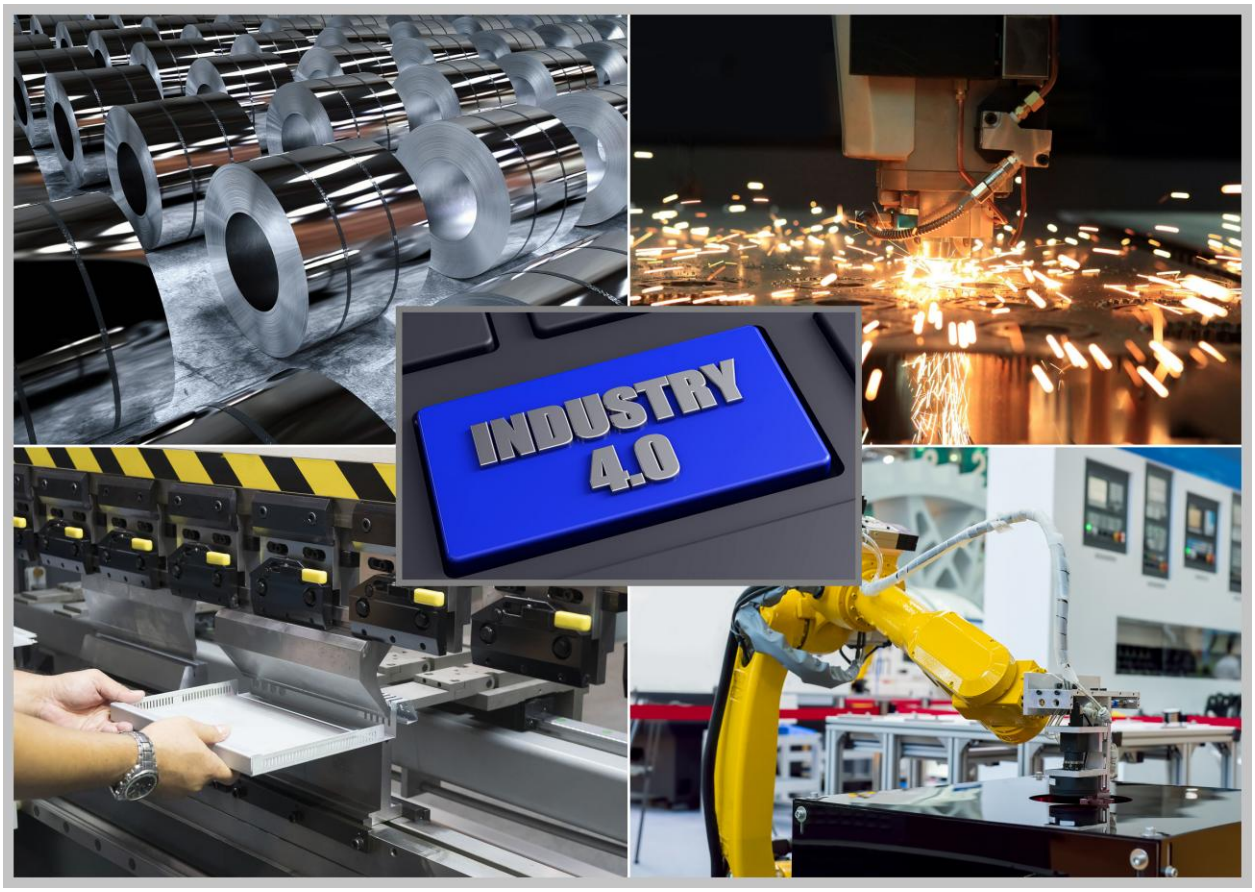
Global Edge® Integrated Manufacturing



Global Edge® Integrated Manufacturing

Configurator Guide (ROUTING)

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Configurator Outline

Global Edge® Integrated Manufacturing includes a powerful ***"Configuration Engine"*** that provides an automated method to configure parts and assemblies, CAD model generation, and sales quote generation. The following outlines the setup steps for the ***Global Edge® Integrated Manufacturing*** configuration engine:

Section 1: Part Numbers / Dimension Parameters
- 1.1 – Define Master Configuration Part Numbers
- 1.2 – Define Dimension Parameters

Section 2: Assembly / BOM Structures
- 2.1 – Define Assembly / Bill of Materials Structures

Section 3: Manufacturing Processes / Routing Structures
- 3.1 – Define Manufacturing Processes
- 3.2 – Define Routing Structures

Section 1: Part Numbers / Dimension Parameters

This section provides an explanation of the first steps to set up the ***Global Edge Configuration Engine*** that starts with the definition of Master Configuration Part Numbers including dimension parameters. Master Configuration Part Numbers are template part numbers that are the base part numbers that are used to create a structure of possible configuration options.

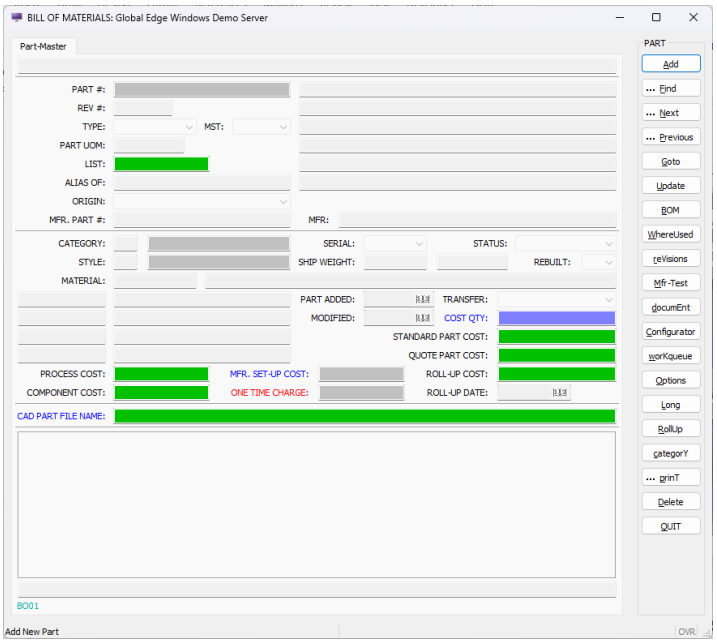
1.1 – Define Master Configuration Part Numbers

This section includes the steps to define Master Configuration Part Numbers. These steps include the following:

Steps

1. Launch the ***Global Edge Engineering Assistant*** to display the following screen:

2. Select ***"Engineering > BOM / Product Configuration"*** option to display the following screen form and menu options:



3. Select ***"Add"*** option to define the following Template Part Numbers:

Template Part Numbers

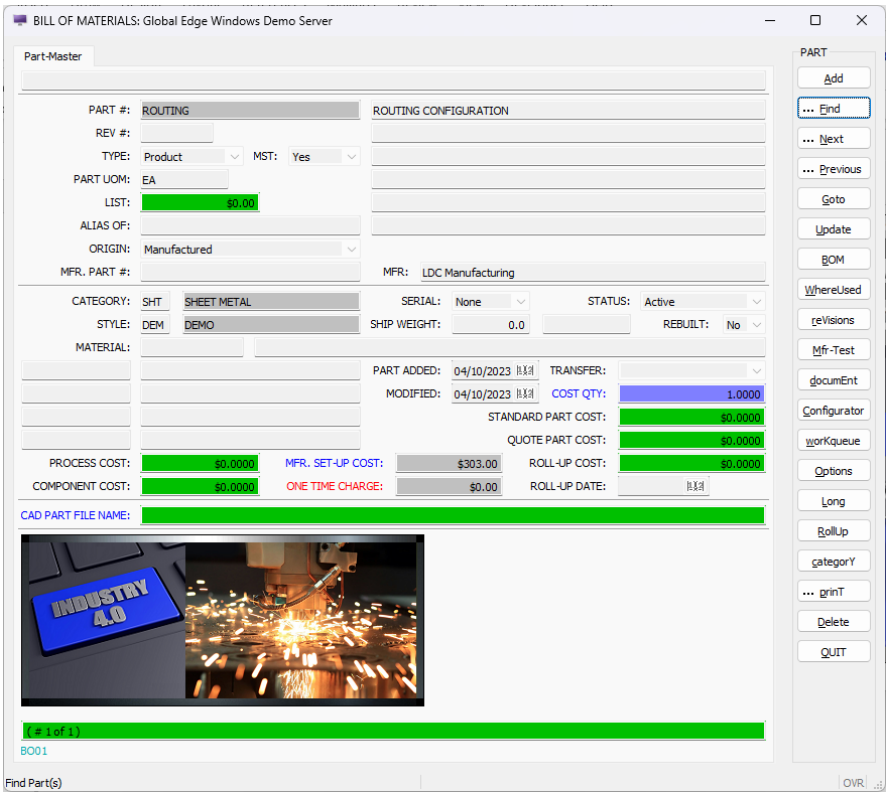
PART #	DESCRIPTION	TYPE	MASTER	CAT.	STYLE	ORIGIN	STD. COST	UOM
ROUTING	ROUTING CONFIGURATION	Product	Yes	SHT	DEM	Mfg	$0.0000	EA
QUOTING	QUOTE CONFIGURATION	Product	Yes	SHT	DEM	Mfg	$0.0000	EA
DEMO-01-STOCK-OP	DEMO STOCK OPTIONS LIST	Option	Yes	STK	-	Purc	$0.0000	EA
DEMO-02-HARDWARE-OP	DEMO HARDWARE OPTIONS LIST	Option	Yes	HDW	-	Non-Invt	$0.0000	EA
DEMO-03-COMPONENTS-OP	DEMO COMPONENTS OPTIONS LIST	Option	Yes	CMP	-	Purc	$0.0000	EA
DEMO-04-OTHER-CHARGES-OP	DEMO OTHER CHARGES OPTIONS LIST	Option	Yes	CMP	-	Mfg	$0.0000	EA
SLD-001-CABINET-BODY	CABINET BODY	Assembly	Yes	TUB	-	Mfg	$0.0000	EA
SLD-002-CABINET-BODY-WRAP	CABINET BODY WRAP	Component	Yes	TUB	KLR	Mfg	$0.0000	EA
SLD-003-CABINET-BOTTOM	CABINET BODY BOTTOM	Component	Yes	TUB	B	Mfg	$0.0000	EA
SLD-004-CABINET-TOP	CABINET BODY TOP	Component	Yes	TUB	T	Mfg	$0.0000	EA
SLD-015-FILL-PANEL	CABINET FILL PANEL	Component	Yes	CAB	FLL	Mfg	$0.0000	EA
SLD-016-HORZ-DIVIDER	CABINET HORIZONTAL DIVIDER	Component	Yes	CAB	DVD	Mfg	$0.0000	EA
SLD-017-SPINE-CENTER	CABINET SPINE - CENTER	Component	Yes	CAB	SPN	Mfg	$0.0000	EA
SLD-018-SPINE-CORNER-LT	CABINET SPINE - CORNER - LEFT	Component	Yes	CAB	SPN	Mfg	$0.0000	EA
SLD-019-SPINE-CORNER-RT	CABINET SPINE - CORNER - RIGHT	Component	Yes	CAB	SPN	Mfg	$0.0000	EA
SLD-020-VERT-DIVIDER-BOT	CABINET VERTICAL DIVIDER - BOTTOM	Component	Yes	CAB	DVD	Mfg	$0.0000	EA
SLD-021-VERT-DIVIDER-TOP	CABINET VERTICAL DIVIDER - TOP	Component	Yes	CAB	DVD	Mfg	$0.0000	EA
SLD-022-SHELF	SHELF	Component	Yes	CAB	SHF	Mfg	$0.0000	EA
SLD-023-BACK	REMOVABLE BACK	Component	Yes	CAB	BK	Mfg	$0.0000	EA
SLD-046-STOCK-OPT	MATERIAL STOCK OPTIONS LIST	Option	Yes	OPT	STK	Purc	$0.0000	EA
304-4	304-4-STAINLESS STEEL	Raw	No	STK	SHT	Purc	$2.5000	lbs
304-2B	304-2B STAINLESS STEEL	Raw	No	STK	SHT	Purc	$2.1000	lbs
CRS	COLD ROLLED STEEL	Raw	No	STK	SHT	Purc	$0.8500	lbs
316-2B	316-2B STAINLESS STEEL	Raw	No	STK	SHT	Purc	$2.6700	lbs
5052-H32	ALUMINUM	Raw	No	STK	SHT	Purc	$1.9500	lbs
G60	G60 GALVANIZED STEEL	Raw	No	STK	SHT	Purc	$2.7500	lbs
832316	8-32 SELF TAPPING SCREWS	Component	No	CMP	FST	Purc	$0.0300	EA
BAG28-4-599	U-LINE S-2366 20IN X 30IN FLAT BAG	Component	No	CMP	PKG	Purc	$0.2500	EA
BOX-30X24X20	U-LINE BOX S-4961	Component	No	CMP	PKG	Purc	$4.0100	EA
BOX-32X24X24	BOX, 32 X 24 X 24 (S-4453)	Component	No	CMP	PKG	Purc	$4.3700	EA
MATERIAL-MARKUP	MATERIAL MARKUP	Component	No	CMP	MMU	Purc	$0.2400	EA
PACKAGING	PACKAGING	Component	No	CMP	PKG	Purc	$0.0100	EA
SP-032-1	10-32 PEM NUTS	Component	No	CMP	FST	Purc	$0.3400	EA
PEM-NUT	PEM NUT	Component	No	HDW	-	Purc	$0.0500	EA
PEM-STUD	PEM STUD	Component	No	HDW	-	Purc	$0.0700	EA
RIVET	RIVET	Component	No	HDW	-	Purc	$0.0500	EA
SCREW	SCREW	Component	No	HDW	-	Purc	$0.0300	EA
STANDOFF	STANDOFF	Component	No	HDW	-	Purc	$0.2000	EA
TAPE	TAPE CHARGE	Component	No	OTH	TPE	Mfg	$35.0000	EA

