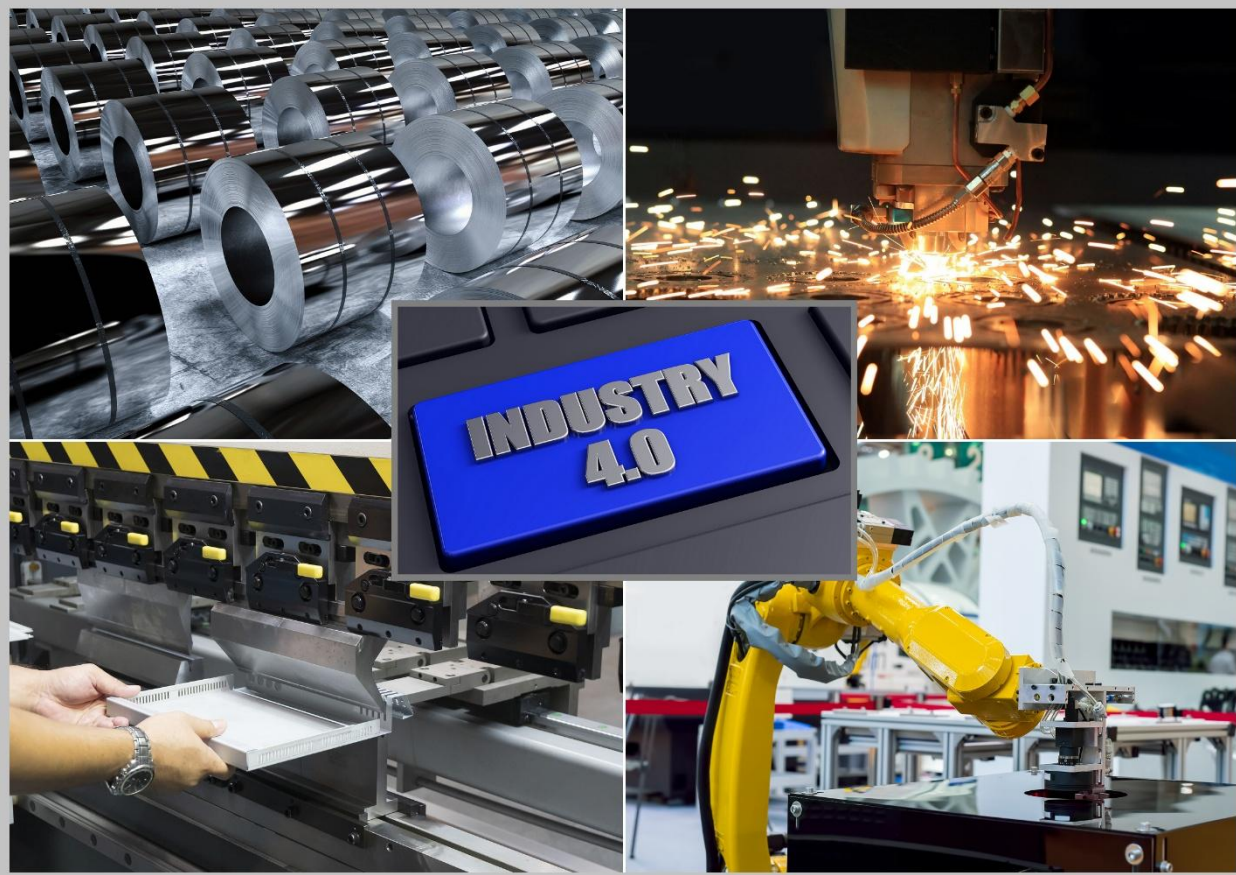




Global Edge® Integrated Manufacturing



Global Edge® Integrated Manufacturing **Software Setup Guide**

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Section 2 (Software Setup Guide)

Global Edge® Integrated Manufacturing starts with the capability of automatically processing 3D CAD Models to produce 2D DXF Flat Files included with Extended Data to drive Automated Bend Program Generation, Automated Routing Generation, and Automated Sales Quote Generation.

Software Setup Outline

The following outlines the setup sections for **Global Edge® Integrated Manufacturing**:

Section 2.1: Code Maintenance Setup

- [2.1.01 – Sales Codes](#) – (Refer to Page 6)
- [2.1.02 – Engineering Codes](#) – (Refer to Page 12)
- [2.1.03 – Manufacturing Codes](#) – (Refer to Page 20)
- [2.1.04 – Financial Codes](#) – (Refer to Page 25)
- [2.1.05 – Time Entry Codes](#) – (Refer to Page 36)

Section 2.2: Engineering Setup

- [2.2.01 – Manufacturing Processes](#) – (Refer to Page 40)
- [2.2.02 – Process Class](#) – (Refer to Page 42)
- [2.2.03 – Sheet Metal Dimensions / DXF Import](#) – (Refer to Page 43)
- [2.2.04 – Gauge Standard](#) – (Refer to Page 45)
- [2.2.05 – Document Editors](#) – (Refer to Page 47)
- [2.2.06 – Document Formats](#) – (Refer to Page 47)
- [2.2.07 – CAD Manufacturing Defaults](#) – (Refer to Page 48)
- [2.2.08 – Document Tree](#) – (Refer to Page 49)
- [2.2.09 – Document System Format Edit](#) – (Refer to Page 49)
- [2.2.10 – CAD Materials](#) – (Refer to Page 51)
- [2.2.11 – Default Sheet Sizes](#) – (Refer to Page 51)

Section 2.3: Database Setup

- [2.3.01 – Database Instance](#) – (Refer to Page 53)
- [2.3.02 – Setup Table](#) – (Refer to Page 54)
- [2.3.03 – CPU Information](#) – (Refer to Page 55)
- [2.3.04 – Users Table](#) – (Refer to Page 55)
- [2.3.05 – User Document Launching](#) – (Refer to Page 57)
- [2.3.06 – Document Folder](#) – (Refer to Page 57)
- [2.3.07 – Locations / Department / Work Center](#) – (Refer to Page 58)
- [2.3.08 – Customer Defaults](#) – (Refer to Page 61)
- [2.3.09 – Sales Stage](#) – (Refer to Page 62)
- [2.3.10 – Chart of Accounts](#) – (Refer to Page 62)

Section 2.4: Configurator Setup

- [2.4.01 – Template Parts, Dimensions, Assemblies](#) – (Refer to Page 67)
- [2.4.02 – Template Routings](#) – (Refer to Page 74)
- [2.4.03 – Configuration Rules / Formulas](#) – (Refer to Page 77)
- [2.4.04 – Template Documents](#) – (Refer to Page 89)

Section 2.5: Machine Tool / Bend Process Setup

- [2.5.01 – Machine Tools / Parameters](#) – (Refer to Page 93)
- [2.5.02 – Bend Tool Set](#) – (Refer to Page 108)
- [2.5.03 – Bend Process](#) – (Refer to Page 110)
- [2.5.04 – DXF Extension](#) – (Refer to Page 118)
- [2.5.05 – Manufacturing Test](#) – (Refer to Page 121)

Section 2.1: Code Maintenance Setup

Global Edge® Engineering Assistant software is a flexible system that provides the ability to define a variety of system codes to help better organize information. These system codes appear as lookup codes throughout the software.

Table #	Table Name	Load File	Table Description	Section	Refer To
A-429	code	A-429-cus_code.unl	Code Look-Up Table	2.1.01	Page 6
A-430	code_detail	A-430-cus_codd.unl	Code Detail Table	2.1.02	Page 12
A-502	uom	A-502-ldc_uom_.unl	Unit of Measure Table	2.1.02.05	Page 15
A-503	uom_type	A-503-ldc_uomt.unl	Unit of Measure Type Table	2.1.02.05	Page 15
M-133	material	M-133-cus_mtlr.unl	Material Table	2.1.02.07	Page 17
A-135	mtl_type	A-135-ldc_mtlr.unl	Material Type Table	2.1.02.08	Page 18
A-134	mtl_style	A-134-cus_mtls.unl	Material Style Table	2.1.02.09	Page 19
A-209	work_type	A-209-ldc_wrkt.unl	Work Type Table	2.1.05.01	Page 36
A-140	exp_type	A-140-ldc_expt.unl	Expense Type Table	2.1.05.02	Page 37

This section includes the procedures for setting up lookup codes that are utilized throughout the **Global Edge** system and is divided into the following sub-sections:

- 2.1.01 – Sales Codes (refer to Page 6)
- 2.1.02 – Engineering Codes (refer to Page 12)
- 2.1.03 – Manufacturing Codes (refer to Page 20)
- 2.1.04 – Financial Codes (refer to Page 25)
- 2.1.05 – Time Entry Codes (refer to Page 36)

Code Maintenance Setup Steps

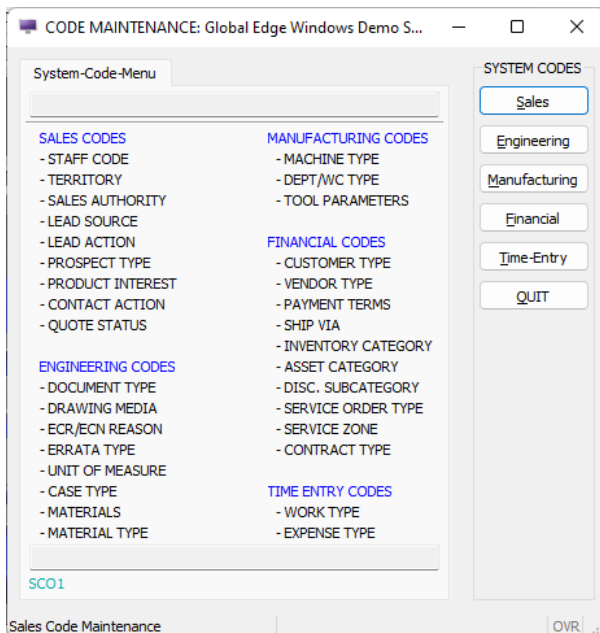
1. The first step is to open the **Global Edge® Engineering Assistant** software by clicking on the following desktop icon:



2. This will display the following screen form and menu options:



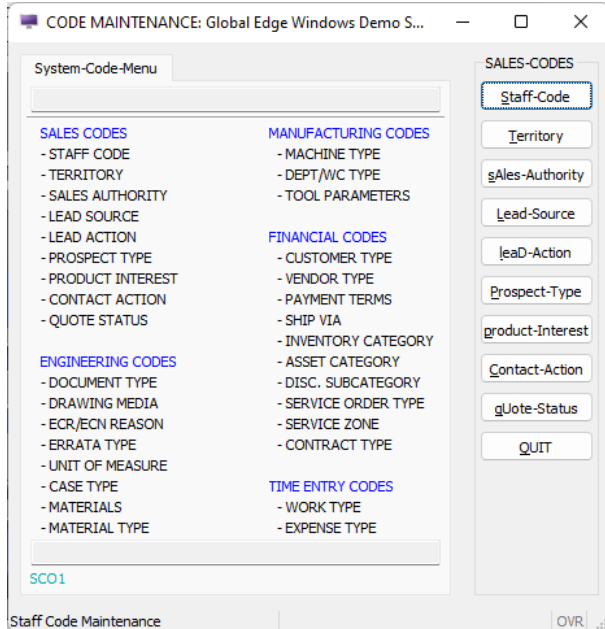
3. Select **“Administration > Code Maintenance”** to display the following screen form and menu options:



2.1.01 – Sales Codes

The purpose of the Sales Code section is to define lookup codes that are utilized primarily throughout the CRM Sales Management and Quoting portions of the **Global Edge** software.

4. Select **“Sales”** to display the following **SALES-CODES** menu options:



2.1.01.01 – Staff Code

This section allows you to define 1 to 3 character staff codes that are utilized as part of the system login process and also a part of the Sales Quote Header to assign the sales quote to a specific salesperson or staff member including who made Sales Quote revisions. Staff Codes can also be incorporated into employee records.

Menu Sequence: “Administration > Code Maintenance > Sales > Staff-Code”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
S	STAFF CODE		
	LDC	Larry D. Colbourn	

2.1.01.02 – Territory

This section has pre-loaded Territory Codes that can be deleted if not needed by your company as well as being able to add Territory Codes that match the currently defined codes utilized by your company.

Menu Sequence: “Administration > Code Maintenance > Sales > Territory”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
T	TERRITORY		
	ASI	ASIA	
	CHN	CHINA	
	EUR	EUROPE	
	IND	INDIA	
	JPN	JAPAN	
	MEX	MEXICO	
	SPC	SOUTH PACIFIC	
	US1	USA - CENTRAL	
	US2	USA - NORTHEAST	
	US3	USA - SOUTHEAST	
	US4	USA - SOUTHWEST	
	US5	USA - NORTHWEST	

2.01.1.03 – Sales Authority

This section allows you to define the various Sales Authority's the prospects you are engaged with have. As with all the code sections, you can add or delete accordingly to match the sales process for your company.

Menu Sequence: “Administration > Code Maintenance > Sales > Sales-Authority”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
A	SALES AUTHORITY		
	HNA	HAS NO AUTHORITY	
	MBC	MUST BE CONSULTED	
	MFD	MAKES FINAL DECSN	
	UNK	UNKNOWN	

2.1.01.04 – Lead Source

This section allows you to define the originating lead source for each of your sales prospects that are maintained in the **Global Edge** Prospect / Customer database.

Menu Sequence: “Administration > Code Maintenance > Sales > Lead-Source”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
L	LEAD SOURCE		
	ADV		ADVERTISING
	CAP		CORP. AD PROGRAM
	CAT		CATALOG INQUIRY
	CCL		COLD CALL
	DML		DIRECT MAIL
	FUC		FOLLOW-UP CALL
	ICC		INCOMING COLD CALL
	IHP		IN-HOUSE PROMOTION
	IML		INCOMING MAIL
	INQ		INQUIRY
	INT		INTERNET
	REF		REFERRAL
	RSL		RESELLER
	SEM		SEMINAR
	SLA		SALES AGENT
	SOC		SOCIAL ENCOUNTER
	TAP		TELEPHONE APPTMNT.
	TEL		TELEMARKETING
	TRS		TRADE SHOW
	UNK		UNKNOWN
	UNS		** UNSPECIFIED **
	WEB		WEB SITE INQUIRY
	WKI		WALK IN

2.1.01.05 – Lead Action

This section allows you to define Lead Actions of what the next step is with a sales prospect. This capability can be used in conjunction with the Tickler Date capabilities of the **Global Edge** software.

Menu Sequence: “Administration > Code Maintenance > Sales > Lead-Action”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
D	LEAD ACTION		
	APP		APPOINTMENT
	AWT		AWAITING FOLLOW-UP
	CLL		CALL
	LIT		SEND LITERATURE
	PRG		PURGE
	PRP		PROPOSAL
	QTE		GENERATE QUOTE
	SEM		SEMINAR INVITE
	WFR		WAIT FOR RESPONSE
	WRT		WRITTEN OFF

2.1.01.06 – Prospect Type

This section allows you to define Prospect Type codes that signify when you expect to close business with a prospect and/or an existing customer.

Menu Sequence: “Administration > Code Maintenance > Sales > Prospect-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
Y	PROSPECT TYPE		
	A		QFLD < 30 DAYS
	B		QFLD 30 - 60 DAYS
	C		MEET REQ.-INTEREST
	D		NOT QUALIFIED
	F		FAILED REQUIREMENT

2.1.01.07 – Product Interest

This section allows you to define a Product Interest code list that defines the primary product interest a prospect has with your company, which is also designed for sorting purposes and can be used in conjunction with the other codes defined in the Sales Code section to sort and categorize your company's sales opportunities.

Menu Sequence: “Administration > Code Maintenance > Sales > Product-Interest”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
0	PRODUCT INTEREST		
	CAB	CABINET	
	DMP	DAMPER	
	HVC	HVAC	
	LFT	HYDRAULIC LIFT	
	MB	MAIL BOX	
	OTH	OTHER	
	PMP	PUMP	
	PRO	PROTOTYPE	
	RPP	REPLACEMENT PARTS	
	SMF	SHEET METAL FAB.	

2.1.01.08 – Contact Action

This section allows you to define a list of Contact Action codes that are utilized as part of a contact history with each contact record maintained in the *Global Edge* system / database.

Menu Sequence: “Administration > Code Maintenance > Sales > Contact-Action”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
C	CONTACT ACTION		
	CALLED	DIRECT CONTACT	
	COLD CALL	COLD CALL	
	DELIVER	DELIVERED ORDER	
	DEMO	PRODUCT DEMO	
	EMAIL	EMAIL OUTBOUND	
	EMAIL-IN	EMAIL INBOUND	
	FAXED	FAXED INFORMATION	
	INCOMING	INCOMING CALL	
	INLETTER	INCOMING LETTER	
	INQUIRY	PRODUCT INQUIRY	
	LETTER	SENT LETTER	
	MEETING	MEETING	
	NONCCALL	NON-CONTACT CALL	
	ON-SITE	ON-SITE MEETING	
	ORDER	PLACED ORDER	

2.1.01.08 – Contact Action (Continued ...)

PT.	CODE	STYLE	DESCRIPTION
	PROPOSAL		SENT PROPOSAL
	QUOTE		GENERATED QUOTE
	SEMINAR		ATTENDED SEMINAR
	SERVICE		SERVICE CALL
	SHIPPED		SHIPPED PRODUCT

2.1.01.09 – Quote Status

This section allows you to define a list of Quote Statuses to include with a Sales Quote to determine the current quote status.

Menu Sequence: “Administration > Code Maintenance > Sales > Quote-Status”

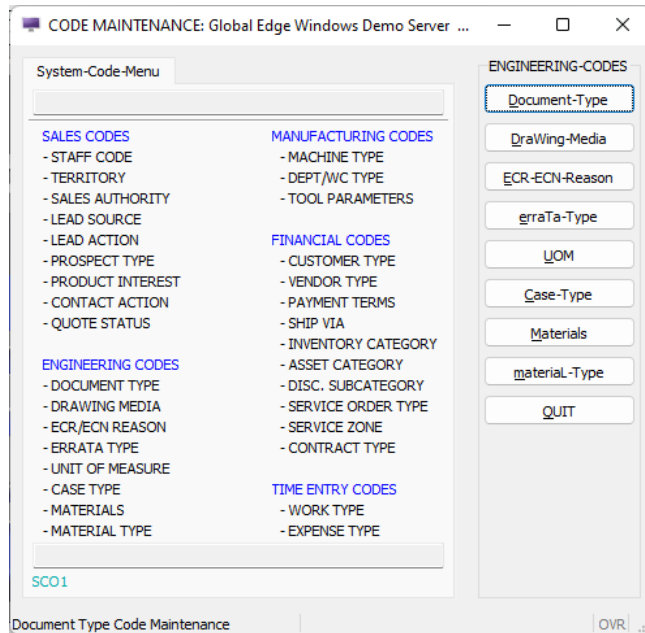
Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
Q	QUOTE STATUS		
	AWT		AWAITING DECISION
	HLD		DECISION ON HOLD
	LST		LOST JOB
	PND		PENDING
	PRB		PROBABLE
	UNL		UNLIKELY
	WON		WON JOB

2.1.02 – Engineering Codes

This section allows you define a variety of system lookup codes that are utilized primarily with the engineering workflow process. These codes help categorize and organize engineering information as it relates design, product, and manufacturing engineering.

- Return to **SYSTEM CODES** menu and select **“Engineering”** to display the following **ENGINEERING-CODES** menu options:



2.1.02.01 – Document Type

This section allows you to define Document Type Codes and detailed codes for each code type. These codes are designed to identify your various document types including the ability to automatically launch a variety CAD, MES, and document systems as part of the automated processing of information.

Menu Sequence: “Administration > Code Maintenance > Engineering > Document-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

Load File: (A-430-cus_codd.unl – Table Name: code_detail)

PT.	CODE	STYLE	DESCRIPTION
B	DOCUMENT TYPE		
	ASM	ASSEMBLY MODEL	
		ELC	ELECTRICAL LAYOUT
		MCH	MECHANICAL COMPONENT
		PIP	PIPING
	BOM	BILL OF MATERIALS	
	CRT	CONTRACT	
	DRW	DRAWING	

2.1.02.01 – Document Type (Continued ...)

PT.	CODE	STYLE	DESCRIPTION
EMP	EMPLOYEE DATA		
	CRT		EMPLOYMENT CONTRACT
	DRV		DRIVERS LICENSE
	PHO		PHOTO
	SSC		SOCIAL SECURITY CARD
IMG	IMAGE FILE		
	BMP		BITMAP FILE
	JPG		JPEG FILE
INS	INSTRUC. MANUAL		
MFR	MANUFACTURING		
PRJ	PROJ. INFORMATION		
	DAT		DATA SPREADSHEET
	FLW		FLOW CHART
	GNT		GANT CHART
	PRT		PERT CHART
PRT	PART MODEL		
	ELC		ELECTRICAL COMPONENT
	MCH		MECHANICAL COMPONENT
RFQ	REQUEST FOR QUOTE		
TMP	TEMPLATE		
	ASM		ASSEMBLY
	PRT		PART TEMPLATE
USR	USERS GUIDE		

2.1.02.02 – Drawing Media

This section is somewhat like the Document Type section, but more general to the type of document and drawing media.

Menu Sequence: “Administration > Code Maintenance > Engineering > Drawing-Media”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
Z	DRAWING MEDIA		
	CAD		CAD DRAWING
	CRT		CONTRACT
	INV		INVOICE
	ORD		ORDER
	QUO		QUOTE

2.1.02.03 – ECR / ECN Reason

The **Global Edge** system includes Engineering Change Request (ECR) and Engineering Change Notice (ECN) capabilities that are a part of the **Global Edge** Project Management section. This section allows you to define ECR / ECN Reason Codes.

Menu Sequence: “Administration > Code Maintenance > Engineering > ECR-ECN-Reason”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
R	ECR/ECN REASON		
	CST		CUSTOMER REQUEST
	DOC		DOCUMENTATION
	DSC		DESIGN CHANGE
	DSN		IMPROVE DESIGN
	ENH		ENHANCEMENT
	ERR		CORRECT ERROR
	MTH		IMPROVE METHOD
	NEW		NEW PRODUCT
	OTH		OTHER
	RET		RETURNED MATERIAL
	RJT		REJECTED
	TOL		TOLERANCE CHANGE
	WAR		WARRANTY

2.1.02.04 – Errata Type

The **Global Edge** system provides the capability to assign Errata's to specific parts throughout the system. Below are the sample Errata Type codes that were loaded into the system, which can be modified to match your company definition of these codes.

Menu Sequence: “Administration > Code Maintenance > Engineering > Errata-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
E	ERRATA TYPE		
	ELP		ELECTRICAL PROBLEM
	EXW		EXCESSIVE WEAR
	HDW		HARDWARE PROBLEM
	MTF		METAL FATIGUE
	OTH		OTHER
	UNK		UNKNOWN

2.1.02.05 – Unit of Measure

This section includes a wide variety of Unit of Measure codes that are loaded into the system and can be modified to match the units of measure utilized by your company. This section also includes English to Metric conversions that can be utilized throughout the *Global Edge* system.

Menu Sequence: “Administration > Code Maintenance > Engineering > UOM”

Load File: (A-502-ldc_uom_.unl – Table Name: uom)

Load File: (A-503-ldc_uomt.unl – Table Name: uom_type)

UOM TYPE	UOM DESC	UOM	UOM BRIEF	E / M	MASTER	FACTOR
A	ANGLE					
	A	degrees		E	Yes	
	A	DEGREES		E	No	1.000000
	A	grads		M	No	0.900000
	A	radians			No	53.500000
C	COUNT					
	C	count	cnt	E	No	
	C	EA	EACH	E	No	1.000000
	C	each	ea	E	Yes	1.000000
	C	EACH	EACH	E	No	1.000000
	C	M	M	E	No	1000.000000
	C	percent	prct	E	No	0.010000
	C	dozen	dz	E	No	12.000000
	C	gross	gr.	E	No	144.000000
	C	PAIR	PR	E	No	2.000000
D	DENSITY					
	D	lb - cu in	lbci	E	Yes	1.000000
F	FORCE					
	F	lb force	lbf	E	Yes	1.000000
	F	newtons	N	M	No	4.448220
I	LINEAR PRESSURE					
	I	lb / in		E	Yes	1.000000
	I	tons / ft		E	No	0.006000
	I	N / cm		M	No	1.751268
	I	N / m		M	No	0.017513
L	LINEAR					
	L	cm	cm.	M	No	0.393701
	L	feet	ft.	E	No	12.000000
	L	FT	FOOT	E	No	12.000000
	L	gauge	GA	E	No	
	L	in	in	E	No	1.000000
	L	IN	IN	E	No	1.000000
	L	inches	in	E	Yes	
	L	INCHES	IN.	E	No	1.000000
	L	meters	m.	M	No	39.370079
	L	MM	MM	M	No	0.039370
	L	LF	LF	E	No	12.000000

2.1.02.05 – Unit of Measure (Continued ...)

UOM TYPE	UOM DESC	UOM	UOM BRIEF	E / M	MASTER	FACTOR
	L	ft. in.	ftin	E	No	1.000000
	L	miles	mile	E	No	63360.000000
	L	mm	mm	M	No	0.039370
	L	yards	yd.	E	No	36.000000
M	MASS					
	M	grams	gram	M	No	0.002200
	M	kilograms	kg	M	No	2.200000
	M	LB	LB	E	No	1.000000
	M	lb	lb	E	N	1.000000
	M	lbs	lbs	E	No	1.000000
	M	ounces	oz	E	No	0.062500
	M	pounds	lb	E	Yes	
	M	POUNDS	LBS	E	No	1.000000
	M	tons	tons	E	No	2000.000000
P	PRESSURE					
	P	BAR	bar	E	No	14.503800
	P	LBS/SQ. FT	psf	E	No	0.006944
	P	LBS/SQ. IN	psi	E	Yes	
Q	QUANTITY					
R	AREA					
	R	sq. ft.	ft2	E	No	144.000000
	R	sq. in.	in2	E	Yes	
	R	4x8 Sheet		E	No	10.000000
S	SPEED					
	S	ips	ips	E	Yes	1.000000
	S	FT/SEC	FPS	E	No	12.000000
T	TIME					
	T	days			No	86400.000000
	T	hours			No	3600.000000
	T	minutes			No	60.000000
	T	seconds			Yes	1.000000
	T	weeks			No	604800.000000
	T	years			No	31557600.000000
U	USER					
V	VOLUME					
	V	gallons	gal	E	Yes	
	V	GALLONS	GLL	E	No	1.000000
	V	GLL	GLL	E	No	1.000000
	V	liters	ltr.	M	No	0.210000
X	MISCELLANEOUS					
	X	TUBE	TUBE		Yes	
	X	Amps	A	M	No	
	X	amps	A	M	No	
	X	Degree C	C	M	No	
	X	Hertz	Hz	M	No	

2.1.02.05 – Unit of Measure (Continued ...)

UOM TYPE	UOM DESC	UOM	UOM BRIEF	E / M	MASTER	FACTOR
	X	Hz	Hz	M	No	
	X	kV	kV	M	No	
	X	KVA	KVA	M	No	
	X	RL	RL		No	
	X	Volts	V	M	No	

2.1.02.06 – Case Type

This section allows you to maintain a list of Case Type codes that are utilized with the Support Contract capabilities built into the **Global Edge** system.

Menu Sequence: “Administration > Code Maintenance > Engineering > Case-Type”

Load File: (A-429-ldc_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
3	CASE TYPE		
	INS	INSTALLATION	
	SER	SERVICE	
	WAR	WARRANTY	

2.1.02.07 – Materials

This section provides the capability to define Material Codes that match the raw materials your company utilizes. A wide variety of materials have been pre-loaded into the system. These materials can be easily altered to match the requirements of your company through an Excel spreadsheet load.

These material codes may or may not match the materials included in your CAD systems. **Section 2.2.10** maintains a list of CAD Materials that can be cross referenced within the **Global Edge** system. This capability is helpful when materials in your ERP system don't directly match your CAD system.

Menu Sequence: “Administration > Code Maintenance > Engineering > Materials”

Load File: (M-133-cus_mtlr.unl – Table Name: material)

MTL CODE	DESCRIPTION	TYPE	PN CODE	DENSITY	DENSITY UOM
5052-H32	ALUMINUM	AL	AL-	0.097904	lb - cu in
CRS	COLD ROLLED STEEL	CRS		0.283960	lb - cu in
G60	GALVANIZED	GAL	GAL	0.283960	lb - cu in
304-4	304-4 STAINLESS STEEL	SS	SS-	0.279986	lb - cu in
316-2B	316-2B STAINLESS STEEL	SS	SS6	0.279986	lb - cu in
ALUMINUM	ALUMINUM	AL	AL-	0.097904	lb - cu in
STAINLESS	STAINLESS STEEL	SS	SS-	0.279986	lb - cu in
GALVANIZED	GALVANIZED	GAL	GAL	0.283960	lb - cu in

2.1.02.08 – Material Type

This section provides the capability to define Material Type Codes to categorize the various type of materials your company works with that are utilized in the previous section (**Section 2.1.02.07 – Materials**).

Menu Sequence: “Administration > Code Maintenance > Engineering > Material-Type”

Load File: (A-135-Idc_mtlf.unl – Table Name: mtl_type)

MTL. TYPE	MATERIAL TYPE DESCRIPTION	GAUGE STD.
AL	ALUMINUM	Aluminum
ALP	ALUMINUM PROTECTED	Aluminum
ALZ	ALUMINUM LASER VINYL	Aluminum
SBR	SOFT BRASS	Brass
CRA	COLD ROLLED ALUMINIZED	Coated
GAL	GALVANIZED	Coated
GNV	GALVANNEALED	Coated
OTH	OTHER	Other
COP	COPPER	Copper
CRD	COLD ROLLED DRAWN QUALITY 1008 A	Steel
CRE	COLD ROLLED ENAMEL	Steel
CRG	COLD ROLLED SPRING STEEL	Steel
CRM	COLD ROLLED EMBOSSED	Steel
CRP	COLD ROLLED PREPAINTED	Steel
CRS	COLD ROLLED STEEL	Steel
CRT	COLD ROLLED TAUPE	Steel
CRV	COLD ROLLED VINYL	Steel
EGV	ELECROGALVANIZED	Steel
HRA	HI-FORM ALLOY STEEL	Steel
HRL	HOT ROLLED STEEL LEATHER GRAIN	Steel
HRP	HOT ROLLED STEEL PICKLED & OILED	Steel
HRQ	HOT ROLLED 1045	Steel
HRS	HOT ROLLED STEEL	Steel
SS	STAINLESS STEEL	Stainless
SSP	STAINLESS STEEL PROTECTED	Stainless
SSZ	STAINLESS STEEL LASER VINYL	Stainless
BRS	BRASS	Brass
BRZ	BRONZE	None
CAS	CARBON ALLOY STEEL	None
NAL	NICKEL ALLOYS	None
TI	TITANIUM	None
TTM	TANTALUM, TUNGSTEN, MOLYBDENUM	None

Last Update: Friday, April 03, 2026

2.1.02.09 – Material Style

This section allows you to assign the materials defined in **Section 2.1.02.07** and assign them to the Sheet Metal Inventory Category which is utilized with CAD Part Import process (refer to Section #.#.0#.0#).

