Capturing Images in the HYPACK® Shell

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There are a few options for capturing the display of content from HYPACK® to a more permanent format.

Microsoft Print Screen & Paint

The Microsoft operating system has a built-in screen capture facility which is accessed using the PrtSc (Print Screen) button on your keyboard. Press this key to capture your entire display to the clipboard. You may alternatively press ALT+PrtSc to capture just the contents of the active window. The next step is to get this captured content into an editor for manipulation and saving. The Paint program is included in all recent versions of Microsoft operating systems. Launch this, use the paste command to transfer the clipboard content into Paint, clip, modify and annotate the drawing as desired and finally save it to a file or print it.

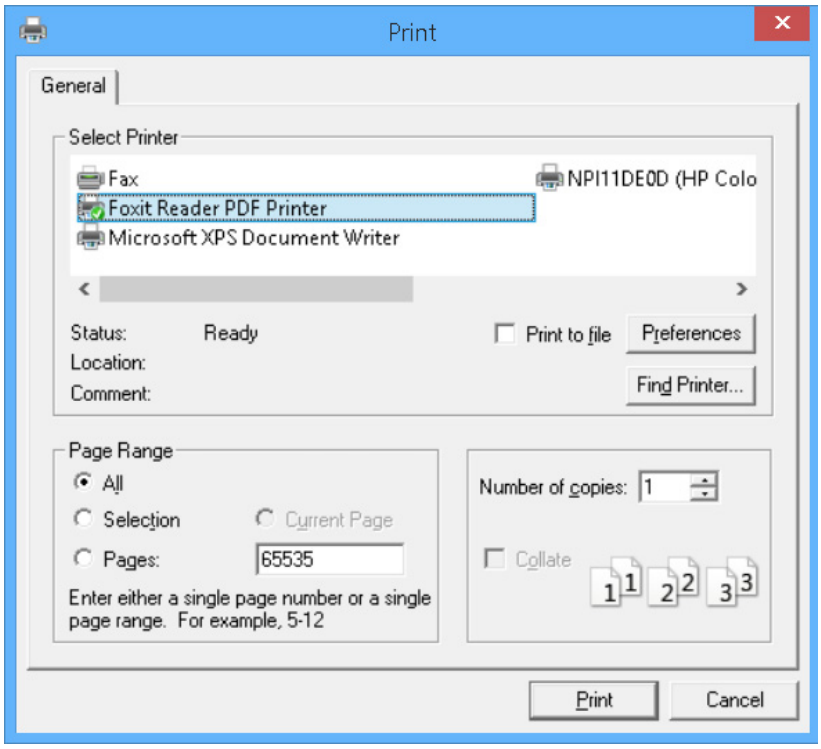
Capture Image

If you are interested specifically in capturing just the content displayed in the HYPACK® map window, you have special support in the HYPACK® Shell itself. The Capture Image command saves the Map window content to either a Bitmap (BMP) or JPEG format file. The resulting file will not have any geo-referencing information associated with it, so the output is not suitable for directly loading back into HYPACK® for future background charting purposes.

HYPACK® Print Screen

The HYPACK® FILE-PRINT SCREEN menu option is a bit more flexible than its name may suggest. Selecting this opens an operating system Print dialog where you may select a target device to accept the content HYPACK® sends it. Along with an attached printer (either local or networked) you may find other 'devices' (either real or virtual) which you may use. An example of each would be a FAX machine or a PDF device capable of storing the map content directly in PDF format. Figure 1 shows the Foxit driver, a free PDF target device. CutePDF is another good, free utility.

