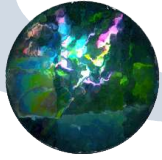


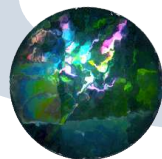
The INTEGRAL Archive and Data Retrieval



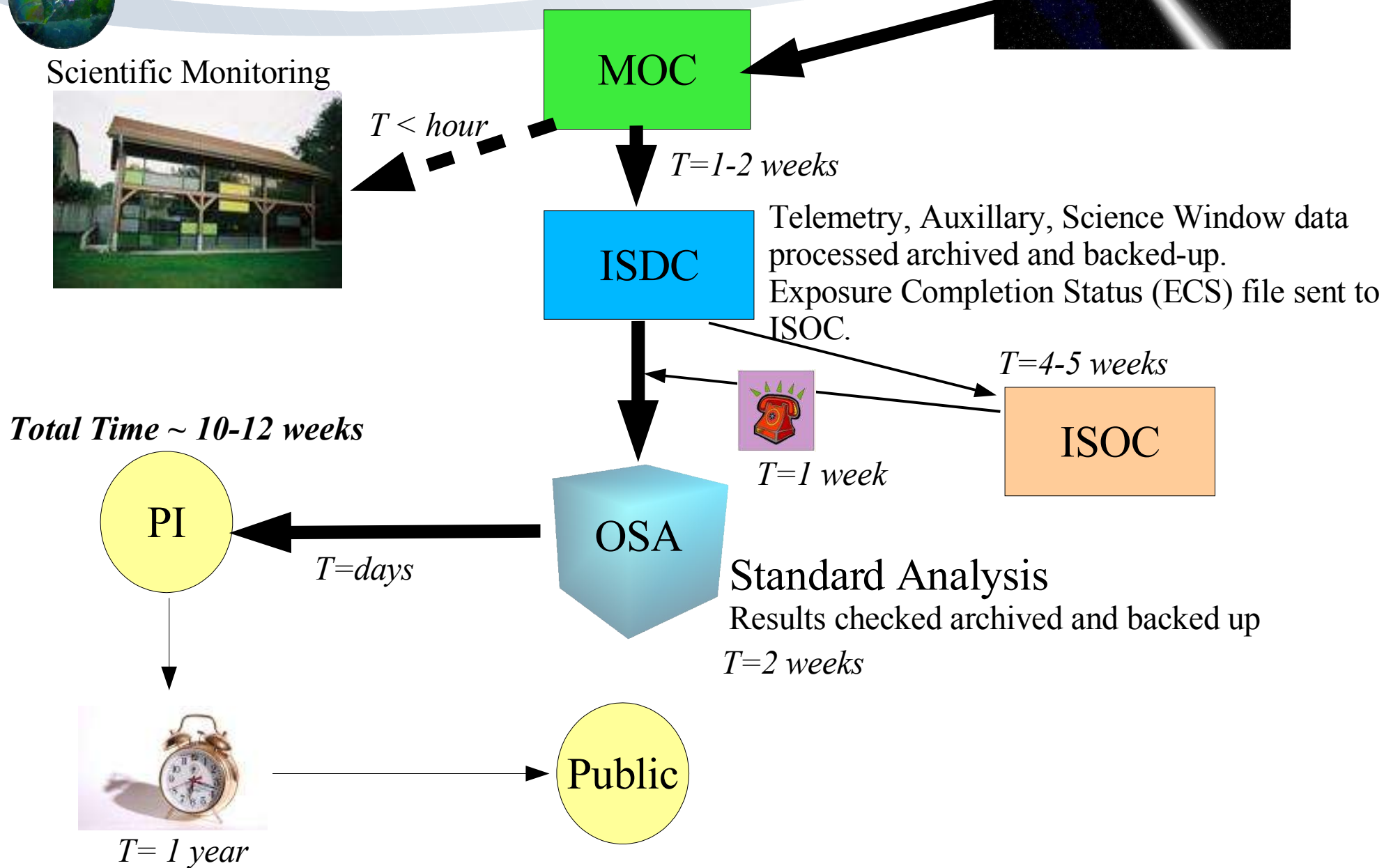
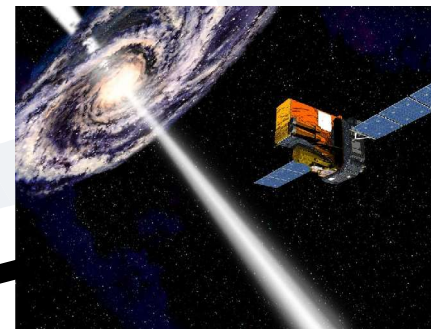
What is the data?
What can I have?
How can I get it?
Who is this Archive Scientist person?

