



Windows DXF Converter

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Location

Those who have the option of importing DXF files using the Windows DXF Converter will have the option available to them under the pull down menu in Windows Peddimat under File as seen in Figure 1.

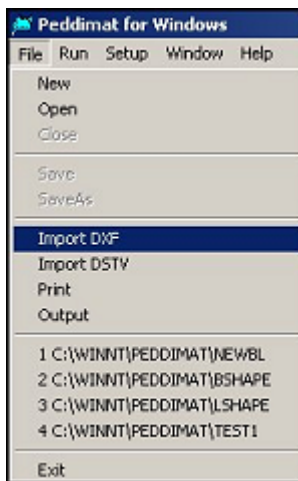


Figure 1

But before the Windows DXF converter will accept any DXF files, the AutoCAD drawings must follow some simple guidelines in order for the converter to read the DXF files correctly to make Peddimat files.

Creating an Information Block

Start off with a new drawing and select Define Attributes in AutoCad as seen in Figure 2.

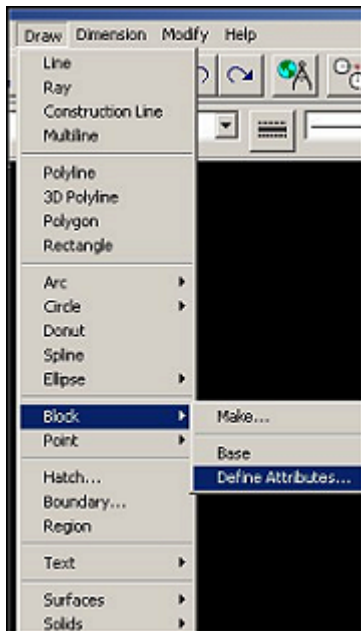


Figure 2

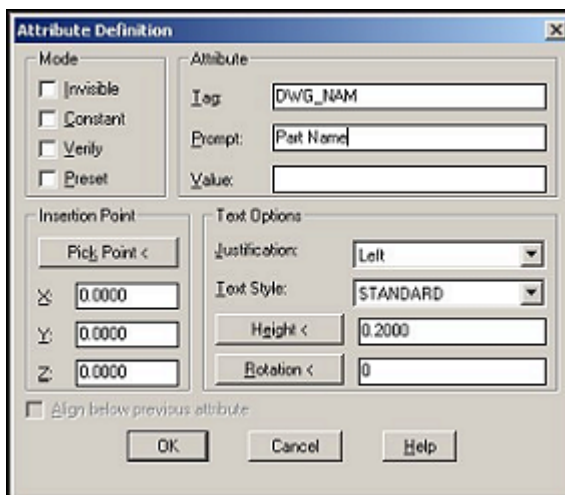


Figure 3

Next you'll want to fill out the Tag and Prompt fields as shown Figure 3 and then choose **Pick Point** to place the attributes on the drawing. The next step will be to continue opening up Define Attributes and continue with the rest of the attributes as seen in Figure 4.

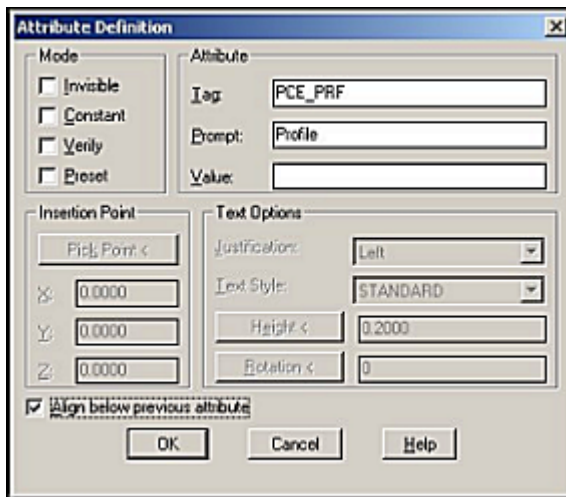


Figure 4

Checking the **Align below previous attribute** will place the new attribute on the drawing right below the others you have created already. Continue this process until the drawing has these attributes.

<u>Tag</u>	<u>Prompt</u>
DWG_NAM	Part Name
PCE_MAT	Material
PCE_PRF	Profile
PCE_QTY	Quantity
PCE_DES	Comments
PCE_UNI	Unit (0=mm. 1=inches)

Name this drawing INFO.DWG or a file you can remember easily. You have just created the new information block that will be added to all new AutoCAD drawings. The new Windows DXF Converter will read these DXF files created from these new drawings and will obtain needed information from this block in order to create Peddimat files.

Creation of an AutoCAD drawing

- 1) Start a new drawing. (This example will deal with a beam.)
- 2) Create the layers Web, Top, Bottom, and Bckweb as seen in Figure 5.

