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IHTSDO Deprecation and Withdrawal of Support of RF1

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Amendment History

Version	Date	Editor	Comments
0.01	201502	Juliet Gole Krarup (JGK)	First draft for comment
0.02-0.12	201503	JGK and RTU	Incorporation of RTU feedback
1.01	20151003	RTU	Inclusion of public consultation analysis (Appendix B)
2.01	20160513	JGK	Deleted "Request for Feedback" from title

Reviewed by

Version	Date	Reviewer(s)	Comments
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0.09	20150612	Don Sweete (DSW)	
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Approvals

Version	Date	Approver	Comments
0.09	20150616	Management Board	Approved to release for public consultation
1.01	20151006	Management Board	Approved to go to GA for final approval
2.0	20151028	General Assembly	Approved

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1 Introduction

1.1 Background

This document was unanimously approved by the IHTSDO General Assembly in Montevideo, Uruguay on 28 October 2015, with the updated RF2 to RF1 conversion utility being made available to the public from January 2016, final RF1 release by IHTSDO in July 2016, and RF1 users obtaining files by converting them from RF2 from January 2016.

SNOMED CT was first distributed in 2002 by the College of American Pathologists. At that time, a standard was developed for distributing the terminology as a set of computer files. The standard came to be known as Release Format 1 (RF1) following the development of its successor, Release Format 2 (RF2). RF2 was passed as a standard, and was first used as the authoritative distribution format for the SNOMED CT International Edition in July 2011.

Some IHTSDO stakeholders, including the United Kingdom Terminology Centre (UKTC), the U.S. National Library of Medicine (NLM), and Canada Health Infoway, have continued to use RF1 as a distribution format for SNOMED CT Extensions and the International Edition. IHTSDO has continued to produce RF1 versions of the International Edition as a derivative product of the RF2 version in order to support those stakeholders.

For the RF1 distribution of the SNOMED CT International Edition, the RF1 files are derived from RF2 files by means of an automated process. The process is implemented and distributed as a software utility known as the **Conversion Utility**. The Conversion Utility consumes a manually curated data set, referred to as a **Compatibility Package**. The Compatibility Package performs two main functions. Firstly, it ensures that the RF1 release is historically accurate, despite anomalous data having been corrected in the historical baseline RF2. Secondly, it recreates some artifacts that are required in the RF1 release and not the RF2 release, such as map target identifiers and subset identifiers.

Please note that the Conversion Utility converts artifacts that are currently distributed as part of the SNOMED CT International Edition only. It is not generic, and it cannot be used to convert RF2 artifacts, such as reference sets and terminology maps, that are not part of the International Edition. Note also that terminology products developed and distributed by IHTSDO after the RF2 distribution format became authoritative in 2011 are not released in RF1 format and cannot be converted using the Conversion Utility.

1.2 Purpose

IHTSDO proposes a phased approach to withdrawing support and distribution of the RF1 version of the SNOMED CT International Edition, while allowing stakeholders continued access to it for as long as is operationally necessary. IHTSDO seeks feedback on the plan from stakeholders.

1.3 Audience

This document is aimed at all RF1 stakeholders, including relevant IHTSDO Members, their Affiliates, and IHTSDO Affiliate Licensees, as well as IHTSDO decision makers, including the CEO and members of the Management Board, Member Forum, and General Assembly.

1.4 Plan Owner

This plan is owned by the Digital Product Architect, Robert Turnbull, who is responsible to the CEO, Management Board and General Assembly.

1.5 How to Provide Feedback

Stakeholders will be invited to comment on the plan via a Google form

<http://goo.gl/forms/vJLLbG6kGx> .

1.6 Deadline for Feedback

The deadline for feedback is 21 August 2015

2 Reason for Deprecation

Three of the nine founding IHTSDO Members currently distribute the RF1 version of SNOMED CT. We acknowledge that, as far as we are aware, the three RF1 distributors account for most SNOMED CT implementations. However, we must encourage RF1 users to move to RF2 at some point. The number of IHTSDO Members has tripled to 27 since RF2 superseded RF1 as the authoritative SNOMED CT distribution format. Only one-ninth of the IHTSDO Membership currently uses the outdated distribution format. IHTSDO no longer has a business case for allocating resources to maintain and mitigate risks associated with this outdated format.

In addition, RF1 has well documented design flaws. Its derivation from RF2 introduces potential safety risks, resulting from possible anomalies in the manually curated Compatibility Package. The design flaws have been corrected in RF2.

