calibration | |
| PI Last Name | | | |
| <input type="text"/> | | | |

Many queryable fields were available to be filled in on the Classic Form. In this example, we filter for observations with an exposure time longer than 1000 seconds.

Add or remove additional columns to filter results

Column Name=

Central Wavelength

Condition=

< 4000

X

The same fields from the Classic Form are also available in the Missions Form. Although their shapes have changed, their core functionality remains the same; entering '>1000' in the exposure duration field still returns results with an exposure time greater than 1000 seconds.

Filtering by Other Fields: Wavelength

| User-specified field 1 | Field Descriptions |
|---|--|
| <input type="text" value="Central Wavelength"/> | <input type="text" value="< 4000"/> |

In the Classic Form, it was possible to add a maximum of two 'User-specified' fields. You could choose one option from a drop-down menu, then enter an appropriate value in box to its right.

Add or remove additional columns to filter results

Column Name=

Central Wavelength

Condition=

< 4000

X

Unlike the Classic Form, the Missions Form is not limited to two additional fields. You may add more by clicking the 'Add Another

Condition' button.



You can search for an additional column by typing directly in the box. The 'typeahead' feature will suggest criteria based on matching column names and column descriptions.

Results

[illegible]

| | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---------------------|--|------------|------------------|--------------|--|-------------|----------------|------|---------------------|---------------------|----------------------|--|-----------------------------|--|-----------------------|--|--------------------|--|
| [EDIT SEARCH] | | | | | | | | | | Target= M102, M104 | | Radius= 3 arcminutes | | Data Type= ALL | | Observations= Science | | Instruments= WF... | |
| [DOWNLOAD DATA (8 DATASETS)] | | | | [EXPORT TABLE] | | | | Rows per page: | | 500 | | 1-11 of 11 | | [<] [>] [< >] [< >] | | | | | |
| <input type="checkbox"/> | Search Position | | Dataset | | Target Name | | RA (J2000) | Dec (J2000) | Ref | Start Time | Stop Time | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | ICOM79040 | | NGC5457-1 | | 210.787810 | 54.3354154 | 93 | 2013-10-19 00:26:03 | 2013-10-19 01:10:15 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | ICOM79050 | | NGC5457-1 | | 210.787810 | 54.3354154 | 93 | 2013-10-19 01:53:41 | 2013-10-19 02:29:54 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | ICOM07910 | | M-101-A-LWIS | | 210.727911 | 54.3517070 | 2021 | 2021-12-20 07:27:43 | 2021-12-20 08:17:30 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | ICOM06490 | | NGC5457-SE | | 210.824125 | 54.33119667 | 93 | 2014-02-15 02:05:55 | 2014-02-15 20:49:47 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | ICOM64050 | | NGC5457-SE | | 210.824125 | 54.33119667 | 93 | 2014-02-15 21:36:06 | 2014-02-15 22:21:19 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | I8330101 | | M101-F1 | | 210.7746265 | 54.3519500 | 2009 | 2004-04-23 13:33:37 | 2020-04-23 12:23:19 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | I8330310 | | M101-F1 | | 210.7746265 | 54.3519500 | 2009 | 2006-10-06 04:28:21 | 2020-06-10 17:55:33 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | I8320210 | | M101-F2 | | 210.731692 | 54.3237161 | 2009 | 2002-06-15 16:58:29 | 2020-03-16 15:48:11 | | | | | | | | |
| <input type="checkbox"/> | 210.80227 54.34895 | | I8330410 | | M101-F2 | | 210.731692 | 54.3371361 | 2009 | 2002-03-28 16:12:32 | 2020-03-28 16:59:14 | | | | | | | | |
| <input type="checkbox"/> | 189.99763 -11.62305 | | ICOMX04030 | | ANY | | 190.0133476 | -11.660173 | 4 | 2015-04-30 18:09:06 | 2015-04-30 20:05:02 | | | | | | | | |
| <input type="checkbox"/> | 189.99763 -11.62305 | | ICOMX04040 | | ANY | | 190.0133476 | -11.660173 | 4 | 2015-04-30 18:34:09 | 2015-04-30 20:05:02 | | | | | | | | |

In HST Classic, the results are segregated by target. For the search we performed, this results in two tables: one for M102, and one for M104.

