

WHITE PAPER

SIMPLIFIED APPROACH TO INTEGRATE EXISTING SOFTWARE AND HARDWARE TECHNOLOGIES

A Guide for Manufacturers / Sheet Metal Fabricators

LDC

Global Edge® Integrated Manufacturing

ERP Integration

CAD Integration

Smart Factory Integration

Scheduling / MES

INDUSTRY 4.0

Integrate Your Existing Software & Hardware Technologies ...

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Introducing Simplified Approach to Integrated Manufacturing

Global Edge® Integrated Manufacturing represents a forward-thinking methodology that brings together diverse software and hardware technologies across the manufacturing enterprise. Recognizing that businesses have invested significant time and resources—often over many years or decades—into developing workflows that meet their unique needs, **Global Edge** is designed to complement and enhance these existing systems rather than replace them.

Simplified, Incremental Approach

Global Edge® Integrated Manufacturing starts with establishing an “**Engineering & Manufacturing Data Warehouse**” that provides a centralized, single version of truth shared with the enterprise. This includes the following functionality:

- 1) Automated Enterprise Data Exchange
- 2) Automated CAD Part Analysis
- 3) Automated Sheet Metal Batch Unfolding
- 4) Automated Manufacturability Testing
- 5) Automated CAM Program Generation
- 6) Automated Configuration / CAD Model Generation
- 7) Automated Routing / Sales Quote Generation
- 8) Automated Production Work Queue / Job Build



How It Works

Instead of forcing organizations to overhaul their entire workflow or invest in new, unfamiliar systems, **Global Edge** leverages what is already in place. It acts as a bridge between disparate technologies, providing a unified platform for communication, data exchange, and process management. The result is a more efficient, responsive, and coordinated manufacturing environment.

Automation Features

- ⊕ Automated Engineering Design Review and Validation
- ⊕ Streamlined Production Scheduling and Resource Allocation
- ⊕ Real-Time Monitoring and Reporting Across All Manufacturing Systems
- ⊕ Integration with Supply Chain Management Tools for Optimized Inventory Logistics

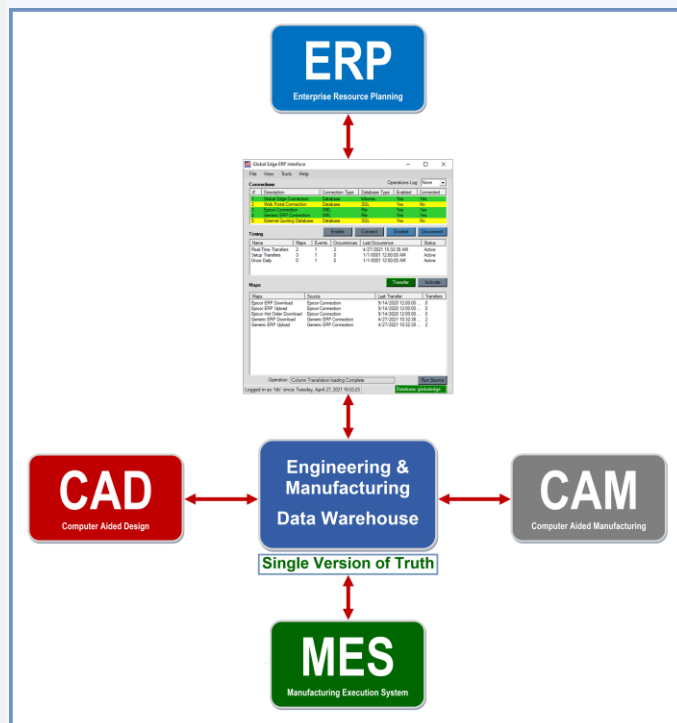
Key Benefits

- ⊕ **Seamless Integration:** **Global Edge** works with your current software and hardware, ensuring that your established workflows remain intact while gaining new capabilities
- ⊕ **Automation of Engineering and Manufacturing Tasks:** By automating repetitive and time-consuming processes, **Global Edge** allow your team to focus on higher-value tasks, leading to significant productivity improvements.
- ⊕ **Cost Savings:** The reduction in manual labor and the optimization of resource translate directly into lower operational costs.
- ⊕ **Scalability and Flexibility:** As your business grows and evolves, **Global Edge** can adapt to new technologies and requirements, ensuring continued relevance and efficiency.