1.2 – Define Dimension Parameters

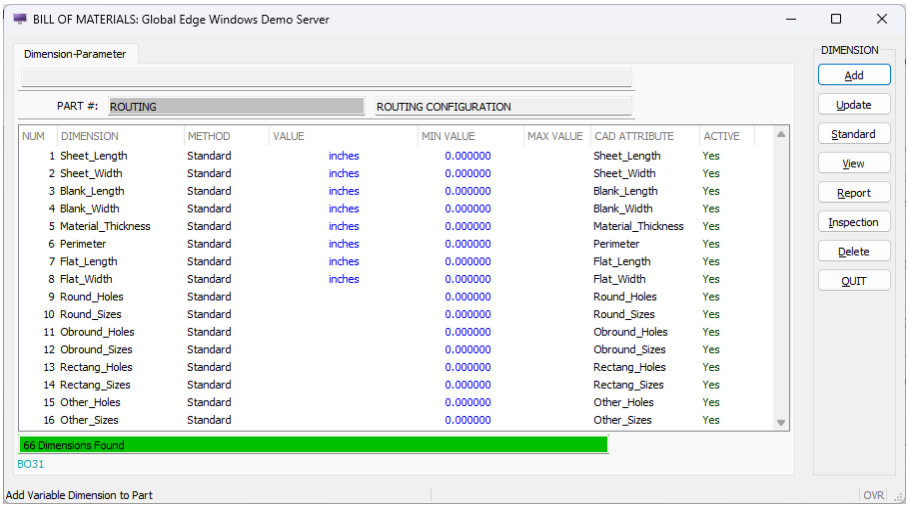
This section includes the steps to define Dimension Parameters to the Template Part Numbers that were defined in ***"Section 1.1 – Define Master Configuration Part Numbers"***. These steps include the following:

Steps

1. Retrieve the ***"ROUTING"*** part number:



2. Select ***"Options > Dimensions"*** option to display the following screen form and menu options:



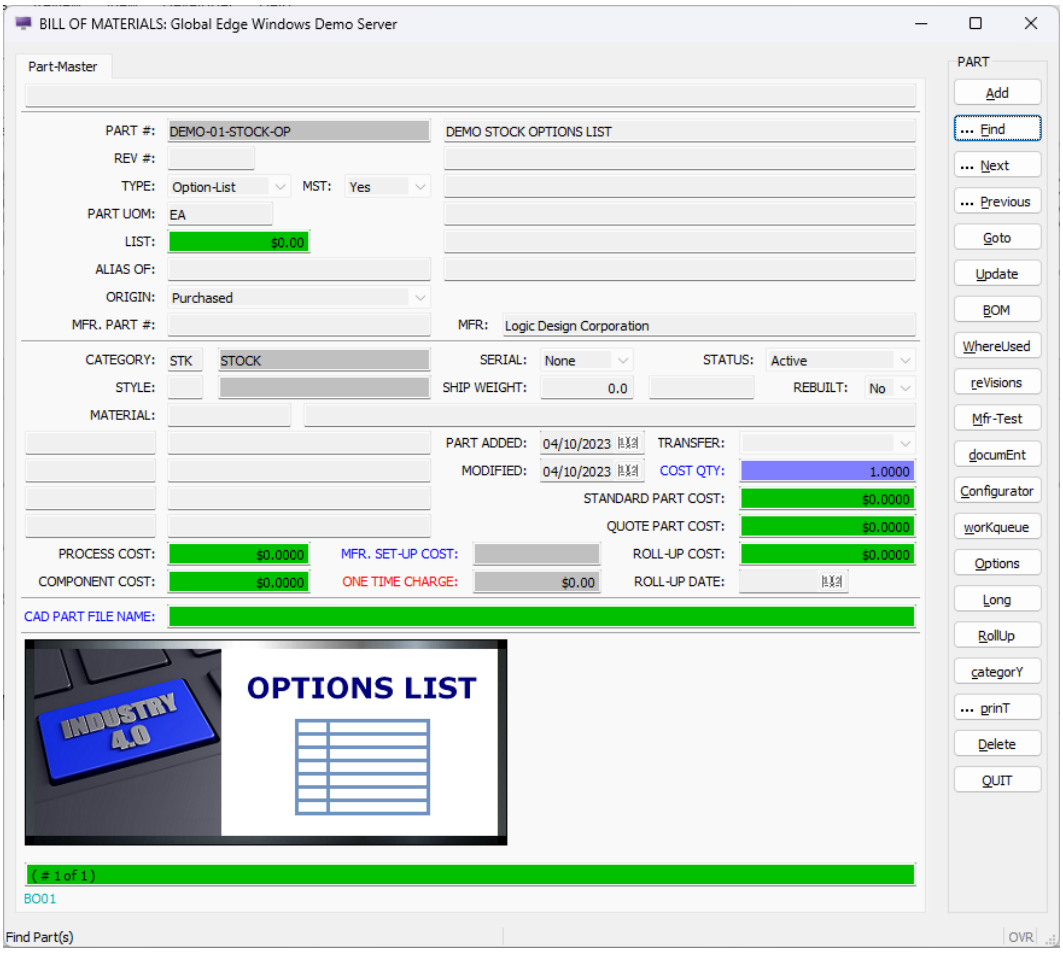
ROUTING (Dimensions 1 through 51)

PART #	DIM. #	TYPE	DIMENSION NAME	UOM
ROUTING	1	N	Sheet_Length	inches
ROUTING	2	N	Sheet_Width	inches
ROUTING	3	N	Blank_Length	inches
ROUTING	4	N	Blank_Width	inches
ROUTING	5	N	Material_Thickness	inches
ROUTING	6	N	Perimeter	inches
ROUTING	7	N	Flat_Length	inches
ROUTING	8	N	Flat_Width	inches
ROUTING	9	N	Round_Holes	
ROUTING	10	N	Round_Sizes	
ROUTING	11	N	Obround_Holes	
ROUTING	12	N	Obround_Sizes	
ROUTING	13	N	Rectang_Holes	
ROUTING	14	N	Rectang_Sizes	
ROUTING	15	N	Other_Holes	
ROUTING	16	N	Other_Sizes	
ROUTING	17	N	Num_Cutouts	
ROUTING	18	N	Cutout_Perimeter	inches
ROUTING	19	N	Min_Bend_Length	inches
ROUTING	20	N	Max_Bend_Length	inches
ROUTING	21	N	Min_Bend_Angle	inches
ROUTING	22	N	Max_Bend_Angle	inches
ROUTING	23	N	Min_Flange_Width	inches
ROUTING	24	N	Max_Flange_Width	inches
ROUTING	25	N	Min_Pem_Gap	inches
ROUTING	26	N	Min_Dn_Pem_Gap	inches
ROUTING	27	N	Min_Emboss_Gap	inches
ROUTING	28	N	Min_Dn_Emboss_Gap	inches
ROUTING	29	N	Min_Louver_Gap	inches
ROUTING	30	N	Min_Dn_Louver_Gap	inches
ROUTING	31	N	Min_Taper_Bl_Gap	inches
ROUTING	32	N	Min_Die_Cutout	inches
ROUTING	33	N	Up_Bends	
ROUTING	34	N	Int_Up_Bends	
ROUTING	35	N	Max_Up_Bend	inches
ROUTING	36	N	Down_Bends	
ROUTING	37	N	Int_Down_Bends	
ROUTING	38	N	Max_Down_Bend	inches
ROUTING	39	N	Fold_Count	
ROUTING	40	N	Hem_Count	
ROUTING	41	N	Extrude_Count	
ROUTING	42	N	Bend_Radius	inches
ROUTING	43	C	Cutting_Method	
ROUTING	44	C	Cutter_Ref_Num	
ROUTING	45	C	Certified_Mtrl	
ROUTING	46	C	Material	
ROUTING	47	N	Cutout_Distance	inches
ROUTING	48	N	Part_Distance	inches
ROUTING	49	C	Blank_Before_Cut?	
		1	Yes	
		2	No	
ROUTING	50	C	Embossed_Part?	
		1	Yes	
		2	No	
ROUTING	51	C	Turret_Laser_Water	
		1	Turret	
		2	Laser	
		3	WaterJet	
		4	Open	

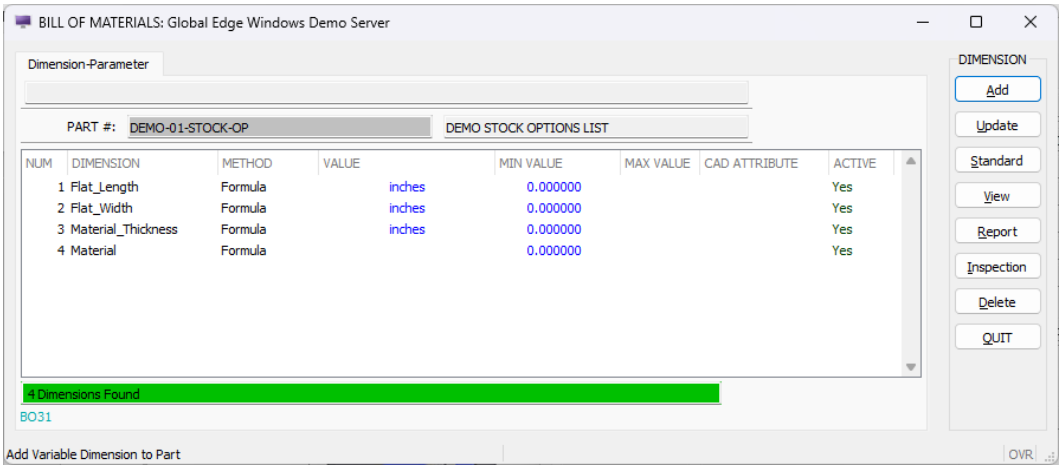
ROUTING (Dimensions 52 through 66)

