



TAP and UWS extensions in the GAIA Archive: TAP+

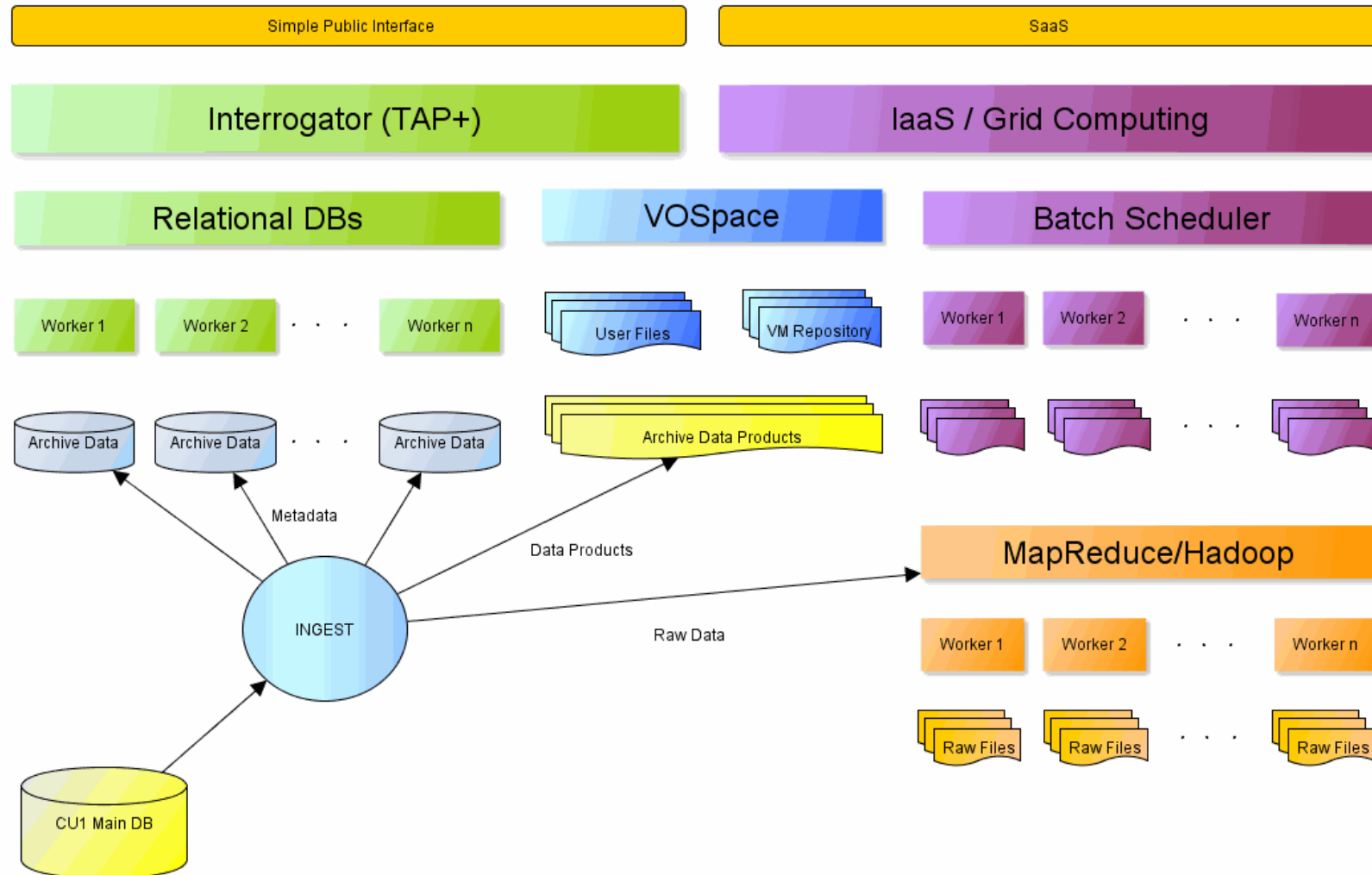
Juan González Núñez

jgonzale@sciops.esa.int

J. Salgado, R. Gutiérrez, J.C. Segovia

ESAC Science Data Centre

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➤ Validation

- Part of the Gaia catalogues validation will **run through the Archive TAP service**
- Catalogues shall **only be available to validation teams** during this period

➤ Crossmatch

- Official Gaia crossmatches will be **generated in the Archive Database.**
- The Archive will offer **crossmatch services** to large Gaia catalogues.



