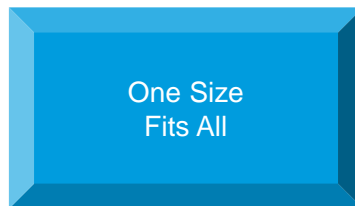




How can one size fit all?



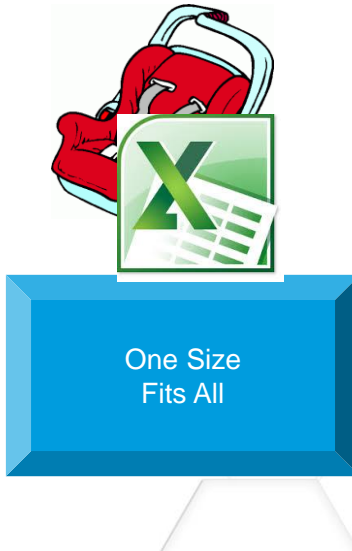
Common Automation

PTC® Live
Global

How can one size fit all?



BILL OF MATERIAL				
ITEM NO.	DESCRIPTION	UNIT	ASSEMBLY OR FIN NO.	QUANTITY
1	TRACTOR	EA	1000	1
2	ENGINE	EA	2000	1
3	TRANSMISSION	EA	3000	1
4	REAR AXLE	EA	4000	1
5	FRONT AXLE	EA	5000	1
6	WHEELS	EA	6000	4
7	STEERING	EA	7000	1
8	SEAT	EA	8000	1
9	BLADE	EA	9000	1
10	HOUSING	EA	10000	1
11	COVER	EA	11000	1
12	WARRANTY	EA	12000	1
13	MANUAL	EA	13000	1
14	TOOLS	EA	14000	1
15	SPARE PARTS	EA	15000	1
16	TRAINING	EA	16000	1
17	SALES	EA	17000	1
18	SUPPORT	EA	18000	1
19	REPAIR	EA	19000	1
20	REPLACE	EA	20000	1
21	REPAIR	EA	21000	1
22	REPLACE	EA	22000	1
23	REPAIR	EA	23000	1
24	REPLACE	EA	24000	1
25	REPAIR	EA	25000	1
26	REPLACE	EA	26000	1
27	REPAIR	EA	27000	1
28	REPLACE	EA	28000	1
29	REPAIR	EA	29000	1
30	REPLACE	EA	30000	1

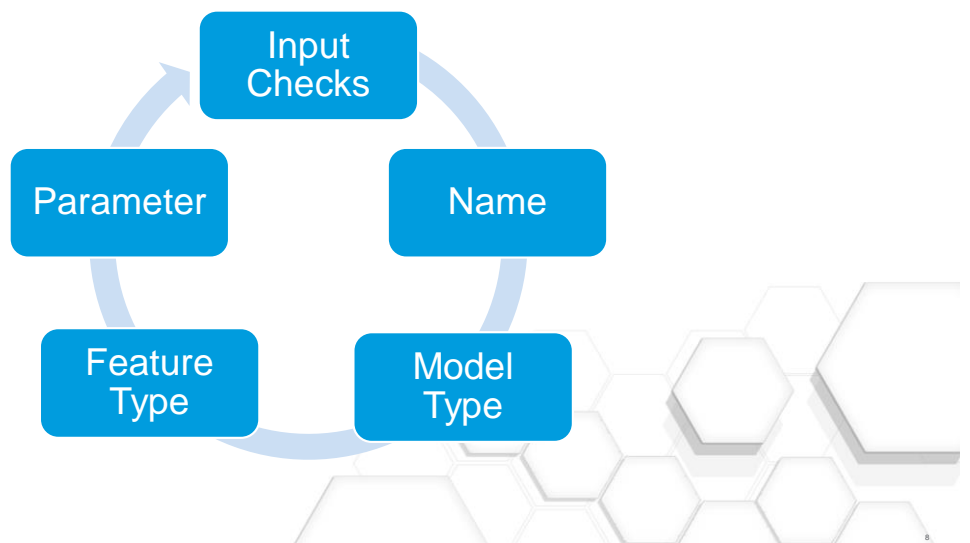


Semi-Automation

PTC® Live
Global

- Give control to the end user to make choices.

