

BEC Automation Tool

User Guide Document

BEC - Solid Edge Customization Project

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Revision: 0.4 (DRAFT LEVEL)

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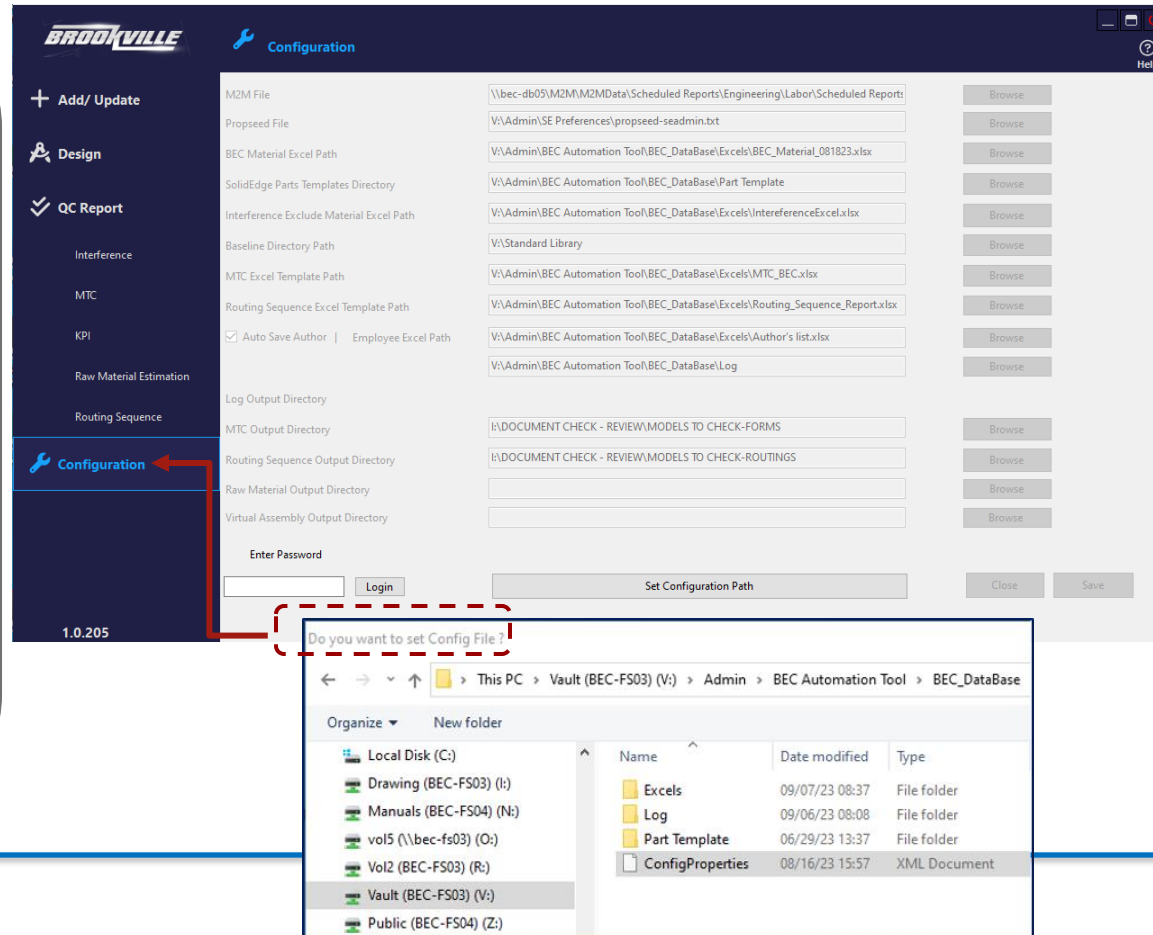
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The scope of this document is to provide information on the functionalities of each automation tool to offer a better understanding of its purpose, functions, and user interfaces.

- If the BEC Automation Tool is not automatically deployed through IT, every user intending to use the tool must manually install the "BEC Automation Tool.exe" file on their local drive.
- Next, the user should assign appropriate file locations by accessing the "Configuration" within the tool's configuration tab.
- Once these steps are completed, the user can commence using the tool while following the further guidelines outlined in this document.
- Please be aware that certain tool functions may generate log files containing errors or warnings. Each log can be found in the setup folder under the "Logs" directory.
- Users can refer to these logs to identify any part numbers causing errors and take the necessary corrective actions

File Location

1. When each version of the tool is automatically deployed, a prompt window will appear upon the first startup. Windows will prompt the user to locate a configuration file located at the following path:
"V:\Admin\BEC Automation Tool\BEC_DataBase\ConfigProperties.xml".
2. Selecting this file will automatically assign all the necessary paths in the configuration tab.
3. The Lead User also has the option to edit individual paths by entering a password (Bec@1234). Saving these changes will override the existing configuration file



File Location

- Refer to the below table to understand the input database which is referred by each tool to get desired outputs
- User/Admin can only update or add the values if required.
- Any changes in database template and alignments may cause failure in processing

| Tool | Hedge Excel | Part Template | Author list | Bend Table | BEC Material Data | Interference Exclude Material Excel | MTC Report | Propseed | Draft list BOM Template | M2M Sheet | Routing Sequence Report |
|----------------------------|-------------|---------------|-------------|------------|-------------------|-------------------------------------|------------|----------|-------------------------|-----------|-------------------------|
| Virtual Structure | ● | | ● | | | | | | | | |
| New Part Creation | | ● | | ● | ● | | | | | | |
| Parts Sheetmetal Update | | | | ● | ● | | | | | | |
| Assembly File Validation | | | | ● | ● | | | | | | |
| Interference Report | | | | | | ● | | | | | |
| Automated Check Tool (MTC) | | | | | | | | ● | ● | ● | |
| KPI Report | | | | | | | ● | | | | |
| Raw Material Estimation | | | | | | | | | ● | ● | |
| Routing Sequence | | | | | | | | | | | ● |

Purpose: Automating the creation of a top-level assembly structure (900 Level) by using BEC hedge/Excel data and incorporating reference assemblies to decrease dependence on the top-level assembly.

Functions:

- The tool fetches assembly titles & numbers from hedge excel
- Generate blank assembly structure in solid edge as per hedge Excel input
- The tool adds top-level reference assembly under each 810-level

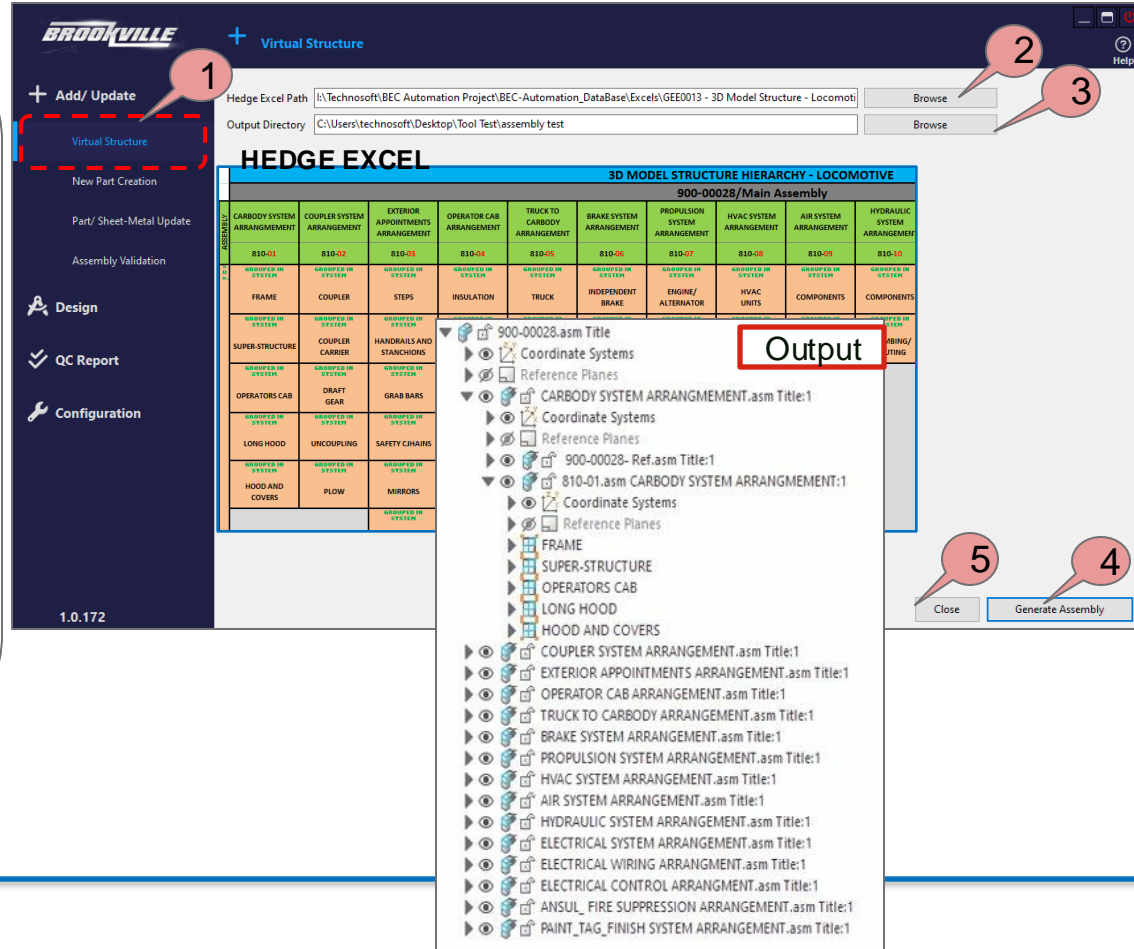
Constraint:

- Any changes in the Hedge documents template can cause possible failure in the tool.

Virtual Structure

User Interface Guide:

1. Launch the Automation tool and access the Virtual Structure tool by clicking on it.
2. Click the "Browse" button next to the hedge Excel path and choose the input hedge Excel file for the structure.
3. Click the "Browse" button next to the directory and designate the output folder for the assembly.
4. Once all paths are assigned, click the "Generate Assembly" button to initiate the process. Upon completion, the output assembly file will be available in the specified output folder.
5. If necessary, close the tool to use other tools.
6. Subsequently, users can copy and transfer the designed components to the appropriate reference assembly



The screenshot displays the **BROOKVILLE Virtual Structure** software interface. The left sidebar contains navigation options: **Add/Update** (highlighted with a red dashed box and callout 1), **Virtual Structure**, **New Part Creation**, **Part/ Sheet-Metal Update**, **Assembly Validation**, **Design**, **QC Report**, and **Configuration**. The main workspace is titled **HEDGE EXCEL** and shows the **3D MODEL STRUCTURE HIERARCHY - LOCOMOTIVE**. It includes a table for **900-00028/Main Assembly** with columns for various systems like **CARBODY SYSTEM ARRANGEMENT**, **COUPLER SYSTEM ARRANGEMENT**, **EXTERIOR APPOINTMENTS ARRANGEMENT**, **OPERATOR CAB ARRANGEMENT**, **TRUCK TO CARBODY ARRANGEMENT**, **BRAKE SYSTEM ARRANGEMENT**, **PROPULSION SYSTEM ARRANGEMENT**, **HVAC SYSTEM ARRANGEMENT**, **AIR SYSTEM ARRANGEMENT**, and **HYDRAULIC SYSTEM ARRANGEMENT**. Below the table, a tree view shows the assembly structure, including **Coordinate Systems**, **Reference Planes**, and **CARBODY SYSTEM ARRANGEMENT.asm**. The **Output** folder is highlighted with a red box and callout 3. At the bottom right, there are **Close** (callout 5) and **Generate Assembly** (callout 4) buttons. The version number **1.0.172** is visible in the bottom left corner.

| 900-00028/Main Assembly | | | | | | | | | |
|----------------------------|----------------------------|-----------------------------------|--------------------------|------------------------------|--------------------------|-------------------------------|-------------------------|------------------------|------------------------------|
| CARBODY SYSTEM ARRANGEMENT | COUPLER SYSTEM ARRANGEMENT | EXTERIOR APPOINTMENTS ARRANGEMENT | OPERATOR CAB ARRANGEMENT | TRUCK TO CARBODY ARRANGEMENT | BRAKE SYSTEM ARRANGEMENT | PROPULSION SYSTEM ARRANGEMENT | HVAC SYSTEM ARRANGEMENT | AIR SYSTEM ARRANGEMENT | HYDRAULIC SYSTEM ARRANGEMENT |
| 810-01 | 810-02 | 810-03 | 810-04 | 810-05 | 810-06 | 810-07 | 810-08 | 810-09 | 810-10 |
| FRAME | COUPLER | STEPS | INSULATION | TRUCK | INDEPENDENT BRAKE | ENGINE/ ALTERNATOR | HVAC UNITS | COMPONENTS | COMPONENTS |
| GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM |
| SUPER-STRUCTURE | COUPLER CARRIER | HANDRAILS AND STANCHIONS | | | | | | | |
| GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | | | | | | | |
| OPERATORS CAB | DRAFT GEAR | GRAB BARS | | | | | | | |
| GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | | | | | | | |
| LONG HOOD | UNCOUPLING | SAFETY CHAINS | | | | | | | |
| GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | | | | | | | |
| HOOD AND COVERS | PLOW | MIRRORS | | | | | | | |
| GROUPED IN SYSTEM | GROUPED IN SYSTEM | GROUPED IN SYSTEM | | | | | | | |

New Part Creation

Purpose : To generate new Profile/structure and sheet metal file as per BEC standard

Functions:

- This tool generates sheet metal and structural part files using the BEC standard sizes database.
- Users can choose the category and file properties from a dropdown menu, and these selections will be applied to the newly created part.

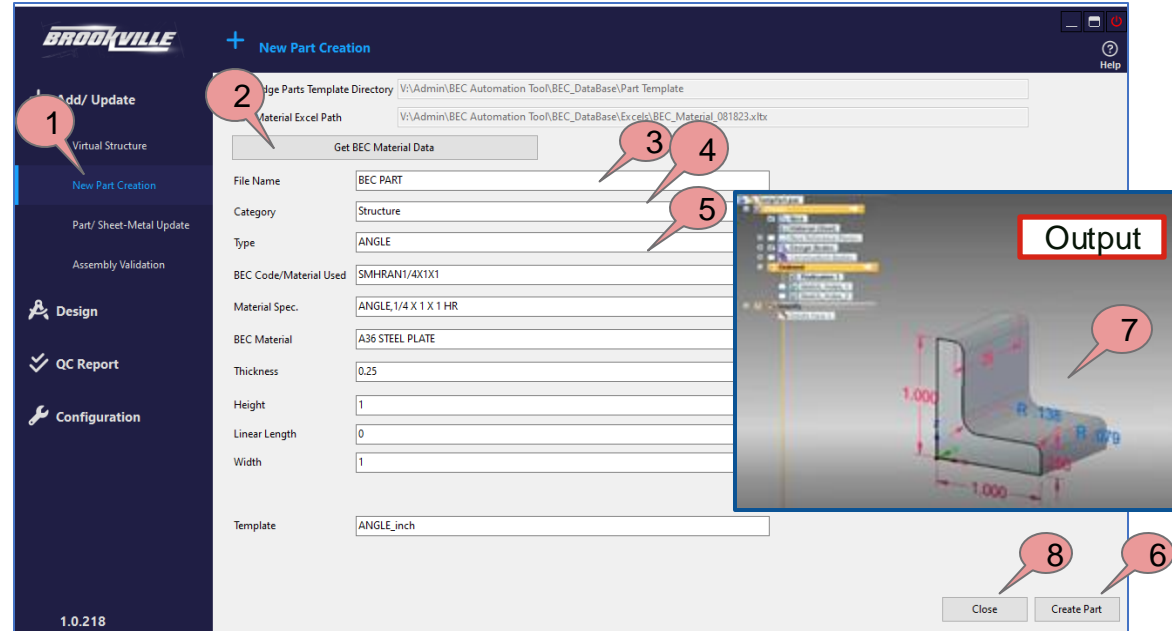
Constraint:

- Any changes in the BEC Material Data Excel format can cause possible failure in the tool.