Previews

| <u>Mark</u> | <u>Dataset</u> | <u>Target Name</u> |
|--------------------------|------------------|--------------------|
| <input type="checkbox"/> | <u>ICDM79040</u> | <u>NGC5457-1</u> |

To access an image preview, you could click on the link under either the 'Dataset' or 'Target Name' columns.

| <input type="checkbox"/> | Search Position | Dataset | Target Name |
|--------------------------|--------------------|-----------|-------------|
| <input type="checkbox"/> | 210.80227 54.34895 | ICDM79040 | NGC5457-1 |

As before, you can click on the link under either column to open a preview page. The preview page is identical to the one from the HST Classic Search.

Downloads

HST Retrieval Options

Archive Status

- 2 datasets (2 public, 0 proprietary) marked.

User Information

- Retrieve anonymously
 Email (required)

Use your STSId ID

- STSId ID (your email; required)
- Password (required)
- Alternate Email (optional)

Delivery Options

- Deliver the data to the Archive staging area
 - Compress the files using gzip

The options to have data pushed to your server or to receive your data on deliverable media have been discontinued. From this page, you may only have the data staged for download via FTPS.

Alternatively, you may want to use the **MAST Data Discovery Portal API**. The Portal and API provide data downloads through the browser or through cURL scripts. See the [Data Downloads page](#) for more details.

File Options

Select the type of files you want... ...or select or enter one or more extensions:

| | | |
|--|---|---|
| <input checked="" type="checkbox"/> Calibrated <input type="checkbox"/> Data Quality <input type="checkbox"/> Used Reference Files | <input checked="" type="checkbox"/> Observation <input type="checkbox"/> Background Filter <i>See Reference Files are now in CRDS..</i> | <div> <input type="text"/> <input type="button" value="+"/> </div> <div> <input type="text"/> ast <input type="text"/> drc <input type="text"/> dr2_thumb <input type="text"/> dr2 <input type="text"/> dr2_thumb <input type="text"/> fic </div> <div> <input type="button" value="-"/> </div> |
|--|---|---|

After selecting your desired observations, the data had to be staged for retrieval from STDADS. This required an email address so that you could be notified when the files had been staged.

Using file options, you could select a desired file option or extension, but not specific files.

Download

Volume= 604.051MB Observations= 1 Files= 4

Show file types and suffixes in the table
Showing all file types
Show suffixes =
Showing all suffixes

- Select on table

ALL
 NONE
 RECOMMENDED

| | Instrument | Filter / Grating |
|--|------------|------------------|
| | IE3302010 | |
| <input checked="" type="checkbox"/> ie3302010_asn.fits | WFC3 | F300X |
| <input checked="" type="checkbox"/> ie3302010_drc.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302010_log.txt | WFC3 | F300X |
| <input checked="" type="checkbox"/> ie3302010_drz.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302010_spt.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302010_trl.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302010_jif.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302010_jit.fits | WFC3 | F300X |
| <input checked="" type="checkbox"/> ie3302eq_flg.fits | WFC3 | F300X |
| <input type="checkbox"/> ie3302eq_ftl_hlet.fits | WFC3 | F300X |

Rows per page:
10
1-10 of 152

If you have trouble downloading:
contact us at archive@stsci.edu

[DOWNLOAD WITH ASI QUERY](#)

[START DOWNLOAD](#)

As in the old search form, you first select your desired observations. Then, click the 'Download Data' button to open the Download menu

displayed above.

You can still filter by file option or extension. There are also additional options to individually select files from the list using the checkboxes or use the 'All', 'None', or 'Recommended' options.

After selecting the files you want, the 'Download with API Query' and 'Start Download' buttons will become active. 'Start Download' is quick and convenient for small batches of files. If your query includes many thousands of files, or is larger than a few GB, you should use the API Query option. This will generate a curl script that you can run at your convenience to download your files.

For Further Reading...

- [Mission Search Guide](#)