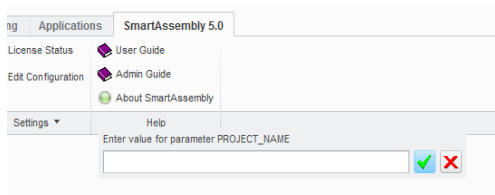




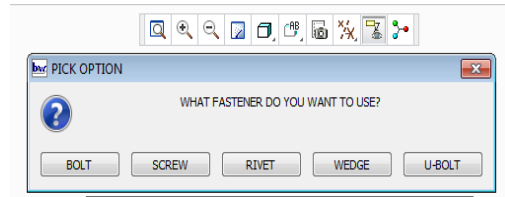
SmartAssembly 5.0

	A	B	C	D
1		Title	Description	Hyperlinks to additional Training
2	1	TOC	Table of Contents	
3	2	USER_DEFINED_PARAMETER_CHANGE aka Big Bird	Changes parameters throughout an entire assembly. Very useful if Lateral_CC_Spacing	N/A enter parameter names and
4	3	DRAWING_ADD_UNITS	Adds drawing units symbol to all dimensions while preserving existing dimension text	N/A choose " or mm
5	4	SECTION_ARROWS	Creates cross section arrows in the preferred format simply by picking the location for the	N/A follow prompts
6	5	FULL_BATCH_PRINT	Prints or Exports drawings in a working directory. Choose the option you want to print to. Common options are PDF and Paper	FULL_BATCH_PRINT

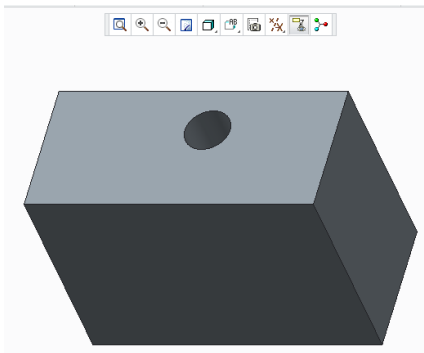




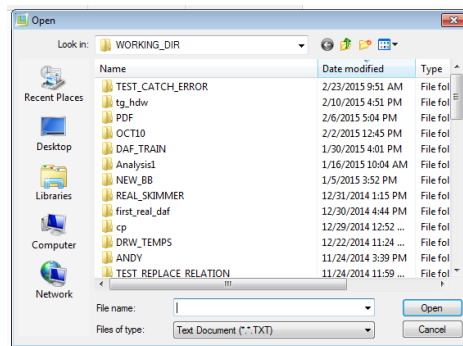
User Input Parameter



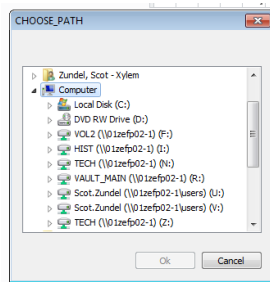
Message Box



Get Mouse Point



Choose File



Choose Path



- UDF
- Drawing Symbols
- Component operations
 - Delete
 - Suppress
 - Change parameters
 - Hide