By deprecating these obsolete artifacts, IHTSDO will reduce risk and save resources, and it will be able to focus on a more streamlined, accurate, efficient and safe product line.

3 Proposed Deprecation Timeline

Stage	Description	Timing per Deprecation Process	Proposed Duration	Proposed Timing
1	Initiation Step 1: Initial Discussions Step 2: CEO selects a staff lead Step 3: Staff lead drafts the Deprecation Document using the Deprecation Template Step 4: Staff lead shares the Deprecation Document with the rest of the Management Team	1 month 1 week 1 month 2-4 weeks	3 weeks	April 2015 2014 March 2015 25 May – 12 June 2015
2	Review of proposal Step 5: CEO sign-off to proceed Step 6: MB sign-off to proceed	1 day Next MB meeting		13 June 2015 16 June 2015
3	Consultation			

	Step 7: Announcement that deprecation consultation will commence Step 8: Consultation	Day after MB 30 days after announcement 2-3 months duration	30 days 2.5 months	17 June 17 July – 1 Oct 2015
4.	Deprecation Decision Step 9: Analysis of data Step 10: CEO sign-off on decision and plan Step 11: MB sign-off on or approval of decision and plan Step 12: GA approval of decision and plan, or GA is informed of MB decision	2-4 weeks 1 day Next meeting Next GA meeting	1.5 weeks	12 October 13 October 27 Oct 2015 Discussion on 27 Oct, electronic vote in November
5	Issuing Deprecation Notice Step 13: Issue the deprecation notice Step 14: Artifact is “Artifact Deprecated With Support” Step 15: Artifact is “Artifact Deprecated Without Support”	0-30 days after approval		November See section 4.2, below
6	Evaluation Step 16: Evaluation of deprecation process	2 mths after decision	2 weeks	January, then again after reduced support goes into effect

4 Phased Withdrawal of RF1 Support and Distribution

IHTSDO acknowledges and values the early-adopter contributions of the stakeholders who currently distribute RF1 versions of SNOMED CT. Consequently, IHTSDO proposes to phase out support for RF1 file production, while enabling and empowering those who depend on the RF1 distribution files to obtain them from IHTSDO for the foreseeable future and eventually create them for themselves, as long is operationally necessary.

The steps in the proposed withdrawal of support are explained below. The timeline associated with the steps is set out in the subsequent section.

4.1 Steps to Withdrawing RF1 Support

1. IHTSDO proposes to end its maintenance of the RF1 Compatibility Package. To achieve this, IHTSDO proposes to modify the use of some artifacts that are required to create the RF1 files. Following this modification, the Conversion Utility would continue to be available for interested stakeholders to generate an RF1 release. Some of the resulting RF1 files would differ from the current RF1 files. This proposal is explained in Appendix A.

2. The Conversion Utility becomes a purely algorithmic conversion, eliminating the need for the Compatibility Package. Please see the appendix for the specifics of the proposed changes.
3. IHTSDO makes the Conversion Utility permanently available on its distribution platform.
4. IHTSDO does not distribute the RF1 version of the SNOMED CT International Edition.
5. Stakeholders who want the RF1 distribution perform the conversion for themselves.

4.2 Timeline for Staged RF1 Withdrawal

Stage	Description	Proposed Timing
1	Initiation	November 2015
2	Reduce Compatibility Package support	January 2016
3	<ul style="list-style-type: none"> • IHTSDO continues to distribute the RF1 version of the SNOMED CT International Edition • The Conversion Utility becomes a purely algorithmic conversion, eliminating the need for the Compatibility Package • IHTSDO makes the Conversion Utility permanently available on its distributive platform 	July 2016
4	<ul style="list-style-type: none"> • IHTSDO releases only RF2 • IHTSDO does not distribute the RF1 version of the SNOMED CT International Edition. • Stakeholders who want the RF1 distribution, perform the conversion for themselves. 	January 2017

5 Requestors & Supporters of RF1 Deprecation

For reasons stated above, IHTSDO wishes to withdraw support for RF1, and to encourage IHTSDO Members and Affiliates to consume RF1 files only. IHTSDO has discussed options to approaching the withdrawal with the three main stakeholder Members (U.S.A., Canada and UK). The UKTC has assisted with a proposal that enables a phased approach. This approach is described above.