1) Automated Enterprise Data Exchange

Global Edge® Integrated Manufacturing provides innovative capabilities to share and integrate information throughout the manufacturing enterprise. This starts with an innovative **“Engineering & Manufacturing Data Warehouse”** that is built around an advanced bill of materials system that includes functionality designed to provide two-way integration between ERP, CAD, Engineering, CRM / Quoting, MES and the shop floor.

This functionality works with your existing software and hardware technologies and does not disrupt your existing workflows and can be incrementally implemented. This includes establishing a single version of truth data warehouse that helps eliminate duplication of information and effort.



Helps Eliminate Duplication of Information & Effort

Advanced Bill of Materials Management

The advanced bill of materials capabilities built into **Global Edge** includes functionality that integrates CAD bill of materials directly with the data warehouse, which eliminates the need for disconnected bill of materials spreadsheets. This also includes functionality to generate optimal routings based on CAD part parameters that serve as a foundation for automated quoting and automated generation of production job orders.

Data Exchange Capabilities

Global Edge® Integrated Manufacturing incorporates data exchange capabilities that simplifies the process of mapping and translating information between your various software systems including direct integration with shop floor machine tools via XML, ODBC, and/or IoT (Internet of Things). The framework of two-way data exchange contains the following information types:

ERP (Enterprise Resource Planning)

- o Customer / Vendor Records
- o Part / Assembly Numbers
- o Bill of Materials (Engineering & Manufacturing)
- o Routings / Cost Rollups
- o Sales / Engineering Orders
- o Material / Process / Labor Costs
- o Purchasing / Pricing Spreadsheets

CAD (Computer Aided Design)

- o Part / Assembly Files
- o Drawing / DXF Flat Files
- o Engineering Bill of Materials (Excel Files)

CAM (Computer Aided Manufacturing)

- o NC Bend Programs / Laser Nestings

MES (Manufacturing Execution System)

- o Job / Production Orders
- o Production Data Collection

PDM (Product Data Management)

- o CAD Part / Assembly Files
- o MS Word / Excel Documents
- o PDF / Image / Video Files

CRM (Customer Relationship Management)

- o Customer Records
- o Sales Quotes / Quoting Spreadsheets

2) Automated CAD Model Analysis

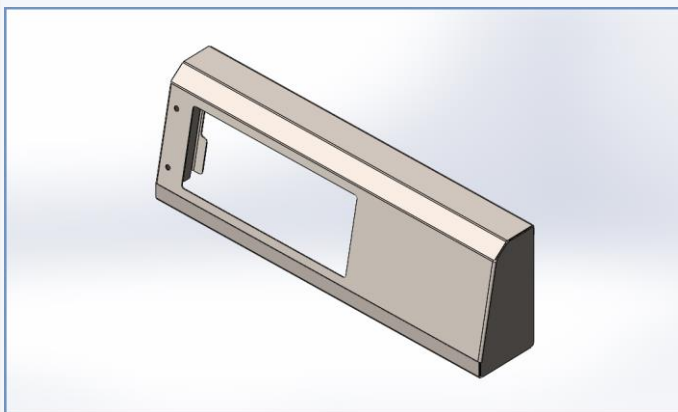
Global Edge® Engineering Assistant includes functionality to increase engineering productivity and generate accurate and timely information is the automated analysis of your 3D sheet metal CAD parts. This automated analysis imports and stores 48 CAD part parameters to help drive accurate and timely quoting, manufacturability testing, and automated bend program generation.

This process eliminates the manual measurement of your sheet metal CAD parts to help ensure the reduction and elimination of shop floor errors.

Global Edge® Engineering Assistant helps ensure that sheet metal parts can be successfully fabricated before they reach the shop floor.

+ CAD Model Analysis

Global Edge® Engineering Assistant does a complete analysis of your 3D CAD sheet metal parts and stores these CAD Part Parameters in the **Global Edge** database to be utilized for quoting, manufacturability testing, and bend program generation.