New Part Creation

User Interface Guide:

1. Launch the Automation tool and access new part creation by clicking on it.
2. Click on "Get BEC material data" to retrieve data from the BEC material Excel.
3. Provide a preferred file name.
4. Choose a category from the dropdown menu.
5. From the dropdown menus, select the type and material.
6. Click "create part" to generate a new file with the specified properties.
7. New part will be created in the solidedge.
8. If necessary, close the tool feature to use other tools.



Purpose : To verify and revise properties of part and sheet metal files in accordance with BEC standards.

Functions:

- The tool will extract properties from the presently opened part and display them in the existing part details section.
- Any variations in properties when compared to the standard BEC Material Data Excel will be brought to attention by the tool.
- Users are provided with the choice to select new properties and apply them to their active parts or sheet metal files.

Constraint:

- The tool will work on one part at a time.
- The tool will only work on .psm and .part (structure) files.

Part File Validation

User Interface Guide:

1. Open the desired part in Solid Edge and Activate the tool by clicking on it.
2. Click Get BEC material data to fetch data from BEC material Excel.
3. In the event of the tool detecting any inconsistencies in the current part details, users can address these by accessing the "New Part Details" section and modifying the "Material Used", "Gage Name" or "Bend Type" accordingly.
4. Apply button to assign new properties to part.
5. Click the refresh button to reset the tool.
6. Close the tool to use other tools if needed

The screenshot shows the Brookville software interface for the 'Part/ Sheet-Metal Update' tool. The interface is divided into a left sidebar and a main content area. The sidebar contains a '+ Add/ Update' section with options: 'Virtual Structure', 'New Part Creation', 'Part/ Sheet-Metal Update' (highlighted with callout 1), 'Assembly Validation', 'Design', 'QC Report', and 'Configuration'. The main content area is titled 'Standard Part Details' and includes a 'BEC Material Excel Path' field (callout 2) with a 'Get BEC Material Data' button. Below this is a 'Category' dropdown set to 'SheetMetal'. The 'Part Properties' section is split into 'Current Part Details' and 'New Part Details' (callout 3). The 'Current Part Details' table lists: Material Used (PL12GAA569), Size (0), Grade (NEEDS APPLIED), Gage Name (12 gage), Material Thickness (inch) (0.105 in), Part Type, Material Spec (STEEL, A1011 CS TYPE B HR (569)), BEC Material (STEEL, A1011, CS TYPE B, HR), and Bend Radius (0.075 in). The 'New Part Details' table lists: Material Used (PL12GAA569), Size, Grade (A1011), Gage Name (SHEET - 12 GA (Trumpf Air punch)), Material Thickness (inch) (0.105 in), Part Type (Sheet - Steel), Material Spec (PLATE, 12GA, A1011/A569 GR 50), BEC Material (STEEL,ASTM A1011,CS TYPE B,HR), Bend Radius (0.075 in), and Bend Type (Trumpf Air punch). At the bottom, there is a 'Refresh' button (callout 5), a 'Close' button (callout 6), and an 'Apply' button (callout 4). The version number '1.0.206' is displayed at the bottom left.

| Current Part Details | | New Part Details | |
|---------------------------|---------------------------------|---------------------------|----------------------------------|
| Material Used | PL12GAA569 | Material Used | PL12GAA569 |
| Size | 0 | Size | |
| Grade | NEEDS APPLIED | Grade | A1011 |
| Gage Name | 12 gage | Gage Name | SHEET - 12 GA (Trumpf Air punch) |
| Material Thickness (inch) | 0.105 in | Material Thickness (inch) | 0.105 in |
| Part Type | | Part Type | Sheet - Steel |
| Material Spec | STEEL, A1011 CS TYPE B HR (569) | Material Spec | PLATE, 12GA, A1011/A569 GR 50 |
| BEC Material | STEEL, A1011, CS TYPE B, HR | BEC Material | STEEL,ASTM A1011,CS TYPE B,HR |
| Bend Radius | 0.075 in | Bend Radius | 0.075 in |
| | | Bend Type | Trumpf Air punch |

Purpose: To validate and update multiple parts from the assembly

Functions:

- The tool will extract properties from the presently opened assembly file and display them in the "Current details" section.
- Any variations in properties when compared to the standard BEC Material Data Excel will be brought to attention by the tool.
- Users are provided with the choice to select new properties and apply them to their active parts or sheet metal files.

Constraint:

- The tool will work only with assembly files.
- The tool will read only top-level parts.

Assembly Validation

User Interface Guide:

1. Open the desired assembly in Solid Edge launch the Automation tool and access the Assembly validation tool by clicking on it.
2. Click "Get BEC Material Data" to read BEC Material Data and fetch assembly parts
3. Click on part to get current properties under current details
4. Users can search by part properties using the search option.
5. Select material from the dropdown to assign new material user can also assign a gage table from the dropdown for sheet metal
6. Click Apply button to assign new properties to part
7. Click the refresh button to reset the tool.
8. Close the tool to use other tools if needed

The screenshot shows the Brookville Assembly Validation tool interface. The left sidebar contains a menu with the following items: Add/ Update, Virtual Structure, New Part Creation, Part/ Sheet-Metal Update, Assembly Validation (highlighted with a blue bar and callout 1), Design, QC Report, and Configuration. The main area is titled 'Assembly Validation' and contains a table of assembly parts. Callout 2 points to the 'Get Current Assembly Data' button. Callout 3 points to the table header. Callout 4 points to the search bar at the bottom of the table. Callout 5 points to the 'Material Used' dropdown in the 'Current details' section. Callout 6 points to the 'Apply' button at the bottom right. Callout 7 points to the 'Refresh' button. Callout 8 points to the 'Close' button. The table has columns: Sr, ParentDocumentName, PartName, PartType, and Size. The table contains 6 rows of data. The 'Current details' section on the right has fields for Material Used, Size, Grade, Gage Name, Thickness(inch), Part Type, Material Spec, BEC Material, Bend Radius, and Bend Type. The 'Material-wise details' section on the right has fields for Category, SheetMetal, and Material-wise details.

| Sr | ParentDocumentName | PartName | PartType | Size |
|----|--------------------|-----------------|----------|------|
| 1 | 310-01207-1.asm | 210-07114-1.psm | NA | |
| 2 | 310-01207-1.asm | 210-07111.psm | NA | |
| 4 | 310-01207-1.asm | 210-07729.psm | 0 | |
| 5 | 310-01207-1.asm | 210-07730.psm | 0 | |
| 6 | 310-01207-1.asm | 210-07731.psm | 0 | |

Current details

Material Used: 185-00072, Size: NA, Grade: A606, Gage Name: SHEET - 16 GA (Trumpf Air puni), Thickness(inch): 0.060 in, Part Type: Sheet - Steel, Material Spec: SHEET, 16GA, STL, A606, TYP 4, BEC Material: STEEL, ASTM A606, Bend Radius: 0.189 in, Bend Type: ASTM

Material-wise details

Category: SheetMetal, Material-wise details: SHEET, 16GA, STL, A606, TYP 4

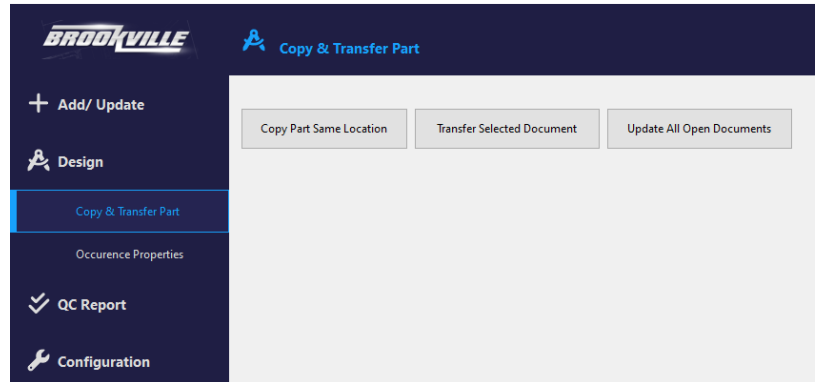
Buttons: Refresh, Close, Apply

Copy and Transfer

Purpose: To conveniently transfer the desired part to another level of assembly without losing the original position of the part

Functions:

- This tool assists the user in duplicating multiple parts within the same location.
- This tool aids the user in relocating multiple parts to a different assembly.



