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Change management and release policy for DCAT-AP: Summary

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#### 1. Introduction

In order to communicate the rationale, the policy and the practical aspects of the change and release management approach for <u>DCAT-AP</u>, the following sections outline all matters that are of interest to the main stakeholders, including maintainers of national and regional application profiles, developers of solutions that implement DCAT-AP and managers of systems that are built on the functionality of DCAT-AP implementations.

This is a summary of a larger document<sup>1</sup> that contains more details of the policy and its practical consequences; however, for most purposes, this summary should be sufficient to understand the main elements of the policy, the practical steps to be taken in order to contribute to the further development of DCAT-AP and the potential operational consequences of new releases.

### 2. RATIONALE

There are two main objectives of the change and release management policy for DCAT-AP. Firstly, to ensure stability, making sure that implementers can protect investment as a result of a transparent and well-managed policy by avoiding making changes that negatively affect either network-wide interoperability or operations of individual implementations. Secondly, to allow the necessary flexibility to make changes based on evolving experience and external factors, such as changes in technological landscape and relevant base standards at W3C and elsewhere.

The objective is to allow implementers to plan sufficiently ahead based on good understanding of functional changes and operational implications.

An important external dependency is that DCAT-AP is based on the W3C Recommendation DCAT. Although W3C does not have an explicit change and release policy for its Recommendations, DCAT may evolve in response to further requirements and emerging experience. In the period 2017-2018, an activity is undertaken by the Dataset Exchange Working Group (DXWG) to develop a new release of DCAT, and the change and release management policy of DCAT-AP needs to align with the developments at W3C. Stakeholders of DCAT-AP should seek to contribute to work at W3C by participating either in working groups or in the public review process. DCAT-AP Working Group members who are not members of W3C can provide feedback to the work on DCAT by DXWG via <a href="mailto:public-dxwg-comments@w3.org">public-dxwg-comments@w3.org</a>.

#### 3. POLICY: WHAT AND WHEN?

There are three types of changes that can be distinguished for the specification of DCAT-AP according to their implications for interoperability:

<sup>&</sup>lt;sup>1</sup> This document will be made available later

**Bug fixes**: First of all, the specification may contain errors in the text or unresolved references. These types of error will not affect interoperability in any way.

These errors may be corrected in a 'bug fix' release on a six-month schedule – every March and September, if not combined with one of the following types of releases. This type of release will not be published if there are no changes requests for this category.

**Minor semantic changes**: Secondly, there may be a need for changes that do affect interoperability but only in non-disruptive ways. Examples include the addition of optional properties or 'deprecation' of unused, optional properties.

These changes may be made on a yearly schedule – every September, if not combined with the following type of release. This type of release will not be published if there are no change requests for this category. If it is published, it will also include any bug fixes if any were requested.

**Major semantic changes**: Thirdly, there may be a need for changes that have more serious consequences for interoperability, such as addition of mandatory properties or changes in the mandatory controlled vocabularies.

These changes will not be made more frequently than once every two years. This type of release will not be published if there are no change requests for this category. If it is published, it will also include any bug fixes and minor semantic changes if any were requested.

In case requests have been received that are classified as major semantic changes, at least six months before a scheduled date for a major release, a decision is taken by the ISA<sup>2</sup> management team and communicated to the Working Group to open a discussion round in the Working Group in order to discuss and agree major semantic changes.

Evolution of the W3C Recommendation could lead to the need for major semantic changes. Whenever W3C plans to publish a new version of DCAT, it may be foreseen that the process towards a major semantic release will be scheduled to enable the Working Group to review W3C work and determine implications for DCAT-AP.

The current release schedule will be accessible on Joinup.

#### 4. STAKEHOLDER INVOLVEMENT: WHO?

All stakeholders are invited to become a member of the existing DCAT-AP Working Group. This includes stakeholders like maintainers of national and regional application profiles, developers of solutions that implement DCAT-AP and managers of systems that are built on the functionality of DCAT-AP implementations. Other types of interested parties may

contribute and comment but in such case, they will be invited to join the Working Group by requesting membership of the mailing list<sup>2</sup>.

The main focus of the Working Group is on practical issues and solutions that meet the requirements of implementers with particular attention to interoperability on the European level.