➤ **Authentication mechanisms**

- Log in/out
- Session handling

➤ **Persistent Upload**

- /upload user catalogues
- Schema per user

➤ **Table sharing**

- Creation of user groups
- Permissions handling

➤ **Quotas**




- DB/results storage limit

➤ **/tables filtering**

- Progressive browsing

➤ **User defined functions**






➤ **Notifications**

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gaia archive

HOME SEARCH STATISTICS HELP DOCUMENTATION SHARE ADMIN

Simple Form **ADQL Form** Query Results



- public.twomass_psc
- public.tycho2
- public.ucac4_original_valid

User tables

- user_jgonza01.table1
- user_jgonza01.test_mio
- user_jgonza01.trialUpXmatch
- user_jgonza01.trialUpXmatch3
- user_jgonza01.trialupxmatch4
- user_jgonza01.trualUpXmatch
- user_jgonza01.xmatch_test
- user_jgonza01.xmatch_twomass_psc_table1

Shared to me (from satgaia)











- user_satgaia.igsl_tmass_15s_bestneighbour
- user_satgaia.igsl_tmass_15s_neighbourhood
- user_satgaia.igsl_tmass_1s_bestneighbour
- user_satgaia.igsl_tmass_1s_neighbourhood
- user_satgaia.igsl_tmass_5s_bestneighbour

Query examples:

```
1 SELECT DISTANCE(POINT('ICRS',alpha,delta),
2 POINT('ICRS',266.41683,-29.00781)) AS dist, *
3 FROM public.gog_cataloguesource
4 WHERE
5 1=CONTAINS(POINT('ICRS',alpha,delta),CIRCLE('ICRS',266.41683,-29.00781,
6 0.08333333)) ORDER BY dist ASC
```

Job name:

Filter by job name Select all jobs

<input checked="" type="checkbox"/>	02-Feb-2015, 11:43:48 - 1422873828311D Rows: 100, Size: 39 KB	    	<input type="button" value="x"/>
<input checked="" type="checkbox"/>	09-Jun-2015, 18:59:51 - 1433869190582D Rows: 4266, Size: 1 MB	    	<input type="button" value="x"/>

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gaia archive

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Simple Form **ADQL Form** Query Results

public.twomass_psc
public.tycho2
public.ucac4_original_valid

User tables

- user_jgonza01.table1
- user_jgonza01.test_mio
- user_jgonza01.trialUpXmatch
- user_jgonza01.trialUpXmatch3
- user_jgonza01.trialupxmatch4
- user_jgonza01.trualUpXmatch
- user_jgonza01.xmatch_test
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Shared to me (from satgaia)

- user_satgaia.igsl_tmass_15s_bestneighbour
- user_satgaia.igsl_tmass_15s_neighbourhood
- user_satgaia.igsl_tmass_1s_bestneighbour
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- user_satgaia.igsl_tmass_5s_bestneighbour

Query examples:

```
1 SELECT DISTANCE(POINT('ICRS', alpha,delta),  
2 POINT('ICRS',266.41683,-29.00781)) AS dist,  
3 FROM public.gog_cataloguesource  
WHERE  
1=CONTAINS(POINT('ICRS', alpha,delta),CIRCLE(  
0.08333333)) ORDER BY dist ASC
```

