

PUNCHHELPERS' TUTORIALS #1

By Patricia Gamburggo



The short story of our store

Many years ago, I started my journey with these 3D programs. At the time, there were few resources or professional services. eBooks were not available.

So, in 2002 I started my website www.punchhelpers.com and then [my Facebook page](#) in 2011, offering [services](#), tutorials, objects, textures, etc. Since 2014, I am writing [eBooks](#) covering all the Punch Software and TurboFloorPlan programs, versions and OS.

In the last months I received several emails and forum requests, asking for more objects and tutorials. For this reason, in June 2019 we are opening the [Punchhelpers Store](#), where all the community members can get lots of resources that can be used with any Punch, TurbofloorPlan and Architect 3D program.

WELCOME TO MY MAGAZINE!

Over the years, my different tutorials were spread out in different pages and websites, therefore the idea is to reunite all of the tutorials in one place. This page-turning magazine can be downloaded as a PDF file.

In this issue we'll review the following tutorials: [Importing CAD Files](#), [Importing Objects](#), and [Printing Plans](#), plus a [Bonus Tip](#).

I hope you enjoy it!

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IMPORTING CAD FILES

The programs import DXF or DWG files. Each element (lines, shapes, etc.) in these files can be converted to walls, decks, etc. Also, DXF and DWG files can be imported to create 2D symbols and details using the Section Detailer Power Tool and the Symbol Editor Power Tool (if your program includes these tools).

However, many users cannot complete the importing process successfully so let's solve the issues so you can optimize your file and import it successfully.

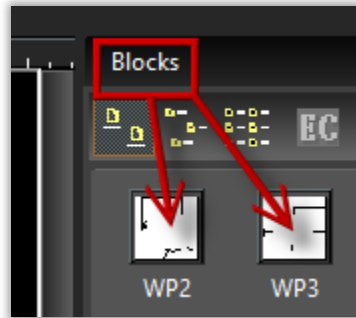
Why do these problem happen? These problems happen for a number of reasons and there isn't a unique solution covering all the issues. Sometimes a step solves one issue, but another issue appears as you advance in the process. For this reason, I recommend to follow all the steps.

For some steps of this tutorial, and if you need to clean the file (steps 3 and 4 of this tutorial), you will need a CAD program. Search online: there are many free CAD programs, or for one time only use, you can utilize a demo version.

1 - (For programs up to V19) → Verify the CAD version of the plan: in order to import a CAD file to Punch, the file must be DXF or DWG version 2004 or older. In my experience, version 2000 works better.

2 - (For programs up to V19) → Verify your computer settings: check the language input of your computer (keyboard) => it must be United States or United States International.

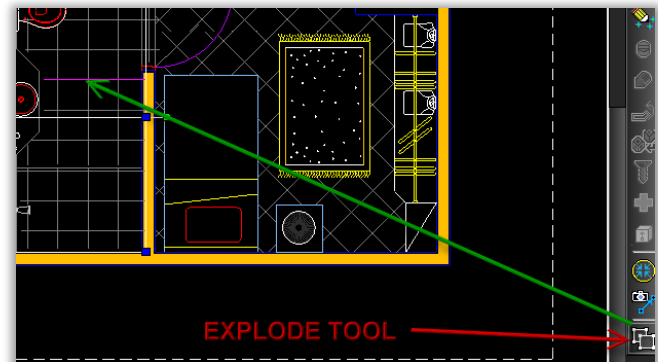
3 - (For all the versions) → Cleaning the files - External references, hatches, and blocks: many CAD files include drawing sets with linked documents, blocks, hatches and hidden elements.



For this reason, the floor plans contain hyperlinks called External References or they include blocks as shown in the image. Using a CAD program, delete all the external references and blocks.

Also, select all the CAD blocks as well as the grouped elements. Unlink these elements using the Explode function (pointed in red in the image and present in most of the CAD programs).

Hatches also must be deleted as they are useless once the file is imported. (Pointed in green in the image).



In addition, make all the layers visible in order to look for hidden elements. If possible move all the elements to one layer.

4 - (For all the versions) → Cleaning the Floor plans: create and import a separate CAD file for each floor plan / level. CAD elevations and cross sections are useless for conversion, so exclude the additional plans and elevations.

Superfluous elements: remove all the unnecessary elements like titles, symbols, title block and frame, as well as furniture and fixtures.

5 - (For all the versions) → Cleaning and purging the file.

Trash: look for trash lines and elements and delete them.