Occurrence Properties

Purpose : To conveniently assign occurrence property for reference model in assembly

Functions:

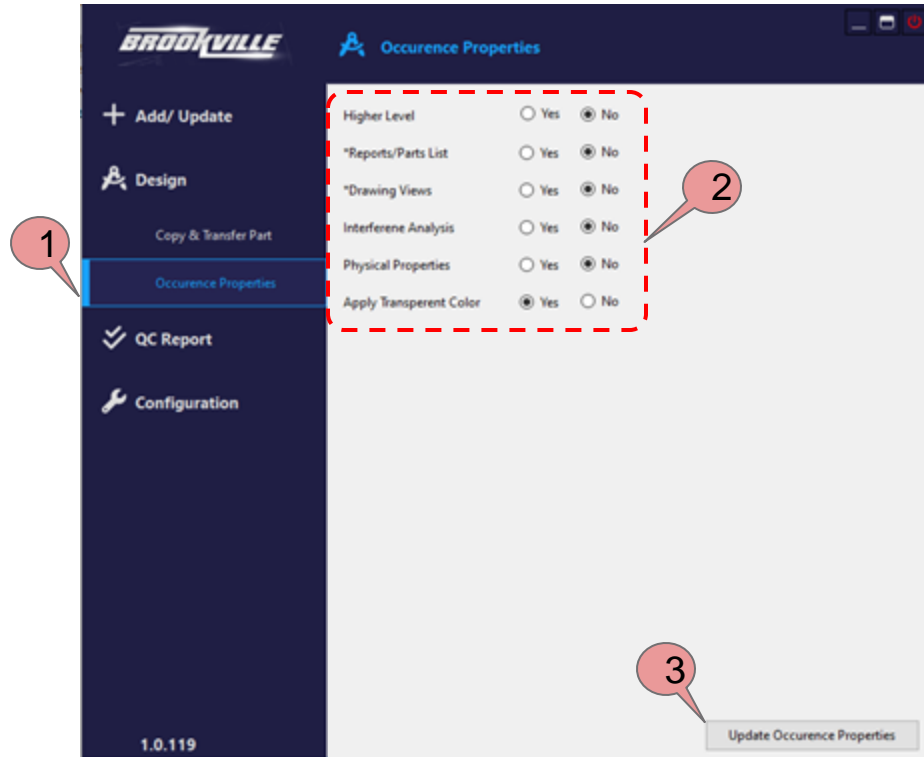
- Tool helps users to assign preset occurrence properties for reference models in assembly.
- Preset occurrence property options can be changed as per need.

Update Occurrence Properties

Occurrence Properties

User Interface Guide:

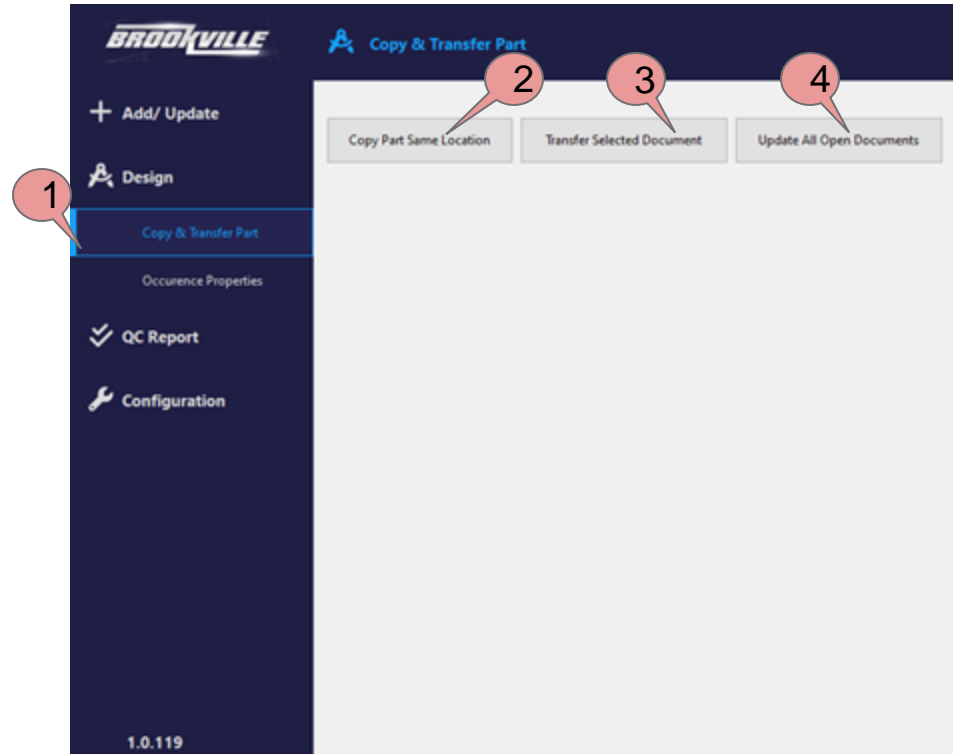
1. Open the desired assembly in Solid Edge and Activate the "Occurrence Property" tool by clicking on it.
2. Check desired preset setting and change it if required.
3. Clicking "Update Occurrence Property" will apply property on the selected part.



Copy and Transfer

User Interface Guide:

1. Open the desired assembly in Solid Edge and Activate the "Copy and Transfer" tool by clicking on it.
2. Select part or parts in the assembly tree and press "Copy Part Same Location". Parts will copy on the same location.
3. Select a part in the assembly tree and press Transfer Selected Document. The solid edge transfer menu will open and select desired destination assembly from the menu.
4. Click on Update All Open Documents if changes don't reflect in assembly.



Interference Report

Purpose : To check interference at the top level and child level by excluding specific materials and generate interference reports

Functions:

- The tool allows users to remove specific materials from the interference report
- Users can review child interferences.
- Users can also review top-level interferences.
- Finally, the tool will generate an interference report

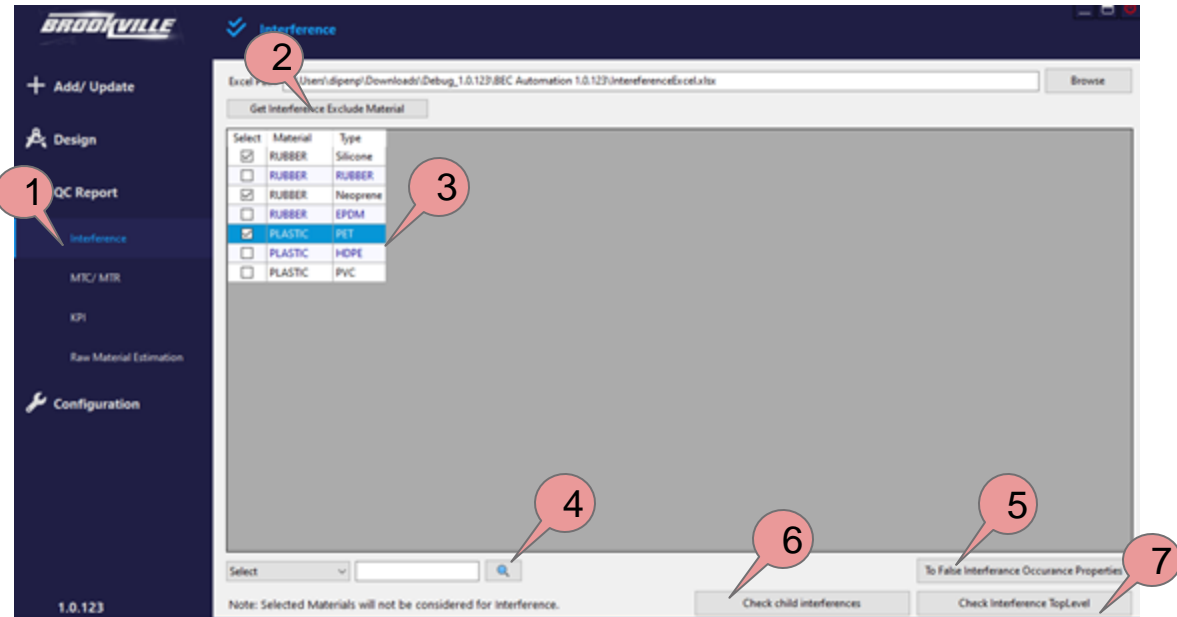
Constraint:

- The tool will only work on assembly files

Interference Report

User Interface Guide:

1. To begin, open the desired assembly in Solid Edge and activate the "Interference" tool by selecting it.
2. Next, click on "get interference excludes material" to import material data from Excel.
3. From the provided list, choose the materials you wish to exclude from the interference report. You can also use the search or filter function at the bottom for specific materials.
4. Utilize the search tool to find specific materials in the list.
5. Click on "To false interference occurrence properties" to apply to exclude the selected materials.
6. Subsequently, click on "Check child interference" to inspect child interference and generate a report.
7. Alternatively, click on "Check interference Top-level" to examine interference and create a report.
8. The generated report will be saved in the assembly location in .txt format.



Purpose : Generate consolidated datasheets for the KPI dashboard, enabling the visualization and analysis of key performance indicators related to designers' reviews. This facilitates an understanding of how designers are meeting specific BEC standards and their overall performance.

Functions:

- Once the user assigns the desired MTC MTR report path, The tool process all the reports of the different projects and merged them into the KPI excel data sheet in .csv format
- Power Bi dashboard is already linked with the datasheets.
- Refreshing the power BI dashboard will sync all the recent reports on the dashboard

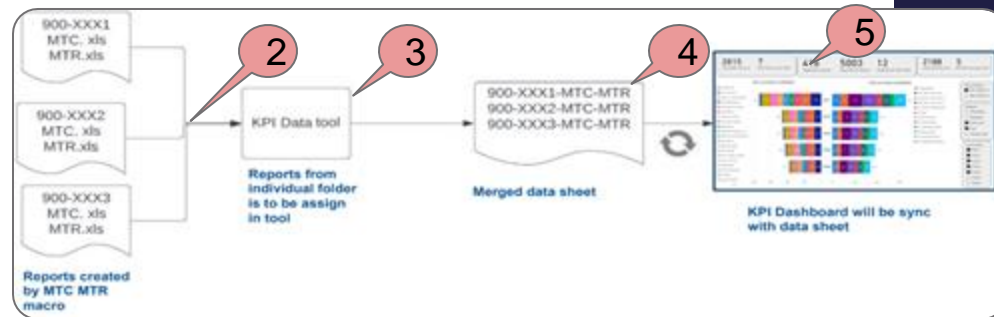
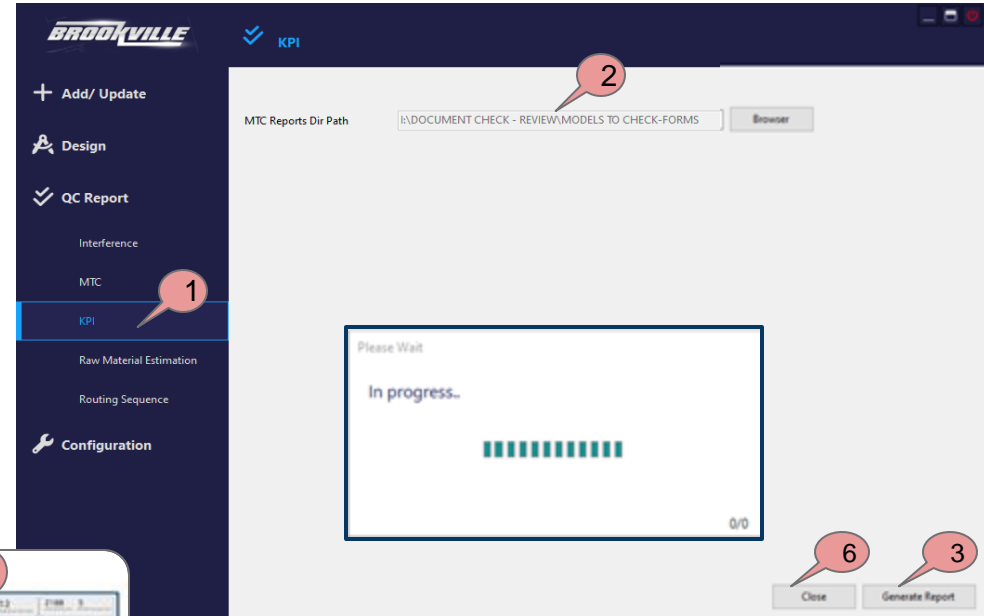
Constraint:

- Any manual changes in the report may cause an error in the dashboard or data may not visualize properly.

KPI Report

User Interface Guide:

1. Open the Automation tool and Activate the KPI tool by clicking on it.
2. Tool fetches MTC reports from the default paths
3. Clicking "Generate Report" will initiate the process.
4. Once the process is completed it will create a KPI_Report.csv file on the assigned destination
Path: I:\DOCUMENT CHECK - REVIEW\MODELS TO CHECK-FORMS
5. Replacing the old file and refreshing the power BI data will update the Dashboard
Path: V:\Admin\BEC Automation Too\BEC-KPI REPORT.pbix
6. Close the tool to use other tools if needed



Purpose: To Automate the check and (MTC) process to reduce ECO and re-work.

Functions:

- This tool is designed to generate reports for both assemblies and individual models.
- The tool retrieves assembly metadata and compares these values with BEC - NPM standards and M2M Data.
- Additionally, it validates these values while providing appropriate remarks in accordance with MTC checkpoints.
- The tool categorizes reports based on part categories such as Assembly, Sheet Metal, Part, Baseline, and Electrical.
- Furthermore, it identifies baseline models with paths that deviate from the defined path and highlights them.
- The tool generates one common MTC report for all users.
- Additionally, an extra report is created specifically for the Routing Sequence Tool (RST).

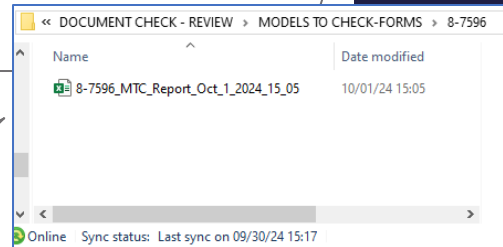
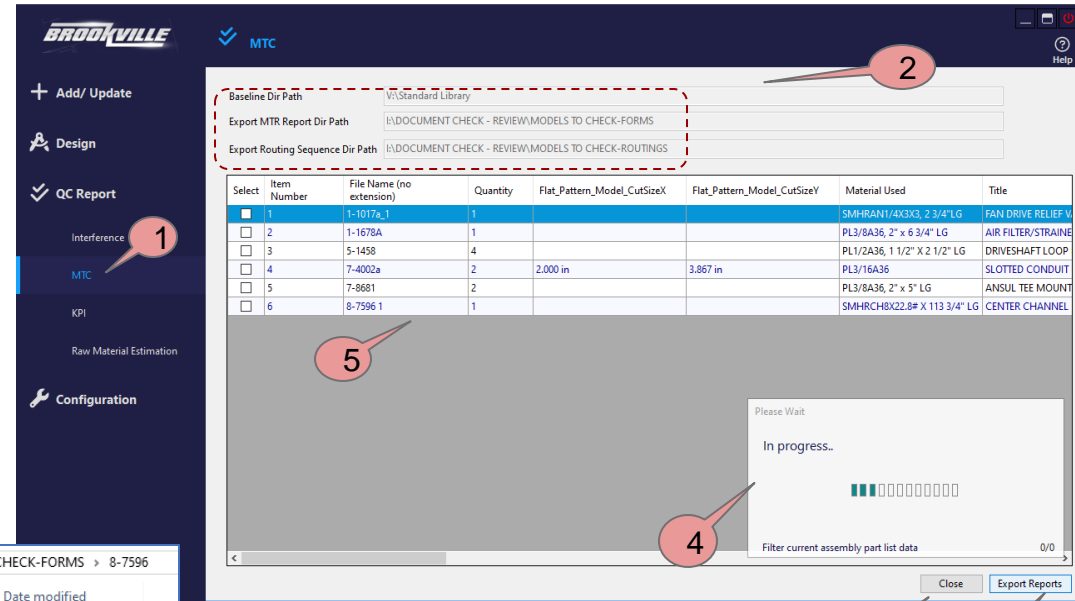
Constraint:

- Ensure that only the desired model is open in Solid Edge; no other models should be open when using this tool.
- Incorrect modeling practices can lead to errors in the tool's functionality.
- The tool has the capability to identify and highlight most modeling errors that can potentially cause the tool to crash. These problematic part numbers will be indicated in the reports.
- In the event of a tool crash, users can consult the log file to pinpoint the problematic part and proceed with necessary repairs.
- If the tool crashes, the user can refer log file to identify the problematic part and repair it.

Automated Check Tool

User Interface Guide:

1. Open the desired assembly in Solid Edge and Activate the tool by clicking on it.
2. Verify if the desired output path is correct.
3. Clicking "Export Report" will initiate the process.
4. Progress bar will keep updating the numbers of the part being checked.
5. Once all parts are checked data will appear in a grid
6. Destination folder will pop up, where all the reports can be seen.
7. Close the tool to use other tools if needed



Purpose : To generate detailed raw material estimations report of assembly.

Functions:

- This tool consolidates metadata and produces comprehensive raw material estimation reports from it.
- The report provides information on the total ordered area and length for similar BEC numbers.
- Furthermore, it categorizes the report according to different categories such as plate, profile, and hardware.

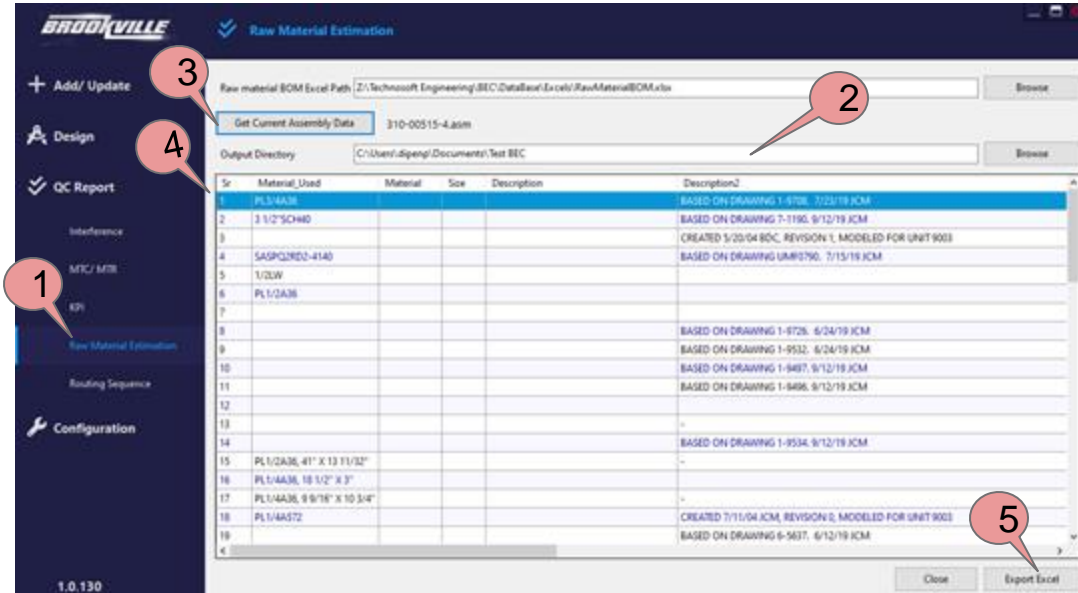
Constraint:

- The tool cannot identify sizes if the part has been modeled incorrectly.
- In such instances, users may need to manually input the values into the final report.
- The tool cannot compute sizes if properties are left empty or contain spelling errors.

Raw Material Estimation

User Interface Guide:

1. To start, open the assembly you want in Solid Edge and then activate the "Raw Material Estimation" tool by simply clicking on it.
2. Next, specify where you want the report to be saved as the output destination.
3. Afterwards, kickstart the process by clicking on "Get Current Assembly Data."
4. Once the process is finished, the report will be displayed in the grid.
5. To create the report in your chosen location, click on "Export Excel."
6. Lastly, the folder containing the output report will automatically open in Windows Explorer.



Purpose : To generate sequence report and calculate pro time and arrange WC process codes.

Functions:

- The tool will fetch part numbers and WC process codes from input report.
- The tool will arrange WC process code in sequence and display in grid.
- User can add and update processes using tool.
- The tool has pro time calculator which helps user to add pro time manually.
- User can improvise process code logic in input excel to get desire results in tool.
- User can modify existing properties values from tool.
- User can approve and generate sequence report category wise.

Constraint:

- Tool is unable to calculate pro time or process if properties are empty in input report.
- At present tool is process WC based on basic logics which is added in "*Routing_Sequence_Report*". User can modify or add logics in excel template stored on below path:

V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\Routing_Sequence_Report.xlsx

Routing Sequence Tool

User Interface Guide:

1. To begin, initiate the tool by going to the QC Report tab and selecting "Routing Sequence."
2. Next, pick the input routing sequence report that you generated through the review and check tool.
3. Now, from the dropdown menu, choose a category and hit the "get data" button.
4. After this step, the report will be shown in the grid. If you want to access the properties of a specific part number, simply click on it.
5. Take a look at the properties grid located in the bottom right panel and make any necessary updates.
6. To proceed to the next steps, click on "Apply Values", and you'll receive the updated sequence.
7. You have the option to select a new process from the dropdown list, and it will be added in the top right panel (12).

The screenshot displays the Brookville Routing Sequence software interface. On the left is a dark sidebar with navigation options: '+ Add/Update', 'Design', 'QC Report' (selected), 'Interference', 'MTC/ MTR', 'KPI', 'Raw Material Estimation', 'Routing Sequence' (highlighted), and 'Configuration'. The main area is titled 'Routing Sequence' and contains input fields for 'Input Report' (pointed to by callout 3), 'Output Directory', and a 'Category' dropdown (pointed to by callout 4). A 'Reset' button is also present. Below these is a large data grid (pointed to by callout 4 and labeled 'Grid') showing a table of operations with columns for part numbers, times, and totals. On the right, there is a 'Process Window' (pointed to by callout 12) showing a table of process parameters. Below that is a 'Meta data' panel (pointed to by callout 5) with fields for material, spec, and mass. At the bottom right is a 'Calculator' panel (pointed to by callout 6) with a 'Save' button and an 'Apply Values' button. A 'Preview' button is also visible. Callout 1 points to the 'Routing Sequence' option in the sidebar, and callout 2 points to the 'Input Report' field.

Routing Sequence Tool

User Interface Guide:

8. If needed, you can move processes up or down and delete them using the provided buttons.
9. To preview a selected model, just click the preview button, and a preview window will open separately.
10. You also have the option to open the preview part by using the "open Solid Edge" button.
11. To calculate the processing time, click on the appropriate process.
12. Upon clicking the process, a process calculator window will activate. Here, you can update selected parameters and add values to calculate the processing time.
13. Click "Calculate" to obtain the final processing time.
14. Clicking "Save" will update the final processing time.
15. Once you've finalized the part sequence, you can apply the sequence to the report by clicking "Apply Sequence".
16. After making all the required updates, click "Approve Sequence" to generate the sequence report.