CAD Part Parameter Report

Global Edge® Engineering Assistant imports and stores 48 CAD part parameters from your 3D CAD sheet metal parts which includes the following information:

Part Number	Description	UOM	Type	Cat.	Style	Mtl.
DEM-04-HOUSING	SHEET METAL HOUSING	EA	C	SHT	-	304-4
Setup Cost:	142.5000	Material:	304-4-STAINLESS STEEL			
Process Cost:	24.7713	Ship Weight:	17.4537			
Component Cost:	43.6343	Ship Weight UOM:	lbs			
Rollup Cost:	210.9056	Standard Cost:	210.9056			

CAD Part Parameters							
Par. #	Parameter Name	Value	UOM	Par. #	Parameter Name	Value	UOM
1	Sheet Length:	0.000000	Inches	25	Minimum Pem Gap:	1.200000	Inches
2	Sheet Width:	0.000000	Inches	26	Minimum Down Pem Gap:	1.800000	Inches
3	Blank Length:	0.000000	Inches	27	Minimum Emboss Gap:	0.000000	Inches
4	Blank Width:	0.000000	Inches	28	Minimum Down Emboss Gap:	0.000000	Inches
5	Material thickness:	0.075000	Inches	29	Minimum Louver Gap:	0.000000	Inches
6	Perimeter:	133.048128	Inches	30	Minimum Down Louver Gap:	0.000000	Inches
7	Flat Length:	42.193245	Inches	31	Min. Taper Bend Line Gap:	0.000000	Inches
8	Flat Width:	19.699142	Inches	32	Minimum Die Cutout:	0.000000	Inches
9	Round Hole Count:	2.000000	-	33	Up Bend Count:	8.000000	-
10	Round Sizes Count:	1.000000	-	34	Internal Up Bends Count:	0.000000	-
11	Obround Hole Count:	0.000000	-	35	Maximum Up Bend:	5.296000	Inches
12	Obround Sizes Count:	0.000000	-	36	Down Bend Count:	0.000000	-
13	Rectangular Hole Count:	0.000000	-	37	Internal Down Bends Count:	0.000000	-
14	Rectangular Sizes Count:	0.000000	-	38	Maximum Down Bend:	0.000000	Inches
15	Other Hole Count:	1.000000	-	39	Fold Count:	8.000000	-
16	Other Sizes Count:	1.000000	-	40	Hem Count:	0.000000	-
17	Number of Cutouts:	3.000000	-	41	Extrude Count:	0.000000	-
18	Cutout Perimeter:	48.355855	Inches	42	Bend Radius:	0.120000	Inches
19	Minimum Bend Length:	8.451000	Inches	43	Cutting Method:	Laser	-
20	Maximum Bend Length:	32.210000	Inches	44	Cutter Ref. Number:	-	-
21	Minimum Bend Angle:	45.000000	degrees	45	Certified Material:	No	-
22	Maximum Bend Angle:	90.000000	degrees	46	Material:	304-4	-
23	Minimum Flange Width:	0.927000	Inches	47	Cutout Distance:	18.055118	Inches
24	Maximum Flange Width:	5.296000	Inches	48	Part Distance:	30.346193	Inches

+ CAD Part Parameters Analyzed & Stored

- Sheet / Blank / Flat Length & Width
- Material, Material Thickness & Bend Radius
- Round / Obround Hole Sizes / Counts
- Rectangular Hole Sizes / Counts
- Other Hole Sizes / Counts
- Total Number of Cutouts
- Total Cutout Perimeter
- Minimum / Maximum Bend Length
- Minimum / Maximum Bend Angle
- Minimum / Maximum Flange Width
- Minimum Pem / Down Pem Gap
- Minimum Emboss / Down Emboss Gap
- Minimum Louver / Down Louver Gap
- Up / Internal Up Bends
- Down / Internal Down Bends
- Fold / Hem / Extrude Counts

3) Automated Sheet Metal Batch Unfolding

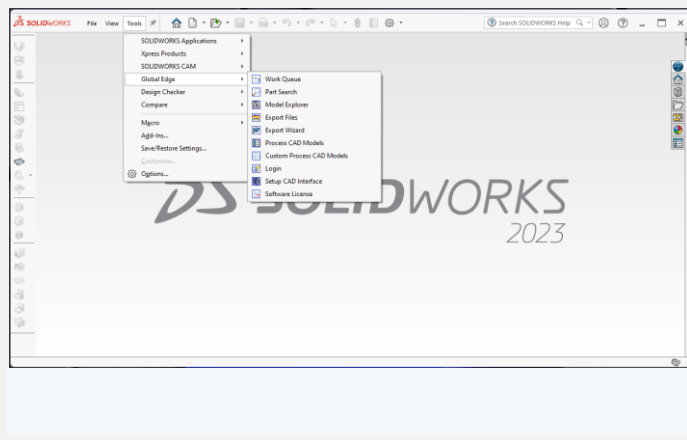
Global Edge® Integrated Manufacturing provides automated batch unfolding of 3D Sheet Metal CAD parts into DXF Flat Files. This includes the automated unfolding of either a single, or large batch of SolidWorks sheet metal parts to generate DXF flat files that can be sorted by material, thickness, and optionally including by job date, cutting, and bending method.

