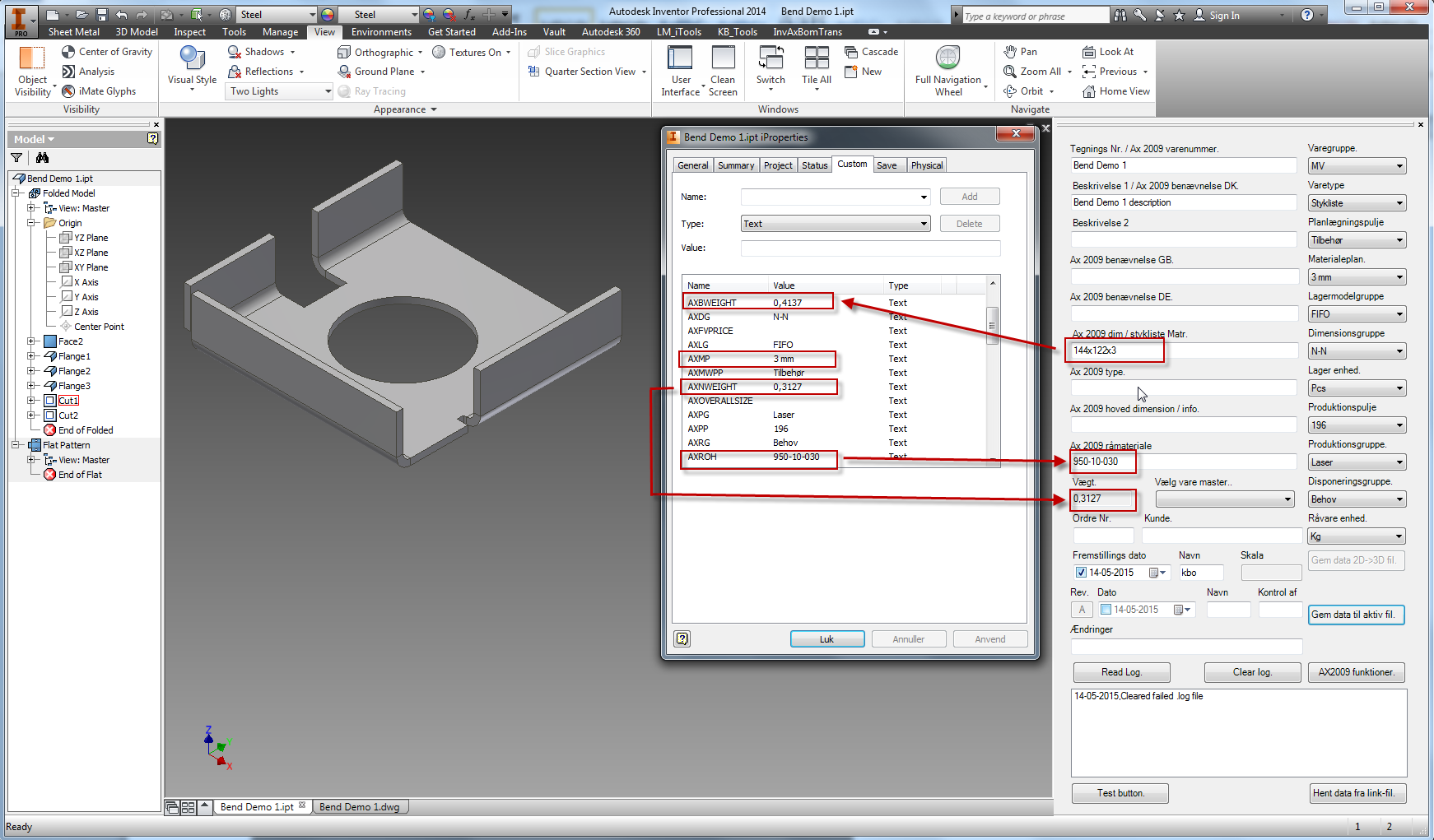
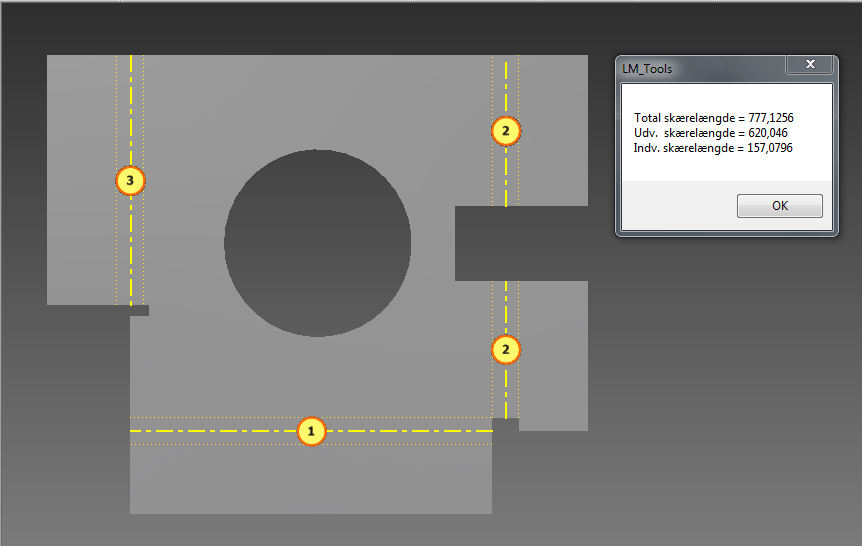
**Autodesk problem description.**

