(CONFIG SHEET INSTRUCTIONS)

DETAIL INSTRUCTIONS:

It's an elaboration for config sheet to perform an initial project setup and updating the project using "Easy Asset Twin" scripts.

It supports the dynamic function which can create (or) update a project either with all set of data (or) with available information.

For any data, user group and properties configuration are dynamic based on every individual project.

- ♣ For Creating the Project setup make sure the below mentioned setup is done in config file before creating the project with available data.
- ♣ For Updating the Project setup, use the same config sheet as source, change the "Import List" sheet access as "Yes/No" and provide relevant data sheet to updated the project, whereas all other procedure steps remain same.

1. PATH SHEET:

A. SCRIPT PATH:

- i. This path is used to pick the JS script files for project setup.
- ii. Provide the local path where the repository are stored in your local machine.
- iii. Eg: C:/projects/ClientApplicationConfig/Solution Engineering/Easy
 Asset Twin Project/

B. BIMPK PATH:

- i. This path is used to pick the model file (BIMPK) for importing the model to project.
- ii. Provide the local path where the model are stored in your local machine, it should cover along with file name and file format.
- iii. Eg: C:/projects/ClientApplicationConfig/Solution Engineering/Easy
 Asset Twin Project/data/General Medical Architecture.bimpk

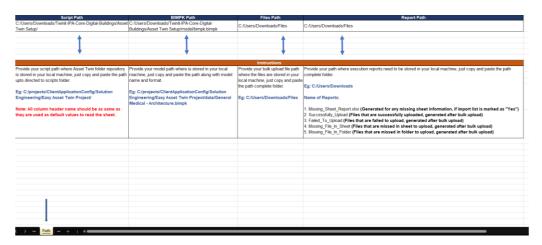
C. FILES PATH:

- i. This path is used to pick files automatically during the "Bulk File upload" process.
- ii. Provide the local path where the files are stored in your local machine.
- iii. Eg: C:/Users/DigitalTwin/Files

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D. REPORT PATH:

- i. This path is used to store the execution reports for the project setup.
- ii. Eg:C:/Users/Downloads/Reports
- iii. It has following set of report
 - Missing_Sheet_Report.xlsx (Generated for any missing sheet information, if import list is marked as "Yes")
 - Successfully_Upload (Files that are successfully uploaded, generated after bulk upload)
 - Failed_To_Upload (Files that are failed to upload, generated after bulk upload)
 - Missing_File_In_Sheet (Files that are missed in sheet to upload, generated after bulk upload)
 - Missing_File_In_Folder (Files that are missed in folder to upload, generated after bulk upload)

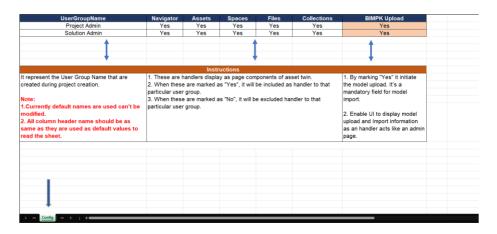


2. CONFIG SHEET:

- i. It represents the User Group Name that are created during project creation.
- ii. Navigator, Asset, Space, Files, Collections, Model Elements are handlers display as page component of asset twin.
 - a. When these are marked as "Yes", it will be included as handler to that particular user group.
 - b. When these are marked as "No", it will be excluded handler to that particular user group.
- iii. Bulk Upload will enable UI to display model upload and Import information as an handler acts like an admin page.
- iv. By marking "Yes" it initiates the model upload.
- v. Note:
 - a. Currently default names are used can't be modified.

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b. All column header name should be as same as they are used as default values to read the sheet.



3. IMPORT LIST SHEET:

A. BIMTYPE

- i. BIM Type function will map DtCategory and DtType properties to model.
- ii. When access is marked as "Yes" ensure the "Bim Type" sheet is filled with details.
- iii. When access is marked as "No" the "Bim Type" sheet can be empty.
- iv. It's a mandatory step to have BIM Type data imported along with DtCategory and DtType properties before the "Assets" or "Space" function import.

B. DOCUMENTATTRIBUTES

- i. Document Attribute function will add and update file attributes to the projects.
- ii. When access is marked as "Yes" ensure the "Document Attributes" sheet is filled with details.
- iii. When access is marked as "No" the "Document Attributes" sheet can be empty.
- iv. It's a mandatory step to have file attribute imported before the "Bulk File Upload".

C. ASSETS

- i. Assets function will add (or) update asset data and asset properties values.
- ii. When access is marked as "Yes" ensure the "Asset Property Info" and "Assets" sheet is filled with details.
- iii. When access is marked as "No" the "Asset Property Info" and "Assets" sheet can be empty.

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D. SPACES

- i. Spaces function will add (or) update Space data and Space properties values.
- ii. When access is marked as "Yes" ensure the "Space Property Info" and "Spaces" sheet is filled with details.
- iii. When access is marked as "No" the "Space Property Info" and "Spaces" sheet can be empty.

E. MODELIMPORT

- i. Model Import function will upload and import model to the project.
- ii. When access is marked as "Yes" ensure the "BIMPK Path" is provided under "Path" sheet.
- iii. When access is marked as "No" the "BIMPK Path" is provided under "Path" sheet can be empty.

