

# Standardization of Nomenclature

The recent developments on planetary science interoperability showed that a standardization of naming conventions was required for Observatories (including ground based facilities and space mission), Instruments (types and names) as well as Reference Frames and Coordinate Systems used to describe planetary observations.

## Observation Facilities

*Facility* is defined as being the host instruments. It is generally a telescope or a spacecraft. In VESPA EPN-TAP, IVOA ObsTAP and PDAP, as well and in the PDS4 data dictionary, this concept is named "instrument\_host\_name" or "facility", which covers the concept presented here. For efficient data mining a common naming convention is needed.

There are lists of names in various databases. Some lists are describing spacecraft or telescopes, some others are providing names of observatories, rather than telescopes. For spacecraft names, the main lists and databases are:

- [NASA/GSFC NSSDC](#) (National Space Science Data Center at NASA/Goddard)
- [SANA/COSPAR Spacecraft List](#) (COSPAR registry of spacecraft IDs)
- [NASA/NAIF](#) (NASA SPICE toolkit, including spacecraft and ground facility IDs)
- [NASA/PDS](#) (NASA Planetary Data System)
- [SPASE/SMWG](#) (SPASE Metadata Working Group registry)

For ground observatories, there are 5 lists identified by the team now:

- [IAU/MPC](#) (Minor Planet Center Observatory list, dedicated to minor planet occultation studies)
- [AAS](#) (American Astrophysical Society Facility Keyword list)
- [Harvard/ADS](#) (NASA Astrophysical Data System)
- [IRAF](#) (Image Reduction and Analysis Facility)
- [XEphem](#) (Open source software for astronomy ephemeris)
- [WISeRep](#) (Weizmann Interactive Supernova Data Repository)

The VESPA group has developed a script to merge the identified list. The goal of this task is to build a list of alternate names for all telescopes and spacecraft. Other applications, like a [name resolver](#), a searchable database with instruments and capabilities..., can then be built on top of this alias list.

The team workspace is available [on the EPN-VESPA/FacilityList repository \(GitHub.com\)](#)

## Reference Frames and Coordinate Systems

- Preliminary document listing reference frames and coordinate systems: [Planetary Coordinate Systems](#)
- Github Repository: [epn-vespa/SolarSystemRefFrames](#)