

Instructions for using Wikidata

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1. Overview of Wikidata: A Collaborative Hub for Structured Knowledge

Wikidata is a collaborative knowledge base that serves as a central hub for structured data on diverse topics. It allows users to contribute and edit information, creating a comprehensive and interconnected database. Wikidata is particularly valuable for its role in supporting projects across the Wikimedia Foundation, providing a shared resource for information retrieval and enrichment.


2. Presentation of a Wikidata item

The Wikidata repository is mainly composed of elements, each of which has a label, a description, and a number of aliases. The elements are uniquely identified by `Q` followed by a number.

Statements describe the detailed characteristics of an item and include a property and a value. Properties in Wikidata are defined by a P followed by a number (e.g., P31 corresponds to instance of).

Example for Meudon Observatory :

Meudon Observatory (Q13104410) ...

astronomical observatory **Description**  edit

Observatoire de Paris | Observatoire de Paris-Meudon **Aliases**


► **Recoin:** Most relevant properties which are absent

Language

Language	Label	Description	Also known as
English	Meudon Observatory	astronomical observatory	Observatoire de Paris Observatoire de Paris-...
French	Observatoire de Meudon	observatoire astronomique	Observatoire de Paris-...
Spanish	Observatorio de Meudon	No description defined	Observatoire de Paris Observatoire de Paris-...
German	No label defined	No description defined	

All entered languages

Statements


instance of **Property** **observatory** **Value**  edit

Opened reference →

▼ 1 reference

reference URL	
https://www.observatoiredeparis.psl.eu/-observatoire-de-paris-.html	

+ add reference

Wikimedia duplicated page ...  edit

of Paris Observatory, PSL University ...


▼ 0 references

+ add reference

+ add value

We can add a property, for example, to specify the geographical coordinate with values for longitude and latitude.

coordinate location



500 m Wikimedia maps | Map data © OpenStreet...

48°48'18.000"N, 2°13'50.999"E



▼ 1 reference

reference URL	https://www.observatoiredeparis.psl.eu/acces-au-site-de-meudon-de-l.html
---------------	---

Properties can also refer to databases used by libraries and archives. These are Identifiers .

Identifiers

VIAF ID



 132241421  edit

▼ 0 references

+ add reference

+ add value

ISNI




 0000 0001 2160 2666  edit

▼ 0 references

+ add reference

+ add value

Minor Planet Center
observatory code

 005   edit

▼ 0 references

+ add reference

3. Extraction datas from Wikidata

3.1 Query SPARQL on Wikidata Query Services

To generate lists on Wikidata, we use SPARQL queries on Wikidata Query Service

(<https://query.wikidata.org>)

SPARQL is a language for querying knowledge bases.

A triplet can be read as a sentence(ending with a period), with a subject, a predicate and an object.

SELECT lists the variables that we want to retrieve.

WHERE contain restrictions on these variables, mostly in the form of triplets.

In the example below: we search to determine all "items" whose instance of (P31) is a spacecraft.










3.2 First query

```
SELECT ?item ?itemLabel
WHERE
{
  ?item wdt:P31 wd:Q40218 . #spacecraft
  SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LAN
}
GROUP BY ?item ?itemLabel
```

For more information:

https://www.wikidata.org/wiki/Wikidata:SPARQL_tutorial/fr

(https://www.wikidata.org/wiki/Wikidata:SPARQL_tutorial/fr)

item	itemLabel
 wd:Q113149606	1965-027E
 wd:Q112795279	1971-054A
 wd:Q30742734	ANGELS
 wd:Q111860822	Apollo 10 SIVB
 wd:Q111912932	Apollo 11 SIVB
 wd:Q111912933	Apollo 12 SIVB
 wd:Q111912934	Apollo 13 SIVB
 wd:Q111912936	Apollo 14 SIVB
 wd:Q111912937	Apollo 15 SIVB

The results are available in the form of table, with as the input which Wikidata identifier and label which corresponds to the name given in Wikidata.