PART #	DIM. #	TYPE	DIMENSION NAME	UOM
ROUTING	52	C	PressBrake	
		1	Yes	
		2	No	
ROUTING	53	C	PanelBend	
		1	Yes	
		2	No	
ROUTING	54	C	PressBrk_PanelBend	
		1	Press-Brake	
		2	Panel-Bender	
		3	Water-Jet	
		4	Both	
		5	None	
ROUTING	55	C	Hardware:	
		1	PEM-NUT	
		2	PEM-STUD	
		3	STANDOFF	
		4	RIVET	
		5	SCREW	
		6	None	
ROUTING	56	C	Grain_Part?	
		1	Yes	
		2	No	
ROUTING	57	C	Weld_Part?	
		1	Yes	
		2	No	
ROUTING	58	C	Deburr_Part?	
		1	Yes	
		2	No	
ROUTING	59	C	Paint_Part?	
		1	Yes	
		2	No	
ROUTING	60	C	Assembly?	
		1	Yes	
		2	No	
ROUTING	61	C	Gasketing?	
		1	Yes	
		2	No	
ROUTING	62	C	Rivet?	
		1	Yes	
		2	No	
ROUTING	63	C	General_Labor?	
		1	Yes	
		2	No	
ROUTING	64	C	Final_Inspect?	
		1	Yes	
		2	No	
ROUTING	65	C	Package?	
		1	Yes	
		2	No	
ROUTING	66	C	Shipping?	
		1	Yes	
		2	No	

3. Return to PART menu, then select ***"Find > BOM"*** option to display the following screen form and menu options:



4. Select ***"Options > Dimensions"*** option to display the following screen form and menu options:



Section 2: Assembly / BOM Structures

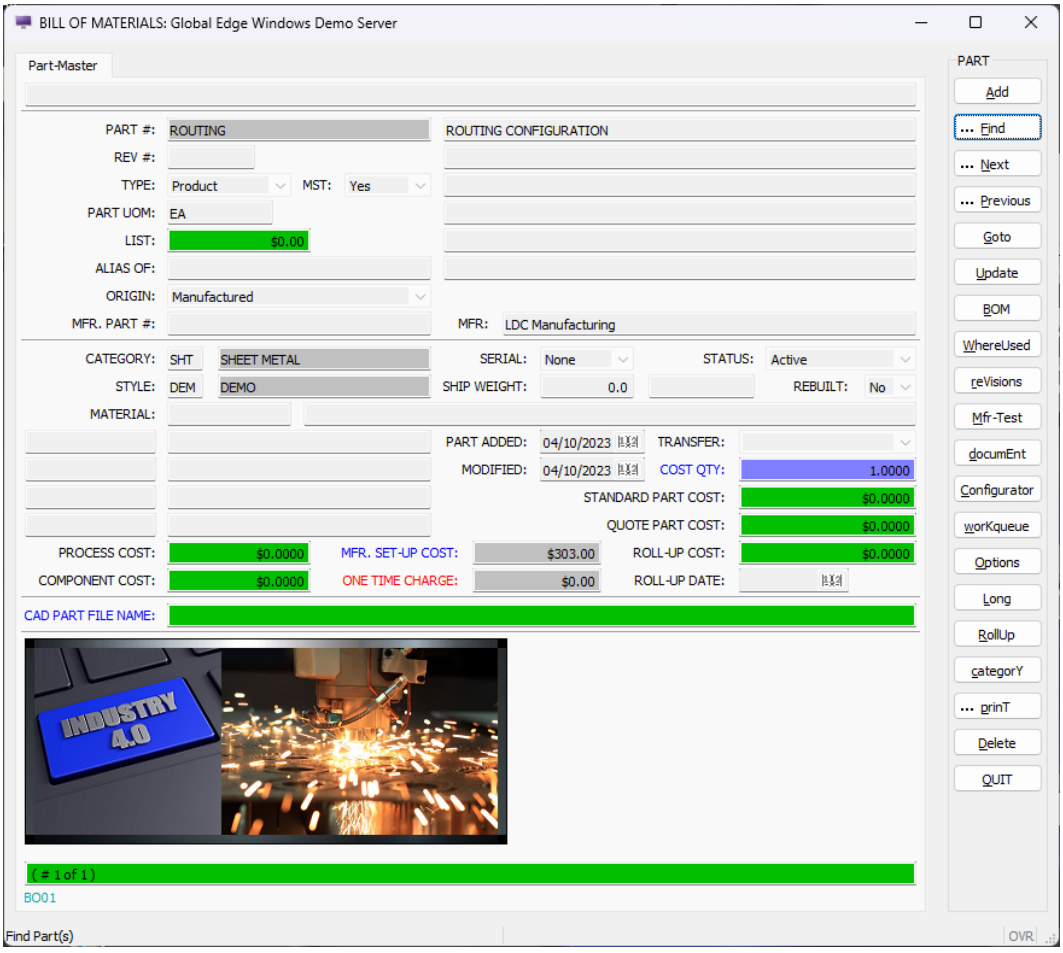
This section provides an explanation of setting up the ***Global Edge Configuration Engine*** by defining an assembly / bill of materials structure based on the Template Part Numbers defined in Section 1. This assembly / bill of materials structure includes all the available components that comprise a configured product or assembly.

2.1 – Define Assembly / Bill of Materials Structures

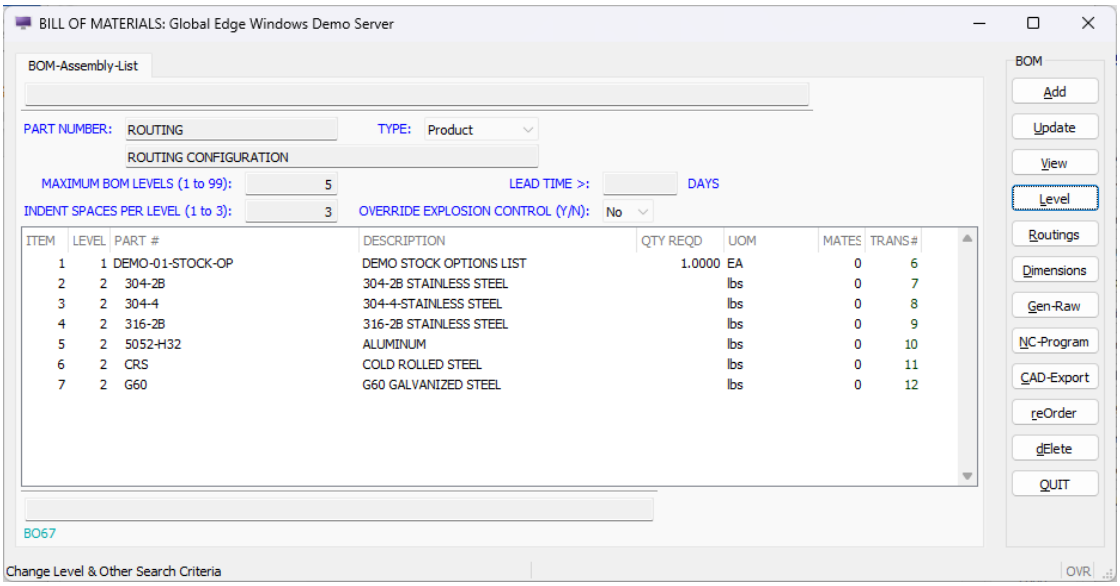
This section includes the steps to define Master Assembly / Bill of Materials structures. These steps include the following:

Steps

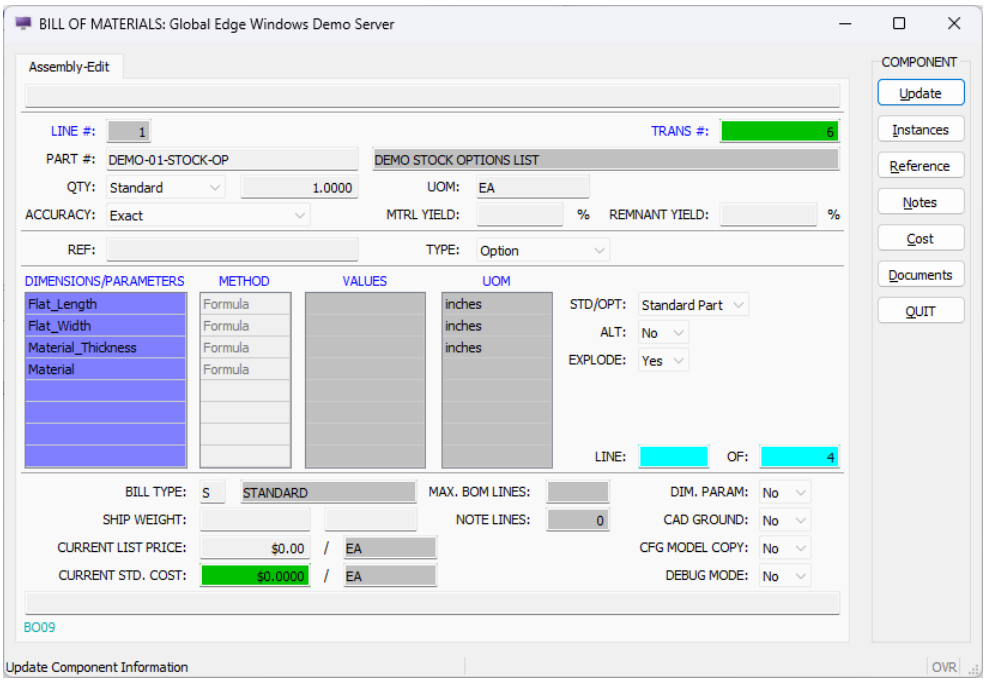
1. Retrieve ***"ROUTING"*** part number:



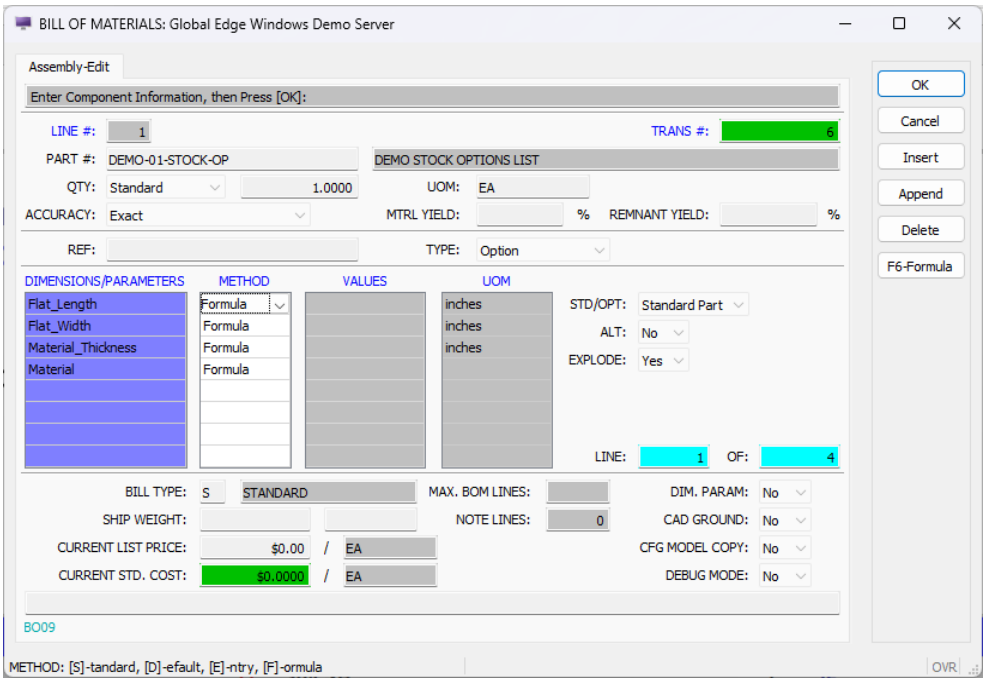
2. Select ***"BOM > Level"*** (enter "5") options to display the following screen form and menu options:



3. Select ***"Update"*** option and select ***"DEMO-01-STOCK-OP"*** part number, then select ***"OK"*** to display following screen form and menu options:

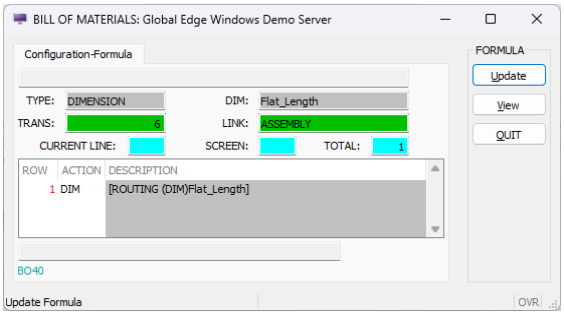


4. Select ***"Update"*** option and tab to METHOD fields:

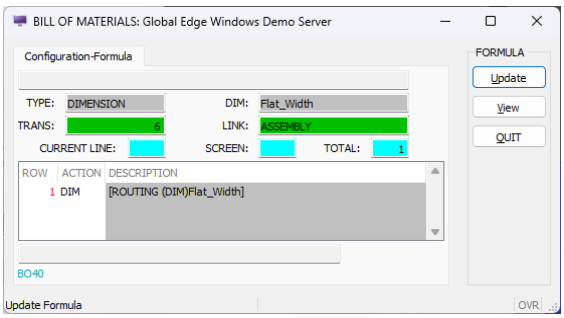


5. Select ***"F6-Formula"*** option to display ***"Configuration-Formula"*** screen form and menu options:

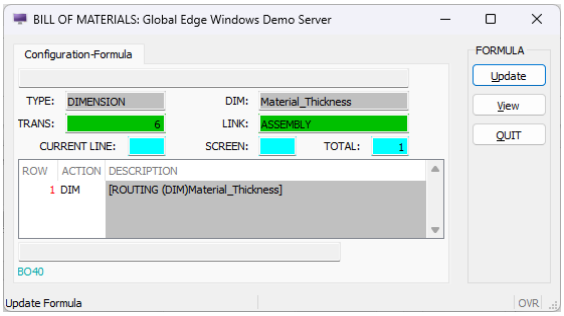
Dimension #6 – Flat_Length



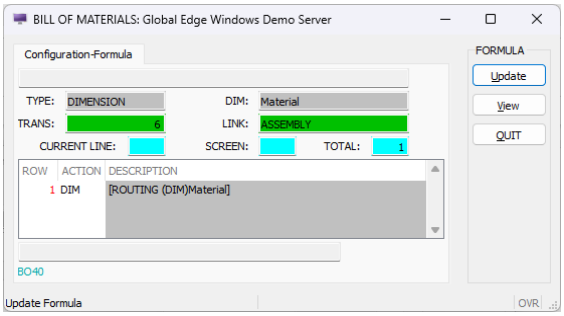
Dimension #6 – Flat_Width



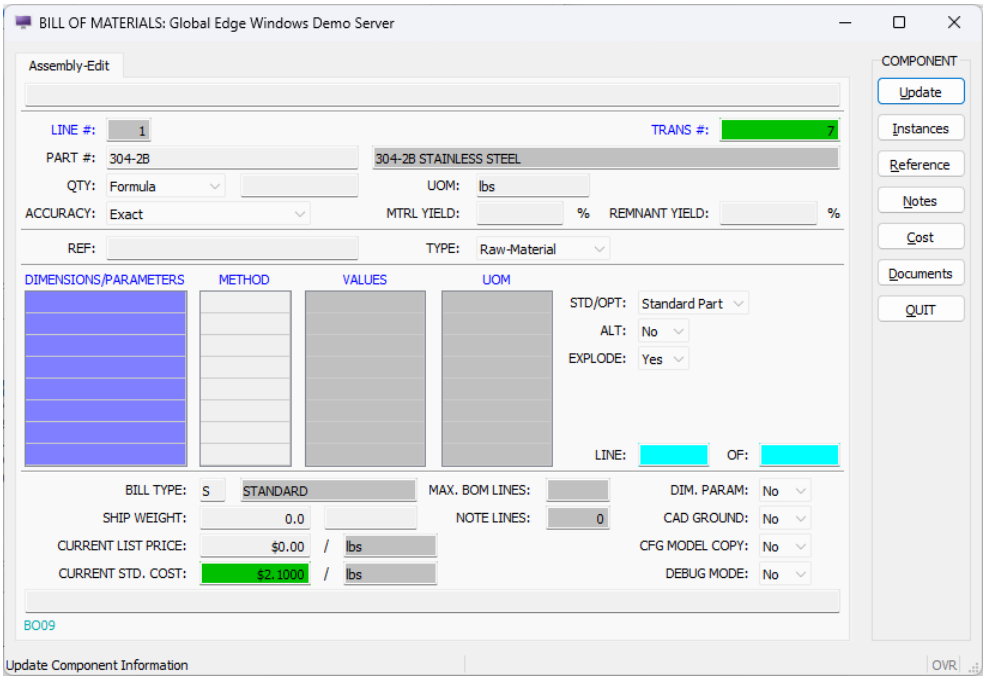
Dimension #6 – Material_Thickness



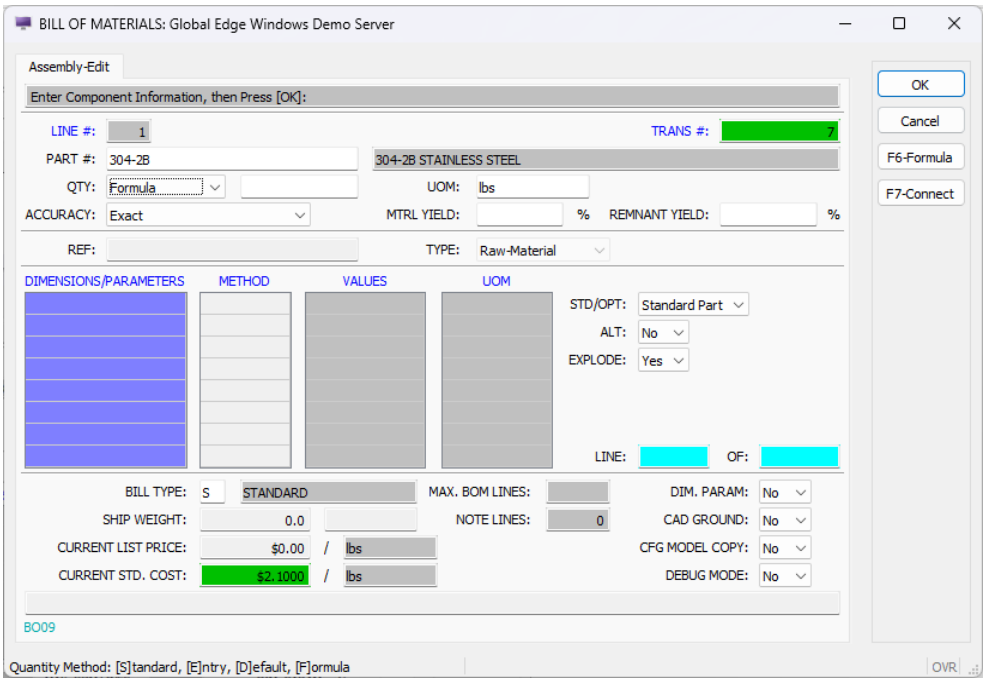
Dimension #6 – Material



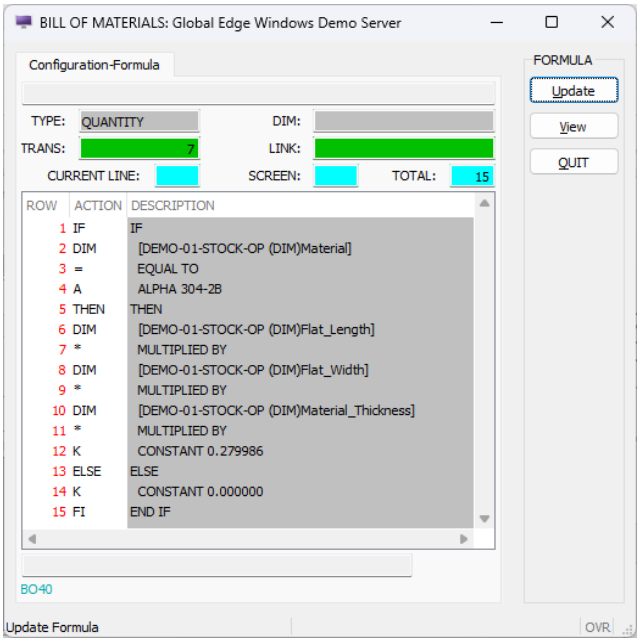
6. Return to BOM menu and select ***"Update"*** option and select ***"304-2B"*** part number, then select ***"OK"*** to display following screen form and menu options:



7. Select ***"Update"*** option to display following menu options:



8. Select ***"F6-Formula"*** option to display the ***"Configuration-Formula"*** screen form and following menu options:



Quantity Formula (Transaction Number 7 "304-2B")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
7			Q	304-2B		1	IF		
7	DEMO-01-STOCK-OP	4	Q	304-2B		2	DIM	Material	
7			Q	304-2B		3	=		
7			Q	304-2B		4	A	304-2B	
7			Q	304-2B		5	THEN		
7	DEMO-01-STOCK-OP	1	Q	304-2B		6	DIM	Flat_Length	
7			Q	304-2B		7	*		
7	DEMO-01-STOCK-OP	2	Q	304-2B		8	DIM	Flat_Width	
7			Q	304-2B		9	*		
7	DEMO-01-STOCK-OP	1	Q	304-2B		10	DIM	Material_Thickness	
7			Q	304-2B		11	*		
7			Q	304-2B		12	K		0.279986
7			Q	304-2B		13	ELSE		
7			Q	304-2B		14	K		0.000000
7			Q	304-2B		15	FI		

Quantity Formula (Transaction Number 8 "304-4")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
8			Q	304-4		1	IF		
8	DEMO-01-STOCK-OP	4	Q	304-4		2	DIM	Material	
8			Q	304-4		3	=		
8			Q	304-4		4	A	304-4	
8			Q	304-4		5	THEN		
8	DEMO-01-STOCK-OP	1	Q	304-4		6	DIM	Flat_Length	
8			Q	304-4		7	*		
8	DEMO-01-STOCK-OP	2	Q	304-4		8	DIM	Flat_Width	
8			Q	304-4		9	*		
8	DEMO-01-STOCK-OP	1	Q	304-4		10	DIM	Material_Thickness	
8			Q	304-4		11	*		
8			Q	304-4		12	K		0.279986
8			Q	304-4		13	ELSE		
8			Q	304-4		14	K		0.000000
8			Q	304-4		15	FI		

Quantity Formula (Transaction Number 9 "316-2B")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
9			Q	316-2B		1	IF		
9	DEMO-01-STOCK-OP	4	Q	316-2B		2	DIM	Material	
9			Q	316-2B		3	=		
9			Q	316-2B		4	A	316-2B	
9			Q	316-2B		5	THEN		
9	DEMO-01-STOCK-OP	1	Q	316-2B		6	DIM	Flat_Length	
9			Q	316-2B		7	*		
9	DEMO-01-STOCK-OP	2	Q	316-2B		8	DIM	Flat_Width	
9			Q	316-2B		9	*		
9	DEMO-01-STOCK-OP	1	Q	316-2B		10	DIM	Material_Thickness	
9			Q	316-2B		11	*		
9			Q	316-2B		12	K		0.279986
9			Q	316-2B		13	ELSE		
9			Q	316-2B		14	K		0.000000
9			Q	316-2B		15	FI		

