Registering your VESPA EPN-TAP Server

Work in Progress

Please use this Tutorial with caution, we are currently updating it.

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Registering your VESPA EPN-TAP Server

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Author (s)	Baptiste Cecconi, Pierre Le Sidaner, Stéphane Erard, Renaud Savalle, Markus Deimletner, Paul Sladen

Abstract: This tutorial describes first how to register your newly installed DaCHS server into the IVOA registry. It then introduces the various type of databases and links to corresponding tutorials.

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Table of Contents

- 1. Introduction
- 2. DaCHS Registry Configuration
- 3. Registering the DaCHS server in Registry of Registry
- 4. Publish your TAP service data collections
- 5. Unregistering a service
- 6. Assessing your dataset

1. Introduction

This document presents the configuration procedure of the VESPA service installed during the first part of the tutorial. We propose here to set up the Registry configuration (Section 2), as well as a test TAP service (Section 3).

> In all this document, you will have to replace all text between <<...>> with the value that you have selected for your installation.

In order to prepare the installation, here is a table to be filled with the parameters of you installation:

Parameter Name	Your Value	Example Value for tutorial
my_servername	.....	voparis-test
my_domain	.....	obspm.fr
maintainer_email	.....	vo.paris@obspm.fr
authority-ivoid (1)	.....	ivo://vopdc.obspm
creator_name (2)	.....	Pierre Le Sidaner
logo_url (3)	.....	http://padc.obspm.fr/img/logo/padc.png
authority_creationDate (4)	.....	2014-06-03T08:59:09.697573Z
authority_title	.....	Paris Astronomical Data Centre
authority_shortname	.....	PADC
authority_description	.....	The Paris Astronomical Data Centre aims at providing VO access to its databases resources, at participating to international standards developments, at implementing VO compliant simulation codes, data visualization and analysis softwares. Paris Astronomical Data Centre offers a central support to the various projects through central storage and web servers computing facilities.
authority_url	.....	http://padc.obspm.fr
organization_title	.....	Observatoire de Paris
organization_description	.....	Founded in 1667, the Observatoire de Paris is the largest national research center for astronomy. About 30% of all French astronomers are working in its five laboratories and its institute. Situated on the Paris, Meudon and Nançay campuses, they are all associated with the CNRS and, in many cases, with the major scientific universities in the Paris area. The research done at the Paris observatory covers all the fields of contemporary astronomy and astrophysics.
organization_url	.....	http://www.obspm.fr

(1) This `ivo-id` is that of your naming authority. If your institution is not registered you should put `ivo://<<authority_name>>/org` (see Tutorial Part 1).
(2) May be different from the `maintainer_email`. Contact Name is the Data Center contact person, whereas the Creator Name is the contact for this specific server.
(3) The logo must have the following maximum dimensions: width = 120px and height = 60px.
(4) This date must be formatted in ISO-8901, see the example caution on format.

2. DaCHS Registry Configuration

The Registry is the Information System of the Virtual Observatory (the *yellow pages* where all the services are registered). We describe a way to register your "authority ID" (description of the authority managing your resources) and the services provided by DaCHS. The procedure described here (initial metadata declaration and RofR) only needs to be done once. The registration of data services/collections is described below.

First you need to create an identifier for your naming authority ID (`ivo://authority_name`)

Then open the configuration file:

```
sudo pico /var/gavo/etc/defaultmeta.txt
```

...and edit it with the following lines (see Tutorial Part 1 for some keywords):

```
publisher: <<authority_name>>
publisherID: <<authority-ivoid>>
contact.name: <<contact_name>>
contact.address: <<contact_address>>
contact.email: <<contact_email>>
contact.telephone: <<contact_telephone>>
creator.name: <<creator_name>>
creator.logo: <<logo_url>>
authority.creationDate: <<authority_creationDate>>
authority.title: <<authority_title>>
authority.shortName: <<authority_shortname>>
authority.managingOrg: <<my_datacenter-ivoid>>
authority.referenceURL: <<authority_url>>
authority.description: <<authority_description>>
organization.title: <<organization_title>>
organization.referenceURL: <<organization_url>>
organization.description: <<organization_description>>
site.description:<<description of your site (data centre)>>
```

Then you have to update the `userconfig.rd` file in the same directory. This file does not exist yet on a fresh installation, so you have to create it. You first need to switch to the root user, and then create the file:

```
cd /var/gavo/etc/
su #root password is asked
gavo admin dumpDF //userconfig > userconfig.rd
exit
```

Then open the `registry-interfacerecords` section of the `userconfig.rd` file for editing

```
sudo pico userconfig.rd
```

And in the file, remove the `{UNCONFIGURED}` text, so that the content is:

```
[...]
<!-- ================================ Registry Interface ============ -->
        <STREAM id="registry-interfacerecords">
                <doc>
                        These are services and registry records for the registry interface
                        of this service.
                        Even if together with defaultmeta, this will just work, keep
                        these elements in your etc/userconfig.rd.
                        The metaString macros in here generally point into defaultmeta.
                        Replace them with whatever actual text applies to your site;  we
                        will work to do away with defaultmeta.txt.
                </doc>
                <resRec id="authority"> <!-- ivo id of the authority is overridden in
                        nonservice.NonServiceResource -->
                        <meta>
                                creationDate: \\metaString{authority.
creationDate}
                                title: \\metaString{authority.title}
                                shortName: \\metaString{authority.shortName}
                                subject: Authority
                                managingOrg: \\metaString{authority.
managingOrg}
                                referenceURL: \\metaString{authority.
referenceURL}
                                identifier: ivo://\getConfig{ivoa}{authority}
                                sets: ivo_managed
                        </meta>
                        <meta name="description">
                                \\metaString{authority.description}
                        </meta>
                </resRec>

[...]
```

