

Provenance document change list:

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The following changes to the Provenance model document were discussed and agreed upon by all Authors during the Interop meeting in Paris (May 2019).

Implementation of these changes results in a document which is acceptable to all Authors.

Roadmap:

- + Distribute change list to group ~~Mark - [5/16/2019]~~
- + Meeting notes to be uploaded to Provenance twiki page. Mark - [5/24/2019]
  - o capture focus of the meeting == document text etc, not model.
  - o gather notes from Laurent and Janet, consolidate with mine
  - o add conclusion about agreement and change list.
- + Delivery of updated document with prescribed changes Mathieu - [5/31/2019]
- + Delivery of corresponding vo-dml/xml and html Mireille - [5/31/2019]
- + Review/verification of updated document by Author list and working group chair. ALL - [6/7/2019]
- + Delivery to working group as Working Draft (WD) for a period of ( 4 weeks ) Mathieu - [6/7/2019 - 7/5/2019]
- + Chair promotes to Proposed Recommendation (PR) if all goes well:
  - document update to PR status + any WD review changes: Mathieu - [7/12/2019]
  - distribute to IVAO as PR for review period of ( 2 weeks ): Laurent - [7/12/2019 - 7/26/2019]
- + After successful completion of PR review period
  - chair announces official start of Request for Comments phase (RFC) of ( 4 wks ): Laurent - [7/26/2019 - 8/23/2019]  
during which the community and TCG are expected to review and comment
- + After successful completion of the RFC period
  - document update to reflect agreed RFC comments Mathieu - [8/30/2019]
  - chair recommends document to the Exec committee for promotion as REC Laurent - [8/30/2019]

Change List:

The following define the specific changes which are to be made to the document reviewed and discussed during the interop (version 2019-05-10).

Overview diagram

- \* Overview diagram full, containing all objects and relations.
- \* without attributes
- \* all diagrams need correct relation image (no double arrows, etc)
- \* Move overview from Appendix to front of document, zoom images per section must contain all attributes/relations.

section 1.1, pg 6

last sentence before case 'A:'. Replace 'should help to resolve' with 'addresses'

section 1.1, pg 7

Sec B: 'the people/organizations/institutes that need to be cited or can be asked for more information.' to 'the people/organizations/institutes that you may want to acknowledge or can be asked for more information.'  
Sec C, Bullet #2: 'warning' to 'warnings'

section 1.1, pg 8

Sec E: Starting with paragraph under bullets "In addition ...". is not part of section E. Identify as 'General Remarks' to separate from section E.

section 1.2, pg 8

First sentence: 'those general requirements' to 'these general requirements'  
First set of Bullets: identify as '1.2.1 Model Requirements'

1.2.1, Bullet #3: 'should be linked, when relevant, to IVOA semantics, data models and formats (ObsCoreDM, SimDM, VOTable, UCDS, Units, . . . ). '

to 'should make use of existing IVOA standards. '

Second set of Bullets: identify as 'Best Practices'

1.2.2, Bullet #1: Change to 'The reliability of provenance should be ensured.'

1.2.2, Bullet #2: Change to 'Provenance metadata for a given entity should contain information to find the immediate progenitor.'

1.2.2: All 'must'-s change to 'should'-s in section (with exception of Bullet 7 - see below)

1.2.2, Bullet #7: 'Entities ...' moves to Top section - 1.2.1 (model requirements)

ACTION:[??] question about use of 'domain' << Ole suggested check this against RFC

comments - may have comment from Markus

1.2.2, Bullet #8: 'Released entities...,' remove this bullet

1.2.2, Bullet #9: Change 'should' to 'are recommended to'

section 1.4: Previous efforts

Remove last sentence re: "W3C compliance"

Table 1, pg 14: Entity.location

o in description, add another example in addition to "a URL".

Section 2.2.1, pg ??: Entity, Collection

o Entity.invalidatedAtTime - add sentence to description: "This does not relate to the validity of the entity."

