UNLOCODE, GitHub and JSON-LD

Advisory Group Meeting 28th June 2022

UNLOCODE

UNLOCODES are an **essential** code list for movement of goods globally, they are used in almost every **EDIFACT, ANSI and API** related to transportation and supply chains. Industry **heavily rely** upon this **important code list.**

The maintenance team are doing an **amazing job** for UNLOCODE, they need to have the tools to continue to deliver what is needed today but more importantly in **future for this code list.**
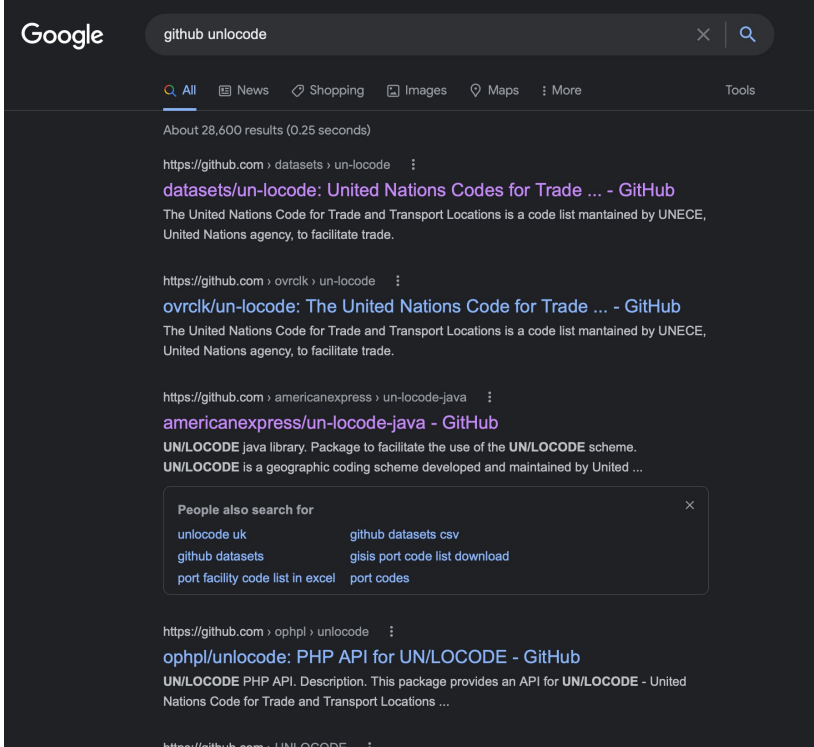
UNLOCODE

- Potential room for improvement to **distribute codes** in between official publication once approved by maintenance team

- **Linked data and API's** require codes to be consumable and **understood by machines rather than humans**

- Latitude and Longitude also needed in **Decimal Degrees** for all locations

- **N**otification to interested parties** of code changes and new publication release is not straightforward, hampers updating of codes in systems

- UNLOCODE **publication could be automated** using scripts and process from **open source tools**

UNLOCODE

UNECE should be the recognised '**publisher**' of UNLOCODE to the **software developer community**, they are not today, developers use version control. **GitHub** is the most widely used version control system, our code lists are not published. **We don't make it as easy** as it should be for our 'customers'.

Nobody reads the UNLOCODE list it needs to be **consumed by software** to be useful

What is GitHub?

- Version control for code or data

- Can '**tag**' releases so they are preserved and can be official publications like UN/CEFACT do i.e. '**D21b**'

- Use branches for developing and daily work on the next 'release' in public or private

- Allows 'issues' or 'pull requests' to be made by external contributors for consideration, but **control remains with the repository owner**

- Can assign changes to '**reviewers**'

- Allows viewing of the '**changes**' made in that release or a 'diff'

GitHub Features

Github Actions

Scripted actions that take place on a commit to the dataset

- – Allow **pre-defined repeatable tasks to be automated**, i.e.
  - • **Pre-validation**, reject request if not complete or correct (i.e. code, function)
  - • **Potentially provide Decimal Degree co-ordinates** for a UNLOCODE from a gazetteer API
  - • **Publication** of the excel, mdb, json-ld or other formats and update UNECE website
- – Run from commit to the 'main' branch or a 'tag/release'
- – Could **update the UNECE website** for example

GitHub Features

Webhooks

Immediately deliver dataset to other applications or parties on release

- Example of UN/CEFACT Recommendation code lists to be published and **automatically notify and update related external parties**
  - UN/LOCODE update could be sent automatically to child code providers such as BIC, IMO and SMDG who can then automate the updates and programmatically check for deprecated UN/LOCODES for example.
  - DCSA and Ocean Carriers can include the UNLOCODES are valid inputs for API requests from the UN directly
  - IPCSA and the Port Communities rely upon the UNLOCODE to service movement of goods and could use the UN as the official data source for UNLOCODES