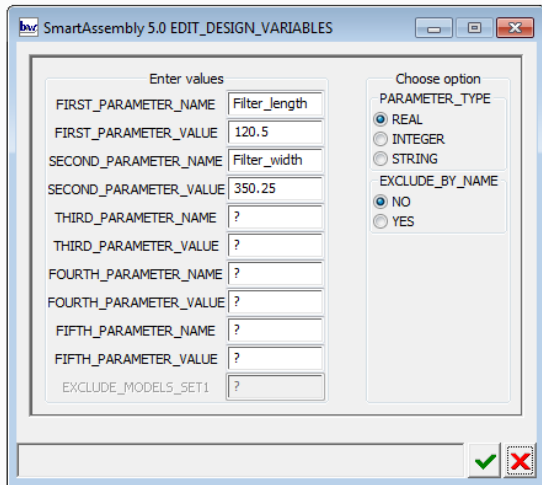
BLOCK MODULE			
56	Underdrain_Type	TSU	
57	Number_Laterals	29	
58	Std_Underdrain_per_Lateral	2	
59	Makeup_Underdrain_Length	20.0000	inch
60	Lateral_CC_Spacing	12.0079	inch
61	Lateral_End_Spacing	9.0551	inch
62	Lateral_Offset_Spacing	2.0000	inch
63	IMS_Type	NO_CAP	
64	Oring_Qty	87	
65	End_Plate_Qty	29	
66			
ORIFICE PLATE MODULE			
68	Orifice_Material	304_SS	
69	Orifice_Cutout_Offset	8.0551	inch
70	Right_Orifice_Length	120.0787	inch
71	Left_Orifice_Length	108.0709	inch



- Make design variables with specific names that would only be used when referring to design criteria
- Do not use vague Length, Width, Material, etc. as design variables.

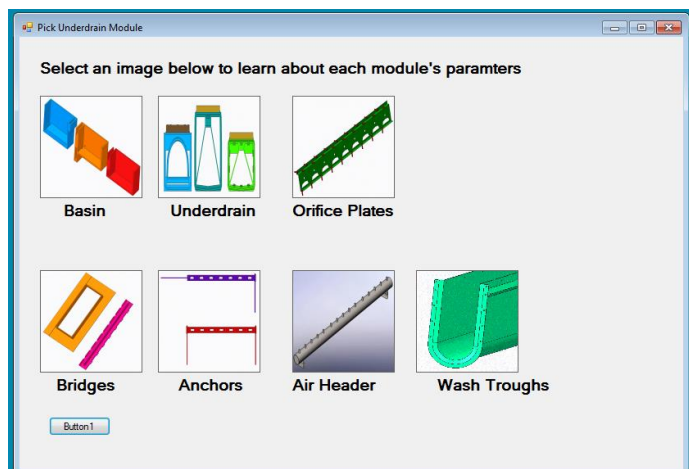
Use	Don't Use
Filter_Length	Length
Filter_Width	Width
Support_Material	Material





- Run from Top Level
- Intended for Design Variables
- User enters
 - Parameters to change
 - Parameter Type
 - New parameter values
- If the parameter exists in a component, the new parameter value is passed
 - Otherwise nothing happens
 - Syncs all Design Variables

- Reuse existing programs
 - Visual Basic
 - Java
 - C++
 - Excel Macros
 - Any .exe
- Program output
 - Text file
 - Excel
 - To known location and name



- In session
- Directory



- Lessens the programming needed
- Use with Loops
- Not all Mapkeys will work though
 - Where you select the object first, then run Mapkey

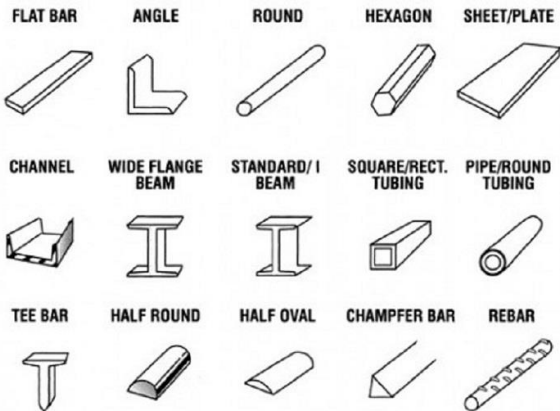


- Purge old data
- Add new parameters to standard components
- Add views



- Reports
 - Standard Reports
 - Cut sheets
 - Percentage project complete
 - User Defined Reports
 - Use GUI to choose
 - Directory
 - Parameters