Notice that these elements can be hidden, so Zoom to Fit the screen in order to find these elements.

Final cleaning: usually, the CAD programs have a cleaning feature called “Purge” or “Clean”. Use this tool in order to eliminate hidden junk.

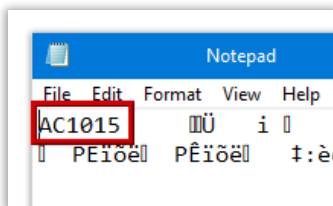
If your CAD floor plan includes several elements in the same drawing, like electricity, topography, etc. delete these elements in the plan that you intend to import. This way, you will work faster in the program. You can create additional CAD plans with the remaining elements (electricity, plumbing, etc.) and import them later. Notice that CAD files are imported (File > Import) to the programs, therefore they will not Open using the Main menu.

6 - (For all the versions) → An additional resource - How to identify the CAD version.

As we stated, the programs up to version 19, import only DXF / DWG files up to V2004. So, regarding the version number, many users asked me the following question: I don't have a CAD program. How can I see the version number? Is there any simple solution? Yes! There is a simple solution.

Follow these easy steps:

1 - Go to Window Explorer => Select the CAD file => Right click => Open With => Notepad.



2 - In Notepad, you will see a lot of computer language, but at the beginning, you will see a number (outlined in red in the image).

As you can see, the number in the file that I edited with Notepad is AC1015. So now, check

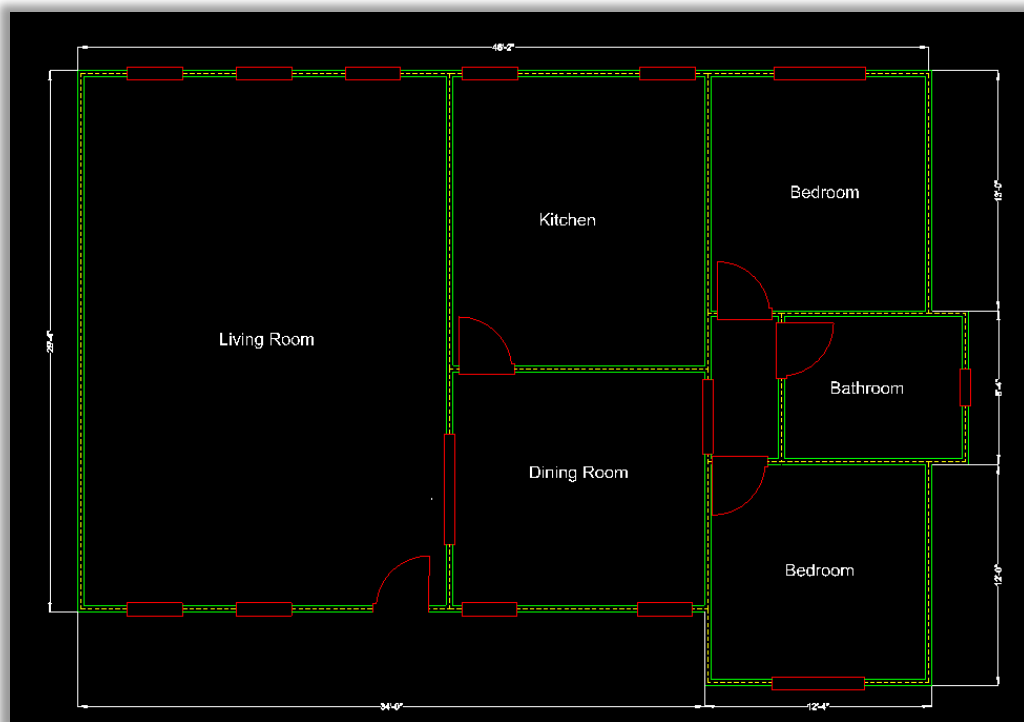
the guide below.

CAD DWG 2013 format = AC1027
CAD DWG 2010 format = AC1024
CAD DWG 2007 format = AC1021
CAD DWG 2004 format = AC1018
CAD DWG 2000 format = AC1015
CAD DWG R14 format = AC1014
CAD DWG R13 format = AC1012
CAD DWG R12 format = AC1009
CAD DWG R11 format = AC1009
CAD DWG R10 format = AC1006
CAD DWG R9 format = AC1004
CAD DWG R2.6 format = AC1002
CAD DWG R2.05 format = AC1.50

Therefore now, you have the version number > the code AC 1015 (as shown in the Notepad image) belongs to DWG / DXF Version 2000.