GitHub Flow

Master

Create a Feature Branch

Merge

Feature

Add
Commits

Discuss and Review Commits

Open a Pull Request

Deploy
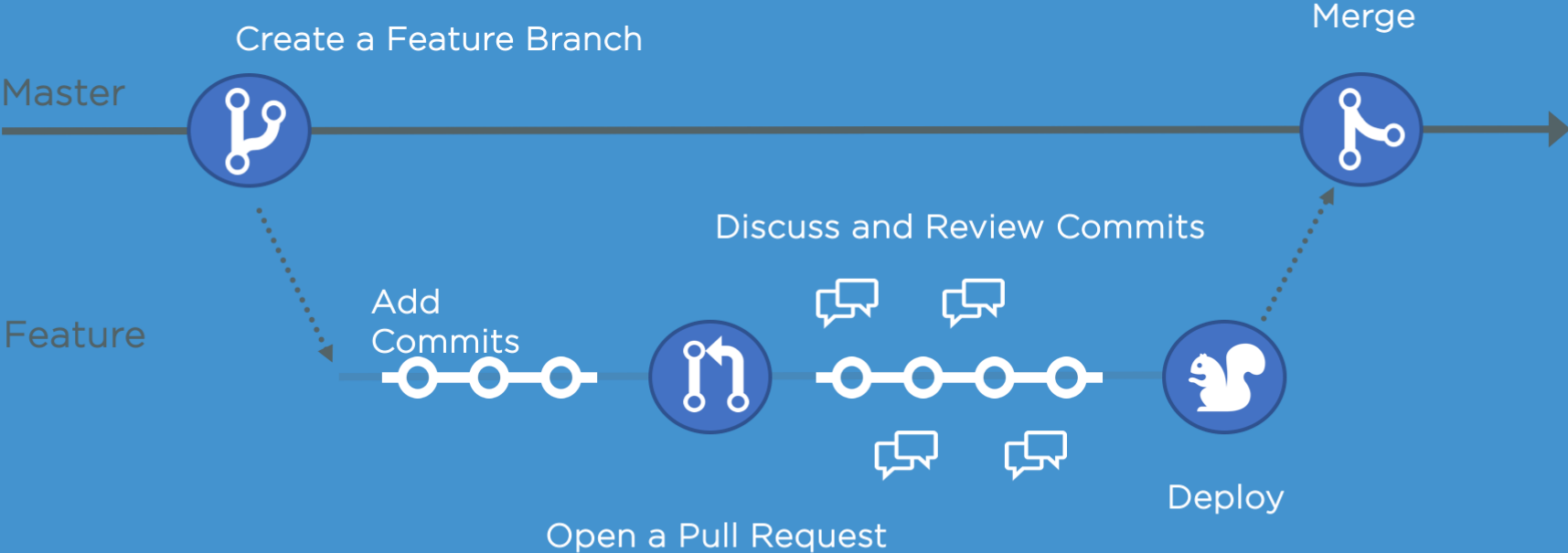
Pull Requests = Change Requests

Control change with Review

Conversation 0 | Commits 1 | Checks 1 | Files changed 1   +0 −1

cmsdroff commented 10 minutes ago · edited ▾

Code did not meet the Rec16 requirements, requesting removal from distribution under release D23A

Removal of code ···   Verified ✓ 36f55d4

cmsdroff requested a review from **declanoconnor** 7 minutes ago

cmsdroff added this to the **D23a** milestone 6 minutes ago

cmsdroff added the Pending label 5 minutes ago

Add more commits by pushing to the `removal-example` branch on **CIFConsulting/unece-forum**.

✓ **Review requested**   Show all reviewers
Review has been requested on this pull request. It is not required to merge. Learn more.

👤 1 pending reviewer   ⌄

✓ **All checks have passed**   Show all checks
1 successful check

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request ▾   You can also open this in GitHub Desktop or view command line instructions.

Write | Preview   H B I ≣ <> ⧉ ≡ ≣ ☑ @ ⤢ ↩

Reviewers   ⚙
👤 declanoconnor   ●

Assignees   ⚙
No one—assign yourself

Labels   ⚙
Pending

Projects   ⚙
None yet

Milestone   ⚙

D23a Candidate

Development   ⚙
Successfully merging this pull request may close these issues.
None yet

Notifications   Customize
🔕 Unsubscribe
You're receiving notifications because you authored the thread.

