Maintenance of the list of UCD words

Version 2.0
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Abstract

According to what is stated in the IVOA Recommendation *An IVOA standard for Unified Content Descriptors*, this procedural document describes the maintenance (add, change, suppress words) of the IVOA list of UCD1+ words *The UCD1+ Controlled Vocabulary*.

Status of This Document

This is an IVOA Note expressing suggestions from and opinions of the authors. It is intended to share best practices, possible approaches, or other perspectives on interoperability with the Virtual Observatory. It should not be referenced or otherwise interpreted as a standard specification. The document aims at progressing from V1.20 to V2.0.

The initial version of the document had been produced by the IVOA UCD Working Group. The document is currently maintained by the IVOA Semantics Working Group.

A list of current IVOA Recommendations and other technical documents can be found at http://www.ivoa.net/documents/.

Acknowledgements

Contents

1 Introduction

According to the IVOA Recommendation *An IVOA standard for Unified Content Descriptors*, the present document describes in details the procedure to add, modify or suppress UCD-words in the IVOA list *The UCD1+ Controlled Vocabulary*.

The modification of the list of UCD words is conceived as a flexible but controlled process. A Scientific Board, as defined by the UCD document above, has the role of studying the proposed modifications and, within a given period of time, to give an answer as to whether such modifications can or cannot be accepted.

This document addresses:
- the contact point to ask for a modification of the UCDs
- the life-cycle of the process of modification of UCDs
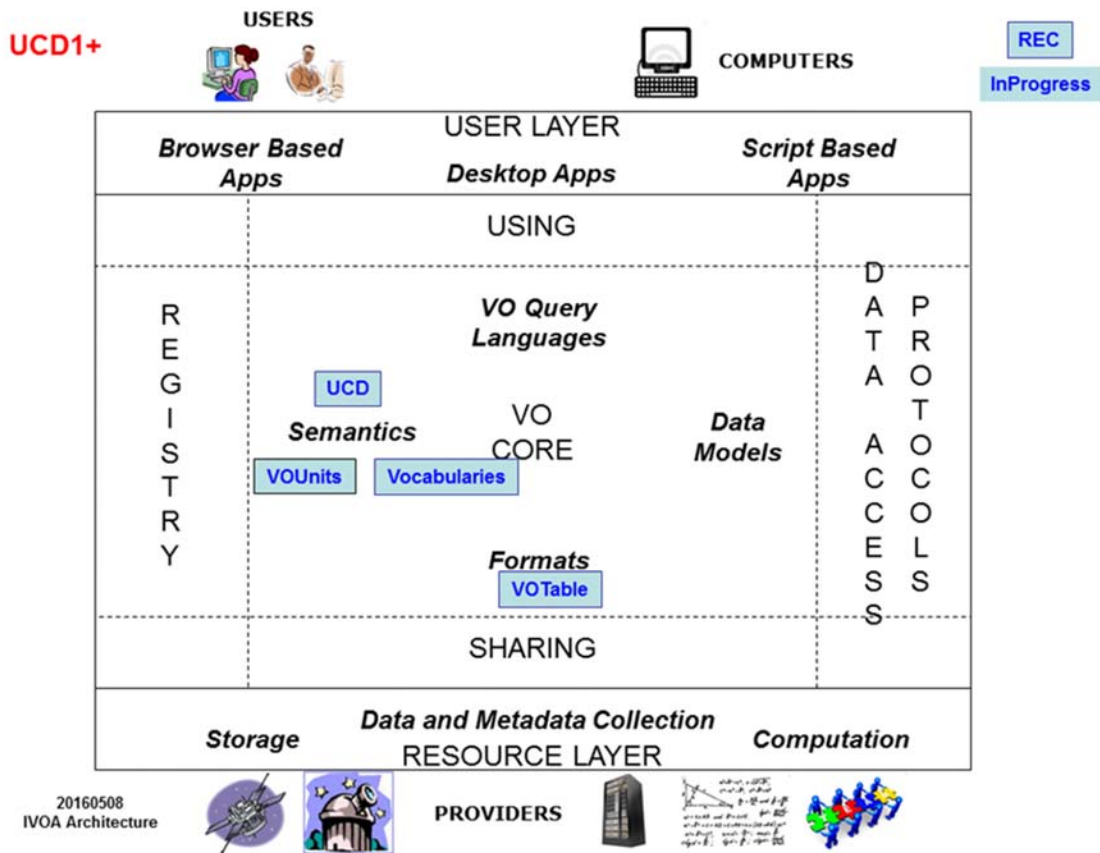- when and how a new UCD becomes part of the IVOA list.

These actions are supported by a Wiki page which keeps track of all the requests and answers.