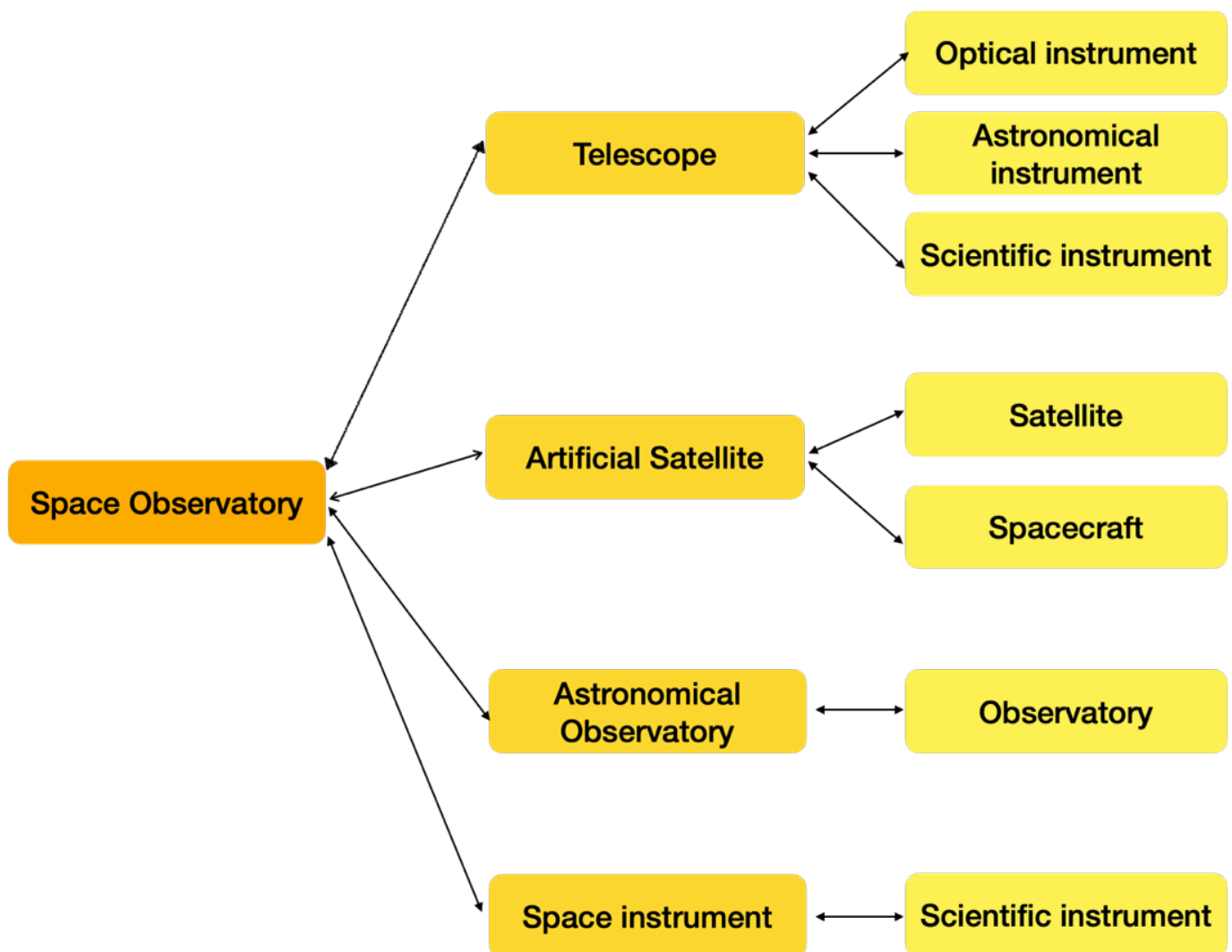
By Exploring all the elements of each list in Wikidata, we notice that the relationships (predicate) between the subject and object are variable. A non-exhaustive list of predicates used in wikidata for space mission has been established :

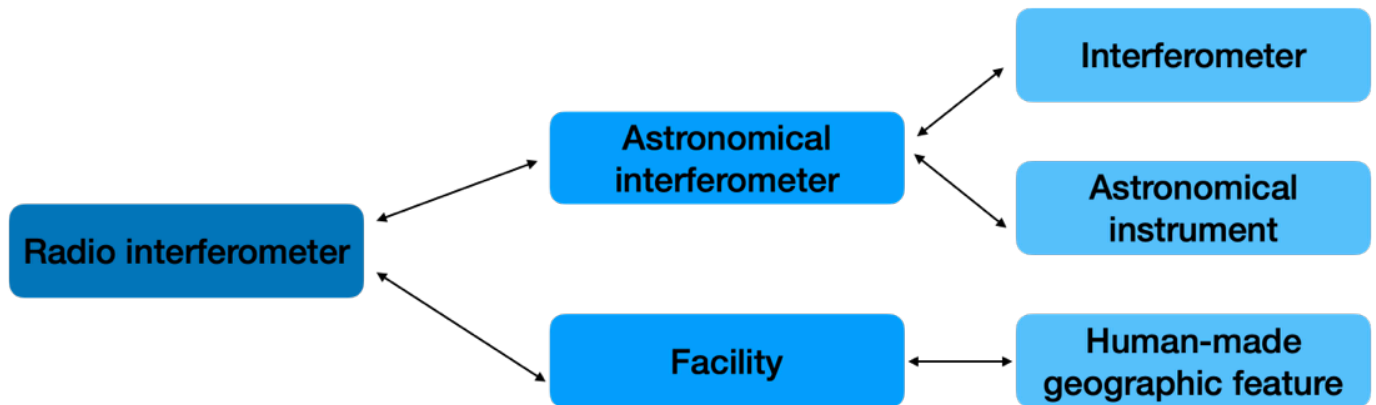
- Space observatory
- Spacecraft
- Astronomical observatory
- Artificial satellite
- Launch vehicle
- Radio interferometer
- Planetary probe
- Orbiter
- Space probe

- Human spaceflight
- Space mission
- Spaceflight
- Observatory
- Optical telescope
- Earth observation satellite
- Lander
- Cubesat
- ...

Each predicate has a parent and/or a children.

