

# Registering your VESPA EPN-TAP Server



## Work in Progress

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



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**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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# 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              | .....<br>.....  | voparis-test  |
| my_domain                  | .....<br>.....  | obspm.fr  |
| maintainer_email           | .....<br>.....  | vo.paris@obspm.fr   |
| authority-ivoid (1)        | .....<br>.....  | ivo://vopdc.obspm   |
| creator_name (2)           | .....<br>.....  | Pierre Le Sidaner   |
| logo_url (3)               | .....<br>.....  | http://padc.obspm.fr/img/logo/padc.png  |
| authority_creationDate (4) | .....<br>.....  | 2014-06-03T08:59:09.697573Z   |
| authority_title            | .....<br>.....  | Paris Astronomical Data Centre  |
| authority_shortcode        | .....<br>.....  | PADC  |
| authority_description      | .....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>..... | 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              | .....<br>.....  | http://padc.obspm.fr  |
| organization_title         | .....<br>.....  | Observatoire de Paris   |
| organization_description   | .....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>..... | 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           | .....<br>.....  | 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. This operation shall be done only once. New services will be registered automatically.

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>
    <resRec id="manager"> <!-- the organisation running this registry -->
      <meta>
        resType: organization
        creationDate: \\metaString{authority.
creationDate}
        title: \\metaString{organization.title}
        subject: Organization
        referenceURL: \\metaString{organization.
referenceURL}
        identifier: ivo://\getConfig{ivoa}{authority}/org
        sets: ivo_managed
      </meta>
      <meta name="description">
        \\metaString{organization.description}
      </meta>
    </resRec>
  </STREAM>
[...]
```

In case your organisation is already registered, you need to remove the `<resRec id="manager"> ... </resRec>` element.

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

```
dachs pub //services
```

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

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

In the IVOA registry the right way to declare TAP is to have a TAP service registered and all the data collections registered separately but linked to this TAP service. DaCHS will make the job for you.

To publish the TAP service

```
dachs pub //tap
```

The service TAP will be visible from `http://<<dachs-server-address>>/oai.xml`

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...**