0 participants

🔒 Lock conversation

Audit and View Changes

New Andorra Codes #1

[Edit] [<> Code ▾]

🔀 Open cmsdroff wants to merge 1 commit into `main` from `approved-example` 📋

| 💬 Conversation 0 | ○ Commits 1 | ± Checks 1 | ± Files changed 1 |

+2 −0 🟩🟩⬜⬜⬜

Changes from **all commits** ▾   File filter ▾   Conversations ▾   Jump to ▾   ⚙ ▾

[Review changes ▾]

✓ **New Andorra Codes**
New Codes approved for distribution

⌥ **approved-example** (#1)

👤 **cmsdroff** committed 17 hours ago Verified

commit 6ca12ffca36124a123f891ce3dc76cf7407f1f3e

⌖ 2 🟩🟩⬜⬜⬜ public/unlocodes.csv 📋   ⋯

@@ −10,3 +10,5 @@ Change,Country,Location,Name,NameWoDiacritics,Subdivision,Status,Function,Date,I

10	,AD,PAS,Pas de la Casa,Pas de la Casa,,RL,--3----B,0307,,4233N 00144E,	10	,AD,PAS,Pas de la Casa,Pas de la Casa,,RL,--3----B,0307,,4233N 00144E,
11	,AD,SJL,Sant Julià de Lòria,Sant Julia de Loria,,RL,--3-----,1101,,4228N 00130E,	11	,AD,SJL,Sant Julià de Lòria,Sant Julia de Loria,,RL,--3-----,1101,,4228N 00130E,
12	,AD,SCO,Santa Coloma,Santa Coloma,,RL,--3-----,0307,,4230N 00130E,	12	,AD,SCO,Santa Coloma,Santa Coloma,,RL,--3-----,0307,,4230N 00130E,
		13	+ ,AD,BON,Les Bons,Les Bons,,--3-----,0622,,4231N 00134E,
		14	+ ,AD,TRE,El Tremat,El Tremat,,--3-----,0622,,4232N 00134E,

Linked Data – JSON-LD
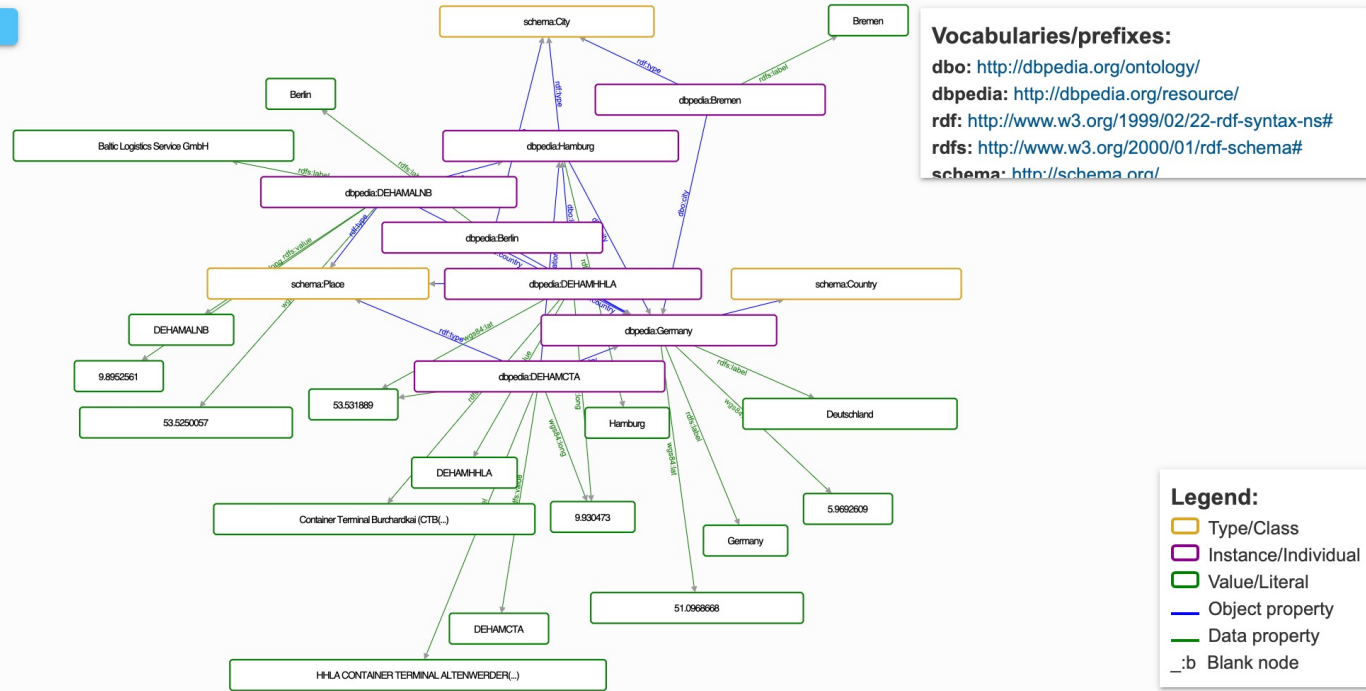
Linked Data empowers people that publish and use information on the Web. It is a way to create a network of standards-based, machine-readable data across Web sites.
It allows an application to start at one piece of Linked Data, and follow embedded links to other pieces of Linked Data that are hosted on different sites across the Web.

Questions?

If you have questions or comments on the presentation today or would like to explore further how to use GitHub for UNLOCODES please contact me

David Roff

David@cif-consulting.co.uk