Here an exemple of relationship that we can find between predicates in Wikidata





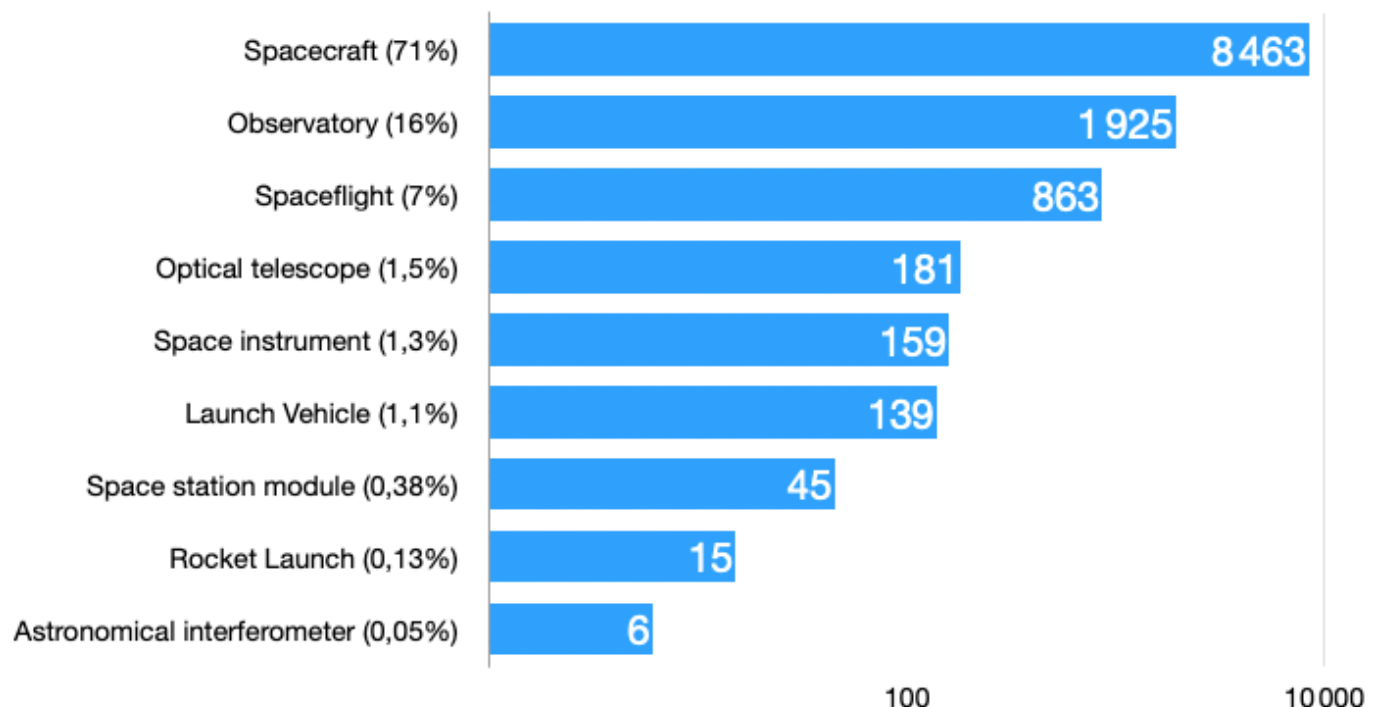
Here we observe that a *Space Observatory* is both a *Telescope*, an *Artificial satellite*, an *Astronomical observatory* and a *Space instrument*.

Each of them also has a child.

Most of the predicates are often related to a *Spacecraft*.

After streamlining the list of all predicates, allowing us to cover a wider range to obtain the most important number of elements, we obtain a much smaller list of predicates.

Here is a graph showing the percentage of predicates that are either a spacecraft or an observatory ...



This list of predicates allows us to simplify the query. We add to the initial query:


```
?item wdt:P31/wdt:P279* wd:Q40218 . #spacecraft
```

Which means that we will search for all items whose nature of the element and its subclasses are a spacecraft.

3.3 Exemple de requête complète

Here is the current working query after streamlining it:

```

PREFIX schema: <http://schema.org/>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX wikibase: <http://wikiba.se/ontology#>
PREFIX bd: <http://www.bigdata.com/rdf#>
SELECT
    ?item
    ?itemLabel
    (GROUP_CONCAT(DISTINCT ?Unified_Astro_Thesaurus_ID; SEPARATOR="|") AS
    (GROUP_CONCAT(DISTINCT ?COSPAR_ID; SEPARATOR="|") AS ?all_COSPAR_ID)
    (GROUP_CONCAT(DISTINCT ?NAIF_ID; SEPARATOR="|") AS ?all_NAIF_ID)
    (GROUP_CONCAT(DISTINCT ?NSSDCA_ID; SEPARATOR="|") AS ?all_NSSDCA_ID)
    (GROUP_CONCAT(DISTINCT ?Minor_Planet_Center_observatory_ID; SEPARATOR=
    (GROUP_CONCAT(DISTINCT ?alias; SEPARATOR="|") AS ?aliases)

WHERE
{
    {?item wdt:P31/wdt:P279* wd:Q40218 .} # spacecraft
    UNION {?item wdt:P31/wdt:P279* wd:Q62832 .} # observatory
    UNION {?item wdt:P31/wdt:P279* wd:Q5916 .} # spaceflight
    UNION {?item wdt:P31 wd:Q35273 .} # optical telescope
    UNION {?item wdt:P31/wdt:P279* wd:Q697175 .} # Launch vehicle
    UNION {?item wdt:P31 wd:Q17004698 .} # astronomical interferometer
    UNION {?item wdt:P31 wd:Q18812508 .} # space station module
    UNION {?item wdt:P31 wd:Q100349043 .} # space instrument
    UNION {?item wdt:P31 wd:Q797476 .} # rocket launch

    OPTIONAL {?item wdt:P4466 ?Unified_Astro_Thesaurus_ID .}
    OPTIONAL {?item wdt:P247 ?COSPAR_ID .}
    OPTIONAL {?item wdt:P8913 ?NSSDCA_ID .}
    OPTIONAL {?item wdt:P2956 ?NAIF_ID .}
    OPTIONAL {?item wdt:P717 ?Minor_Planet_Center_observatory_ID .}
    OPTIONAL {?item skos:altLabel ?alias .}

    SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LAN
}
GROUP BY ?item ?itemLabel
ORDER BY ?item

```

We Download the results in .json format. The file is renamed
extract_wikidata.json in the WIKIDATA folder.