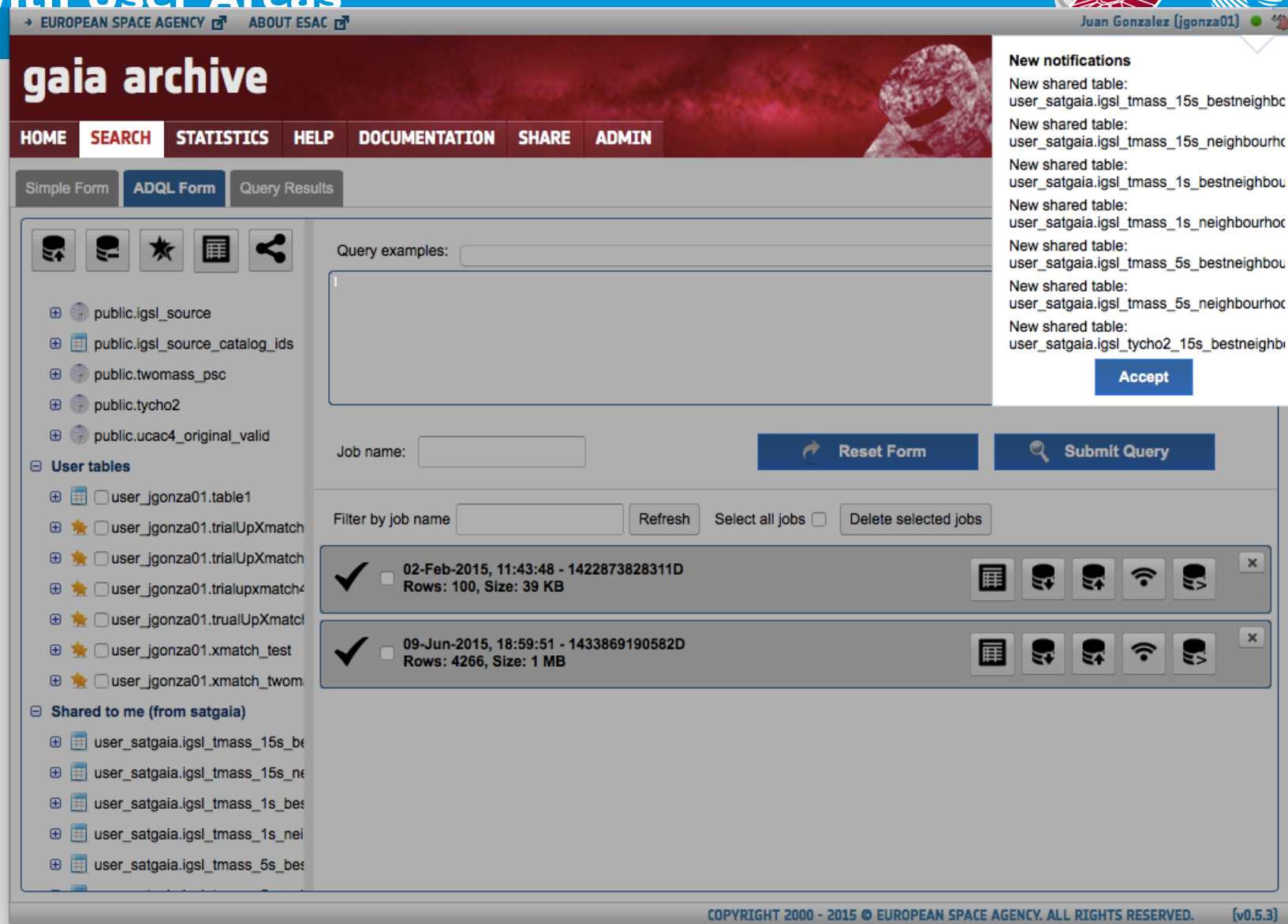
Job name: [Reset Form](#) [Submit Query](#)

Filter by job name [Refresh](#) Select all jobs [Delete selected jobs](#)

<input checked="" type="checkbox"/>	02-Feb-2015, 11:43:48 - 1422873828311D Rows: 100, Size: 39 KB	Table Download Upload Refresh Close
<input checked="" type="checkbox"/>	09-Jun-2015, 18:59:51 - 1433869190582D Rows: 4266, Size: 1 MB	Table Download Upload Refresh Close

Username: Juan Gonzalez (jgonza01)
User tables quota: 2 MB of 1000 MB used
Job results quota: 1 MB of 1000 MB used
[Sign out](#)

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The screenshot shows the GAIA Archive web interface. At the top, there are navigation links for EUROPEAN SPACE AGENCY and ABOUT ESAC. The main header displays "gaia archive" and a navigation menu with options: HOME, SEARCH, STATISTICS, HELP, DOCUMENTATION, SHARE, and ADMIN. Below the menu, there are tabs for "Simple Form", "ADQL Form", and "Query Results".

On the left side, there is a sidebar with a list of tables. Under "User tables", several tables are listed, including "user_jgonza01.table1" and "user_jgonza01.trialUpXmatch". Under "Shared to me (from satgaia)", tables like "user_satgaia.igsl_tmass_15s_be" are listed.

The main content area features a "Query examples:" input field, a "Job name:" input field, and buttons for "Reset Form" and "Submit Query". Below these, there is a "Filter by job name" input field and buttons for "Refresh", "Select all jobs", and "Delete selected jobs".

The results section shows two job entries, each with a checkmark, a date and time, a job ID, and statistics on rows and size:

- 02-Feb-2015, 11:43:48 - 1422873828311D
Rows: 100, Size: 39 KB
- 09-Jun-2015, 18:59:51 - 1433869190582D
Rows: 4266, Size: 1 MB

Each job entry has a set of icons for actions like view, download, and refresh. A notification panel in the top right corner, titled "New notifications", lists several "New shared table" messages with table names like "user_satgaia.igsl_tmass_15s_bestneighboc". An "Accept" button is located at the bottom of the notification panel.

At the bottom of the interface, there is a copyright notice: "COPYRIGHT 2000 - 2015 © EUROPEAN SPACE AGENCY. ALL RIGHTS RESERVED." and a version number: "(v0.5.3)".



