

Revit Connector Link Support

The Revit Connector processes master and linked files separately but converts all instances of linked models. To enable link support, the feature flag **allow-revit-links** must be set in the project. This currently must be completed by Bentley before any synchronizations with Revit data are attempted.

Key differences between normal and link processing:

- Normal Revit file processing:
 - Processes all 3D views and can optionally process 2D views and sheets.
 - Does not process any Revit link instances.
 - Processes only the default design option, ignoring others.
 - Linked files are treated as master files.
- Revit link processing:
 - Master files:
 - Processes all 3D views
 - Captures all link instance information, which is used when processing the linked Revit files.
 - Processes the default design option, similar to normal Revit file processing.
 - Linked Revit files:
 - Processes only the design options referenced by a master file in the iModel.
 - Does not process any 3D or 2D views and sheets.
- Note: Normal and link processing cannot be mixed within a single iModel.

File processing sequence:

- Master files must be processed before any linked files they refer to.
- Example:
 - Master A
 - Master B
 - Link A
 - Link B
 - Link C
- The sequence of master files can vary, but they must be processed before any linked files they reference.
 - If Master C is processed after the previous sequence, it cannot reference Link A, B, or C, but it can reference a new linked file, Link D.

- If Master C references any of the linked files A, B, or C, the connector will not be able to process instances of these links, meaning the iModel will not include those instances. In such cases, the linked files referenced by Master C need to be reprocessed.
- Example: If Master C references Link A, Link C, and the new Link D:
 - Master A
 - Master B
 - Link A
 - Link B
 - Link C
 - Master C
 - Link D
 - Link A
 - Link C
- Note: Examples are to describe the desired conversion sequence. So, if we use multiple connections we need to ensure the sequence described above are followed. See the best practices section for recommended connections.

Unmapping Revit files

- Master Files:
 - There are no restrictions on unmapping master files.
 - When a master file is removed from the iModel, all instances of the linked files associated with it will also be removed.
 - To remove any unused linked files from the iModel, the linked files should be unmapped separately.
- Linked Files:
 - There are no restrictions on unmapping linked files.
 - All instances of the unmapped linked files will be removed from all master views.

Best Practices

- Limitations
 - In link processing mode only 3D views of masters are processed
 - No 3D and 2D views of link files are processed. Only the instances in the master are processed
 - Only one level of links are supported
 - If a link file of a master Revit file has more links, the connector will not be able to process them
 - Once the flag is set to the project, all the Revit files will be processed in the link support mode. So we should not mix the normal mode and Link support mode of iModels in the same project
 - If the link file name does not match with the link file in the master, the linked file will be processed as a master file
- Connections:

- It's recommended to keep master files and linked files in separate connections
- If a master file is updated, both the master and link connections need to be synced in the following strict order
 - Master connection
 - Link connection after completion of master connection
- If synchronizations are scheduled, schedule the master files first.
- If a linked file is updated, only the linked file connection needs to be synced.
- If a design option in a linked file is deleted, the master file must be updated, and both the master and linked connections need to be synced where master connection need to synced first.