Once this is done, we can publish your registry interface, by issuing the following command:

```
dachs pub //services
```

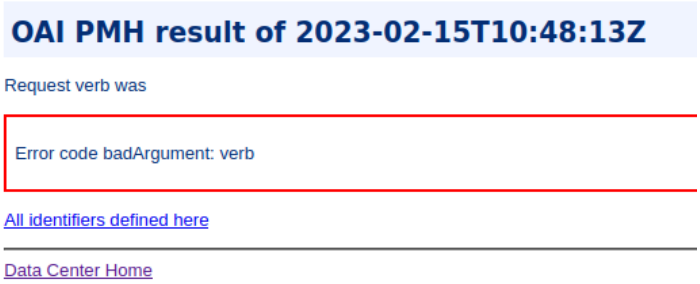
You will probably see warning to the effect of

*** WARNING: Not reloading services RD on server since no admin password available*

This is a reminder that to make your changes active, you have to restart the server (**sudo service dachs restart**). You can configure DaCHS to reload the changed resource automatically by setting an admin password http://docs.g-vo.org/DaCHS/tutorial.html#the-admin-password

This will declare your publishing registry, you can verify the content using http://<<dachs-server-address>>/oai.xml

Since this is speaking a protocol (OAI-PMH) and gets it wrong, there is an error message:



But if you click “All identifiers defined here“, you will see links to the records you will be publishing:

OAI PMH result of 2023-02-15T10:57:21Z

Request verb was ListIdentifiers

- ivo://padc.obspm.helio/tap
- ivo://padc.obspm.helio/hfc1ar/q/epn_core
- ivo://padc.obspm.helio/bass2000/q/epn_core
- ~~ivo://padc.obspm.helio/hfc1t3/q/collection~~
- ivo://padc.obspm.helio/__system__/services/registry
- ivo://padc.obspm.helio
- ivo://padc.obspm.helio/hfc1t3/q/epn_core

All identifiers defined here

Data Center Home

At this stage, you will see a lot fewer links on your band-new publishing registry; what you should see at this point, however, are your equivalents of ivo://padc.obspm.helio – that is your claim of the authority – and the ugly identifier ending in services/registry – that is your publishing registry itself.

Read http://docs.g-vo.org/DaCHS/opguide.html#defining-basic-metadata for more details

3. Registering the DaCHS server in Registry of Registry

Go there: http://rofr.ivoa.net/regvalidate/

Enter the URL: http://<<dachs-server-address>>/oai.xml

First step on registry validation result on failed tests have to be None Found

Then a "Step 2: Register your Registry" will be proposed on the web interface with a button Register

Once your registry is inside the list of publishing registries, you have to wait at least one day for the information to be harvested and to see your service available in clients such as TOPCAT

4. Publish your TAP service data collections

Each EPN-TAP table you define is a “data collection“ to the VO; it is such data collections that people will discover when they look for data relevant to them in the VO Registry. To make this work, you need to inform the Registry about your data collections. Each of these data collection will refer to the TAP service, which is what clients actually talk with.

Hence, first publish your TAP service (this only needs to happen once):

```
dachs pub //tap
```

The record for the TAP service should now be visible from http://<<dachs-server-address>>/oai.xml as ivo://<your-authority>/tap.

Each of your Vespa service need to be published to be visible in Topcat, Aladin, Taphandle ....
For each service you may have in the q.rd file, into the <table> tag

```
<publish sets="local,ivo_managed"/>
```

from the directory where the q.rd is use the following command

```
dachs pub q
dachs serve restart
```

each collection will appear at http://<<dachs-server-address>>/oai.xml

5. Unregistering a service

In case you build a test service and you register it by mistake, we describe how to set this service as inactive so it will no longer be visible in the registry.

In the q.rd file defining your service, remove the line

```
<publish sets="local,ivo_managed"/>
```

make under user `dachsroot` the command

```
dachs pub q.rd
dachs serve restart
```

to be sure that the declaration have been removed go to

```
http://<<dachs-server-address>>/oai.xml/verb=ListIdentifiers&metadataPrefix=ivo_vor
```

Your collection will appear in strike characters.

6. Assessing your dataset

Depending on your dataset (just a series of files, number for data processing levels, presence of metadata, format of data, existing relational database...) various processing may be required. In order to prepare the sharing with EPN-TAP, here is a check list of what you need:

- Public access to the data files you want to share: either on your server, or on a remote server with a publicly accessible URL (e.g., at NASA/PDS or ESA/PSA).
- Metadata (relevant for EPNcore) for each file
- Preview image for each file

Select a suitable data format if the current format is recommended by VESPA.

To be Continued...