Automated Work Queue

Global Edge® Integrated Manufacturing includes an “Automated Work Queue” that provides an automated method to process daily engineering orders and prepare information for the shop floor. The Automated Work Queue can perform the following actions:

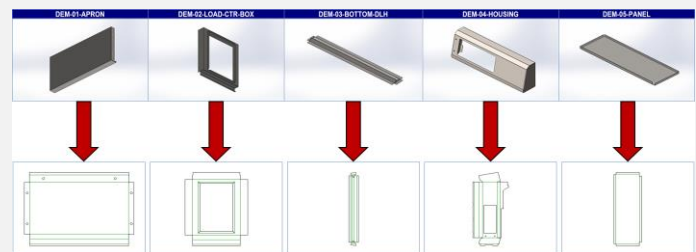
- ⊕ Generation of DXF Flat Files
- ⊕ Automated CAD Part Analysis
- ⊕ Resizing of CAD Model (Bend Radius / K-Factor)
- ⊕ Perform Manufacturability Test
- ⊕ Generation of Routings & Cost Rollups
- ⊕ Generation of 2D & 3D PDF Files
- ⊕ Generation of All SolidWorks Output Files

Global Edge® Integrated Manufacturing runs inside of SolidWorks and can integrate directly with your ERP and MES systems to automatically process daily production.



Automated Batch Unfolding

Global Edge® Integrated Manufacturing automatically generates DXF Flat Files from your 3D SolidWorks sheet metal CAD models:



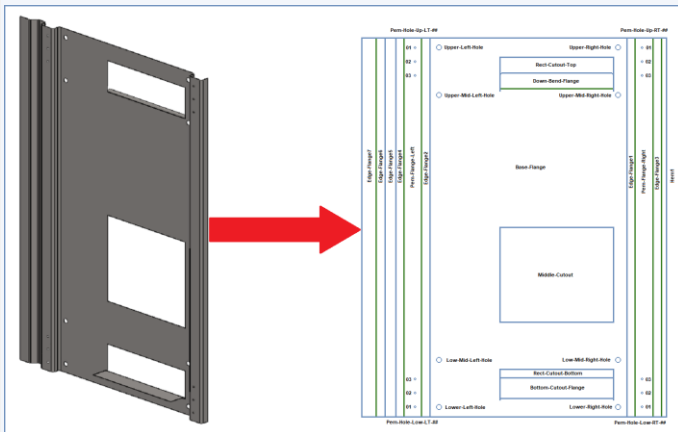
ERP / MES / CAM Integration

Global Edge® Integrated Manufacturing integrates with your ERP, MES, and CAM software programs. This includes the ability to integrate your daily production schedule with the processing of engineering information. This also includes providing your MES and CAM software with the necessary information to help optimize scheduling and to facilitate automated bend program generation.

4) Manufacturability Testing (Design For Manufacturing)

Global Edge® Integrated Manufacturing includes the ability to perform manufacturability tests on your sheet metal parts to determine if they can be successfully fabricated before reaching the shop floor to eliminate rework.

Manufacturability Testing is made possible by comparing the CAD part parameters with bend processes that are defined based on the capabilities and parameters of your bending machine tools.



Manufacturability Testing Results

The following is a sample of the Manufacturability Testing results performed by **Global Edge® Integrated Manufacturing**:

Manufacturability Test Results			
Bend Process #: 18	Bottom Bend, SS, 304-4, 0.075, Radius - 0.120	DEM-04-HOUSING	SHEET METAL HOUSING
Material Code: 304-4	Pass	Extend #: 1	46
Material Thickness: 0.075000	Pass	Linear UOM: inches	5
Minimum Thickness: 0.073000	Maximum Thickness: 0.077000	Material thickness: 0.075000 inches	
Upper Tool Set: 2	Upper Part #: BIU-817		
Lower Tool Set: 7	Lower Part #: OZU-318		
Inside 90 Radius: 0.120000	Pass	Radius Tol: 0.010000	42
K Factor 90: 0.445000	Bend Allowance 90: 0.008000	Bend Radius: 0.120000 inches	
Gage Allowance 90: 0.003000	Tons Per Foot: 20.000000		
Minimum Flat Length: 6.000000	Pass	Max. Flat Len: 96.000000	7
Minimum Flat Width: 4.000000	Pass	Max. Fl. Width: 60.000000	8
Maximum Tonnage: 80.000000		Flat Length: 42.193245 inches	
Maximum Part Weight: 50.000000	Mass UOM: lbs	Flat Width: 19.699142 inches	
Min. Bend Length: 0.750000	Pass	19	Minimum Bend Length: 8.451000 inches
Max. Bend Length: 96.000000	Pass	20	Maximum Bend Length: 32.210000 inches
Minimum Bend Angle: 39.000000	Pass	21	Minimum Bend Angle: 45.000000 degrees
Maximum Bend Angle: 180.000000	Pass	22	Maximum Bend Angle: 90.000000 degrees
Min. Flange Width: 1.200000	Fail 307	23	Minimum Flange Width: 0.927000 inches
Max. Flange Width: 24.000000	Pass	24	Maximum Flange Width: 5.296000 inches
Maximum Up Bend: 24.000000	Pass	35	Maximum Up Bend: 5.296000 -
Maximum Down Bend: 6.000000	N/A	38	Maximum Down Bend: 0.000000 -