Quantity Formula (Transaction Number 10 "5052-H32")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
10			Q	5052-H32		1	IF		
10	DEMO-01-STOCK-OP	4	Q	5052-H32		2	DIM	Material	
10			Q	5052-H32		3	=		
10			Q	5052-H32		4	A	5052-H32	
10			Q	5052-H32		5	THEN		
10	DEMO-01-STOCK-OP	1	Q	5052-H32		6	DIM	Flat_Length	
10			Q	5052-H32		7	*		
10	DEMO-01-STOCK-OP	2	Q	5052-H32		8	DIM	Flat_Width	
10			Q	5052-H32		9	*		
10	DEMO-01-STOCK-OP	1	Q	5052-H32		10	DIM	Material_Thickness	
10			Q	5052-H32		11	*		
10			Q	5052-H32		12	K		0.097904
10			Q	5052-H32		13	ELSE		
10			Q	5052-H32		14	K		0.000000
10			Q	5052-H32		15	FI		

Quantity Formula (Transaction Number 11 "CRS")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
11			Q	CRS		1	IF		
11	DEMO-01-STOCK-OP	4	Q	CRS		2	DIM	Material	
11			Q	CRS		3	=		
11			Q	CRS		4	A	CRS	
11			Q	CRS		5	THEN		
11	DEMO-01-STOCK-OP	1	Q	CRS		6	DIM	Flat_Length	
11			Q	CRS		7	*		
11	DEMO-01-STOCK-OP	2	Q	CRS		8	DIM	Flat_Width	
11			Q	CRS		9	*		
11	DEMO-01-STOCK-OP	1	Q	CRS		10	DIM	Material_Thickness	
11			Q	CRS		11	*		
11			Q	CRS		12	K		0.283960
11			Q	CRS		13	ELSE		
11			Q	CRS		14	K		0.000000
11			Q	CRS		15	FI		

Quantity Formula (Transaction Number 12 "G60")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
12			Q	G60		1	IF		
12	DEMO-01-STOCK-OP	4	Q	G60		2	DIM	Material	
12			Q	G60		3	=		
12			Q	G60		4	A	G60	
12			Q	G60		5	THEN		
12	DEMO-01-STOCK-OP	1	Q	G60		6	DIM	Flat_Length	
12			Q	G60		7	*		
12	DEMO-01-STOCK-OP	2	Q	G60		8	DIM	Flat_Width	
12			Q	G60		9	*		
12	DEMO-01-STOCK-OP	1	Q	G60		10	DIM	Material_Thickness	
12			Q	G60		11	*		
12			Q	G60		12	K		0.283960
12			Q	G60		13	ELSE		
12			Q	G60		14	K		0.000000
12			Q	G60		15	FI		

Section 3: Manufacturing Processes / Routing Structures

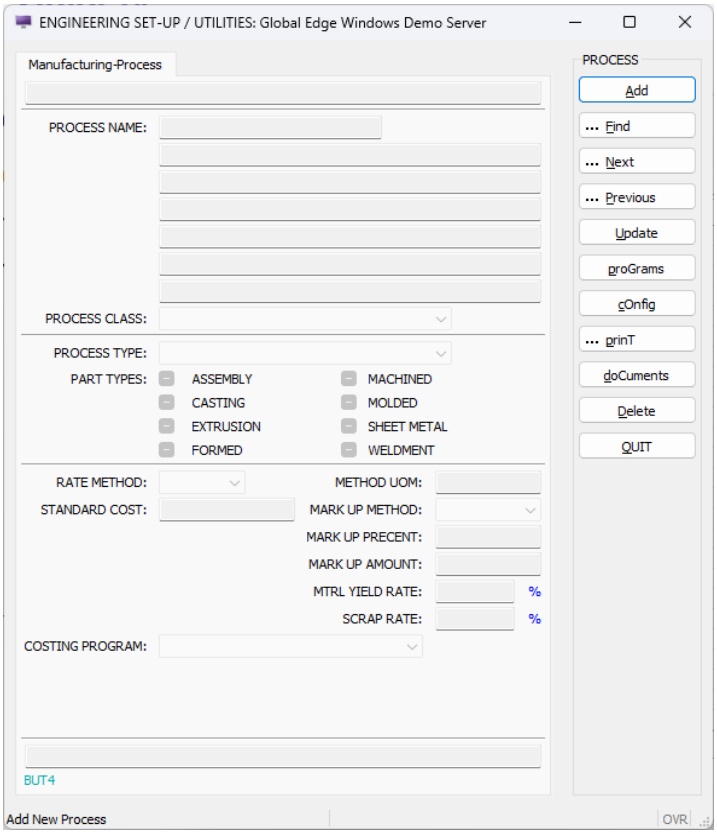
This section provides an explanation of the next step of setting up the ***Global Edge Configuration Engine*** to include the capability to automatically generate routings. This starts with first defining your Manufacturing Processes, then defining the available Manufacturing Processes for each of the parts in the configuration structure.

3.1 – Define Manufacturing Processes

This section includes the steps to define Manufacturing Processes. These steps include the following:

Steps

1. Select ***"Engineering > Engineering Setup / Utilities > Engineering Set-Up > Mfg-Processes"*** options to display the following screen form and menu options:



Manufacturing Process

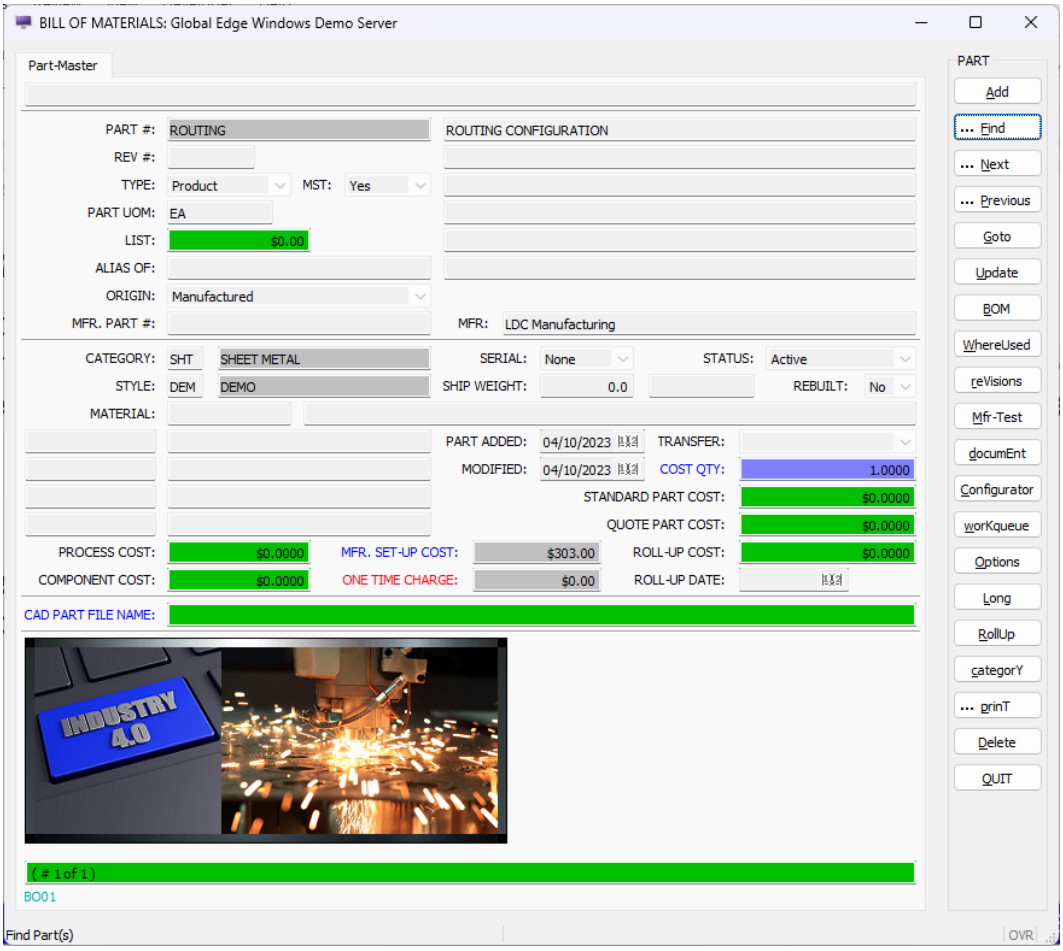
PROCESS	DESCRIPTION	CLASS	STD. COST	UOM
AIDA	AIDA Stamping Operation	FRM	$75.0000	hours
ASSEMBLY	Assembly Operation	ASM	$50.0000	hours
BATCH-OVEN	Batch Oven Operation	OVN	$25.0000	hours
BENCH-WORK	Bench Work Operation	LBR	$50.0000	hours
BEND	Press Brake Bend Operation	FRM	$75.0000	hours
CHROMATE-ETCH	Chromating-Etching Operation	FIN	$85.0000	hours
CORNER	Corner Bending Operation	FRM	$35.0000	hours
CURING	Curing Operation	OVN	$25.0000	hours
CUT-TO-LENGTH	Cut-to-Length Operation	SHR	$55.0000	hours
DEBURR	Deburring Operation	FIN	$45.0000	hours
DRESS	Dress Operation	WLD	$45.0000	hours
EMBOSS	Embossing Operation	PNC	$75.0000	hours
FINAL-INSPECT	Final Inspection	ISP	$35.0000	hours
FLATTEN	Flatten Operation	FRM	$75.0000	hours
FOLD	Folder Folding Operation	PNL	$120.0000	hours
FORM	Forming Operation	FRM	$75.0000	hours
FORM-2	Form 2 Person	FRM	$75.0000	hours
GASKETING	Gasketing Operation	GSK	$35.0000	hours
GENERAL-ASSEMBLY	General Assembly Operation	ASM	$50.0000	hours
GENERAL-LABOR	General Labor	LBR	$50.0000	hours
GRAIN	Graining Operation	FIN	$45.0000	hours
GRIND	Grinding Operation	FIN	$25.0000	hours
HANGING	Hanging Operation	HNG	$25.0000	hours
INSPECT	Inspection Operation	ISP	$35.0000	hours
INSPECT-100	Inspect 100 Percent Operation	ISP	$35.0000	hours
INSPECT-FINISH-DE	Insp.-Fin.+De-masking Operation	ISP	$35.0000	hours
INSTALL-PEM-NUTS	Install Pem Nuts	PEM	$50.0000	hours
INSTALL-PEM-STUDS	Install Pem Studs	PEM	$50.0000	hours
JOG	JOG Operation	FRM	$75.0000	hours
LASER-CUT	Laser Cut Operation	LSR	$140.0000	hours
MASKING	Masking Operation	PNT	$40.0000	hours
MIG-WELD	MIG Weld Operation	WLD	$45.0000	hours
PACKAGE	Package	PKG	$35.0000	hours
PACK-FOR-SHIPMENT	Pack for Shipment	PKG	$35.0000	hours
PAINTING	Painting Operation	PNT	$40.0000	hours
PANELBEND	Panel Bender Bending Operation	PNL	$120.0000	hours
PEM	Pemsert Operation	PEM	$25.0000	hours
PEM-2	Pemsert 2 Person Operation	PEM	$25.0000	hours
POWDER-COAT	Powder Coat Operation	PNT	$40.0000	hours
PROGRAM-NEW-PART	Program New Part Operation	PRG	$50.0000	hours
PROGRAM-REV-PART	Program Revised Part Operation	PRG	$50.0000	hours
PROOF-NEW-PART	Proof New Part Operation	PRF	$50.0000	hours
PROOF-REV-PART	Proof Revised Part Operation	PRF	$50.0000	hours
PUNCH	Turret Punch Operation	PNC	$75.0000	hours
RIVET	Rivet Operation	ASM	$50.0000	hours
SAND-PAINT-PREP	Sand / Paint / Preparation Operation	WPR	$40.0000	hours
SCREEN-PRINT	Screen Printing Operation	PNT	$40.0000	hours
SETUP-MASTER-FILE	Setup Master File Operation	PRG	$50.0000	hours
SHAKE-OUT	Shake Out Operation	FIN	$75.0000	hours
SHEAR	Shear Operation	SHR	$55.0000	hours
SHIPPING	Shipping Operation	SHP	$35.0000	hours
SPOT-WELD	Spot Welding Operation	WSP	$45.0000	hours
STRAIGHTEN-ROLLER	Straighten Roller Operation	FRM	$75.0000	hours
STUD-WELDING	Stud Welding Operation	WST	$45.0000	hours
TIG-WELD	TIG Weld Operation	WLD	$45.0000	hours
TUMBLE-DEBURR	Tumble Deburr Operation	FIN	$75.0000	hours
WASHING	Washing Operation	WSH	$25.0000	hours
WASH-ONLY	Wash Only Operation	WSH	$25.0000	hours
WELD-MD	Medium Seam-Tack Welding Operation	WLD	$45.0000	hours
WHITNEY	Whitney Punch & Plasma Operation	PNC	$75.0000	hours