Supporters of RF1 deprecation include the CEO, the Digital Product Architect, the IHTSDO Management Team, and the three main stakeholder Members.

6 Stakeholder Engagement

This document initiates the main stakeholder engagement phase of the process to withdraw RF1. Preparatory consultations have been held with the U.S. NLM (Betsy Humphreys, Vivian Auld, Suzy Roy), the UKTC (Denise Downs and team), Canada Health Infoway (Dennis Giokas, Linda Parisien, Andrea MacLean).

7 Potential Impacts

IHTSDO acknowledges that some health providers and software vendors, especially in the USA, UK and Canada, consume the RF1 SNOMED CT files.

This proposal reduces the impact on stakeholders, sets a timeline for the withdrawal of RF1 from the market, and provides a means for them to obtain RF1 releases until they are able to convert their systems to consume RF2. IHTSDO has distributed eight authoritative RF2 releases to date. Consequently the effect on stakeholders is expected to be minimal.

8 Commercial or Collaboration Agreement Impacts

There are no known impacts on existing or proposed commercial or collaboration agreements with specific end users. This deprecation proposal is intended to elicit information about specific attributable commercial concerns among Member countries.

Appendix A

Proposed changes to RF1 Artifacts to accommodate a simplification of the Compatibility Package currently required in conversion of RF2 files to RF1 format.

A.1 CTV3 ids

When SNOMED CT was created through the merger of SNOMED RT and CTV3, the CTV3 identifiers were included in the SNOMED CT release. CTV3 pertains to the UK only; the appropriate CTV3 IDs are added to the UK extension by the UK terminology authors. For new content that is added outside the UK, a 'dummy' CTV3 ID is added. The UK has notified its suppliers that the dummy identifiers should not be used to identify SNOMED CT concepts that are equivalent to CTV3 concepts, but that the UK mapping tables should be used. It is now proposed that dummy CTV3 identifiers are no longer added.

IHTSDO proposes that the International Edition no longer populates with dummy CTV3IDs for new concepts going forward, but populates with a NULL. In the RF2 release, the CTV3 reference set would be retired. History would remain in the Full and Snapshots in the RF2 release. No data would appear in subsequent Delta files.

A.2 Legacy SNOMED codes

The equivalent action to that undertaken for CTV3 identifiers was also taken for concepts that originated in antecedent versions of SNOMED. IHTSDO makes available maps between legacy SNOMED codes and SNOMED CT codes; these should be used instead of the SNOMED RT identifier in the SNOMED CT concepts in the International Edition.

IHTSDO proposes that antecedent SNOMED identifiers no longer be maintained and future content is null.

A.3 Relationship IDs (including historical relationships)

It is known that relationship IDs are not reliably persistent across SNOMED CT releases. It is felt to be advantageous to make this clearer to developers through changing the methodology for creating relationship IDs.

We realize that some applications might depend on the relationship identifier as a primary key. IHTSDO proposes not to populate the relationshipId field, instead leaving it NULL.

A.4 Optional qualifiers

It is known that some suppliers use optional qualifiers, and so it is proposed to continue to maintain these as best as possible until a more robust solution has been developed, probably through the mrcm.

We wish to ensure developers are aware that these are not provided in RF2 and that there are issues with completeness and quality of the current optional qualifiers in RF1.

We would also encourage that anyone using these, or intending to use this mechanism, engages with IHTSDO in helping to determine the future approach.

A.5 Optional qualifiers and Refinability

Maintenance of qualifiers prior to a successor technology becoming available is likely to include a managed degradation of existing refinability values towards an algorithmically simple but not entirely semantically correct encoding, in which refinability is computable from Characteristic type (and, therefore, becomes itself redundant).

For example, where we have:

CharacteristicType	Refinability	#Rels
0	0	2238355
0	1	453393
1	0	178
1	1	2937
1	2	375995
2	0	232436
3	0	46294

...we could probably move to, as a simpler transitional position:

CharacteristicType	Refinability	#Rels
0	0	2691748
1	2	379110
2	0	232436
3	0	46294

A.6 Reason for inactivation code

In RF2 reason for inactivation is provided by the concept being a member of the appropriate reference set, there being a reference set for every reason code in RF1 except no reason for inactivation. While a reason is generally sought, there are some inactivated with no reason. The method to create this data in RF1 is already established and so the recommendation is to continue to provide this.