Manufacturability Testing Error Codes

The following is a list of the Manufacturability Testing Error Codes the **Global Edge® Integrated Manufacturing** software will detect as the manufacturability test is performed:

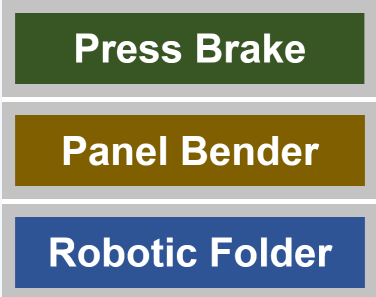
Code	Manufacturability Error Codes
101	Material Not Defined in Part
102	Material Unit of Measure Missing from Part
103	Part Less Than Minimum Material Thickness
104	Part Exceeds Maximum Material Thickness
201	Part Exceeds Maximum Part Weight
202	Part Exceeds Maximum Allowable Bend Tonnage
301	Part Less 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 Down Bend Exceeds Max. 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

Significantly Speeds Up
Product Cycle Times

5) Automated CAM Program Generation

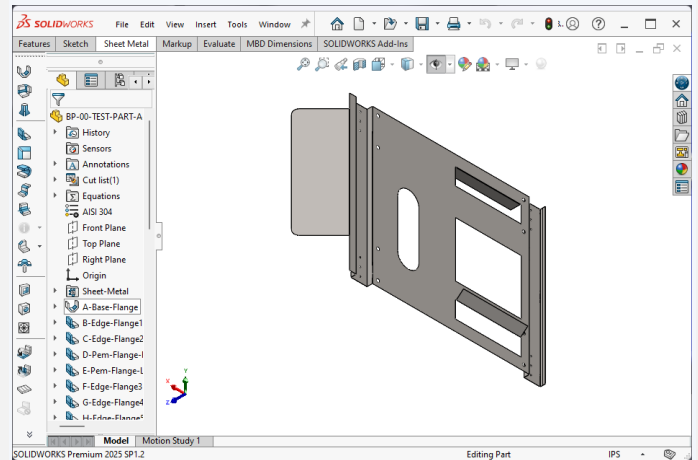
Global Edge® Integrated Manufacturing as part of the whole processing of SolidWorks CAD Sheet Metal Models also includes the capability of generating Extended Data DXF Flat Files to drive Automated Bend Program Generation with the following steps:

- ⊕ Generates DXF Flat File
- ⊕ Analyzes CAD Part Parameters
- ⊕ Generates Routing Steps
- ⊕ Matches Sheet Metal Part with Matching Bending Machine
- ⊕ Embeds Extended Data into DXF Flat File
- ⊕ Places DXF Flat Files Where Needed



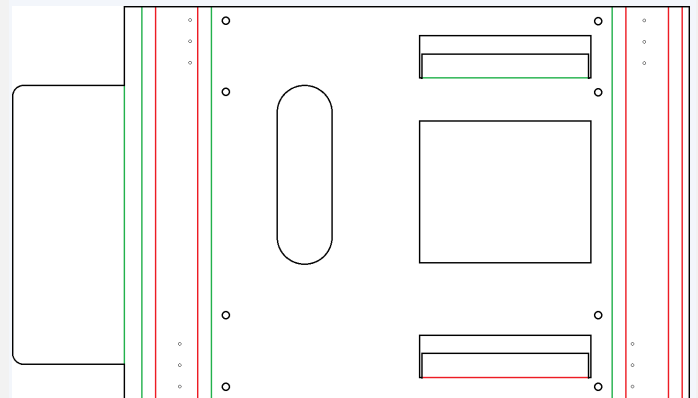
Generation of Extended Data DXF Flat File

As the **Global Edge** software processes a sheet metal part, it produces a DXF Flat File with the following Extended Data from SolidWorks CAD Sheet Metal Model.