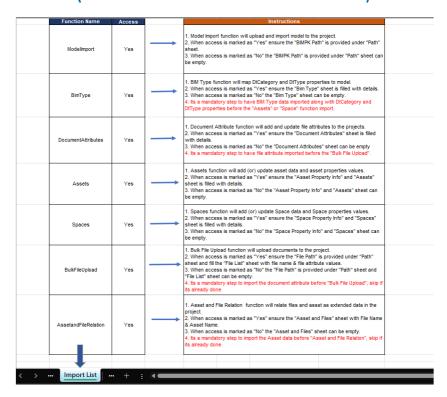
F. BULKFILEUPLOAD

- i. Bulk File Upload function will upload documents to the project.
- ii. When access is marked as "Yes" ensure the "File Path" is provided under "Path" sheet and fill the File List" sheet with file name & file attribute values.
- iii. When access is marked as "No" the "File Path" is provided under "Path" sheet and "File List" sheet can be empty.
- iv. It's a mandatory step to import the document attribute before "Bulk File Upload", skip if its already done.

G. ASSETANDFILERELATION

- i. Asset and File Relation function will relate files and asset as extended data in the project.
- ii. When access is marked as "Yes" ensure the "Asset and Files" sheet with File Name & Asset Name.
- iii. When access is marked as "No" the "Asset and Files" sheet can be empty.
- iv. It's a mandatory step to import the Asset data before "Asset and File Relation", skip if its already done.

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4. BIM TYPE SHEET: (APPLICABLE ONLY FOR BIMPK, NOT APPLICABLE FOR SGPK)

- i. Initially this sheet is exported from "Export Data Script.js" under project scripts using "Generate BIM Type Report" script
- ii. Later the exported data will only have Revit properties, leaving the dtCategory and dtType properties as empty.
- iii. For updating BIM Type elements its mandatory to add dtCategory and dtType properties values manually so the model elements will map with assets.
- iv. This sheet is used when BIM Type is marked as "Yes".
- v. Note:
- i. All column header name should be as same as they are used as default values to read the sheet.
- ii. This sheet is applicable only for BIMPK, Not Applicable for SGPK

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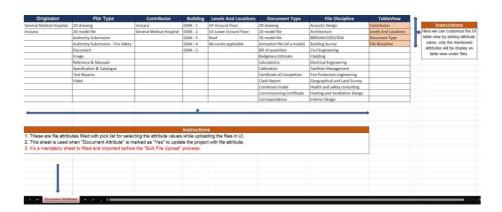
5. DOCUMENT ATTRIBUTES SHEET:

A. ATTRIBUTES:

- i. These are file attributes filled with pick list for selecting the attribute values while uploading the files in UI.
- **ii.** This sheet is used when "Document Attribute" is marked as "Yes" to update the project with file attribute.
- **iii.** It's a mandatory sheet to filled and imported before the "Bulk File Upload" process.

B. TABLE VIEW: (MANDATORY)

i. Here we can customize the UI table view by adding attribute name, only the mentioned attributes will be display as table view under files.



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6. ASSET PROPERTY INFO SHEET:

A. PROPERTY, TYPE AND UOM:

- i. This field is mandatory and should be filled with list of asset properties names as listed in asset sheet and respective type.
 - a. Eg: Type: text, date, number
 - b. Eg: Property: Asset Property Names
 - c. Eg: UOM: units of measures (If any)
- ii. Note: All column header names should be as same as they are used as default values to read the sheet

B. HIDDEN, GROUPS, PROPERTY SET: (OPTIONAL)

- i. This field is optional, can be filled with asset properties names as listed in asset sheet and these properties can be group as per the given name.
- ii. If group name and properties are "Blank" then it will automatically align as others group.
 - **Hidden:** This field will hide the properties to avoid displaying in UI.
 - **Groups:** This field will create groups and define the properties which are marked under the "property set".
 - Property Set: This field will map the asset properties to the relevant group.
- iii. Note: Only properties available in the asset sheet are applicable has to be listed, grouped and hidden.

C. TABLE VIEW: (MANDATORY)

i. Here we can customize the UI table view by adding asset property name, only the mentioned properties will be display as table view under assets.

D. RELATION: (OPTIONAL)

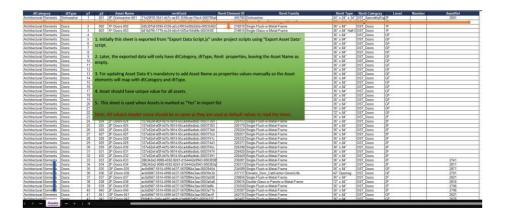
- i. Here we can add the common properties between assets & space to create relation between assets & spaces and the relation is displayed as extended data in UI under assets and space. (Define in both asset and space at same time).
- ii. It can also be "blank", it will skip the creating or updating relation between assets andspaces.