Menu Sequence: “Administration > Code Maintenance > Financial > Inventory-Category”

Select the “**Find**” option and retrieve the “**SHT**” **CATEGORY** followed by selecting the “**Options (Category) > Materials**” option to display the following screen form and menu options:

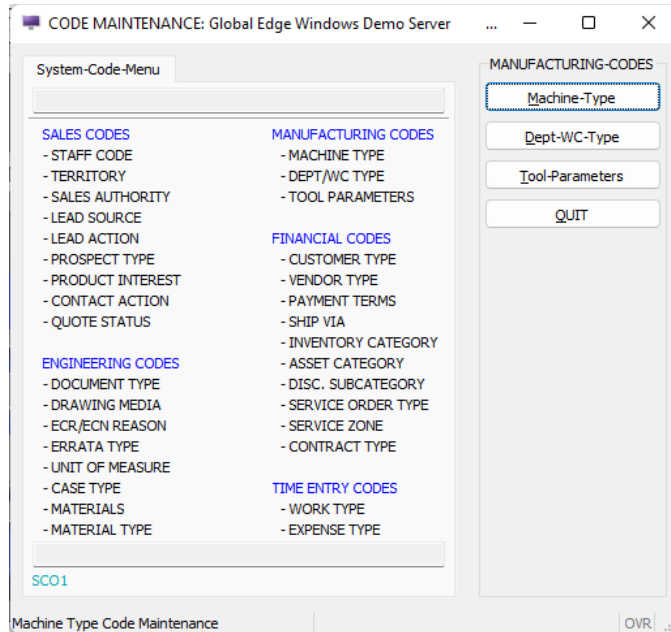
Load File: (A-134-cus_mtls.unl – Table Name: mtl_style)

CAT.	STYLE	CODE
SHT		304-4
SHT		316-2B
SHT		5052-H32
SHT		ALUMINUM
SHT		CRS
SHT		G60
SHT		GALVANIZED
SHT		STAINLESS
SHT	ALM	5052-H32
SHT	ALM	ALUMINUM
SHT	CRS	CRS
SHT	CRS	G60
SHT	CRS	GALVANIZED
SHT	STS	304-4
SHT	STS	316-2B
SHT	STS	STAINLESS

2.1.03 – Manufacturing Codes

This section includes Manufacturing Lookup Codes that are related to the manufacturing workflow process. This includes information designed to categorize information integrated with the shop floor.

- Return to **SYSTEM CODES** menu and select **“Manufacturing”** to display the following **MANUFACTURING-CODES** menu options:



2.1.03.01 – Machine Type

This section allows you to maintain a list of machine codes to help categorize your shop floor machine tools.

Menu Sequence: “Administration > Code Maintenance > Manufacturing > Machine-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
M	MACHINE TYPE		
	ASRS		ASRS SYSTEM
	ADDITIVE		ADDITIVE MACHINE
	ASSEMBLY		ASSEMBLY LINE
	ETCHING		ETCHING
	FINISH		FINISHING MACHINE
	GASKET		GASKETING STATION
	GENERAL		GENERAL MACHINE
	GROMMET		GROMMETING
	HANGING		HANGING STATION
	INSPECT		INSPECTION STATION

2.1.03.01 – Machine Type (Continued ...)

PT.	CODE	STYLE	DESCRIPTION
	KITTING		KITTING STATION
	L2		SALV. CNC LASER
	LASER		LASER CUTTER
	LOOM		NET LOOM
	MACHINE		MACHINING CENTER
	ON-HOLD		ON-HOLD MACHINE
	OTHER		OTHER MACHINE
	OVEN		CURE OVEN
	PACKAGE		PACKAGING STATION
	PAINT		PAINT BOOTH
	PANEL-B		PANEL BENDER
	PEMSERT		PEMSERTER
	POLISH		POLISHER STATION
	PR-BRAKE		PRESS BRAKE
	PR-BRKE		PRESS BRAKE
	PRIMA		PRIMA
	PROTOTP		PROTOTYPE SHOP
	PUNCH		TURRET PUNCH PRESS
	REMOVED		REMOVED MACHINE
	S4S		SALV. CNC SHEAR/PN
	SEWING		SEWING
	SHEAR		SHEAR
	SHEAR-PN		SHEAR PUNCH
	SHEARSW		SHEAR SAW
	SHIPPING		SHIPPING STATION
	TRUCK		TRUCK
	TURRET		TURRET PUNCH PRESS
	TWISTER		CORD TWISTER
	WASH		WASH STATION
	WELDGRND		GRINDING STATION
	WELDING		WELDING MACHINE
	WELDPREP		PAINT PREP STATION
	WELDSPOT		SPOT WELDING MACH.
	WELDSTUD		STUDDING MACHINE
	WELDTACK		WELD TACK MACHINE

2.1.03.02 – Department / Work Center Type

The **Global Edge** system provides the ability to organize your company by location, department, and work center. This section allows you to define department and work center type codes, which helps organize your manufacturing enterprise.

Menu Sequence: “Administration > Code Maintenance > Manufacturing > Dept-WC-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

Load File: (A-430-cus_codd.unl – Table Name: code_detail)

PT.	CODE	STYLE	DESCRIPTION
W	DEPT/WC TYPE		
	ACC	ACCOUNTING	
	AP	ACCOUNTS PAYABLE	
	AR	ACCOUNTS RECEIVABLE	
	PAY	PAYROLL	
	PUR	PURCHASING	
	ACT	ACCOUNTING	
	ACP	ACCOUNTS PAYABLE	
	ACR	ACCOUNTS RECEIVABLE	
	PAY	PAYROLL	
	ADM	ADMINISTRATION	
	CUS	CUSTOMER SERVICE	
	ENG	ENGINEERING	
	DSN	ENGINEERING - DESIGN	
	MFG	MANUFACTURING ENGINEERING	
	PRD	PRODUCT DEVELOPMENT	
	HR	H.R. DEPARTMENT	
	HUM	HUMAN RESOURCES	
	IS	INFORMATION SYSTEM	
	MFG	MANUFACTURING	
	ASM	ASSEMBLY	
	AST	ASTRO	
	BND	BENDING	
	CRD	CORD TWISTING	
	CUT	CUTTING	
	DRL	DRILLING	
	ELC	ELECTRONICS	
	ETC	ETCHING	
	FIN	FINISHING	
	FLM	FLAME CUTTING	
	GEN	GENERAL	
	GRD	GRINDING	
	GSK	GASKET	
	HNG	HANGING	
	HT	HEAT TREAT	
	INS	INSTALLATION	

2.1.03.02 – Department / Work Center Type (Continued ...)

PT.	CODE	STYLE	DESCRIPTION
		INT	INSPECTION & TESTING
		ISP	INSPECTION
		KIT	KITTING
		L2	L2 DEPARTMENT
		LSR	LASER
		MCH	MACHINING
		MLL	MILLING
		MRK	MARKING
		NET	NET GENERAL
		NWV	NET WEAVING
		OVN	OVEN
		PB	PANEL BENDER
		PBK	PRESS BRAKE
		PEM	PEMSERT
		PKG	PACKAGE
		PNB	PANEL BENDER
		PNC	PUNCH
		PNT	PAINTING
		POL	POLISH
		PRO	PROTOTYPE SHOP
		PRS	PRESS
		S4S	S4S DEPARTMENT
		SAW	SAWING
		SHP	SHIPPING STATION
		SHS	SHEAR / SAW
		SMF	SHEET METAL FABRICATION
		STM	STEEL MASTER
		TRN	TURNING
		TUR	TURRETS
		WDD	WELDING - STUD
		WDG	WELDING - GRIND
		WDP	WELDING - PAINT PREP
		WDS	WELDING - SPOT
		WDT	WELDING - TACK
		WLD	WELDING
		WSH	WASHING
	MIS		INFORMATION SYSTEM
	PUR		PURCHASING
	S&M		SALES & MARKETING
		MKT	MARKETING TEAM
		OUT	OUTSIDE SALES
		QUO	QUOTING
	S&R		SHIP & RECEIVING

2.1.03.02 – Department / Work Center Type (Continued ...)

PT.	CODE	STYLE	DESCRIPTION
	SLS	SALES & MARKETING	
		MKT	MARKETING TEAM
		OUT	OUTSIDE SALES
		QPC	QUOTING / PRODUCT CONFIGURATION
	WAR	WAREHOUSE	
		FIN	FINISHED GOODS
		RAW	RAW MATERIALS
		REC	RECEIVING
		S&R	SHIPPING & RECEIVING
		SHP	SHIPPING
		WAR	WAREHOUSE
	WH	WAREHOUSE	
		FIN	FINISHED GOODS INVENTORY
		RAW	RAW MATERIALS INVENTORY
		REC	RECEIVING
		SHP	SHIPPING

2.1.03.03 – Tool Parameters

This section allows you to define a list of Tool Parameter Codes for purpose of categorizing your company's tool sets.

Menu Sequence: “Administration > Code Maintenance > Manufacturing > Tool-Parameters”

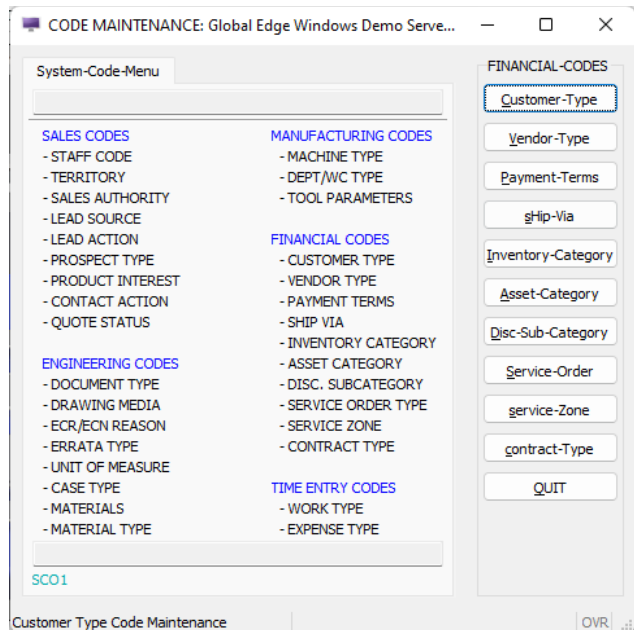
Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
7	TOOL PARAMETERS		
	BXH	BACK CROSS HAIR	
	NIB	NIB PUNCH	
	ORD	OBOUND PUNCH	
	PRT	PART NUMBER STAMP	
	RCT	RETANGULAR PUNCH	
	RND	ROUND PUNCH	
	SQR	SQUARE PUNCH	
	XCR	CROSS HAIR	

2.1.04 – Financial Codes

This section includes Financial Lookup Codes that includes information related to the categorization of inventory master parts and financial transactions.

- Return to **SYSTEM CODES** menu and select **“Financial”** to display the following **FINANCIAL-CODES** menu options:



2.1.04.01 – Customer Type

This section allows you to define a list of Customer Type Lookup Codes for the purpose of categorizing your customer base.

Menu Sequence: “Administration > Code Maintenance > Financial > Customer-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
U	CUSTOMER TYPE		
	CNS		CONSTRUCTION FIRM
	CUS		CUSTOMER
	DST		DISTRIBUTOR
	ENG		ENGINEERING FIRM
	FND		FOUNDRY
	GOV		GOVERNMENT AGENCY
	MCH		MACHINE SHOP
	MFR		MANUFACTURER
	OTH		OTHER
	SRV		SERVICE COMPANY
	T&D		TOOL & DIE

Last Update: Friday, April 03, 2026

2.1.04.02 – Vendor Type

This section allows you to define a list of Vendor Lookup Codes for the purpose of categorizing your vendor / supplier database.

Menu Sequence: “Administration > Code Maintenance > Financial > Vendor-Type”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
N	VENDOR TYPE		
	BNK	BANK	
	CBL	CABLE & WIRE	
	ELC	ELECTRICAL DIST.	
	ELT	ELECTRONICS DIST.	
	FDY	FOUNDRY	
	FRT	FREIGHT VENDOR	
	GOV	GOVERNMENT AGENCY	
	HDW	HARDWARE VENDOR	
	HTT	HEAT TREATING	
	IND	INDUST. SUPPLIES	
	INE	INDUSTRIAL EQUIP.	
	INS	INSURANCE VENDOR	
	MCH	MACHINE SHOP	
	MET	METAL SUPPLIER	
	MSC	MISCELLANEOUS	
	OFF	OFFICE SUPPLIES	
	PNT	PAINT SUPPLIER	
	PRT	PRINTING COMPANY	
	SLA	SALES AGENT	
	TEL	TELECOMMUNICATIONS	
	TRV	TRAVEL AGENCY	
	UTL	PUBLIC UTILITY	
	WLD	WELDING SUPPLIES	

2.1.04.03 – Payment Terms

This section allows you to define a list of Payment Term Lookup Codes that can be included on your Sales Quotes, Orders and Invoices including Purchase Orders.

Menu Sequence: “Administration > Code Maintenance > Financial > Payment-Terms”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
P	PAYMENT TERMS		
	210	2% 10 DAYS NET 30	
	230	2% 30 DAYS NET 30	
	510	5% 10 DAYS NET 30	
	COD	COD COMPANY CHECK	
	CRD	CREDIT CARD	
	N10	NET 10 DAYS	
	N15	NET 15 DAYS	
	N20	NET 20 DAYS	
	N30	NET 30 DAYS	
	N45	NET 45 DAYS	
	N60	NET 60 DAYS	
	N90	NET 90 DAYS	
	PRP	PREPAID	
	UPR	UPON RECEIPT	

2.1.04.04 – Ship Via

This section allows you to define a list of Ship Via Lookup Codes that can be included on your Sales Quotes, Orders and Invoices including Purchase Orders.

Menu Sequence: “Administration > Code Maintenance > Financial > Ship-Via”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
V	SHIP VIA		
	1DA	NEXT DAY AIR	
	2DA	2 DAY AIR	
	AIR	AIR FREIGHT	
	BST	BEST WAY	
	CUR	VIA COURIER	
	PTL	PREF'D TRUCK LINE	
	RAL	VIA RAIL CAR	
	TRK	VIA TRUCK	
	UPB	UPS TWO DAY (BLUE)	
	UPG	UPS GROUND	
	UPR	UPS NEXT DAY (RED)	
	UPS	UNITED PARCEL SER.	

2.1.04.05 – Inventory Category

This section allows you to define Inventory Category and Style Lookup Codes for the purpose of categorizing your parts database. For example, you can define a Category **“FST”** for Fasteners, and within that category you can define Style Codes such as: **“NUT”** (Nut), **“RVT”** (Rivet), **“SCW”** (Screw). This categorization makes it easier to search for parts in the system in addition to the many other search capabilities built into the **Global Edge** system.

Menu Sequence: **“Administration > Code Maintenance > Financial > Inventory-Category”**

Load File: (A-429-cus_code.unl – Table Name: code)

Load File: (A-430-cus_codd.unl – Table Name: code_detail)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
I	INVENTORY CATEGORY						
	ACT	ACTUATOR		114300	411300	51300	114300
		HYD	HYDRAULIC				
	ASM	ASSEMBLY		114002	41002	51002	114002
		FST	FASTNER ASSEMBLED				
		MIN	MOLD INSERT				
		OTH	OTHER				
		SHR	SHRINT FIT				
		SNP	SNAP FIT				
		WLD	WELDMENT				
	CAB	CABINET		114002	41002	51002	114002
		BCK	BACK				
		BDY	BODY				
		BK	BACK				
		BKP	BACK PANEL				
		BPL	BOTTOM PANEL				
		CAS	CASE CHANNEL				
		CRS	CROSS PANEL				
		DIV	DIVIDER				
		DR	DOOR				
		DRW	DRAWER				
		DVD	DIVIDER				
		EPL	END PANEL				
		FLL	FILL PANEL				
		GEO	GEOMETRY				
		GUS	GUSSET				
		HNG	HINGE				
		PIL	PILSTER				
		PLL	PULL/HANDLE				
		RL	RAIL				
		SHF	SHELF				
		SPN	SPINE				
		TOP	TOP				
		UTL	UTILITY				
		VPT	VERTICAL POST				

2.1.04.05 – Inventory Category (Continued ...)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
	CMP	COMPONENT		114100	41100	51100	114100
		FST	FASTENER				
		HDW	HARDWARE				
		MMU	MATERIAL MARK-UP				
		PKG	PACKAGING				
	CPT	CENTER POST		114001			
	CST	CASTING		114200	411200	51200	
		AL	ALUMINUM				
		BRS	BRASS				
		CAS	CARBON STEEL				
		TI	TITANIUM				
	DMP	DAMPER		114300	411300	51300	114300
		VEN	VENTILATION				
	DR	DOOR		114300	411300	51300	114300
		DCK	DOCK DOOR				
		HND	DOOR HANDLE				
		HNG	HINGE				
		IND	INDUSTRIAL DOOR				
		RES	RESIDENTIAL DOOR				
	DSK	DRIPSHIELD KIT		114002			
		DRP	DRIPSHIELD				
	FIN	FINISH		114100			
		PWD	POWDER				
	FRM	FRAME		114300	411300	51300	114300
		STL	STEEL				
	FSK	FLOOR STAND KIT		114001			
		ASM	FSK ASSEMBLY				
		FSS	FLOOR STAND SKIRT				
		LEG	FSK LEG				
		SWP	SWING PANEL				
	FST	FASTENER		114200			
		NUT	NUT				
		RVT	RIVET				
		SCW	SCREW				
		WSH	WASHER				
	GLB	GLOBAL EDGE		114100			
	GLS	GLASS		114100			
	HDW	HARDWARE		114200			
		BKT	BRACKET				
		BLT	BOLT				
		CAM	CAM				
		CHN	CHAIN				
		CLM	CLAMP				

2.1.04.05 – Inventory Category (Continued ...)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
		CLP	CLIP				
		DS	DOORSTOP				
		DSC	DISCONNECT				
		FST	FASTENER				
		GSK	GASKET				
		HDL	HANDLE				
		HNA	HINGE ASSEMBLY				
		HNG	HINGE				
		HNL	HINGE LEAF				
		HNP	HINGE PIN				
		LBL	LABEL				
		LH	LATCH-HANDLE				
		L-H	LATCH-HANDLE				
		MP	MOUNTING PROVISION				
		MSC	MISCELLANEOUS				
		NAI	NAIL				
		NTK	INTERLOCK KIT				
		NUT	NUT				
		PKT	POCKET				
		PLL	PULL/HANDLE				
		PLP	PADLOCK PROVISION				
		SCW	SCREW				
		SPG	SPRING				
		SPR	SPRING				
		STD	STUD				
		STF	STIFFENER				
		STR	STRIKE				
		SUN	SUNSHIELD				
		UNI	UNISTRUT				
		WSH	WASHER				
LFX		LIGHT FIXTURE		114002	41002	51002	114002
		CEI	CEILING				
		REC	RECTANGLE				
		WLL	WALL LIGHT				
LID		LID		114001			
		CVR	COVER				
		DHL	DOOR HINGED LEFT				
		DHR	DOOR HUNGED RIGHT				
		DT	DOOR TAB				
MSC		MISCELLANEOUS		114200			
		ADH	ADHESIVE				
		FLL	FILLER				

2.1.04.05 – Inventory Category (Continued ...)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
	OPT	OPTIONS		114001			
		BKT	BRACKET				
		CAM	CAM				
		CTP	CENTER POST				
		DRP	DRIPSHIELD				
		DS	DOORSTOP				
		DSC	DISCONNECT				
		EYE	LIFTING EYE				
		FIN	FINISH				
		FSK	FLOOR STAND KIT				
		GSK	GASKET				
		HDW	HARDWARE				
		HNG	HINGE				
		HWD	HARDWARE				
		HWK	HINGED WINDOW KIT				
		LBL	LABEL				
		LH	LATCH-HANDLE				
		LID	LID				
		MNT	MOUNTING PROVISION				
		MSC	MISCELLANEOUS				
		NTK	INTERLOCK KIT				
		PET	PET MONUMENT				
		PKM	PACKAGE-MATERIAL				
		PKT	POCKET				
		PLL	PULL				
		PLP	PADLOCK PROVISION				
		PNT	PAINT				
		RAW	RAW MATERIAL				
		RH	RAIN HOOD				
		SKT	SKIRT KIT				
		SPP	SUBPANEL				
		STD	STANDARD MONUMENT				
		STF	STIFFENER				
		STK	STOCK				
		SUN	SUN SHIELD				
		SW2	SWING PANEL-2				
		SW3	SWING PANEL-3				
		SW4	SWING PANEL-4				
		SWP	SWING PANEL				
		TUB	TUB				
		UNI	UNISTRUT				
		VK	VENT KIT				
		WK	WINDOW KIT				

2.1.04.05 – Inventory Category (Continued ...)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
	OTH	OTHER		114300	411300	51300	
		CHR	CHAIR				
		DSK	DESK				
		ECB	ELECT. CONTROL BOX				
		EXH	EXHAUST FAN				
		GEN	GENERATOR				
		GSK	GASKET				
		HLG	HYDRAULIC LIFT GATE				
		HYD	HYDRAULIC LIFT				
		LMP	OFFICE LAMP				
		LOU	LOUVER				
		OUT	OUTDOOR LIGHT				
		TPE	TAPE				
		WTR	WATER PUMP				
	PNT	PAINT		114300			
		PWD	POWDER				
	RAW	RAW MATERIAL		114100			
		BAR	BAR STOCK				
		BEA	BEAM				
		CPP	COPPER PIPE				
		LEX	LEXAN				
		PLS	PLASTIC TUBING				
		RBH	RUBBER HOSE				
		SSP	STAINLESS STEEL PLATE				
		STL	STEEL PLATE				
	RLL	ROLLER		114200			
		CBR	CARBON ROLLER				
	SHT	SHEET METAL		114100	41100	51100	
		ALM	ALUMINUM				
		CHN	CHANNEL				
		CNB	CUT & BEND				
		CRB	CARBON STEEL				
		DEM	DEMO				
		DXF	DXF FLAT FILE				
		STS	STAINLESS STEEL				
	SP	SUBPANEL		114001			
		ESP	ESP				
		FMP	FLOOR MOUNT				
		FSM	FREESTANDING SIDE				
		FSP	FREESTANDING				
		JP	JIC				
		L1P	LARGE TYPE 1				
		S1P	SMALL TYPE 1				
		SPP	GENERAL				

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2.1.04.05 – Inventory Category (Continued ...)

PT.	CODE	STYLE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	OFFSET
	STK	STOCK		114100	41100	51100	114100
		AL	ALUMINUM				
		BAR	BAR STOCK				
		CON	CONCRETE				
		CRS	COLD ROLLED STEEL				
		GAL	GALVANIZED				
		HRP	HOT ROLLED PICKLED				
		LEX	LEXAN				
		MTP	MATERIAL PRICE				
		SHT	SHEET STOCK				
		SS	STAINLESS STEEL				
	TRN	TRANSFORMER		114300	411300	51300	114300
		3PC	THREE PHASE COIL				
		3PH	THREE PHASE				
		MP	MOUNTING PAD				
	TUB	TUB WELDMENTS		114001			
		B	BOTTOM				
		CAP	CAP				
		FRM	FRAME				
		K	BACK				
		K4	BACK				
		KL	BACK				
		KLR	BACK				
		KR	BACK				
		KTB	BACK				
		L	LEFT				
		LR	LEFT-RIGHT CLUSTER				
		R	RIGHT				
		T	TOP				
		TB	TOP-BOTTOM CLUSTER				
		TC	CAP ABOVE DOOR CLUSTER				

2.1.04.06 – Asset Category

This section allows you to define a list of Asset Category Lookup Codes to categorize and easily search for your various assets such as Machine Tools and Tooling during the preparation of shop floor information.

Menu Sequence: “Administration > Code Maintenance > Financial > Asset-Category”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
X	ASSET CATEGORY		
	AUT	AUTOMOBILE	
	BDG	BUILDING	
	BDI	BLG. IN PROGRESS	
	CMP	COMPUTERS	
	FFX	FURN. & FIXTURES	
	LND	LAND	
	OFE	OFFICE EQUIPMENT	
	PRD	PRODUCTION	
	TLG	TOOLING	

2.1.04.07 – Discount Subcategory

This section allows you to define a list of Discount Subcategory Lookup Codes that can be applied to your various company price lists, which includes different discounts to different customer groups.

Menu Sequence: “Administration > Code Maintenance > Financial > Disc-Sub-Category”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
G	DISCOUNT SUBCATEGORY		
	A	STANDARD DISCOUNT	
	B	OEM PRICING	
	C	ACME GROUP DISC.	
	D	INDUSTRIAL GROUP	
	E	SALES AGENCY	

2.1.04.08 – Service Order Type

This section allows you to define a list of Service Order Type Lookup Codes to categorize Service Orders that are a part of the **Global Edge** system.

Menu Sequence: “Administration > Code Maintenance > Financial > Service-Order”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
4	SERVICE ORDER TYPE		
	CBL	CABLING	
	NET	NETWORKING	
	PRD	PERIODIC MAINT.	
	RPR	REPAIR	

2.1.04.09 – Service Zone

This section allows you to define a list of Service Zone Lookup Codes to include with the Service Order capabilities built into the **Global Edge** system.

Menu Sequence: “Administration > Code Maintenance > Financial > Service-Zone”

Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
5	SERVICE ZONE		
	EST	EAST	
	NOR	NORTH	
	SOU	SOUTH	
	WST	WEST	

2.1.04.10 – Contract Type

This section allows you to define a list of Contract Type Lookup Codes that are utilized with the Service Order Contract capabilities built into the **Global Edge** system.

Menu Sequence: “Administration > Code Maintenance > Financial > Contract-Type”

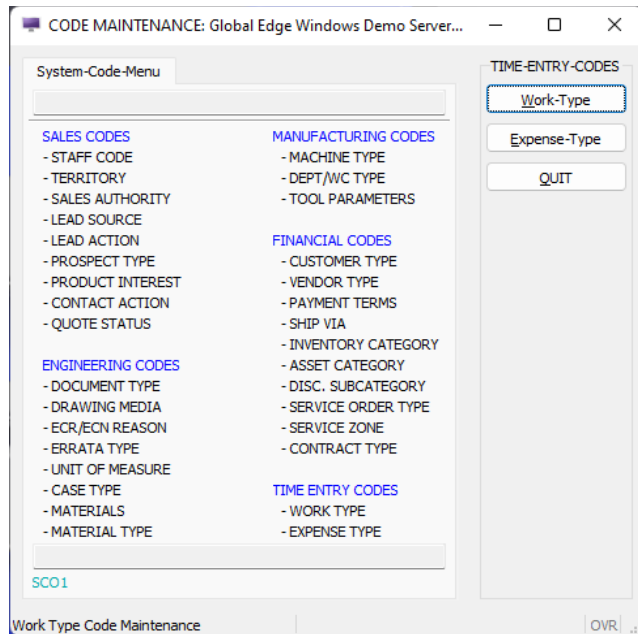
Load File: (A-429-cus_code.unl – Table Name: code)

PT.	CODE	STYLE	DESCRIPTION
6	CONTRACT TYPE		
	BLT	BLOCK OF TIME	
	CPS	COMPUTER SERVICE	

2.1.05 – Time Entry Codes

This section includes the capability to define Time Entry Codes for the time and expense recording functionality built into the **Global Edge** system.

- Return to **SYSTEM CODES** menu and select **"Time-Entry"** to display the following **TIME-ENTRY-CODES** menu options:



2.1.05.01 – Work Type

This section allows you to define Work Type Lookup Codes that are associated with the various work tasks performed by your staff. This includes the ability to tie these various work tasks with Revenue and Cost of Goods Sold accounts along with employee billing rates and hourly overhead costs.

Menu Sequence: **"Administration > Code Maintenance > Time-Entry > Work-Type"**

Load File: (A-209-Idc_wrkt.unl – Table Name: work_type)

WORK CODE	DESCRIPTION	CAT. TYPE	REV. ACCT	COGS ACCT	BILL RATE	COGS RATE
ASM	Assembly	S	42	52011	95.00	75.00
DSN	Design	E	42	52011	135.00	95.00
FLD	Field Installation	S	42	52011	145.00	120.00
MCH	Machining	S	42	52011	110.00	85.00
PRG	Programming	E	42	52011	125.00	85.00

Last Update: Friday, April 03, 2026

2.1.05.02 – Expense Type

This section allows you to define Expense Type Lookup Codes that are associated with the various work-related expenses accrued your staff. This includes the ability to tie these various expenses with Revenue and Cost of Goods Sold accounts along with applying expenses Engineering Projects, Job Orders, or Employee Benefits.

Menu Sequence: “Administration > Code Maintenance > Time-Entry > Expense-Type”

Load File: (A-140-ldc_expt.unl – Table Name: exp_type)

EXP. CODE	DESCRIPTION	ACCT #	REV. ACCT	COGS ACCT	CAT. TYPE	PROJ. OK	JOB OK	BEN. OK	TAXABLE
ALL	ALL EXPENSE	114100	411100	51100	A	Y	Y	N	N
ENG	ENGINEERING EXPENSE	114300	411300	51300	E	Y	N	N	N
SHE	SHOP & ENG. EXPENSE	114100	411100	51100	B	N	Y	N	N
SHP	SHOP EXPENSE	114100	411100	51100	S	N	Y	N	N
OTH	OTHER EXPENSE	114300	411300	51300	O	N	N	N	N

Section 2.2: Engineering Setup

Global Edge® Engineering Assistant software is a flexible system that provides the ability to define a variety of engineering codes to define the processes required or the quoting, engineering, and manufacturing workflow process.