INTEGRAL Data Flow

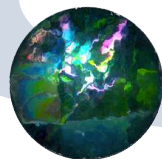
.... as far as the user is concerned.



Scientific Monitoring



The Data



INTEGRAL:
In orbit for 3 years

Proposal

Observation

Revloution

~3 days
130 SCWs ~ 7.5 Gb

Science Window (SCW)

~2-3 ks exposure
SCW id:RRRRppppSSSF
<revolution><pointing><sequence><flag>

SPI

IBIS

JEMX

50 Mb
50Mb
10 Mb
+5Mb for omc/spacecraft Hk data

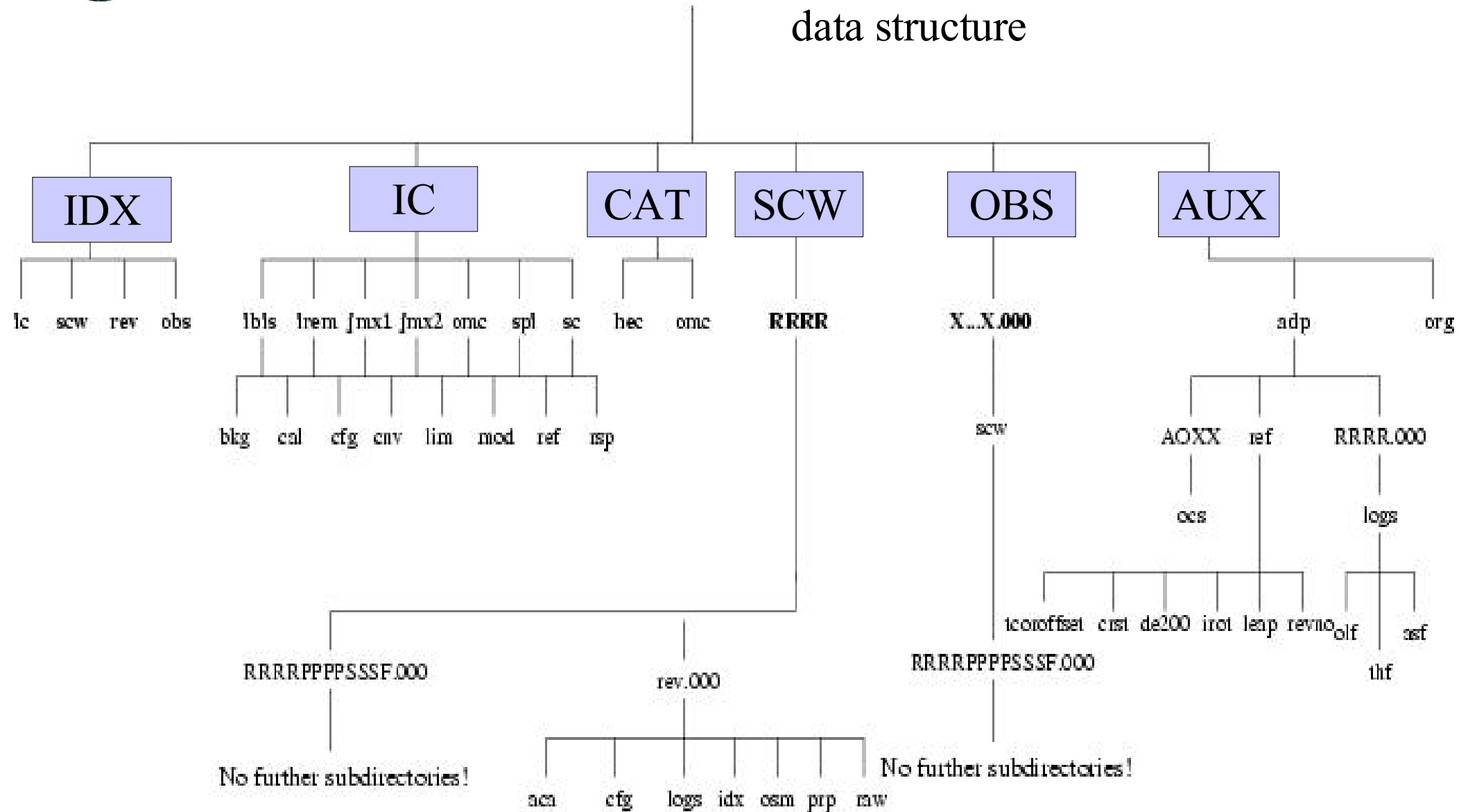
All products for ISGRI, JEM-X and OMC
PICSIT, SPI 50% done
Plans to re-do JEM-X, ISGRI for OSA 5