FIGURE 1. *Operating System Print Dialog*

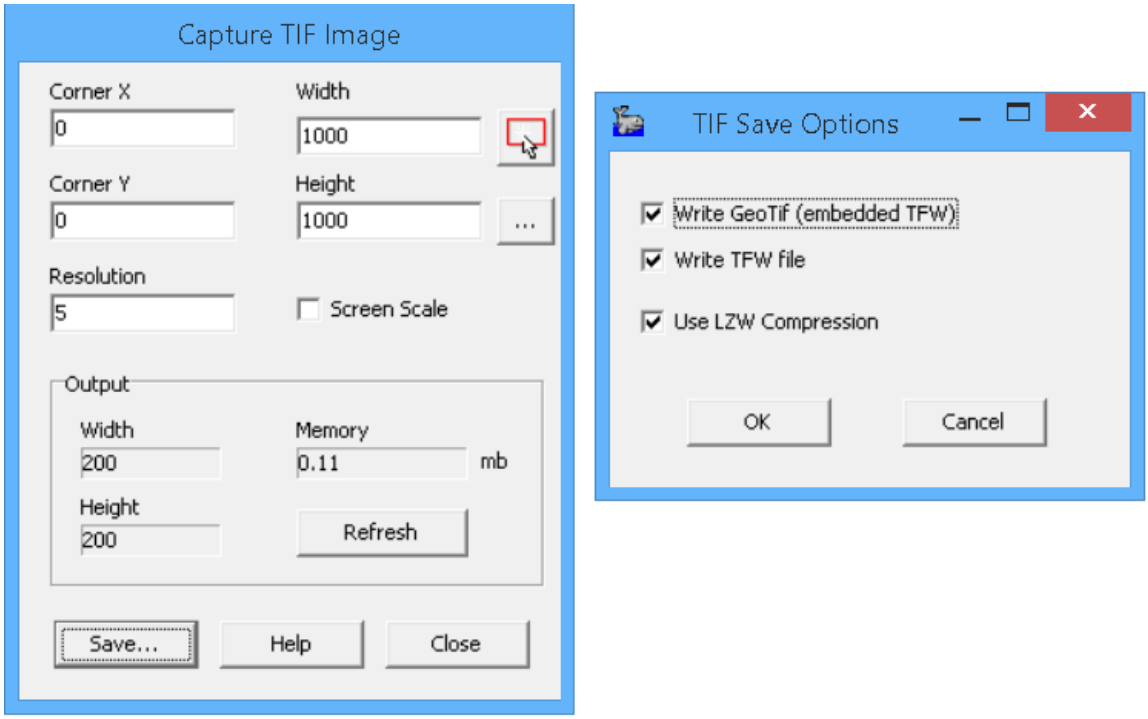


CAPTURE TIF IMAGE

The first few methods described each have limitations. With screen capture techniques, you will certainly get extraneous information in your picture which you may not want like Menus, Borders, Buttons and other UI elements. As mentioned, none of the resulting files created will have geo-referencing information associated with them. Finally, even with our Capture Image option, which only sends map display content to a file, you are getting exactly what is currently being displayed in the map! If you are looking for just a specific piece of map content to save, you would have to adjust the shape of the map window, the scale and the center of the map such that the area desired filled the map window. A clumsy if not frustrating task in the best case.

To overcome the above limitations, we provide a CAPTURE TIF IMAGE option. This opens a dialog (Figure 2) where you can specify a rectangular region of the map to be captured to a TIF file format. The Save button provides further options for compression and a method for geo-referencing, either in the form of an external TFW file or embedded inside the image itself or both.

FIGURE 2. *Capture TIF Dialogs*



The top part of the dialog describes the coordinates of the rectangular region you want to capture. This is specified as a fixed corner plus a Width and Height by any of the following methods:

- **Type the values directly** in the edit boxes provided. (All units are specified in World Units.)
- **The ellipsis button** allows you to import these values from a HYPACK® matrix file.

- **Visually select your area:** Click the “Select Area with Cursor” icon then click and drag a rectangle inside the map window.

The Output portion of the dialog describes the width and height (in pixels) of the resulting TIF image, and an approximate amount of memory required in order to create it.

The **Resolution** option seems to confuse many users at first. This value is simply the ratio of Distance in the World divided by Distance in the Image. In Figure 2, we have a World Width 1000 divided by an Image Width 200 = Resolution of 5. This means every 1 unit of change in the TIF image represents a change of 5 units in the World. If we had typed 0.25 in the Resolution box, it would mean that a change in 4 pixels in the image would mean 1 unit of change in the World. The resulting Image width and height would increase to 4000.

We can not know beforehand what the correct value of the Resolution should be, given the wide variety of diverse data which may be output. Certainly entering a very small number will not increase the resolution of the source data. We can't invent more resolution on the fly! We leave it up to you to find a workable value to use.

The **Screen Scale** check box can help you visually pick a number. For instance, you specify the dimensions of the world area you wish to capture. You can then zoom in on the map

window until you feel the picture is displayed at the resolution you want. Check this box and the current World/Screen scale of the Map window will be substituted for the Resolution value.

NOTE: Keep an eye on the approximate Memory field. If this becomes unreasonably large, the software will not be able to complete the conversion. Be aware that memory required goes up by a squared function. For instance, an image 4 times as large will require 16 times as much memory.