Table #	Table Name	Load File	Table Description	Section	Refer To
R-162	process	R-162-cus_proc.unl	Process Table	2.2.01	Page 40
R-152	proc_class	R-152-cus_prcl.unl	Process Class Table	2.2.02	Page 42
A-198	sheet_dim	A-198-ldc_shed.unl	Sheet Metal Dimension Table	2.2.03	Page 43
A-573	dxl_import	A-573-ldc_dxfi.unl	DXF Import Table	2.2.03	Page 44
A-574	dxl_import_layers	A-574-ldc_dxfl.unl	DXF Import Layers Table	2.2.03	Page 44
A-120	gauge_standard	A-120-ldc_ggst.unl	Gauge Standard Table	2.2.04	Page 45
A-106	doc_sys	A-106-cus_docs.unl	Document System Table	2.2.05	Page 47
A-105	doc_format	A-105-ldc_docf.unl	Document Format Table	2.2.06	Page 47
A-358	cad_mfr_defaults	A-358-cus_cmdf.unl	CAD Manufacturing Defaults Table	2.2.07	Page 48
A-107	doc_tree	A-107-ldc_doct.unl	Document Tree Table	2.2.08	Page 49
A-104	doc_fmt_edit	A-104-ldc_docx.unl	Document System Format Edit Table	2.2.09	Page 49
M-577	cad_material	M-577-cus_cdml.unl	CAD Material Table	2.2.10	Page 51
M-086	def_sheet_size	M-086-ldc_dfsz.unl	Default Sheet Size	2.2.11	Page 51

This section includes the procedures for setting up foundational engineering related information that is utilized throughout the **Global Edge** system. This section is divided into the following sub-sections:

- 2.2.01 – Manufacturing Processes (refer to Page 40)
- 2.2.02 – Process Class (refer to Page 42)
- 2.2.03 – Sheet Metal Dimensions (refer to Page 43)
- 2.2.04 – Gauge Standard (refer to Page 45)
- 2.2.05 – Document Editors (refer to Page 47)
- 2.2.06 – Document Formats (refer to Page 47)
- 2.2.07 – CAD Manufacturing Defaults (refer to Page 48)
- 2.2.08 – Document Tree (refer to Page 49)
- 2.2.09 – Document System Format Edit (refer to Page 49)
- 2.2.10 – CAD Materials (refer to Page 51)
- 2.2.11 – Default Sheet Sizes (refer to Page 51)

Engineering Setup Steps

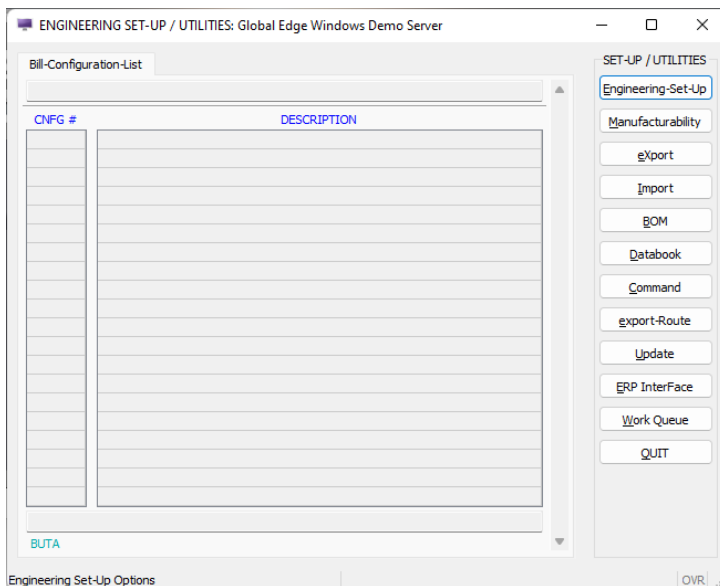
1. The first step is to open the **Global Edge® Engineering Assistant** software by clicking on the following desktop icon:



2. This will display the following screen form and menu options:



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



2.2.01 – Manufacturing Processes

This section allows you to define a list of Manufacturing Processes that are utilized throughout the Quoting, Engineering, and Manufacturing workflow process. Included with each manufacturing process is the Type of Process and Standard Cost including Unit of Measure.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Mfg-Processes”

Load File: (R-162-cus_proc.unl – Table Name: process)

PROCESS	DESCRIPTION	CLASS	TYPE	FORMED	SHEET MTL.	STD. COST	UOM
AIDA	AIDA Stamping Operation	FRM	F	1	1	75.0000	hours
ASSEMBLY	Assembly Operation	ASM	J	0	0	50.0000	hours
BATCH-OVEN	Batch Oven Operation	OVN	O	0	1	25.0000	hours
BEND	Press Brake Bend Operation	FRM	F	1	1	75.0000	hours
CHROMATE-ETCH	Chromating-Etching Operation	FIN	M	0	1	85.0000	hours
CORNER	Corner Bending Operation	FRM	F	1	1	35.0000	hours
CURING	Curing Operation	OVN	O	0	1	25.0000	hours
CUSTOMER-APPROVAL	Customer Approval	ENG	O	0	0	60.0000	hours
CUT-TO-LENGTH	Cut-to-Length Operation	SHR	M	0	1	55.0000	hours
DEBURR	Deburring Operation	FIN	M	0	1	45.0000	hours
DRESS	Dress Operation	WLD	J	0	0	45.0000	hours
EMBOSS	Embossing Operation	PNC	M	0	1	75.0000	hours
ENGINEERING	Engineering Operation	ENG	O	0	0	60.0000	hours
FINAL-INSPECT	Final Inspection	ISP	O	0	0	35.0000	hours
FLATTEN	Flatten Operation	FRM	F	1	1	75.0000	hours
FOLD	Folder Folding Operation	PNL	F	1	1	120.0000	hours
FORM	Forming Operation	FRM	F	1	1	75.0000	hours
FORM-2	Form 2 Person	FRM	F	1	1	75.0000	hours
GASKETING	Gasketing Operation	GSK	O	0	0	35.0000	hours
GENERAL-ASSEMBLY	General Assembly Operation	ASM	J	0	0	50.0000	hours
GENERAL-LABOR	General Labor	LBR	O	0	0	50.0000	hours
GRAIN	Graining Operation	FIN	M	0	1	45.0000	hours
HANGING	Hanging Operation	HNG	O	0	1	25.0000	hours
INSPECT	Inspection Operation	ISP	O	0	1	35.0000	hours
INSPECT-100	Inspect 100 Percent Operation	ISP	O	0	1	35.0000	hours
INSPECT-FINISH-DE	Insp.-Fin.+De-masking Operation	ISP	O	0	1	35.0000	hours
INSTALL-PEM-NUTS	Install Pem Nuts	PEM	J	0	0	50.0000	hours
INSTALL-PEM-STUDS	Install Pem Studs	PEM	J	0	0	50.0000	hours
LASER-CUT	Laser Cut Operation	LSR	M	0	1	140.0000	hours
MASKING	Masking Operation	PNT	L	0	1	40.0000	hours
MIG-WELD	MIG Weld Operation	WLD	J	0	0	45.0000	hours
PACKAGE	Package	PKG	O	0	0	35.0000	hours
PACKAGING	Packaging Operation	PKG	O	0	0	35.0000	hours
PACK-FOR-SHIPMENT	Pack for Shipment	PKG	O	0	0	35.0000	hours
PAINTING	Painting Operation	PNT	L	0	1	40.0000	hours

Process (R-162) Table (Continued ...)

PROCESS	DESCRIPTION	CLASS	TYPE	FORMED	SHEET MTL.	STD. COST	UOM
PANLBEND	Panel Bender Bending Operation	PNL	F	1	1	120.0000	hours
PEM	Pemsert Operation	PEM	J	0	0	25.0000	hours
PEM-2	Pemsert 2 Person Operation	PEM	J	0	0	25.0000	hours
POWDER-COAT	Powder Coat Operation	PNT	L	0	1	40.0000	hours
PROGRAM-NEW-PART	Program New Part Operation	PRG		0	0	50.0000	hours
PROGRAM-REV-PART	Program Revised Part Operation	PRG		0	0	50.0000	hours
PROOF-NEW-PART	Proof New Part Operation	PRF		0	0	50.0000	hours
PROOF-REV-PART	Proof Revised Part Operation	PRF		0	0	50.0000	hours
PUNCH	Turret Punch Operation	PNC	M	0	1	75.0000	hours
RIVET	Rivet Operation	ASM	J	0	0	50.0000	hours
SAND-PAINT-PREP	Sand / Paint / Preparation Operation	WPR	L	0	1	40.0000	hours
SCREEN-PRINT	Screen Printing Operation	PNT	L	0	1	40.0000	hours
SETUP-MASTER-FILE	Setup Master File Operation	PRG		0	0	50.0000	hours
SHAKE-OUT	Shake Out Operation	FIN	M	0	1	75.0000	hours
SHEAR	Shear Operation	SHR	M	0	1	55.0000	hours
SHIPPING	Shipping Operation	SHP	O	0	0	35.0000	hours
SPOT-WELD	Spot Welding Operation	WSP	J	0	0	45.0000	hours
STUD-WELDING	Stud Welding Operation	WST	J	0	0	45.0000	hours
TIG-WELD	TIG Weld Operation	WLD	J	0	0	45.0000	hours
TUMBLE-DEBURR	Tumble Deburr Operation	FIN	M	0	1	75.0000	hours
WASHING	Washing Operation	WSH	O	0	1	25.0000	hours
WASH-ONLY	Wash Only Operation	WSH	O	0	1	25.0000	hours
WELD-MD	Medium Seam-Tack Welding Operation	WLD	J	0	0	45.0000	hours
WELDING	Welding Operation	WLD	J	0	0	45.0000	hours
WHITNEY	Whitney Punch & Plasma Operation	PNC	M	0	1	75.0000	hours

2.2.02 – Process Class

This section allows you to define a list of Process Class Lookup Codes that are applied to Manufacturing Processes that are applied in **Section 2.2.01 – Manufacturing Processes** to categorize each Manufacturing Process.

Menu Sequence: “*Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Process-Class*”

Load File: (R-152-cus_prcl.unl – Table Name: proc_class)

Process Class (R-152) Table

PROCESS CLASS	DESCRIPTION
ASM	ASSEMBLY-INSTALLATION
CRD	CORD-TWIST
CUT	CUT-TO-LENGTH
ENG	ENGINEERING
ETC	ETCH
FIN	FINISH-GRIND-SAND-DEBURR
FRM	FORM-BEND
GSK	GASKETING
HNG	HANGING
HTT	HEAT TREAT
INS	INSTALLATION
ISP	INSPECT-PACKAGE
KIT	KITTING
LBR	LABOR
LSR	LASER-CUT
MCH	MACHINE
MEA	MEASURE
MLL	MILL-DRILL
NET	NET
NSM	NON-SHEET METAL
OTH	OTHER
OVN	OVEN
PEM	PEM-NUTS-STUDS-STANDOFF
PKG	PACKAGE
PLT	PLATE
PNC	PUNCH-STAMP
PNL	PANEL-BEND
PNT	PAINT
POL	POLISH
PRF	PROOF
PRG	PROGRAM
SAW	SAW
SHP	SHIPPING
SHR	SHEAR-BLANK
TST	TEST
WLD	WELD
WPR	WELD-PREP
WSH	WASH
WSP	WELD-SPOT

Process Class (R-152) Table (Continued ...)

PROCESS CLASS	DESCRIPTION
WST	WELD-STUD
WTK	WELD-TACK

2.2.03 – Sheet Metal Dimensions

This section allows you to define Sheet Metal Dimensions that are automatically attached to Imported CAD Parts that are utilized for Automated Quoting, Automated Routing Generation, Manufacturability Testing, and Automated Bend Program Generation.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Sheet-Metal”

Load File: (A-198-Idc_shed.unl – Table Name: sheet_dim)

Sheet Metal Dimension (A-198) Table

#	FIELD NAME	FIELD TYPE	ENTERED VALUE
1	std_uom	char(10)	inches
2	cert_material	char(18)	Certified_Mtrl
3	material_opt	char(18)	Material
4	sheet_length	char(18)	Sheet_Length
5	sheet_width	char(18)	Sheet_Width
6	blank_length	char(18)	Blank_Length
7	blank_width	char(18)	Blank_Width
8	blank_thickness	char(18)	Material_Thickness
9	cad_thickness	char(40)	Thickness
10	flat_length	char(18)	Flat_Length
11	flat_width	char(18)	Flat_Width
12	perimeter	char(18)	Perimeter
13	round_holes	char(18)	Round_Holes
14	round_sizes	char(18)	Round_Sizes
15	obround_holes	char(18)	Obround_Holes
16	obround_sizes	char(18)	Obround_Sizes
17	rectangular_holes	char(18)	Rectang_Holes
18	rectangular_sizes	char(18)	Rectang_Sizes
19	other_holes	char(18)	Other_Holes
20	other_sizes	char(18)	Other_Sizes
21	num_cutouts	char(18)	Num_Cutouts
22	cutout_perim	char(18)	Cutout_Perimeter
23	min_bend_length	char(18)	Min_Bend_Length
24	max_bend_length	char(18)	Max_Bend_Length
25	min_bend_angle	char(18)	Min_Bend_Angle
26	max_bend_angle	char(18)	Max_Bend_Angle
27	min_flange_width	char(18)	Min_Flange_Width
28	max_flange_width	char(18)	Max_Flange_Width
29	min_pem_gap	char(18)	Min_Pem_Gap
30	min_dn_pem_gap	char(18)	Min_Dn_Pem_Gap

#	FIELD NAME	FIELD TYPE	ENTERED VALUE
31	min_emboss_gap	char(18)	Min_Emboss_Gap
32	min_dn_emboss_gap	char(18)	Min_Dn_Emboss_Gap
33	min_louver_gap	char(18)	Min_Louver_Gap
34	min_dn_louver_gap	char(18)	Min_Dn_Louver_Gap
35	min_taper_bl_gap	char(18)	Min_Taper_Bl_Gap
36	min_die_cutout	char(18)	Min_Die_Cutout
37	up_bends	char(18)	Up_Bends
38	int_up_bends	char(18)	Int_Up_Bends
39	cad_up_bends	char(40)	CAD_Up_Bends
40	max_up_bend	char(18)	Max_Up_Bend
41	down_bends	char(18)	Down_Bends
42	int_down_bends	char(18)	Int_Down_Bends
43	cad_down_bends	char(40)	CAD_Down_Bends
44	max_down_bend	char(18)	Max_Down_Bend
45	num_folds	char(18)	Fold_Count
46	num_hems	char(18)	Hem_Count
47	cad_hems	char(40)	CAD_Hems
48	num_extrusions	char(18)	Extrude_Count
49	cad_extrusions	char(40)	CAD_Extrusions
50	std_bend_radius	char(18)	Bend_Radius
51	cad_bend_radius	char(40)	CAD_Bend_Radius
52	cutting_method	char(18)	Cutting_Method
53	cutter_num	char(18)	Cutter_Ref_Num
54	cutout_distance	char(18)	Cutout_Distance
55	part_distance	char(18)	Part_Distance
56	stock_uom	char(10)	each
57	yld_calc_method	char(1)	L
58	yield_point	char(1)	G
59	def_yld_method	char(1)	G
60	std_yield	smallfloat	85.000000

Load File: (A-198-ldc_shed.unl – Table Name: sheet_dim)

Sheet Metal Dimension (A-198) Table (Continued ...)

#	FIELD NAME	FIELD TYPE	ENTERED VALUE
61	gauge_tolerance	decimal(16,6)	0.000000
62	blank	char(18)	Blank
63	emboss	char(18)	Emboss
64	turret	char(18)	Turret
65	laser	char(18)	Laser
66	press_brake	char(18)	Press_Brake
67	panel_bender	char(18)	Panel_Bender

#	FIELD NAME	FIELD TYPE	ENTERED VALUE
68	pem_nuts	char(18)	Pem_Nuts
69	pem_studs	char(18)	Pem_Studs
70	grain	char(18)	Grain
71	weld	char(18)	Weld
72	deburr	char(18)	Deburr
73	paint	char(18)	Paint

Load File: (A-573-ldc_dxfi.unl – Table Name: dxf_import)

DXF Import (A-573) Table

TRANS #	DESCRIPTION	DAD SYS.	IT PERIM.	IT CUTOUT	IT TABBING	IT EMBOSS	IT UPBEND
1	SolidWorks Format	SolidWorks	CONTINUOUS	CONTINUOUS		PHANTOM	CENTERX2
2	Pro Engineer Created DXF Files	Pro Engineer	CONTINUOUS	CONTINUOUS			
3	Inventor Created DXF Files	Inventor	CONTINUOUS	CONTINUOUS			
4	Solid Edge	Solid Edge	CONTINUOUS	CONTINUOUS		HIDDEN	CENTER2
5	Bend Simulation Module	BSM	CONTINUOUS	CONTINUOUS			

Load File: (A-574-ldc_dxfl.unl – Table Name: dxf_import_layers)

DXF Import Layers (A-574) Table

TRANS #	LAYER #	DESCRIPTION	LAYER NAME	INCLUDE	PERIM.	CUTOUT	TABBING	EMBOSS	UPBEND
4	1	Default Layer	0	1					
4	2	Perimeter Layer	OUTER_LOOP	1	1		1		
4	3	Cutout Layer	INTERIOR_LOOPS	1		1			
4	4	Upbend Layer	UP_CENTERLINES	1					1
4	5	Downbend Layer	DOWN_CENTERLINES	1					
4	6	Etch Layer	ETCH	1					
4	7	Emboss Up Layer	UP_FEATURES	1				1	
4	8	Emboss Down Layer	DOWN_FEATURES	1				1	
5	1	Default Layer	0	1					
5	2	Perimeter Layer	OUTER_LOOP	1	1		1		
5	3	Cutout Layer	INTERIOR_LOOPS	1		1			
5	4	Upbend Layer	UP_CENTERLINES	1					1
5	5	Downbend Layer	DOWN_CENTERLINES	1					
5	6	Etch Layer	ETCH	1					
5	7	Emboss Up Layer	UP_FEATURES	1				1	
5	8	Emboss Down Layer	DOWN_FEATURES	1				1	

2.2.04 – Gauge Standard

This section allows you to define a list of Gauge Standards that are utilized throughout the **Global Edge** system to apply to the various materials your company utilizes. This includes standards for **“Steel”**, **“Stainless”**, **“Aluminum”**, **“Coated”**, **“Copper”**, and **“Specialty Stainless”**.

Menu Sequence: **“Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Gauge”**

Load File: (A-120-ldc_ggst.unl – Table Name: gauge_standard)

Gauge Standard (A-120) Table

Gauge	Steel	Stainless	Aluminum	Galvanized	Copper	Specialty
1 GA.		0.281300	0.289300			
2 GA.		0.265600	0.257600			
3 GA.	0.239100	0.250000	0.229400			
4 GA.	0.224200	0.234400	0.204300			
5 GA.	0.209200	0.218700	0.181900			
6 GA.	0.194300	0.203100	0.162000			
7 GA.	0.179300	0.187500	0.144300			
8 GA.	0.164400	0.171870	0.128500	0.168100		
9 GA.	0.149500	0.156250	0.114400	0.153200		
10 GA.	0.134500	0.140620	0.101900	0.138200		
11 GA.	0.119600	0.125000	0.090740	0.123300		
12 GA.	0.104600	0.109370	0.080810	0.108400		
13 GA.	0.089700	0.093700	0.072000	0.093400		
14 GA.	0.074700	0.078120	0.064080	0.078500		
15 GA.	0.067300	0.070300	0.057100	0.071000		
16 GA.	0.059800	0.062500	0.050820	0.063500		
17 GA.	0.053800	0.056200	0.045300	0.057500		
18 GA.	0.047800	0.050000	0.040300	0.051600		
19 GA.	0.041800	0.043700	0.035900	0.045600		
20 GA.	0.035900	0.037500	0.031960	0.039600		
21 GA.	0.032900	0.034400	0.028500	0.036600		
22 GA.	0.029900	0.031250	0.025350	0.033600		
23 GA.	0.026900	0.028100	0.022600	0.030600		
24 GA.	0.023900	0.025000	0.020100	0.027600		
25 GA.	0.020900	0.021900	0.017900	0.024700		
26 GA.	0.017900	0.018750	0.015940	0.021700		
27 GA.	0.016400	0.017200	0.014200	0.020200		
28 GA.	0.014900	0.015620	0.012640	0.018700		
29 GA.	0.013500	0.014100	0.011300	0.017200		
30 GA.	0.012000	0.012500	0.010030	0.015700		
31 GA.	0.010500	0.010900	0.008900	0.014200		
32 GA.	0.009700	0.010200	0.008000	0.013400		
33 GA.	0.009000	0.009400	0.007100			
34 GA.	0.008200	0.008600	0.006300			
35 GA.	0.007500	0.007800	0.005600			
36 GA.	0.006700	0.007000	0.005000			
37 GA.	0.006400	0.006600	0.004500			
38 GA.	0.006000	0.006200	0.004000			

Gauge Standard (A-120) Table (Continued ...)

Gauge	Steel	Stainless	Aluminum	Galvanized	Copper	Specialty
39 GA.			0.003500			
40 GA.			0.003100			
0.032					0.032000	
0.043					0.043000	
0.050			0.050000			0.050000
0.051					0.051000	
0.063			0.063000		0.063000	
0.073					0.073000	
0.081					0.081000	
0.094					0.094000	
0.098				0.098000		
0.120				0.120000		
1/8 inch			0.125000		0.125000	
0.160			0.160000			
3/16 inch	0.187500				0.187500	
0.190			0.190000			
0.197		0.197000				
1/4 inch	0.250000		0.250000		0.250000	
5/16 inch	0.312500	0.312500				
0.325			0.325000			
11/32 inch		0.343750				
0.365			0.365000			
3/8 inch	0.375000	0.375000			0.375000	
13/32 inch		0.406250				
0.410			0.410000			
7/16 inch	0.437500	0.437500				
0.460			0.460000			
15/32 inch		0.468750				
1/2 inch	0.500000	0.500000			0.500000	
0.517			0.517000			
0.580			0.580000			

2.2.05 – Document Editors

This section allows you to define a list of Document Editors utilized by your company. This list includes defining a Command Line that specifies the launch location of each Document Editor. This provides the capability to automatically launch your document editors from within the **Global Edge** software.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Editors”

Load File: (A-106-cus_docs.unl – Table Name: doc_sys)

Document System (A-106) Table

DOC. SYST.	DESCRIPTION	VER.	COMMAND LINE	SYSTEM
ACD	AutoCAD			
ACR	Adobe Acrobat		C:\Program Files(x86)\Adobe\Acrobat Reader DC\Reader\AcroRd32.exe	
IE	MS Internet Explorer		C:\Program Files(x86)\Internet Explorer\iexplore.exe	
SLD	SolidWorks	2022	C:\Program Files\SolidWorks Corp\SolidWorks\SLDWORKS.EXE	
SLE	Solid Edge	2020	C:\Program Files\Siemens\Solid Edge 2020\Program\Edge.exe	Solid Edge
WDM	Windows Media Player		C:\Program Files\Windows Media Player\wmplayer.exe	
GED	Global Edge Engineering Assistant		C:\GlobalEdge\GlobalEdgeDoc\GlobalEdgeDoc.exe	Global Edge

2.2.06 – Document Formats

This section allows you to define a list of Document Formats that are utilized by the Document Editors defined in **Section 2.2.05 – Document Editors**, which the extension of each document type.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Doc-Formats”

Load File: (A-105-Idc_docf.unl – Table Name: doc_format)

Document Format (A-105) Table

DOC. FORMAT	DESCRIPTION	DEFAULT EXT.	DOC. TREE
AMF	Additive Manufacturing File	AMF	No
3MF	3D Manufacturing File	3MF	No
AVI	AVI Microsoft Video File	AVI	No
BMP	Windows BitMap	BMP	No
CPT	Cincinnati Part File	PART	Yes
DWF	AutoCAD DWF File	DWF	No
DWG	AutoCAD DWG File	DWG	No
DXF	AutoCAD DXF File	DXF	No
EXL	MS Excel File	XLS	No
GIF	GIF File Format	GIF	No
HTM	HTML File Format	HTM	No
IAM	Inventor Assembly File	IAM	Yes
IDV	Inventor Design View File	IDV	Yes
IDW	Inventor Exploded View Drawing	IDW	No
IGS	IGES File Format	IGS	No
IPJ	Inventor Project File	IPJ	No

Document Format (A-105) Table (Continued ...)

DOC. FORMAT	DESCRIPTION	DEFAULT EXT.	DOC. TREE
IPN	Inventor Presentation View	IPN	No
IPT	Inventor Part File	IPT	No
JPG	JPEG File Format	JPG	No
PDF	Acrobat PDF Document	PDF	No
RML	Inventor Redline Markup	RML	No
RTF	Rich Text File Format	RTF	No
SDP	SolidWorks Part	SLDPRT	No
SDR	SolidWorks Drawing	SLDDRW	No
SEA	Solid Edge Assembly	ASM	Yes
SED	Solid Edge Draft	DFT	Yes
SEP	Solid Edge Part	PAR	No
SES	Solid Edge Sheet Metal	PSM	No
SLA	SolidWorks Assembly	SLDASM	Yes
TIF	TIFF File Format	TIF	No
TXT	Text File	TXT	No
WRD	MS Word File	DOC	No
XML	XML File Format	XML	No

2.2.07 – CAD Manufacturing Defaults

This section allows you to define CAD Manufacturing Defaults for each of the CAD Systems your company utilizes.

Menu Sequence: “Administration > Security > Maintenance > Users > Update > CAD”

Load File: (A-358-cus_cmdf.unl – Table Name: cad_mfr_defaults)

CAD Manufacturing Defaults (A-358) Table

LOGIN NAME	CAD SYSTEM	SRC. DXF TRANS #	SRC. DXF	SRC. DOC VAULT	SRC. VAULT	WORKING LOCATION
ldc	Pro Engineer	2	1	1	Global Edge	
ldc	Solid Edge	4	1	1	Global Edge	
ldc	SolidWorks	1	1	1	Global Edge	
ldc	Inventor	3	1	1	Global Edge	
ldc	DXF	1	1	1	Global Edge	

2.2.08 – Document Tree

This section allows you to define a Document Tree which determines the document types associated with a specific Document Editor. For example, Autodesk Inventor includes an assembly document with extension “IAM”. The document extensions associated with the “IAM” extension that includes “IDV”, “IDW”, “IPN” extensions. When the **Global Edge** software automatically launches CAD models and associated files, the software references the “Document Tree” table.

Menu Sequence: “Engineering Setup > Utilities > Engineering-Set-Up > Doc-Formats > Update”

Load File: (A-107-Idc_doct.unl – Table Name: doc_tree)

Document Tree (A-107) Table

MST. FORMAT	DET. FORMAT	LAUNCH DEF.
IAM	IAM	Yes
IAM	IDV	Yes
IAM	IDW	Yes
IAM	IPN	Yes
IAM	IPT	Yes
IDV	IAM	Yes
IDV	IDV	Yes
IDV	IDW	Yes
IDV	IPT	Yes
IDV	IPN	Yes
SLA	SDP	Yes
SLA	SDR	Yes
SLA	SLA	Yes
SEA	SEP	Yes
SEA	SES	Yes
SEA	SEA	Yes
SEA	SED	No

2.2.09 – Document System Format Edit

This section allows you to define a Document System Format Edit List that determines whether a document file can be edited or only viewed.

Menu Sequence: “Engineering Setup > Utilities > Engineering-Set-Up > Editors > Find”

Load File: (A-104-Idc_docx.unl – Table Name: doc_fmt_edit)

Document System Format Edit (A-104) Table

DOC. SYS.	DOC. FORMAT	EDIT TYPE	LAUNCH TREE	DFLT EXT.
ACD	DWF	E		
ACD	DWG	E		
ACD	DXF	E		
ACD	IGS	E		
ACR	PDF	V		
BSM	CPT	E		
CLS	DXF	E		
CMS	DXF	E		
EXL	EXL	E		

Document System Format Edit (A-104) Table (Continued ...)

DOC. SYS.	DOC. FORMAT	EDIT TYPE	LAUNCH TREE	DFLT EXT.
IE	BMP	V		
IE	GIF	V		
IE	HTM	V		
IE	JPG	V		
IE	PDF	V		
IE	TIF	V		
INV	IAM	E		
INV	IDV	E		
INV	IDW	E		
INV	IPJ	E		
INV	IPN	E		
INV	IPT	E		
INV	RML	E		
PNT	BMP	E		
SLD	SDP	E		
SLD	SDR	E		
SLD	SLA	E		
SLE	SEA	E		
SLE	SED	E		
SLE	SEP	E		
SLE	SES	E		
TXT	HTM	E		
TXT	TXT	E		
TXT	XML	E		
WDM	AVI	V		
WPD	RTF	E		
WPD	TXT	E		
WRD	GIF	E		
WRD	HTM	E		
WRD	JPG	E		
WRD	RTF	E		
WRD	TIF	E		
WRD	TXT	E		
WRD	WRD	E		

2.2.10 – CAD Materials

This section provides the capability to define CAD Material Codes that match the materials contained in your CAD system. The **Global Edge** system also defines raw materials in “**Section 2.1.02.07 – Materials**”. This section allows the translation between the “**Materials**” and “**CAD Material**” database tables.

Menu Sequence: “Administration > Code Maintenance > Engineering > Materials > Update > CAD-Values”

Load File: (M-577-cus_cdml.unl – Table Name: cad_material)

CAD Material (M-577) Table

CAD SYSTEM	MTL. CODE	CAD MATERIAL CODE
Solid Edge	304-4	304 SS
Solid Edge	304-4	SS304
Solid Edge	316-2B	316 SS
Solid Edge	316-2B	316SS
Solid Edge	316-2B	SS316
Solid Edge	5052-H32	alum
Solid Edge	CRS	10 Carbon
Solid Edge	CRS	12 Carbon
Solid Edge	CRS	14 Carbon
Solid Edge	CRS	16 Carbon
Solid Edge	CRS	carb
Solid Edge	CRS	steel
Solid Edge	G60	galv
SolidWorks	304-4	AISI 304
SolidWorks	304-4	Chrome Stainless Steel
SolidWorks	316-2B	AISI 316 Stainless Steel Sheet (SS)
SolidWorks	5052-H32	5052-H32
SolidWorks	CRS	Plain Carbon Steel
SolidWorks	G60	Galvanized Steel
BSM	ALUMINUM	Aluminum
BSM	CRS	Mild Steel
BSM	STAINLESS	Stainless

2.2.11 – Default Sheet Sizes

This section allows you to define Default Sheet Sizes for your sheet metal sheets. The purpose of this is provide sheet sizes for automating the sheet metal nesting process.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Sheet- Metal > Sizes”

Load File: (M-086-ldc_dfsiz.unl – Table Name: def_sheet_size)

Default Sheet Size (M-086) Table

LEVEL	MTL. CODE	UOM STD.	STD. #	CAT.	STYLE	QTY. UOM	LINEAR UOM	THICKNESS	SHT LENGTH	SHT WIDTH
D			1	STK	SHT	each	inches		120	60
D			2	STK	SHT	each	inches		120	48
D			3	STK	SHT	each	inches		120	36
D			4	STK	SHT	each	inches		96	48
D			5	STK	SHT	each	inches		96	36

Section 2.3: Database Setup

Global Edge® Engineering Assistant software has the capability of configuring the system to match the profile of your company. This section includes the following database tables that has had data loaded into them during the software installation process:

Table #	Table Name	Load File	Table Description	Section	Refer To
B-590	db_instance	B-590-ldc_dbin.unl	Database Instance Table	2.3.01	Page 53
B-460	ldc_set_up	B-460-ldc_lset.unl	LDC Set-Up Table	2.3.02	Page 54
B-440	cpu_info	B-440-ldc_cpui.unl	CPU Information Table	2.3.03	Page 55
B-504	users	B-504-cus_user.unl	Users Table	2.3.04	Page 55
B-204	user_doc	B-204-cus_usrd.unl	User Document Launching Table	2.3.05	Page 57
B-593	doc_folder	B-593-cus_dfol.unl	Document Folder Table	2.3.06	Page 57
B-461	locations	B-461-cus_loca.unl	Locations Table	2.3.07	Page 58
B-443	department	B-443-cus_dept.unl	Department Table	2.3.07	Page 58
B-506	work_center	B-506-cus_wrkc.unl	Work Center Table	2.3.07	Page 58
C-237	customer_default	C-237-cus_cudf.unl	Customer Default Table	2.3.08	Page 61
C-229	sales_stage	C-229-ldc_sstg.unl	Sales Stage Table	2.3.09	Page 62
F-246	account	F-246-cus_acct.unl	GL Account Table	2.3.10	Page 62

This section includes the procedures for setting up foundational database information that is required to operate the **Global Edge** system. This section is divided into the following sub-sections:

- 2.3.01 – Database Instance (refer to Page 53)
- 2.3.02 – Setup Table (refer to Page 54)
- 2.3.03 – CPU Information (refer to Page 55)
- 2.3.04 – Users Table (refer to Page 55)
- 2.3.05 – User Document Launching (refer to Page 57)
- 2.3.06 – Document Folder (refer to Page 57)
- 2.3.07 – Locations / Department / Work Center (refer to Page 58)
- 2.3.08 – Customer Defaults (refer to Page 61)
- 2.3.09 – Sales Stage (refer to Page 62)
- 2.3.10 – Chart of Accounts (refer to Page 62)

Database Setup Steps

1. The first step is to open the **Global Edge® Engineering Assistant** software by clicking on the following desktop icon:



2. This will display the following screen form and menu options:



2.3.01 – Database Instance

This section provides functionality to define multiple database instances within the **Global Edge** system.

Menu Sequence: “Administration > Database Instance > Create / Select”

Load File: (B-590 – ldc_dbin.unl – Table Name: db_instance)

Database Instance (B-590) Table

#	FIELD NAME	TYPE	VALUE
1	instance_num	serial	1
2	db_type	char(1)	D
3	db_name	char(16)	ldc
4	description	char(40)	Demonstration Database Instance
5	parent_num	integer	
6	exchange_path	char(256)	
7	create_date	datetime year to second	4/27/2022 16:46
8	update_date	datetime year to second	4/27/2022 16:47
9	version_no	decimal(8,2)	
10	status	char(1)	E

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2.3.02 – Setup Table

This section provides functionality to define Company Profile information for your company including system and financial profile information.

