5.7.1.2 Assessing Change Impact

After identifying the components that have changed since the previous release, it is important to assess how these changes may affect the content of the extension. In particular, extension producers will need to ensure that the quality of the extension has not been compromised. For example, this may include checking that no relationship in the extension refers to an International Edition concept that has been inactivated, and checking for new concepts that may need to be added to reference sets in the extension.

The following table presents some examples of how changes in the International Edition may affect new versions of an extension. Please note that this list is not exhaustive, but instead provides examples of the types of maintenance tasks which are likely to be required when managing changes in an extension. Also note that extension consumers will need to assess the impact of changes in an extension edition on their implementations.

Table 5.7.1.2-1: Examples of terminology changes that may affect an extension

Concept inactivations	Extension Impact
A concept, which is referenced by a reference set member (i.e. the *referencedComponentId*) in the extension, has been inactivated.	Reference sets are permitted to reference inactive components as there are valid use cases for this. However, it is recommended that inactive components are not for capturing clinical data. Therefore, if the extension reference set may be used by consumers for clinical data capture, the associated reference set member should be inactivated, and a potential replacement considered. For more information please refer to 6.3.2 Authoring Reference Sets. Potential replacements for the inactivated concept can be found in the relevant historical association reference set.
A concept, which is the parent of an extension concept (i.e. it is the *destinationId* of a relationship of type | is a|), has been inactivated.	To retain the referential integrity of the extension, it is important that all extension concepts are subsumed (via active concepts) by the root concept in the International Edition. When the parent of an extension concept is inactivated, the associated | is a| relationship in the extension must also be inactivated, and a new relationship created to link the concept to an alternative international parent concept. For more information please refer to 5.4.4.3 Inactivate Relationship in an Extension and 5.4.4.1 Add Relationship in an Extension.
A concept, which is used in an extension relationship (i.e. in the *sourceId*, *typeId* or *destinationId* of the relationship), has been inactivated.	When a concept is inactivated, all relationships in which that concept participates in (as the *sourceId*, *typeId* or *destinationId*) must also be inactivated. For more information please refer to 5.4.4.3 Inactivate Relationship in an Extension. When an extension concept references a concept from the International Edition which has been inactivated, the extension concept should be updated to apply active concepts. This may involve updating the modeling of a concept to use the suggested active replacements as they are stated in the relevant historical association reference set.
Concept additions	**Extension Impact**
A concept has been added to the International Edition, on request by the extension producer, and a corresponding concept has been temporarily added to the extension in the interim.	If a new concept is added to the International Edition, which represents the same meaning as a concept in the extension, the extension concept should be inactivated. Any references to the inactivated extension concept should be replaced by references to the new international concept. For more information, please refer to 5.4.2.3 Inactivate Concept in an Extension, 5.4.4 Authoring Relationships and 6.3.2 Authoring Reference Sets. In general, checks should to performed ensure that no fully defined concept in the extension has the same logical definition as a concept in the International Edition (or any module on which the extension depends).
A concept has been added to the International Edition, on request by the extension producer, for use in a national reference set.	A new member of the extension reference set should be added to refer to the new international concept. For more information, please refer to in 5.4.6.1 Add Members to a Reference Set.

Description inactivations	Extension Impact
A description, which is referenced by a reference set member (i.e. the *referencedComponentId*) in the extension, has been inactivated. For example, the description may be used in a national language reference set.	The reference set member that references the inactive description should be inactivated. For more information, please refer to 5.4.3.3 Inactivate Description in an Extension. In some situations, the inactivated reference set member may need to be replaced by a new member. For example, if the inactivated description was being used as a preferred term in a language reference set, then an alternative preferred term should be defined for the associated concept.
Description additions	**Extension Impact**
A new description has been added to the International Edition, and the extension specifies the acceptability of all international descriptions.	A new member of the relevant language reference set, which specifies the acceptability of the new description, may need to be created. For more information, please refer to 5.4.6.1 Add Members to a Reference Set.

Reference set inactivations	Extension Impact
The concept identifying a reference set, which is used in the extension, is inactivated.	If the reference set is not used in the extension, then no action is required. If the reference set is used in the extension, a decision should be made as to whether or not the reference set is still required. If the reference set is required, then a new local version of the reference set may need to be created. For more information, please refer to 5.4.5.1 Create New Reference Set in an Extension.
A member of a reference set, which is used in the extension, is inactivated.	If the extension uses extension reference set members to adapt an international reference set, a decision should be made as to whether or not the inactivated member is required in the extension. If it is, then the inactivated reference set member may need to be reactivated in the extension. If not, then no action is required. For more information, please refer to 6.3.2 Authoring Reference Sets.
Reference set additions	**Extension Impact**
A new reference set is added to the International Edition.	A decision should be made as to whether or not the new reference set could replace any national or locally created reference sets. If so, then this could alleviate the associated maintenance responsibilites. For more information, please refer to 6.3.2 Authoring Reference Sets.
One or more members have been added to a reference set in the International Edition.	If the extension uses extension reference members to adapt an international reference set, a decision should be made as to whether or not the new reference set members should be adopted in the extension reference set. For more information, please refer to 6.3.2 Authoring Reference Sets.