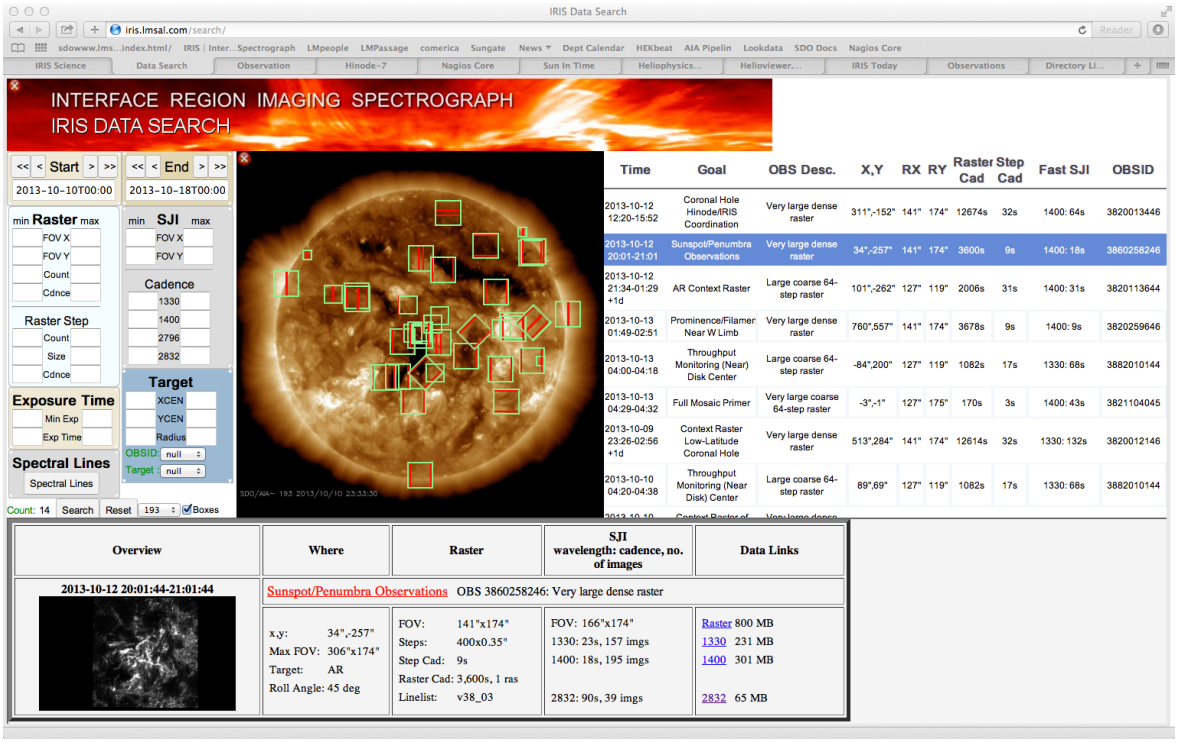
Using the IRIS data search tool



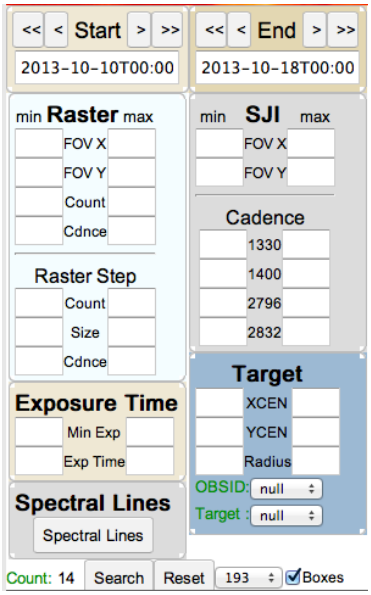
The IRIS data search webpage (http://iris.lmsal.com/search) is designed to quickly guide researchers to IRIS datasets appropriate for their research. It consists of five graphical elements and three steps to the data.

1. IRIS Banner
2. Selection widgets
3. Graphical display of search results on a solar image
4. Tabular display of search results
5. Dataset browser/inspector with links to download the data sets

The IRIS data search tool is optimized for use on landscaped displays of at least 1280x768 pixels. The banner and the solar image can be hidden (displayed) by clicking on the red (green) buttons in their upper left corners to accommodate smaller screens. The tool has been tested with recent versions Firefox, Safari and Chrome browsers. If you have difficulty with the tool, you might first try one of these.

Selection widgets

There are six widgets available for customized, dynamic, data searches. At the most basic this search consists of specifying the ***start*** and ***end*** of a time range of interest. When first loaded these default to select the a week surrounding the current date. The ***start*** and **end** times can be moved forward and back a day or a week by using the single and double arrow buttons. Specific dates can be entered directly into the text boxes or by using the calendars that popup when one clicks on them. The total ***count*** of datasets available within the time range appears at the bottom right of this selection area.



Raster: Limit results to datasets with rasters within a (***min,max***) range of: fields of view in arcseconds; number of repeats (***count***); and of the ***cadence*** in seconds and with raster steps within a range of number (***count***); ***size*** in arcseconds and ***cadence*** in seconds.