3.4 Time of execution and pagination of results

It is necessary to improve the process of retrieving results.

we can find our query under different languages by clicking on "code". Here we will use Python.

The screenshot shows the Wikidata Query Service interface. On the left, a SPARQL query is partially visible: `1 SELECT ?item`, `2 WHERE`, `3 {`, `4 ?item wd:P31 wd:Q40218 .`, `5 SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }`, `6 }`, `7 GROUP BY ?item`. The main panel displays the Python wrapper code for this query. The code includes comments for installing `sparqlwrapper` and the endpoint URL `https://query.wikidata.org/sparql`. It defines a `get_results` function that sets a user agent, creates a `SPARQLWrapper` object, sets the query and return format to JSON, and returns the results. The main execution block calls `get_results` and prints the results.

```

1 # pip install sparqlwrapper
2 # https://rdflib.github.io/sparqlwrapper/
3
4 import sys
5 from SPARQLWrapper import SPARQLWrapper, JSON
6
7 endpoint_url = "https://query.wikidata.org/sparql"
8
9 query = """SELECT ?item ?itemLabel
10 WHERE
11 {
12   ?item wdt:P31 wd:Q40218 .
13   SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en". }
14 }
15 GROUP BY ?item ?itemLabel"""
16
17
18 def get_results(endpoint_url, query):
19     user_agent = "WDQS-example Python/%s.%s" % (sys.version_info[0], sys.version_info[1])
20     # TODO adjust user agent; see https://w.wiki/CX6
21     sparql = SPARQLWrapper(endpoint_url, agent=user_agent)
22     sparql.setQuery(query)
23     sparql.setReturnFormat(JSON)
24     return sparql.query().convert()
25
26 results = get_results(endpoint_url, query)
27
28
29 for result in results["results"]["bindings"]:
30     print(result)
31

```

A time limit prevents the display of the query results. To avoid this constraint, we will "paginate" to display fewer elements. To do this, we will use `OFFSET{}` and `LIMIT{}` in the query, which will define the number of elements per page.

In the `query_wikidata.py` Python file, we find our query to retrieve all the results in the output file `extract_wikidata`.

[Verification of duplicates. In cases where there are duplicates, make sure that it is a duplicate and merge the two elements on Wikidata]

Item **Discussion** Read **Labels list** View history ☆ More ▾ Search Wikidata

Hubble Space Telescope (Q2513)...

NASA/ESA space telescope (launched 1990)
HST | Hubble

► **Recoin:** Most relevant properties which are absent

▼ **In more languages**
Configure

Language	Label	Description	Also known as
English	Hubble Space Telescope	NASA/ESA space telescope (launched 1990)	HST

Request deletion
Merge with...
Select for merging
Find redirects

Merge this entity

4. Comparison of lists

We will compare all the elements that we find in the lists (NSSDC, NAIF, IAU, etc.) with the elements that we have in the Wikidata list. The elements that we find in each list do not have the same identifiers and require us to build a script that is adaptable to the data (NAIF_ID, NSSDC_ID, pds_id).

The `compare_nomdelaliste_wiki.py` scripts are created for list comparison. To compare the lists, we will use the `fuzzywuzzy` library, which searches for string matches. A score is established, which determines if the match is satisfactory. A score of 100 defines a perfect match.

Les scripts `compare_nomdelaliste_wiki.py` sont créés pour la comparaison des listes.

Pour comparer les listes nous nous aiderons de la librairie `fuzzywuzzy` qui procède à la recherche de correspondances de chaînes de caractères. Un score est établi et permet de déterminer si la correspondance est satisfaisante. Un score de 100 définit une correspondance parfaitement égale.

The result of the Wikidata query includes more than 13,000 elements, and the comparison process is very slow (about 120 minutes). To improve the program's execution time, we will use the multiprocessing module. It involves parallelizing processes on 4 cores, significantly reducing the script's execution time (30 minutes).

Here is an example of a script for the NSSDC list:

```
from fuzzywuzzy import fuzz
from fuzzywuzzy import process
import json
import cProfile
from multiprocessing import Pool

def mon_scorer(q, c):
    r = fuzz.WRatio(q['Name'], c['itemLabel']) + fuzz.WRatio(q['Name'],
    if c['all_COSPAR_ID'] != "":
        if q['ID'] == c['all_COSPAR_ID']:
            r += 500
        else:
            r -= 100
    if c['all_NSSDCA_ID'] != "":
        if q['ID'] == c['all_NSSDCA_ID']:
            r += 500
        else:
            r -= 100
    return r

def dummy_proc(x):
    return x
```

Here, we will compare all the "Name" in the NSSDC list with the "itemLabel" and "alias" in the Wikidata list. We will also search for a match between the identifiers in the NSSDC list and those in Wikidata, if they exist. The COSPAR_ID and NSSDCA_ID are mostly identical (except for spacecraft that were not launched or whose mission failed, in which case only the NSSDCA_ID is present). The results will appear in the file results.json.

