Hello Taskforce,

Section 2.8 of the Control chapter talks about change from version to version. Here is what it says:

2.1 VERSION COMPATIBILITY DEFINITION

The rules, described in section 2.6, Message construction rules, for receiving HL7 messages and converting their contents to data values allow the following definition of a backward compatibility requirement between the 2.x versions of HL7:

Note: If an issue is not covered explicitly under these rules, no assumption should be made that the change is allowed.

The keys to understanding version compatibility are the following 2 axioms, plus the processing rules which state that unexpected information should be discarded.

- Old receivers receiving new messages should be able to continue receiving messages without error.
- New receivers should be able to understand old messages.

This section elaborates on what the kinds of changes can be done that satisfies these axioms. Only HL7 changes introduced in new versions are included. Local extensions are discussed in section 2.11, "Local Extension".

2.1.1 Adding messages or message constituents

A new message or a new constituent of an HL7 message may be introduced as described below. A sending system should be able to send a new message or new constituent; the receiver, regardless of its version level, must ignore any message or message constituent it is not expecting without generating an application failure. This does not preclude a receiver notifying the sender that additional element was ignored, but the receiving application should not fail just from the existence of additional element.

a) New messages may be introduced.

b) A new segment group may be defined.

c) The first segment in a newly-defined segment group, as of v 2.5, must be marked as required.

d) New segments may be introduced to an existing message. In general these will be introduced at the end of a message or a segment group, but they may be introduced elsewhere within the message if the segment hierarchy makes this necessary. Unless needed as a technical correction or for regulatory reporting purposes, a new segment may not be added to a deprecated message. As of v2.6 all new segments, except for those pertaining only to message transmission or control, must include an Action Code field as the first or second field as appropriate.

e) Care must be taken when introducing a new segment if this results in a situation in which a named segment X appears in two individual or group locations. See section 2.6, "Message construction rules".

f) New fields may be added at the end of a segment. A field that changes the semantic meaning of a segment (e.g., an Acton Code, or Mood code) may only be introduced in a pre-existing segment if the usage of the field is conditional on it not being used in messages with pre-existing trigger events. This is to avoid the risk of reversing the intent of the segment as it is known to the recipient of an earlier version. For example, if the Sender were to send the segment with a delete action code, the recipient would not understand that the information should be deleted.

g) A new data type may be introduced.

h) New components may be added at the end of a data type.
2.1.2 Changing messages or message constituents

Allowable changes to messages or message constituents can be categorized as name, data type, optionality, repeatability, length or definition changes.

a) The descriptive text name of a message or message constituent (except for segment group name) may be changed. This should have no impact on either the sender's ability to transmit a message or the receiver's ability to receive and understand the message. Reasons for changing the descriptive text name include: 1) clarify a misleading name, and 2) encompassing a broader use without jeopardizing current use.

b) The data type of a field or data type component may be changed. A sending system should be able to send the modified field or data type; the receiver, regardless of its version level, should be able to understand the message and to ignore any message constituent it is not expecting.

1) The data type of the field may be changed provided that the components of the new data type have the same structure and interpretation as the old data type. For example, an IS data type may be changed to a CE, but a PPN data type cannot be changed to a PN. An NM data type cannot be changed to an ST data type.

2) For existing fields in existing segments, data types may be changed if the leftmost (prior version) part of the field has the same meaning as it had in the prior version of HL7. This is in accordance with the rules governing the addition of new components and subcomponents described in the section above. In other words, if the new parts of the field (those that are part of the new data type) are ignored, what remains is the old field (defined by the old data type), which has the same meaning as it had in the prior version of HL7.

3) If a data type component has its data type changed, the structure and interpretation must remain the same as the pre-existing component. Any new component is added at the end of the data type.

c) The optionality of a message constituent may be changed. A sending system should be able to send the modified field; the receiver, regardless of its version level, should be able to understand the message. This pertains as follows:

1) Existing optional segment groups may be made required.
2) Existing optional segments may be made conditional or required.
3) Existing optional fields may be made conditional or required.
4) Existing required fields may be made conditional if a new trigger event has been applied. The condition must be specified such that the field remains required for the pre-existing trigger events.
5) Existing optional components of a data type may be made conditional or required.

d) The repeatability of a message constituent may be changed. A sending system should be able to send the modified message constituent; the receiver, regardless of its version level, should be able to understand the message. Note that if a non-repeating message constituent is made repeating, information sent in the new repetitions may be lost to the recipient who is not expecting them.

If HL7 has given, or will give, semantic meaning to the first instance, to allow backward compatibility, the first instance of the repeating constituent shall have the same meaning as the non-repeating constituent had in the prior version of HL7. In this way, a receiving application that interprets the message based upon the prior standard would continue to find the same intent communicated in the message.

If HL7 has not given, and will/can not give, semantic meaning to the first instance, and one or more implementation-applied business rules exist to select one of several occurrences to populate a non-repeating constituent, those same rules should be applied when a newer version of the standard allows for repetition of the constituent. By applying the prior business rules to determine the first occurrence of a repeating constituent, a receiving application that interprets the message based upon the prior standard would continue to find the same intent communicated in the message.

If, in the judgment of the owner/author of the standard section in question, changing a message constituent from non-repeating to repeating poses logical, parsing, business, or other compatibility issues, the owner/author may elect to create a new structure to eliminate the compatibility concern. For example, if allowing a segment to repeat implies a change to the business intent of the message, the technical committee responsible can elect to define a new message structure (as a new message/trigger) and retain the old structure for backward compatibility.

