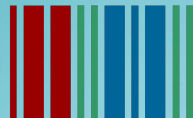


# Constraint-a-thon

[[User:Mike Peel]]

10 July 2022



WIKIDATA

DATA QUALITY  
DAYS 2022

# Overview

“Property constraints are rules on properties that specify how properties should be used.”

“Constraints are hints, not firm restrictions, and are meant as a help or guidance to the editor. They can have exceptions”

[https://www.wikidata.org/wiki/Help:Property\\_constraints\\_portal](https://www.wikidata.org/wiki/Help:Property_constraints_portal)

# Types of constraints

Single value	One Wikidata item shouldn't have two property values
Distinct value	Two Wikidata items should not have the same property value
Formatting	The property value should be formatted in a certain way
Inverse	Two Wikidata items should link to each other using a property pair
...	
Complex constraints	It's complex, see <a href="https://www.wikidata.org/wiki/Template:Complex_constraint">https://www.wikidata.org/wiki/Template:Complex_constraint</a>

# Stored in Wikidata property info

P131

Constraints

Constraint type

P2302

Constraint parameters as qualifiers

property constraint	conflicts-with constraint	instance of	0 references	
	property	human		
	item of property constraint	human		
	conflicts-with constraint	instance of	0 references	
	property	Wikimedia disambiguation page		
	item of property constraint	mandatory constraint		
	constraint status	mandatory constraint		
	conflicts-with constraint	instance of	0 references	
	property	Wikimedia category		
	item of property constraint	Wikimedia template		
		Wikimedia module		
		Wikimedia list article		
	item-requires-statement constraint	instance of	0 references	
	property	suggestion constraint		
	constraint status	suggestion constraint		
	item-requires-statement constraint	instance of	0 references	
	property	country		
	constraint status	suggestion constraint		
	value-type constraint	instance of	0 references	
	class	administrative territorial entity		
		fictional administrative territorial entity		
		fictional county		
		designation for an administrative territorial entity		
	relation	instance or subclass of		

# Constraint violations in Wikidata items

Q47616

P373

Constraint violation warning

Constraints violated

The screenshot displays the Wikidata interface for item Q47616. The 'Commons category' section is highlighted with a yellow callout box labeled 'P373'. It contains three entries: 'Incandescent light bulbs ...', 'Light bulbs ...', and 'Light bulb ...'. Each entry has an 'edit' button and a green checkmark icon. A yellow callout box labeled 'Constraint violation warning' points to the exclamation mark icon in the 'Light bulb ...' entry. A 'Potential issues' dialog box is open, showing two violations: 'single value constraint' (This property is generally expected to contain only a single value.) and 'Commons link constraint' (Commons link should exist.). A yellow callout box labeled 'Constraints violated' points to the dialog box. The 'topic's main category' section is also visible at the bottom.

Property	Value	Constraint	Action
Incandescent light bulbs ...	0 references		edit, add reference
Light bulbs ...	0 references		edit, add reference
Light bulb ...		single value constraint, Commons link constraint	edit, add reference, add value

# Constraint violation exceptions

P649

property constraint



single value constraint

exception to constraint

 edit



Cape Henry Light

University of Maine

Fort Monroe

Woodlawn

Harvard Square

Nevada Northern Railway Museum

Grand Circus Park Historic District

Newport Southbank Bridge

North Entrance Road Historic  
District

Oakleigh Garden Historic District

Perry's Victory and International  
Peace Memorial

Vizcaya Museum and Gardens













Hassel Island Historic District

Martin Luther King, Jr., National  
Historic Site

Chalker High School

# Require other properties to be set

P1700

property constraint	 type constraint  edit 
	class geographic location
	relation instance of
	<a href="#">▼ 0 references</a> <a href="#">+ add reference</a>
	<hr/>
	 item requires statement constraint  edit 
	property country
	item of property constraint Portugal
	Portuguese Empire
	group by country
	<a href="#">▼ 0 references</a> <a href="#">+ add reference</a>
	<hr/>
	 item requires statement constraint  edit 
	property located in the administrative territorial entity
	<a href="#">▼ 0 references</a> <a href="#">+ add reference</a>
	<hr/>
	 item requires statement constraint  edit 
	property coordinate location
	<a href="#">▼ 0 references</a> <a href="#">+ add reference</a>

# Constraint reports

Bot-updated pages at, e.g.:

[https://www.wikidata.org/wiki/Wikidata:Database\\_reports/Constraint\\_violations/P131](https://www.wikidata.org/wiki/Wikidata:Database_reports/Constraint_violations/P131)

[https://www.wikidata.org/wiki/Wikidata:Database\\_reports/Complex\\_constraint\\_violations/P131](https://www.wikidata.org/wiki/Wikidata:Database_reports/Complex_constraint_violations/P131)

Updated every few days. Can also run them using SPARQL to see latest results.



# Editing tasks

Identify new constraints to add to properties

Recently-created authority control IDs?

Use constraints to fix Wikidata content

e.g., P301/P910 pairs

Useful links:

[https://www.wikidata.org/wiki/Help:Property\\_constraints\\_portal](https://www.wikidata.org/wiki/Help:Property_constraints_portal)

<https://www.wikidata.org/wiki/Wikidata:Vandalism> (needs work!)

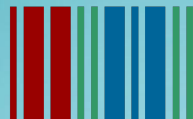
[https://www.wikidata.org/wiki/Wikidata:2020\\_report\\_on\\_Property\\_constraints](https://www.wikidata.org/wiki/Wikidata:2020_report_on_Property_constraints)

# Thanks for your attention!

[[User:Mike Peel]]  
@mike\_peel

## Credits

Some slides reused from last year's presentation with [[User:Abián]]



**WIKIDATA**  
DATA QUALITY  
DAYS 2022