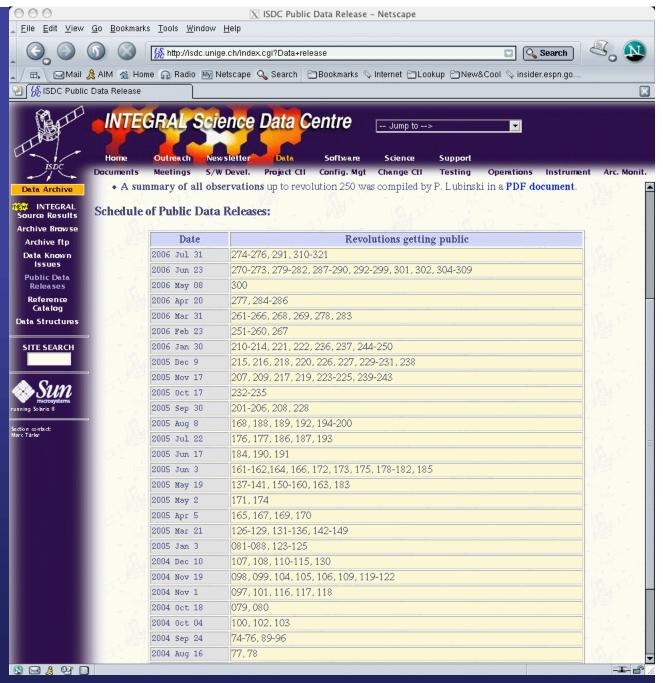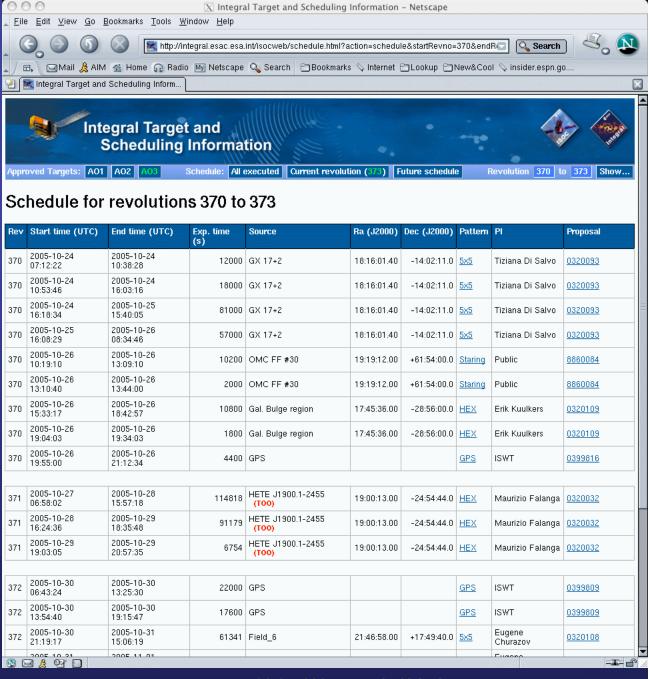# The US INTEGRAL Public Data Archive

Public Data Archive Status

- The ISDC INTEGRAL Public Data Archive opened in July 2004.

- The US INTEGRAL Public Data Archive at the HEASARC opened September 2004.

- New public data is available to the community within a few days of its release from the ISDC.

- All public data through the latest release (10-17-05) is currently available from the HEASARC archive.

- Public data releases occur ~monthly with the next release scheduled for 11-17-05.

