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## **Maintenance of the list of UCD words**

### **Version 2.0**

### ***Proposed Recommendation –Update – 2019 Jul 15***

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2.0: Proposed Recommendation 20190715

**Latest version:**

<http://www.ivoa.net/documents/latest/UCDlistMaintenance.html>

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**Interest/Working Group:**

Semantics: <http://wiki.ivoa.net/twiki/bin/view/IVOA/IvoaSemantics>

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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](#). All versions of the list after V1.3, IVOA Recommendation 1.3, are IVOA Endorsed Notes.

## Status of This Document

This is an IVOA Proposed Recommendation made available for public review. It is appropriate to reference this document only as a recommended standard that is under review and which may be changed before it is accepted as a full Recommendation.

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

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# 1 Introduction

According to the IVOA Recommendation [An IVOA standard for Unified Content Descriptors](#) [1], the present document describes in details the procedure to add, modify or suppress UCD-words in the IVOA list [The UCD1+ Controlled Vocabulary](#) [2].

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. The list of UCD-words has been an IVOA Recommendation up to [Version 1.3, IVOA Recommendation 27 May 2018](#). To enable a faster update procedure, the following versions will be IVOA Endorsed Notes as described in the Standards and processes document describing how to elaborate, review and adopt IVOA standards [3].

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.

The parties involved in the procedure are:

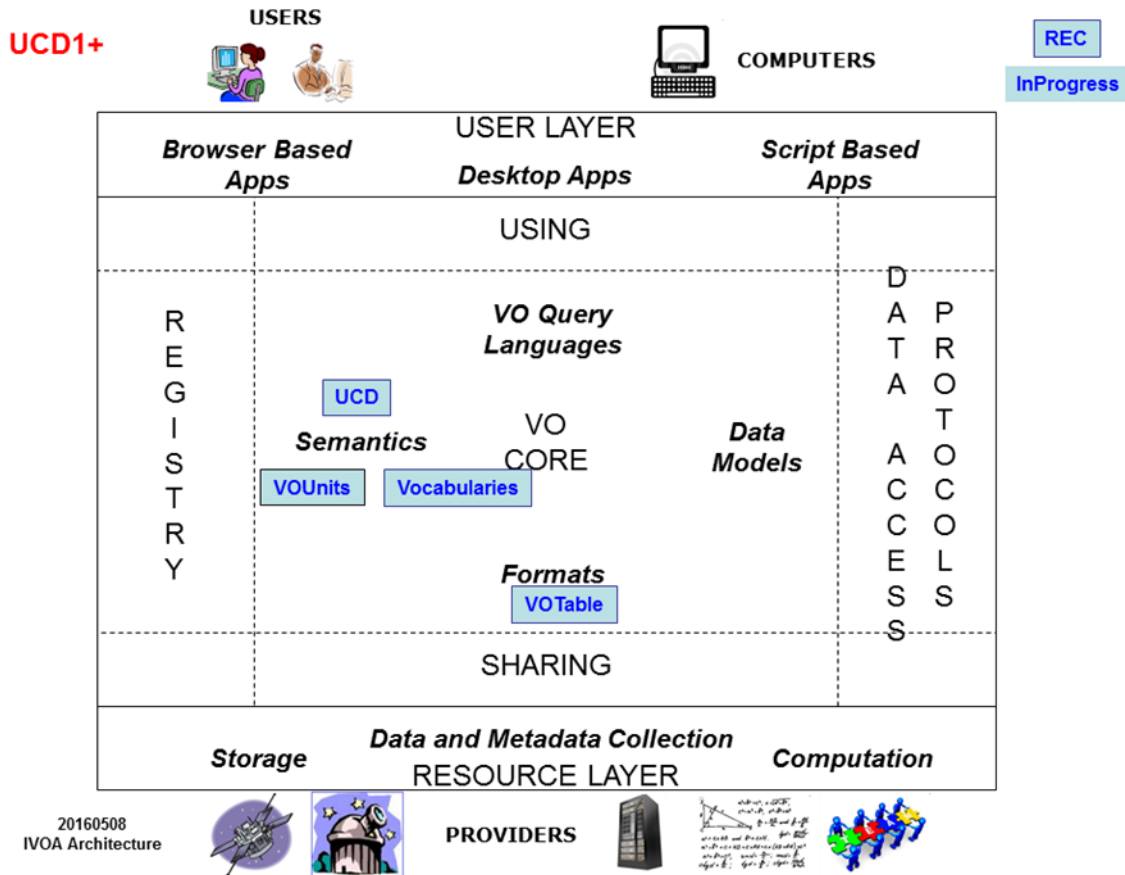
A **user** submitting a modification: any member of the astronomical community owner of a valid IVOA Twiki account.