Menu Sequence: “Administration > Locations/Department/Work Center”

Load File: (B-460-Idc_lset.unl – Table Name: Idc_set_up)

LDC Set-Up (B-460) Table

#	FIELD NAME	TYPE	VALUE
1	company_name	char(35)	Global Edge Windows Demo Server
2	addr1	char(35)	2000 Industrial Blvd.
3	addr2	char(35)	
4	city	char(19)	Milwaukee
5	state	char(2)	WI
6	zip	char(10)	53201
7	country	char(35)	
8	phone	char(12)	414-555-1300
9	op_system	char(1)	W
10	op_sys_flavor	char(16)	Windows
11	op_sys_version	char(16)	11
12	kernel_version	char(16)	
13	db_type	char(1)	I
14	db_version	char(1)	
15	license_accept	char(1)	Y
16	msg_enable	char(1)	Y
17	curr_process	char(1)	A
18	num_of_periods	smallint	12
19	fmonth	smallint	1
20	curr_period_num	integer	4
21	begin_date	date	4/1/2022
22	end_date	date	4/30/2022
23	start_of_year	date	1/1/2022
24	end_of_year	date	12/31/2022
25	week_end_day	smallint	6
26	stax_rate	smallfloat	
27	inv_method	char(1)	L
28	inv_adjust	char(1)	N
29	chk_fmt	char(1)	1
30	ship_post	char(1)	N
31	ship_inv_tran	char(1)	A
32	bank	char(8)	111
33	bank_fees	char(8)	43999
34	AR	char(8)	113
35	AR_deposit	char(8)	

2.3.03 – CPU Information

This section provides functionality to define CPU Information on the PC or Server the **Global Edge** database resides on.

Menu Sequence: “*Manufacturing > Work Center Machines > Find > Machine > CPU-Network > Update*”

Load File: (B-440-ldc_cpui.unl – Table Name: cpu_info)

CPU Information (B-440) Table

#	FIELD NAME	TYPE	VALUE
1	cpu_name	char(32)	globaledge
2	asset_num	integer	1029
3	description	char(32)	Windows 11 PC
4	devise_type	char(1)	S
5	op_system	char(1)	W
6	ip_address	char(32)	127.0.0.1
7	ip6_address	char(48)	
8	subnet_mask	char(32)	
9	default_gateway	char(32)	
10	port_num	integer	80
11	dir_num	integer	
12	doc_dir	char(256)	
13	trans_script	char(32)	
14	def_login	char(16)	

2.3.04 – Users Table

This section provides functionality to define different Users that need access to the **Global Edge** system.

Menu Sequence: “*Administration > Security Maintenance > Users > Update*”

Load File: (B-504-cus_user.unl – Table Name: users)

Users (B-504) Table

#	FIELD NAME	TYPE	VALUE
1	login_name	char(16)	ldc
2	user_type	char(1)	O
3	staff_code	char(3)	LDC
4	employee_no	integer	
5	customer_num	integer	
6	vendor_num	integer	
7	contact_num	integer	
8	asset_num	integer	
9	group_name	char(16)	
10	sys_admin	char(1)	Y

Users (B-504) Table (Continued ...)

#	FIELD NAME	TYPE	VALUE
11	menu_type	char(1)	G
12	menu_multi	char(1)	Y
13	hide_opt	char(1)	N
14	confirm_mode	char(1)	
15	debug	char(1)	N
16	launch_to	char(1)	T
17	ext_login	char(16)	
18	ext_passwd	char(32)	
19	acct_cpu	char(32)	
20	home_dir	char(64)	C:\\GlobalEdge\\
21	doc_dir	char(64)	C:\\GlobalEdge\\doc_dir\\
22	report_dir	char(64)	C:\\GlobalEdge\\report\\
23	cli_doc	char(64)	C:\\GlobalEdge\\doc_dir\\
24	cli_temp	char(256)	
25	cli_report	char(64)	
26	windows_log_dir	char(64)	
27	log_date	char(1)	D
28	dxf_dir	char(64)	
29	model_dir	char(64)	
30	cad_output_dir	char(64)	C:\\
31	email_addr	char(64)	
32	phone_num	char(12)	
33	extension	char(4)	
34	fax_num	char(12)	
35	tickler_range	char(1)	W
36	tickler_incl_prior	char(1)	Y
37	tickler_rep	char(3)	LDC
38	tickler_territory	char(3)	
39	tickler_cust_type	char(3)	
40	tickler_lead_src	char(3)	
41	tickler_authority	char(3)	
42	tickler_action	char(3)	
43	tickler_prod_int	char(3)	
44	tickler_pros_type	char(3)	
45	tickler_stage_from	smallint	1
46	tickler_stage_to	smallint	6

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2.3.05 – User Document Launching

This section provides functionality to define a Command Line on how to launch the Document Editors defined in “Section 2.2.05 – Document Editors” per user login.

Menu Sequence: “Administration > Security Maintenance > Users > Update > ”

Load File: (B-204-cus_usrd.unl – Table Name: user_doc)

User Document Launching (B-204) Table

LOGIN NAME	DOC. SYSTEM	COMMAND LINE
ldc	SLD	C:\Program Files\SOLIDWORKS Corp\SOLIDWORKS\SLDWORKS.exe

2.3.06 – Document Folder

This section provides functionality to define Document Folders that are associated with specific Engineering Projects to store associated documents.

Menu Sequence: “Engineering > Project / ECO Management > Find > Project > Options > Folders”

Load File: (B-593-cus_dfol.unl – Table Name: doc_folder)

Document Folder (B-593) Table

#	FIELD NAME	TYPE	VALUE 1
1	folder_num	serial	1
2	description	char(40)	CAD Models
3	folder_type	char(1)	P
4	customer_num	integer	
5	vendor_num	integer	
6	proj_num	integer	1001
7	phase	integer	
8	eco	integer	
9	job_num	integer	
10	work_pack	integer	
11	oppr_num	integer	
12	order_no	smallint	1
13	cpu_name	char(16)	DESKTOP-CNG0U19
14	folder_path	char(256)	
15	cli_path	char(256)	C:\GlobalEdgeData\work\projects\Proj-1001\

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2.3.07 – Locations / Department / Work Center

This section allows you to define Locations, Departments, Work Centers that matches your manufacturing enterprise. As engineering tasks are processed and stored in the **Global Edge** system, information such as routing steps can include the proper Locations, Department, and Work Center.

Menu Sequence: “Administration > Locations/Department/Work Center > Locations”

Load File: (B-461-cus_loca.unl – Table Name: locations)

Load File: (B-443-cus_dept.unl – Table Name: department)

Load File: (B-506-cus_wrkc.unl – Table Name: work_center)

Locations (B-461) / Department (B-443) / Work Center (B-506) Tables

-	LOCATION #: 1	CORP. HEADQUARTERS / MANUFACTURING	
DEPT #	DEPT NAME	DEPARTMENT DESCRIPTION	CODE
1	ADMINISTRATION	ADMINISTRATION DEPARTMENT	ADM
2	INFORMATION SYSTEMS	INFORMATION SYSTEMS	MIS
3	ACCOUNTING	ACCOUNTING DEPARTMENT	ACT
		WC #	WORK CENTER NAME
		1	ACCOUNTS RECEIVABLE
		2	ACCOUNTS PAYABLE
		3	PAYROLL
4	HUMAN RESOURCES	H.R. DEPARTMENT	HUM
5	SALES & MARKETING	SALES & MARKETING DEPARTMENT	SLS
		WC #	WORK CENTER NAME
		1	OUTSIDE SALES
		2	QUOTING / PRODUCT CONFIGURATION
		3	MARKETING TEAM
-	LOCATION #: 1	CORP. HEADQUARTERS / MANUFACTURING	
6	ENGINEERING	ENGINEERING / R&D DEPARTMENT	ENG
		WC #	WORK CENTER NAME
		1	DESIGN ENGINEERING
		2	PRODUCT ENGINEERING
		3	MANUFACTURING ENGINEERING
7	PURCHASING	PURCHASING DEPARTMENT	PUR
8	MANUFACTURING	MANUFACTURING DEPARTMENT	MFG
		WC #	WORK CENTER NAME
		1	SHEAR-SAW
		2	CUTTING
		3	LASER CUTTING
		4	PUNCHING
		5	DRILLING / PRESS
		6	MACHINING
		7	BENDING-FORMING
		8	GRINDING / FINISHING
		9	WELDING

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Locations (B-461) / Department (B-443) / Work Center (B-506) Tables (Continued ...)

-	LOCATION #: 1	CORP. HEADQUARTERS / MANUFACTURING		
		WC #	WORK CENTER NAME	
		10	PAINT PREP / PAINTING	PNT
		11	ASSEMBLY / LABOR	ASM
		12	INSPECTION / QC	ISP
		13	SUBCONTRACT	SHP
		14	PACKAGING	PKG
		15	SHIPPING	SHP
9	CUSTOM MANUFACTURING	CUSTOM MANUFACTURING DEPARTMENT		MFG
		WC #	WORK CENTER NAME	
		1	SAWING	SAW
		2	TURNING	TRN
		3	MILLING	MLL
		4	GRINDING	GRD
		5	HEAT TREAT	HT
		6	MARKING	MRK
		7	PACKAGING	PKG
10	WAREHOUSE	WAREHOUSE DEPARTMENT		WAR
		WC #	WORK CENTER NAME	
		1	SHIPPING	SHP
		2	RECEIVING	REC
		3	STOCK ROOM	WAR
		4	STORAGE RACKS	WAR
		5	KITTING AREA	WAR
		6	STAGING & CART STORAGE	WAR
11	CUSTOMER SERVICE	CUSTOMER SERVICE DEPARTMENT		CUS
12	PROTOTYPE SHOP	PROTOTYPE SHOP DEPARTMENT		MFG
		WC #	WORK CENTER NAME	
		1	2D/3D LASER CUTTING/WELDING	LSR
		2	CNC PANEL BENDER	BND
		3	CNC HYDRAULIC PRESS BRAKE	PRS
		4	PROTOTYPE SHOP GENERAL	GEN
13	TESTING	TESTING DEPARTMENT		MFG

Locations (B-461) / Department (B-443) / Work Center (B-506) Tables (Continued ...)

-	LOCATION #: 2	CHICAGO MANUFACTURING PLANT	
DEPT #	DEPT NAME	DEPARTMENT DESCRIPTION	CODE
1	ADMINISTRATION	ADMINISTRATION DEPARTMENT	ADM
2	PURCHASING	PURCHASING DEPARTMENT	PUR
3	MANUFACTURING	MANUFACTURING DEPARTMENT	MFG
		WC #	WORK CENTER NAME
		1	SHEET METAL FABRICATING
		2	COMPONENT MANUFACTURING
		3	ELECTRONIC COMPONENT
		4	ASSEMBLY
		5	INSPECTION & TESTING
		6	PACKAGING
4	WAREHOUSE #1	WAREHOUSE #1 DEPARTMENT	WAR
		WC #	WORK CENTER NAME
		1	SHIPPING / RECEIVING
		2	WAREHOUSE
5	WAREHOUSE #2	WAREHOUSE #2 DEPARTMENT	WAR
		WC #	WORK CENTER NAME
		1	SHIPPING / RECEIVING
		2	RAW MATERIALS INVENTORY
		3	FINISHED GOODS INVENTORY
6	CUSTOMER SERVICE	CUSTOMER SERVICE DEPARTMENT	CUS

-	LOCATION #: 3	ST. LOUIS SALES OFFICE	
DEPT #	DEPT NAME	DEPARTMENT DESCRIPTION	CODE
1	ADMINISTRATION	ADMINISTRATION DEPARTMENT	ADM
2	SALES & MARKETING	SALES & MARKETING DEPARTMENT	SLS
3	CUSTOMER SERVICE	CUSTOMER SERVICE DEPARTMENT	CUS

2.3.08 – Customer Defaults

This section provides functionality to set Customer Defaults that automatically populates a customer record with default information as each new customer record is added to the *Global Edge* system.

Menu Sequence: “Administration > Locations/Department/Work Center > Defaults”

Load File: (C-237-cus_cudf.unl – Table Name: customer_default)

Customer Default (C-237) Table

#	FIELD NAME	TYPE	VALUE
1	location_num	integer	1
2	sales_rep	char(3)	HSE
3	territory	char(3)	US1
4	lead_action	char(3)	AWT
5	authority	char(3)	UNK
6	lead_source	char(3)	UNK
7	prospect_type	char(3)	D
8	product_code	char(3)	SMF
9	customer_type	char(3)	MFR
10	cust_status	char(1)	A
11	taxable	char(1)	N
12	finance_charge	char(1)	Y
13	pay_term	char(3)	N30
14	method	char(1)	L
15	list_num	smallint	1
16	bal_method	char(1)	O
17	sales_path	char(256)	C:\\GlobalEdge\\sales\\
18	ar_order	char(256)	
19	path_order	char(1)	T
20	company_fmt	char(1)	N
21	space_fill	char(1)	-
22	doc_link	char(1)	
23	email_in	char(8)	EMAIL-IN
24	email_out	char(8)	EMAIL
25	doc_work_flow	char(1)	S
26	doc_flow_login	char(1)	ldc

2.3.09 – Sales Stage

This section allows you to define the various Sales Stages that your company goes through with each of your prospects.

Menu Sequence: “CRM-Quoting > Sales Management Configuration > Sales-Stage”

Load File: (C-229-ldc_sstg.unl – Table Name: sales_stage)

Sales Stage (C-229) Table

SALES STAGE	DESCRIPTION
1	Get / Qualify Name / Role
2	Initial Conversation / Sent Info
3	Active Prospect
4	Quoting Stage
5	Active Customer
6	Stale Customer
7	Dead Customer

2.3.10 – Chart of Accounts

This section provides functionality to define a General Ledger Chart of Accounts. While this information is not required for system operation, it provides an effective tool to organize the information generated in the **Global Edge** system. Additionally, the General Ledger Chart of Accounts can match your ERP system which will make the transferring of information between **Global Edge** and ERP much more efficient.

Menu Sequence: “Financials > General Ledger > G.L Accounts / Transactions > Accounts”

Load File: (F-246-cus_acct.unl – Table Name: account)

Account (F-246) Table

ACCT #	SUB #	ACCT. NAME	TYPE	DEBIT	CREDIT	TYPE	STATUS
1		ASSETS	Debit	0.00	0.00	S	O
11	1	CURRENT ASSETS	Debit	0.00	0.00	S	O
111	11	CASH IN BANKS	Debit	0.00	0.00	S	O
1111	111	- Checking Account	Debit	0.00	0.00	T	O
1112	111	- Payroll Account	Debit	0.00	0.00	T	O
112	11	- Petty Cash	Debit	0.00	0.00	T	O
113	11	- Accounts Receivable	Debit	0.00	0.00	T	O
114	11	INVENTORY	Debit	0.00	0.00	S	O
114001	114	- SHEET METAL	Debit	0.00	0.00	T	O
114002	114	- ASSEMBLY	Debit	0.00	0.00	T	O
114100	114	- STOCK	Debit	0.00	0.00	T	O
114200	114	- HARDWARE	Debit	0.00	0.00	T	O
114300	114	- OTHER	Debit	0.00	0.00	T	O
114900	114	- WIP	Debit	0.00	0.00	T	O
115	11	- Securities	Debit	0.00	0.00	T	O
116	1	- Office Supplies	Debit	0.00	0.00	T	O
12	1	FIXED ASSETS	Debit	0.00	0.00	S	O

Account (F-246) Table (Continued ...)

2		LIABILITIES	Credit	0.00	0.00	S	O
21	2	SHORT TERM LIABILITIES	Credit	0.00	0.00	S	O
211	21	- Accounts Payable	Credit	0.00	0.00	T	O
213	21	TAXES PAYABLE	Credit	0.00	0.00	S	O
2131	213	- SALES & Use Tax	Credit	0.00	0.00	T	O
2132	213	CORPORATE INCOME TAX	Credit	0.00	0.00	S	O
213201	2132	- Federal Income Tax	Credit	0.00	0.00	T	O
213202	2132	- WI Income Tax Payable	Credit	0.00	0.00	T	O
213203	2132	- IL Income Tax Payable	Credit	0.00	0.00	T	O
213204	2132	- MO Income Tax Payable	Credit	0.00	0.00	T	O
2133	213	- FUTA Payable	Credit	0.00	0.00	T	O
2134	213	- FICA Payable	Credit	0.00	0.00	T	O
2135	213	- State Franch. Payable	Credit	0.00	0.00	T	O
2136	213	- Withheld Fed Payroll	Credit	0.00	0.00	T	O
2137	213	- Withheld State Payroll	Credit	0.00	0.00	T	O
2138	213	- Property Tax Payable	Credit	0.00	0.00	T	O
2139	213	- State UC Tax Payable	Credit	0.00	0.00	T	O
217	21	Employee Benefits	Credit	0.00	0.00	T	O
22	2	LONG TERM LIABILITIES	Credit	0.00	0.00	S	O
221	22	BANK NOTES	Credit	0.00	0.00	S	O
3		STOCKHOLDER'S EQUITY	Credit	0.00	0.00	S	O
31	3	CAPITAL STOCK	Credit	0.00	0.00	S	O
3101	31	- Startup Capital	Credit	0.00	0.00	T	O
32	2	RETAINED EARNINGS	Credit	0.00	0.00	S	O
3201	32	- Operating Profit	Credit	0.00	0.00	T	O
3202	32	- Capital Gains	Credit	0.00	0.00	T	O
3203	32	- Income Taxes	Credit	0.00	0.00	T	O
3204	32	- Dividend Payments	Credit	0.00	0.00	T	O
4		REVENUE	Credit	0.00	0.00	S	O
41	4	SALES OF INVENTORY	Credit	0.00	0.00	S	O
41001	41	- SALES: SHEET METAL	Credit	0.00	0.00	T	O
41002	41	- SALES: ASSEMBLY	Credit	0.00	0.00	T	O
411100	41	- SALES: STOCK	Credit	0.00	0.00	T	O
411200	41	- SALES: HARDWARE	Credit	0.00	0.00	T	O
411300	41	- SALES: OTHER	Credit	0.00	0.00	T	O
42	4	- Service Revenue	Credit	0.00	0.00	T	O
43	4	MISCELLANEOUS REVENUE	Credit	0.00	0.00	S	O
43001	43	- Recovered Bad Debts	Credit	0.00	0.00	T	O
43002	43	- Billable Expenses	Credit	0.00	0.00	T	O
43999	43	- Miscellaneous	Credit	0.00	0.00	T	O
45	4	- Freight Revenue	Credit	0.00	0.00	T	O
44	4	- Interest Revenue	Credit	0.00	0.00	T	O
46	4	Sales Tax Revenue	Credit	0.00	0.00	T	O
48	4	- Discounts Allowed	Debit	0.00	0.00	T	O
49	3	- Returns	Debit	0.00	0.00	T	O

Account (F-246) Table (Continued ...)

5		EXPENSES	Debit	0.00	0.00	S	O
51	5	COST OF GOODS SOLD	Debit	0.00	0.00	S	O
51001	51	- COGS: SHEET METAL	Debit	0.00	0.00	T	O
51002	51	- COGS: ASSEMBLY	Debit	0.00	0.00	T	O
51100	51	- COGS: STOCK	Debit	0.00	0.00	T	O
51200	51	- COGS: HARDWARE	Debit	0.00	0.00	T	O
51300	51	- COGS: OTHER	Debit	0.00	0.00	T	O
52	5	GENERAL & SDMN. EXPENSES	Debit	0.00	0.00	S	O
5201	52	Payroll & Benefits	Debit	0.00	0.00	S	O
52011	5201	PAYROLL	Debit	0.00	0.00	S	O
520111	52011	- Salaried Employees	Debit	0.00	0.00	T	O
520112	52011	- Hourly Employees	Debit	0.00	0.00	T	O
520113	52011	- Company Officers	Debit	0.00	0.00	T	O
52012	5201	- Benefits	Debit	0.00	0.00	T	O
5203	52	OPERATING EXPENSES	Debit	0.00	0.00	S	O
520301	5203	- Building Rent	Debit	0.00	0.00	T	O
520302	5203	- Phone / Internet	Debit	0.00	0.00	T	O
520303	5203	- Utilities	Debit	0.00	0.00	T	O
520311	5203	- IT Consulting Fees	Debit	0.00	0.00	T	O
520312	5203	- Accounting Services	Debit	0.00	0.00	T	O
520313	5203	- Legal Services	Debit	0.00	0.00	T	O
520314	5203	- Mfr Consulting Service	Debit	0.00	0.00	T	O
520315	5203	- Casualty Insurance	Debit	0.00	0.00	T	O
520316	5203	- Office Supplies	Debit	0.00	0.00	T	O
5210	52	Taxes	Debit	0.00	0.00	S	O
52101	5210	- Property Tax	Debit	0.00	0.00	T	O
52102	5210	- Sales and Use Tax	Debit	0.00	0.00	T	O
52104	5210	- Wisc Franchise Tax	Debit	0.00	0.00	T	O
52105	5210	- Employer SS Contrib.	Debit	0.00	0.00	T	O
52106	5210	- State UC Tax	Debit	0.00	0.00	T	O
52107	5210	- FUTA - Fes UC Tax	Debit	0.00	0.00	T	O
52900	52	- Bad Debts	Debit	0.00	0.00	T	O
52999	52	- Miscellaneous	Debit	0.00	0.00	T	O
53	5	SELLING EXPENSE	Debit	0.00	0.00	S	O
54	5	FINANCIAL EXPENSES	Debit	0.00	0.00	S	O
54001	54	- Interest	Debit	0.00	0.00	T	O
55	5	JOB OFFSET ACCOUNTS	Debit	0.00	0.00	S	O
55001	55	- Job Offset Expenses	Debit	0.00	0.00	T	O
55002	55	- Job Rework Expenses	Debit	0.00	0.00	T	O
55003	55	- Job Scrap Expenses	Debit	0.00	0.00	T	O

Section 2.4: Configurator Setup

Global Edge® Engineering Assistant software has a built-in configuration engine that provides the capability to automatically generate routings based on imported CAD part parameters. This section provides the necessary procedures to setup up the **Global Edge** Configuration Engine. The following is a list of the database tables required to setup the configuration engine which includes the ability to pre-load configuration information through spreadsheet data load files, and/or directly through the **Global Edge** User Interface:

Table #	Table Name	Load File	Table Description	Section	Refer To
R-270	inventory	R-270-cus_invt.unl	Inventory Item Master Table	2.4.01	Page 68
R-095	dimension	R-095-cus_dimn.unl	Dimension Table	2.4.01	Page 70
R-091	dim_options	R-091-cus_dmop.unl	Dimension Option Table	2.4.01	Page 72
R-026	assembly	R-026-cus_assm.unl	Assembly Table	2.4.01	Page 73
R-030	assm_dimen	R-030-cus_adim.unl	Assembly Dimension Table	2.4.01	Page 73
R-146	part_route	R-146-cus_parr.unl	Part Route Table	2.4.02	Page 74
R-129	item_proc	R-129-cus_itpr.unl	Item Process Table	2.4.02	Page 76
R-059	cfg_formula	R-059-cus_cfgf.unl	Configuration Formula Table	2.4.03	Page 79
R-112	document	R-112-cus_docu.unl	Document Table	2.4.04	Page 89
R-197	sheet	R-197-cus_shee.unl	Sheet Table	2.4.04	Page 90

This section includes the procedures for setting up the configurator for Automated Routing and Sales Quote Generation that is utilized throughout the **Global Edge** system. This section is divided into the following sub-sections:

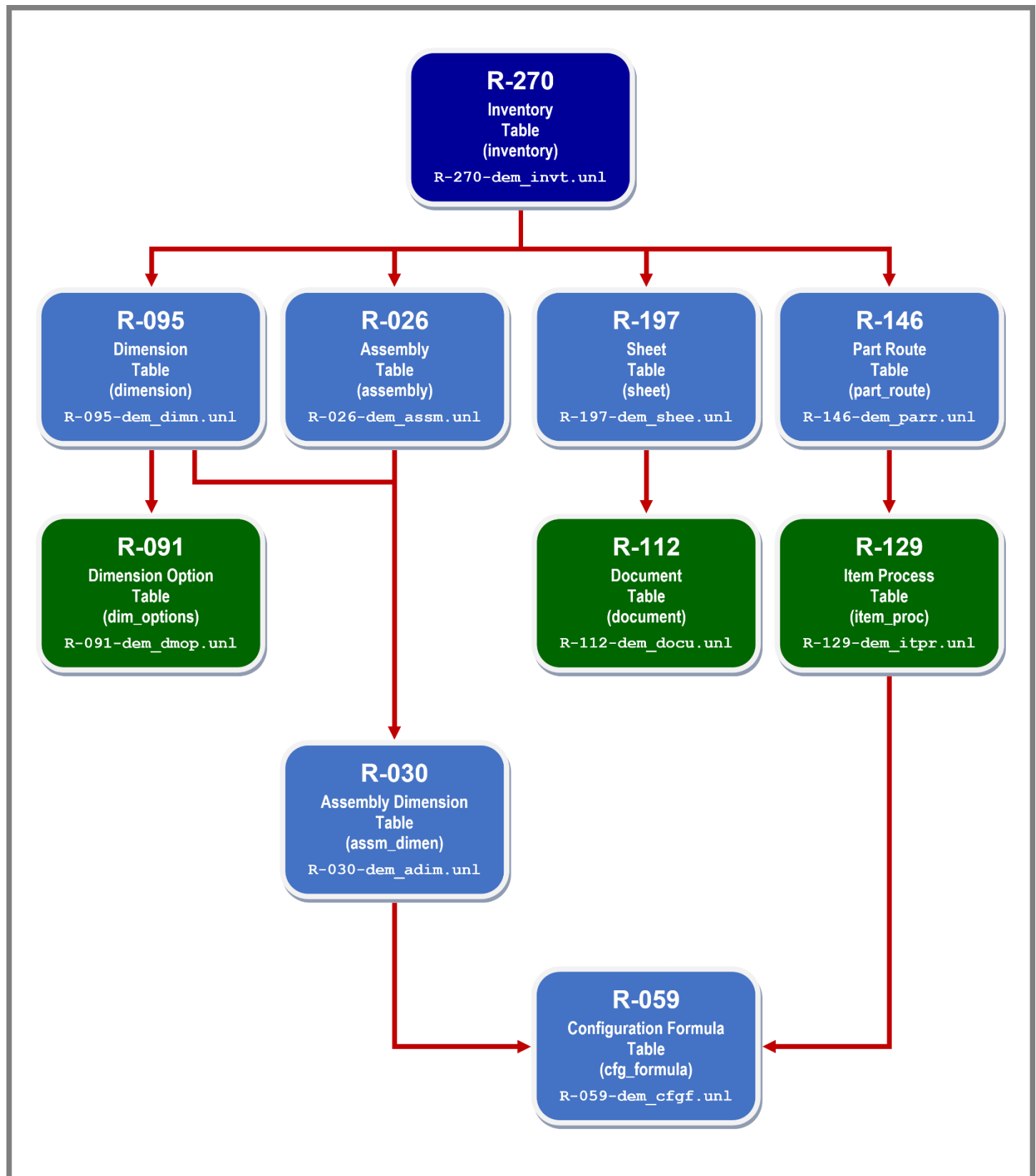
- 2.4.01 – Template Parts, Dimensions, Assemblies (refer to Page 67)
- 2.4.02 – Template Routings (refer to Page 74)
- 2.4.03 – Configuration Rules / Formulas (refer to Page 77)
- 2.4.04 – Template Documents (refer to Page 89)

The setup of the **Global Edge Configurator** follows the Flow Chart Diagram in **Section 2.4.00 – Configurator Setup Table Flow Diagram**. This starts with the defining of Template Parts in the “**R-270 Inventory Item Master Table**” in **Section 2.4.01 – Template Parts, Dimensions, Assemblies**. Once Template Parts are defined, the next step is to add Dimension Parameters, and Dimension Options to each part. This is followed by defining a Bill of Materials structure with the Template parts.

The next step in the Configurator Setup process is to define Template Routings covered in **Section 2.4.02 – Template Routings** that includes a list of all possible routing steps you want to include for a specific Master Configuration, which in our example we have named as “**ROUTING**” as our Master Configuration Part Number. Once this step is accomplished, the next step is to define the Configuration Rules / Formulas that will select routing steps based on the criteria you define which is cover in **Section 2.4.03 – Configuration Rules / Formulas**.

An optional last step is to define Template Documents that will allow you to attach images and other document files to both Template Part Numbers and to configured parts which is covered in **Section 2.4.04 – Template Documents**.

2.4.00 – Configurator Setup Table Flow Chart Diagram

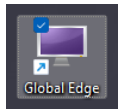


2.4.01 – Template Parts, Dimensions, Assemblies

This section starts the process of setting up the **Global Edge** Configurator. The first step in the process is to create Template Part Numbers. The first Template Part Number is the PART #: **"ROUTING"** which is the top level of the Routing Configurator being defined. Other Template Part Numbers defined in our example are **"DEMO-01-STOCK-OP"** which will be attached to the **"ROUTING"** part number one level down in the assembly and is referred to as a **"STOCK OPTIONS LIST"** that includes available material stock. One more level down in the assembly are the Template Part Numbers for the material stock available. Our example includes the following Template Part Numbers for materials which includes **"304-4"**, **"304-2B"**, **"CRS"**, **"316-2B"**, **"5052-H32"**.

Configurator Setup Steps

1. The first step is to open the **Global Edge® Engineering Assistant** software by clicking on the following desktop icon:



2. This will display the following screen form and menu options:



3. The following Template Parts were added to the database to serve as the first step and foundation for setting up the **Global Edge** Routing Configurator by adding the **“ROUTING”**, **“DEMO-01-STOCK-OP”**, **“304-4”**, **“304-2B”**, **“CRS”**, **“316-2B”**, **“5052-H32”** Template Part Numbers. Select **“Engineering > BOM / Product Configuration”** to display the following screen form and menu options:

Menu Sequence: **“Engineering > BOM / Product Configuration > Find > Part > OK”**

Load File: (R-270-cus_invt.unl – Table Name: inventory)

Inventory (R-270) Table

PART NUMBER	DESCRIPTION	ALIAS	TYPE	MST	CAT.	STYLE	ORIGIN	MTL. CODE	UOM
DEM-01-APRON	APRON	ROUTING	C	N	SHT		M	304-4	EA
DEM-02-LOAD-CTR-BOX	LOAD CENTER BOX	ROUTING	C	N	SHT		M	304-4	EA
DEM-03-BOTTOM-DLH	BOTTOM DISPLAY LIGHT HOUSING	ROUTING	C	N	SHT		M	304-4	EA
DEM-04-HOUSING	SHEET METAL HOUSING	ROUTING	C	N	SHT		M	304-4	EA
DEM-05-PANEL	SHEET METAL PANEL	ROUTING	C	N	SHT		M	CRS	EA
ROUTING	ROUTING CONFIGURATION		P	Y	SHT	DEM	M		EA
DEMO-01-STOCK-OP	DEMO STOCK OPTIONS LIST		O	Y	STK		P		EA
304-4	304-4-STAINLESS STEEL		R	N	STK	SHT	P	304-4	lbs
304-2B	304-2B STAINLESS STEEL		R	N	STK	SHT	P	304-2B	lbs
CRS	COLD ROLLED STEEL		R	N	STK	SHT	P	CRS	lbs
316-2B	316-2B STAINLESS STEEL		R	N	STK	SHT	P	316-2B	lbs
5052-H32	ALUMINUM		R	N	STK	SHT	P	5052-H32	lbs

4. The next step in setting up the **Global Edge** Routing Configurator is to define dimension parameters for each of the Template Parts. Select the **“Find > Part”** option and select the **“ROUTING”** part number:

The screenshot shows the 'Part-Master' form for the 'ROUTING' part. The form includes fields for PART #, REV #, TYPE, PART UOM, LIST, ALIAS OF, ORIGIN, MFR. PART #, CATEGORY, STYLE, MATERIAL, SERIAL, SHIP WEIGHT, STATUS, REBUILT, PART ADDED, MODIFIED, TRANSFER, COST QTY, STANDARD PART COST, QUOTE PART COST, PROCESS COST, COMPONENT COST, MFR. SET-UP COST, ONE TIME CHARGE, ROLL-UP COST, and ROLL-UP DATE. A 'CAD PART FILE NAME' field is also present. Below the form is a small image of a metal part being machined. The status bar at the bottom shows 'Find Part(s)' and 'OVR'.