3.2 – Define Routing Structures

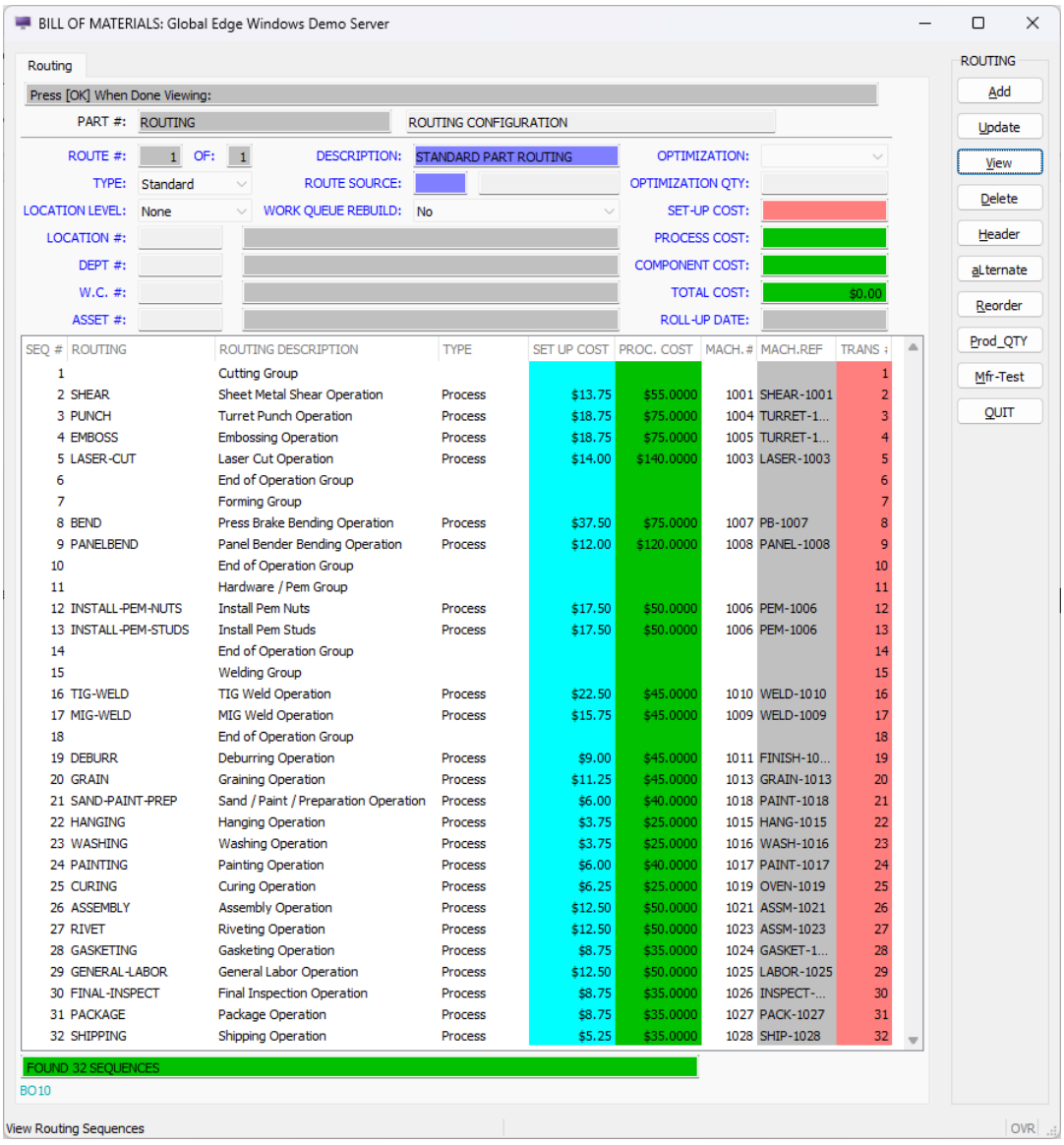
This section allows you to attach available Manufacturing Processes to each of the parts included in the Master Configuration. After attaching available Manufacturing Processes as outlined in this section, subsequently configuration rules will then be applied to each Manufacturing Process in **Section 4: Configuration Rules / Formulas**.

Steps

1. Select ***"Engineering > BOM / Product Configuration > Find"*** options and select **"ROUTING"** to retrieve to display the following screen form and menu options:



2. Select ***"BOM > Routings"*** options to display the following screen form and menu options:

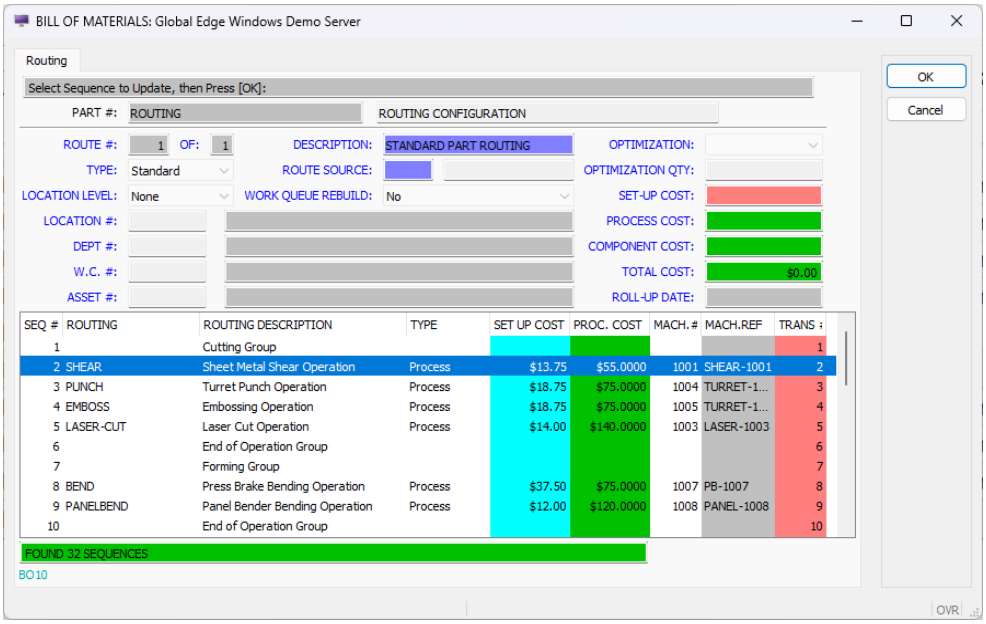


SEQ #	ROUTING	ROUTING DESCRIPTION	TYPE	SET UP COST	PROC. COST	MACH. #	MACH.REF	TRANS #
1		Cutting Group						1
2	SHEAR	Sheet Metal Shear Operation	Process	$13.75	$55.0000	1001	SHEAR-1001	2
3	PUNCH	Turret Punch Operation	Process	$18.75	$75.0000	1004	TURRET-1...	3
4	EMBOSS	Embossing Operation	Process	$18.75	$75.0000	1005	TURRET-1...	4
5	LASER-CUT	Laser Cut Operation	Process	$14.00	$140.0000	1003	LASER-1003	5
6		End of Operation Group						6
7		Forming Group						7
8	BEND	Press Brake Bending Operation	Process	$37.50	$75.0000	1007	PB-1007	8
9	PANELBEND	Panel Bender Bending Operation	Process	$12.00	$120.0000	1008	PANEL-1008	9
10		End of Operation Group						10
11		Hardware / Pem Group						11
12	INSTALL-PEM-NUTS	Install Pem Nuts	Process	$17.50	$50.0000	1006	PEM-1006	12
13	INSTALL-PEM-STUDS	Install Pem Studs	Process	$17.50	$50.0000	1006	PEM-1006	13
14		End of Operation Group						14
15		Welding Group						15
16	TIG-WELD	TIG Weld Operation	Process	$22.50	$45.0000	1010	WELD-1010	16
17	MIG-WELD	MIG Weld Operation	Process	$15.75	$45.0000	1009	WELD-1009	17
18		End of Operation Group						18
19	DEBURR	Deburring Operation	Process	$9.00	$45.0000	1011	FINISH-10...	19
20	GRAIN	Graining Operation	Process	$11.25	$45.0000	1013	GRAIN-1013	20
21	SAND-PAINT-PREP	Sand / Paint / Preparation Operation	Process	$6.00	$40.0000	1018	PAINT-1018	21
22	HANGING	Hanging Operation	Process	$3.75	$25.0000	1015	HANG-1015	22
23	WASHING	Washing Operation	Process	$3.75	$25.0000	1016	WASH-1016	23
24	PAINTING	Painting Operation	Process	$6.00	$40.0000	1017	PAINT-1017	24
25	CURING	Curing Operation	Process	$6.25	$25.0000	1019	OVEN-1019	25
26	ASSEMBLY	Assembly Operation	Process	$12.50	$50.0000	1021	ASSM-1021	26
27	RIVET	Riveting Operation	Process	$12.50	$50.0000	1023	ASSM-1023	27
28	GASKETING	Gasketing Operation	Process	$8.75	$35.0000	1024	GASKET-1...	28
29	GENERAL-LABOR	General Labor Operation	Process	$12.50	$50.0000	1025	LABOR-1025	29
30	FINAL-INSPECT	Final Inspection Operation	Process	$8.75	$35.0000	1026	INSPECT-...	30
31	PACKAGE	Package Operation	Process	$8.75	$35.0000	1027	PACK-1027	31
32	SHIPPING	Shipping Operation	Process	$5.25	$35.0000	1028	SHIP-1028	32

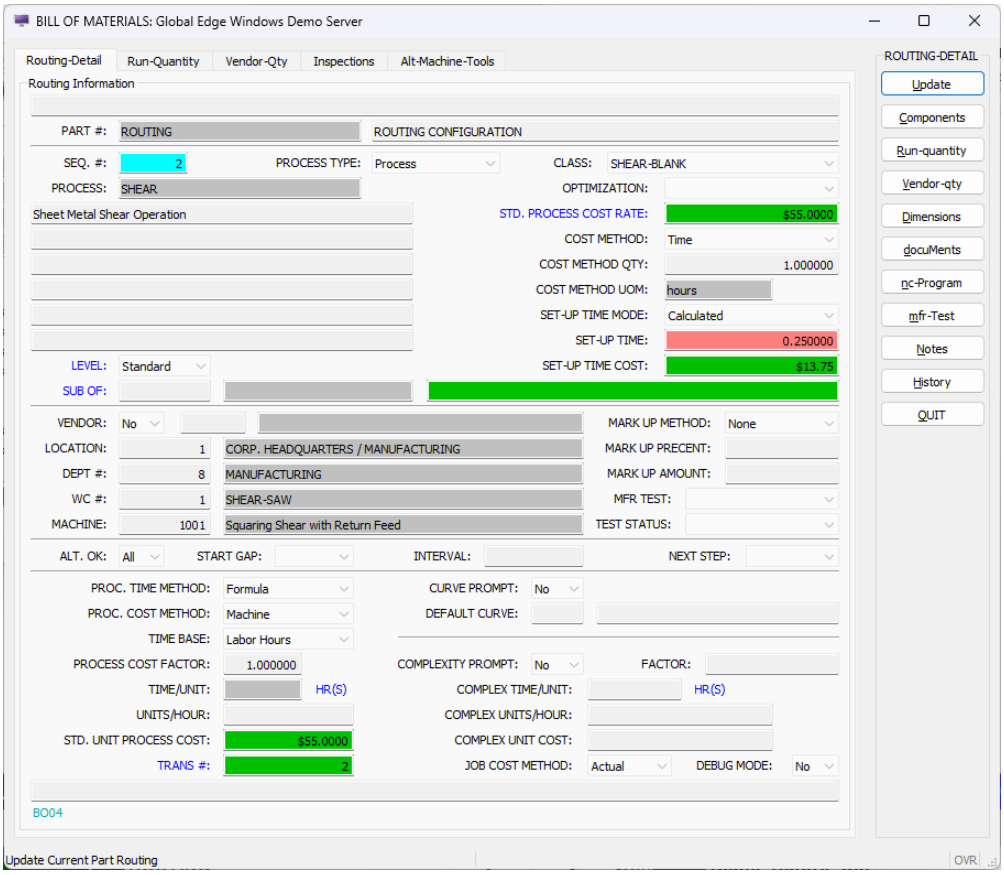
ROUTING (Routing Sequence 1 through 32)