TAP/UWS 1.0 modifications in TAP+

Command	Parameters	New resp. metadata
/login	[username, password]	session cookie
/logout	-	-
/tables *	only_schemas,etc.	sharing information
/upload	file, table_name	-
/delete	table_name	-
/share	action, etc.	-
/notification	action	
/functions	only_schemas,etc.	

* -> extension of already existing command

[] -> optional parameter

Gray -> work in progress



/login

```
$ curl -k -c cookies.txt -X POST -d username=jgonza01 -d password=****-L https://tap_url/tap/login
```

```
$ more cookies.txt
```

```
geadev.esac.esa.int  FALSE /tap-dev  TRUE  0  JSESSIONID  1DA2A000CF3B056F888531FA39085DD2
```

```
$ curl -k -b cookies.txt -X POST -d only_tables=TRUE -d schemas=user_jgonza01 -L "https://tap_url/tap/tables"
```

```
<vod:tableset>
  <schema>
    <name>user_jgonza01</name>
    <table type="base_table" gaiatap:size="3742" gaiatap:flags="2">
      <name>xmatch_test</name>
      <description>xmatch between g10_fuzzy_1000 and g10_mw with 1 radius</description>
    </table>
  </schema>
</vod:tableset>
```

```
$ curl -k -c cookies.txt -X POST -L https://tap_url/tap/logout
```



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/delete	table_name	-
/share	action, etc.	-
/notification	action	
/functions	only_schemas,etc.	

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/tables

Flag	Value	Comments
share_info	boolean	'true' to include shared information (WIP)
share_accessible	boolean	'true' to include accessible items
schemas	list of names (comma separated)	Returns a list of schemas.
tables	list of full qualified table names (comma separated)	Returns a list of tables.
only_schemas	true/false	If 'true', no table/columns are retrieved
only_tables	true/false	If 'true', no columns are retrieved



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/upload	file, table_name	-
/delete	table_name	-
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/notification	action	
/functions	only_schemas,etc.	

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Gray -> work in progress



/upload and /delete

```
$curl -k -b cookies.txt -X POST -F FILE=@mystars.vot -F TABLE_NAME=table1 https://tap_url/tap/upload
```

```
$ curl -k -b cookies.txt -X POST -d only_tables=TRUE -d schemas=user_jgonza01 -L "https://tap_url/tap/tables"
```

```
<vod:tableset>  
  <schema>  
    <name>user_jgonza01</name>  
    <table type="base_table" gaiatap:size="226" gaiatap:flags="0">  
      <name>table1</name>  
    </table>  
  </schema>  
</vod:tableset>
```

```
$curl -k -b cookies.txt -X POST -F TABLE_NAME=table1 https://tap_url/tap/delete
```



TAP/UWS 1.0 modifications in TAP+

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/login	[username, password]	session cookie
/logout	-	-
/tables *	only_schemas,etc.	sharing information
/upload	file, table_name	-
/delete	table_name	-
/share	action, etc.	-
/notification	action	
/functions	only_schemas,etc.	