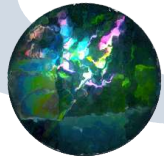
The Archive	
Catalog (CAT)	86 Mb
Index (IDX)	90 Gb
Instrument Calibration (IC)	6.3 Gb
Auxillary (AUX)	1.6 Gb
Observation (OBS)	415 Gb ~4000 obs
Science Window (SCW)	2.4 Tb 58645 scw

The Data Structure



Revision 2 of the heirarchical data structure





Getting Data

1. If you are a PI you will get an email when it is ready to FTP across.
2. If you want public data ...
 - a. The INTEGRAL Source Results (Images, spectra, lightcurves for all your favourite sources)
 - b. The archive FTP area (for the more discerning user...)
 - c. The Archive Browser....

The screenshot shows the INTEGRAL Science Data Centre website. The main heading is "INTEGRAL Science Data Centre" with a "Jump to" dropdown menu. Below the heading is a navigation bar with links: Home, Outreach, Newsletter, Data, Software, Science, Support, Local, Documents, Meetings, S/W Devel, Project Ctl, Config. Mgt, Change Ctl, Testing, Operations, Instrument Arc.

The main content area is titled "ISDC Browse" and includes a search form. The search form has a "Main Search Form" section with a "Search Results" link and a "Choose Data Products" dropdown. The search form includes a "Start Search" button, a "Reset" button, and a "More Options" button.

The search form contains the following fields and options:

- Object Name Or Coordinates:** A text input field with a "Browse..." button.
- Coordinate System:** A dropdown menu set to "J2000".
- Search Radius:** A dropdown menu set to "Default".
- Observation Dates:** A text input field with a "YYYY-MM-DD hh:mm:ss or J2000:DDD.ddd (J20 for ISDC Julian Date, J20 starts from 2000-01-01 00:00:00, J20 = MJD + 51544)." label.
- What missions and catalogs do you want to search?** A checkbox for "Gamma-Ray Missions" and a checked checkbox for "INTEGRAL | Archive Revision 2".
- What types of information do you want to search for?** Checked checkboxes for "Archived data and observations", "Object catalogs", and "Proposals, abstracts, and schedules". An unchecked checkbox for "CDS Vizier catalogs" is also present.
- Do you want to modify the defaults for number of results and their display?** A "Limit Results To:" dropdown set to "1000" rows and an "Output Format:" dropdown set to "HTML Table".

Based on the HEASARC template (v 7.0.0) all archived data is available to inspect and all public data is accessible to download.

Don't Panic

Main Search Form > Search Results > Choose Data Products

Start Search Reset More Options

More sophisticated... →

1. Do you want to search around a position ... ?

(If you want to search on parameters other than object name or coordinates, select "More Options".)