The screenshot displays the Routing Sequence Tool interface. The main window shows a report for '210-03736-1 - PLATE, FEATURED, 3/8, CENTER PARTITION'. It includes a table of processes and their parameters. A process calculator window is open for '210-03736-1', showing parameters like Bend Qty, Hole Qty, and Perimeter. A preview window is also open, showing a 3D model of the part. A callout 11 points to the 'Open Solid Edge' button. Other callouts point to various buttons and fields: 8 (UP/Down buttons), 9 (Delete button), 10 (Preview button), 12 (Process list), 13 (Calculate button), 14 (Save button), 15 (Approve Sequence button), 16 (Material dropdown), and 17 (Hole Fit dropdown).

| PROCESS# | WC# | PTIME# | MTIME# |
|---------------------|------|--------|--------|
| Nesting | 9130 | 0.75 | 0 |
| Cutting Center | 1020 | 0.75 | 0 |
| Grind/Buf | 1040 | 1.5 | 4 |
| Radial Arm Drill | 2100 | 7.5 | 4 |
| Brake, Press 240... | 3035 | 3.6 | 4 |

| P# | Nesting | WC# | PT# |
|-------------------------------------|-------------|-------|-------|
| <input checked="" type="checkbox"/> | Bend Qty | 1 | 0.025 |
| <input checked="" type="checkbox"/> | Hole Qty | 30 | 0.025 |
| <input checked="" type="checkbox"/> | Perimeter | 0.025 | |
| <input type="checkbox"/> | Final PTime | | 0.78 |

| P# | Nesting | WC# | PT# |
|-------------------------------------|-------------|-------|-------|
| <input checked="" type="checkbox"/> | Bend Qty | 1 | 0.025 |
| <input checked="" type="checkbox"/> | Hole Qty | 30 | 0.025 |
| <input checked="" type="checkbox"/> | Perimeter | 0.025 | |
| <input type="checkbox"/> | Final PTime | | 0.78 |

Key changes

Major Changes:

1. Configuration Path Setup: It now automatically populates.
2. Author Change: The author will now be updated to BEC Standards Author upon every "save" action.
3. Radius Priority: The "New part creation" , "Part/sheet metal update" & "Assembly Validation" tool will suggest a default radius based on BEC priority.

Minor Changes:

1. MTC Report: False values will be highlighted in red.
2. Title Validation: Tool now validates the first 35 characters with M2M title.
3. Radius Validation: The tool now compares and validates the lowest value among multiple radii applied at the modeling level

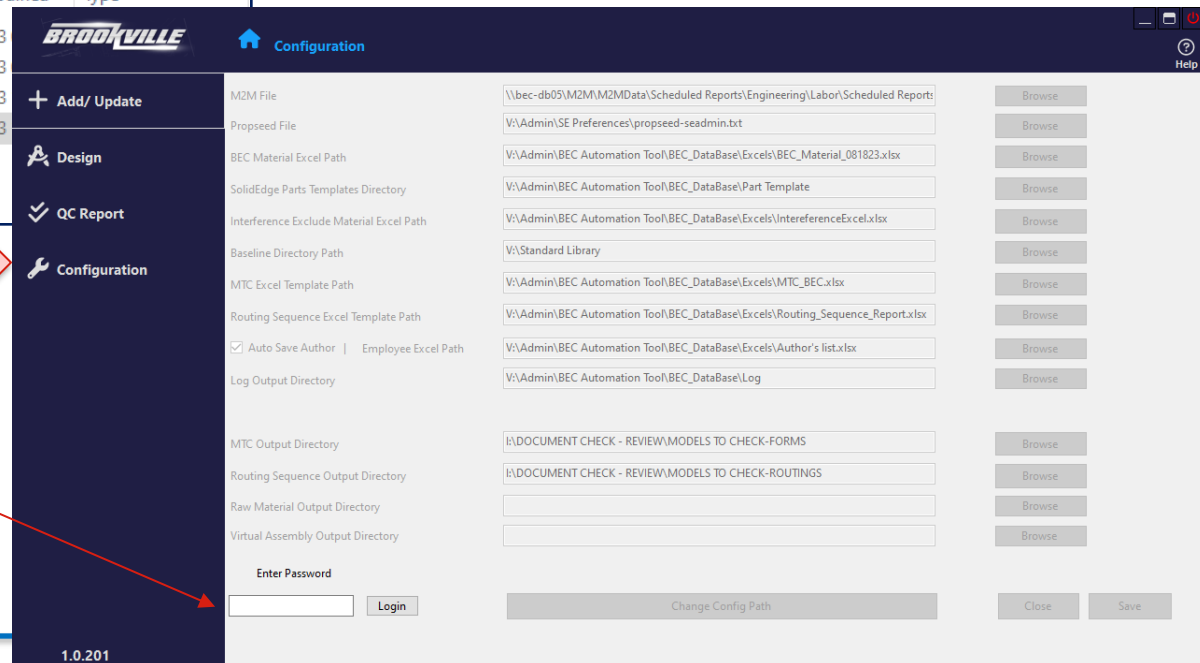
When installing the newer version, a window will pop up for configuring the file. Users need to select the appropriate ConfigProperties.xml file to assign all paths at once.

Do you want to set Config File ?

← → ↕ ⬆ This PC > Vault (BEC-FS03) (V:) > Admin > BEC Automation Tool > BEC_DataBase

Organize ▾ New folder

| | Name | Date modified | Type |
|-----------------|------------------|---------------|--------|
| Local Disk (C:) | Excels | 09/07/23 | Folder |
| | Log | 09/06/23 | Folder |
| | Part Template | 06/29/23 | Folder |
| | ConfigProperties | 08/16/23 | File |



BROOKVILLE Configuration

- + Add/ Update
- Design
- QC Report
- Configuration

| | | |
|--|---|--------|
| M2M File | \\bec-db05\M2M\M2MData\Scheduled Reports\Engineering\Labor\Scheduled Reports\ | Browse |
| Propseed File | V:\Admin\SE Preferences\propseed-seadmin.txt | Browse |
| BEC Material Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\BEC_Material_081823.xlsx | Browse |
| SolidEdge Parts Templates Directory | V:\Admin\BEC Automation Tool\BEC_DataBase\Part Template | Browse |
| Interference Exclude Material Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\InterferenceExcel.xlsx | Browse |
| Baseline Directory Path | V:\Standard Library | Browse |
| MTC Excel Template Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\MTC_BEC.xlsx | Browse |
| Routing Sequence Excel Template Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\Routing_Sequence_Report.xlsx | Browse |
| <input checked="" type="checkbox"/> Auto Save Author Employee Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\Author's list.xlsx | Browse |
| Log Output Directory | V:\Admin\BEC Automation Tool\BEC_DataBase\Log | Browse |
| MTC Output Directory | I:\DOCUMENT CHECK - REVIEW\MODELS TO CHECK-FORMS | Browse |
| Routing Sequence Output Directory | I:\DOCUMENT CHECK - REVIEW\MODELS TO CHECK-ROUTINGS | Browse |
| Raw Material Output Directory | | Browse |
| Virtual Assembly Output Directory | | Browse |

Enter Password

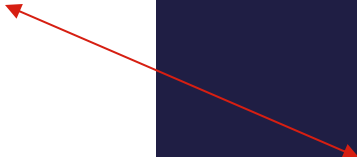
Login

1.0.201

Change Config Path

Close Save


Users with password access can log in and modify the configuration path.



Radius Priority: The new part creation tool will apply a default radius based on BEC priority.