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7. ASSETS SHEET:

- i. Initially this sheet is exported from "Export Data Script.js" under project scripts using "Export Asset Data" script.
- ii. Later, the exported data will only have dtCategory, dtType, Revit properties, leaving the Asset Name as empty.
- iii. For updating Asset Data it's mandatory to add Asset Name as properties values manually so the Asset elements will map with dtCategory and dtType.
- iv. Asset should have unique value for all assets.
- v. This sheet is used when Assets is marked as "Yes" in import list.
- vi. Note: All column header name should be as same as they are used as default values to read the sheet.



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8. SPACE PROPERTY INFO SHEET:

A. PROPERTY, TYPE AND UOM:

- i. This field is mandatory and should be filled with list of Space properties names listed in Space sheet and respective type.
 - i. Eg: Type: text, date, number
 - ii. Eg: Property: Space Property Names
 - iii. Eg: UOM: units of measures (If any)
- ii Note: All column header name should be as same as they are used as default values to read the sheet

B. HIDDEN, GROUPS, PROPERTY SET: (OPTIONAL)

- This field is optional, can be filled with space properties names as listed in spaces sheet and these properties can be group as per the given name.
- ii If group name and properties are "Blank" then it will automatically align as others group.
- iii **Hidden:** This field will hide the properties to avoid displaying in UI.
- iv **Groups:** This field will create groups and defined the properties which are marked under the "property set".
- v **Property Set:** This field will map the space properties to the relevant group.
- vi Note: Only properties available in asset sheet are applicable has to be listed, grouped and hidden.

C. TABLE VIEW: (MANDATORY)

i. Here we can customize the UI table view by adding space property name, only the mentioned properties will be display as table view under spaces.

D. RELATION: (OPTIONAL)

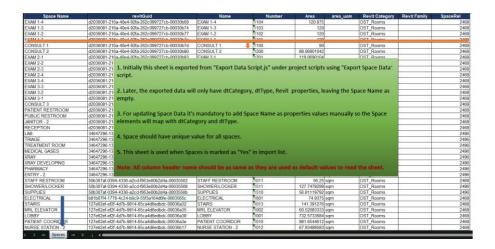
- i. Here we can add the common properties between assets & space to create relation between assets & spaces and the relation is displayed as extended data in UI under assets and space. (Define in both asset and space at same time).
- ii. It can also be "blank", it will skip the creating or updating relation between assets and spaces.

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9. SPACES SHEET:

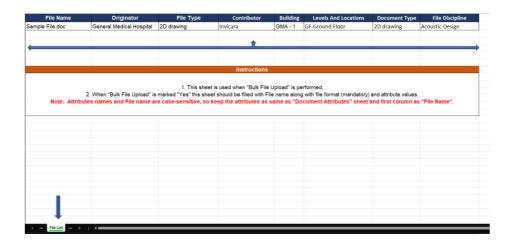
- i. Initially this sheet is exported from "Export Data Script.js" under project scripts using "Export Space Data" script.
- ii. Later, the exported data will only have dtCategory, dtType, Revit properties, leaving the Space Name as empty.
- iii. For updating Space Data it's mandatory to add Space Name as properties values manually so the Space elements will map with dtCategory and dtType.
- iv. Space should have unique value for all spaces.
- v. This sheet is used when Spaces is marked as "Yes" in import list.
- vi. Note: All column header name should be as same as they are used as default values to read the sheet.



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10. FILE LIST SHEET:

- i. This sheet is used when "Bulk File Upload" is performed.
- ii. When "Bulk File Upload" is marked "Yes" this sheet should be filled with File name along with file format (mandatory) and attribute values.
- iii. Note: Attributes names and File names are case-sensitive, so keep the attributes as same as "Document Attributes" sheet and first column as "File Name".



11. ASSETS AND FILES SHEET:

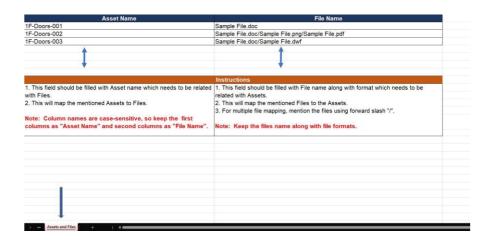
A. ASSET NAME:

- i. This field should be filled with Asset name which needs to be related with Files.
- ii. This will map the mentioned Assets to Files.
- iii. Note: Column names are case-sensitive, so keep the first columns as "Asset Name" and second columns as "File Name".

A. FILE NAME:

- iv. This field should be filled with File name along with format which needs to be related with Assets.
- v. This will map the mentioned Files to the Assets.
- vi. For multiple file mapping, mention the files using forward slash "/".
- vii. Note: Keep the files name along with file formats.

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12. COMMON CONFIG ERROR (AVOID DURING SETUP)

- i. It will avoid unnecessary errors during execution.
 - a. Ensure the paths are selected correctly.
 - b. Ensure the empty rows are deleted.
 - c. Ensure properties and relation values are matched properly
 - d. Ensure all files are uploaded to avoid Asset & File relationship failure. Else, reupload missed or failed files, then recreate the relation for asset and files.
 - e. Ensure the console is monitored during execution to observe any errors or execution completion status.
 - f. Note: If any error during execution takes a screenshot and send a mail. Thanks!