- The public data release schedule is available on the ISDC website.
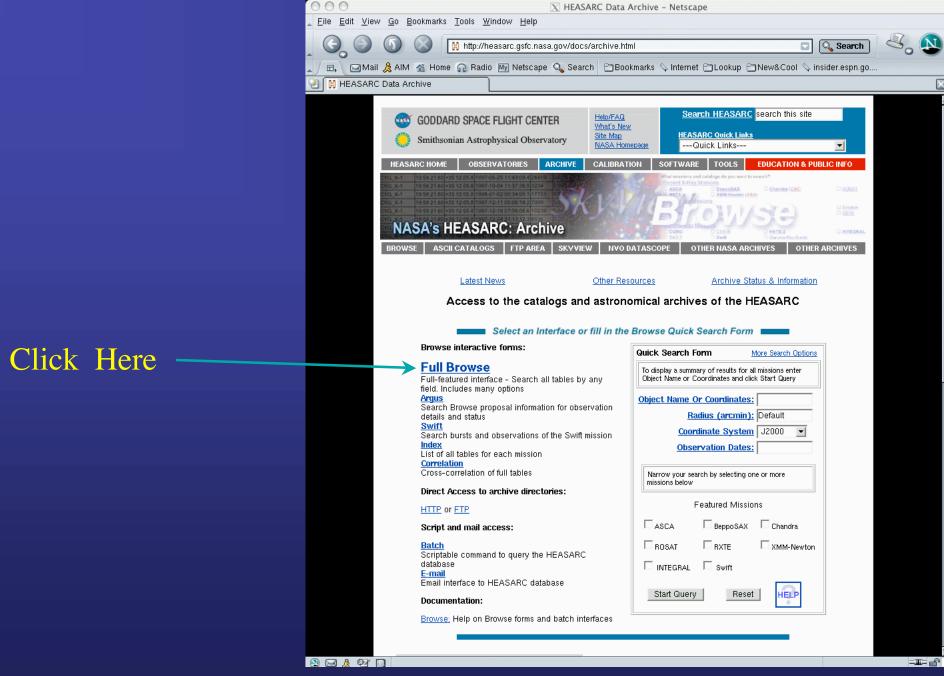
ISDC Website:

http://isdc.unige.ch/

- The ISOC website contains detailed information on past and future observations.

- This is useful in planning future proposals as well as utilizing the public data archive

- **integral.esac.esa.int/isoc/**

Accessing the US INTEGRAL Public Data Archive

- The US INTEGRAL Public Data Archive is accessible from the HEASARC via Browse or FTP.

- Retrieving the data directly via Browse is complicated by the large size of the typical observation, 3 days of data = 7-8 GB.

- The HEASARC limit for a tar file is ~3.5 GB ==> the preferred download method is via a wget script created by Browse.

- A detailed description of all the INTEGRAL catalogs available through Browse as well as a detailed cookbook describing the downloading of data and the setting up of a local data repository are available on the GOF website: http://heasarc.gsfc.nasa.gov/docs/integral/inthp_archive.html

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Click here

Source Search Parameters

List of Missions

Check this

List of all searchable catalogs for INTEGRAL

INTEGRAL Science Window Data

INTEGRAL Science Window Data Catalog:

A catalog containing a list of all INTEGRAL science windows (SCWs). This table can be searched using many observation parameters including source name, source position, good time, and observation date.

INTEGRAL Public Pointed Science Window Data Catalog:

A catalog containing a list of all public INTEGRAL science windows (SCWs) of type "pointing" in which the good time of at least one of the instruments is greater than 0. Thus this table does not contain slew or engineering SCWs or SCWs where no good data were acquired. Like the INTEGRAL Science Window Data Catalog, this table can also be searched using many observation parameters including source name, source position, good time, and observation date.

These catalogs are useful for retrieving low-level SCW data products.

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INTEGRAL Bright Source Catalog

- A source catalog of bright sources based on the all public data.

- The catalog can be searched by source name, source position, source type, or observed SPI flux.

- ISGRI and SPI lightcurves can be retrieved for the selected sources.

- The measurements included in the catalog are intended to serve as a guideline to users of the INTEGRAL database, and should generally not be used directly in published materials.

INTEGRAL Public Data Results Catalog

- A catalog containing SPI and IBIS imaging analysis results which are given per observation or revolution.

- The catalog can be searched by revolution number, source name, source position, observation date, exposure time, and PI name. SPI and ISGRI imaging results can be retrieved.

- It is useful to specify a large search radius when searching this catalog due to the inclusion of Galactic Plane Scan (GPS) and Galactic Center Deep Exposure (GCDE) data.

- This catalog can also be used to retrieve low-level SCW data products.

Used to select object and search radius. Be sure to set the search radius to a size that is instrument appropriate:

SPI: 12 degrees

ISGRI: 10 degrees

JEM-X: 2.5 degrees

Click here

Select "sort" to order list by SCW = time

Set to "pointing" to eliminate slew and engineering data

Set to "public" for only public data in list

Set to ">200" for instrument of interest to eliminate short/unstable pointings

HEASARC Browse: Search of INTEGRAL Catalog(s) – Netscape

File Edit View Go Bookmarks Tools Window Help

http://heasarc.gsfc.nasa.gov/db-perl/W3Browse/w3query.pl

Mail AIM Home Radio Netscape Search Bookmarks Internet Lookup New&Cool insider.espn.go....

