

Introduction to GTXRaster CAD Series Step-By-Step Guide

In this introduction module you will learn the following functions:

1. Attaching a raster file
2. Raster clean-up
3. Basic raster editing
4. Raster to vector conversion
5. Intelligent Object Picking (IOP) Raster selection tools

For additional information please refer to our [User Manual](#) and [Tutorials](#)



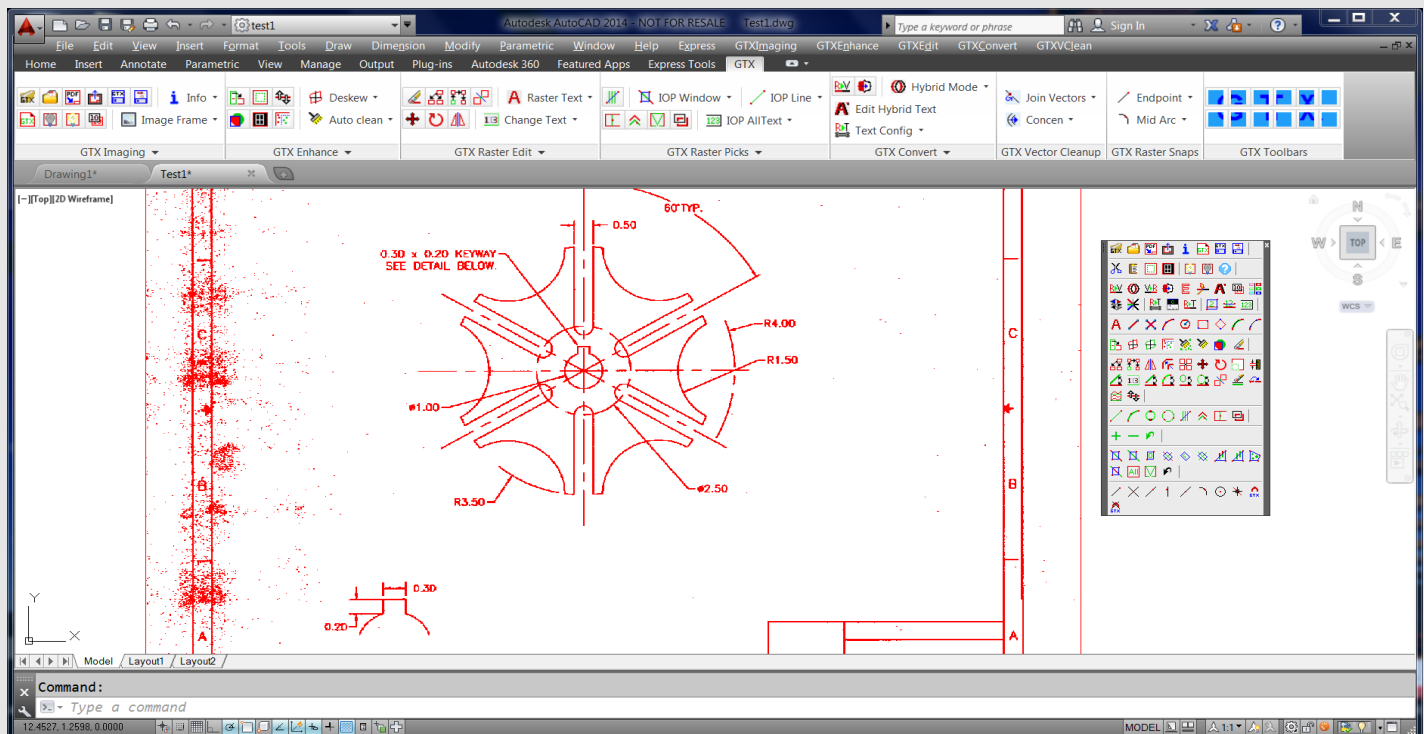
1. Attaching a Raster File



QuickAttach is the quickest and simplest way to attach a raster file:



1. Using the GTXRaster CAD Toolbar select the Quick Attach Icon or type gATTACH on the command line
2. Select "All Types" in the Open Raster Window under "Files of Type".
3. Please notice the major raster file formats that are supported by GTX
4. Select the file you need to attach, please note that the raster image is automatically inserted at 0,0 point at a scale of 1.
5. The image will be automatically placed on the "RASTER" layer.
6. Save the file by clicking on Save Raster icon or typing gSave in the command line



2. Raster Clean-up

CleanIOP is a comprehensive way to clean-up a raster file:

1. Click on the CleanIOP Raster icon or type gCleanIOP in the command line



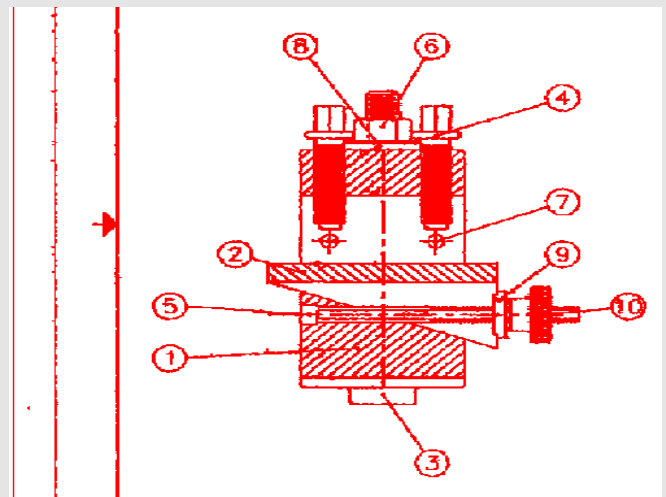
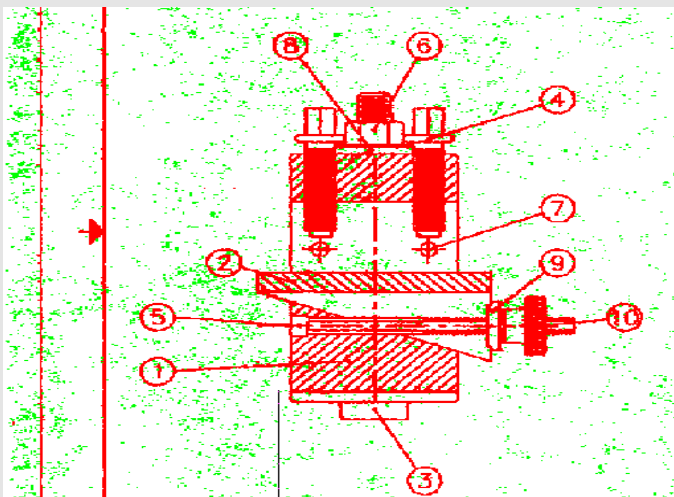
2. The drawing is automatically de-skewed

3. Everything considered noise or speckles is selected in green

4. Examine the drawing carefully to make sure that important data hasn't been selected

5. Using IOPRemove and IOPAdd icons you can interactively remove and add objects in the image that may or may not be noise. Click on IOPRemove/IOPAdd icon and use one of the picking options (Window, Polywindow, Crossing, Object etc) to complete your selection.