Section 2.3: Entity-Activity

o "Each entity is usually a result from an activity, " ==> 'is usually a result of' or 'usually results from'

section 2.3.1, pg 15

last paragraph:

'by a composition, indicated in Figure 4 by a filled diamond. If an activity is deleted, then the corresponding *Used* relations need to be removed as well. The entities that were used still remain, since they may have been used for other activities as well. The multiplicity is \* between *Used* and *Entity*, because an entity can be used more than once (by different activities). '

to

'any given Entity can be used by more than one Activity.'

coupled with an added appendix which describes the Modeling Conventions used in the document (ala Coords, Meas, Cube, etc).

section 2.3.3, pg 16

o UML description in text - see 2.3.1

o remove sentence - "If this is not the case, if the image can only play the same role everywhere, only then it can be an intrinsic property of the entity. "

o paragraph #1: remove ', but may contain reserved words list in the future to foster interoperability.'

section 2.3.5, pg 17

o "flow of activities as it occurred " => it -> they

section 2.4.1, pg 18

Paragraph #3: move

'For example: telescope astronomer, observatory, pipeline operator, principal investigator, software engineer, project helpdesk. '

into section 2.4.4, sentence 1.

"Agents may play a specific role with respect to an activity or an entity (for example: telescope astronomer, observatory, pipeline operator, principal investigator, software engineer, project helpdesk)."

o "The *Agent* class in the model have the attributes given in Table 5 " => 'have' -> 'has'

Table 5: [EXCEPTION TO NO MODEL CHANGE RULE]

'type' attribute to be enumeration type *AgentType*, with literals as defined in Table 6.

\* includes adding the Enumeration type to the model and describing in Table 6.

add attribute 'url' type 'anyURI', description "reference URL to the agent".

Table 6: change to describe as an Enumeration type (*AgentType*)

\* heading 'Class or type' to 'Literal'

\* caption 'Agent class and types of sub-classes. ' to 'Enumeration of Agent types'

section 2.4.4, pg 19-20

paragraph #1: 'Roles in relations to Agent are free text attributes, except for predefined words listed in Table 9. '

to 'Roles in relations to Agent are free text attributes, but if one of the terms in Table 9 applies, it should be used.'

table 9:

- o ACTION: Ole to provide missing entry for 'science group', otherwise list remains as is.
- o remove 'Label' column, choose the term (text string) to use for the role and have only that column.

\*section 2.5.1., pg 21

paragraph #4: 'Roles in relations to <> are free text attributes, except for predefined words listed in Table X. ' to 'Roles in relations to <> are free text attributes, but if one of the terms in Table X applies, it should be used.'

\*section 2.5.1, pg 22

Table 11

- o remove Label column
- o remove '...' entry
- o Add descriptions for elements in this list.
  - o observation = '\*'
  - o simulation = 'The generation of data through a computational process'
  - o reduction = ''
  - o calibration = ''
  - o reconstruction = ''
  - o selection = ''
  - o analysis = ''

Section 2.5.3, pg 23

- o 'instances must point to the role' => 'instances must match the role'

section 2.5.4, pg 24

paragraph #2: 'Roles in relations to <> are free text attributes, except for predefined words listed in Table X. ' to 'Roles in relations to <> are free text attributes, but if one of the terms in Table X applies, it should be used.'

Table 15, pg 25

add term 'setup' with description 'usage of an Entity as configuration information, see also Section 2.7'

Section 2.6, Table 17, pg 27:

- o items not ivoa.type need correction
  - o ValueEntityDescription.options = 'string' with description 'comma separated list of possible values'
  - o those with 'number' type => 'string whose value can be interpreted by the valueType attribute'
- (same for ParameterDescription)

section 2.7, pg 28

- o paragraph 3: Change 'with a given role.' to 'with a given role and type="setup"'

Section 2.7.2, pg 29:

- \*Parameter.value == string in diagram, (value dependent) here.. with interpretation via 'Parameter.valueType'
- o string type, description ok (see Table 17 correction above)

section 2.7.4, pg 30

- o add text for WasConfiguredBy, WasConfiguredBy.typeOfConfiguration, and its type.

Table 19: data types of attributes in table

- o same as Table 17

Appendix A:

- o This is the complete model image with all objects and relations plus attributes.

Appendix B, pg 33:

- o change list of this revision is incomplete.

Addendum:

- o The description of 'preferred' or 'reserved' words occur multiple times in the text. The intent is to modify the text in all cases.

- any instances not noted above should have a similar change made.

- e.g. 'Roles in relations to Agent are free text attributes, except for predefined words listed in Table X. '

- to 'Roles in relations to Agent are free text attributes, but if one of the terms in Table X applies, it should be used.'"

- o All diagrams to be reviewed/cleaned of odd arrows and such.