HEASARC Browse: Search of INTEG...

View All	Sort	Parameter (Unit)	Query Terms	Min Value	Max Value	Value Type
☑	○	scw_id		000100000012	036000790010	string
☑	○	scw_ver		001	003	string
☑	○	scw_type		other	slew	string
☑	○	status		private	public	string
☑	○	data_in_heasarc		N	Y	string
☑	○	ra		00 00 00.63	23 59 59.81	position
☑	○	dec		-89 20 33.6	+85 27 29.1	position
☑	○	good_spi (s)		0	12464	integer
☑	○	good_isgri (s)		0	15220	integer
☑	○	good_picsit (s)		0	18990	integer
☑	○	good_jemx1 (s)		0	15372	integer
☑	○	good_jemx2 (s)		0	15372	integer
☑	○	good_omc (s)		0	22241	integer
☑	○	start_date		2002-10-17 06:00:36.8	2005-09-26 09:17:22.9	date
☑	○	end_date		2002-10-17 06:00:44.8	2005-09-26 09:52:23	date
☑	○	obs_id		00600040001	88998010301	string
☑	○	obs_type		Calibration	TOO	string
☑	○	pi_name		Acad. Rashid Sunyaev	Thierry Courvoisier, Dr. C. C. Dudley, Prof. Jonathan Grindlay	string
☑	○	data_size (bytes)		492544	468219904	float
☐	○	omc_mode		11	99	integer
☐	○	spi_mode		11	99	integer
☐	○	ibis_mode		11	99	integer
☐	○	jemx1_mode		11	99	integer
☐	○	jemx2_mode		11	99	integer
☐	○	exp_id		00120001	03600002	string
☐	○	posangle (degree)		-179.994145971320	179.993833371100	float
☐	○	obt_end		16417554432	97422675017728	float
☐	○	ingest_date		2003-05-21 01:11:00	2005-10-27 11:15:55	date
☐	○	bii (degree)		-86.18688	89.86079	float
☐	○	lii (degree)		0.00014	359.99998	float
☐	○	creation_date		2004-08-10 15:34:44	2005-10-20 19:24:52	date
☐	○	obt_start		16409165824	97420473008128	float
☐	○	dec_z (degree)		-59.72319	60.33339	float

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List of SCWs meeting selection criteria. Select SCWs to retrieve.

Data products to download. Choose "All."

Click on "Create Download Script."

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- List of wget's

- Not in SCW order

- Cut and paste into a local shell script

- Creates aux and scw directories of data repository

- The ic, idx, and cat data can be downloaded using a shell script on the INTEGRAL GOF website.

X HEASARC Browse: Data Products Download Commands – Netscape

File Edit View Go Bookmarks Tools Window Help

http://heasarcdev.gsfc.nasa.gov/db-perl/W3Browse/w3hdprods.p|

Mail AIM Home Radio My Netscape Search Bookmarks Internet Lookup New&Cool insider.espn.go....

HEASARC Browse: Data Products D...

Browse Home   Data Products Download Commands

Data Products Download Commands

The following commands can be used to download selected data products:

Copy and paste lines to a local shell script or command line or download commands to a file

Download Commands To File

Note: The network utility *wget* is included with most systems. To download *wget* or get more information visit the GNU website

```
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//aux/adp//0089.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700670010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700250010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700220010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0090/009000010020.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0090/009000050010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800080010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0090/009000020010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800050010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800020010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800440010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800410010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0028/002800370010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0032/003200400010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0028/002800340010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700180010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0028/002800310010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700570010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700150010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700540010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700510010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0089/008900240010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800370010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0032/003200390010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800340010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0078/007800310010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0028/002800270010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0032/003200330010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700460020.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0028/002800240010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0032/003200300010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0077/007700470010.001/
wget --passive-ftp -q -nH --cut-dirs=3 -r -l0 -c -N -np --retr-symlinks ftp://legacy.gsfc.nasa.gov/FTP/integral/data//scw/0089/008900590010.001/
```

Finishing Up

- The 2 shell scripts will create the scw, aux, ic, cat, and idx data directories.

- Detailed instructions for downloading data and setting up your data repository are included in a data download cookbook on our website:

  http://heasarc.gsfc.nasa.gov/docs/integral/inthp_archive_cookbook.html

- Included in this cookbook is a script for converting the scw download script into an ASCII list suitable for use with og_create.