Component History Table

The last column provides a field giving an explanation for inactivation. It is proposed to no longer populate this and enter null.

NULL	3330251
Concept moved to core	588
Concept moved to UK extension	90
Concept now identified as core	12

Concept now identified as extension	57
CONCEPTSTATUS CHANGE	18584
CREATED AND RETIRED INTRA-RELEASE	5
DESCRIPTIONSTATUS CHANGE	247621
DESCRIPTIONTYPE CHANGE	30233
DESCRIPTIONTYPE CHANGE, LANGUAGECODE CHANGE	1270
DESCRIPTIONTYPE CHANGE,INITIALCAPITALSTATUS CHANGE	61
DESCRIPTIONTYPE CHANGE,INITIALCAPITALSTATUS CHANGE,LANGUAGECODE CHANGE	11
DESCRIPTIONTYPE CHANGE,LANGUAGECODE CHANGE	432
DESCRIPTIONTYPE CHANGE;INITIALCAPITALSTATUS CHANGE	34
DESCRIPTIONTYPE CHANGE;LANGUAGECODE CHANGE	1012
Duplicate of core concept	4
FULLYSPECIFIEDNAME CHANGE	160804
INITIALCAPITALSTATUS CHANGE	70199
INITIALCAPITALSTATUS CHANGE, DESCRIPTIONTYPE CHANGE	8
INITIALCAPITALSTATUS CHANGE, LANGUAGECODE CHANGE	1
INITIALCAPITALSTATUS CHANGE,LANGUAGECODE CHANGE	25
LANGUAGECODE CHANGE	7643
LANGUAGECODE CHANGE, DESCRIPTIONTYPE CHANGE	29
Product name change	3
Status CHANGE	31948

Appendix B RF1 Deprecation Proposal: Summary of Feedback from Consultation

Summary of RF1 Deprecation Proposal

The following is a high level summary of the proposed timeline and associated events. The full text of the approved proposal is available here: [...]

October 2015	Decision to deprecate RF1
January 2016	Updated RF2 to RF1 conversion utility is available to public
July 2016	Final RF1 release by IHTSDO
January 2017	RF1 users obtain files by converting them from RF2

Communication of the Consultation Period

The consultation period was announced 30 days before its commencement as required in the Deprecation Process. IHTSDO Members were advised via the Member Forum. The public was informed via IHTSDO's website. Stakeholders in the U.S. and Canada were invited to participate in teleconferences organized by the respective NRCs.

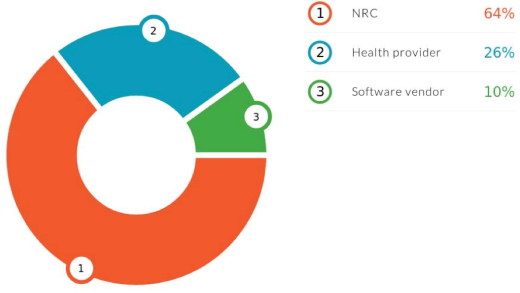
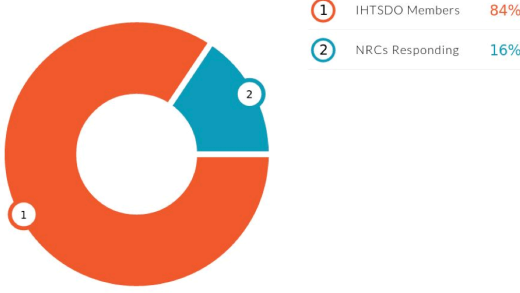
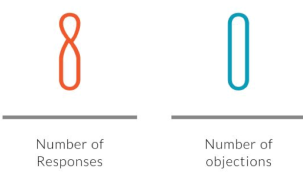
Premise of the Consultation Period

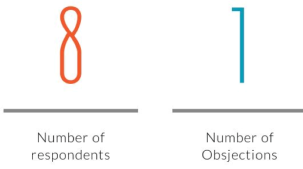
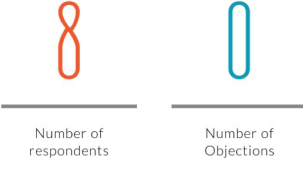
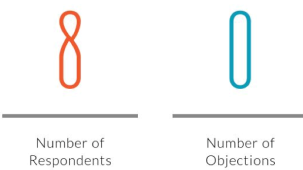
IHTSDO expected that during the consultation period, those who had reason to resist the proposal would provide feedback, those who had specific feedback - favorable or unfavorable - would respond, and those who had no reason to resist the proposal would not respond.