The DCAT-AP Working Group will be informed of all releases ahead of time. Its role varies depending on the type of release.

For a **bug fix** release, the Working Group will be <u>informed</u> at least two weeks ahead of publication during which time the members can voice objections; **minor semantic changes** will be communicated to the Working Group for <u>review</u> at least six weeks ahead of publication; **major semantic changes** will be <u>discussed and agreed</u> by the Working Group in the usual working group processes with at least a three-month discussion period and a one-month public review of the proposed new release.

## 5. Process for change requests: how?

Any problems encountered or new functionalities proposed can be submitted as issues on the <u>DCAT-AP repository</u> on GitHub. Submitters of issue need to register for a free user account by clicking "<u>Sign up for GitHub</u>" on the GitHub start page.

There is no strict structure of submissions but it will be helpful if information like submitter name, affiliation, portal represented, clear and concise description of the requirement and proposed solution, if any, so that the editor of the specification has enough information to be able to classify and process the request. A short guideline for submission of request is available on GitHub and on Joinup<sup>3</sup>.

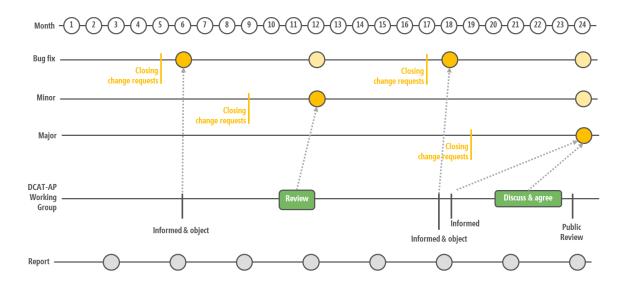
The editor will classify every received change requests and schedule its processing depending on an initial evaluation of severity, and respond to the issue within two weeks, noting next steps as part of the issue on GitHub. At least every three months, the editor will prepare a status report for the DCAT-AP Working Group with an overview of change requests received in each of the three categories. Change requests are taken into account up until a specific moment before a release:

- Bug fix: until 1 month ahead of the release date;
- Minor semantic change: until 3 months ahead of the release date; and
- Major semantic change: until 5 months ahead of the release date.

If a change request is opened after this moment, it will not be considered for the upcoming release, but for a future release.

<sup>&</sup>lt;sup>2</sup> At the time of writing this draft, the European Commission had disabled the mailing list functionality of Joinup. An alternative solution is being investigated.

<sup>&</sup>lt;sup>3</sup> Links will be provided in a next version



Final versions will be submitted to the European Commission for acceptance and for formal endorsement by the ISA<sup>2</sup> Committee.

#### **6. Implications for implementers**

The three types of releases have different implications for implementations of DCAT-AP.

**Bug fixes** will have no implications for implementations. Everything can continue to work as before.

Releases with **minor semantic changes** will not need immediate implementation in operational systems or inclusion in a national or regional profile, as the existing implementations and profiles will remain conformant. Every implementation can choose to implement additional features at a time at the convenience of the maintainer of the system and every profile can be updated independently. Existing systems can continue to operate unchanged, but before they upgrade they will not be able to access functionality that is provided by the new model elements.

Releases with **major semantic changes** will in general not be backward compatible; software solutions that implement the changes cannot fully interoperate with the software that was based on the previous version of the specification. In such cases, the introduction of a release needs to be accompanied by a well-managed software upgrade process. Especially in cases were multiple software vendors are involved, such upgrades need to be carefully planned and executed with ample time for testing and verification.

In parallel with the development of a release with major semantic changes, implementers of systems and maintainers of profiles will need to plan the upgrade process alongside the development of the DCAT-AP specification.

### 7. Release documentation

The following documents will be available with every release:

The specification of DCAT-AP in PDF and Word format

- The UML diagram
- Machine-readable distributions in RDF, JSON-LD and SHACL/OWL
- A decision log, showing all issues submitted for the release with their resolutions
- A change log, showing the differences between the previous release and the new release

## 8. FUTURE REVIEW OF POLICY

The change and release management policy will be reviewed by the European Commission every two years. The next review is scheduled to take place in second half of 2019.