The parties involved in the procedure are:
- A **user** submitting a modification: e.g. any member of the IVOA community.
- The **Scientific Board**: open to the IVOA community, is formed by and under the responsibility of, the chairperson of the Semantics WG. The chairperson may propose another moderator to coordinate its activities. The responsibility of the Board consists in studying the proposals of modifications of UCD words, and to figure out whether the proposal should be accepted or rejected. The Board email is **ucd-sci@ivoa.net**.
- The **Semantics WG**: The chairperson of the WG supervises and eventually moderates the work of the Scientific Board. He/she collects the approved modifications into a draft new version of the UCD list. The members of the WG discuss the new version of the UCD list.
- The **IVOA TCG**: The document approved by the Semantics WG follows the standard IVOA procedure to reach the Endorsed Note status, superseding the previous version.

The figure below illustrates the position of this standard in the context of the overall IVOA architecture and how it is linked to other standards.

UCD are used in VOTable documents together with the definition of units prescribed in the VOUnits standard. They represent the words and expressions of a vocabulary for quantities defined and used in the astronomical domain.

UCD1+

USERS

COMPUTERS

REC
InProgress

USER LAYER
Browser Based Apps   Desktop Apps   Script Based Apps

USING

REGISTRY

VO Query Languages

UCD

Semantics   VO CORE   Data Models

VOUnits   Vocabularies

Formats
VOTable

DATA ACCESS

PROTOCOLS

SHARING

Data and Metadata Collection
Storage   RESOURCE LAYER   Computation

20160508
IVOA Architecture

PROVIDERS

2 Procedure to Modify UCD Words

The procedure complies with the following basic principles:

- Any member of the IVOA community can submit at any time a request for modification (RFM) of the controlled list of UCD words;
- A globally editable page[1] is the interface between the community and the Scientific Board in charge of discussing the RFM;
- The author of a RFM should get an answer within 6 weeks; At regular intervals (synchronized with IVOA Interoperability meetings) the approved modifications are integrated in a new version of the IVOA UCD1+ Common Vocabulary.

The procedure is described in detail in the following sub-sections.

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[1] As of this writing, the page will reside in IVOA's wiki, but the technical details are not part of this standard.

2.1 Request for Modification (RFM)

The first step in the process of modification of the IVOA list of UCD words is a request for modification (RFM) that any member of the IVOA community can present at any time. The requested modification of one or more UCD words should comply with the rules defined in the current version of the document "An IVOA standard for Unified Content Descriptors" for building UCD-words, and should be submitted as indicated in section 2.2.

An RFM should contain the date, the quantity to be discussed, the name of the person requesting the change, the rationale for the change, and a proposal of what could be done. It can consist of a request for:

- *Deletion*: The UCD word is to be removed from the list of standard UCDs. Approval of a deletion request should include a statement of what UCD would be used in place of the original UCD. A list of deleted UCDs and their replacements should be maintained.
- *Amendment*: The description of the UCD and/or its syntactic role (primary, secondary, etc.) and/or its spelling is to be corrected. Amendment of the spelling of a UCD word corresponds to a *deletion* (of the word with the old spelling) followed by an *addition* (see below) of the word with the new spelling. A request to better clarify the description of an UCD word that is considered too short or cryptic or ambiguous, and/or to change the syntactic role of the UCD word, is called *clarification*.
- *Addition*: A new UCD word is to be added. In addition to the general description, there needs to be an indication of the syntactic role, which determines how this word can be combined with other words (see the list of syntax codes in Appendix A of the document *The UCD1+ Controlled Vocabulary*).

2.2 Editable page for managing RFMs

An RFM page is maintained for each version of the UCD list. When a new version of the list is approved as Endorsed Note, a new, empty RFM page is created and linked to the Semantics WG page and to the header of the Endorsed Note document. The page for the EN-UCDlist-<version_number>-<date> is named RFM-UCDlist-<version_number>-<date>.
This RFM page has three sections:
- Accepted RFMs
- Rejected RFMs
- Proposed RFMs

All the RFM sections consist of lists of RFMs. Each entry is initially composed of the following fields, filled up by the submitter in the Proposed RFMs section:

- Date of the submission

- Definition: the quantity to be discussed, described in common language
- The UCD-word involved if any
- Remarks: Comment or rationale of the RFM
- Suggested by: The name of the submitter

The submitter indicates that a new RFM is submitted by sending a message to the Scientific Board with the list of the RFMs he or she has entered in the RFM page.

At the end of the discussion within the Scientific Board, the moderator places the RFM in the Accepted or Rejected section, depending on the answer, and fills the following fields:

- Date of the answer
- Answer: The answer to the RFM

It is the responsibility of the moderator to respond to all RFMs, summarizing the discussion in the board. The submitter is informed of the answer by email.

2.3 Evaluation of RFMs

All RFMs are open to discussion and evaluated by the Scientific Board. A two-week period for discussion is automatically allowed, starting from the day of notification to the members of the board. Extensions of this period can be decided by the moderator of the board, with notification to the Scientific Board and to the submitter if the total period is longer than 6 weeks.