Sample Extended Data

The following is a sample of the Extended Data that is added to the DXF File and is produced in accordance the specifications of the CAM Nesting, Bending, and MES / Scheduling software:



- ⊕ Material / Thickness / Bend Angles
- ⊕ Required Tooling
- ⊕ Routing Steps
- ⊕ Required Dates / Quantities

6) Automated Configuration / CAD Model Generation

Global Edge® Integrated Manufacturing includes innovative and powerful product configuration and CAD model generation capabilities that are driven by an advanced **“Plug & Play”** Configuration Engine that adapts to your existing workflow process.

The **Global Edge** Configuration Engine can stand alone or work with an existing sales configurator, web portal, quoting spreadsheets to generate complete bill of materials, routings, costs rollups and part parameters to generate and resize 3D CAD models. The **Global Edge** Configuration Engine can accept outside product configuration parameters, or allows the direct user entry of configurator prompts as follows:

Dim #	Dim. Parameter / Option	UOM	Minimum	Maximum	Input Method
PART #: SLD-000-CABINET					
1	Cabinet_Height	inches	32.000000	40.000000	User Prompt
2	Cabinet_Width	inches	32.000000	60.000000	User Prompt
3	Cabinet_Depth	inches	18.000000	30.000000	User Prompt
4	Face_Pattern				User Prompt
	NONE				
	OPEN				
	VERTICAL SPLIT				
	HORIZONTAL SPLIT				
	VERTICAL SPLIT TOP				
	VERTICAL SPLIT BOTTOM				
5	Post_Height	inches	6.000000	18.000000	User Prompt
6	Bottom_Post_Height	inches	6.000000	18.000000	Formula / User Prompt
7	Fill_Panel?				User Prompt
	Yes				
	No				
8	Removable_Back?				User Prompt
	Yes				
	No				
9	Include_Shelf?				User Prompt
	Yes				
	No				
10	Include_Drawer?				User Prompt
	Yes				
	No				
11	Material				User Prompt
	Carbon	CRS			
	304 Stainless	304-4			
	316 Stainless	316-2B			
12	Material_Thickness	inches			User Prompt
	14 Gauge (0.074000)		0.074000		
	18 Gauge (0.048000)		0.048000		
	20 Gauge (0.036000)		0.036000		
13	Paint_Finish				User Prompt
	White				
	Red				
	Blue				
	Custom				
	None				
14	Custom_Color				User Prompt

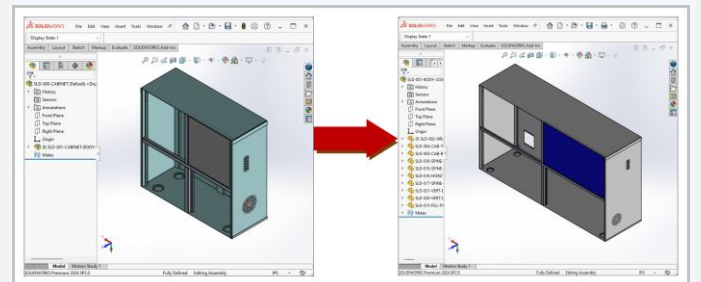
Automated Part Numbering

The **Global Edge** Configuration Engine provides for the definition of Automated Part Numbering Rules to generate either Smart, or Semi-Smart Part Numbers for configured part numbers including the generation CAD model file names. In conjunction with the Global Edge Engineering & Manufacturing Data Warehouse that includes the storage of complete CAD Part Parameters, this facilitates advanced part search capabilities to find existing parts which helps eliminate duplication of parts and the reworking of existing parts and assemblies.