4.1 Results of comparison

The results are in the file results.json

An example of results :

```
{ "[1/1183]{ 'Name': '1962 Lambda 1', 'ID': '1962-011A' }": [ ( { 'item': 'ht
1116 : { 'item': 'http://www.wikidata.org/entity/Q9207773', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q1681656', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q3200441', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q64691193', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q847714', 'itemLabel':
{ "[2/1183]{ 'Name': '1962 Phi 1', 'ID': '1962-021A' }": [ ( { 'item': 'http:
1110 : { 'item': 'http://www.wikidata.org/entity/Q9196224', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q1681656', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q1921511', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q56042842', 'itemLabel'
172 : { 'item': 'http://www.wikidata.org/entity/Q605607', 'itemLabel':
```

The results are sorted according to the score. In the case of the NSSDC list, if the score is above 400, the comparison is a perfect match, and all results will appear in the `tres_certain` file. If the score is below 400, then the results will appear in the `non_trouve` file.

4.2 Results analysis

4.2.1 Verification of the found elements

Firstly, we verify if the results in the file `tres_certain` are coherent.

4.2.2 Verification of the unfound elements

We perform a quick search to determine the reasons why the elements are not found in the wikidata list.

Several cases may occur:

- The entry does not exist, so we need to create a new item in wikidata.
- The element exists on wikidata but does not appear in the query result. The ID or name is missing (add it to wikidata).

Before creating a new entry on wikidata, it is imperative to check if the element does not already exist or if it has another name.

We will start by querying the Wikidata knowledge base. For example, we will write a query that lists all the elements that have an NSSDCA identifier.

```

SELECT ?item ?itemLabel ?NSSDCA_ID
WHERE {
  ?item wdt:P8913 ?NSSDCA_ID
  SERVICE wikibase:label { bd:serviceParam wikibase:language "[AUTO_LAN
}
GROUP BY ?item ?NSSDCA_ID ?itemLabel

```

This way, we can check if the identifier already exists. Several websites where missions are listed can also be used to find all space missions.

Here are some examples:

<https://nssdc.gsfc.nasa.gov/planetary/chronology.html>

(<https://nssdc.gsfc.nasa.gov/planetary/chronology.html>)

<https://ofrohn.github.io/seh-doc/list-missions.html> (<https://ofrohn.github.io/seh-doc/list-missions.html>)

https://en.wikipedia.org/wiki/List_of_observatory_codes

(https://en.wikipedia.org/wiki/List_of_observatory_codes)

4.3 Adding on Wikidata base

4.3.1 Adding manually elements to wikidata

To add elements to Wikidata, it is necessary to create an account. This facilitates exchanges with wikidata administrators and contributors. Several means can be used to contact wikidata administrators on the Wikimedia France website:

<https://www.wikimedia.fr/contact-public/> (<https://www.wikimedia.fr/contact-public/>)

In particular, on the Wikimedia France community Discord server, a wikidata discussion thread allows discussion of project creation, SPARQL query construction, error reporting, and more.

4.3.1.1 Creating a new wikidata entry

Create a new Item

Please make sure that the item you want to create complies with our [notability policy](#) and that [it doesn't already exist](#).

If you want to create an item about a [living person](#), be mindful of their privacy.

We appreciate it if you create a [label](#) and a [description](#) for all of your new items.

The first letter of your label should only be capitalized if it is a [proper noun \(Q147276\)](#), and your description should *not* be phrased as a sentence.

To create a new lexeme ([read here first to learn how a lexeme is different from an item](#)), please use [Special:NewLexeme](#).

By clicking "Create", you agree to the [terms of use](#), and you irrevocably agree to release your contribution under the [Creative Commons CC0 License](#).

Create a new Item

Language:

en

Label:

observatory Driesen

Description:

astronomical observatory

Aliases, pipe-separated:

enter some aliases in English

Create

When creating a new item, English is preferred. When searching on wikidata, the result found will be what is listed in the English label.

Driesen observatory (Q113950890)...

astronomical observatory

 edit

[Recoin: Most relevant properties which are absent](#)

[In more languages](#)

[Configure](#)

Language	Label	Description	Also known as
English	Driesen observatory	astronomical observatory	
French	No label defined	No description defined	
Spanish	No label defined	No description defined	
German	No label defined	No description defined	

Statements

[+ add statement](#)

Once created, we can edit the item using the "edit" button to add aliases or other labels in other languages.

We can also add "Statements". For example, Driesen Observatory is an instance of an astronomical observatory.

Statements

instance of ✓ publish ✕ cancel ?

+ add qualifier

▼ 0 references

+ add reference

We can add geographic coordinates, images, identifiers, and any other known information about the object.

It is advisable to add references for the source of the collected information.

4.3.1.2 Adding an ID

mino ✓ publish ✕ cancel ?

- Minor Planet Center body ID**
identifier for an astronomical body in the Minor Planet Center database
- minor planet group**
is in grouping of minor planets according to similar orbital characteristics
- MLB.com player ID (Minor League Baseball ID)**
identifier for a Major League Baseball player
- Minor Planet Center observatory code**
identifier for an astronomical observatory assigned by the Minor Planet Center
- academic minor (minor)**
minor someone studied at college/university
- less than (minore di)**
instances of the item have a lesser value than corresponding instances of the object, for the given measure

4.3.2 Bulk add/remove tool

4.3.2.1 Quickstatements

QuickStatements is a tool that allows modification of Wikidata items through a set of text commands. The tool can add and remove statements, labels, descriptions, and aliases; as well as adding statements with optional qualifiers and sources. The command sequence can be entered in the import window or created in a spreadsheet or text editor, then pasted. To add a label in a specific language to an item, use

Adding a Label

To add a label in a specific language to an item, use `Lxx` instead of a property, with `xx` as the language code.