At the end of the discussion, the moderator answers the RFM and classifies it in the RFM page and send an email containing the evaluation to the submitter and to the Scientific Board.

A negative answer must be explained.

2.4 Maintenance of the UCD Controlled Vocabulary

Twice a year, usually synchronized with the IVOA Interoperability meetings, the chairperson of the UCD/Semantics WG edits the last approved version of the document "The UCD1+ Controlled Vocabulary" in order to include the newly approved RFMs, updates the version, and change the status of the document to IVOA Proposed Endorsed Note. The draft is open to discussion within the WG for a length of time consistent with the importance/number of modifications, but no longer than 4 weeks.

At the end of the discussion within the WG, the document follows the IVOA process for endorsed notes [1].

An historical record of all approved modifications is included in the document.

If necessary, the chairperson of the WG can decide a different cadence of maintenance of the UCD list, not necessarily synchronized with IVOAInteroperability meetings.

In case of explicit request by the user for immediate use of an approved new UCD-word, the chairman of the WG, after the approval of the RFM by the Scientific Board and at the end of the discussion in the WG, can authorize the use of that

word with the temporary namespace "**tmp:**". In such a case the IVOA community (interop@ivoa.net) shall be notified by the chairman of the WG.

References

 [1] F. Genova et al., *IVOA Document Standards*,
http://www.ivoa.net/documents/latest/DocStd.html

A. Changes from previous versions

Changes from version 1.20 to version 2.0

- List of authors updated
- Abstract: wording slightly updated
- Status of the document: updated address of document repository
- Section 1, 1st paragraph: changed "detail" to "details", "standard list" to "IVOA list"
- Section 1, 2nd paragraph: changed "standard list" to "list", deleted "(IVOA Rec)"
- Section 1, 3rd paragraph: changed "standard list" to "IVOA list"
- Section 1, 3rd paragraph: replaced the form by a wiki page
- Section 1, 4th paragraph: updated description of Scientific Board and Semantics WG roles
- Section 1, 4th paragraph: changed "Community" to "TCG", "Recommendations" to "Endorsed Notes"
- Section 1, added 5th paragraph with the IVOA architecture figure.
- Section 2, introductory paragraph: changed "standard" to "controlled", "An automated web based form" to "A globally editable page" with a footnote indicating that the page will be on the wiki, introduced a 6-week delay to provide an answer, slightly modified the wording of the last bullet
- Section 2.1, 1st paragraph: changed "standard list" to "IVOA list", added "current version of the document"
- Section 2.1, 2nd paragraph: added the RFM content
- Section 2.2, changed the title to "Editable page for managing RFMs"
- Section 2.2, rewritten to describe the RFM page and the new process
- Section 2.3, 1st paragraph: changed "will be" to "are, added reference to the 6-week evaluation period
- Section 2.3: updated with reference to RFM page and new process
- Section 2.3: deleted the last paragraph
- Section 2.4, 1st paragraph: updated with reference to the update frequency and Endorsed Note, changed "will be open" to "is open"

- Section 2.4, 2nd paragraph: updated with reference to Endorsed Note process
- Section 2.4, 3rd paragraph: changed "will be" to "is"
- Section 2.4, 4th paragraph: changed "chairman" to "chairperson", "InterOp" to "IVOA Interoperability"
- Section 2.4: deleted the last paragraph
- References: replaced by a reference to current version of the IVOA Document Standards Recommendation
- Annex A: added Changes from version 1.20 to 2.0

Changes from version 1.1 to version 1.20:

- List of authors upgraded
- Table of content: added "Changes from previous versions"
- Page 3-4, par.1-2: changed "community" into "IVOA community"
- Page 3, par.2: changed "dead-line" into "deadline"
- Page 4, par.2.1: changed "cryptical" into "cryptic"
- Pag.4, par.2.1: change in paragraph *Amendment*: sentence with definition of *clarification* moved at the end of paragraph
- Pag.4,par.2.1: changed paragraph *Addition* as follows: "*Addition*: A new UCD word is to be added. In addition to the general description, there needs to be an indication of the syntactic role, which determines how this word can be combined with other words (see the list of syntax codes in Appendix A of the document The UCD1+ Controlled Vocabulary)."
- Pag.4, par. 2.2 beginning changed as follows:
"A web-based form for requesting a modification of UCD words has been set up and it is accessible from the IVOA WG page at: http://www.ivoa.net/twiki/bin/view/IVOA/IvoaUCD .
The form is composed of at least 6 fields:"
- Page 5,par.2.3: changed "A negative answer shall be motivated" into "A negative answer must be explained"
- Pag.6: introduction of Appendix A – Changes from previous versions.