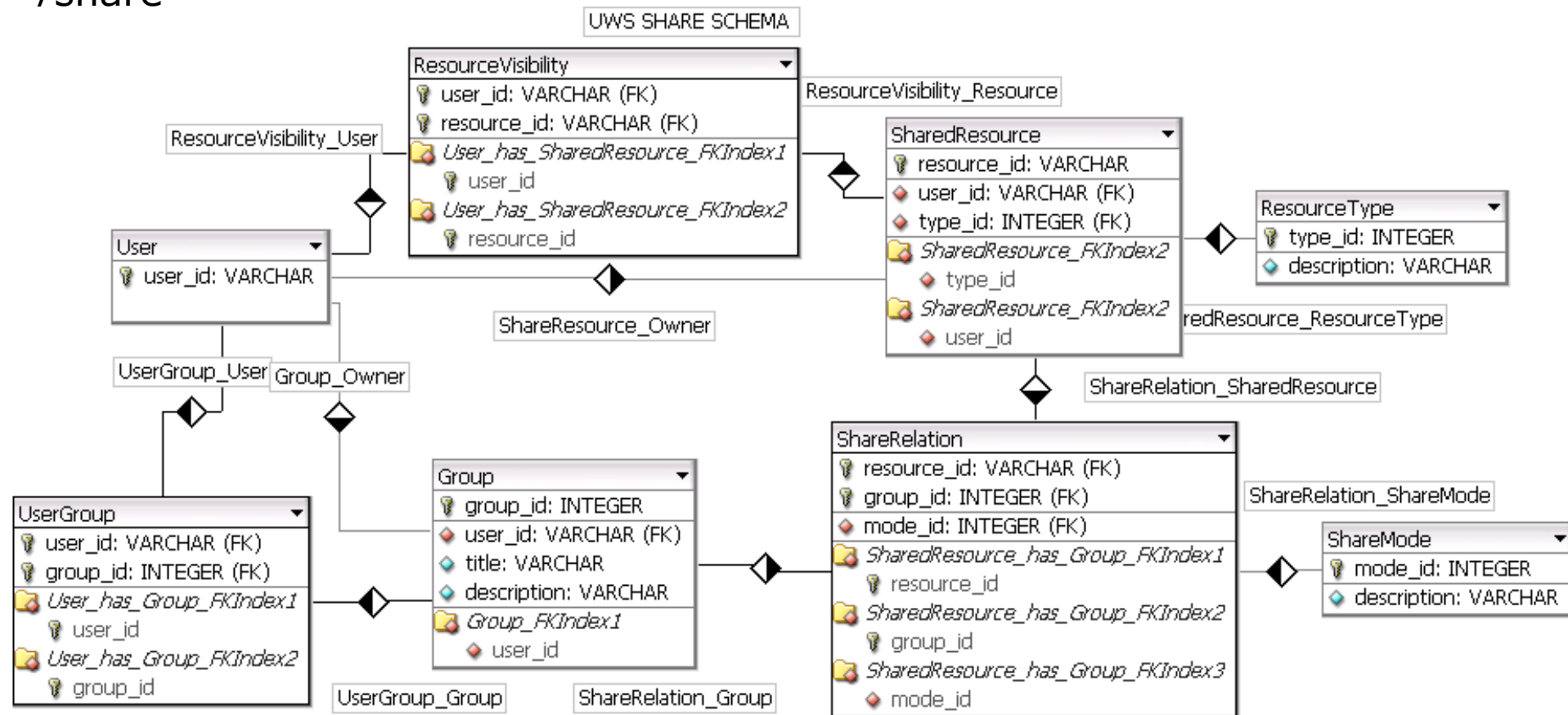
* -> extension of already existing command

[] -> optional parameter

Gray -> work in progress



/share





/share

HTTP request

```
share?action=action  
[&tile=tile]  
[&description=description]  
[&group_id=group_id]  
[&user_id=user_id]  
[&resource_id=resource_id&resource_type=resource_type]  
[&share_to_id=share_to_id&share_type=share_type&share_mode=share_mode]
```




/share

Parameter	Value(s)	Comments
action	CreateOrUpdateGroup	Creates or updates a group. The group owner is extracted from the UWS security manager. Requires: - group_id: group identifier: if provided, an update is requested. If not provided, a group creation is requested. - title: group title - description: group description - users_list: a comma separated list of user login names to be added to the group
	CreateUserGroup	Adds a user to the specified group The group owner is extracted from the UWS security manager. Requires: - group_id: group identifier - user_id: login name
	CreateOrUpdateItem	Creates or updates a shared item. The item owner is extracted from the UWS security manager. Requires: - resource_id: resource identifier. If provided, an update is requested. If not provided, a shared item creation is requested. - resource_type: resource type (table, job...) - title: shared item title. - description: share item description. - items_list: a comma separated list of shared item records(see items_list parameter)
	CreateItemRelation	Creates a sharing relation (between the resource and a group or a user, etc.) The group and item owner is extracted from the UWS security manager. Requires: - resource_id: resource identifier - resource_type: resource type (table, job...) - share_to_id: group or user identifier - share_type: user or group - share_mode: read or read/write



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/delete	table_name	-
/share	action, etc.	-
/notification	action	
/functions	only_schemas,etc.	

* -> extension of already existing command

[] -> optional parameter

Gray -> work in progress



/notification

notification_id1[type: notification_type1,notification_subtype1]=explanation1

Value	Comments	Value	Comments
100	Job created	231	Shared user updated
101	Job updated	232	Shared user removed
102	Job removed	300	Log in
210	Shared item created	301	Log out
211	Shared item updated	401	Database quota updated
212	Shared item removed	402	File quota updated
220	Shared group created	500	Notification created
221	Shared group updated	501	Notification removed
222	Shared group removed	4000	Table created
230	Shared user created	4001	Table updated

```
$ curl -k -b cookies.txt -X GET https://tap_url/tap/notification?action=GetNotifications
```

```
1434373655172D[type: 210,0]=Created shared item: user_satgaia.tmass
```



THANK YOU

Juan Gonzalez

TAP/UWS extensions in the GAIA Archive: TAP+

jgonzale@sciops.esa.int