PART #	TRANS #	SEQ. #	PROCESS	UOM	SET-UP	SET-UP COST	PROC. COST
ROUTING	1	1	Cutting Group				
ROUTING	2	2	SHEAR	hours	0.250000	13.75	55.0000
ROUTING	3	3	PUNCH	hours	0.250000	18.75	75.0000
ROUTING	4	4	EMBOSS	hours	0.250000	18.75	75.0000
ROUTING	5	5	LASER-CUT	hours	0.100000	14.00	140.0000
ROUTING	6	6	End of Operation Group				
ROUTING	7	7	Forming Group				
ROUTING	8	8	BEND	hours	0.500000	37.50	75.0000
ROUTING	9	9	PANELBEND	hours	0.100000	12.00	120.0000
ROUTING	10	10	End of Operation Group				
ROUTING	11	11	Hardware / Pem Group				
ROUTING	12	12	INSTALL-PEM-NUTS	hours	0.350000	17.50	50.0000
ROUTING	13	13	INSTALL-PEM-STUDS	hours	0.350000	17.50	50.0000
ROUTING	14	14	End of Operation Group				
ROUTING	15	15	Welding Group				
ROUTING	16	16	TIG-WELD	hours	0.500000	22.50	45.0000
ROUTING	17	17	MIG-WELD	hours	0.350000	15.75	45.0000
ROUTING	18	18	End of Operation Group				
ROUTING	19	19	DEBURR	hours	0.200000	9.00	45.0000
ROUTING	20	20	GRAIN	hours	0.250000	11.25	45.0000
ROUTING	21	21	SAND-PAINT-PREP	hours	0.150000	6.00	40.0000
ROUTING	22	22	HANGING	hours	0.150000	3.75	25.0000
ROUTING	23	23	WASHING	hours	0.150000	3.75	25.0000
ROUTING	24	24	PAINTING	hours	0.150000	6.00	40.0000
ROUTING	25	25	CURING	hours	0.250000	6.25	25.0000
ROUTING	26	26	ASSEMBLY	hours	0.250000	12.50	50.0000
ROUTING	27	27	RIVET	hours	0.250000	12.50	50.0000
ROUTING	28	28	GASKETING	hours	0.250000	8.75	35.0000
ROUTING	29	29	GENERAL-LABOR	hours	0.250000	12.50	50.0000
ROUTING	30	30	FINAL-INSPECT	hours	0.250000	8.75	35.0000
ROUTING	31	31	PACKAGE	hours	0.250000	8.75	35.0000
ROUTING	32	32	SHIPPING	hours	0.150000	5.25	35.0000

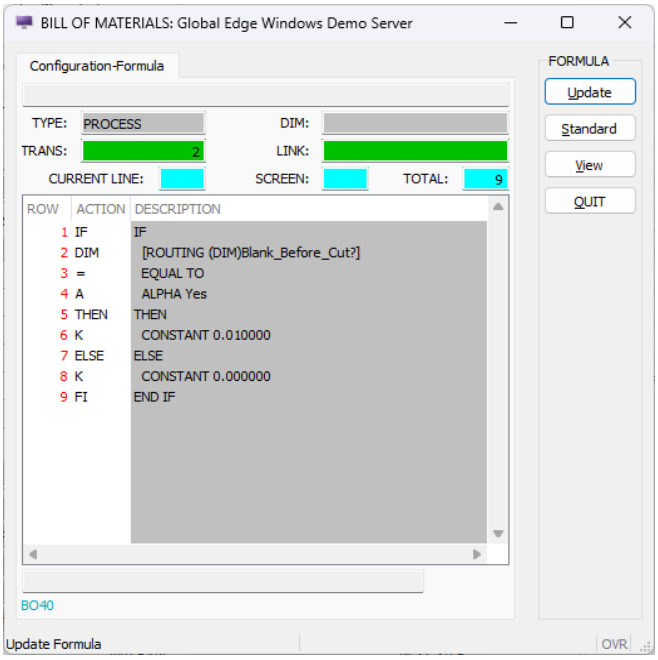
3. Select ***"Update"*** option and highlight **"2 SHEAR"** row:



4. Select ***"OK"*** to display the following screen form and menu options:



5. Select ***"Update > F10-Process Time > F6-Formula"*** to display the following screen form and menu options:



ROUTING (Routing Transaction Number 2 "SHEAR")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
2			P	ROUTING	2	1	IF		
2	ROUTING	49	P	ROUTING	2	2	DIM	Blank_Before_Cut?	
2			P	ROUTING	2	3	=		
2			P	ROUTING	2	4	A	Yes	
2			P	ROUTING	2	5	THEN		
2			P	ROUTING	2	6	K		0.010000
2			P	ROUTING	2	7	ELSE		
2			P	ROUTING	2	8	K		0.000000
2			P	ROUTING	2	9	FI		

ROUTING (Routing Transaction Number 3 "PUNCH")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
3			P	ROUTING	3	1	IF		
3	ROUTING	51	P	ROUTING	3	2	DIM	Turret_Laser_Water	
3			P	ROUTING	3	3	=		
3			P	ROUTING	3	4	A	Turret	
3			P	ROUTING	3	5	THEN		
3			P	ROUTING	3	6	(		
3	ROUTING	6	P	ROUTING	3	7	DIM	Perimeter	
3			P	ROUTING	3	8	*		
3			P	ROUTING	3	9	K		0.000150
3			P	ROUTING	3	10	)		
3			P	ROUTING	3	11	+		
3			P	ROUTING	3	12	(		
3	ROUTING	17	P	ROUTING	3	13	DIM	Num_Cutouts	
3			P	ROUTING	3	14	*		
3			P	ROUTING	3	15	K		0.002000
3			P	ROUTING	3	16	)		
3			P	ROUTING	3	17	ELSE		
3			P	ROUTING	3	18	K		0.000000
3			P	ROUTING	3	19	FI		

ROUTING (Routing Transaction Number 4 "EMBOSS")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
4			P	ROUTING	4	1	IF		
4	ROUTING	50	P	ROUTING	4	2	DIM	Embossed_Part?	
4			P	ROUTING	4	3	=		
4			P	ROUTING	4	4	A	Yes	
4			P	ROUTING	4	5	THEN		
4			P	ROUTING	4	6	K		0.002000
4			P	ROUTING	4	10	FI		

ROUTING (Routing Transaction Number 5 "LASER-CUT")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
5			P	ROUTING	5	1	IF		
5			P	ROUTING	5	2	(		
5	ROUTING	51	P	ROUTING	5	3	DIM	Turret_Laser_Water	
5			P	ROUTING	5	4	=		
5			P	ROUTING	5	5	A	Laser	
5			P	ROUTING	5	6	)		
5			P	ROUTING	5	7	AND		
5			P	ROUTING	5	8	(		
5	ROUTING	50	P	ROUTING	5	9	DIM	Embossed_Part?	
5			P	ROUTING	5	10	=		
5			P	ROUTING	5	11	A	No	
5			P	ROUTING	5	12	)		
5			P	ROUTING	5	13	THEN		
5			P	ROUTING	5	14	(		
5			P	ROUTING	5	15	(		
5			P	ROUTING	5	16	(		
5	ROUTING	6	P	ROUTING	5	17	DIM	Perimeter	
5			P	ROUTING	5	18	/		
5			P	ROUTING	5	19	PCSP		
5			P	ROUTING	5	20	)		
5			P	ROUTING	5	21	+		
5			P	ROUTING	5	22	(		
5	ROUTING	18	P	ROUTING	5	23	DIM	Cutout_Perimeter	
5			P	ROUTING	5	24	/		
5			P	ROUTING	5	25	CCSP		
5			P	ROUTING	5	26	)		
5			P	ROUTING	5	27	)		
5			P	ROUTING	5	28	/		
5			P	ROUTING	5	29	K		3600.000000
5			P	ROUTING	5	30	)		
5			P	ROUTING	5	31	+		
5			P	ROUTING	5	32	(		
5	ROUTING	17	P	ROUTING	5	33	DIM	Num_Cutouts	
5			P	ROUTING	5	34	*		
5			P	ROUTING	5	35	PTIM		
5			P	ROUTING	5	36	)		
5			P	ROUTING	5	37	ELSE		
5			P	ROUTING	5	38	K		0.000000
5			P	ROUTING	5	39	FI		

ROUTING (Routing Transaction Number 8 "BEND")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
8			P	ROUTING	8	1	IF		
8			P	ROUTING	8	2	(		
8			P	ROUTING	8	3	(		
8	ROUTING	39	P	ROUTING	8	4	DIM	Fold_Count	
8			P	ROUTING	8	5	>		
8			P	ROUTING	8	6	K		0.000000
8			P	ROUTING	8	7	)		
8			P	ROUTING	8	8	AND		
8			P	ROUTING	8	9	(		
8			P	ROUTING	8	10	(		
8	ROUTING	54	P	ROUTING	8	11	DIM	PressBrk_PanelBend	
8			P	ROUTING	8	12	=		
8			P	ROUTING	8	13	A	Press-Brake	
8			P	ROUTING	8	14	)		
8			P	ROUTING	8	15	OR		
8			P	ROUTING	8	16	(		
8	ROUTING	54	P	ROUTING	8	17	DIM	PressBrk_PanelBend	
8			P	ROUTING	8	18	=		
8			P	ROUTING	8	19	A	Both	
8			P	ROUTING	8	20	)		
8			P	ROUTING	8	21	)		
8			P	ROUTING	8	22	)		
8			P	ROUTING	8	23	THEN		
8			P	ROUTING	8	24	K		0.010000
8			P	ROUTING	8	25	ELSE		
8			P	ROUTING	8	26	K		0.000000
8			P	ROUTING	8	27	FI		

ROUTING (Routing Transaction Number 9 "PANELBEND")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
9			P	ROUTING	9	1	IF		
9			P	ROUTING	9	2	(		
9	ROUTING	35	P	ROUTING	9	3	DIM	Max_Up_Bend	
9			P	ROUTING	9	4	<=		
9			P	ROUTING	9	5	K		6.496000
9			P	ROUTING	9	6	)		
9			P	ROUTING	9	7	AND		
9			P	ROUTING	9	8	(		
9			P	ROUTING	9	9	(		
9	ROUTING	54	P	ROUTING	9	10	DIM	PressBrk_PanelBend	
9			P	ROUTING	9	11	=		
9			P	ROUTING	9	12	A	Panel-Bender	
9			P	ROUTING	9	13	)		
9			P	ROUTING	9	14	OR		
9			P	ROUTING	9	15	(		
9	ROUTING	54	P	ROUTING	9	16	DIM	PressBrk_PanelBend	
9			P	ROUTING	9	17	=		
9			P	ROUTING	9	18	A	Both	
9			P	ROUTING	9	19	)		
9			P	ROUTING	9	20	)		
9			P	ROUTING	9	21	THEN		
9			P	ROUTING	9	22	K		0.010000
9			P	ROUTING	9	23	ELSE		
9			P	ROUTING	9	24	K		0.000000
9			P	ROUTING	9	25	FI		

