

Routing Sequence Tool

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.

Routing Sequence Tool

User Interface Guide:

1. Activate the tool by clicking on routing sequence under qc report tab .
2. Select input routing sequence report created by review and check tool
3. Assign the output destination of the report
4. Select category from dropdown and click get data button
5. Once the process is completed it will show the report in the grid then click on part number to get part properties.
6. Review properties grid in right bottom panel and update it if needed
7. Clicking "Apply Values" will update values to enable next steps and user will get updated sequence.

The screenshot shows the Brookville Routing Sequence tool interface. The left sidebar contains a navigation menu with the following items: Add/ Update, Design, QC Report (selected), Interference, MTC/ MTR, KPI, Raw Material Estimation, Routing Sequence (highlighted), and Configuration. The main area is divided into two panels. The top panel, labeled 'Routing Sequence', contains input fields for 'Input Report' (C:\Users\...p\Desktop\Test MTC MTR\test\310-00515-4\310-00515-4_RoutingSequence_Report_Nov_9_2022_21_26.xlsx), 'Output Directory' (C:\Users\...p\Documents\Test BEC), and a 'Category' dropdown set to 'SheetMetal'. A 'Reset' button is also present. The bottom panel displays a grid of data for part 310-00515-4. The grid has columns for process steps (10, 20, 30, 40, 50, 60, 70, 80, 90, 100) and a 'Total' column. The data is organized into rows for different processes, including 210-03736-1, 210-03737-2, 1-3999, 2-3448, 2-3449, 2-3786, and 210-03684-2. The right panel, labeled 'Process Window', shows a table of process parameters for '210-03736-1 - PLATE, FEATURED, 3/8, CENTER PARTITION'. The table includes columns for PROCESS#, WC#, PTIME#, and MTIME#. The bottom right panel, labeled 'Meta data', shows a list of material properties for '210-03736-1', including Material (Steel, A36), Material Thicken... (0.375), MATL SPEC (STEEL, A36 (PLATE)), Material Used (PL3/BA36), Mass (88.89), Bend Radius (0.551), Flat_Pattern_M... (FALSE), Flat_Pattern_M... (FALSE), Hole Feature (FALSE), Hole Fit (FALSE), and Louvers (FALSE). The bottom of the interface features a 'Calculator' section with 'Calculate' and 'Reset' buttons, and an 'Apply Values' button. Numbered callouts 1 through 7 point to specific UI elements: 1 points to the 'Routing Sequence' menu item, 2 points to the 'Input Report' field, 3 points to the 'Output Directory' field, 4 points to the 'Category' dropdown, 5 points to the 'Get Data' button, 6 points to the 'Meta data' panel, and 7 points to the 'Apply Values' button.

Routing Sequence

Input Report: C:\Users\...p\Desktop\Test MTC MTR\test\310-00515-4\310-00515-4_RoutingSequence_Report_Nov_9_2022_21_26.xlsx

Output Directory: C:\Users\...p\Documents\Test BEC

Category: SheetMetal

310-00515-4 || 19009-10 CONSOL ENLOW 15 MAN DIESEL PC || CATEGORY-SHEETMETAL

	10	20	30	40	50	60	70	80	90	100	Total
210-03736-1	9130	1020	1040	2100	3035						14.1
ProdTime	0.75	0.75	1.5	7.5	3.6						
MoveTime	0	0	4	4	4						12
210-03737-2	9130	1020	1040	2100	3030						10.8
ProdTime	0.45	0.45	0.9	4.5	4.5						
MoveTime	0	0	4	4	4						12
1-3999	9130	1020	1040	2100							0
ProdTime	0	0	0	0							0
MoveTime	0	0	4	4							8
2-3448	9130	1020	1040	2100	3030						4.8
ProdTime	0.2	0.2	0.4	2	2						
MoveTime	0	0	4	4	4						12
2-3449	9130	1020	1040	2100	3030						2.4
ProdTime	0.1	0.1	0.2	1	1						
MoveTime	0	0	4	4	4						12
2-3786	9130	1020	1040	2100							0.7
ProdTime	0.05	0.05	0.1	0.5							
MoveTime	0	0	4	4							8
210-03684-2	9130	1020	1040	2100	3030						16.8
ProdTime	0.7	0.7	1.4	7	7						
MoveTime	0	0	4	4	4						12

Process Window

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

Meta data

210-03736-1	Data
Material	Steel, A36
Material Thicken...	0.375
MATL SPEC	STEEL, A36 (PLATE)
Material Used	PL3/BA36
Mass	88.89
Bend Radius	0.551
Flat_Pattern_M...	FALSE
Flat_Pattern_M...	FALSE
Hole Feature	FALSE
Hole Fit	FALSE
Louvers	FALSE

Calculator

Calculate Reset Apply Values ApproveSequence

Routing Sequence Tool

User Interface Guide:

8. User can select new process from dropdown list and it will add in top right panel (12)
9. User can move the process up, down and delete using buttons as needed
10. User can see preview of selected model by clicking preview button and preview will open in separate window
11. User can also open preview part using open solidedge button
12. To calculate pro time user can click on appropriate process
13. On clicking process calculator window will activate where user can update select parameters and add value to calculate pro time
14. Clicking "Calculate" will appear Final Pro time
15. Clicking "Save" will update final pro time.
16. After finalizing part sequence user can apply sequence to report by clicking "Apply Sequence"
17. After making all required update click "ApproveSequence" to get sequence report.

The screenshot displays the Routing Sequence Tool interface with the following components and callouts:

- Input Report:** C:\Users\dipenp\Desktop\Test MTC MTR\test\310-00515-4\310-00515-4_RoutingSequence_Report_Nov_9_2022_21_26.xlsx
- Output Directory:** C:\Users\dipenp\Documents\Test BEC
- Category:** SheetMetal (with a Reset button)
- Table:** A table showing process times for various parts. The first row is highlighted in blue.

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
- Buttons:** UP, Down, Delete, Preview, Apply Sequence, Calculate, ApproveSequence.
- Preview Window:** A window showing a 3D model of the part (11) and an "Open SolidEdge" button.
- Calculator Window:** A window for updating parameters (13) and calculating the final pro time (14). It includes a "Calculate" button and a "Save" button (15).
- Part Data:** A table showing part data for 210-03736-1, including Material (Steel, A36), Material Thickness (0.375), and other specifications.