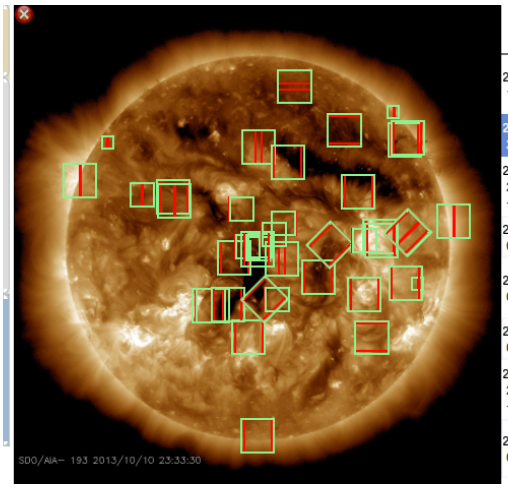
Slit Jaw Imager (***SJI***): Limit results to datasets with slitijaw images within a range of fields of view and ***cadences*** for each wavelength band.

Exposure time: Limit results to datasets within a range of minimum exposure and mean exposure times based on all images within the dataset.

Target: Limit results to a range of target positions relative to disk center in arcseconds either as an bounding box (***xcen,ycen***) or an annulus between radii. Limit sets to specific IRIS Observation IDs or ***target***. The colors of these last two change to indicate the presence (green) or absence (red) of matching datasets based upon other selections.

When all selections are made, clicking the search button refreshes the results in the display area. ***Note that the display does not update while you are constructing a search.*** A range of background SDO/AIA images of the sun corresponding to the start time of query can be selected for the display. All filters (other than dates) and displays are cleared by clicking the reset button.

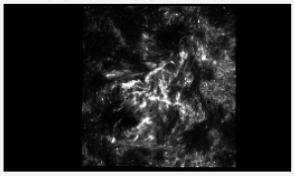
Display Widgets



Time	Goal	OBS Desc.	X,Y	RX	RY	Raster Cad	Step Cad	Fast SJI	OBSID
2013-10-12 12:20-15:52	Coronal Hole Hinode/IRIS Coordination	Very large dense raster	311",-152"	141"	174"	12674s	32s	1400: 64s	3820013446
2013-10-12 20:01-21:01	Sunspot/Penumbra Observations	Very large dense raster	34",-257"	141"	174"	3600s	9s	1400: 18s	3860258246
2013-10-12 21:34-01:29 +1d	AR Context Raster	Large coarse 64-step raster	101",-262"	127"	119"	2006s	31s	1400: 31s	3820113644
2013-10-13 01:49-02:51	Prominence/Filament Near W Limb	Very large dense raster	760",557"	141"	174"	3678s	9s	1400: 9s	3820259646
2013-10-13 04:00-04:18	Throughput Monitoring (Near) Disk Center	Large coarse 64-step raster	-84",200"	127"	119"	1082s	17s	1330: 68s	3882010144
2013-10-13 04:29-04:32	Full Mosaic Primer	Very large coarse 64-step raster	-3",-1"	127"	175"	170s	3s	1400: 43s	3821104045
2013-10-09 23:26-02:56 +1d	Context Raster Low-Latitude Coronal Hole	Very large dense raster	513",284"	141"	174"	12614s	32s	1330: 132s	3820012146
2013-10-10 04:20-04:38	Throughput Monitoring (Near Disk) Center	Large coarse 64-step raster	89",69"	127"	119"	1082s	17s	1330: 68s	3882010144

The results of a search are displayed on a co-temporal AIA image that is selectable from the search widget. The default setting displays the bounding boxes for the slit jaw (raster) image as green (red) rectangles on an 193A AIA image. Unchecking the boxes button in the search widget displays IRIS logos instead of bounding boxes. A sortable list of IRIS observations on the right presents details of the dataset including the time interval, short descriptions, pointing, fields of view, cadences and observation IDs. Clicking on an entry in either widget, highlights the selection in the table (and in the image when logos are displayed) along with a detailed description in the inspection widget.

Inspection Widget

Overview	Where	Raster	SJI wavelength: cadence, no. of images	Data Links
2013-10-12 20:01:44-21:01:44 	Sunspot/Penumbra Observations OBS 3860258246: Very large dense raster			
	x,y: 34",-257" Max FOV: 306"x174" Target: AR Roll Angle: 45 deg	FOV: 141"x174" Steps: 400x0.35" Step Cad: 9s Raster Cad: 3,600s, 1 ras Linelist: v38_03	FOV: 166"x174" 1330: 23s, 157 imgs 1400: 18s, 195 imgs 2832: 90s, 39 imgs	Raster 800 MB 1330 231 MB 1400 301 MB 2832 65 MB

The inspection widget shows more details of the dataset, including a thumbnail slitjaw image, pointing information and links to and sizes of the data products (when they become available). Clicking on the image or title will bring up a separate details page with summary movies, paths to the data and links to the AIA cutout service. Clicking on the data links will immediately download the corresponding gzipped dataset.