This pertains as follows:
1) A segment group may change from non-repeating to repeating, subject to the backward compatibility concerns expressed above.
2) A segment group may NOT be changed from repeating to non-repeating.
3) A segment may be changed from non-repeating to repeating, subject to the backward compatibility concerns expressed above.
4) A segment may NOT be changed from repeating to non-repeating.
5) A field may be changed from non-repeating to repeating, subject to the backward compatibility concerns expressed above. A field may NOT be changed from repeating to non-repeating.
e) The minimum and maximum normative lengths and the conformance length and truncation status of each field or data type component may be changed between versions.
f) Table definition may change.
   1) A table may be changed from user-defined to HL7 defined or externally defined.
   2) A table may be changed from HL7 defined to an externally defined table. When this occurs, the data type of the field should be changed to a CNE or CWE.

2.1.3 Deprecating messages or message constituents

Any required, optional or conditional constituent of an HL7 message, including the message itself, may be deprecated. This means that one of the following situations has occurred:

- The message or message constituent no longer has a meaningful purpose
- The message or message constituent has been replaced by a better method

Language will be inserted stating the fact of deprecation, the version in which the deprecation occurred, and what message or message constituent, if any, replaces it. The phrase "Retained for backward compatibility only in version 2.x; refer to section n.m instead" will be the standard language for such an occurrence.

The fact of deprecation should not affect either the sender or the receiver because the message or message constituent is retained for backward compatibility. Implementers, by site agreement, may agree to not support deprecated message constituents.

The following are allowed:

a) A message may be deprecated.
   a) A trigger event may be deprecated.
   b) A message structure may be deprecated.
   c) A segment in an existing message may be deprecated. Implementers, by site agreement, may agree to not support deprecated segments. If the segment that is to be deprecated has dependents the entire segment group must be deprecated. For example, in a group [{ABC[DEF]}{GHI}], DEF and/or GHI may be deprecated, but ABC cannot be deprecated without deprecating the whole.
   d) A field may be deprecated by HL7. Implementers, by site agreement, may agree to not use deprecated fields.
   e) A data type may be deprecated provided all fields referencing it have been deprecated or there is an explicit statement that the data type is not to be used in any field defined in the future.
   f) A data type component may be deprecated.
   g) A table may be deprecated. This includes HL7 tables, user-defined tables, imported external tables and reference to external tables.
   h) An entry in an HL7-defined table may be deprecated. The table itself should be reviewed if it contains a substantial number of deprecated members.
   i) An entry in an imported external table may not be deprecated.

2.1.4 Removing messages or message constituents

A message or message constituent may be removed from the standard when criteria described in this section are met. HL7 will track old names so they are not re-used.
a) A message constituent may be immediately removed from the standard based on the following criteria (immediately means in the same version in which the criteria are met.).

1) A message structure may be removed immediately provided no message references it in the standard. Care must be taken lest a message structure is prematurely removed if the associated trigger event that contributed to its name is removed. For example, if a message structure ABC_D01 is associated with trigger events D01, D02 and D03 and D01 is changed and becomes associated with another existing message structure DEF_E01, the message structure ABC_D01 is still active and valid for trigger events D02 and D03.

2) A segment may be removed immediately provided no message references it in the standard.

3) A data type may be removed immediately provided no fields reference it. This occurs when the data type for a field is changed to a new data type that incorporates the components of the old one.

4) A table may be removed provided all fields and components, where the table has been used have been removed. This applies to HL7, user-defined and external tables. It is recognized that this might have a ripple effect.

b) A message constituent, except as noted in points c, d and e below, will be withdrawn and removed, no sooner than, after 2 versions in a deprecated state. For example, if a message was originally deprecated in v 2.3.1, its definition can be removed when v 2.6 is published.

1) A message type and its definition may be removed.

2) A trigger event and its definition may be removed.

3) A segment group in an existing message may be removed.

4) A segment in an existing message may be removed.

c) A deprecated field in an existing segment may NOT be removed from the standard. However, no sooner than, after 2 versions in a deprecated state, the field will be marked as withdrawn and all explanatory narrative will be removed.

d) A deprecated component in an existing data type may NOT be removed from the standard. However, no sooner than, after 2 versions in a deprecated state, the component will be marked as withdrawn and all explanatory narrative will be removed.

e) A deprecated member of an existing HL7 table may NOT be removed from the standard. However, no sooner than, after 2 versions in a deprecated state, the table member will be marked as withdrawn and all explanatory narrative will be removed from the description and comment column.

2.1.5 Early adoption of HL7 changes
Early adoption of HL7 changes that have been approved by the technical committee for the next membership ballot is a common practice and is not prohibited, but carries risk. Such changes may be rejected or modified in the balloting process. One example is that the change may pass but may be positioned differently in the segment or data type.

2.1.6 Technical correction rules
Technical corrections may be applied between versions on a case-by-case basis. These corrections will be published on the HL7 website. The following meet criteria for technical correction:

a) Spelling correction

b) Incorrect section reference

c) Transcription error in an imported external table

d) Correction of an inconsistency between a segment attribute table and the field narrative

e) Erroneous examples

f) Erroneous/misleading descriptions
No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2221 / Virus Database: 2441/5304 - Release Date: 10/02/12