

# VizieR Solar System catalogues

The project is to distribute VizieR catalogues pertaining to the Solar System and exoplanets as an EPN-TAP service, so as to make them visible during a thematic search on the VESPA portal.

This project is a milestone in EPN-2024 (MS25, July 2021).

## Difficulties include:

- VizieR has a TAP interface but relies on the Vollt server, which is not the reference server in VESPA (DaCHS). As Vollt support of ADQL is different from DaCHS', this requires adapting both the portal and the server.
- VizieR also handles a different directory tree. Although the VizieR TAP server presents a specific page for the EPN-TAP service (B/planets/epn\_core), this also needs to be supported in the VESPA portal.
- Ingestion of new catalogues in VizieR relies on parsing associated README files provided by authors.
- Level of description of the catalogues of interest is non-uniform and variable. In some cases, they only contain observation tables; at best the data listed in such tables are available as text files in a sub-directory, sometimes but not always with a fits-formatting script. Of course there is no fixed RA-DEC location, except for exoplanets.

## Still to do:

- Fixes on VizieR side, in particular equivalent of DaCHS' lower function (cds\_lower)
- Related adaptations on the portal: cds\_lower syntax
- support for value lists in this case (eg, target\_class), on portal side
- Support for column ordering in portal
- Check consistency with EPN-TAP2 doc, in particular UCDS for VOTable output (PR document, July 2021)
- Declare in local VESPA registry
- Register VizieR\_planets in IVOA registry
- Improve catalogue description according to EPNCore rules - target\_class at least should be identified for publication.

## Data exchange:

Updates are performed by editing / importing the CSV file of the service:

[https://voparis-gitlab.obspm.fr/vespa/vollt/services/cds.vizier/b\\_planets\\_epn\\_core](https://voparis-gitlab.obspm.fr/vespa/vollt/services/cds.vizier/b_planets_epn_core)

The current CSV file in VizieR can be retrieved as:

[http://tapvizier.u-strasbg.fr/TAPVizieR/tap/sync?request=doQuery&lang=adql&format=csv&query=select+\\*+from%22B/planets/epn\\_core%22](http://tapvizier.u-strasbg.fr/TAPVizieR/tap/sync?request=doQuery&lang=adql&format=csv&query=select+*+from%22B/planets/epn_core%22)

## Docs:

MS25 document available here: [MS25 - VizieR catalogues interface, study report](#)