5. Select the **“Dimensions”** option to display the Dimension Parameters for the **“ROUTING”** part number:

The screenshot shows the 'Dimension-Parameter' form for the 'ROUTING' part. The form includes a table with columns: NUM, DIMENSION, METHOD, VALUE, MIN VALUE, MAX VALUE, CAD ATTRIBUTE, and ACTIVE. The table lists 32 dimensions, all with a value of 0.000000 and a CAD attribute of Yes. The status bar at the bottom shows '64 Dimensions Found' and 'BO31'.

NUM	DIMENSION	METHOD	VALUE	MIN VALUE	MAX VALUE	CAD ATTRIBUTE	ACTIVE
1	Sheet_Length	Standard	inches	0.000000			Yes
2	Sheet_Width	Standard	inches	0.000000			Yes
3	Blank_Length	Standard	inches	0.000000			Yes
4	Blank_Width	Standard	inches	0.000000			Yes
5	Material_Thickness	Standard	inches	0.000000			Yes
6	Perimeter	Standard	inches	0.000000			Yes
7	Flat_Length	Standard	inches	0.000000			Yes
8	Flat_Width	Standard	inches	0.000000			Yes
9	Round_Holes	Standard		0.000000			Yes
10	Round_Sizes	Standard		0.000000			Yes
11	Oround_Holes	Standard		0.000000			Yes
12	Oround_Sizes	Standard		0.000000			Yes
13	Rectang_Holes	Standard		0.000000			Yes
14	Rectang_Sizes	Standard		0.000000			Yes
15	Other_Holes	Standard		0.000000			Yes
16	Other_Sizes	Standard		0.000000			Yes
17	Num_Cutouts	Standard		0.000000			Yes
18	Cutout_Perimeter	Standard	inches	0.000000			Yes
19	Min_Bend_Length	Standard	inches				Yes
20	Max_Bend_Length	Standard	inches	0.000000			Yes
21	Min_Bend_Angle	Standard	inches				Yes
22	Max_Bend_Angle	Standard	inches				Yes
23	Min_Flange_Width	Standard	inches	0.000000			Yes
24	Max_Flange_Width	Standard	inches				Yes
25	Min_Pem_Gap	Standard	inches	0.000000			Yes
26	Min_Dn_Pem_Gap	Standard	inches				Yes
27	Min_Emboss_Gap	Standard	inches	0.000000			Yes
28	Min_Dn_Emboss_Gap	Standard	inches				Yes
29	Min_Louver_Gap	Standard	inches				Yes
30	Min_Dn_Louver_Gap	Standard	inches				Yes
31	Min_Taper_Bl_Gap	Standard	inches				Yes
32	Min_Die_Cutout	Standard	inches				Yes

Load File: (R-095-cus_dimn.unl – Table Name: dimension)

Dimension (R-095) Table

PART NUMBER	DIM #	TYPE	DIM. NAME	UOM
DEMO-01-STOCK-OP	1	N	Flat_Length	inches
DEMO-01-STOCK-OP	2	N	Flat_Width	inches
DEMO-01-STOCK-OP	3	N	Material_Thickness	inches
DEMO-01-STOCK-OP	4	C	Material	
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_BI_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

Dimension (R-095) Table (Continued ...)

PART NUMBER	DIM #	TYPE	DIM. NAME	UOM
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?	
ROUTING	50	C	Embossed_Part?	
ROUTING	51	C	Turret_Laser	
ROUTING	52	C	PressBrk_PanelBend	
ROUTING	53	C	Hardware:	
ROUTING	54	C	Grain_Part?	
ROUTING	55	C	Weld_Part?	
ROUTING	56	C	Deburr_Part?	
ROUTING	57	C	Paint_Part?	
ROUTING	58	C	Assembly?	
ROUTING	59	C	Gasketing?	
ROUTING	60	C	Rivet?	
ROUTING	61	C	General_Labor?	
ROUTING	62	C	Final_Inspect?	
ROUTING	63	C	Package?	
ROUTING	64	C	Shipping?	

6. The next step is to add Dimension Options for Dimensions 49 through 64. When at the **PART** menu with the **"ROUTING"** Template Part Number, select the **"Options > Dimensions > Update"** option and add the following Dimension Options to the following Dimensions:

Load File: (R-091-cus_dmop.unl – Table Name: dim_options)

Dimension Option (R-091) Table

PART NUMBER	DIM #	ROW #	OPTION
ROUTING	49	1	Yes
ROUTING	49	2	No
ROUTING	50	1	Yes
ROUTING	50	2	No
ROUTING	51	1	Turret
ROUTING	51	2	Laser
ROUTING	51	3	Open
ROUTING	52	1	Press-Brake
ROUTING	52	2	Panel-Bender
ROUTING	52	3	Both
ROUTING	52	4	None
ROUTING	53	1	PEM-NUT
ROUTING	53	2	PEM-STUD
ROUTING	53	3	STANDOFF
ROUTING	53	4	RIVET
ROUTING	53	5	SCREW
ROUTING	53	6	None
ROUTING	54	1	Yes
ROUTING	54	2	No
ROUTING	55	1	Yes
ROUTING	55	2	No
ROUTING	56	1	Yes
ROUTING	56	2	No
ROUTING	57	1	Yes
ROUTING	57	2	No
ROUTING	58	1	Yes
ROUTING	58	2	No
ROUTING	59	1	Yes
ROUTING	59	2	No
ROUTING	60	1	Yes
ROUTING	60	2	No
ROUTING	61	1	Yes
ROUTING	61	2	No
ROUTING	62	1	Yes
ROUTING	62	2	No
ROUTING	63	1	Yes
ROUTING	63	2	No
ROUTING	64	1	Yes
ROUTING	64	2	No

7. Select the **“BOM”** option to display the assembly structure for the **“ROUTING”** part number:

BOM-Assembly-List

PART NUMBER: ROUTING TYPE: Product

ROUTING CONFIGURATION

MAXIMUM BOM LEVELS (1 to 99): 5 LEAD TIME >: DAYS

INDENT SPACES PER LEVEL (1 to 3): 3 OVERRIDE EXPLOSION CONTROL (Y/N): No

ITEM	LEVEL	PART #	DESCRIPTION	QTY REQD	UOM	MATES	TRANS #
1	1	DEMO-01-STOCK-OP	DEMO STOCK OPTIONS LIST	1.0000	EA	0	6
2	2	304-2B	304-2B STAINLESS STEEL		lbs	0	7
3	2	304-4	304-4 STAINLESS STEEL		lbs	0	8
4	2	316-2B	316-2B STAINLESS STEEL		lbs	0	9
5	2	5052-H32	ALUMINUM		lbs	0	10
6	2	CRS	COLD ROLLED STEEL		lbs	0	11

BOM67

Change Level & Other Search Criteria

BOM

Add
Update
View
Level
Routings
Dimensions
Gen-Row
NC-Program
CAD-Export
reOrder
gElete
QUIT

Load File: (R-026-cus_assm.unl – Table Name: assembly)

Assembly (R-026) Table

ASSEMBLY #	PART NUMBER	TRANS #	ORDER #	FORMULA	QTY. REQ.	UOM
DEM-01-APRON	304-4	1	1	S	3.6561	lbs
DEM-02-LOAD-CTR-BOX	304-4	2	1	S	12.5235	lbs
DEM-03-BOTTOM-DLH	304-4	3	1	S	1.6054	lbs
DEM-04-HOUSING	304-4	4	1	S	17.4537	lbs
DEM-05-PANEL	CRS	5	1	S	1.9715	lbs
ROUTING	DEMO-01-STOCK-OP	6	1	S	1.0000	EA
DEMO-01-STOCK-OP	304-2B	7	1	F		lbs
DEMO-01-STOCK-OP	304-4	8	2	F		lbs
DEMO-01-STOCK-OP	316-2B	9	3	F		lbs
DEMO-01-STOCK-OP	5052-H32	10	4	F		lbs
DEMO-01-STOCK-OP	CRS	11	5	F		lbs

8. As Dimension Parameters are added to the **“ROUTING”** Template Part Number, the Assembly Dimension Table is automatically populated in the background by the **Global Edge** software:

Load File: (R-030-cus_adim.unl – Table Name: assm_dimen)

Assembly Dimension (R-030) Table

TRANS #	PART NUMBER	DIM #	FORMULA	VALUE	CAD ATTRIBUTE	OPTION
0	DEMO-01-STOCK-OP	1	F			
6	DEMO-01-STOCK-OP	1	F			
0	DEMO-01-STOCK-OP	2	F			
6	DEMO-01-STOCK-OP	2	F			
0	DEMO-01-STOCK-OP	3	F			
6	DEMO-01-STOCK-OP	3	F			
0	DEMO-01-STOCK-OP	4	F			
6	DEMO-01-STOCK-OP	4	F			

2.4.02 – Template Routings

This section is to establish Template Routings that includes a master list of possible routing steps that are specifically selected based on defined Configuration Rules / Formulas (refer to **Section 2.4.04 – Configuration Rules / Formulas**) as the Configurator executes to generated selected routing steps.

9. The next step is to add Template Routings Header to the Template Part Number **“ROUTING”**:

Menu Sequence: “Engineering > BOM / Product Configuration > Find > Part > OK > BOM > Routings”

The screenshot shows the 'ROUTING CONFIGURATION' window. The 'PART #' is 'ROUTING'. The 'ROUTE #' is '1' and 'OF' is '1'. The 'DESCRIPTION' is 'STANDARD PART ROUTING'. The 'TYPE' is 'Standard'. The 'ROUTE SOURCE' is empty. The 'LOCATION LEVEL' is 'None' and 'WORK QUEUE REBUILD' is 'No'. The 'LOCATION #' is empty. The 'DEPT #' is empty. The 'W.C. #' is empty. The 'ASSET #' is empty. The 'OPTIMIZATION' is set to a dropdown. The 'OPTIMIZATION QTY' is empty. The 'SET-UP COST' is highlighted in red. The 'PROCESS COST' is highlighted in green. The 'COMPONENT COST' is highlighted in green. The 'TOTAL COST' is highlighted in green and shows '\$0.00'. The 'ROLL-UP DATE' is empty. A table at the bottom lists routing sequences, with the first sequence (1) having a description of 'Cutting Group' and a total cost of \$0.00. A green bar at the bottom indicates 'FOUND 32 SEQUENCES'.

Load File: (R-146-cus_parr.unl – Table Name: part_route)

Part Route (R-146) Table

PART NUMBER	DESCRIPTION	SETUP COST	PROC. COST	COMP. COST
ROUTING	STANDARD PART ROUTING			
DEM-01-APRON	STANDARD PART ROUTING	142.5000	22.0566	9.1403
DEM-02-LOAD-CTR-BOX	STANDARD PART ROUTING	142.5000	24.2228	31.3088
DEM-03-BOTTOM-DLH	STANDARD PART ROUTING	142.5000	21.7585	4.0135
DEM-04-HOUSING	STANDARD PART ROUTING	142.5000	24.7713	43.6343
DEM-05-PANEL	STANDARD PART ROUTING	142.5000	21.3295	1.6758

10. After adding the Template Routings Header, the next step is to add the available routing steps that will be selected based on the Configuration Rules / Formulas as defined in **Section 2.4.04**:

Menu Sequence: “Engineering > BOM / Product Configuration > Find > Part > OK > BOM > Routings > Add”

BILL OF MATERIALS: Global Edge Windows Demo Server

Routing

PART #: ROUTING ROUTING CONFIGURATION

ROUTE #: 1 OF: 1 DESCRIPTION: STANDARD PART ROUTING OPTIMIZATION:
 TYPE: Standard ROUTE SOURCE: OPTIMIZATION QTY:
 LOCATION LEVEL: None WORK QUEUE REBUILD: No SET-UP COST:
 LOCATION #: PROCESS COST:
 DEPT #: COMPONENT COST:
 W.C. #: TOTAL COST: \$0.00
 ASSET #: ROLL-UP DATE:

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	Process	\$22.50	\$45.0000	1010	WELD-1010	16
17	MIG-WELD	MIG Weld	Process	\$22.50	\$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

FOUND 32 SEQUENCES

BO 10

Add Routing Sequence

ROUTING

Add

Update

View

Delete

Header

Alternate

Reorder

Prod_QTY

Test

QUIT

OVR

Load File: (R-129-cus_itpr.unl – Table Name: item_proc)

Item Process (R-129) Table

PART NUMBER	TRANS #	SEQ #	TYPE	PROCESS	DESCRIPTION	CLASS	WC #	ASSET #	UOM	SETUP	PROC. COST
ROUTING	1	1	G		Cutting Group						
ROUTING	2	2	P	SHEAR	Sheet Metal Shear Operation	SHR	1	1001	hours	0.250000	55.0000
ROUTING	3	3	P	PUNCH	Turret Punch Operation	PNC	4	1004	hours	0.250000	75.0000
ROUTING	4	4	P	EMBOSS	Embossing Operation	PNC	4	1005	hours	0.250000	75.0000
ROUTING	5	5	P	LASER-CUT	Laser Cut Operation	LSR	3	1003	hours	0.100000	140.0000
ROUTING	6	6	E		End of Operation Group						
ROUTING	7	7	G		Forming Group						
ROUTING	8	8	P	BEND	Press Brake Bending Operation	FRM	7	1007	hours	0.500000	75.0000
ROUTING	9	9	P	PANELBEND	Panel Bender Bending Operation	PNL	7	1008	hours	0.100000	120.0000
ROUTING	10	10	E		End of Operation Group						
ROUTING	11	11	G		Hardware / Pem Group						
ROUTING	12	12	P	INSTALL-PEM-NUTS	Install Pem Nuts	PEM	5	1006	hours	0.350000	50.0000
ROUTING	13	13	P	INSTALL-PEM-STUDS	Install Pem Studs	PEM	5	1006	hours	0.350000	50.0000
ROUTING	14	14	E		End of Operation Group						
ROUTING	15	15	G		Welding Group						
ROUTING	16	16	P	TIG-WELD	TIG Weld	WLD	9	1010	hours	0.500000	45.0000
ROUTING	17	17	P	MIG-WELD	MIG Weld	WLD	9	1009	hours	0.500000	45.0000
ROUTING	18	18	E		End of Operation Group						
ROUTING	19	19	P	DEBURR	Deburring Operation	FIN	8	1011	hours	0.200000	45.0000
ROUTING	20	20	P	GRAIN	Graining Operation	FIN	8	1013	hours	0.250000	45.0000
ROUTING	21	21	P	SAND-PAINT-PREP	Sand / Paint / Preparation Operation	WPR	10	1018	hours	0.150000	40.0000
ROUTING	22	22	P	HANGING	Hanging Operation	HNG	10	1015	hours	0.150000	25.0000
ROUTING	23	23	P	WASHING	Washing Operation	WSH	10	1016	hours	0.150000	25.0000
ROUTING	24	24	P	PAINTING	Painting Operation	PNT	10	1017	hours	0.150000	40.0000
ROUTING	25	25	P	CURING	Curing Operation	OVN	10	1019	hours	0.250000	25.0000
ROUTING	26	26	P	ASSEMBLY	Assembly Operation	ASM	11	1021	hours	0.250000	50.0000
ROUTING	27	27	P	RIVET	Riveting Operation	ASM	11	1023	hours	0.250000	50.0000
ROUTING	28	28	P	GASKETING	Gasketing Operation	GSK	11	1024	hours	0.250000	35.0000
ROUTING	29	29	P	GENERAL-LABOR	General Labor Operation	LBR	11	1025	hours	0.250000	50.0000
ROUTING	30	30	P	FINAL-INSPECT	Final Inspection Operation	ISP	12	1026	hours	0.250000	35.0000
ROUTING	31	31	P	PACKAGE	Package Operation	PKG	12	1027	hours	0.250000	35.0000
ROUTING	32	32	P	SHIPPING	Shipping Operation	SHP	15	1028	hours	0.150000	35.0000

2.4.03 – Configuration Rules / Formulas (Process)

This section allows you define Configuration Rules / Formulas for the Template Routing defined in **Section 2.4.02 – Template Routings**. These Rules / Formulas will determine whether a specific routing step is selected based on the CAD Part Parameters included with a specific part, typically a sheet metal part, but can include any type of manufactured or fabricated part.

- After adding the Template Routing Steps in the previous section, the next step is to define Configuration Rules / Formulas that will select the routing step utilizing imported CAD part parameters:

Menu Sequence: “Update > OK”

BILL OF MATERIALS: Global Edge Windows Demo Server

Routing

PART #: ROUTING ROUTING CONFIGURATION

ROUTE #: 1 OF: 1 DESCRIPTION: STANDARD PART ROUTING OPTIMIZATION:
 TYPE: Standard ROUTE SOURCE:
 LOCATION LEVEL: None WORK QUEUE REBUILD: No OPTIMIZATION QTY:
 LOCATION #:
 DEPT #:
 W.C. #:
 ASSET #:
 SET-UP COST:
 PROCESS COST:
 COMPONENT COST:
 TOTAL COST: \$0.00
 ROLL-UP DATE:

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

FOUND 32 SEQUENCES

BO10

OK Cancel

OVR

12. After adding the Template Routing Steps in the previous section, the next step is to define Configuration Rules / Formulas that will select the routing step utilizing imported CAD part parameters:

BILL OF MATERIALS: Global Edge Windows Demo Server

Routing-Details Run-Quantity Vendor-Qty Inspections Alt-Machine-Tools

ROUTING-DETAIL

Update

Components

Run-quantity

Vendor-qty

Dimensions

docuMents

nc-Program

mfr-Test

Notes

History

QUIT

Routing Information

PART #: ROUTING ROUTING CONFIGURATION

SEQ. #: 2 PROCESS TYPE: Process CLASS: SHEAR-BLANK

PROCESS: SHEAR OPTIMIZATION:

Sheet Metal Shear Operation STD. PROCESS COST RATE: \$55.0000

COST METHOD: Time

COST METHOD QTY: 1.000000

COST METHOD UOM: hours

SET-UP TIME MODE: Calculated

SET-UP TIME: 0.250000

SET-UP TIME COST: \$13.75

LEVEL: Standard

SUB OF:

VENDOR: No

LOCATION: 1 CORP. HEADQUARTERS / MANUFACTURING

DEPT #: 8 MANUFACTURING

WC #: 1 SHEAR-SAW

MACHINE: 1001 Squaring Shear with Return Feed

MARK UP METHOD: None

MARK UP PRECENT:

MARK UP AMOUNT:

MFR TEST:

TEST STATUS:

ALT. OK: All

START GAP:

INTERVAL:

NEXT STEP:

PROC. TIME METHOD: Formula

PROC. COST METHOD: Labor

TIME BASE: Labor Hours

PROCESS COST FACTOR: 1.000000

TIME/UNIT: HR(S)

UNITS/HOUR:

STD. UNIT PROCESS COST: \$55.0000

TRANS #: 2

CURVE PROMPT: No

DEFAULT CURVE:

COMPLEXITY PROMPT: No

FACTOR:

COMPLEX TIME/UNIT: HR(S)

COMPLEX UNITS/HOUR:

COMPLEX UNIT COST:

JOB COST METHOD: Actual

DEBUG MODE: No

B004

Update Current Part Routing

OVR

Menu Sequence: "Update > F10-Process Time > F6-Formula"

BILL OF MATERIALS: Global Edge Windows Demo Server

Configuration-Formula

TYPE: PROCESS DIM: LINK: CURRENT LINE: SCREEN: TOTAL: 9

ROW	ACTION	DESCRIPTION
1	IF	IF
2	DIM	[ROUTING (DIM)Blank_Before_Cut?]
3	=	EQUAL TO
4	A	ALPHA Yes
5	THEN	THEN
6	K	CONSTANT 0.010000
7	ELSE	ELSE
8	K	CONSTANT 0.000000
9	FI	END IF

Update Formula

Load File: (R-059-cus_cfgf.unl – Table Name: cfg_formula)

Configuration Formula (R-059) Table (Process Rules)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
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			
3			P	ROUTING	3	1	IF			
3	ROUTING	51	P	ROUTING	3	2	DIM		Turret_Laser	
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			
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			

Configuration Formula (R-059) Table (Process Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
5			P	ROUTING	5	1	IF			
5			P	ROUTING	5	2	(			
5	ROUTING	51	P	ROUTING	5	3	DIM		Turret_Laser	
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			
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	52	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	52	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			

Configuration Formula (R-059) Table (Process Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
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	52	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	52	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			
12			P	ROUTING	12	1	IF			
12			P	ROUTING	12	2	(			
12	ROUTING	53	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			
13			P	ROUTING	13	1	IF			
13			P	ROUTING	13	2	(			
13	ROUTING	53	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			
16			P	ROUTING	16	1	IF			
16	ROUTING	55	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			

Configuration Formula (R-059) Table (Process Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
17			P	ROUTING	17	1	IF			
17	ROUTING	55	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			
19			P	ROUTING	19	1	IF			
19	ROUTING	56	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			
20			P	ROUTING	20	1	IF			
20	ROUTING	54	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			
21			P	ROUTING	21	1	IF			
21	ROUTING	57	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			
22			P	ROUTING	22	1	IF			
22	ROUTING	57	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			

Configuration Formula (R-059) Table (Process Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
23			P	ROUTING	23	1	IF			
23	ROUTING	57	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			
24			P	ROUTING	24	1	IF			
24	ROUTING	57	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			
25			P	ROUTING	25	1	IF			
25	ROUTING	57	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			
26			P	ROUTING	26	1	IF			
26	ROUTING	58	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			
27			P	ROUTING	27	1	IF			
27	ROUTING	60	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			
28			P	ROUTING	28	1	IF			
28	ROUTING	59	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			

Configuration Formula (R-059) Table (Process Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
29			P	ROUTING	29	1	IF			
29	ROUTING	61	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			
30			P	ROUTING	30	1	IF			
30	ROUTING	62	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			
31			P	ROUTING	31	1	IF			
31	ROUTING	63	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			
32			P	ROUTING	32	1	IF			
32	ROUTING	64	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			

13. The next step is to return to the **PART** menu and retrieve Part Number **“DEMO-01-STOCK-OP”**:

14. Select **“BOM”** option to display the following screen form and menu options:

ITEM	LEVEL	PART #	DESCRIPTION	QTY REQD	UOM	MATES	TRANS #
1	1	304-2B	304-2B STAINLESS STEEL		lbs	0	7
2	1	304-4	304-4 STAINLESS STEEL		lbs	0	8
3	1	316-2B	316-2B STAINLESS STEEL		lbs	0	9
4	1	5052-H32	ALUMINUM		lbs	0	10
5	1	CRS	COLD ROLLED STEEL		lbs	0	11

15. Select **“Update”** option and select the first sub-component on the **DEMO STOCK OPTIONS LIST**:

The screenshot shows the 'BILL OF MATERIALS: Global Edge Windows Demo Server' window. The 'BOM-Assembly-List' tab is active. The 'Select Item to Update, then Press [OK]:' field is empty. The 'PART NUMBER:' is 'DEMO-01-STOCK-OP' and the 'TYPE:' is 'Option'. The 'DEMO STOCK OPTIONS LIST' is displayed with the following data:

ITEM	LEVEL	PART #	DESCRIPTION	QTY REQD	UOM	MATES	TRANS#
1	1	304-2B	304-2B STAINLESS STEEL		lbs	0	7
2	1	304-4	304-4 STAINLESS STEEL		lbs	0	8
3	1	316-2B	316-2B STAINLESS STEEL		lbs	0	9
4	1	5052-H32	ALUMINUM		lbs	0	10
5	1	CRS	COLD ROLLED STEEL		lbs	0	11

Buttons on the right include OK, Cancel, F6-Details, and F7-Image. The status bar shows 'BO67' and 'OVR'.

16. Select **“OK”** to display the following screen form and menu options:

The screenshot shows the 'BILL OF MATERIALS: Global Edge Windows Demo Server' window with the 'Assembly-Edit' tab active. The 'LINE #' is '1' and the 'TRANS #' is '7'. The 'PART #' is '304-2B' and the 'DESCRIPTION' is '304-2B STAINLESS STEEL'. The 'QTY:' is 'Formula' and the 'UOM:' is 'lbs'. The 'ACCURACY:' is 'Exact' and the 'MTRL YIELD:' is '%'. The 'REF:' is empty and the 'TYPE:' is 'Raw-Material'. The 'DIMENSIONS/PARAMETERS' table is empty. The 'METHOD' table is empty. The 'VALUES' table is empty. The 'UOM' table is empty. The 'STD/OPT:' is 'Standard Part'. The 'ALT:' is 'No'. The 'EXPLODE:' is 'Yes'. The 'LINE:' is '1' and the 'OF:' is '7'. The 'BILL TYPE:' is 'S' and the 'STANDARD' is 'STANDARD'. The 'MAX. BOM LINES:' is '0'. The 'DIM. PARAM:' is 'No'. The 'SHIP WEIGHT:' is '0.0'. The 'NOTE LINES:' is '0'. The 'CAD GROUND:' is 'No'. The 'CURRENT LIST PRICE:' is '\$0.00 / lbs'. The 'CFG MODEL COPY:' is 'No'. The 'CURRENT STD. COST:' is '\$2,1000 / lbs'. The 'DEBUG MODE:' is 'No'. Buttons on the right include Update, Instances, Reference, Notes, Cost, Documents, and QUIT. The status bar shows 'BO09' and 'OVR'.

17. Select **“Update > F6-Formula”** to display the following screen form and menu options:

Load File: (R-059-cus_cfgf.unl – Table Name: cfg_formula)

Configuration Formula (R-059) Table (Quantity Rules)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
7			Q	304-2B		1	IF			
7	DEMO-01-STOCK-OP	4	Q	304-2B		2	DIM	0	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	0	Flat_Length	
7			Q	304-2B		7	*			
7	DEMO-01-STOCK-OP	2	Q	304-2B		8	DIM	0	Flat_Width	
7			Q	304-2B		9				
7	DEMO-01-STOCK-OP	3	Q	304-2B		10	DIM	0	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			
8			Q	304-4		1	IF			
8	DEMO-01-STOCK-OP	4	Q	304-4		2	DIM	0	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	0	Flat_Length	
8			Q	304-4		7	*			
8	DEMO-01-STOCK-OP	2	Q	304-4		8	DIM	0	Flat_Width	
8			Q	304-4		9	*			
8	DEMO-01-STOCK-OP	3	Q	304-4		10	DIM	0	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			

Configuration Formula (R-059) Table (Quantity Rules – Continued ...)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
9			Q	316-2B		1	IF			
9	DEMO-01-STOCK-OP	4	Q	316-2B		2	DIM	0	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	0	Flat_Length	
9			Q	316-2B		7	*			
9	DEMO-01-STOCK-OP	2	Q	316-2B		8	DIM	0	Flat_Width	
9			Q	316-2B		9	*			
9	DEMO-01-STOCK-OP	3	Q	316-2B		10	DIM	0	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			
10			Q	5052-H32		1	IF			
10	DEMO-01-STOCK-OP	4	Q	5052-H32		2	DIM	0	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	0	Flat_Length	
10			Q	5052-H32		7	*			
10	DEMO-01-STOCK-OP	2	Q	5052-H32		8	DIM	0	Flat_Width	
10			Q	5052-H32		9	*			
10	DEMO-01-STOCK-OP	3	Q	5052-H32		10	DIM	0	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			
11			Q	CRS		1	IF			
11	DEMO-01-STOCK-OP	4	Q	CRS		2	DIM	0	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	0	Flat_Length	
11			Q	CRS		7	*			
11	DEMO-01-STOCK-OP	2	Q	CRS		8	DIM	0	Flat_Width	
11			Q	CRS		9	*			
11	DEMO-01-STOCK-OP	3	Q	CRS		10	DIM	0	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			

Configuration Formula (R-059) Table (Dimension Rules)

TRANS #	SRC. PART #	DIM SRC.	TYPE	PART #	DIM #	ORDER #	ACTION	ROW #	DESC. MASK	F. CONST.
6	ROUTING	7	D	DEMO-01-STOCK-OP	1	1	DIM		Flat_Length	
6	ROUTING	8	D	DEMO-01-STOCK-OP	2	1	DIM		Flat_Width	
6	ROUTING	5	D	DEMO-01-STOCK-OP	3	1	DIM		Material_Thickness	
6	ROUTING	46	D	DEMO-01-STOCK-OP	4	1	DIM		Material	

2.4.04 – Template Documents

This section involves establishing Template Documents and images that can be attached to Template Part Numbers.

18. After defining Template Parts, Assemblies, Dimensions, Routings, and Configuration Formulas / Rules, the optional next step is to define Template Documents which includes the documents listed below:

Menu Sequence: “Engineering > Document Control > Documents > Find”

Load File: (R-112-cus_docu.unl – Table Name: document)

Document (R-112) Table

DOC #	DESCRIPTION	DOCUMENT NAME	FORMAT	TYPE	STYLE	SYSTEM	TEMPLATE
1001	APRON	DEM-01-APRON.sldprt	SDP	PRT	MCH	SLD	Y
1002	LOAD CENTER BOX	DEM-02-LOAD-CTR-BOX.sldprt	SDP	PRT	MCH	SLD	Y
1003	BOTTOM DISPLAY LIGHT HOUSING	DEM-03-BOTTOM-DLH.sldprt	SDP	PRT	MCH	SLD	Y
1004	SHEET METAL HOUSING	DEM-04-HOUSING.sldprt	SDP	PRT	MCH	SLD	Y
1005	SHEET METAL PANEL	DEM-05-PANEL.sldprt	SDP	PRT	MCH	SLD	Y
1006	APRON	DEM-01-APRON.bmp	BMP	IMG	BMP	IE	N
1007	LOAD CENTER BOX	DEM-02-LOAD-CTR-BOX.bmp	BMP	IMG	BMP	IE	N
1008	BOTTOM DISPLAY LIGHT HOUSING	DEM-03-BOTTOM-DLH.bmp	BMP	IMG	BMP	IE	N
1009	SHEET METAL HOUSING	DEM-04-HOUSING.bmp	BMP	IMG	BMP	IE	N
1010	SHEET METAL PANEL	DEM-05-PANEL.bmp	BMP	IMG	BMP	IE	N
1011	APRON	DEM-01-APRON.pdf	PDF	PRT	MCH	ACR	N
1012	LOAD CENTER BOX	DEM-02-LOAD-CTR-BOX.pdf	PDF	PRT	MCH	ACR	N
1013	BOTTOM DISPLAY LIGHT HOUSING	DEM-03-BOTTOM-DLH.pdf	PDF	PRT	MCH	ACR	N
1014	SHEET METAL HOUSING	DEM-04-HOUSING.pdf	PDF	PRT	MCH	ACR	N
1015	SHEET METAL PANEL	DEM-05-PANEL.pdf	PDF	PRT	MCH	ACR	N
1016	APRON	DEM-01-APRON.dxf	DXF	PRT	MCH	ACD	N
1017	LOAD CENTER BOX	DEM-02-LOAD-CTR-BOX.dxf	DXF	PRT	MCH	ACD	N
1018	BOTTOM DISPLAY LIGHT HOUSING	DEM-03-BOTTOM-DLH.dxf	DXF	PRT	MCH	ACD	N
1019	SHEET METAL HOUSING	DEM-04-HOUSING.dxf	DXF	PRT	MCH	ACD	N
1020	SHEET METAL PANEL	DEM-05-PANEL.dxf	DXF	PRT	MCH	ACD	N
1021	ROUTING CONFIGURATION	ROUTING.bmp	BMP	IMG	BMP	IE	N
1022	ALUMINUM STOCK	STOCK-AL.bmp	BMP	IMG	BMP	IE	N
1023	COLD ROLL STEEL STOCK	STOCK-CRS.bmp	BMP	IMG	BMP	IE	N
1024	GALVANIZED STOCK	STOCK-GAL.bmp	BMP	IMG	BMP	IE	N
1025	HOT ROLLED PICKLED STOCK	STOCK-HRP.bmp	BMP	IMG	BMP	IE	N
1026	STAINLESS STEEL STOCK	STOCK-SS.bmp	BMP	IMG	BMP	IE	N
1027	STOCK OPTIONS LIST	STOCK-OP.bmp	BMP	IMG	BMP	IE	N

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19. After defining Template Documents, the next step is to attach them to part numbers contained in the *Global Edge* database.