Today when we create sheet metal parts, we calculate the max height and length and thickness of an unfolded part. I have written a ERP integration to our Microsoft dynamics system and we use all this information together with other things from the parts and assemblies to create our parts with raw material lists and part lists for the assemblies.

Sheet metal folded, demo part.



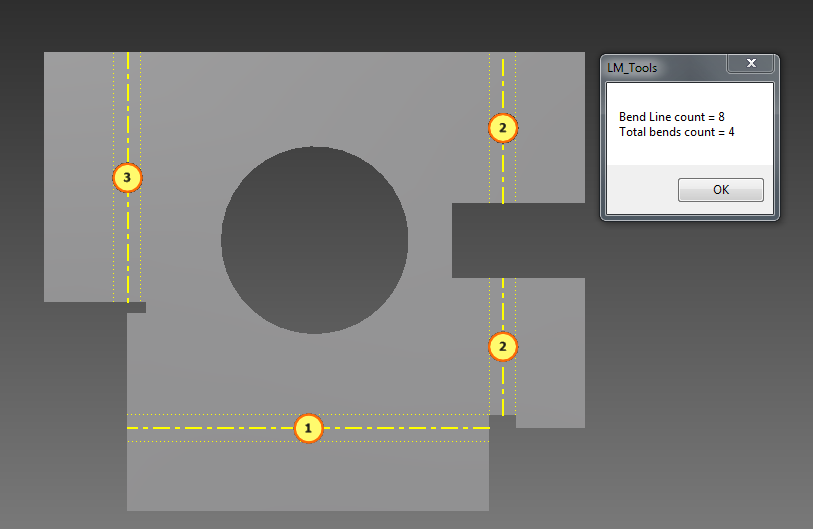
Some things I am working on now, is to transferee the cutting time for our laser cutter.  
This I have figured out, and can do by multiplying the total cutting length of the part by some factor / minutes bases on the thickness of the plate. And we are now able to do a forecast how occupied our laser cutter will be in the production of multiple parts or assemblies.



**Now the challenge is to find out how many bends there is on the Sheet metal part, and how long the longest bend line is.**

The company has two press brakes / bend machines. One that can take parts up to 3 meters and one that can bend parts up to 1,5 meter. The small one can only bend plates up to 5-6 mm. The big one can bend plates up to 15-20 mm.

I can calculate the bends as you see I the below picture, but the result is wrong. The bend lines counts 8, here I figure this is because there are 4 on top and 4 on the button of the part. Total bends counts 4, but in real life we would only use 3 bend operations in the bend machine / press brake. The highest bend number / bend order number is 3.  
What I want to extract from the model is the bend order numbers and the length of the bend lines that the bend order numbers are attached to, and also find, the highest bend order number (3). Then together with the thickness of the part we can do a rough calculation of the bending time of a part and also see if the part has to be bended in the big bend machine / press brake or the little one can be used. And with this we can do a rough calculation, to see how occupied both our bend machines will be even before production begins. All this I / our engineers will be able to transfer into our erp system when the part and properties from this is created via my Inventor / dynamics integration. All files for the production are created on the fly \*.dxf for the laser cutter / \*.sat for and \*.pdf files of drawings created and attached to the stock numbers inside the erp system, When the engineers releases a part / assembly inside Vault Pro.



Regards Kent boettger.