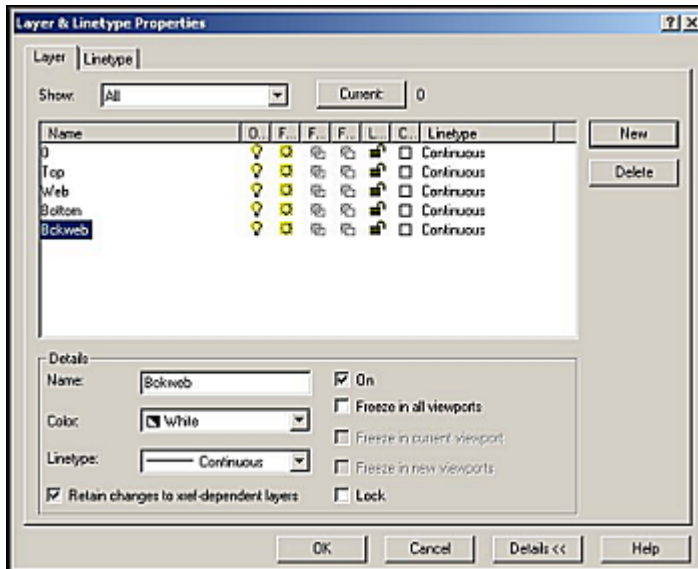


Figure 5

- 3) In the drawing select the layer Web. From this point, everything concerning the web should be drawn in this layer. Draw the web using lines or polylines. The outline should be correctly closed and the width should match the profile you need.
- 4) Add the necessary lines for the width of the flanges using hidden lines. Draw these according to the actual thickness of the flanges.
- 5) Do the same for the Top and Bottom layers including the necessary lines for the thickness of the web using hidden lines. From this point, everything concerning the top or bottom layers should be drawn in their corresponding layers.
- 6) Place holes where they need to be using the CIRCLE command. If a hole is needed bigger than any tool size use two ARC commands instead so that converter can be used to select these holes as cuts or marks.
- 7) You can program any dimensions or comments just simply remember to program them using the 0 layer.
- 8) Insert the block you created above by using the INSERT command and browse for the Info.dwg or the file you named it. After you have placed where the block will be on the drawing you next need to fill out the attributes. If the ATTDIA variable is set to 1, you'll get the screen with all the attributes you created earlier otherwise you'll have to enter them on the command line. Remember to use a 1 for inches in the UNIT attribute or 0 for millimeters corresponding to the way the drawing was created.
- 9) Save your drawing and Export a DXF file.