Object Name Or Coordinates: **and/or** **Select Local File:** Browse...

e.g. **Cyg X-1** or **12 00 00, 4 12 6** or **Cyg X-2; 12.235, 15.345**
 (Note use of semi-colons (;) to separate multiple object names or coordinate pairs)

File should contain objects and/or coordinate pairs one per line or separated by semi-colons.

Coordinate System:

Search Radius:
 Default uses the optimum radius for each catalog searched.

Beware!! Specify a suitable value. Default = 1 degree

... and/or search by date?

Observation Dates: YYYY-MM-DD hh:mm:ss or IJD: DDDD.ddd (IJD for ISDC Julian Date, IJD starts from 2000-01-01 00:00:00, IJD = MJD - 51544)
 The time portion of the date is optional. Separate multiple dates/ranges with semicolons (;).
 Range operator is '..'. (e.g. 2003-12-31; 1095.5; 2003-01-15 12:00:00; 2003-03-20 .. 2003-05-18)

2. What missions and catalogs do you want to search?

Gamma-Ray Missions
 INTEGRAL Archive Revision 2

3. What types of information do you want to search for?

Archived data and observations
 Object catalogs
 Proposals, abstracts, and schedules
 CDS VizieR catalogs (query VizieR catalogs relevant to missions or catalogs selected above)

4. Do you want to modify the defaults for number of results and their display?

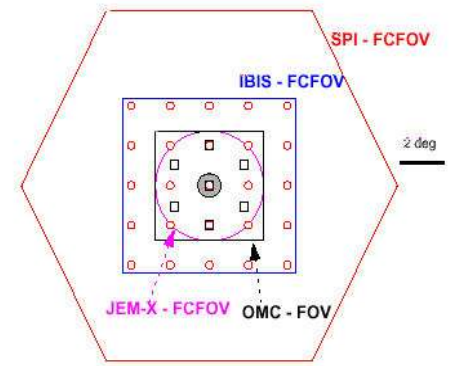
Limit Results To: rows

Output Format:

Show All Parameters: Select to display all catalog parameters instead of only defaults

Start Search Reset More Options

IBIS foV = 9 x 9 degrees
 SPI foV = 16 degrees
 JEM-X foV = 4.8 degrees
 OMC = 5 x 5 degrees



- Target position
- 7 point hexagonal pattern
- 25 point rectangular pattern

[Main Search Form](#) > [Search Form](#) > Search Results > Choose Data Products**1. Please select one or more of the tables below.**

↓ Sort by a column in order: 1,2,3 ↑ Sort by column in reverse order: 3,2,1

Select:	Description ↓↑	Catalog ↓↑	Data ↓↑	Default Radius (arcmin) ↓↑	Mission ↓↑	Table Type ↓↑
<input checked="" type="checkbox"/>	Science Results per Observation	integral_rev2_ogsm	Y	300	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	Science Results per Pointing	integral_rev2_ogss	Y	300	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	ISGRI Source Results	integral_rev2_isgri_sr1	N	5	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	JEMX Source Results	integral_rev2_jmx_sr1	N	5	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	DMC Source Results	integral_rev2_omc_sr1	N	0.5	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	SCW - Science Window Data	integral_rev2_scw	Y	300	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	Observations	integral_rev2_obs	N	****	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	Proposals	integral_rev2_prop	N	****	INTEGRAL-REV2	Proposal
<input checked="" type="checkbox"/>	Proposal Information and Observation Parameters	integral_rev2_prop_obs	N	300	INTEGRAL-REV2	Proposal
<input checked="" type="checkbox"/>	IC - Instruments Characteristics Data	integral_rev2_ic	Y	****	INTEGRAL-REV2	Observation
<input checked="" type="checkbox"/>	AUX - Auxiliary Data	integral_rev2_aux	Y	****	INTEGRAL-REV2	Observation