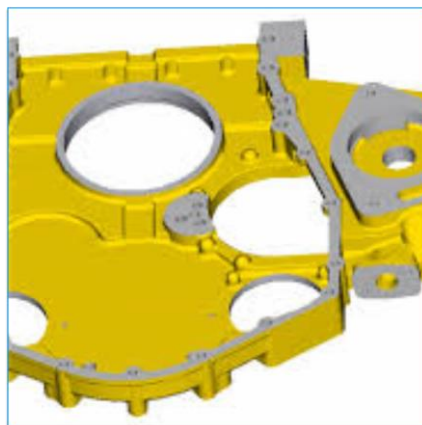


• Graphical way to start parts

- Get consistent parameters
- Easier to generate reports

• Enter

- Quantity
- Length
- File name (using rules)



Test Data



Marketing



User Manual

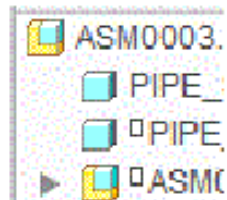


- Orient model to “Front” view to match drawing template needs
- Run Utility – redefines
 - Front
 - Back
 - Top
 - Bottom
 - Left
 - Right



- Add/Change “ or mm units
- Apply correct dtl
- Leaves dimensions text in place





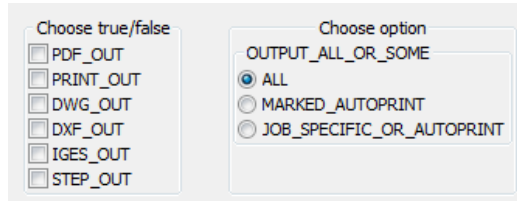
- Use parameter Compile_X string with the path and file to be compiled
 - 80 character limit in parameter value
 - Could be
 - PDF
 - DOC
 - XLS
 - JPEG
 - ETC

COMPILE_1	String	c:\engineering\product name\specs\testing_123.pdf
COMPILE_2	String	c:\engineering\product name\marketing\marketing_123.jpg
COMPILE_3	String	c:\engineering\product name\report\excel_data.xls



- Options

- PDF
- Print
- DWG
- IGES
- STEP



- Which

- All
- Marked Autoprint
- Job Specific or Autoprint

- Where

- Working directory



- Increase Efficiency

- Save time by automating (semi) repetitive tasks

- Increase Usability

- Leverage friendly GUI and prompts to increase PTC Creo's usability

Return focus back on designing quality products



- Scot.zundel@xyleminc.com
- LinkedIn
- PTC/User



- Your feedback is valuable
- Don't miss out on the chance to provide your feedback
- Gain a chance to win an instant prize!
- Complete your session evaluation now

PTC® Live Global

PTC® PRODUCT & SERVICE
ADVANTAGE™

Automation

PTC® Live
Global

- "We don't have the time or money to invest into automating our CAD designs." "Our products are too unique for automation." Sound familiar? There are many perceived barriers to automating PTC Creo, especially if complete and custom automation is expected. However, in this session, attendees will learn about simple yet powerful automated and semi-automated utilities for PTC Creo that are inexpensive and quick to implement. Most companies are burdened with similar repetitive tasks when using PTC Creo such as exporting BOMs to Excel or drawings to PDF, last-minute changes that affect numerous components within a design, compiling documents for proposals or submittals, cleaning up old data, administrative updates such as adding or deleting parameters, changing parameters value, editing relations, etc. By using Sigmaxim's SmartAssembly automation capabilities, the presenter will discuss tools created that increase PTC Creo's efficiency, usability, and administration capabilities regardless of the types of products being designed by addressing those repetitive tasks just mentioned. Training end-users and administrators is short and straight-forward because each tool was designed to match the process. Interactive graphical user interface (GUI)-driven programs, simple input-driven programs, and fully automated tools increase PTC Creo's usability which puts the focus back on designing quality products. Additionally, implementation of these utilities does not require intensive or manual updates to existing designs, so quick implementation is achievable for most companies who face these common repetitive tasks

Message Box

focus back on designing quality products