Example : Q2513 TAB Len TAB **"Hubble Space Telescope"**

Meaning: add the label "Hubble Space Telescope" in English(Q2513)

Adding an Alias

To add an alias in a specific language to an item, use Axx

Example : Q2513 TAB Afr TAB **"t lescope spatial Hubble"**

Meaning: Add the French alias "t lescope spatial Hubble" to Hubble Space Telescope (Q2513).

Several aliases can be added separated by the "|" character.

Example : Q2513 TAB Afr TAB **"t lescope spatial Hubble|HST|Hubble"**

Adding a description

To add a description in a specific language to an item, use Dxx

Example : Q2513 TAB Den TAB **"NASA/ESA space telescope (launched 1990)"**

Meaning: Add the English description "NASA/ESA space telescope (launched 1990)" to Hubble Space Telescope (Q2513).

To erase a label, description or site link, the value must be an empty string. The rest of the command works the same way.

Creating a new item

We can create a new item by inserting the word CREATE . To add a statement to a newly created item, use the word LAST

Let's take an example:

```
CREATE
LAST TAB Len TAB "Hubble Space Telescope"
LAST TAB Lfr TAB "t lescope spatial Hubble"
LAST TAB P31 TAB Q148578
LAST TAB P8913 TAB "1990-037B"
...
```

Meaning: We create an item whose label in English is "Hubble Space Telescope", the label in French is "téléscope spatial Hubble", the nature is a "space observatory" (Q148578) and whose NSSDCA identifier is "1990-037B".

For more information on the QuickStatements tool:

<https://www.wikidata.org/wiki/Help:QuickStatements>

(<https://www.wikidata.org/wiki/Help:QuickStatements>)



4.3.2.2 OpenRefine


OpenRefine is a tool allowing load, clean, compare, merge or reconcile unstructured datasets. Has a Wikidata plugin allowing for mass contribution

To download OpenRefine:

<https://openrefine.org/download> (<https://openrefine.org/download>)

Creating a new project

You can load your data file in several formats from local storage, using an URL, or from a server. Click on NEXT button.



OpenRefine *A power tool for working with messy data.*

Create project

Open project

Import project

Language settings



Version 3.7.1 [ecf4ff8]

Preferences

Help

About

Create a project by importing data. What kinds of data files can I import?

TSV, CSV, *SV, Excel (.xls and .xlsx), JSON, XML, RDF as XML, and Google Data documents are all supported. Support for other formats can be added with OpenRefine extensions.

Get data from

This Computer

Web Addresses (URLs)

Clipboard

Database

Google Data

Locate one or more files on your computer to upload:

Choisir les fichiers aucun fichi...sélectionné

Next »

If the format is incorrect when loading data, you can change it and select options that allow you to structure your data. Click on **Create project** button.

« start over

Configure Project name IAU MPC json Tags

Create project »

Configure Project name IAU MPC json Tags

« start over

Create project »

	_ - _ - ID	_ - _ - Name
1.	000	Greenwich
2.	001	Crowborough
3.	002	Rayleigh

Parse data as

JSON files

Line-based text files

CSV / TSV / separator-based files

Fixed-width field text files

PC-Axis text files

MARC files

JSON-LD files

Please specify a record path first. Update preview

☐ Disable auto preview

☒ Load at most 0 row(s) of data

☒ Preserve empty strings

☐ Trim leading & trailing whitespace from strings

☐ Attempt to parse cell text into numbers

☐ Store file source

☐ Store archive file

Once your data is loaded, you can reconcile it, meaning you can compare it to the Wikidata database.

2335 rows Extensions Wikibase ▼

Show as: **rows** records Show: 5 10 25 50 100 500 1000 rows
 « first < previous 1 next > last »

▼ All	▼ _ - _ - ID	▼ _ - _ - Name
☆	1.	
☆	2.	
☆	3.	
☆	4.	
☆	5.	
☆	6.	
☆	7.	
☆	8.	
☆	9.	
☆	10.	
☆	11.	010 Caussols
☆	12.	011 Wetzikon
☆	13.	012 Uccle
☆	14.	013 Leiden
☆	15.	014 Marseilles
☆	16.	015 Utrecht

Context menu for row 10:

- Facet
- Text filter
- Edit cells
- Edit column
- Transpose
- Sort...
- View
- Reconcile

Sub-menu for Reconcile:

- Start reconciling...
- Facets
- Actions
- Copy reconciliation data...
- Use values as identifiers...
- Add entity identifiers column...

Choose English to reconcile the datas

Reconcile column "_ - _ - ID"

Services

Wikidata reconci.link (en)

Wikidata reconci.link (fr)

Select an object for the reconciliation and click on start reconciling button.

Reconcile column "_ - _ - Name"

[Access service API](#)

Reconcile each cell to an entity of one of these types:

- ☐ commune of France
Q484170
- ☐ big city
Q1549591
- ☐ astronomical observatory
Q1254933
- ☐ town
Q3957
- ☐ scholarly article
Q13442814
- ☐ asteroid
Q3863
- ☐ civil parish
Q1115575
- ☐ college town
Q1187811
- ☐ human
Q5

Also use relevant details from other columns:

Column Include? As property
_ - _ - ID ☒

Select an item from the list:

- Minor Planet Center body ID** P5736
identifier for an astronomical body in the Minor Planet Center database
- minor planet group** P196
is in grouping of minor planets according to similar orbital characteristics
- Minor Planet Center observatory code** P717
identifier for an astronomical observatory assigned by the Minor Planet Center

☒ Reconcile against type:

☐ Reconcile against no particular type

☒ Auto-match candidates with high confidence

Maximum number of candidates to return

Reconciliation can take time depending on the amount of data.