Interpretation of Feedback

IHTSDO expected the content of the responses would indicate the level of resistance to the proposal. If resistance were high, IHTSDO would review the timeline and details related to support. If resistance were low, IHTSDO would proceed with proposal without revision.

Analysis of Feedback from consultation period

<p>There were 8 respondents, of which 5 were NRCs, two were health providers and 1 was a software vendor.</p>	<h3>Respondent Analysis (N=8)</h3>  <table border="1"> <tr> <td>1</td> <td>NRC</td> <td>64%</td> </tr> <tr> <td>2</td> <td>Health provider</td> <td>26%</td> </tr> <tr> <td>3</td> <td>Software vendor</td> <td>10%</td> </tr> </table>	1	NRC	64%	2	Health provider	26%	3	Software vendor	10%
1	NRC	64%								
2	Health provider	26%								
3	Software vendor	10%								
<p>Five out of 27 IHTSDO Members responded.</p>	<h3>Members responding</h3>  <table border="1"> <tr> <td>1</td> <td>IHTSDO Members</td> <td>84%</td> </tr> <tr> <td>2</td> <td>NRCs Responding</td> <td>16%</td> </tr> </table>	1	IHTSDO Members	84%	2	NRCs Responding	16%			
1	IHTSDO Members	84%								
2	NRCs Responding	16%								
<p>All respondents agreed that the proposed timeline to the decision to deprecate the RF1 distribution (October 2015) was acceptable.</p>	<h3>Proposed timeline to a decision to deprecate</h3>  <table border="1"> <tr> <td>8</td> <td>Number of Responses</td> </tr> <tr> <td>0</td> <td>Number of objections</td> </tr> </table>	8	Number of Responses	0	Number of objections					
8	Number of Responses									
0	Number of objections									

<p>All but one respondent accepted that the timeline for the withdrawal of support (January 2017) was acceptable.</p>	<p>Proposed timeline for RF1 support</p>  <p>Number of respondents: 8 Number of Objections: 1</p>
<p>All respondents accepted that the level of support for the RF1 distribution between deprecation and withdrawal was acceptable.</p>	<p>Proposed level of RF1 support</p>  <p>Number of respondents: 8 Number of Objections: 0</p>
<p>All respondents agreed that the proposed changes to the RF1 distribution to bring about autonomous, unsupported conversion of RF2 files to RF1 were acceptable.</p>	<p>Proposed changes to RF1 to facilitate conversion</p>  <p>Number of Respondents: 8 Number of Objections: 0</p>

Summary of comments

1. Comments on the Proposed Timeline for RF1 Support

Two respondents indicated that RF1 would be required for production use beyond the January 2017 cutoff date, until January 2018 and April 2018. The proposal provides for production use indefinitely after the advertised cutoff date. Whereas the information was useful, it does not require a review of the proposal.

2. Proposed level of RF1 support

One respondent asked that IHTSDO accelerate the timeline for releasing conversion utility. IHTSDO has no objection to this.

Two respondents asked that IHTSDO continue producing RF1 distribution centrally. IHTSDO will consult with these respondents directly on the level of service required, to ensure that their operations are not compromised.

One respondent asked that IHTSDO provide resources such as documentation and videos to facilitate using the conversion utility. IHTSDO will consider how to do this in a cost-effective way.

Action on comments

IHTSDO will publish the conversion utility as soon as it can be scheduled as a work item.

IHTSDO will liaise with the respondents directly on options for centralized RF1 distribution to limited users for a limited time, so that the respondents' operations are not compromised

Conclusion

Analysis of risks raised

IHTSDO evaluated the responses and comments to determine whether any unexpected risks were raised as a result of the withdrawal of the RF1 distribution of SNOMED CT. The evaluation indicated that:

- No risk was raised regarding patient safety.
- No risk was raised identifying a likely decrease in SNOMED CT quality.
- No indication was given of a risk to any current investment in SNOMED CT.
- No indication was given of any risk to future SNOMED CT adoption and implementation.

Next Steps

Given the low response rate, and the very low resistance to the proposal, and IHTSDO's willingness to work with stakeholders who have expressed minor concerns, IHTSDO proposes to

- Proceed to deprecation as proposed;
- Proceed with proposed level of support;
- Withdraw RF1 support as per timeline.