



### **July 19th, 2002 minutes**

The meeting of the Madison Area SolidWorks® User Group (MASWUG) was held at the Wisconsin Memorial Union in Madison. 46 people attended.

#### **Introductions and officer elections were held.**

Kevin Honaker from Geiger Handling was elected as our new President. Welcome Kevin!

Marla Schmidt from Sub Zero and Christine Vrooman from Thermo Nicolet were elected at our new Co-Secretaries. Welcome Marla and Christine!

#### **Flexible Subassemblies in Assemblies By Ron Pulvermacher of Matrix Product Development**

1. CREATE SUBASSEMBLIES AND MAIN ASSEMBLY AS NORMAL
2. DROP IN SUBASSEMBLIES INTO THE MAIN ASSY AS NORMAL
3. RIGHT CLICK ON THE SUBASSEMBLY IN THE PROPERTY MANAGER TREE AND SELECT "COMPONENT PROPERTIES", AND SELECT "FLEXIBLE" TO PERMIT IT TO FLEX OR MOVE. RIGID IS THE DEFAULT.
4. IF A PART IN A SUBASSEMBLY (1) NEEDS TO MOVE AND THIS SUBASSEMBLY (1) IS PART OF ANOTHER SUBASSEMBLY (2), THEN INSIDE SUBASSEMBLY 2, THE PART MUST BE MADE FLEXIBLE. ADDITIONALLY, INSIDE THE MAIN ASSEMBLY, SUBASSEMBLY 2 MUST BE MADE FLEXIBLE.

## **Advanced Sketching**

### **By Mike Allex of Venus Graphics**

- Mike demonstrated putting equations on a bolt pattern creating a relation with the hole pattern to the edge of the part such that if the overall part size changes, the bolt pattern changes with it.
- Use construction lines on a slot to define the center of slot for easy placement.
- Put the origin of a part in its center for easy of placement in an assembly.

## **Sheet metal Forming Tools**

### **By Travis Curtis of Sub Zero**

To use forming tools, go to Tools/Features/Pallet and drag and drop a tool onto your part. Use the tab key to orientate the part. Locate the tool with dimensions and you are finished.

To create a forming tool, begin sketching a part with the "TOP" plane and extrude the part downward. Use Tools/Check for minimum radius of curvature errors. Shade all surfaces that will cut through the part RED. Save the part into the pallet folder.

## **3D Sketching**

### **By Kevin Honaker of Geiger Handling**

Kevin demonstrated tubing on an engine created with 3D sketch lines.

## **Polyurethane Castings from SolidWorks models**

### **By Mike Sinur of Prototype Techniques**

Mike recommended setting the STL file generation to fine resolution for creating an SLA that will be used to cast urethane parts.

Urethanes can be selected that reach 300 degrees F and some have UL94V0 ratings.

Several parts were pasted around for viewing.

**Special thanks to CATI for providing the projector and computer.**

**Next meeting is October 3<sup>rd</sup> at the MG&E Center**

Submitted by: Ron Pulvermacher  
Past Co-Secretary of MASWUG