Please click [here](#) for more information about IOP functions



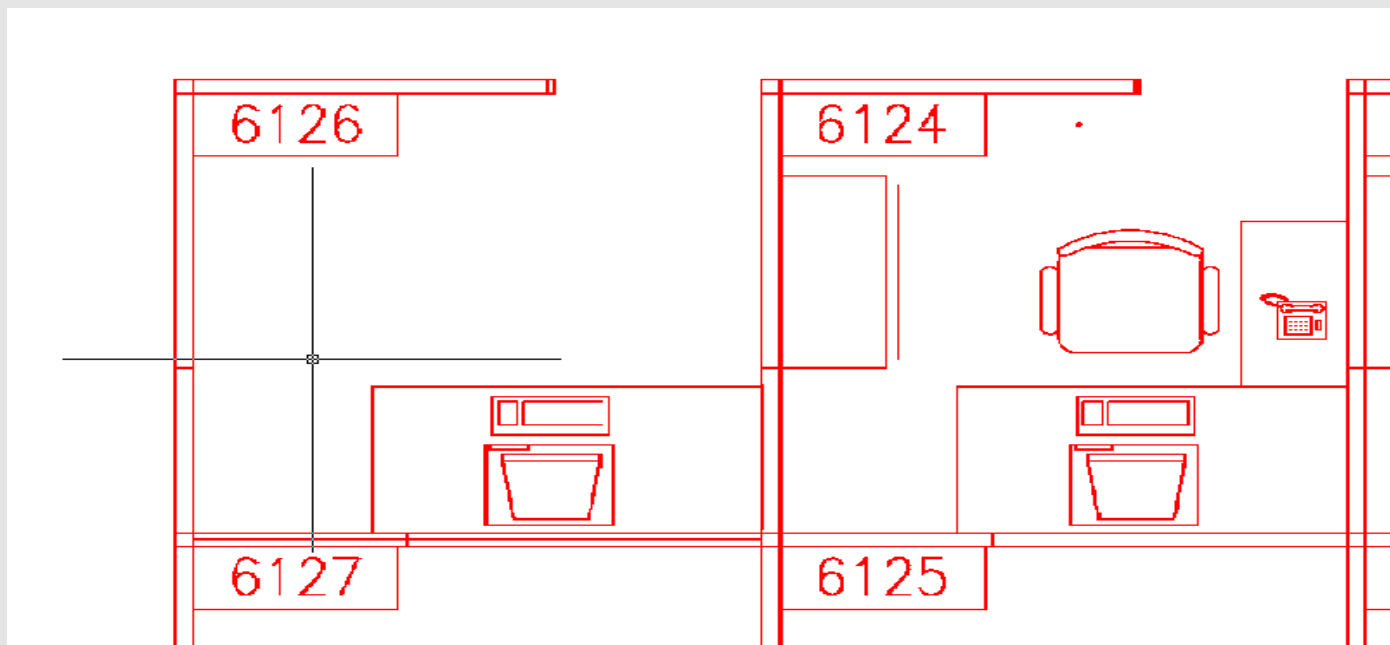
3.1 Basic Raster Editing — Copy

Copying Raster:



1. Click on the Copy icon or type gCopy in the command line
2. Select part(s) of raster you wish to copy using [Intelligent Object Picking, IOP, selection methods](#)
3. Press ENTER to confirm your selection
4. Select the base point of displacement by clicking on the raster image or typing in the coordinates
5. Select the second point of displacement by clicking on the screen or typing in the coordinates
6. Press ENTER to execute the command once you

Please note: gCOPY command only allows you to copy data within one given image, if you wish to copy between several different images please use gCUT and gPASTE commands described in the next section.



3.2 Basic Raster Editing — Cut/Paste



Cut/Paste Raster:



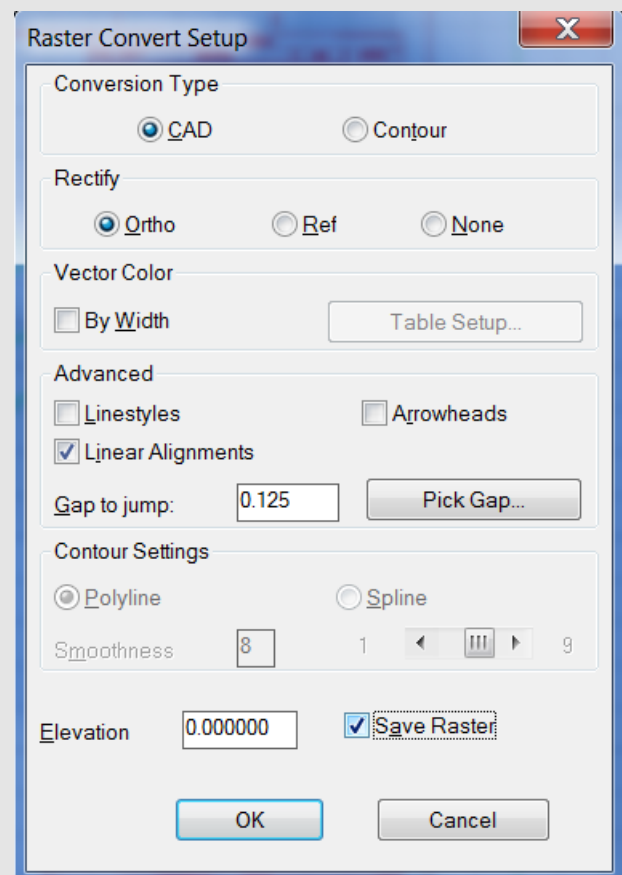
1. Click on the Cut Raster icon or type gCut in the command line
2. Type “E” to erase the raster or “C” to copy data
3. Select part(s) of the raster image you wish to cut using [IOP selection methods](#), press ENTER
4. Select the lower left corner near the object you are cutting, this point becomes the insertion point for raster object when you will paste it
5. Select the upper left corner by “drawing” a window around raster object, make sure all raster data is included
6. Type “B” to copy the raster to buffer or “F” to copy to buffer, press ENTER
7. Click on Paste Raster icon or type gPaste in the command line
8. Select file by typing “F” if you chose to save cut raster to file or “B” if data was cut to buffer
9. Select insertion point by clicking on the screen, it will correspond to the lower left limit of the raster you selected when cutting raster data
10. Move raster by typing “M” in the command line prompt, press ENTER
 - ⇒ Select base point of displacement by clicking on the screen and then select the second point to move the data
11. Rotate raster by typing “R” in the command line prompt, press ENTER
 - ⇒ Select Base point of rotation on the screen or specify exact coordinates
 - ⇒ Specify rotation angle and press ENTER
12. Re-scale raster by typing “S” in the command line prompt
 - ⇒ Select base point by clicking on the raster itself, this will become an anchor point for scaling
 - ⇒ Specify scale factors in the command line, the format is 0.5, 0.5 for example, press ENTER

4. Raster to Vector Conversion

Convert raster to vector:



1. Click on the Raster to Vector icon or type gConvrt in the command line
2. Select part(s) of the raster image or the entire drawing you wish to convert to vector using [IOP selection methods](#), press ENTER
 - * Please note: geometry and text conversion are two separate functions of the software and have to be performed one at a time. If you select the entire image and it has both text and geometry please remove the text using IOP selection methods, then convert text separately
3. Check CAD in the Raster Convert Setup dialog assuming you are working with geometry-based drawing
4. Check Ortho to makes cleaner intersections and adjusting line horizontally and vertically
5. Check Linear Alignments to join “broken” lines and specify the Gap or Pick Gap by selecting the distance directly on the image
6. Check Save Raster if you wish to keep the original raster data, otherwise your selection will be erased



For additional information on GTX Raster to Vector Conversion options please see the [User Manual](#) and [Tutorials](#)

5. Intelligent Object Picking



Main IOP selection methods:

Intelligent Object Picking is trademark technology developed by GTX Corporation that allows you to select raster entities with vector-like precision which helps to eliminate redundant repetition of commands . Use IOP Add and IOP remove to make your selection as accurate as possible while you run a command.

1. IOP Window allows you to select raster data inside the rectangle



2. IOP Pwindow allows you to select raster data inside a polygon window



3. IOP Line allows you to select a raster line



4. IPO 2Pcircle and IOP Circle allow you to select a raster circle by two or three defining points



5. IOP Object allows you to select solid, connected raster entities in one click



6. IOP Fence allows you to select intersecting object by drawing a line “through” a part of the intersection



7. IOP TextWin allows you to only select text, not geometry, inside a window



8. IOP View allows you to select every raster entity within you current zoomed view



9. IOP Outside allows you to select all raster data outside of the current window



For further information about IOP selection methods please see [User Manual](#)