Easy, right?

7 - (For all the versions) → How the final / clean CAD file looks?
This is an approximate view of a clean CAD file.



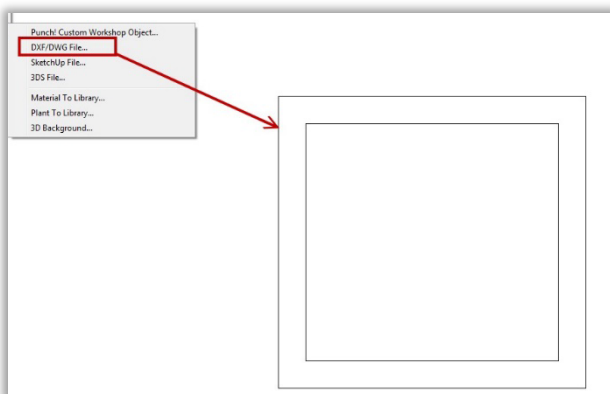
8 - (For all the versions) → How the imported file looks?
This is an approximate view of a DXF / DWG file imported to the program.



How to see a CAD sample file imported?

How to test if your program imports DWG / DXF files correctly?
[Download this CAD file](#) (it is a version 2002 file).

Open your program => Import the file using => File => Import => DWG / DXF file. The program should import the file as shown in the image => if the program imports the object without problems, then you need to clean the original file as described.



[GO TO THE NEXT TUTORIAL](#)

IMPORTING OBJECTS

Sometimes, importing files and objects in the programs can be challenging. Some files need cleaning and optimization in order to be imported.

However, for a few files, some importing issues have a very easy solution => setting the correct version of the file to be imported.

How to test and solve these issues

3DS Files

In the web, there are many free 3DS libraries; however, not all the objects can be imported easily and not all of the imported objects can be used in the programs. Some 3DS objects increase their size 10 times after they are in the program. Keep in mind that the problem resides in the original file and the original program used to develop the object.

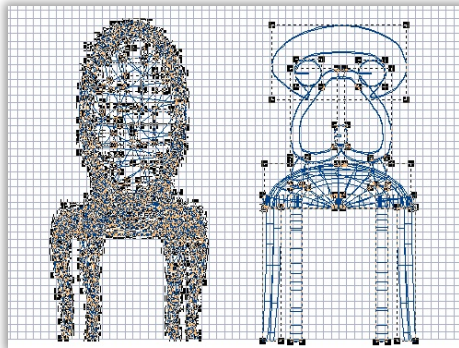
These are some tips to import and use 3DS objects.

1 - (For all the programs) → Remember that the texture maps are not imported with the object so the best models are the 3DS files without texture maps. Wireframe models are excellent.

2 - (For all the programs) → If you try to import a 3DS object in the programs and you get an empty file, some adjustments are necessary, because this means that the file is too big (in Mb). Open the object in a CAD program, adding all the meshes by object (don't use colors or materials). Inspect the layers to confirm they follow the original model > Purge all > Save as > 3DS > Derive Layers > Override (uncheck) > Smooth (check) > Welding (check). Now, you have a 3DS file ready to be imported in the programs, however, the size of the POB (Punch object) will be an issue. To solve this problem, return to the CAD program (or 3DS program) > decrease a number of segments for some typical 3D objects

(Surface Options). For example, to change a number of Sphere segments in CAD, select it > Properties > Surface Options > decrease the values of XX and YY segments.
In all the cases, verify the dimensions and scale.

3 - (For all the programs) → In a 3DS object, the polygons are the small segments that compose the object. In this image you can see



the difference between the number of polygons included in a 3DS object (left) and the ones included in an object developed with the 3D Custom Workshop Power Tool (right). The number of polygons determine the size (in Mb) of the object. For this reason, if possible, reduce the number of

polygons of your 3DS file before you attempt to import it. There are several free programs online, or you can use a demo version.

SketchUp Files

1 - (For the programs up to version 19) → Importing SketchUp files issue => when you try to import a SketchUp file, you receive the following message:



This is not a bug => usually, this means that

the SketchUp file is not saved in the correct version. Note that the programs **up to version 19** only import SKP files up to Version 8. For this reason, SketchUp files version 2013 and up can't be imported in the programs.

How to test if my program imports SketchUp files correctly?

Download [this SketchUp file](#) (it is a version 8 file) => Open your program => Import the file using => File => Import => SketchUp file.

