OBO COBie Submittal Checklist

DOS BIM Training 130

WHAT IS THE OBO COBIE CHECKLIST?

COBie (Construction Operations Building Information Exchange) is an information exchange specification for the life-cycle capture and delivery of information needed by facility managers. It is a tool to guide the review of COBie submittals based on OBO BIM requirements listed below. The OBO COBie Checklist is also provided to educate and inform the entire project team on how the COBie submittal will be reviewed. Project-specific requirements are identified in the Minimum Modeling and Data Requirements (MMDR). Exceptions to the requirements are to be listed in the BIM Execution Plan. The Checklist is what the OBO BIM Managers use to review COBie submittals and is shared with the AEs to spot check their own submittals.

Learn more about COBie: https://www.nibs.org/page/bsa_cobie

RELATED OBO REQUIREMENTS

Document	Section(s)
Minimum Modeling and Data Requirements (MMDR)	• Tab 03 Assets Requiring Data ("Yes" in Col F) • Tab 04 Type Data • Tab 05 Instance Data
BIM-Requirements	• COBie Requirements • Modeling Requirements
BIM Execution Plan (BEP)	• Exceptions to the MMDR as submitted by AEs and approved by OBO BIM Manager

THE COBIE SUMITTAL CHECKLIST

Part A — Basic Checks

— A COBie file has been submitted.

— I have one COBie file per building (architectural and MEP data all in a single file).

— The COBie file has multiple tabs.

— The COBie file contains data in the following tabs specified in your BIM Requirements:

— Contact	— Space	— Job
— Facility (1 record ONLY!)	— Type	— Document
— Floor	— Component	— Attribute

— No empty or N/A cells are present in Column A.

— Contact tab: there are no duplicate contact emails or URLs in column A of the Contact tab.

— Floor tab: there are no duplicate floor names in column A.

— Space tab: there are no duplicate space (Revit "Room") numbers in column A.

— Type tab: there are no duplicate type names in column A.

— Component tab: there are no duplicate components names ('Mark"/"Symbol") in column A

— Document tab: there are no duplicate document names in column A.

⚠️ ## END OF PART A — BASIC CHECKS

Do not proceed to the next step until the COBie file passes all Part A — Basic Checks

Part B — Visual / Manual Checks

CONTACT TAB

— All basic contacts for the project are listed. Coordinate with BIM Execution plan contacts.

— All Manufacturers / Guarantors occurring in the "Type" tab are also listed there.

— Each value in the first column is unique.

— All required columns are completed ("N/A" is permitted for unavailable values).

FACILITY TAB

— There is only one single record.
— The units are specified from allowed values in the PickLists (last tab of COBie file).

FLOOR TAB

— There is only one record for each floor.
— Each value in the first column is unique.

SPACE TAB

— Each value in the first column (DsgRefTag) is unique.
— Every space record is linked to a value in the first column of the Floor tab.

TYPE TAB

— Each value in the first column is unique.
— Names are short and meaningful (e.g. avoid names like "WATER HEATER_Mechanical Equipment_WATER HEATER") for example "Water Heater", "AHU-01", "AUH-02", "HWP-01", etc.
— Each record has a classification (e.g. OnmiClass Table 23).
— Records are grouped by "Type" – i.e. same Manufacturer + same Model Number is usually a single Type (e.g. avoid one Type record for each Instance record in the Component tab).
— Each record contains data based on the MMDR.
— Where applicable attributes have been linked to the correct Type record from the Attribute worksheet.

COMPONENT TAB

— Each value in the first column is unique.
— Every component listed in the COBie file is modeled as separate and unique Model Element in the BIM (see BIM Requirement) except as listed in the BEP.
— The component name is usually the unique "Mark" or "Symbol" matching the Revit model.
— The component name is listed in BIM schedules accordingly.
— Every component is linked to an existing record in the "Space" tab by a valid value.
— There are no "N/A" or empty fields in column "E", which specifies the "Space" that the component is in.
— Every record is linked to an existing record in the "Type" worksheet by a valid value.
— There are no "N/A" or empty fields in column "D"
— Attributes required in the MMDR are present.

JOB TAB

— Each record in the "Type" tab requiring Preventive Maintenance has an associated record with a unique name.

— Each record is linked to a record in the "Type" tab through column "F".

— There is one record in the "Attribute" tab for each record in the "Job" tab linking the PM job to a "OBO PM Checklist Code" (see BIM Requirements).

DOCUMENT TAB

— All documents are listed as per BIM Requirements.

— Each value in the first column is unique.

— Each record is linked to the appropriate level object in column "G" (SheetName).

— Parts lists are not linked to the entire building.

— Parts lists are linked to a specific "Type" (i.e. model) of an asset.

— Values in the "Directory" column match the submittal folder structure for documents.

ATTRIBUTE TAB

— Each record is linked to a valid RowName in the appropriate Sheet.

— Each record has a valid value in the "Value" column.

— There are no "N/A" or empty files in the "Value" column.

— The combination of Name-SheetName-RowName is unique.

Part C — Compliance with the Department of State BIM Requirements

— My COBie file passed all checks in Part B above since it included all assets required per MMDR.

— All COBie exceptions are listed in the BIM Execution Plan.

— My COBie data is compliant and can be ingested by the CMMS application to support assets maintenance.

— All attributes listed in the MMDR tab "04 Tab Data" are included in the COBie file.

— All attributes listed in the MMDR tab "05 Instance Data" are included in the COBie file.

— Attributes specific to individual "Asset Types" are listed in the "Attribute" tab.

- For each record in the "Type" tab, there is on "Main Asset Type" record and one "Sub-Asset Type" record in the Attribute tab.
- Every component listed in the COBie file is listed as separate and unique Model Element in the BIM (as per BIM Requirements) except as listed in the BEP.
- Every asset in the model that is listed in the tab "03 Assets Requiring Data" in the MMDR is linked to a unique identifier in column A (usually "Mark" or "Symbol").
- All Revit Rooms are included as "Spaces" in the COBie file.
- Revit MEP "Spaces" are not included in the COBie file since they overlap with Revit "Rooms".

AUTOMATED COBIE CHECKERS

- Automated COBie Checkers are available, but do not replace the manual checking outlined in above.
- Automated COBie Checkers also do not check for compliance with OBO BIM Requirements.

We recommend strategic use of automated checkers:

- Check relational integrity of the file (e.g. checking to ensure that every Component record is linked to an existing record in the Type and Space tabs).
- Check that every Attribute record is linked to an existing record in the COBie file.

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