ROW #	INCLUDE	SEGMENT TYPE	START #	VALUE	NOMINAL	INCREMENT	OFFSET	TRIM	EXCEPT
1	Both	Base Part		SLD-000-CAB-	No				No
2	Both	Material							
3	Both	Base Part							
4	Both	Dimension		Cabinet_Height		1.000000			
5	Both	Dimension		Cabinet_Width		1.000000			
6	Both	Dimension		Cabinet_Depth		1.000000			
7	Custom	Base Part							
8	Custom	Number		Make					

Automated CAD Model Generation

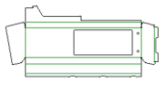
The **Global Edge** Configuration Engine works directly with SolidWorks to automate the renumbering and resizing of SolidWorks parts and assemblies from Template CAD Models. This also includes the automated generation of DXF Flat Files with Extended Data to facilitate Automated CAM Bend Program Generation and Manufacturability Testing to ensure that each sheet metal part can be successfully fabricated on the shop floor:



7) Automated Routing / Sales Quote Generation

Global Edge® Integrated Manufacturing includes innovative software functionality that combines the capabilities of **“Automated CAD Model Analysis”** with a powerful **“Configuration Engine”** that generates optimal routing steps and cost rollups based on the latest ERP time and material costs for accurate and timely sales quote generation. This starts with the generation of the following CAD Part Parameters:

Part Number	Description	UOM	Type	Cat.	Style	Mtl.
DEM-04-HOUSING	SHEET METAL HOUSING	EA	C	SHT	-	304-4
Setup Cost:	142.5000	Material:	304-4-STAINLESS STEEL			
Process Cost:	24.7713	Ship Weight:	17.4537			
Component Cost:	43.6343	Ship Weight UOM:	lbs			
Rollup Cost:	210.9056	Standard Cost:	210.9056			



CAD Part Parameters

Par. #	Parameter Name	Value	UOM	Par. #	Parameter Name	Value	UOM
1	Sheet Length:	0.000000	inches	25	Minimum Pem Gap:	1.200000	inches
2	Sheet Width:	0.000000	inches	26	Minimum Down Pem Gap:	1.800000	inches
3	Blank Length:	0.000000	inches	27	Minimum Emboss Gap:	0.000000	inches
4	Blank Width:	0.000000	inches	28	Minimum Down Emboss Gap:	0.000000	inches
5	Material thickness:	0.075000	inches	29	Minimum Louver Gap:	0.000000	inches
6	Perimeter:	133.048128	inches	30	Minimum Down Louver Gap:	0.000000	inches
7	Flat Length:	42.193245	inches	31	Min. Taper Bend Line Gap:	0.000000	inches
8	Flat Width:	19.699142	inches	32	Minimum Die Cutout:	0.000000	inches
9	Round Hole Count:	2.000000	-	33	Up Bend Count:	8.000000	-
10	Round Sizes Count:	1.000000	-	34	Internal Up Bends Count:	0.000000	-
11	Obround Hole Count:	0.000000	-	35	Maximum Up Bend:	5.296000	inches
12	Obround Sizes Count:	0.000000	-	36	Down Bend Count:	0.000000	-
13	Rectangular Hole Count:	0.000000	-	37	Internal Down Bends Count:	0.000000	-
14	Rectangular Sizes Count:	0.000000	-	38	Maximum Down Bend:	0.000000	inches
15	Other Hole Count:	1.000000	-	39	Fold Count:	8.000000	-
16	Other Sizes Count:	1.000000	-	40	Hem Count:	0.000000	-
17	Number of Cutouts:	3.000000	-	41	Extrude Count:	0.000000	-
18	Cutout Perimeter:	48.355855	inches	42	Bend Radius:	0.120000	inches
19	Minimum Bend Length:	8.451000	inches	43	Cutting Method:	Laser	-
20	Maximum Bend Length:	32.210000	inches	44	Cutter Ref. Number:	-	-
21	Minimum Bend Angle:	45.000000	degrees	45	Certified Material:	No	-
22	Maximum Bend Angle:	90.000000	degrees	46	Material:	304-4	-
23	Minimum Flange Width:	0.927000	inches	47	Cutout Distance:	18.055118	inches
24	Maximum Flange Width:	5.296000	inches	48	Part Distance:	30.946193	inches

Automated Routing Generation

Based on the above CAD Part Parameters, the **Global Edge** Configuration Engine will automatically determine the optional routing steps which can include the following types of routing steps:

LASER-CUT	BEND	WELD	GRIND
PAINT-PREP	HANG-WASH	PAINT-CURE	GASKET
ASSEMBLY	INSPECT	PACKAGE	SHIP

This process allows the user to select a CAD Part or Assembly, or a group of CAD models to be included in a Sales Quote. As parts are processed, routing steps are automatically generated including costs rollups.

