

Importing CAD Files into WYSIWYG or Vivien

We must start off by stating that it is impossible to write a step-by-step procedure which will *always* make a file import. This is because, unfortunately, there is no way to tell what actions need to be taken in a particular file (other than the ones listed in the General Issues section), as every CAD file is different; some may only need to be modified slightly (or not at all), while for others you may need to try something that is not even on this list—it is impossible to predict everything that an CAD file may contain. Hence, the best we can do is present users with the some suggestions for what to do with CAD files, using AutoCAD, in order to get them to import.

We suggest reading this entire document before you start to modify the file that's to be imported. Please accept our apologies in advance for some of the rather vague thoughts and concepts below; it is the best we can offer without actually looking at your file.

General Issues (which always apply)

First and foremost, file in AutoCAD 2005 or later format are not supported. Your file must be saved in the AutoCAD 2004 (or earlier) format.

Of equal importance are the units in your file: you *must* know what units are defined for the file you need to import. If you import with the incorrect units, the model will appear either too large or too small, or in some cases it may not appear at all.

User-created Paperspace Layouts¹ must be deleted. These tend to confuse WYSIWYG and Vivien to no end (since layers, objects, blocks, etc. may be “referred to” more than once in the CAD file). Deleting these will not affect the model in any way, since they are created for printing purposes only. Please note that not all CAD files have Paperspace layouts other than the default which is always there and cannot be deleted; an empty Paperspace will not affect the import.

Always purge the file after you modify it, and before you save it. This should be done after every action, especially after something is deleted or exploded.

Objects Which May Not Translate Well

The following is a list of objects that may be contained in a CAD file which may not translate well into WYG or Vivien, along with some suggestions of what to do with them if they do not. Again, these are not listed in any particular order.

- **xRefs and Proxy Graphics** are not supported for import. If the file you are trying to import contains either (or both) of these, it will not import. The only suggestion is to ask the creators of the file to send you another, with the Proxies stripped out, and with the xRefs included/merged.
- **MTEXT or any other kind of text, other than simple TEXT**, should be *exploded* into simple TEXT objects. (When MTEXT is exploded, it becomes TEXT.)

¹ A Paperspace Layout is similar to a Layout in WYSIWYG or Vivien.

OpenDWG does not offer a proper translation method for anything other than TEXT, so this is how text from a CAD file should be imported.

- **Hatches are not supported for import.** If they are crucial to the file, they may be *exploded*; this turns them into individual lines or points (depending on the type of hatch used), which will, of course import.
- **Ellipses, Leaders and Attributes are not supported for import.** Please delete these objects, since they will not appear in WYSIWYG/Vivien.
- **Dimensions, other than Aligned Dimensions** should be deleted, since they do not import. We actually suggest deleting all dimensions, especially if not needed for a specific purpose, since they are so easy to create in WYG/Vivien.
- **Nested blocks (i.e. blocks within blocks)** are probably the hardest to import, depending on what they contain: they either import with no problems or they don't import at all. If such blocks do exist in the CAD file and they do not import, the only thing to do is keep *exploding* them into their component blocks (and those into theirs, and so on), until the file imports properly. Unfortunately, this is a trial-and-error process. If I have the time, I may purge, save and try to import after every *explode*, but if I don't, I just keep exploding down to basic entities.
- **3D Solids contained within blocks** will not import properly. If blocks in the CAD file are suspected to contain 3D Solids, they must be exploded at least once, in order for the 3D Solids to exist on their own.

Other Things to Try

Here are some other things that you can try, or that you may have to do, in order to get the file to import and/or to make the importing process easier:

- **Import the file layer-by-layer.** To make your work easier, it is not a bad idea to import the file a few layers at a time. This is especially useful when all you have is a two-dimensional drawing/lighting design plot, and you need to make it three-dimensional using WYG. For example, you would start with importing the layers containing the venue, and extruding all the lines, etc. You would then merge in the "hang" layers (using the File menu > Merge command in WYSIWYG), raise those lines to the appropriate heights and convert them into pipes (or use the lines as a guide to create truss structures—using WYSIWYG truss). Finally, you would merge the layers containing the fixtures, replacing the fixture blocks with WYSIWYG fixtures.
- **Use *wblock* to create an AutoCAD-native file.** This applies to CAD files which were not created in AutoCAD but in some other application and then saved as a .dwg or .dxf file. It is sometimes, but not always, the case with files created by VectorWorks or TurboCAD. As a general rule-of-thumb, if WYSIWYG displays "Load error 39" during an import, the first thing to try is to make the file AutoCAD-native. This is accomplished with the *wblock* command: enable all the layers in the file (or all the layers that you want to import into WYG), turn off the other ones, select everything then use *wblock*. The format you save this new file in (.dwg or .dxf) is not important. If even the newly-created file doesn't import, try opening it (in AutoCAD) and saving it as an AutoCAD Release 12 DXF file.
- **Move the model to the origin.** Depending on how the CAD file was drawn, it is possible for the model to exist quite far from the origin. While this does not

matter to AutoCAD (since its drawing space is virtually limitless), it does matter to WYG or Viv where the drawing space has limits. Please check where the model is drawn in the CAD file, and, if it is away from the origin, select everything (don't forget to enable all layers) and *move* it all to somewhere around the origin.

- **Set the drawing *limits* to contain the entire model (but no more).** Even if you move the model to the origin, it is always a good idea to define its limits.
- **Only import what you need.** In many cases, you will not need to import all the layers from the CAD file. If this is the case, please turn off all the layers that you don't need, zoom fit all, *DRAG-SELECT* everything in view (as opposed to CTRL-A/Select All), and then use the *wblock* command—as described above—to create a new file to import.

If All Else Fails

Send the file to techsupport@cast-soft.com, and we will attempt to import it here. Please note however, that we cannot guarantee a successful import.