ROUTING (Routing Transaction Number 12 "INSTALL-PEM-NUTS")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
12			P	ROUTING	12	1	IF		
12			P	ROUTING	12	2	(		
12	ROUTING	55	P	ROUTING	12	3	DIM	Hardware:	
12			P	ROUTING	12	4	=		
12			P	ROUTING	12	5	A	PEM-NUT	
12			P	ROUTING	12	6	)		
12			P	ROUTING	12	7	AND		
12			P	ROUTING	12	8	(		
12	PEM-NUT		P	ROUTING	12	9	PART		
12			P	ROUTING	12	10	>		
12			P	ROUTING	12	11	K		0.000000
12			P	ROUTING	12	12	)		
12			P	ROUTING	12	13	THEN		
12			P	ROUTING	12	14	K		0.010000
12			P	ROUTING	12	15	ELSE		
12			P	ROUTING	12	16	K		0.000000
12			P	ROUTING	12	17	FI		

ROUTING (Routing Transaction Number 13 "INSTALL-PEM-STUDS")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
13			P	ROUTING	13	1	IF		
13			P	ROUTING	13	2	(		
13	ROUTING	55	P	ROUTING	13	3	DIM	Hardware:	
13			P	ROUTING	13	4	=		
13			P	ROUTING	13	5	A	PEM-STUD	
13			P	ROUTING	13	6	)		
13			P	ROUTING	13	7	AND		
13			P	ROUTING	13	8	(		
13	PEM-STUD		P	ROUTING	13	9	PART		
13			P	ROUTING	13	10	>		
13			P	ROUTING	13	11	K		0.000000
13			P	ROUTING	13	12	)		
13			P	ROUTING	13	13	THEN		
13			P	ROUTING	13	14	K		0.010000
13			P	ROUTING	13	15	ELSE		
13			P	ROUTING	13	16	K		0.000000
13			P	ROUTING	13	17	FI		

ROUTING (Routing Transaction Number 16 "TIG-WELD")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
16			P	ROUTING	16	1	IF		
16	ROUTING	57	P	ROUTING	16	2	DIM	Weld_Part?	
16			P	ROUTING	16	3	=		
16			P	ROUTING	16	4	A	TIG	
16			P	ROUTING	16	5	THEN		
16			P	ROUTING	16	6	K		0.150000
16			P	ROUTING	16	7	FI		

ROUTING (Routing Transaction Number 17 "MIG-WELD")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
17			P	ROUTING	17	1	IF		
17	ROUTING	57	P	ROUTING	17	2	DIM	Weld_Part?	
17			P	ROUTING	17	3	=		
17			P	ROUTING	17	4	A	MIG	
17			P	ROUTING	17	5	THEN		
17			P	ROUTING	17	6	K		0.150000
17			P	ROUTING	17	7	FI		

ROUTING (Routing Transaction Number 19 "DEBURR")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
19			P	ROUTING	19	1	IF		
19	ROUTING	58	P	ROUTING	19	2	DIM	Deburr_Part?	
19			P	ROUTING	19	3	=		
19			P	ROUTING	19	4	A	Yes	
19			P	ROUTING	19	5	THEN		
19			P	ROUTING	19	6	(		
19			P	ROUTING	19	7	(		
19	ROUTING	7	P	ROUTING	19	8	DIM	Flat_Length	
19			P	ROUTING	19	9	+		
19	ROUTING	8	P	ROUTING	19	10	DIM	Flat_Width	
19			P	ROUTING	19	11	)		
19			P	ROUTING	19	12	*		
19			P	ROUTING	19	13	K		2.000000
19			P	ROUTING	19	14	)		
19			P	ROUTING	19	15	*		
19			P	ROUTING	19	16	K		0.000556
19			P	ROUTING	19	17	ELSE		
19			P	ROUTING	19	18	K		0.000000
19			P	ROUTING	19	19	FI		

ROUTING (Routing Transaction Number 20 "GRAIN")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
20			P	ROUTING	20	1	IF		
20	ROUTING	56	P	ROUTING	20	2	DIM	Grain_Part?	
20			P	ROUTING	20	3	=		
20			P	ROUTING	20	4	A	Yes	
20			P	ROUTING	20	5	THEN		
20			P	ROUTING	20	6	K		0.010000
20			P	ROUTING	20	7	ELSE		
20			P	ROUTING	20	8	K		0.000000
20			P	ROUTING	20	9	FI		

ROUTING (Routing Transaction Number 21 "SAND-PAINT-PREP")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
21			P	ROUTING	21	1	IF		
21	ROUTING	59	P	ROUTING	21	2	DIM	Paint_Part?	
21			P	ROUTING	21	3	=		
21			P	ROUTING	21	4	A	Yes	
21			P	ROUTING	21	5	THEN		
21			P	ROUTING	21	6	(		
21			P	ROUTING	21	7	(		
21	ROUTING	7	P	ROUTING	21	8	DIM	Flat_Length	
21			P	ROUTING	21	9	*		
21	ROUTING	8	P	ROUTING	21	10	DIM	Flat_Width	
21			P	ROUTING	21	11	)		
21			P	ROUTING	21	12	/		
21			P	ROUTING	21	13	K		144.000000
21			P	ROUTING	21	14	)		
21			P	ROUTING	21	15	*		
21			P	ROUTING	21	16	K		0.002778
21			P	ROUTING	21	17	ELSE		
21			P	ROUTING	21	18	K		0.000000
21			P	ROUTING	21	19	FI		

ROUTING (Routing Transaction Number 22 "HANGING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
22			P	ROUTING	22	1	IF		
22	ROUTING	59	P	ROUTING	22	2	DIM	Paint_Part?	
22			P	ROUTING	22	3	=		
22			P	ROUTING	22	4	A	Yes	
22			P	ROUTING	22	5	THEN		
22			P	ROUTING	22	6	K		0.020000
22			P	ROUTING	22	7	ELSE		
22			P	ROUTING	22	8	K		0.000000
22			P	ROUTING	22	9	FI		

ROUTING (Routing Transaction Number 23 "WASHING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
23			P	ROUTING	23	1	IF		
23	ROUTING	59	P	ROUTING	23	2	DIM	Paint_Part?	
23			P	ROUTING	23	3	=		
23			P	ROUTING	23	4	A	Yes	
23			P	ROUTING	23	5	THEN		
23			P	ROUTING	23	6	K		0.010000
23			P	ROUTING	23	7	ELSE		
23			P	ROUTING	23	8	K		0.000000
23			P	ROUTING	23	9	FI		

ROUTING (Routing Transaction Number 24 "PAINTING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
24			P	ROUTING	24	1	IF		
24	ROUTING	59	P	ROUTING	24	2	DIM	Paint_Part?	
24			P	ROUTING	24	3	=		
24			P	ROUTING	24	4	A	Yes	
24			P	ROUTING	24	5	THEN		
24			P	ROUTING	24	6	(		
24			P	ROUTING	24	7	(		
24	ROUTING	7	P	ROUTING	24	8	DIM	Flat_Length	
24			P	ROUTING	24	9	*		
24	ROUTING	8	P	ROUTING	24	10	DIM	Flat_Width	
24			P	ROUTING	24	11	)		
24			P	ROUTING	24	12	/		
24			P	ROUTING	24	13	K		144.000000
24			P	ROUTING	24	14	)		
24			P	ROUTING	24	15	*		
24			P	ROUTING	24	16	K		0.005556
24			P	ROUTING	24	17	ELSE		
24			P	ROUTING	24	18	K		0.000000
24			P	ROUTING	24	19	FI		

ROUTING (Routing Transaction Number 25 "CURING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
25			P	ROUTING	25	1	IF		
25	ROUTING	59	P	ROUTING	25	2	DIM	Paint_Part?	
25			P	ROUTING	25	3	=		
25			P	ROUTING	25	4	A	Yes	
25			P	ROUTING	25	5	THEN		
25			P	ROUTING	25	6	K		0.050000
25			P	ROUTING	25	7	ELSE		
25			P	ROUTING	25	8	K		0.000000
25			P	ROUTING	25	9	FI		

ROUTING (Routing Transaction Number 26 "ASSEMBLY")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
26			P	ROUTING	26	1	IF		
26	ROUTING	60	P	ROUTING	26	2	DIM	Assembly?	
26			P	ROUTING	26	3	=		
26			P	ROUTING	26	4	A	Yes	
26			P	ROUTING	26	5	THEN		
26			P	ROUTING	26	6	K		0.050000
26			P	ROUTING	26	7	ELSE		
26			P	ROUTING	26	8	K		0.000000
26			P	ROUTING	26	9	FI		

ROUTING (Routing Transaction Number 27 "RIVET")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
27			P	ROUTING	27	1	IF		
27	ROUTING	62	P	ROUTING	27	2	DIM	Rivet?	
27			P	ROUTING	27	3	=		
27			P	ROUTING	27	4	A	Yes	
27			P	ROUTING	27	5	THEN		
27			P	ROUTING	27	6	K		0.050000
27			P	ROUTING	27	7	ELSE		
27			P	ROUTING	27	8	K		0.000000
27			P	ROUTING	27	9	FI		

ROUTING (Routing Transaction Number 28 "GASKETING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
28			P	ROUTING	28	1	IF		
28	ROUTING	61	P	ROUTING	28	2	DIM	Gasketing?	
28			P	ROUTING	28	3	=		
28			P	ROUTING	28	4	A	Yes	
28			P	ROUTING	28	5	THEN		
28			P	ROUTING	28	6	K		0.050000
28			P	ROUTING	28	7	ELSE		
28			P	ROUTING	28	8	K		0.000000
28			P	ROUTING	28	9	FI		

ROUTING (Routing Transaction Number 29 "GENERAL-LABOR")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
29			P	ROUTING	29	1	IF		
29	ROUTING	63	P	ROUTING	29	2	DIM	General_Labor?	
29			P	ROUTING	29	3	=		
29			P	ROUTING	29	4	A	Yes	
29			P	ROUTING	29	5	THEN		
29			P	ROUTING	29	6	K		0.050000
29			P	ROUTING	29	7	ELSE		
29			P	ROUTING	29	8	K		0.000000
29			P	ROUTING	29	9	FI		

ROUTING (Routing Transaction Number 30 "FINAL-INSPECT")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
30			P	ROUTING	30	1	IF		
30	ROUTING	64	P	ROUTING	30	2	DIM	Final_Inspect?	
30			P	ROUTING	30	3	=		
30			P	ROUTING	30	4	A	Yes	
30			P	ROUTING	30	5	THEN		
30			P	ROUTING	30	6	K		0.050000
30			P	ROUTING	30	7	ELSE		
30			P	ROUTING	30	8	K		0.000000
30			P	ROUTING	30	9	FI		

ROUTING (Routing Transaction Number 31 "PACKAGE")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
31			P	ROUTING	31	1	IF		
31	ROUTING	65	P	ROUTING	31	2	DIM	Package?	
31			P	ROUTING	31	3	=		
31			P	ROUTING	31	4	A	Yes	
31			P	ROUTING	31	5	THEN		
31			P	ROUTING	31	6	K		0.050000
31			P	ROUTING	31	7	ELSE		
31			P	ROUTING	31	8	K		0.000000
31			P	ROUTING	31	9	FI		

ROUTING (Routing Transaction Number 32 "SHIPPING")

TRANS #	SOURCE PART #	DIM SOURCE	TYPE	PART NUMBER	DIM #	ORD #	ACTION	MASK	CONSTANT
32			P	ROUTING	32	1	IF		
32	ROUTING	66	P	ROUTING	32	2	DIM	Shipping?	
32			P	ROUTING	32	3	=		
32			P	ROUTING	32	4	A	Yes	
32			P	ROUTING	32	5	THEN		
32			P	ROUTING	32	6	K		0.050000
32			P	ROUTING	32	7	ELSE		
32			P	ROUTING	32	8	K		0.000000
32			P	ROUTING	32	9	FI		