Seq #	Sequence	Description	Type	Setup C.	Proc Cost	MACh #	MF Test
1	LASER-CUT	Laser Cut Operation	Process	1.80	18.0000	1003	
2	BEND	Press Brake Bending Op.	Process	37.50	0.7500	1007	
3	TIG-WELD	TIG Weld Operation	Process	22.50	6.7500	1010	
4	DEBURR	Deburring Operation	Process	9.00	1.6789	1011	
5	SAND-PARL.	Sand / Paint / Preparation	Process	6.00	0.2099	1016	
6	HANGING	Hanging Operation	Process	3.75	0.5000	1015	
7	WASHING	Washing Operation	Process	3.75	0.2500	1016	
8	PAINTING	Painting Operation	Process	6.00	0.4198	1017	
9	CURING	Curing Operation	Process	6.25	1.2500	1019	

Sample Sales / Price Quotation

PAGE: 001

1000 West Product Avenue
 P.O. Box 5544
 Productville, WI 55555
 Phone: 262-495-1300 Fax: 262-495-1313
 www.ldcglobal.com

PRICE QUOTATION

SUBMITTED TO: ABC Manufacturing Company
 5500 West Industrial Way
 Milwaukee, WI 55555
 United States of America

SHIP TO: ABC Manufacturing Company
 5500 West Industrial Way
 Milwaukee, WI 55555
 United States of America

CUST ID: 1801
CONTACT: Robert Smith, V.P. of Engineering
E-MAIL: rsmith@ldc-manufacturing.com
PHONE: 414-555-1100
FAX: 414-555-1105

QUOTE #	REV #	QUOTE DATE	VALID THRU	SHIP VIA	DAY32SHIP	PAY TERMS	SALES REP.
1001		04/03/2022	05/02/2022	BEST WAY	10	NET 30 DAYS	Robert Smith
QTY. QUOTED	UOM	PART #	DESCRIPTION	TAX	UNIT QUOTE	EXTENDED	
50.000	EA	DEM-01-APRON	APRON 	N	173.8989	8,694.85	
25.000	EA	DEM-02-LOAD-CTR-BOX	LOAD CENTER BOX 	N	198.0316	4,950.79	
35.000	EA	DEM-03-BOTTOM-DLH	BOTTOM DISPLAY LIGHT HOUSING 	N	168.2720	5,889.52	
10.000	EA	DEM-04-HOUSING	SHEET METAL HOUSING 	N	210.9056	2,109.06	
40.000	EA	DEM-05-PANEL	SHEET METAL PANEL 	N	165.5053	6,620.21	
** PAYMENT SCHEDULE **						QUOTE SUB-TOTAL:	28,254.43
						SALES TAX:	0.00
						FREIGHT:	175.00
						QUOTE TOTAL:	328,429.43

Summary

Global Edge® Integrated Manufacturing is a new generation of software tools that were developed with feedback from leading sheet metal fabricators and machine tool vendors after identifying costly and time-consuming bottlenecks in the engineering workflow process. With current marketplace pressures that include labor shortages, supply chain challenges and unpredictable cost increases; improving productivity with leading edge software technology can help your company overcome these challenges to compete and grow market share.

Global Edge® Integrated Manufacturing is not just a product—it's a strategic approach to modernization that respects your past investments while paving the way for future innovation. By enhancing, automating, and connecting the technologies you already trust, **Global Edge** delivers measurable gains in productivity and cost-effectiveness, helping your business remain competitive in an ever-evolving marketplace.

Logic Design Corporation (LDC) has a 40-year history of helping small, medium, and large-scale manufacturing operations achieve an integrated Industry 4.0 factory environment resulting in saving thousands of engineering hours each year.

COOPER Power Systems

*"The marketplace for 100% automatic program generation (folding machines & press brakes) does not exist. **Global Edge** was the "missing link" that allowed us to expand our manufacturing technologies and capabilities. This has resulted in a savings of 1,000's of man hours per year in our Engineering & Programming departments."*

Adam Popchock, Senior Manufacturing Engineer
Cooper Power Systems, Waukesha, Wisconsin

Johnson Controls

*"Without the **Global Edge** – Product Configurator, we would need to create hundreds of bill of materials (the list of damper components), which requires hundreds of engineering and clerical hours to create and maintain. Orders that once took up to four hours are now processed within 20 seconds."*

Steve Yoder, Damper Cell Manager
Johnson Controls – Watertown, Wisconsin

TDK TDK-Lambda AMERICAS

*"Within one year of implementing **Global Edge** the time from order entry to shipment of customer power supplies decreased from four months to three weeks."*

John Garcia, V.P. Engineering
Lambda Electronics, Inc. – Melville, New York

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