Results from
Standard Analysis

The DATA

Observation and
Proposal
information

IC/AUX

2. Do you want to change any of your current query selections?**Object Name Or Coordinates:** (e.g. Cyg X-1 or '12 00 00, 4 12 6') Use semi-colons (;) to separate multiple object names or coordinate pairs (e.g. Cyg x-2; 12.235, 15.345)**Coordinate System:** J2000**Search Radius:** Default arcmin Default uses the optimum radius for each catalog searched.**Name Resolver:** SIMBAD, else NED**Observation Dates:** The time portion of the date is optional. Separate multiple dates/ranges with semicolons (;). Range operator is '..' (e.g. 2003-12-31; 1095.5; 2003-01-15 12:00:00; 2003-03-20 .. 2003-05-18)**Limit Results To:** 1000 rows**Output Format:** HTML Table**Show All Parameters:** Select to display all catalog parameters instead of only defaults**3.**

Description	Catalog	Data Default Radius (arcmin)	Mission	Table Type
SCW - Science Window Data	integral_rev2_scv Y	300	INTEGRAL-REV2	Observation

1. Enter any constraints on the query below. [Help on constraint syntax](#)
(What about [wildcards](#), [spaces](#), and [case sensitivity](#)?)
2. To change the fields that are returned, select the box in the 'View' column beside each field desired.
3. To sort the results by any field, select one box in the 'Sort' column beside the field to sort on.

Examples of query constraints:

View	Sort	Parameter (Unit)	Query Terms	Min Value	Max Value	Value Type
<input checked="" type="checkbox"/>	<input type="checkbox"/>	scw_id				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	scw_ver				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	scw_type				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ra_x		00 00 04.18	23 59 59.81	position
<input checked="" type="checkbox"/>	<input type="checkbox"/>	dec_x		-89 20 33.6	+85 58 55.0	position
<input checked="" type="checkbox"/>	<input type="checkbox"/>	start_date (ISO)				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	end_date (ISO)				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	obs_id				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	obs_type				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ps				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	pi_name				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_spi		0.0000	12464.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_pisat		0.0000	16086.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_isari		0.0000	14342.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_jemx1		0.0000	8896.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_jemx2		0.0000	12473.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	good_omc		0.0000	20917.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	dsizex				float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ra_z		0.0146	359.9641	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	dec_z		-59.7232	54.5686	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	posangle		-179.9941	179.9938	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	obt_start		16409165824.0000	54118390431744.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	obt_end		16417554432.0000	54121034940416.0000	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	lid_start		1020.2512	1617.4236	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	lid_end		1020.2513	1617.4526	float
<input checked="" type="checkbox"/>	<input type="checkbox"/>	spimode		11	99	integer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ibismode		11	99	integer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	imx1mode		11	99	integer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	imx2mode		11	99	integer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	omcmode		11	99	integer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	exp_id				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	crea_dt (ISO)				string
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ing_dt (ISO)				string

Example bar:
Specify ranges, limit, exceptions, inclusions ..

[scw_id](#)
[scw_ver](#)
[scw_type](#)

SCW id, version and type: Use to restrict to a particular revolution and to restrict to a 'pointing' SCW.

e.g. scw_id: 0234 , scw_type: pointing*

[ra_x](#)
[dec_x](#)
[start_date \(ISO\)](#)
[end_date \(ISO\)](#)

Self explanatory fields that you can use to be more specific on which SCWs you are selecting.

e.g. start_date: >=2002-10-17

[obs_id](#)
[obs_type](#)

Observation ID and type. Specify a particular observation of an observation type.

e.g. obs_type: TOO ; obs_type: Calibration

[ps](#)
[pi_name](#)

Proprietary Status and PI name. Search for data available to the public or a specific PI.

e.g. ps: private ; pi_name: Dr. J. Bloggs

[good_jemx2](#)

Good instrument time. Check you have data for the instrument you want.

e.g. good_spi: >0

[spimode](#)

Specify instrument mode:

e.g. spimode: !=73

4. Do you want to change your current query settings?

Object Name Or Coordinates: (e.g. Cyg X-1 or '12 00 00, 4 12 6') Use semi-colons (;) to separate multiple object names or coordinate pairs (e.g. Cyg x-2; 12,235, 15,345)

Coordinate System: J2000

Search Radius: Default arcmin Default uses the optimum radius for each catalog searched.