Menu Sequence: “Engineering > BOM / Product Configuration > Find > Part > Document”

Load File: (R-197-cus_shee.unl – Table Name: sheet)

Sheet (R-197) Table

PART NUMBER	TRANS #	SHEET #	DOC. #
DEM-01-APRON	1	1	1001
DEM-02-LOAD-CTR-BOX	2	1	1002
DEM-03-BOTTOM-DLH	3	1	1003
DEM-04-HOUSING	4	1	1004
DEM-05-PANEL	5	1	1005
DEM-01-APRON	6	2	1006
DEM-02-LOAD-CTR-BOX	7	2	1007
DEM-03-BOTTOM-DLH	8	2	1008
DEM-04-HOUSING	9	2	1009
DEM-05-PANEL	10	2	1010
DEM-01-APRON	11	3	1011
DEM-02-LOAD-CTR-BOX	12	3	1012
DEM-03-BOTTOM-DLH	13	3	1013
DEM-04-HOUSING	14	3	1014
DEM-05-PANEL	15	3	1015
DEM-01-APRON	16	4	1016
DEM-02-LOAD-CTR-BOX	17	4	1017
DEM-03-BOTTOM-DLH	18	4	1018
DEM-04-HOUSING	19	4	1019
DEM-05-PANEL	20	4	1020
ROUTING	21	1	1021
STOCK-AL	22	1	1022
STOCK-CRS	23	1	1023
STOCK-GAL	24	1	1024
STOCK-HRP	25	1	1025
STOCK-SS	26	1	1026
DEMO-01-STOCK-OP	27	1	1027

Section 2.5: Machine Tool / Bend Process Setup

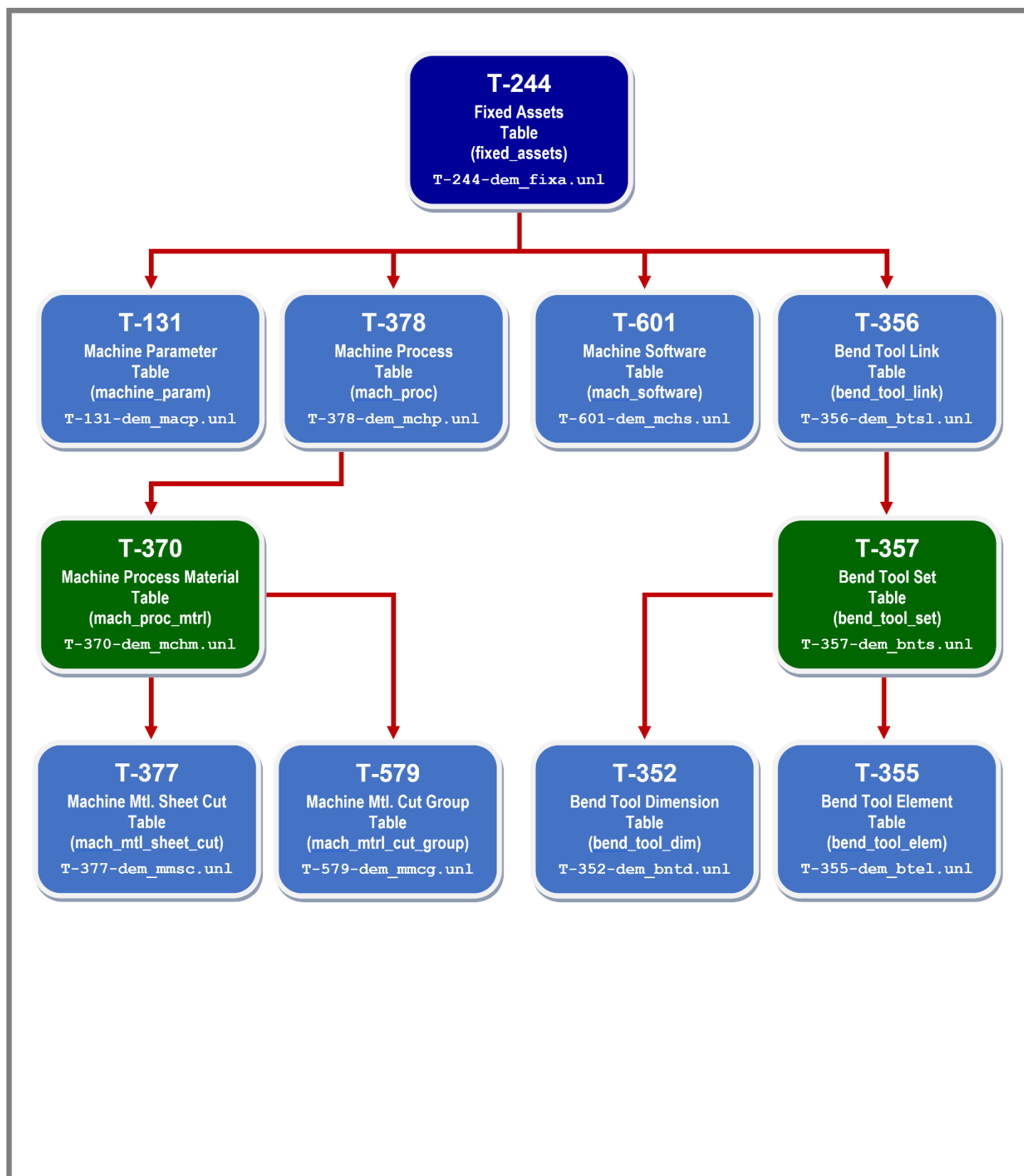
Global Edge® Engineering Assistant software has the capability of defining machine tools and bending processes for the purpose of quoting, manufacturability testing, and shop floor data preparation. This section includes the setup of the following database tables:

Table #	Table Name	Load File	Table Description	Section	Refer To
T-244	fixed_assets	T-244-cus_fixa.unl	Fixed Assets Table	2.5.01.01	Page 95
T-131	machine_param	T-131-cus_macp.unl	Machine Parameter Table	2.5.01.02	Page 97
T-378	mach_proc	T-378-cus_mchp.unl	Machine Process Table	2.5.01.03	Page 98
T-370	mach_proc_mtrl	T-370-cus_mchm.unl	Machine Process Material Table	2.5.01.04	Page 101
T-377	mach_mtl_sheet_cut	T-377-cus_mmsh.unl	Machine Material Sheet Cut Table	2.5.01.05	Page 102
T-579	mach_mtrl_cut_grp	T-579-cus_mmcg.unl	Machine Material Cut Group Table	2.5.01.06	Page 106
T-601	mach_software	T-601-cus_mchs.unl	Machine Software Table	2.5.01.07	Page 107
T-357	bend_tool_set	T-357-cus_bnts.unl	Bend Tool Set Table	2.5.02.01	Page 108
T-356	bend_tool_link	T-356-cus_btst.unl	Bend Tool Link Table	2.5.02.02	Page 109
T-612	bend_process	T-612-cus_bndp.unl	Bend Process Table	2.5.03.01	Page 110
T-600	bend_proc_link	T-600-cus_bnpl.unl	Bend Process Link Table	2.5.03.02	Page 113
T-618	sheet_dxf_features	T-618-cus_shdf.unl	Sheet DXF Features Table	2.5.03.03	Page 115
T-617	dxf_extend	T-617-cus_dxed.unl	DXF Extension Table	2.5.04.01	Page 118
T-613	mfr_test	T-613-cus_mfrt.unl	Manufacturing Test Table	2.5.05.01	Page 121
T-615	mfr_test_param	T-615-cus_mfrp.unl	Manufacturing Test Parameter Table	2.5.05.02	Page 123
T-642	mfr_messages	T-642-cus_mfrm.unl	Manufacturing Error Messages Table	2.5.05.03	Page 126

This section includes the procedures for setting up Bend Processes and Tooling that are utilized throughout the **Global Edge** system. This section is divided into the following sub-sections:

- 2.5.01 – Machine Tools / Parameters (refer to Page 93)
- 2.5.02 – Bend Tool Set (refer to Page 108)
- 2.5.03 – Bend Process (refer to Page 110)
- 2.5.04 – DXF Extension (refer to Page 118)
- 2.5.05 – Manufacturing Test (refer to Page 121)

2.5.00 – Machine Tool Database Table Flow Chart Diagram



2.5.01 – Machine Tools / Parameters

Machine Tool / Bend Process Setup Steps

1. The first step is to open the **Global Edge® Engineering Assistant** software by clicking on the following desktop icon:



2. This will display the following screen form and menu options:



3. Select **"Manufacturing > Work Center Machines"** to display the following screen form and menu options:

A screenshot of the "WORK CENTER MACHINES: Global Edge Windows Demo Server" form. The form is divided into two main sections. The left section contains input fields for: ASSET NUMBER (with a red highlight), TYPE (dropdown), REFERENCE #, LOCATION #, DEPARTMENT #, WORK CENTER #, ASSET CAT, NC PROGRAM ID, MODEL NUMBER, SERIAL #, MACHINE TYPE, COST RATE, BILL RATE, and APPLIED BURDEN ACCOUNT. The right section is a vertical menu titled "ASSET" with buttons: Add, Find, Next, Previous, Goto, Update, proCess, Tools, Software, nc prOgrams, paraMeters, Environment, gervIce, ghIFt, traVellers, DocuMents, Reports, deLeTe, Work Queue, spu-netwoRK, and QUIT. At the bottom left, there is a "MRW1" label and an "Add New Machine" button. At the bottom right, there is an "OVR" button.

4. Select **“Find > Machine”** and select **ASSET #: “1003”**:

WORK CENTER MACHINES: Global Edge Windows Demo Server

Work-Center-Machine

ASSET NUMBER: 1003 CNC Laser System

TYPE: Production

REFERENCE #: LASER-1003

LOCATION #: 1 CORP. HEADQUARTERS / MANUFACTURING

DEPARTMENT #: 8 MANUFACTURING

WORK CENTER #: 3 LASER CUTTING

ASSET CAT: PRD PRODUCTION MACHINE TYPE: LASER

NC PROGRAM ID:

MODEL NUMBER:

SERIAL #:

COST RATE: \$140.00

BILL RATE: \$182.00

APPLIED BURDEN ACCOUNT:

ASSET

Add

Find

Next

Previous

Goto

Update

proCess

Tools

Software

nc prOgrams

paraMeters

Environment

gervIce

ghIFt

traVelers

Documents

Reports

delete

Work Queue

gpu-networK

QUIT

MRW1

Find Search Options

OVR

2.5.01.01 – Fixed Assets (T-244) Table

Load File: (T-244-cus_fixa.unl – Table Name: fixed_assets)

Fixed Assets (T-244) Table

ASSET #	REF #	DESCRIPTION	CAT.	TYPE	WC #	COST RATE	BILL RATE
1001	SHEAR-1001	Squaring Shear with Return Feed	PRD	SHEAR	1	\$55.00	\$71.50
1002	SHEAR-1002	Shear Punch	PRD	SHEAR-PN	1	\$55.00	\$71.50
1003	LASER-1003	CNC Laser System	PRD	LASER	3	\$140.00	\$182.00
1004	TURRET-1004	CNC Turret Punch Press	PRD	TURRET	4	\$75.00	\$97.50
1005	TURRET-1005	Embossing Station	PRD	TURRET	4	\$35.00	\$45.50
1006	PEM-1006	Pemserter	PRD	PEMSERT	5	\$25.00	\$32.50
1007	PB-1007	CNC Hydraulic Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1008	PANEL-1008	CNC Panel Bender	PRD	PANEL-B	7	\$120.00	\$156.00
1009	WELD-1009	MIG Welder	PRD	WELDING	9	\$45.00	\$58.50
1010	WELD-1010	TIG Welder	PRD	WELDING	9	\$45.00	\$58.50
1011	FINISH-1011	Deburring Machine	PRD	FINISH	8	\$50.00	\$65.00
1012	FINISH-1012	Belt Sander	PRD	FINISH	8	\$25.00	\$32.50
1013	GRAIN-1013	Graining Machine	PRD	OTHER	8	\$45.00	\$58.50
1014	POLISH-1014	Polisher Station	PRD	POLISH	8	\$45.00	\$58.50
1015	HANG-1015	Hanging Station	PRD	HANGING	10	\$25.00	\$32.50
1016	WASH-1016	Wash Station	PRD	WASH	10	\$25.00	\$32.50
1017	PAINT-1017	Paint Booth	PRD	PAINT	10	\$40.00	\$52.00
1018	PAINT-1018	Sand-Paint Prep Station	PRD	PAINT	10	\$40.00	\$52.00
1019	OVEN-1019	Cure Oven	PRD	OVEN	10	\$25.00	\$32.50
1020	KITTING-1020	Kitting Station	PRD	KITTING	11	\$50.00	\$65.00
1021	ASSM-1021	Assembly Line	PRD	ASSEMBLY	11	\$50.00	\$65.00
1022	PRESS-1022	Press	PRD	ASSEMBLY	11	\$50.00	\$65.00
1023	ASSM-1023	Rivetor	PRD	ASSEMBLY	11	\$50.00	\$65.00
1024	GASKET-1024	Gasketing Station	PRD	GASKET	11	\$35.00	\$45.50
1025	LABOR-1025	General Labor	PRD	GENERAL	11	\$50.00	\$65.00
1026	INSPECT-1026	Inspection Station	PRD	INSPECT	12	\$35.00	\$45.50
1027	PACK-1027	Packaging Station	PRD	PACKAGE	14	\$35.00	\$45.50
1028	SHIP-1028	Shipping Station	PRD	SHIPPING	15	\$35.00	\$45.50
1029	WINDOWS	Windows Server	CMP			\$0.00	\$0.00
1030	CI-PB-1030	Cincinnati 135 MX8 Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1031	CI-PB-1031	Cincinnati 90 AF Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1032	CI-PB-1032	Cincinnati 135 AF Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1033	CI-PB-1033	Cincinnati 175 AF Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1034	CI-PB-1034	Cincinnati 230 AF Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1035	CI-PB-1035	Cincinnati 350 AF Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1036	FL-1-1036	Fork Lift #1	PRD	GENERAL		\$0.00	\$0.00
1037	FL-2-1037	Fork Lift #2	PRD	GENERAL		\$0.00	\$0.00
1038	CART #1-1038	Inventory Cart #1	PRD	GENERAL		\$0.00	\$0.00
1039	CART #2-1039	Inventory Picking and Stocking Cart	PRD	GENERAL		\$0.00	\$0.00
1040	GRIND-1040	Small Manual Grinding Station	PRD	WELDGRND	8	\$25.00	\$32.50
1041	CI-SHR-1041	Cincinnati HS Series Shear	PRD	SHEAR	1	\$55.00	\$71.50

2.5.01.01 – Fixed Assets (T-244) Table (Continued ...)

ASSET #	REF #	DESCRIPTION	CAT.	TYPE	WC #	COST RATE	BILL RATE
1042	WELDING-1042	Medium Manual Door Bay Station (Line 1)	PRD	WELDING	9	\$45.00	\$58.50
1043	WLDSTUD-1043	Med. Manual Studding Mach (Capacitive)	PRD	WELDSTUD	9	\$45.00	\$58.50
1044	WLDTACK-1044	Medium Manual Tack Machine (Line 1)	PRD	WELDTACK	9	\$45.00	\$58.50
1045	WLDSPOT-1045	Medium Manual Spot Welding Station	PRD	WELDSPOT	9	\$45.00	\$58.50
1046	SCREEN-1046	Screen Printing Machine	PRD	OTHER	10	\$40.00	\$52.00
1047	CHROME-1047	Chromating / Etching Machine	PRD	OTHER	8	\$85.00	\$110.50
1048	MASK-1048	Masking Machine	PRD	OTHER	10	\$40.00	\$52.00
1049	DRESS-1049	Dressing Machine	PRD	OTHER	9	\$45.00	\$58.50
1050	SHAKE-1050	Shake-Out Machine	PRD	OTHER	8	\$75.00	\$97.50
1051	PUNCH-1051	Punch & Plasma Machine	PRD	OTHER	2	\$75.00	\$97.50
1052	STAMP-1052	Stamping Machine	PRD	OTHER	7	\$75.00	\$97.50
1053	WORK-1053	Work Bench Table	PRD	ASSEMBLY	11	\$50.00	\$65.00
1054	CORNER-1054	Corner Machine	PRD	OTHER	7	\$75.00	\$97.50
1055	PR-BRK-1055	JOG Press Brake	PRD	PR-BRAKE	7	\$75.00	\$97.50
1056	ROLLER-1056	Roller Machine	PRD	OTHER	7	\$75.00	\$97.50

5. Select **“Parameters”** option to display following screen form and menu options:

WORK CENTER MACHINES: Global Edge Windows Demo Server

Machine-Parameters

ROW	PARAMETER	DESCRIPTION	ENTRY	VALUE	MIN	MAX	INTERVAL	UOM
1	MaxWeight	Maximum Blank / Part Weight	Standard	250.000000				lbs
2	LoadTime	Load Time	Standard	0.000000				hours
3	UnloadTime	Unload Time	Standard	0.000000				hours
4	MinAsTime	Minimum ASL Retrieval Time	Standard	0.000000				hours
5	MaxSheetX	Maximum Sheet Length in X Axis	Standard	96.000000				inches
6	MinSheetX	Minimum Sheet Length in X Axis	Standard	8.000000				inches
7	MaxSheetY	Maximum Sheet Length in Y Axis	Standard	48.000000				inches
8	MinSheetY	Minimum Sheet Length in Y Axis	Standard	8.000000				inches
9	MinBlankX	Minimum Blank Length in X Axis	Standard	96.000000				inches
10	MaxBlankX	Maximum Blank Length in X Axis	Standard	8.000000				inches
11	MinBlankY	Minimum Blank Length in Y Axis	Standard	48.000000				inches
12	MaxBlankY	Maximum Blank Length in Y Axis	Standard	8.000000				inches
13	MaxPartZ	Maximum Part Height in Z Axis	Standard	0.250000				inches
14	MinMatThickness	Minimum Material Thickness	Standard	0.048000				inches
15	MaxMatThickness	Maximum Material Thickness	Standard	0.135000				inches
16	NestPartSeparation	Nest Part Separation	Standard	0.000000				inches
17	NestTopWasteStrip	Nest Top Waste Strip Width	Standard	0.000000				inches
18	NestLeftWasteStrip	Nest Left Waste Strip Width	Standard	0.000000				inches
19	NestRightWasteStrip	Nest Right Waste Strip Width	Standard	0.000000				inches
20	NestBottomWasteStrip	Nest Bottom Waste Strip Width	Standard	0.000000				inches
21	LaserCutSpeed	Standard Laser Cut Speed	Standard	0.000000				ips
22	PerimeterCutSpeed	Laser Perimeter Cut Speed	Standard	0.000000				ips
23	CutoutCutSpeed	Laser Cutout Cut Speed	Standard	0.000000				ips
24	PiercingTime	Laser Piercing Time	Standard	0.000000				hours
25	TravelSpeed	Travel to Location Speed	Standard	0.000000				ips

PARAMETERS

Update

Default

View

QUIT

MRWI

Update Machine Tool

OVR

2.5.01.02 – Machine Parameter (T-131) Table

Load File: (T-131-cus_macp.unl – Table Name: machine_param)

Machine Parameter (T-131) Table

MACH. #	ROW #	PARAMETER NAME	DESCRIPTION	TYPE	VALUE	UOM
1001	1	MinBlankX	Minimum Blank Length in X Axis		6.000000	inches
1001	2	MaxBlankX	Maximum Blank Length in X Axis		120.000000	inches
1001	3	MinBlankY	Minimum Blank Length in Y Axis		6.000000	inches
1001	4	MaxBlankY	Maximum Blank Length in Y Axis		60.000000	inches
1001	5	MinMtlThickness	Minimum Material Thickness		0.000000	inches
1001	6	MaxMtlThickness	Maximum Material Thickness		0.250000	inches
1001	7	LoadTime	Load Time		0.005000	hours
1001	8	UnloadTime	Unload Time		0.005000	hours
1003	1	MaxWeight	Maximum Blank / Part Weight	S	250.000000	lbs
1003	2	LoadTime	Load Time	S	0.000000	hours
1003	3	UnloadTime	Unload Time	S	0.000000	hours
1003	4	MinAslTime	Minimum ASL Retrieval Time	S	0.000000	hours
1003	5	MaxSheetX	Maximum Sheet Length in X Axis	S	96.000000	inches
1003	6	MinSheetX	Minimum Sheet Length in X Axis	S	8.000000	inches
1003	7	MaxSheetY	Maximum Sheet Length in Y Axis	S	48.000000	inches
1003	8	MinSheetY	Minimum Sheet Length in Y Axis	S	8.000000	inches
1003	9	MinBlankX	Minimum Blank Length in X Axis	S	96.000000	inches
1003	10	MaxBlankX	Maximum Blank Length in X Axis	S	8.000000	inches
1003	11	MinBlankY	Minimum Blank Length in Y Axis	S	48.000000	inches
1003	12	MaxBlankY	Maximum Blank Length in Y Axis	S	8.000000	inches
1003	13	MaxPartZ	Maximum Part Height in Z Axis	S	0.250000	inches
1003	14	MinMtlThickness	Minimum Material Thickness	S	0.048000	inches
1003	15	MaxMtlThickness	Maximum Material Thickness	S	0.135000	inches
1003	16	NestPartSeparation	Nest Part Separation	S	0.000000	inches
1003	17	NestTopWasteStrip	Nest Top Waste Strip Width	S	0.000000	inches
1003	18	NestLeftWasteStrip	Nest Left Waste Strip Width	S	0.000000	inches
1003	19	NestRightWasteStrip	Nest Right Waste Strip Width	S	0.000000	inches
1003	20	NestBottomWasteStrip	Nest Bottom Waste Strip Width	S	0.000000	inches
1003	21	LaserCutSpeed	Standard Laser Cut Speed	S	0.000000	ips
1003	22	PerimeterCutSpeed	Laser Perimeter Cut Speed	S	0.000000	ips
1003	23	CutoutCutSpeed	Laser Cutout Cut Speed	S	0.000000	ips
1003	24	PiercingTime	Laser Piercing Time	S	0.000000	hours
1003	25	TravelSpeed	Travel to Location Speed	S	0.000000	ips

2.5.01.03 – Machine Process (T-378) Table

This section provides functionality to attach Manufacturing Processes that were defined in **Section 2.2.01 – Manufacturing Processes** and attach them to specific Machine Tools defined in **Section 2.5.01.01 – Fixed Assets**.

Menu Sequence: “*Manufacturing > Work Center Machines > Find > Machine > 1003 > Process*”

1. Select **ASSET #:** “1003” followed by “**Process**” option to display the following screen form and menu options:

Load File: (T-378-cus_mchp.unl – Table Name: mach_proc)

Machine Process (T-378) Table

ASSET #	PROCESS	SETUP TIME	MACH. COST RATE	MARKUP %	FIXED MARKUP
1001	CUT-TO-LENGTH	0.0000	\$55.0000	30	\$16.5000
1001	SHEAR	0.2500	\$55.0000	30	\$16.5000
1002	SHEAR-PUNCH	0.2500	\$55.0000	30	\$16.5000
1003	LASER-CUT	0.1000	\$140.0000	30	\$42.0000
1004	EMBOSS	0.2500	\$75.0000	30	\$22.5000
1004	PUNCH	0.2500	\$75.0000	30	\$22.5000
1005	EMBOSS	0.2500	\$75.0000	30	\$22.5000
1005	EMBOSS-MANUAL	0.0000	\$35.0000	30	\$10.5000
1006	INSTALL-PEM-NUTS	0.3500	\$50.0000	30	\$15.0000
1006	INSTALL-PEM-STUDS	0.3500	\$50.0000	30	\$15.0000
1006	INSTALL-STANDOFFS	0.3500	\$50.0000	30	\$15.0000
1006	PEM	0.2500	\$50.0000	30	\$15.0000
1006	PEM-2	0.3500	\$50.0000	30	\$15.0000
1007	BEND	0.5000	\$75.0000	30	\$22.5000
1007	FLATTEN	0.5000	\$75.0000	30	\$22.5000
1007	FORM	0.5000	\$75.0000	30	\$22.5000
1007	FORM-2	0.5000	\$75.0000	30	\$22.5000
1007	HEM-AND-FLATTEN	0.5000	\$75.0000	30	\$22.5000
1007	OTHER	0.5000	\$75.0000	30	\$22.5000
1008	FOLD	0.1000	\$120.0000	30	\$36.0000
1008	PANELBEND	0.1000	\$120.0000	30	\$36.0000
1009	MIG-WELD	0.3500	\$45.0000	30	\$13.5000

2.5.01.03 – Machine Process (T-378) Table (Continued ...)

ASSET #	PROCESS	SETUP TIME	MACH. COST RATE	MARKUP %	FIXED MARKUP
1010	HELIARC-WELD	0.5000	\$45.0000	30	\$13.5000
1010	TIG-WELD	0.5000	\$45.0000	30	\$13.5000
1011	DEBURR	0.2500	\$45.0000	30	\$13.5000
1011	TUMBLE-DEBURR	0.2000	\$45.0000	30	\$13.5000
1012	BELT-SAND	0.2500	\$25.0000	30	\$7.5000
1013	GRAIN	0.2500	\$45.0000	30	\$13.5000
1014	VIBRAMATIC-DEBURR	0.2500	\$75.0000	30	\$22.5000
1015	HANGING	0.1500	\$25.0000	30	\$7.5000
1016	WASHING	0.1500	\$25.0000	30	\$7.5000
1016	WASH-ONLY	0.1500	\$25.0000	30	\$7.5000
1017	PAINTING	0.1500	\$40.0000	30	\$12.0000
1017	POWDER-COAT	0.1500	\$40.0000	30	\$12.0000
1018	SAND-PAINT-PREP	0.1500	\$40.0000	30	\$12.0000
1019	BATCH-OVEN	0.2500	\$25.0000	30	\$7.5000
1019	CURING	0.2500	\$25.0000	30	\$7.5000
1020	STORE-ROOM	0.0000	\$35.0000	30	\$10.5000
1021	ASSEMBLY	0.2500	\$50.0000	30	\$15.0000
1023	RIVET	0.2500	\$50.0000	30	\$15.0000
1024	GASKETING	0.2500	\$35.0000	30	\$10.5000
1025	GENERAL-ASSEMBLY	0.2500	\$50.0000	30	\$15.0000
1025	GENERAL-LABOR	0.2500	\$50.0000	30	\$15.0000
1026	FINAL-INSPECT	0.2500	\$35.0000	30	\$10.5000
1026	FINAL-INSPECT-AND-PKG	0.2500	\$35.0000	30	\$10.5000
1026	IN-PROCESS-INSPECT	0.2500	\$35.0000	30	\$10.5000
1026	INSPECT	0.2500	\$35.0000	30	\$10.5000
1026	INSPECT-100	0.2500	\$35.0000	30	\$10.5000
1026	INSPECT-FINISH-DE	0.2500	\$35.0000	30	\$10.5000
1027	PACKAGE	0.2500	\$35.0000	30	\$10.5000
1027	PACKAGING	0.2500	\$35.0000	30	\$10.5000
1027	PACK-FOR-SHIPMENT	0.2500	\$35.0000	30	\$10.5000
1028	SHIPPING	0.1500	\$35.0000	30	\$10.5000
1030	BEND	0.2500	\$75.0000	30	\$22.5000
1030	HEM-AND-FLATTEN	0.5000	\$75.0000	30	\$22.5000
1030	OTHER	0.5000	\$75.0000	30	\$22.5000
1031	BEND	0.5000	\$75.0000	30	\$22.5000
1032	BEND	0.5000	\$75.0000	30	\$22.5000
1033	BEND	0.5000	\$75.0000	30	\$22.5000
1034	BEND	0.5000	\$75.0000	30	\$22.5000
1035	BEND	0.5000	\$75.0000	30	\$22.5000
1040	GRIND	0.2500	\$25.0000	30	\$7.5000
1041	CUT-TO-LENGTH	0.0000	\$55.0000	30	\$16.5000
1042	WELD	0.2500	\$45.0000	30	\$13.5000
1043	STUD-WELDING	0.2500	\$45.0000	30	\$13.5000
1044	WELD-MD	0.2500	\$45.0000	30	\$13.5000
1045	SPOT-WELD	0.5000	\$45.0000	30	\$13.5000

Last Update: Friday, April 03, 2026

2.5.01.03 – Machine Process (T-378) Table (Continued ...)

ASSET #	PROCESS	SETUP TIME	MACH. COST RATE	MARKUP %	FIXED MARKUP
1046	SCREEN-PRINT	1.5000	\$40.0000	30	\$12.0000
1047	CHROMATE-ETCH	0.2500	\$85.0000	30	\$25.5000
1048	MASKING	0.1500	\$40.0000	30	\$12.0000
1049	DRESS	0.2500	\$45.0000	30	\$13.5000
1050	SHAKE-OUT	0.1500	\$75.0000	30	\$22.5000
1051	WHITNEY	0.3500	\$75.0000	30	\$22.5000
1052	AIDA	0.7500	\$75.0000	30	\$22.5000
1053	BENCH-WORK	0.2500	\$50.0000	30	\$15.0000
1054	CORNER	0.1500	\$35.0000	30	\$10.5000
1055	JOG	0.5000	\$75.0000	30	\$22.5000
1056	STRAIGHTEN-ROLLER	0.3500	\$75.0000	30	\$22.5000

2.5.01.04 – Machine Process Material (T-370) Table

This section provides functionality to maintain a list of materials that are defined in **Section 2.1.02.07 – Materials** and attach them to a specific Machine Tool Process defined in **Section 2.5.01.03 – Machine Process**.