OpenRefine IAU MPC json [Permalink](#)

Reconcile cells in column "_ - _ - Name" to type Q62832
2% complete [Cancel](#)

Facet / Filter [Undo / Redo](#) 0 / 0

2335 rows

Show as: **rows** records Show: 5 10 25 50 100 500 1000 rows

Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?
[Watch these screencasts](#)

		_ - _ - ID	_ - _ - Name
1.	000	Greenwich	
2.	001	Crowborough	
3.	002	Rayleigh	
4.	003	Montpellier	
5.	004	Toulouse	
6.	005	Meudon	
7.	006	Fabra Observatory, Barcelona	
8.	007	Paris	
9.	008	Algiers-Bouzareah	

Once the reconciliation is complete, we notice that some elements have been reconciled while others have not.

2335 rows				
Show as: rows records		Show: 5 10 25 50 100 500 1000 rows		
<input type="checkbox"/> All	<input type="checkbox"/> _ - _ - ID	<input type="checkbox"/> _ - _ - Name		
		1.	000	Royal Observatory Choose new match
		2.	001	Isaac Roberts' Observatory Choose new match
		3.	002	Observatory Raleigh Choose new match
		4.	003	Tour de la Babotte Choose new match
		5.	004	Toulouse Observatory Choose new match
		6.	005	Meudon Observatory Choose new match
		7.	006	Fabra Observatory Choose new match
		8.	007	Paris Observatory, PSL University Choose new match
		9.	008	Center of Research in Astronomy, Astrophysics and Geophysics Choose new match
		10.	009	Sternwarte Uecht Choose new match

We can use facets to select the unreconciled elements and associate them with an item on Wikidata or not.

2335 rows

Extensions Wikibase

Show as: rows records Show: 5 10 25 50 100 500 1000 rows « first « previous 1 next » last »

All	ID	Name
1.	000	
2.	001	
3.	002	
4.	003	
5.	004	
6.	005	
7.	006	
8.	007	Paris Observatory, PSL U
9.	008	Center of Research in As
10.	009	Sternwarte Uecht

- Facet
- Text filter
- Edit cells
- Edit column
- Transpose
- Sort...
- View
- Reconcile
 - Start reconciling...
 - Facets
 - By judgment
 - Actions
 - Judgment action type
 - Judgment action timestamp
 - Copy reconciliation data...
 - Use values as identifiers...
 - Add entity identifiers column...

- Best candidate's score
- Best candidate's type match
- Best candidate's name match
- Best candidate's name edit distance
- Best candidate's name word similarity
- Best candidate's types

OpenRefine IAU MPC json Permal

Facet / Filter Undo / Redo 2 / 2

Refresh Reset all Remove all

[-] - Name: judgment change

2 choices Sort by: name count

matched 2282

none 53

Facet by choice counts

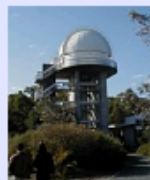
We can match the missing elements by selecting the item from the list of Wikidata reconciliation proposals.

52 matching rows (2335 total)				
Show as: rows records		Show: 5 10 25 50 100 500 1000 rows		
▼ All	▼ _ - _ - ID	▼ _ - _ - Name		
☆	245.	244	Geocentric Occultation Observation <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	270.	278	Peking, Transit of Venus site <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	279.	290	Mt. Graham-VATT <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	280.	291	LPL/Spacewatch II <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	298.	310	Minor Planet Center Test Code <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	304.	322	Perth Observatory, Bickley-MCT <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	305.	323	Perth Observatory, Bickley edit <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Perth Observatory (81) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	472.	500	Geocentric <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> geocentric model (50) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> ECEF (40) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> geocentric conjunction (<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Concentric spheres (29) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Barycentric celestial refe <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	533.	561	Piszkesteto Stn. (Konkoly) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	
☆	573.	601	Engelhardt Observatory, Dresden <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new item Search for match	

Match this cell

Match all identical cells

Cancel

[Perth Observatory](#) (Q525762)

astronomical observatory in Bickley, Western Australia

We can add columns based on reconciled values. This allows us to enrich our database by adding data recorded in Wikidata.

2282 matching rows (2335 total)

Show as: **rows** records Show: **5** 10 25 50 100 500 1000 rows

<input checked="" type="checkbox"/> All	<input type="checkbox"/> _ - _ - ID	<input type="checkbox"/> _ - _ - Name
<input type="checkbox"/> 1.	000	
<input type="checkbox"/> 2.	001	
<input type="checkbox"/> 3.	002	
<input type="checkbox"/> 4.	003	
<input type="checkbox"/> 5.	004	
<input type="checkbox"/> 6.	005	
<input type="checkbox"/> 7.	006	
<input type="checkbox"/> 8.	007	
<input type="checkbox"/> 9.	008	
<input type="checkbox"/> 10.	009	

Facet
Text filter
Edit cells
Edit column
Transpose
Sort...
View
Reconcile

Split into several columns...
Join columns...
Add column based on this column...
Add column by fetching URLs...
Add columns from reconciled values...
Rename this column...
Remove this column
Move column to beginning
Move column to end
Move column left
Move column right