Name Resolver: SIMBAD, else NED

Observation Dates: The time portion of the date is optional. Separate multiple dates/ranges with semicolons (;). Range operator is '..' (e.g. 2003-12-31; 1095.5; 2003-01-15 12:00:00; 2003-03-20 .. 2003-05-18)

Limit Results To: 1000 rows

Output Format: HTML Table

Show All Parameters: Select to display all catalog parameters instead of only defaults

Eg- we want public Sco X-1 SPI data from July 30th 2003.
 scw_type: pointing , start_data: 2003-07-30* , ps: public , good_spi: >0

Table Legend:

Display all parameters for a row

Sort by a column in order: 1,2,3 Sort by column in reverse order: 3,2,1

Services links: O: Digitized Sky Survey image, R: ROSAT All-Sky Survey image, N: NED objects near coordinates, S: SIMBAD objects near coordinates, D: get list of data products, B: ADS bibliography holdings

Scroll down below tables to select Data Products and Further Actions:

SCW – Science Window Data (integral_rev2_scw)

Search radius used: 300.00'

Select	Services	scw id	scw ver	scw type	ra x	dec x	start date	end date	obs id	obs type	ps	pi name	good spi	good picsf	good isqri	good iemx1	good iemx2	good omc	dsize
<input checked="" type="checkbox"/>	O R N S D	009700040010	001	pointing	16 11 44.96	-11 37 49.2	2003-07-30 18:00:41	2003-07-30 19:00:14	01202840001	General	public	Prof. Michiel van der Klis	3571	3526	3555	0	3571	3543	1314734
<input checked="" type="checkbox"/>	O R N S D	009700050010	001	pointing	16 19 55.09	-11 38 24.2	2003-07-30 19:02:17	2003-07-30 20:01:50	01202840001	General	public	Prof. Michiel van der Klis	3571	3526	3555	0	3571	3543	1335572
<input checked="" type="checkbox"/>	O R N S D	009700060010	001	pointing	16 28 05.15	-11 37 49.9	2003-07-30 20:03:53	2003-07-30 21:03:26	01202840001	General	public	Prof. Michiel van der Klis	3571	3526	3560	0	3571	3543	1295349
<input checked="" type="checkbox"/>	O R N S D	009700080010	001	pointing	16 36 22.79	-13 36 06.1	2003-07-30 22:07:06	2003-07-30 23:06:39	01202840001	General	public	Prof. Michiel van der Klis	3572	3526	3559	0	3572	3544	1282529
<input type="checkbox"/>	O R N S D	009700090010	001	pointing	16 28 08.94	-13 37 49.4	2003-07-30 23:08:42	2003-07-31 00:08:14	01202840001	General	public	Prof. Michiel van der Klis	3570	3526	3559	0	3490	3543	1279037

5 rows retrieved from integral_rev2_scw

Are you interested in data products?

1. Select the checkboxes for the rows of interest above,
2. un-check any data products you are not interested in:

Data Products available for integral_rev2_scw

- All
 Science Window Data (SCW)

3. then click a button below.

- data products for selected rows
 data products for selected rows
 for creation of Observation Groups

Further Actions:

Do you want to your integral_rev2_scw results? ([help](#))

Do you want to your integral_rev2_scw results with another catalog or table? ([help](#))

Do you want to all the columns for the rows selected above?

Do you want to query other services for the rows selected? ([help](#))

Services:

NED
SIMBAD
SkyView:ROSAT All-Sky
SkyView:DSS
CoCo

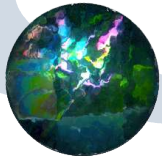
Enter email address and wait a few minutes for the email...

Follow the instructions on the email ...

Analyse away

scw/0097/009700040010.001/swg.fits[1]
scw/0097/009700050010.001/swg.fits[1]
scw/0097/009700060010.001/swg.fits[1]
scw/0097/009700080010.001/swg.fits[1]

When in doubt ...



- Help, Tips and Known Issues
- Email helpdesk: inthelp@rssd.esa.int (for all queries on your data distribution and any problems with data or its downloading)
- Email Browser admin: arc_w3br@isdcmail.unige.ch (if you have any problems in using the browser)

For advanced users:-

- Batch jobs
- Public FTP area