Typical Profiles

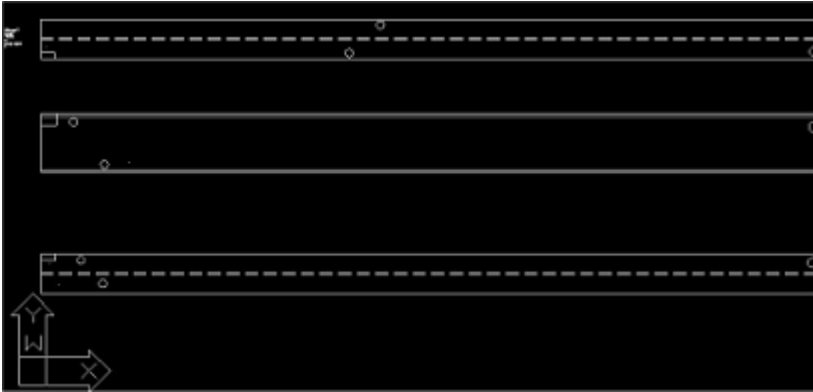


Figure 6 Beam Profile

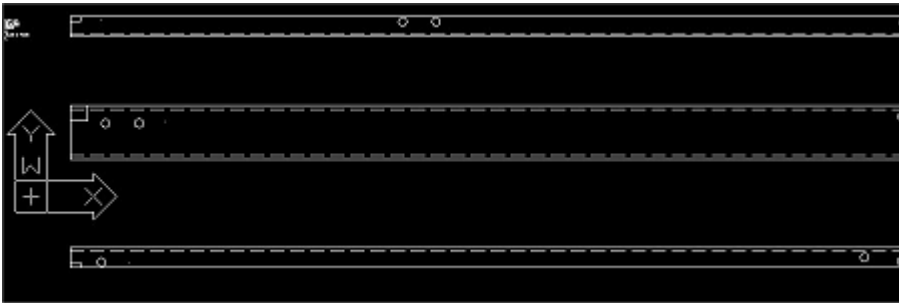


Figure 7 Channel Profile



Figure 8 Angle Profile

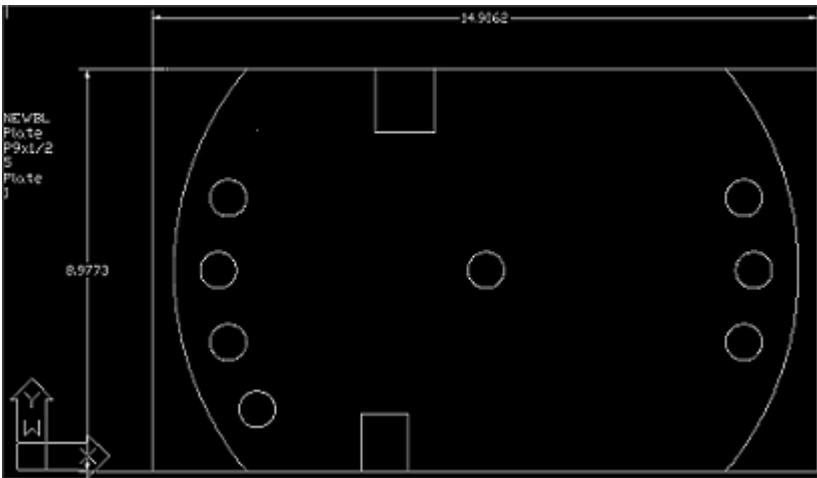


Figure 9 Plate Profile

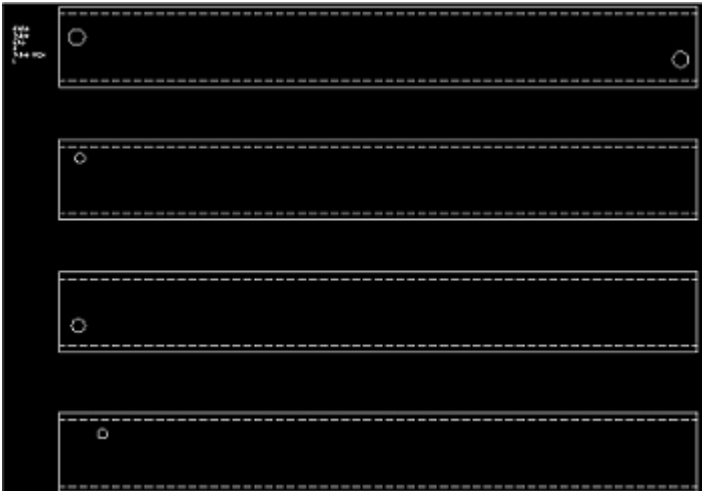


Figure 10 Tube Profile

File Menu Pull Down



Figure 11 DXF Converter

Open - Will open any standard DXF Files.

Save - This function will save the current setup parameters of the DXF Converter and place them in a file called DXF.INI located where the Peddimat Software was installed.

ListInfo - This will display the entity information on screen as seen in Figure 12. The far left column will list all the information of the displayed drawing. The column to the right will display all the entities that are selected to be cut or marked.

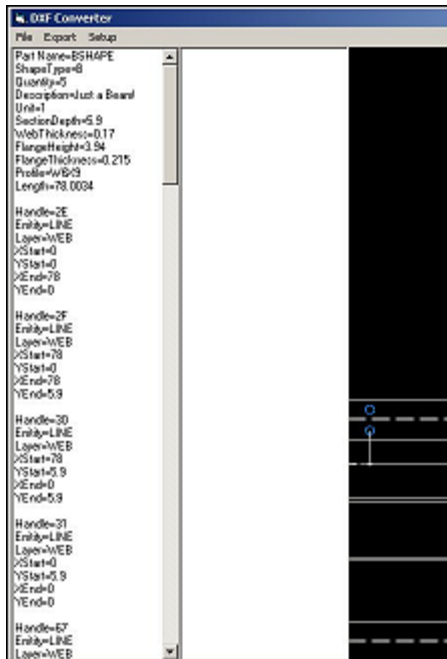


Figure 12 List Info

Print – The Print selection will appear anytime a DXF file has been loaded and displayed on the screen. This feature will pop up upon selected as seen in Figure 13 showing the file as it would print out on paper. By hitting the Print key the DXF file will be sent to your local printer if one is set up.



Figure 13 Plot Preview

Most Recent – Will list the three most recent DXF files opened and save them in the DXF.INI for future use.

Exit – Will exit the converter and also save the exiting parameters to the DXF.INI file. Closing the converter using the normal exit button in the upper right corner will close the converter but it will not save any changes.

Export Menu Pull Down



Figure 14 Export Menu Pull Down

PeddiFile – Selected this will create the Peddimat file according to the DXF drawing displayed. This file will be created in the Output Directory you specify under the Setup pull down in Directories. Any marking or cutting that needs to be done on the part needs to be established before PeddiFile is selected.