- 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](mailto:ucd-sci@ivoa.net) and the list of members is published in the Semantics WG main page.
- The **Semantics WG**: The chairperson of the WG supervises and eventually moderates the work of the Scientific Board. The chairperson 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 on the WG list [semantics@ivoa.net](mailto:semantics@ivoa.net).
- 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.

UCDs are building elements for VOTable documents together with the definition of units prescribed in the VOUnits standard. They are used in many data models and protocols defined by the IVOA specifications. They represent the words and

expressions of a vocabulary for quantities defined and used in the astronomical domain.



## 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<sup>1</sup> 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 8 weeks;
- At regular intervals (usually synchronized with IVOA Interoperability meetings) the approved modifications are integrated in a new version of the IVOA UCD1+ Common Vocabulary.

<sup>1</sup> As of this writing, the page will reside in IVOA's wiki, but the technical details are not part of this standard.

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

## 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 and contact details, the rationale for the change, and a proposal of what could be done. It can consist of a request for:

- *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](#)).
- *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.
- *Clarification*: 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*.

## 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 an Endorsed Note, a new, empty RFM page is created and linked to the Semantics WG page and to the landing page of the Endorsed Note document. The page that collects the RFM for the new EN-UCDlist-<version\_number>-<date> document is named UCDlist-<version\_number>-RFM. 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 and contact details

The submitter indicates that a new RFM is submitted by sending a message to the Scientific Board with the list of the RFMs they 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. The board may interact with the submitter if useful. A four-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 8 weeks.

At the end of the discussion, the moderator answers the RFM, classifies it in the RFM page and sends 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 changes the status of the document to IVOA 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 "Changes" appendix of the document.

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

In case of explicit request by the user for immediate use of an approved new UCD-word, the chairperson 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. In such a case the IVOA community ([interop@ivoa.net](mailto:interop@ivoa.net)) shall be notified by the chairperson of the WG.

## References

[1] S. Derriere et al., *An IVOA Standard for Unified Content Descriptors*  
<http://www.ivoa.net/documents/latest/UCD>

[2] A. Preite Martinez et al. *The UCD1+ Controlled Vocabulary Version 1.3*  
<http://www.ivoa.net/Documents/UCD1+/20180527/>

[3] F. Genova et al., *IVOA Document Standards V0.2*,  
<http://www.ivoa.net/documents/DocStd/20170517/>

## A. Changes from previous versions

Changes from version 1.20 to version 2.0

- Expressions and typo corrections as of TCG review comments
- List of authors updated including IVOA Semantics WG
- Abstract: wording updated, with addition of the fact that post-V1.3 UCD1+ lists will be IVOA Endorsed Notes
- Status of the document: updated address of document repository
- Section 1, 1<sup>st</sup> paragraph: changed “detail” to “details”, “standard list” to “IVOA list”, added references [1] and [2]
- Section 1, 2<sup>nd</sup> paragraph: changed “standard list” to “list”, deleted “(IVOA Rec)”
- Section 1, 2<sup>nd</sup> paragraph: add mention of the change of UCD1+ list status from REC to EN starting after V1.3
- Section 1, 3<sup>rd</sup> paragraph: changed “standard list” to “IVOA list”
- Section 1, 3<sup>rd</sup> paragraph: deleted the reference to the web form
- Section 1, 4<sup>th</sup> paragraph: updated description of user and of Scientific Board and Semantics WG roles

- Section 1, 4<sup>th</sup> paragraph: changed “Community” to “TCG”, “Recommendations” to “Endorsed Notes”
- Section 1, added 5<sup>th</sup> 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 8-week delay to provide an answer, slightly modified the wording of the last bullet
- Section 2.1, 1<sup>st</sup> paragraph: changed “standard list” to “IVOA list”, added “current version of the document”
- Section 2.1, 2<sup>nd</sup> 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, 1<sup>st</sup> paragraph: changed “will be open to discussion...” to “are...”, added the possibility to interact with submitter, added reference to the 8-week evaluation period
- Section 2.3: changed initial discussion period to 4 weeks, updated with reference to RFM page and new process
- Section 2.3: deleted the last paragraph
- Section 2.4, 1<sup>st</sup> paragraph: updated with reference to the update frequency and Endorsed Note, changed “will be open” to “is open”
- Section 2.4, 2<sup>nd</sup> paragraph: updated with reference to Endorsed Note process
- Section 2.4, 3<sup>rd</sup> paragraph: changed “will be included” to “is included”, add reference to the “Changes” section
- Section 2.4, 4<sup>th</sup> paragraph: changed “chairman” to “chairperson”, “InterOp” to “IVOA Interoperability”
- Section 2.4, 5<sup>th</sup> paragraph: changed “chairman” to “chairperson”, deleted reference to “tmp:” namespace
- 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.