The program should import the SketchUp object (a simple box) => if the program imports the object without problems, then the original issue is just a version problem.

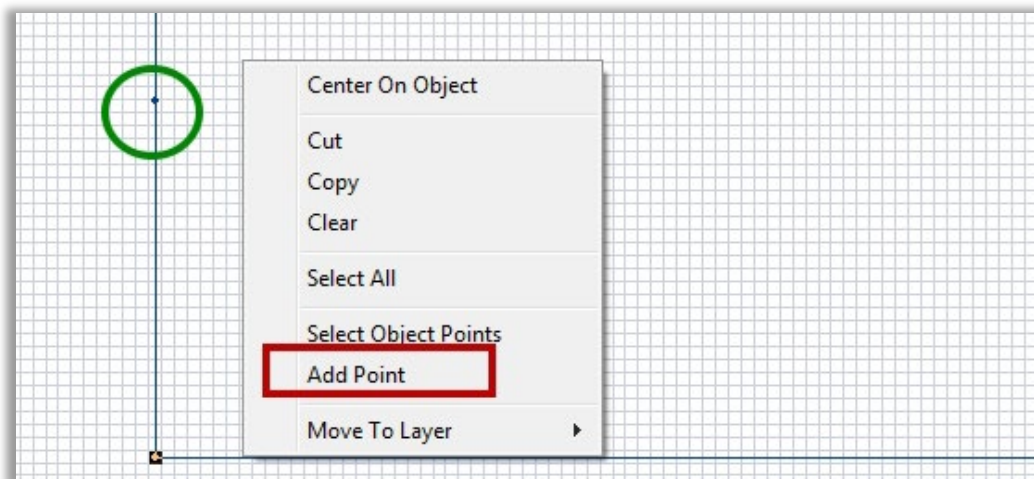
How to correct the version number? => In the SketchUp program (it is free), save your original file as version 8.

2 - (For all the programs) → Note that the SketchUp files can be imported in the program with colors and textures, however, they can't be resized or saved in the programs' libraries.

BONUS: AN INTERESTING TIP

Did you know that....?

A 3D Custom Workshop Power Tool tip: did you know that you can add extra points to the 2D shapes or lines? In wireframe mode, right click on the line => select "Add Point" => the point will be added. See the image below.



[GO TO THE NEXT TUTORIAL](#)

PRINTING PLANS

Printing plans created with the programs

There are several options to print the floor plans created with the programs. The choice depends on your goals, your printers, and your program's availability.

Printing Options

1 - (For all the programs) → Normal Printing: Use File > Print > the printing menu will open > Choose Print to Scale or Print to fit Page > Specify the Printer and Page settings such as the paper size, paper orientation, color or monochromatic, etc > Print.

2 - (For all the programs) → Printing an image: Visualize your plan on screen > set the zoom adequately to fit the entire plan on screen > Check the visible tabs > File > Export > 2D Image > save the image as jpg, png, etc. > Open you image with any graphic or picture program, or simply right click on the name of the file > Print > Keep in mind, that these plans are not scaled.

3 - (For all the programs including this feature) → Printing CAD plans: First you must create a file for each floor of the project (1st floor, 2nd floor, 3rd floor, etc.) > Verify if all the required elements and tabs are visible on the screen > File > Export to > DXF / DWG > Select the version / settings > Export > You can print these plans (home or commercial printers), or open them with a CAD program or send by email > these plans are scaled.

4 - (For all the programs) → Printing to PDF: You can convert your floor plans to PDF documents. The first step > you need to get a PDF writer software > Browse the web with the keywords “free PDF” > you will find several free programs > check the

compatibility between the software and your OS (Win7, Win 10, etc.) > download and install the program.



Once the software is installed, the new program will create a virtual printer (as shown in the image below).

In your Mac computer, you can use the Preview feature.

Open you program and your floor plan > File > Print > the printing menu will open > Choose Print to Scale or Print to fit Page >

Specify the Printer (select your virtual printer (called PDF writer in the image) > Specify Page settings such as the paper size, paper orientation, color or monochromatic, etc. > Print.

Usually, the PDF writers have different paper sizes (A3, A1, etc.) so, you can choose the right paper size to fit your drawing.

A Tip:

- If you try to print a plan and you get several blank pages --> keep in mind that Punch prints the entire workspace, so if you have a small object in a remote corner (even a dot) the system will print the entire empty workspace.

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