Add columns from reconciled column _ - _ - Name

Add property

Preview

Reset

instance of|

Suggested properties

[architect](#)
[architectural style](#)
[chief executive officer](#)
[COAM structure ID](#)
[coordinate location](#)
[country](#)
[country](#)
[CTBUH Skyscraper Center building ID](#)
[founded by](#)
[has subsidiary](#)
[has use](#)
[headquarters location](#)
[ISNI](#)
[located in the administrative territorial entity](#)
[logo image](#)

_ - _ - Name	instance of remove configure
Royal Observatory	astronomical observatory
	tourist attraction
Isaac Roberts' Observatory	astronomical observatory
Observatory Raleigh	astronomical observatory
Tour de la Babotte	astronomical observatory
	tower
Toulouse Observatory	astronomical observatory
Meudon Observatory	astronomical observatory
Fabra Observatory	astronomical observatory
	double telescope
Paris Observatory, PSL University	grand établissement
	astronomical observatory
Center of Research in Astronomy, Astrophysics and Cosmology	astronomical observatory

						OK	Cancel
2282 matching rows (2490 total)							
Show as:		rows	records	Show: 5 10 25 50 100 500 1000 rows			
▼ All		▼ _ - _ - ID		▼ _ - _ - Name		▼ instance of	
☆	🗨	1.	000	Royal Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	3.	001	Isaac Roberts' Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	4.	002	Observatory Raleigh Choose new match		astronomical observatory Choose new match	
☆	🗨	5.	003	Tour de la Babotte Choose new match		astronomical observatory Choose new match	
☆	🗨	7.	004	Toulouse Observatory Choose new match	edit	astronomical observatory Choose new match	
☆	🗨	8.	005	Meudon Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	9.	006	Fabra Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	11.	007	Paris Observatory, PSL University Choose new match		grand établissement Choose new match	
☆	🗨	13.	008	Center of Research in Astronomy, Astrophysics and Geophysics Choose new match		astronomical observatory Choose new match	
☆	🗨	14.	009	Sternwarte Uecht Choose new match		astronomical observatory Choose new match	
☆	🗨	15.	010	Centre de recherches en géodynamique et astrométrie Choose new match		astronomical observatory Choose new match	
☆	🗨	16.	011	Sternwarte Wetzikon Choose new match		astronomical observatory Choose new match	
☆	🗨	17.	012	Royal Observatory of Belgium Choose new match		Federal Scientific Institute Choose new match	
☆	🗨	19.	013	Leiden Observatory Choose new match		university observatory Choose new match	
☆	🗨	20.	014	Marseille Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	21.	015	Utrecht Observatory Choose new match		museum Choose new match	
☆	🗨	23.	016	Besançon Astronomical Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	24.	017	Hoher List Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	25.	018	Düsseldorf-Bilk Observatory Choose new match		destroyed building or structure Choose new match	
☆	🗨	27.	019	Neuchâtel Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	28.	020	Nice Observatory Choose new match		astronomical observatory Choose new match	
☆	🗨	29.	021	Karlsruhe Observatory Choose new match		public observatory Choose new match	

4.3.2 Wikidata Gadgets

Gadgets are programs that can also help perform various tasks on Wikidata more easily and efficiently. They can be activated in the Preferences menu under the "Gadgets" section.

Some examples include:

- slurpInterwiki: Imports interwiki links from a Wikipedia project.
- Merge: This script adds a tool for merging entries.
- SitelinkCheck: Displays a form to check if a particular link is already used and gives the item identification number if it is.
- autoEdit: Automatically adds labels through existing interwiki links and descriptions through a customizable list.

4.3.4 Merging similar items on Wikidata

Multiple items that concern the same subject, concept, or object are merged. Merges can be done manually or automatically by moving interlanguage links and statements into one item and then redirecting the obsolete item(s).

We prefer automatic merges, despite the risk of errors during data transfer or modifying an item that is not exactly the same. For automatic merges, we will use the Merge gadget on Wikidata.



We access the Merge tool in the More tab. Simply enter the Q identifier. We will preferably keep the best-referenced Q, often the oldest.

Cancel	Merge Wizard	Merge
Merge with: <input type="text" value="Q..... "/>		
Append the following text to the auto-generated edit summary: <input type="text"/>		
<input checked="" type="checkbox"/> Always merge into the older entity (uncheck to merge into the "Merge with" entity)		
<input type="checkbox"/> Create a redirect		
<input type="checkbox"/> Remove merged entity from your watchlist (if watched)		
<input checked="" type="checkbox"/> Load merge destination on success		
Postpone		

The merged Q identifiers will not be assigned again, they will be redirected to the chosen Q identifier.

4.3.5 Adding erroneous information to Wikidata

It can happen inadvertently to introduce errors when enriching Wikidata's database (property, ID, duplication with another item...).

Wikidata has set up bots to verify if there are aberrations in the addition of a new item to their

If the error is isolated, it will be deleted. However, if it is recurring, it will be flagged to the contributor.

In this case, an administrator will contact the contributor by email. The latter will have to correct the erroneous information.

4.3.6 Wikidata robots

Contributors can have a robot to simplify and save time when adding items. To do this, a separate account must be created for it.

In general, it takes the contributor's name followed by `bot` .

Wikidata robots allow modifications to be made without human assistance. They can add interwiki links, labels, descriptions, and even create items.

Warning! Robots are extremely fast and can disrupt Wikidata's operation if poorly designed or used. The contributor is therefore responsible for their robot's contributions. In case of malfunction caused by a bot, it must be stopped by the contributor, otherwise it will be blocked by an administrator.

A request must be made to the administrators for approval and the robot status, detailing the tasks performed.