So the priority for applying default radius would be as below

1. Trumpf Air punch
2. Accurpress Air punch
3. Trumpf radius punch
4. Accurpress radius punch
5. ASTM



+ New Part Creation

+ Add/ Update

Virtual Structure

New Part Creation

Part/ Sheet-Metal Update

Assembly Validation

Design

QC Report

Configuration

1.0.201

SolidEdge Parts Template Directory: V:\Admin\BEC Automation Tool\BEC_DataBase\Part Template

BEC Material Excel Path: V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\BEC_Material_081823.xlsx

Get BEC Material Data

File Name:

Category:

Type:

BEC Code/Material Used:

Material Spec.:

BEC Material:

Thickness:

Gage Table:

Gage Name:

Bend Type:

Bend Radius:

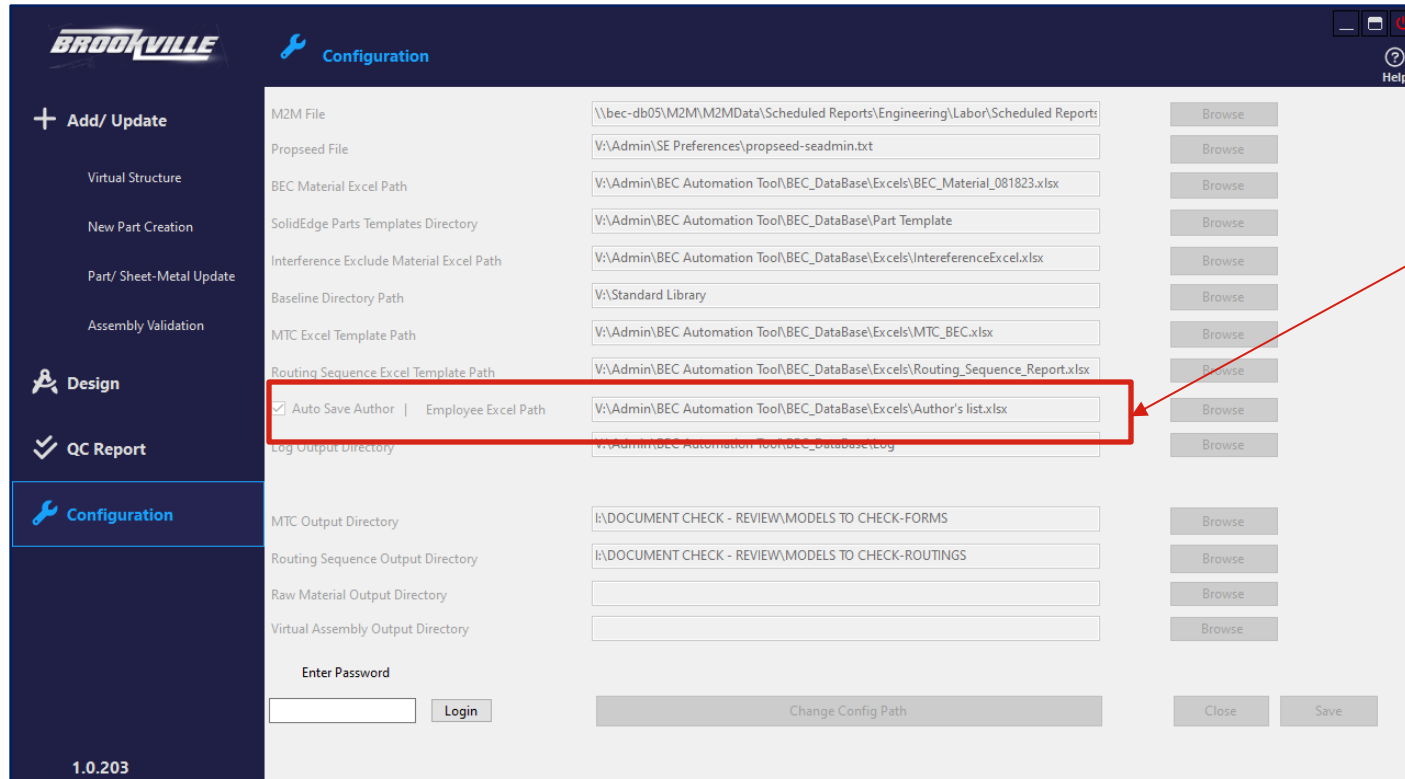
Template:

AutoSave: ON

BEC_Material_0...

| | H | I | J | K | Q |
|-----|-----------------|---|-------------|-------------------------|----------|
| | Gage_Table | Gage_Name | Bend_Radius | Bend_Type | Priority |
| 251 | STEEL (A606) | SHEET - 11 GA (ASTM) | 0.300 in | ASTM | 5 |
| 252 | STEEL (A606) | SHEET - 11 GA (Trumpf Air punch) | 0.315 in | Trumpf Air punch | 1 |
| 253 | STEEL (A606) | SHEET - 11 GA (Trumpf radius punch) | 0.375 in | Trumpf radius punch | 3 |
| 254 | STEEL (A606) | SHEET - 11 GA (Accurpress Air punch) | 0.313 in | Accurpress Air punch | 2 |
| 255 | STEEL (A606) | SHEET - 11 GA (Accurpress Air punch) | 0.500 in | Accurpress radius punch | 4 |
| 256 | ALUMINUM (5052) | SHEET - 0.125 (ASTM) | 0.188 in | ASTM | 5 |
| 257 | ALUMINUM (5052) | SHEET - 0.125 (Trumpf Air punch) | 0.189 in | Trumpf Air punch | 1 |
| 258 | ALUMINUM (5052) | SHEET - 0.125 (Trumpf radius punch) | 0.563 in | Trumpf radius punch | 3 |
| 259 | ALUMINUM (5052) | 3003 SHEET - 0.125 (ASTM) | 0.125 in | ASTM | 5 |
| 260 | ALUMINUM (5052) | SHEET - 0.125 (Trumpf Air punch) | 0.189 in | Trumpf Air punch | 1 |
| 261 | ALUMINUM (5052) | SHEET - 0.125 (Trumpf radius punch) | 0.563 in | Trumpf radius punch | 3 |
| 262 | ALUMINUM (6061) | SHEET - 0.125 (ASTM) | 0.313 in | ASTM | 5 |
| 263 | ALUMINUM (6061) | SHEET - 0.125 (Trumpf Air punch) | 0.315 in | Trumpf Air punch | 1 |
| 264 | ALUMINUM (6061) | SHEET - 0.125 (Trumpf radius punch) | 0.563 in | Trumpf radius punch | 3 |
| 265 | ALUMINUM (6061) | EET - 0.125 (Accurpress Air / radius punch) | 0.313 in | Accurpress Air punch | 2 |
| 266 | ALUMINUM (6061) | EET - 0.125 (Accurpress Air / radius punch) | 0.313 in | Accurpress radius punch | 4 |
| 267 | ALUMINUM (5052) | SHEET - 0.125 (ASTM) | 0.188 in | ASTM | 5 |

Radius Priority: The new part creation tool will apply a default radius based on BEC priority.



BROOKVILLE Configuration

+ Add/ Update

- Virtual Structure
- New Part Creation
- Part/ Sheet-Metal Update
- Assembly Validation

Design

QC Report

Configuration

1.0.203

| | | |
|--|---|--------|
| M2M File | \\bec-db05\M2M\M2MData\Scheduled Reports\Engineering\Labor\Scheduled Report | Browse |
| Propseed File | V:\Admin\SE Preferences\propseed-seadmin.txt | Browse |
| BEC Material Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\BEC_Material_081823.xlsx | Browse |
| SolidEdge Parts Templates Directory | V:\Admin\BEC Automation Tool\BEC_DataBase\Part Template | Browse |
| Interference Exclude Material Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\InterferenceExcel.xlsx | Browse |
| Baseline Directory Path | V:\Standard Library | Browse |
| MTC Excel Template Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\MTC_BEC.xlsx | Browse |
| Routing Sequence Excel Template Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\Routing_Sequence_Report.xlsx | Browse |
| <input checked="" type="checkbox"/> Auto Save Author Employee Excel Path | V:\Admin\BEC Automation Tool\BEC_DataBase\Excels\Author's list.xlsx | Browse |
| Log Output Directory | V:\Admin\BEC Automation Tool\BEC_DataBase\Log | Browse |
| MTC Output Directory | I:\DOCUMENT CHECK - REVIEW\MODELS TO CHECK-FORMS | Browse |
| Routing Sequence Output Directory | I:\DOCUMENT CHECK - REVIEW\MODELS TO CHECK-ROUTINGS | Browse |
| Raw Material Output Directory | | Browse |
| Virtual Assembly Output Directory | | Browse |

Enter Password

Tool refer to author list on assign path to replace incorrect authors with BEC standard.
 Make sure to Check box for "Auto save author"