2. Select **“Update”** option and select **“LASER-CUT”** followed by **“OK”** to display the following screen form and menu options:

WORK CENTER MACHINES: Global Edge Windows Demo Server

Work-Center-Machine-Process-Edit

ASSET NUMBER: 1003 CNC Laser System

PROC: LASER-CUT Laser Cut Operation

PRIORITY: Lowest
LEVEL: Standard
PART RESIZE: No
COST FACTOR: 1.00000
COST METHOD: Labor

LABOR RATE: \$125.0000
MACHINE RATE: \$0.0000
MARK UP METHOD: Standard
MARK UP PRECENT: 30.0
MARK UP AMOUNT: \$37.5000

	PEOPLE	TIME	LABOR	MACHINE	TOTAL
SET-UP:	1.00	0.0000 HRS	\$0.0000		\$0.0000
PRODUCTION:	1.00		\$125.0000		\$125.0000 PER HR
CLEAN-UP:	0.00	0.0000 HRS	\$0.00		\$0.00

COSTING PROGRAM:
LEARNING CURVE: No
DEFAULT CURVE:
COMPLEXITY FACTOR: No

MRW9

Update Process

UPDATE
Update
Files
Time
Form
Parts
Materials
software
Skill
Learning Curve
QUIT

3. Select **“Materials”** option to display the following screen form and menu options:

WORK CENTER MACHINES: Global Edge Windows Demo Server

Process-Materials

PROC: LASER-CUT Laser Cut Operation

ROW	MTRL	DESCRIPTION	PROPERTY
1	304-2B	304-2B STAINLESS STEEL	STEEL, SHEET, 304 STAINLESS
2	304-4	304-4 STAINLESS STEEL	STEEL, SHEET, 304 STAINLESS
3	316-2B	316-2B STAINLESS STEEL	STEEL, SHEET, 316 STAINLESS
4	5052-H32	ALUMINUM	ALUMINUM
5	CRS	COLD ROLLED STEEL	COLD ROLLED STEEL

MRWK

Add Material to Process

MATERIALS
Add
Update
View
Parameters
Burr-Matrix
Delete
QUIT

Load File: (T-370-cus_mchm.unl – Table Name: mach_proc_mtrl)

Machine Process Material (T-370) Table

ASSET #	TRANS #	PROCESS	ROW #	MATERIAL	MATERIAL DESCRIPTION
1003	1	LASER-CUT	1	CRS	COLD ROLLED STEEL
1003	2	LASER-CUT	2	304-4	STEEL, SHEET, 304 STAINLESS
1003	3	LASER-CUT	3	316-2B	STEEL, SHEET, 316 STAINLESS
1003	4	LASER-CUT	4	5052-H32	ALUMINUM
1003	5	LASER-CUT	5	G60	GALVANIZED STEEL
1003	6	LASER-CUT	6	ALUMINUM	ALUMINUM
1003	7	LASER-CUT	7	STAINLESS	STAINLESS STEEL
1003	8	LASER-CUT	8	GALVANIZED	GALVANIZED STEEL

2.5.01.05 – Machine Material Sheet Cut (T-377) Table

This section provides functionality to maintain Laser Cut Speeds per material and machine tool. This allows you to automatically generate accurate costs for laser cutting that is part of the cost rollup process with the **Global Edge** system and is utilized for quoting and determining the selection of cost-effective machine tools for shop floor routings.

4. Select **“Update”** option and select **“304-2B”** followed by **“OK”**:

ROW	MTRL	DESCRIPTION	PROPERTY
1	304-2B	304-2B STAINLESS STEEL	STEEL, SHEET, 304 STAINLESS
2	304-4	304-4 STAINLESS STEEL	STEEL, SHEET, 304 STAINLESS
3	316-2B	316-2B STAINLESS STEEL	STEEL, SHEET, 316 STAINLESS
4	5052-H32	ALUMINUM	ALUMINUM
5	CRS	COLD ROLLED STEEL	COLD ROLLED STEEL

5. This will display the following screen form and menu options:

ROW	PARAMETER	DESCRIPTION	VALUE	MATERIAL	UOM
1	MaxWeight	Maximum Blank / Part Weight	250.000000		lbs
2	LoadTime	Load Time	0.000000		hours
3	UnloadTime	Unload Time	0.000000		hours
4	MinAslTime	Minimum ASL Retrieval Time	0.000000		hours
5	MaxSheetX	Maximum Sheet Length in X Axis	96.000000		inches
6	MinSheetX	Minimum Sheet Length in X Axis	8.000000		inches
7	MaxSheetY	Maximum Sheet Length in Y Axis	48.000000		inches
8	MinSheetY	Minimum Sheet Length in Y Axis	8.000000		inches
9	MinBlankX	Minimum Blank Length in X Axis	96.000000		inches
10	MaxBlankX	Maximum Blank Length in X Axis	8.000000		inches
11	MinBlankY	Minimum Blank Length in Y Axis	48.000000		inches
12	MaxBlankY	Maximum Blank Length in Y Axis	8.000000		inches
13	MaxPartZ	Maximum Part Height in Z Axis	0.250000		inches
14	MinMtlThickness	Minimum Material Thickness	0.048000		inches
15	MaxMtlThickness	Maximum Material Thickness	0.135000		inches
16	NestPartSeparation	Nest Part Separation	0.000000		inches
17	NestTopWasteStrip	Nest Top Waste Strip Width	0.000000		inches
18	NestLeftWasteStrip	Nest Left Waste Strip Width	0.000000		inches
19	NestRightWasteStrip	Nest Right Waste Strip Width	0.000000		inches
20	NestBottomWasteStrip	Nest Bottom Waste Strip Width	0.000000		inches
21	LaserCutSpeed	Standard Laser Cut Speed	0.000000		ips
22	PerimeterCutSpeed	Laser Perimeter Cut Speed	0.000000		ips
23	CutoutCutSpeed	Laser Cutout Cut Speed	0.000000		ips
24	PiercingTime	Laser Piercing Time	0.000000		hours
25	TravelSpeed	Travel to Location Speed	0.000000		ips

6. Select **“Cutting”** option to display the following screen form and menu options:

Load File: (T-377-cus_mmsc.unl – Table Name: mach_mtl_sheet_cut)

Machine Material Sheet Cut (T-377) Table

DET. TRANS #	TRANS #	ROW #	THICKNESS	THICK. UOM	GAUGE	PERIM. SPEED	CUT SPEED	SPEED UOM	PIERCE TIME
1	1	1	0.015000	inches					
1	2	2	0.018000	inches					
1	3	3	0.024000	inches					
1	4	4	0.030000	inches		10.833333	4.166667	ips	0.000036
1	5	5	0.036000	inches		10.833333	4.166667	ips	0.000036
1	6	6	0.042000	inches					
1	7	7	0.048000	inches		5.666667	1.833333	ips	0.000072
1	8	8	0.060000	inches		4.666667	1.833333	ips	0.000097
1	9	9	0.075000	inches		4.000000	1.666667	ips	0.000097
1	10	10	0.090000	inches		2.500000	0.750000	ips	0.000125
1	11	11	0.105000	inches		2.333333	0.750000	ips	0.000125
1	12	12	0.120000	inches		2.000000	0.583333	ips	0.000139
1	13	13	0.135000	inches		1.916667	0.583333	ips	0.000236
1	14	14	0.165000	inches					
1	15	15	0.187000	inches		1.250000	0.333333	ips	0.000361
1	16	16	0.197000	inches					
1	17	17	0.250000	inches		0.583333	0.133333	ips	0.000694
1	18	18	0.313000	inches					
1	19	19	0.375000	inches					
1	20	20	0.500000	inches					

2.5.01.05 – Machine Material Sheet Cut (T-377) Table (Continued ...)

DET. TRANS #	TRANS #	ROW #	THICKNESS	THICK. UOM	GAUGE	PERIM. SPEED	CUT SPEED	SPEED UOM	PIERCE TIME
2	21	1	0.015000	inches					
2	22	2	0.018000	inches					
2	23	3	0.024000	inches					
2	24	4	0.030000	inches		10.833333	4.166667	ips	0.000036
2	25	5	0.036000	inches		10.833333	4.166667	ips	0.000036
2	26	6	0.042000	inches					
2	27	7	0.048000	inches		5.666666	1.833333	ips	0.000072
2	28	8	0.060000	inches		4.666666	1.833333	ips	0.000097
2	29	9	0.075000	inches		4.000000	1.666666	ips	0.000097
2	30	10	0.090000	inches		2.500000	0.750000	ips	0.000125
2	31	11	0.105000	inches		2.333333	0.750000	ips	0.000125
2	32	12	0.120000	inches		2.000000	0.583333	ips	0.000139
2	33	13	0.135000	inches		1.916667	0.583333	ips	0.000236
2	34	14	0.165000	inches					
2	35	15	0.187000	inches		1.250000	0.333333	ips	0.000361
2	36	16	0.197000	inches					
2	37	17	0.250000	inches		0.583333	0.133333	ips	0.000694
2	38	18	0.313000	inches					
2	39	19	0.375000	inches					
2	40	20	0.500000	inches					
3	41	1	0.015000	inches					
3	42	2	0.018000	inches					
3	43	3	0.024000	inches					
3	44	4	0.030000	inches		10.833333	4.166667	ips	0.000036
3	45	5	0.036000	inches		10.833333	4.166667	ips	0.000036
3	46	6	0.042000	inches					
3	47	7	0.048000	inches		5.666667	1.833333	ips	0.000072
3	48	8	0.060000	inches		4.666667	1.833333	ips	0.000097
3	49	9	0.075000	inches		4.000000	1.666667	ips	0.000097
3	50	10	0.090000	inches		2.500000	0.750000	ips	0.000125
3	51	11	0.105000	inches		2.333333	0.750000	ips	0.000125
3	52	12	0.120000	inches		2.000000	0.583333	ips	0.000139
3	53	13	0.135000	inches		1.916667	0.583333	ips	0.000236
3	54	14	0.165000	inches					
3	55	15	0.187000	inches		1.250000	0.333333	ips	0.000361
3	56	16	0.197000	inches					
3	57	17	0.250000	inches		0.583333	0.133333	ips	0.000694
3	58	18	0.313000	inches					
3	59	19	0.375000	inches					
3	60	20	0.500000	inches					

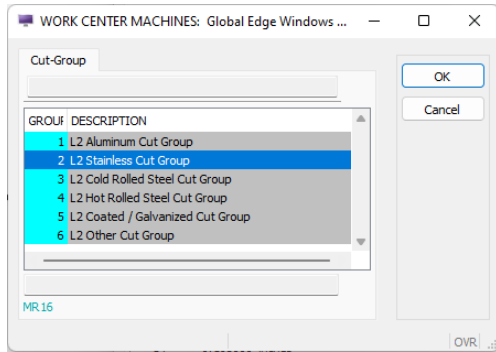
2.5.01.05 – Machine Material Sheet Cut (T-377) Table (Continued ...)

DET. TRANS #	TRANS #	ROW #	THICKNESS	THICK. UOM	GAUGE	PERIM. SPEED	CUT SPEED	SPEED UOM	PIERCE TIME
4	61	1	0.016000	inches					
4	62	2	0.020000	inches		10.000000	5.000000	ips	0.000028
4	63	3	0.025000	inches		10.000000	5.000000	ips	0.000028
4	64	4	0.032000	inches					
4	65	5	0.040000	inches		6.666666	4.166666	ips	0.000028
4	66	6	0.050000	inches		5.250000	2.500000	ips	0.000083
4	67	7	0.063000	inches		5.083333	2.500000	ips	0.000083
4	68	8	0.072000	inches		3.833333	2.000000	ips	0.000083
4	69	9	0.080000	inches		3.333333	1.666666	ips	0.000117
4	70	10	0.090000	inches		3.000000	2.000000	ips	0.000117
4	71	11	0.100000	inches		2.833333	1.833333	ips	0.000139
4	72	12	0.125000	inches		2.333333	1.416666	ips	0.000194
4	73	13	0.160000	inches					
4	74	14	0.190000	inches		0.416666	0.200000	ips	0.000708
4	75	15	0.250000	inches		0.366667	0.166666	ips	0.000986
5	76	1	0.018000	inches					
5	77	2	0.024000	inches		11.000000	5.000000	ips	0.000036
5	78	3	0.030000	inches		11.000000	5.000000	ips	0.000036
5	79	4	0.036000	inches		10.000000	4.583333	ips	0.000036
5	80	5	0.042000	inches					
5	81	6	0.048000	inches		6.166667	2.500000	ips	0.000069
5	82	7	0.060000	inches		5.500000	2.416667	ips	0.000097
5	83	8	0.075000	inches		3.833333	2.250000	ips	0.000097
5	84	9	0.090000	inches					
5	85	10	0.105000	inches		2.416667	2.083333	ips	0.000125
5	86	11	0.120000	inches		2.250000	1.916667	ips	0.000125
5	87	12	0.135000	inches		2.000000	1.333333	ips	0.000125
5	88	13	0.150000	inches					
5	89	14	0.164000	inches					
5	90	15	0.179000	inches		1.666667	0.666667	ips	0.000139
5	91	16	0.188000	inches		1.583333	0.583333	ips	0.000175
5	92	17	0.194000	inches					
5	93	18	0.250000	inches		1.500000	0.416667	ips	0.00025
5	94	19	0.313000	inches					
5	95	20	0.375000	inches					
5	96	21	0.438000	inches					
5	97	22	0.500000	inches					

2.5.01.06 – Machine Material Cut Group (T-579) Table

This section provides functionality to group together the various laser cut speeds defined in **Section 2.5.01.05 – Machine Material Sheet Cut** for a specific material and thickness. The purpose of grouping together these various cut speeds by material is that if you need to change a specific cut speed for a specific material and thickness, changing a specific value in one group will mass update that same value wherever they match a specific material and thickness without having to individually update this information with each material in a cut group.

7. Select **“Cut-Group > Update”** option to display the following screen form:



Load File: (T-579–cus_mmcg.unl – Table Name: mach_mtl_cut_grp)

Machine Material Cut Group (T-579) Table

ASSET #	PROCESS	CUT GROUP	DESCRIPTION
1003	LASER-CUT	1	L2 Aluminum Cut Group
1003	LASER-CUT	2	L2 Stainless Cut Group
1003	LASER-CUT	3	L2 Cold Rolled Steel Cut Group
1003	LASER-CUT	4	L2 Hot Rolled Steel Cut Group
1003	LASER-CUT	5	L2 Coated / Galvanized Cut Group
1003	LASER-CUT	6	L2 Other Cut Group

2.5.01.07 – Machine Software (T-601) Table

This section provides functionality to specify and attach Machine Tool Software such as Laser Nesting and Press Brake and Panel Bender Bend Simulation software to a specific machine tool including the Command Line Path to launch the specific software and the import location to place files for that software.

8. Select **ASSET #:** “1003” followed by “**Software**” option to display the following screen form and menu options:

CODE	SOFTWARE	PROCESS	FREQUENCY	IMPORT FREQ	IMPORT PATH
CLS		LASER-CUT	C:\Program Files(x86)\Cinc...	Prompted	C:\GlobalEdgeDemo\Production\Input\Laser\
CMS		LASER-CUT	C:\Program Files(x86)\Cinc...	Prompted	C:\GlobalEdgeDemo\Production\Input\MES\

Load File: (T-601-cus_mchs.unl – Table Name: mach_software)

Machine Software (T-601) Table

ASSET #	PROCESS	DOC. SYS.	COMMAND LINE	IMPORT DIRECTORY
1030	BEND	BSM	C:\Program Files(x86)\Cincinnati Incorporated\Bend Simulation Module\Afmaster.exe	C:\GlobalEdgeDemo\Production\Input\Press-Brake\
1003	LASER-CUT	CLS	C:\Program Files(x86)\Cincinnati Incorporated\Laser Module\CILaser.exe	C:\GlobalEdgeDemo\Production\Input\Laser\
1003	LASER-CUT	CMS	C:\Program Files(x86)\Cincinnati Incorporated\MES Module\CIMES.exe	C:\GlobalEdgeDemo\Production\Input\MES\

2.5.02 – Bend Tool Set

2.5.02.01 – Bend Tool Set (T-357) Table

This section provides functionality to add and maintain upper and lower tool sets for a machine tool like a Press Brake that utilizes various upper and lower tool sets.

Menu Sequence: “*Manufacturing > Work Center Machines > Find > Machine > 1007 > Tools > Bend*”

1. Select “**Update**” option and select **TOOL SET # “1”** to display the following screen form and menu options:

Row	Type	Quantity	Length	Depth
1	Segment	6	4.000000	0.000000
2	Left End	2	2.000000	0.000000
3	Right End	2	2.000000	0.000000
4	Segment	4	0.750000	0.000000
5	Segment	4	0.500000	0.000000

Load File: (T-357-cus_bnts.unl – Table Name: bend_tool_set)

Bend Tool Set (T-357) Table

TOOL SET #	DESCRIPTION	SET TYPE	TOOL TYPE	MOVABLE	MFR.	MFR. PART #	SET QTY.	UOM
1	Tool Set Number 1 - Upper Tools	P	BEND-SET	N	Wila	BIU-815	8	inches
2	Tool Set Number 2 - Upper Tools	P	BEND-SET	N	Wila	BIU-817	8	inches
3	Tool Set Number 3 - Upper Tools	P	BEND-SET	N	Wila	BIU-825	8	inches
4	Tool Set Number 4 - Upper Tools	P	BEND-SET	N	Wila	BIU-830	8	inches
5	Tool Set Number 5 - Upper Tools	P	BEND-SET	N	Wila	BIU-832	8	inches
6	Tool Set Number 6 - Lower Tools	D	BEND-SET	N	Wila	OZU-317	8	inches
7	Tool Set Number 7 - Lower Tools	D	BEND-SET	N	Wila	OZU-318	8	inches
8	Tool Set Number 8 - Lower Tools	D	BEND-SET	N	Wila	OZU-324	8	inches
9	Tool Set Number 9 - Lower Tools	D	BEND-SET	N	Wila	OZU-325	8	inches
10	Tool Set Number 10 - Lower Tools	D	BEND-SET	N	Wila	OZU-326	8	inches
11	Tool Set Number 11 - Lower Tools	D	BEND-SET	N	Wila	OZU-351	8	inches
12	Tool Set Number 12 - Lower Tools	D	BEND-SET	N	Wila	OZU-352	8	inches
13	Tool Set Number 13 - Lower Tools	D	BEND-SET	N	Wila	OZU-353	8	inches
14	Tool Set Number 14 - Lower Tools	D	BEND-SET	N	Wila	OZU-354	8	inches
15	Tool Set Number 15 - Lower Tools	D	BEND-SET	N	Wila	OZU-361	8	inches
16	Tool Set Number 16 - Lower Tools	D	BEND-SET	N	Wila	OZU-362	8	inches
17	Tool Set Number 17 - Lower Tools	D	BEND-SET	N	Wila	OZU-363	8	inches

2.5.02.02 – Bend Tool Link (T-356) Table

This section illustrates an intermediate data load table that is automatically populated when Bend Tool Sets are added to a Machine Tool in **Section 2.5.02.01 – Bend Tool Set**.

Menu Sequence: “*Manufacturing > Work Center Machines > Find > Machine > 1007 > Tools > Bend*”

1. Return to **ASSET** menu and select “*Find > Machine*” option and select **ASSET NUMBER “1007”** followed by “*Tools > Bend*” option to display the following screen form and menu options:

TOOL SET #	DESCRIPTION	SET TYPE	QTY
1	Tool Set Number 1 - Upper Tools	Punch	1
2	Tool Set Number 2 - Upper Tools	Punch	1
3	Tool Set Number 3 - Upper Tools	Punch	1
4	Tool Set Number 4 - Upper Tools	Punch	1
5	Tool Set Number 5 - Upper Tools	Punch	1
6	Tool Set Number 6 - Lower Tools	Die	1
7	Tool Set Number 7 - Lower Tools	Die	1
8	Tool Set Number 8 - Lower Tools	Die	1

BEND TOOL SETS FOUND (8)

MRWVY

Add New Bend Tool Set

Buttons: Add, Connect, Library, Update, View, Print, Delete, QUIT

Load File: (T-356-cus_btstl.unl – Table Name: bend_tool_link)

Bend Tool Link (T-356) Table

TOOL SET #	ROW #	ASSET #	PROGRAM TAG	SET QTY.
1	1	1007		1
2	1	1007		1
3	1	1007		1
4	1	1007		1
5	1	1007		1
6	1	1007		1
7	1	1007		1
8	1	1007		1

2.5.03 – Bend Process

This section provides functionality to maintain a database list of Bend Processes / Tooling. The Bend Processes are designed to reflect the various tool sets your company has available as tooling bend standards to determine whether your company has the capability to fabricate a specific part. Bend Process are a component of the **Global Edge** Manufacturability Testing process which can determine at the Quoting / Engineering workflow stage whether a sheet metal part can be successfully fabricated before it reaches the shop floor.

2.5.03.01 – Bend Process (T-612) Table

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Sheet-Metal”

1. Access **SHEET-METAL** menu and select “**Bend**” option to display the following screen form and menu options:

PROC #	DESCRIPTION	MATERIAL TYPE	MATERIAL	THICKNESS
1	Bnd Proc., AL 1100-0, 0.063, Rad - 0.100	AL	1100-0	0.063000
2	Bnd Proc., SS 304-3, 0.048, Rad - 0.020	SS	304-3	0.048000
3	Bnd Proc., SS 304-4, 0.048, Rad - 0.030	SS	304-4	0.048000
4	Bnd Proc., SS 304-4, 0.075, Rad - 0.120	SS	304-4	0.075000
5	Bnd Proc., CRS, 0.030, Rad - 0.050	CRS	CRS	0.030000
6	Bnd Proc., CRS, 0.054, Rad - 0.070	CRS	CRS	0.054000
7	Bnd Proc., G60, 0.060, Rad - 0.060	G60	G60	0.060000

2. Select “**Update**” option to display the following screen form and menu options:

PROC #: 1 DESCRIPTION: Bnd Proc., AL 1100-0, 0.063, Rad - 0.100

MATERIAL TYPE: AL ALUMINUM MATERIAL CODE: 1100-0 ALUMINUM

LINEAR UOM: inches MINIMUM MAXIMUM INSIDE RADIUS 90: 0.100000

THICKNESS: 0.063000 0.060000 0.065000 RADIUS TOLERANCE: 0.010000

FLAT LENGTH: 0.0000 0.0000 K-FACTOR 90: 0.445000

FLAT WIDTH: 0.0000 0.0000 BEND ALLOWANCE 90: 0.008000

MAX BEND LENGTH: 0.0000 GAGE ALLOWANCE 90: 0.003000

MASS UOM: TONS PER FOOT: 12.000000

MAX WEIGHT: 0.0000 MAX TONNAGE: 0.000000

BEND ANGLE: MINIMUM MAXIMUM MIN-UP MIN-DOWN

BEND LENGTH: 39.000000 180.000000 BEND LINE TO EMBOSS: 1.100000 1.300000

BEND LINE TO LOUVER: 0.750000 96.000000 BEND LINE TO LOUVER: 0.900000 1.400000

FLANGE WIDTH: 1.200000 24.000000 BEND LINE TO PEM: 1.500000 2.000000

BEND LINE TO TAPER EDGE: 0.770000 DIE SHOULDER TO CUTOUT: 0.440000

MFR PART NUMBERS

UPPER TOOL SET #: 1 Tool Set Number 1 - Upper Tools BIU-815

LOWER TOOL SET #: 6 Bnd Proc., AL 1100-0, 0.063, Rad - 0.100 OZU-317

Load File: (T-612-cus_bndp.unl – Table Name: bend_process)

Bend Process (T-612) Table

#	FIELD NAME	TYPE	Bnd Proc., AL 1100-0, 0.063, Rad - 0.100	Bnd Proc., SS 304-3, 0.048, Rad - 0.020	Bnd Proc., SS 304-4, 0.048, Rad - 0.030	Bnd Proc., SS 304-4, 0.075, Rad - 0.120	Bnd Proc., CRS, 0.030, Rad - 0.050	Bnd Proc., CRS, 0.054, Rad - 0.070	Bnd Proc., G60, 0.060, Rad - 0.060
			VALUE 1	VALUE 2	VALUE 3	VALUE 4	VALUE 5	VALUE 6	VALUE 7
1	proc_num	serial	1	2	3	4	5	6	7
2	description	char(40)							
3	mtl_type	char(3)	AL	SS	SS	SS	CRS	CRS	G60
4	mtl_code	char(12)	1100-0	304-3	304-4	304-4	CRS	CRS	G60
5	linear_uom	char(10)	inches	inches	inches	inches	inches	inches	inches
6	thickness	decimal(16,6)	0.063000	0.048000	0.048000	0.075000	0.030000	0.054000	0.060000
7	min_thickness	decimal(16,6)	0.060000	0.045000	0.045000	0.072000	0.028000	0.052000	0.058000
8	max_thickness	decimal(16,6)	0.065000	0.050000	0.050000	0.077000	0.032000	0.056000	0.062000
9	min_flat_length	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10	max_flat_length	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
11	min_flat_width	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
12	max_flat_width	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
13	max_bend_length	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
14	max_part_weight	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
15	mass_uom	char(10)							
16	upper_tool_set	integer	1	2	2	2	3	3	4
17	upper_part_num	char(64)	BIU-815	BIU-817	BIU-817	BIU-817	BIU-825	BIU-825	BIU-830
18	lower_tool_set	integer	6	7	7	7	8	8	9
19	lower_part_num	char(64)	OZU-317	OZU-318	OZU-318	OZU-318	OZU-324	OZU-324	OZU-325
20	inside_90_radius	decimal(16,6)	0.100000	0.020000	0.030000	0.120000	0.050000	0.070000	0.060000
21	rad_tolerance	decimal(16,6)	0.010000	0.010000	0.010000	0.010000	0.010000	0.010000	0.010000
22	k_factor_90	decimal(16,6)	0.445000	0.445000	0.445000	0.445000	0.445000	0.445000	0.445000
23	bend_allow_90	decimal(16,6)	0.008000	0.008000	0.008000	0.008000	0.008000	0.008000	0.008000
24	gage_allow_90	decimal(16,6)	0.003000	0.003000	0.003000	0.003000	0.003000	0.003000	0.003000

Bend Process (T-612) Table (Continued ...)

#	FIELD NAME	TYPE	Bnd Proc., AL 1100-0, 0.063, Rad - 0.100	Bnd Proc., SS 304-3, 0.048, Rad - 0.020	Bnd Proc., SS 304-4, 0.048, Rad - 0.030	Bnd Proc., SS 304-4, 0.075, Rad - 0.120	Bnd Proc., CRS, 0.030, Rad - 0.050	Bnd Proc., CRS, 0.054, Rad - 0.070	Bnd Proc., G60, 0.060, Rad - 0.060
			VALUE 1	VALUE 2	VALUE 3	VALUE 4	VALUE 5	VALUE 6	VALUE 7
25	tons_per_foot	decimal(16,6)	12.000000	20.000000	20.000000	20.000000	18.000000	18.000000	22.000000
26	max_tonnage	decimal(16,6)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
27	min_angle	decimal(16,6)	39.000000	39.000000	39.000000	39.000000	39.000000	39.000000	39.000000
28	max_angle	decimal(16,6)	180.000000	180.000000	180.000000	180.000000	180.000000	180.000000	180.000000
29	min_length	decimal(16,6)	0.750000	0.750000	0.750000	0.750000	0.750000	0.750000	0.750000
30	max_length	decimal(16,6)	96.000000	96.000000	96.000000	96.000000	96.000000	96.000000	96.000000
31	min_flange_width	decimal(16,6)	1.200000	1.200000	1.200000	1.200000	1.200000	1.200000	1.200000
32	max_flange_width	decimal(16,6)	24.000000	24.000000	24.000000	24.000000	24.000000	24.000000	24.000000
33	min_bl_up_emboss	decimal(16,6)	1.100000	1.100000	1.100000	1.100000	1.100000	1.100000	1.100000
34	min_bl_dn_emboss	decimal(16,6)	1.300000	1.300000	1.300000	1.300000	1.300000	1.300000	1.300000
35	min_bl_up_louver	decimal(16,6)	0.900000	0.900000	0.900000	0.900000	0.900000	0.900000	0.900000
36	min_bl_dn_louver	decimal(16,6)	1.400000	1.400000	1.400000	1.400000	1.400000	1.400000	1.400000
37	min_bl_up_pem	decimal(16,6)	1.500000	1.500000	1.500000	1.500000	1.500000	1.500000	1.500000
38	min_bl_dn_pem	decimal(16,6)	2.000000	2.000000	2.000000	2.000000	2.000000	2.000000	2.000000
39	min_bl_taper_edge	decimal(16,6)	0.770000	0.770000	0.770000	0.770000	0.770000	0.770000	0.770000
40	min_bl_die_cutout	decimal(16,6)	0.440000	0.440000	0.440000	0.440000	0.440000	0.440000	0.440000

2.5.03.02 – Bend Process Link (T-600) Table

This section provides functionality to link Bend Processes with specific machine tools.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering-Set-Up > Sheet-Metal > Bend > Update”

1. Select “**Update**” option and select **PROC # “4”** followed by “**OK**” option:

PROC #	DESCRIPTION	MATERIAL TYPE	MATERIAL	THICKNESS
1	Air Bend, GAL, G60, 0.06350, Radius - 0.064	GAL	G60	0.06350
2	Air Bend, GAL, G60, 0.07850, Radius - 0.079	GAL	G60	0.07850
3	Bottom Bend, GAL, G60, 0.10840, Radius - 0.108	GAL	G60	0.10840
4	Air Bend, SS, 304-4, 0.05000, Radius - 0.025	SS	304-4	0.05000
5	Air Bend, SS, 304-4, 0.06250, Radius - 0.050	SS	304-4	0.06250
6	Bottom Bend, SS, 304-4, 0.07812, Radius - 0.125	SS	304-4	0.07812
7	Air Bend, SS, 316-2B, 0.07812, Radius - 0.020	SS	316-2B	0.07812
8	Air Bend, SS, 316-2B, 0.09370, Radius - 0.030	SS	316-2B	0.09370
9	Bottom Bend, SS, 316-2B, 0.14062, Radius - 0.120	SS	316-2B	0.14062
10	Air Bend, AL, 5052-H32, 0.05082, Radius - 0.100	AL	5052-H32	0.05082
11	Air Bend, AL, 5052-H32, 0.06408, Radius - 0.105	AL	5052-H32	0.06408
12	Bottom Bend, AL, 5052-H32, 0.08081, Radius - 0.125	AL	5052-H32	0.08081
13	Air Bend, CRS, 0.04780, Radius - 0.050	CRS	CRS	0.04780
14	Air Bend, CRS, 0.07470, Radius - 0.070	CRS	CRS	0.07470
15	Bottom Bend, CRS, 0.13450, Radius - 0.060	CRS	CRS	0.13450
16	Air Bend, SS, 304-4, 0.05000, Radius - 0.025	SS	304-4	0.05000
17	Air Bend, SS, 304-4, 0.06250, Radius - 0.025	SS	304-4	0.06250
18	Bottom Bend, SS, 304-4, 0.07812, Radius - 0.125	SS	304-4	0.07812
19	Air Bend, CRS, 0.05980, Radius - 0.070	CRS	CRS	0.05980
20	Air Bend, SS, 304-4, 0.04600, Radius - 0.030	SS	304-4	0.04600
21	Air Bend, SS, 304-4, 0.07500, Radius - 0.115	SS	304-4	0.07500

2. Select “**Machine-Tools**” option on the following screen form:

PROC #: 4 DESCRIPTION: Air Bend, SS, 304-4, 0.05000, Radius - 0.025

MATERIAL TYPE: SS MATERIAL CODE: 304-4 304-4 STAINLESS STEEL

LINEAR UOM: inches	MINIMUM	MAXIMUM	INSIDE RADIUS 90:	0.025000
THICKNESS:	0.050000	0.048000	RADIUS TOLERANCE:	0.010000
FLAT LENGTH:	6.0000	96.0000	K-FACTOR 90:	0.445000
FLAT WIDTH:	4.0000	84.0000	BEND ALLOWANCE 90:	0.008000
MASS UOM: lbs			GAGE ALLOWANCE 90:	0.003000
MAX WEIGHT:	50.0000		TONS PER FOOT:	20.000000
			MAX TONNAGE:	80.000000

