



Integrated CADD Services

19 Bishop Allen Drive
Cambridge, MA 02139
617-576-8778
fax 617-576-5543
www.intcad.com

Saving DWG Files - Preparation

You should find out whether they want a DXF or a DWG file and what Version of AutoCAD they are using. DWG is preferred for file size and more items remain intact using DWG (IE arcs can become segmented lines in DXF).

Saving the File

- 1) Open the ArchiCAD File
- 2) Set the Layers correctly
NOTE: Some points to know about layers:
 - When saving DWGs out of ArchiCAD 6.5 and earlier the information on visible layers is what is saved out. In version 7 there is a choice offered in the Expert Section of the Save Dialogue Box
 - In ArchiCAD Version 6.5 and earlier items on invisible layers are not saved, just the layer name itself. In version 7 there is a choice offered in the Expert Section of the Save Dialogue Box.
 - Layers sets or combinations do not transfer from ArchiCAD to AutoCAD. The simplest way to deal with this is give the consultant a file with the layers set they way they should be for a particular drawing-this eliminates guess work on the other end. The other solution is to show all the layers, but this forces the recipient to toggle the layers on their end. If you need to make a Floor Plan and a Reflected Ceiling Plan it often just makes sense to send a separate file for each.
- 3) Turn off Hotspots (optional)
Hotspots are not supposed to be visible in the dwg file, but every once in a while they will cause a problem for some AutoCAD add on. We have hotspots on their own layer so that they can be turned off.
- 4) Display Options (mandatory)
You should set Line Weight to Hairlines or you will save a true weight line as a rectangle with lots of lines filling in the middle. This will increase the file size 3 to 10x and is hard to deal with for the consultant.
- 5) Display Options (optional)
 - I generally turn off drawing aids such as Roof Pivot Lines, Fill Handles, Text & Figure Handles. These are not supposed to be visible in the dwg file, but every once in a while they will cause a problem for some AutoCAD add on.
 - Whenever possible set construction fills to empty. Depending on the version of AutoCAD the wall fills may become thousands of lines. Generally when you are sending a drawing out to an engineer it is a shell drawing and they would not want walls to be hatched anyway.



19 Bishop Allen Drive
Cambridge, MA 02139
617-576-8778
fax 617-576-5543
www.intcad.com

6) Fills

- Depending on the version of AutoCAD, the fills may become thousands of lines. Whenever you can turn off or hide fills, do so.
- Fills with precise spacing such as floor tiles or ceiling tiles may be problematic depending on the versions of ArchiCAD and AutoCAD involved. It is best to always check a dwg with this type of fill by opening it back up in ArchiCAD before sending it.
- If there is a problem with the fills origin point shifting, try creating a symbol fill by pasting ArchiCAD lines into the fill editor. Symbol fills seem less likely to have their origin point shift than regular fills.

7) Set the Scale Correctly

8) Stories

AutoCAD does not have physical stories the way ArchiCAD does. Therefore it is necessary to save out each floor of the building as a separate DXF or DWG file.

9) Fonts

Font styles are generally not going to transfer in a DXF/DWG exchange. The exception is a Windows ArchiCAD file going to a Windows AutoCAD user where the same fonts are present. If there will be a lot of back and forth of the files text translation can be accomplished by setting up a DWG Configuration File in ArchiCAD. If this is a one time transfer this is usually not an issue.

Naming the DWG

Make sure to use a file extension: DXF or DWG so Windows knows what type of file it is. Mac Users should avoid using / \ and other characters not allowed in Windows.

The DXF/DWG Save Dialogue Box

- 1) Unless you are using a Configuration File ignore the "Select Configuration File" option.
- 2) Set the proper version of AutoCAD in the "Target Application" popup menu.
- 3) Set the Units to "1.00" and "inches".

Expert Settings

- 4) Only check off "Save Merge Data" if the file is going to be sent back to you. This allows you to retain the 3D components of the file and set up rules for dealing with changes made by the AutoCAD user. Only do this if you are getting the file back and need the 3D back because the file size is considerably larger when saved this way.
- 5) "Construct Layers according to ArchiCAD Layers" is the normal setting.
- 6) "Model Space" is the normal setting.



Integrated CADD Services

19 Bishop Allen Drive
Cambridge, MA 02139
617-576-8778
fax 617-576-5543
www.intcad.com

- 7) Do NOT explode complex ArchiCAD elements...
...unless the AutoCAD user is having trouble opening the files. Then it is worth trying this to see if it helps. One typical problem is ArchiCAD library objects can have longer names than AutoCAD blocks and this can cause errors.
- 8) In Version 7 you have a choice of how to handle elements on layers that aren't visible. You can have the elements on hidden layers travel with the file, but remember the layer combinations do not. This leaves it up to the end user to turn things on and off. Assuming the drawing is making a one way trip. It is often easier and safer to save the drawing with the visible layers only and Purge Empty Layers. That way the consultants get just what they need, the way you intend it to look.

Preflight

- 1) Open at least one of the files back up in ArchiCAD to view the results.
Chances are if you have a problem, the consultant will have a problem too.
- 2) Try saving again using some of the suggestions noted above.
- 3) Try DXF instead of DWG
DWG is generally preferable but sometimes a DXF will work when a DWG won't.
- 4) Send a Plot File (.plt) as a reference.
A plot file saves the font and fill information accurately, that sometime gets lost in translation when making a DXF/DWG. This .plt file can be plotted out by the recipient, and they can compare it to the AutoCAD file to make sure all of the information was is correct in the DXF/DWG.
- 5) An alternate to a plot file is a PDF file made with Adobe Acrobat.
This is good for a client that needs a DXF/DWG but doesn't have a plotter or large format printer. Most computers these days ship with Adobe Acrobat Reader.