Cut Selections – Upon selection there will appear a dialog box seen in Figure 15 asking for a name for the Cope Files and a start location of where you would like to initially begin. By default the name will be populated with the name you provide within the attributes. This feature will allow the operator to manually select the lines or arcs on the drawing using your mouse and show them as being selected for cutting. Once this has been established you can either cancel this by exiting out of the dialog or pressing the Create Cope button in order to create this cope file. The cope files will be located in the directory you specify under the Setup pull down in Directories.

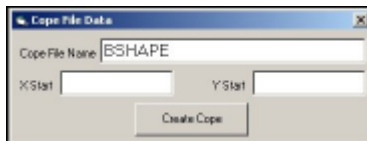


Figure 15 Cope File Data with Cutting

Mark Selections – Upon selection there will appear a dialog box seen in Figure 16 asking for a name for the Cope Files. By default the name will be populated with the name you provide within the attributes. This feature will allow the operator to manually select the lines or arcs on The drawing using your mouse and show them as being selected for marking. Once this has been established you can either cancel this by exiting out of the dialog or pressing the Create Cope button in order to create this cope file. The cope files will be located in the directory you specify under the Setup pull down in Directories with the distinction of having the # sign in front of the name of the cope.

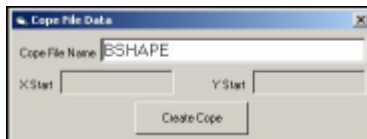


Figure 16 Cope File Data with Marking

Setup Menu Pull Down

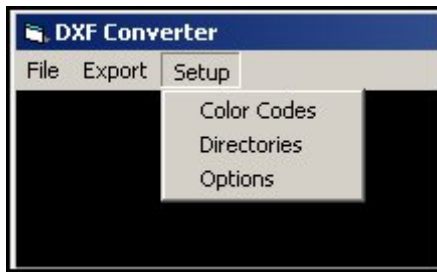


Figure 17 Setup Menu Pull Down

Color Codes – This is a simple dialog explaining the color scheme of the drawing.

Directories – This is a dialog which holds the Input, Output, and Cope directory paths. The Input path is the path where the converter will initially look for DXF files when Open is selected. The Output path is the path where the newly created peddimat files will be stored. The Cope path is the path where the newly created cope files will be stored.

Options – This is a dialog with some additional setup features that can be used with the converter as seen in Figure 18.

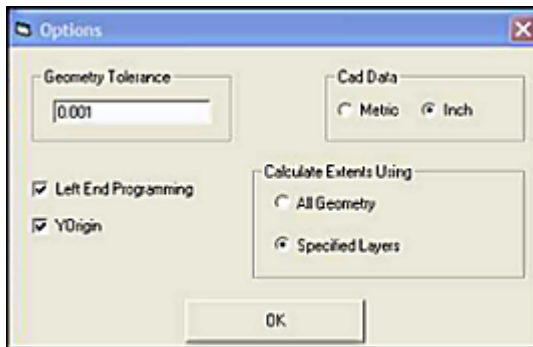


Figure 18 Options Dialog

Geometry Tolerance – If the value between the ending of one entity and the beginning of another entity is less than or equal to this value then the cope file will be created such that the torch or marking device will not have to be picked up off the material.

Cad Data – Will display the drawing entities in terms of millimeters or inches and also create the Peddimat file according to this as well.

Calculate Extents Using – All Geometry will show the entire boundaries of the part. Specified layers will show the drawing from just the entities and not the entire boundary of the part.

Left End programming – By default, the flow of the created Peddimat file will be from left to right as viewed on screen. If unchecked then the flow will taken as right to left as viewed on screen.

YOrigin – This is an option to change the view in the DXF Converter. Having this option unchecked will show the view as it would be represented in AutoCad. Having this option checked will show the view as it would be in Peddimat.

Right Mouse Pop Up



Figure 21 Right Mouse Pop Up

Much like the features in AutoCAD:

Zoom In – Zoom In will take a loaded DXF file and zoom in at 20% of what it was originally.

Zoom Out – Zoom Out will take a loaded DXF file and zoom out at 20% of what it was originally.

Zoom Scroll – Selecting this feature will change the mouse icon to a size pointer. Now holding down on the left mouse button moving up or down will cause the loaded DXF file to zoom in or zoom out accordingly.

Zoom Window – Selecting this feature will change the mouse icon to a cross pointer. Now holding down on the left mouse button will draw a box around the area on the loaded DXF file where you want to zoom in on.

Zoom Extent – Selecting this feature will cause the DXF file to be reloaded to its original view.

Zoom Pan – Selecting this feature will change the mouse icon to a hand pointer. Now holding down on the left mouse button and moving the mouse in the direction you want the DXF file will shift (left, right, up, down, etc...) in the direction the mouse goes.

Clear Entity List – Selecting this feature will erase any selected entities that were added for cutting or marking back to having no added entities as if the DXF file was loaded for the very first time.