	MINIMUM	MAXIMUM	MIN-UP	MIN-DOWN
BEND ANGLE:	39.000000	135.000000	BEND LINE TO EMBOSS:	1.100000
BEND LENGTH:	0.750000	96.000000	BEND LINE TO LOUVER:	0.900000
FLANGE WIDTH:	1.500000	24.000000	BEND LINE TO PEM:	0.800000
BEND LINE TO TAPER EDGE:	0.000000		DIE SHOULDER TO CUTOUT:	0.000000

MFR PART NUMBERS

UPPER TOOL SET #: 2 Tool Set Number 2 - Upper Tools BIU-817

LOWER TOOL SET #: 7 Tool Set Number 7 - Lower Tools OZU-318

DXF EXTENDED FORMAT #: 1 Bend Program Extended Data

3. This will display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Bend-Process Machine-Tools Features

PROC #: 4 DESCRIPTION: Air Bend, SS, 304-4, 0.05000, Radius - 0.025

TRANS #	DET. TRANS #	PROCESS #	ROW #	ASSET #	PROCESS
1		4		1007	BEND
2		5		1007	BEND
3		7		1007	BEND
4		8		1007	BEND
5		10		1007	BEND
6		11		1007	BEND
7		13		1007	BEND
8		14		1007	BEND
9		1		1030	BEND
10		2		1030	BEND
11		3		1030	BEND
12		6		1030	BEND
13		9		1030	BEND
14		12		1030	BEND
15		15		1030	BEND

MACHINE-TOOLS

Add View Delete QUIT

Add Machine tool to Standard Process OVR

Load File: (T-600-cus_bnpl.unl – Table Name: bend_proc_link)

Bend Process Link (T-600) Table

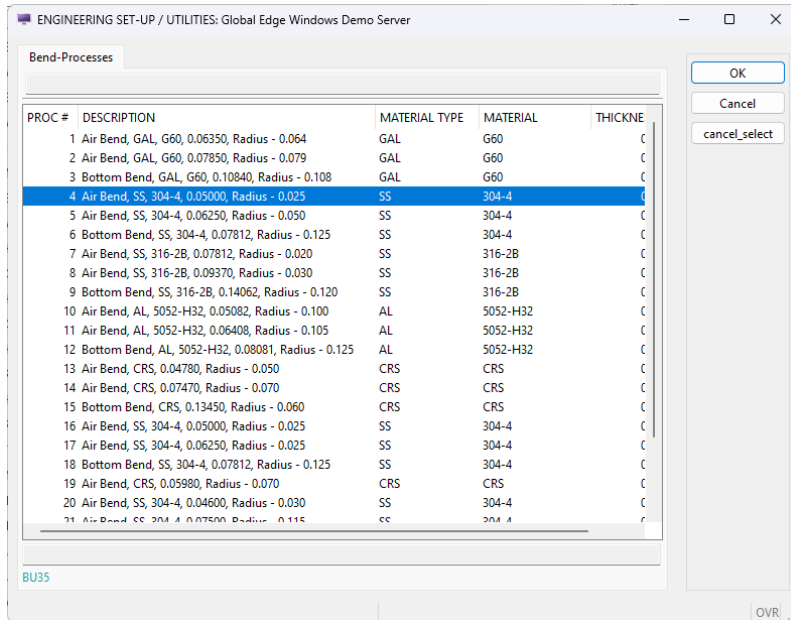
TRANS #	DET. TRANS #	PROCESS #	ROW #	ASSET #	PROCESS
1		4		1007	BEND
2		5		1007	BEND
3		7		1007	BEND
4		8		1007	BEND
5		10		1007	BEND
6		11		1007	BEND
7		13		1007	BEND
8		14		1007	BEND
9		1		1030	BEND
10		2		1030	BEND
11		3		1030	BEND
12		6		1030	BEND
13		9		1030	BEND
14		12		1030	BEND
15		15		1030	BEND

2.5.03.03 – Sheet DXF Features (T-618) Table

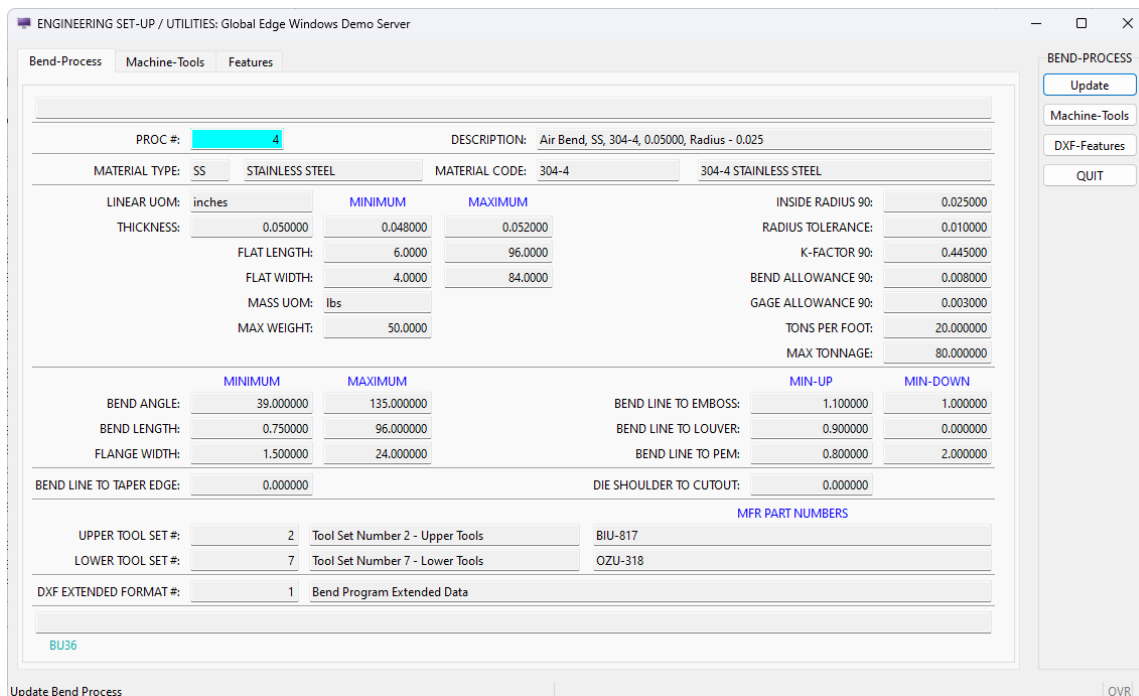
This section provides functionality to add and designate specific Pem Hole sizes per Bend Processes to identify what specific diameters should be interpreted as Pem Holes during importation and analysis of DXF Flat Files.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering Set-Up > Sheet-Metal > Bend > Update > DXF-Features”

1. Select “Update” option and select **PROC # “4”** followed by “OK” option:



2. Select “Update” option and select **PROC # “4”** followed by “OK” option:



3. Select ***“DXF-Features”*** option to display the following screen form and menu options:

[illegible]

4. Select “**Update**” option to display the following screen form:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

DXF-Feature

Update DXF Feature, then Press [OK]:

ROW #:	1	TYPE:	Cutout	SHAPE:	Round	EMBOSS TYPE:		FASTENER:	PEM Stud
LAYER:		DESCRIPTION:	.375 Pem Stud						
DIAMETER:	0.375000	CONCENTRIC DIA:							
HOLE DIAMETER:	0.375000	LENGTH:		WIDTH:		DEFORM OFFSET:			
MAX TOL:	0.005000	MIN TOL:	0.005000			UOM:	inches		
MANUFACTURER:		MFR. PART #							
LOOP CLOSED:	Closed	APPLIES:	Always						

BU43

FEATURE SHAPE: [R]ound, [O]bround, rec[T]angle, [C]ustom

OK Cancel

Load File: (T-618-dem_shdf.unl – Table Name: sheet_dxf_features)

Sheet DXF Features (T-618) Table

trans_num	serial	1	1	2	3
proc_type	char(1)	2	B	B	B
proc_num	integer	3	1	1	1
row_num	smallint	4	1	2	3
feature_type	char(1)	5	C	C	C
feature_shape	char(1)	6	R	R	R
emboss_type	char(1)	7			
fast_type	char(1)	8	P	N	N
layer	char(24)	9			
description	char(40)	10	.375 Pem Stud Hole	.400 Pem Nut Hole	.500 Pem Nut Hole
diameter	decimal(16,6)	11	0.375000	0.400000	0.500000
concentric_diam	decimal(16,6)	12	0.000000	0.000000	0.000000
hole_diam	decimal(16,6)	13	0.375000	0.400000	0.500000
length	decimal(16,6)	14	0.000000	0.000000	0.000000
width	decimal(16,6)	15	0.000000	0.000000	0.000000
deformation_offset	decimal(16,6)	16	0.000000	0.000000	0.000000
uom	char(10)	17	inches	inches	inches
max_tol	decimal(16,6)	18	0.000000	0.000000	0.000000
min_tol	decimal(16,6)	19	0.000000	0.000000	0.000000
punch_tool_num	integer	20			
asset_num	integer	21			
manufacturer	char(40)	22			
mfr_part_num	char(64)	23			
closed_loop	char(1)	24	C	C	C
always_applies	char(1)	25	A	A	A

2.5.04 – DXF Extension

2.5.04.01 – DXF Extension (T-617) Table

This section provides functionality to add Extended Data that can be embedded into DXF Flat Files that are generated from various CAD systems. This Extended Data can help drive the facilitated generation of Automated CAM Bending Program Generation by incorporating the proper Extended Data into DXF Flat Files based on CAD system matching Bend Process.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering Set-Up > Sheet-Metal”

1. Select “DXF-Extend” option on the following screen form:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

BOM-Sheet-Metal-Dimensions Extended Process

FEATURE:	DIMENSION	CAD PARAMETER
SHEET LENGTH:	Sheet_Length	
SHEET WIDTH:	Sheet_Width	
BLANK LENGTH:	Blank_Length	
BLANK WIDTH:	Blank_Width	
THICKNESS:	Material_Thickness	Thickness
PERIMETER:	Perimeter	
FLAT LENGTH:	Flat_Length	
FLAT WIDTH:	Flat_Width	
# ROUND HOLES:	Round_Holes	
# ROUND SIZES:	Round_Sizes	
# OBOUND HOLES:	Obround_Holes	
# OBOUND SIZES:	Obround_Sizes	
# RECTANGULAR HOLES:	Rectang_Holes	
# RECTANGULAR SIZES:	Rectang_Sizes	
# OTHER HOLES:	Other_Holes	
# OTHER SIZES:	Other_Sizes	
# CUTOUTS:	Num_Cutouts	
CUTOUT PERIMETER:	Cutout_Perimeter	
MIN BEND LENGTH	Min_Bend_Length	
MAX BEND LENGTH	Max_Bend_Length	
MIN BEND ANGLE	Min_Bend_Angle	
MAX BEND ANGLE	Max_Bend_Angle	
MIN FLANGE WIDTH:	Min_Flange_Width	
MAX FLANGE WIDTH:	Max_Flange_Width	

BUTC

DXF Extended Data Format

SHEET-METAL

Update

Rules

Sizes

Import

DXF-Extend

Bend

Laser

QUIT

OVR

2. This will display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

DXF-Extend

PROC #	DESCRIPTION
1	Bend Program Extended Data

Buttons: Add, Update, Delete, View, QUIT

Bottom: Add New Import, OVR

3. Select **“Update”** option followed by **“OK”** to display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

DXF-Extended-Data

DXF FORMAT #: 1 Bend Program Extended Data

DXF SOURCE: INVENTOR: No, SOLIDWORKS: Yes, SOLID EDGE: No, WINDCHILL: No, CATIA: No

INCLUDE DXF HEADER: Yes

INCLUDE MATERIAL: Yes, INCLUDE THICKNESS: Yes, LINEAR UOM: inches, INCLUDE TOOLING: Yes

DXF FILE HEADER OPTIONS: MATERIAL FORMAT: MATERIAL, THICKNESS FORMAT: 0.###, DECIMAL PLACES: 4, UPPER TOOLING: UPPER TOOL, LOWER TOOLING: LOWER TOOL

MARK PERIMETER: Yes, PERIMETER FORMAT: perimeter, MARK CUTOUTS: Yes, CUTOUT FORMAT: cutout, MARK FASTNER HOLES: Yes, NUT HOLE FORMAT: nut_hole, STUD HOLE FORMAT: stud_hole, LOCATION HOLE FORMAT: location_hole, OTHER HOLE FORMAT: other_hole, MARK BENDS: Yes, BEND FORMAT: bend, MARK COLINEAR BENDS: Yes, COLINEAR FORMAT: fold, MARK EMBOSS: Yes, EMBOSS FORMAT: emboss

Buttons: Update, QUIT

Bottom: Update Header, OVR

Load File: (T-617-dem_dxed.unl – Table Name: dxf_extend)

DXF Extension (T-617) Table

extend_num	serial(1)	1	1
description	char(64)	2	Bend Program Extended Data
inventor	char(1)	3	N
solidworks	char(1)	4	Y
solid_edge	char(1)	5	N
windchill	char(1)	6	N
catia	char(1)	7	N
header	char(1)	8	Y
incl_material	char(1)	9	Y
material_format	char(24)	10	MATERIAL:
incl_thickness	char(1)	11	Y
thickness_format	char(24)	12	0.####
thick_dec_places	smallint	13	4
linear_uom	char(10)	14	inches
incl_bend_tool	char(1)	15	Y
upper_tool_format	char(24)	16	UPPER TOOL:
lower_tool_format	char(24)	17	LOWER TOOL:
mark_perimeter	char(1)	18	Y
perimeter_format	char(24)	19	perimeter
mark_cutouts	char(1)	20	Y
cutout_format	char(24)	21	cutout
mark_fst_holes	char(1)	22	Y
nut_hole_format	char(24)	23	nut_hole
stud_hole_format	char(24)	24	stud_hole
loca_hole_format	char(24)	25	location_hole
othr_hole_format	char(24)	26	other_hole
mark_bend	char(1)	27	Y
bend_format	char(24)	28	bend
mark_colinear_fold	char(1)	29	Y
fold_format	char(24)	30	fold
mark_emboss	char(1)	31	Y
emboss_format	char(24)	32	emboss

2.5.05 – Manufacturing Test

2.5.05.01 – Manufacturing Test (T-613) Table

This section starts the setup of the Manufacturability Testing by defining a header row for each user definable Manufacturing Test.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering Set-Up > Manufacturability”

1. Select “**Manufacturability**” option on the following screen form:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Bill-Configuration-List

SET-UP / UTILITIES

Engineering-Set-Up

Manufacturability

eXport

Import

BOM

Databook

Command

export-Route

Update

ERP InterFace

Work Queue

QUIT

MANUFACTURABILITY TEST SET-UP

BU40

Manufacturability Test Set-Up

OVR

2. This will display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Manufacturability-Tests

MFR-TEST

Add

Update

View

Delete

Messages

QUIT

PROC #	DESCRIPTION	PROCESS TYPE	STD #	STD PROCESS	PROCESS
1	Bend Process Test (BP #: 1)	Bending	1	Air Bend, GAL, G60, 0.0635...	BEND
2	Bend Process Test (BP #: 2)	Bending	2	Air Bend, GAL, G60, 0.0785...	BEND
3	Bend Process Test (BP #: 3)	Bending	3	Bottom Bend, GAL, G60, 0....	BEND
4	Bend Process Test (BP #: 4)	Bending	4	Air Bend, SS, 304-4, 0.0500...	BEND
5	Bend Process Test (BP #: 5)	Bending	5	Air Bend, SS, 304-4, 0.0625...	BEND
6	Bend Process Test (BP #: 6)	Bending	6	Bottom Bend, SS, 304-4, 0....	BEND
7	Bend Process Test (BP #: 7)	Bending	7	Air Bend, SS, 316-2B, 0.078...	BEND
8	Bend Process Test (BP #: 8)	Bending	8	Air Bend, SS, 316-2B, 0.093...	BEND

BU40

Add Manufacturing Test

OVR

Load File: (T-613-cus_mfrt.unl – Table Name: mfr_test)

Manufacturing Test (T-613) Table

TEST #	TYPE	PROC #	PROCESS	DESCRIPTION	PASS MSG.	WARN MSG.	FAIL RESULTS	TEST STATUS
1	B	1	BEND	Bend Process Test (BP #: 1)	Process Passed	Warning On Part	Part Failed	P
2	B	2	BEND	Bend Process Test (BP #: 2)	Process Passed	Warning On Part	Part Failed	P
3	B	3	BEND	Bend Process Test (BP #: 3)	Process Passed	Warning On Part	Part Failed	P
4	B	4	BEND	Bend Process Test (BP #: 4)	Process Passed	Warning On Part	Part Failed	P
5	B	5	BEND	Bend Process Test (BP #: 5)	Process Passed	Warning On Part	Part Failed	P
6	B	6	BEND	Bend Process Test (BP #: 6)	Process Passed	Warning On Part	Part Failed	P
7	B	7	BEND	Bend Process Test (BP #: 7)	Process Passed	Warning On Part	Part Failed	P
8	B	8	BEND	Bend Process Test (BP #: 8)	Process Passed	Warning On Part	Part Failed	P
9	B	9	BEND	Bend Process Test (BP #: 9)	Process Passed	Warning On Part	Part Failed	P
10	B	10	BEND	Bend Process Test (BP #: 10)	Process Passed	Warning On Part	Part Failed	P
11	B	11	BEND	Bend Process Test (BP #: 11)	Process Passed	Warning On Part	Part Failed	P
12	B	12	BEND	Bend Process Test (BP #: 12)	Process Passed	Warning On Part	Part Failed	P
13	B	13	BEND	Bend Process Test (BP #: 13)	Process Passed	Warning On Part	Part Failed	P
14	B	14	BEND	Bend Process Test (BP #: 14)	Process Passed	Warning On Part	Part Failed	P
15	B	15	BEND	Bend Process Test (BP #: 15)	Process Passed	Warning On Part	Part Failed	P
16	B	16	BEND	Bend Process Test (BP #: 16)	Process Passed	Warning On Part	Part Failed	P
17	B	17	BEND	Bend Process Test (BP #: 17)	Process Passed	Warning On Part	Part Failed	P
18	B	18	BEND	Bend Process Test (BP #: 18)	Process Passed	Warning On Part	Part Failed	P
19	B	19	BEND	Bend Process Test (BP #: 19)	Process Passed	Warning On Part	Part Failed	P
20	B	20	BEND	Bend Process Test (BP #: 20)	Process Passed	Warning On Part	Part Failed	P
21	B	21	BEND	Bend Process Test (BP #: 21)	Process Passed	Warning On Part	Part Failed	P
22	B	22	BEND	Bend Process Test (BP #: 22)	Process Passed	Warning On Part	Part Failed	P
23	B	23	BEND	Bend Process Test (BP #: 23)	Process Passed	Warning On Part	Part Failed	P
24	B	24	BEND	Bend Process Test (BP #: 24)	Process Passed	Warning On Part	Part Failed	P
25	S	1	LASER-CUT	Laser Cut Size Test	Process Passed	Warning On Part	Part Failed	P
26	S	2	PUNCH	Punch Size Test	Process Passed	Warning On Part	Part Failed	P
27	S	3	PANELBEND	Panel Bend Size Test	Process Passed	Warning On Part	Part Failed	P

2.5.05.02 – Manufacturing Test Parameter (T-615) Table

This section is designed to setup Testing Parameters for each of the user definable Bend Processes.

Menu Sequence: “Engineering > Engineering Setup / Utilities > Engineering Set-Up > Manufacturability”

1. Select “**Manufacturability**” option on the following screen form:

2. Select “**Update**” option and select a Bend Process followed by “**OK**” on the following screen form:

PROC #	DESCRIPTION	PROCESS TYPE	STD #	STD PROCESS	PROCESS
1	Bend Process Test (BP #: 1)	Bending	1	Air Bend, GAL, G60, 0.0635...	BEND
2	Bend Process Test (BP #: 2)	Bending	2	Air Bend, GAL, G60, 0.0785...	BEND
3	Bend Process Test (BP #: 3)	Bending	3	Bottom Bend, GAL, G60, 0....	BEND
4	Bend Process Test (BP #: 4)	Bending	4	Air Bend, SS, 304-4, 0.0500...	BEND
5	Bend Process Test (BP #: 5)	Bending	5	Air Bend, SS, 304-4, 0.0625...	BEND
6	Bend Process Test (BP #: 6)	Bending	6	Bottom Bend, SS, 304-4, 0....	BEND
7	Bend Process Test (BP #: 7)	Bending	7	Air Bend, SS, 316-2B, 0.078...	BEND

3. This will display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Manufacturability-Test | Manufacturability-Parameters | Manufacturability-Results

TEST #: 4 Bend Process Test (BP #: 4)

PROCESS TYPE: Bending

STD PROCESS #: 4 Air Bend, SS, 304-4, 0.05000, Radius - 0.025

MFR PROCESS: BEND Press Brake Bend Operation

PART TYPES: ASSEMBLY: No EXTRUSION: No MACHINED: No SHEET METAL: Yes
CASTING: No FORMED: No MOLDED: No WELDMENT: No

PASS MESSAGE: Process Passed

WARN MESSAGE: Warning On Part

FAIL MESSAGE: Part Failed

BU41

Update Manufacturability Test

MFR-TEST
Update
Parameters
Results
QUIT

4. Select “Parameters” option which will display the following screen form and menu options:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Manufacturability-Test | Manufacturability-Parameters | Manufacturability-Results

TEST #: 4 Bend Process Test (BP #: 4)

ROW #	TYPE	PARAMETER	DIMENSION	LOGIC	TEST	UOM	WARNING	STATUS
1	Dimension	Min. Material Thickness:	Material_Thickness	>=	0.048000	inches		Pass
2	Dimension	Max. Material Thickness:	Material_Thickness	<=	0.052000	inches		Pass
3	Dimension	Minimum Flat Length:	Flat_Length	>=	6.000000	inches		Pass
4	Dimension	Maximum Flat Length:	Flat_Length	<=	96.000000	inches		Pass
5	Dimension	Minimum Flat Width:	Flat_Width	>=	4.000000	inches		Pass
6	Dimension	Maximum Flat Width:	Flat_Width	<=	84.000000	inches		Pass
7	Dimension	Maximum Bend Length:	Max_Bend_Length	<=	96.000000	inches		Pass
8	Dimension	Minimum Bend Length:	Min_Bend_Length	>=	0.750000	inches		Pass
9	Dimension	Minimum Flange Width:	Min_Flange_Width	>=	1.500000	inches		Pass
10	Dimension	Maximum Flange Width:	Max_Flange_Width	<=	24.000000	inches		Pass
11	Dimension	Maximum Up Bend:	Max_Up_Bend	<=	24.000000	inches		Pass
12	Dimension	Maximum Down Bend:	Max_Down_Bend	<=	6.000000	inches		Pass
13	Dimension	Minimum Bend Angle:	Min_Bend_Angle	>=	39.000000	degrees		Pass
14	Dimension	Maximum Bend Angle:	Max_Bend_Angle	<=	135.000000	degrees		Pass
15	Dimension	Minimum Emboss Gap:	Min_Emboss_Gap	>=	1.100000	inches	1.300000	Pass
16	Dimension	Minimum Down Emboss Gap:	Min_Dn_Emboss_Gap	>=	1.000000	inches	1.200000	Pass
17	Dimension	Minimum Louver Gap:	Min_Louver_Gap	>=	0.900000	inches	1.000000	Pass
18	Dimension	Minimum Down Louver Gap:	Min_Dn_Louver_Gap	>=	0.000000	inches		Pass
19	Dimension	Minimum Pem Gap:	Min_Pem_Gap	>=	0.800000	inches	1.100000	Pass
20	Dimension	Minimum Down Pem Gap:	Min_Dn_Pem_Gap	>=	2.000000	inches	2.500000	Pass

Add Test Parameter

PARAMETERS
Add
Update
Delete
QUIT

Load File: (T-615-cus_mfrp.unl – Table Name: mfr_test_param)

Manufacturing Test Parameter (T-615) Table

TEST #	ROW#	PARAMETER NAME	CONDITION	TEST VALUE	UOM	WARN GAP	STATUS	ERROR #	WARN #
1	1	Min. Material Thickness:	>=	0.061500	inches		P	103	601
1	2	Max. Material Thickness:	<=	0.065500	inches		P	104	601
1	3	Minimum Flat Length:	>=	6.000000	inches		P	301	601
1	4	Maximum Flat Length:	<=	96.000000	inches		P	302	601
1	5	Minimum Flat Width:	>=	4.000000	inches		P	303	601
1	6	Maximum Flat Width:	<=	84.000000	inches		P	304	601
1	7	Maximum Bend Length:	<=	96.000000	inches		P	305	600
1	8	Minimum Bend Length:	>=	0.750000	inches		P	306	600
1	9	Minimum Flange Width:	>=	1.200000	inches		P	307	600
1	10	Maximum Flange Width:	<=	24.000000	inches		P	308	600
1	11	Maximum Up Bend:	<=	24.000000	inches		P	309	600
1	12	Maximum Down Bend:	<=	6.000000	inches		P	310	600
1	13	Minimum Bend Angle:	>=	39.000000	degrees		P	401	600
1	14	Maximum Bend Angle:	<=	135.000000	degrees		P	402	600
1	15	Minimum Emboss Gap:	>=	1.100000	inches	1.300000	P	501	600
1	16	Minimum Down Emboss Gap:	>=	1.000000	inches	1.200000	P	502	600
1	17	Minimum Louver Gap:	>=	0.900000	inches	1.000000	P	503	600
1	18	Minimum Down Louver Gap:	>=	0.000000	inches		P	504	600
1	19	Minimum Pem Gap:	>=	0.800000	inches	1.100000	P	505	600
1	20	Minimum Down Pem Gap:	>=	1.000000	inches	2.000000	P	506	600
1	21	Min. Taper Bnd Line Gap:	>=	0.000000	inches		P	507	600
1	22	Minimum Die Cutout:	>=	0.000000	inches		P	508	600
1	23	Maximum Tonnage:	<=	80.000000	tons	75.000000	P	202	600
1	24	Maximum Part Weight:	<=	180.000000	lbs	70.000000	P	203	602

2.5.05.03 – Manufacturing Error Messages (T-642) Table

This section is designed to set up Manufacturing Error Messages for all of the user definable Bend Processes.

Menu Sequence: *“Engineering > Engineering Setup / Utilities > Engineering Set-Up > Manufacturability > Messages”*

1. Select ***“Manufacturability”*** option on the following screen form:

2. This will display the following screen form and menu options. Select ***“Messages”*** option on the following screen form:

ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server

Manufacturability-Tests

PROC #	DESCRIPTION	PROCESS TYPE	STD #	STD PROCESS	PROCESS
1	Bend Process Test (BP #: 1)	Bending	1	Air Bend, GAL, G60, 0.0635...	BEND
2	Bend Process Test (BP #: 2)	Bending	2	Air Bend, GAL, G60, 0.0785...	BEND
3	Bend Process Test (BP #: 3)	Bending	3	Bottom Bend, GAL, G60, 0....	BEND
4	Bend Process Test (BP #: 4)	Bending	4	Air Bend, SS, 304-4, 0.0500...	BEND
5	Bend Process Test (BP #: 5)	Bending	5	Air Bend, SS, 304-4, 0.0625...	BEND
6	Bend Process Test (BP #: 6)	Bending	6	Bottom Bend, SS, 304-4, 0....	BEND
7	Bend Process Test (BP #: 7)	Bending	7	Air Bend, SS, 316-2B, 0.078...	BEND
8	Bend Process Test (BP #: 8)	Bending	8	Air Bend, SS, 316-2B, 0.093...	BEND

BU40

MFR-TEST

Add

Update

View

Delete

Messages

QUIT

Edit Error/Warning Messages

OVR

3. This will display the following screen form and menu options:

The screenshot shows a software window titled "ENGINEERING SET-UP / UTILITIES: Global Edge Windows Demo Server". Inside, there is a tab labeled "Mfr-Test-Messages". Below the tab is a table with three columns: "MSG #", "TYPE", and "MESSAGE". The table contains 17 rows of error messages. To the right of the table is a sidebar titled "TEST-MESSAGES" with buttons for "Add", "Update", "View", "Delete", and "QUIT". At the bottom left of the window is a text input field labeled "Add New Test Message" and at the bottom right is a label "OVR".

MSG #	TYPE	MESSAGE
101	Error	Material Not Defined in Part
102	Error	Material Unit of Measure Missing from Part
103	Error	Part Less Than Minimum Material Thickness
104	Error	Part Exceeds Maximum Material Thickness
201	Error	Part Exceeds Maximum Part Weight
202	Error	Part Exceeds Maximum Allowable Bend Tonnage
301	Error	Part Less Than Minimum Flat Length
302	Error	Part Exceeds Maximum Flat Length
303	Error	Part Less Than Minimum Flat Width
304	Error	Part Exceeds Maximum Flat Width
305	Error	Part Exceeds Maximum Bend Length
306	Error	Part Shortest Bend Length Less Than Minimum Bend Length
307	Error	Part Flange Less Than Minimum Flange Width
308	Error	Part Flange Exceeds Maximum Flange Width
309	Error	Part Maximum Up Bend Exceeds Maximum Allowable Up Bend
310	Error	Part Maximum Dn Bend Exceeds Maximum Allowable Down Bend
401	Error	Part Bend Angle Less Than Allowable Minimum Angle
402	Error	Part Bend Angle Exceeds Allowable Maximum Angle
501	Error	Part Up Embossment Too Close to Bend Line
502	Error	Part Down Embossment Too Close to Bend Line

Load File: (T-642-dem_mfrm.unl – Table Name: mfr_messages)

Manufacturing Error Messages (T-642) Table

Code	Manufacturability Error Codes
101	Material Not Defined in Part
102	Material Unit of Measure Missing from Part
103	Part Less Than Minimum Material Thickness
104	Part Exceeds Maximum Material Thickness
201	Part Exceeds Maximum Part Weight
202	Part Exceeds Maximum Allowable Bend Tonnage
203	Part Exceeds Acceptable Weight
301	Part Less Than Minimum Flat Length
302	Part Exceeds Maximum Flat Length
303	Part Less Than Minimum Flat Width
304	Part Exceeds Maximum Flat Width
305	Part Exceeds Maximum Bend Length
306	Part Shortest Bend Length Less Than Minimum Bend Length
307	Part Flange Less Than Minimum Flange Width
308	Part Flange Exceeds Maximum Flange Width
309	Part Maximum Up Bend Exceeds Maximum Allowable Up Bend
310	Part Maximum Dn Bend Exceeds Maximum Allowable Down Bend
401	Part Bend Angle Less Than Allowable Minimum Angle
402	Part Bend Angle Exceeds Allowable Maximum Angle
501	Part Up Embossment Too Close to Bend Line
502	Part Down Embossment Too Close to Bend Line
503	Part Up Louver Too Close to Bend Line
504	Part Down Louver Too Close to Bend Line
505	Part Up Pem Too Close to Bend Line
506	Part Down Pem Too Close to Bend Line
507	Part Taper Edge Too Close to Bend Line
508	Part Die Cutout Too Close to Bend Line
600	Feature Within Warning Gap
601	Parameter Value Missing
602	Part Requires Two Operators