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Introduction

Otto`s PrtScr** enhances the built-in screen capture ability of Windows 3.1. When you press **PrtScr** or **Alt-PrtScr** Windows places a bitmap image of the screen or active window on the clipboard. **Otto`s PrtScr will capture these snapshots and print them for you. You can also snap any region of the screen and treat it just like a print screen request. You can choose to print from 1 to 6 snapshots on a page or save the page to disk as a .**BMP** file.

Prerequisites
Otto`s PrtScr requires Windows 3.1running in Enhanced mode.

Constraints
Sufficient memory to store the screen snapshots until printed. The actual requirements vary with the video mode (VGA, SUPERVGA or True Color)and number of snapshots per page. The printer driver must support StretchDIBits().

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The OPS Display

When OPS starts it restores itself to the last position on the screen. You can start it either as an icon or an open window. If you open the icon, the window looks like this:
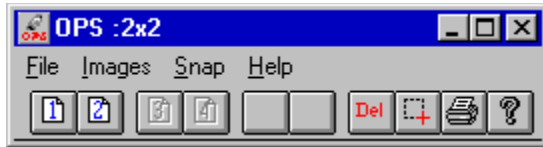
The title bar displays the current grid - in this case 2 across by 2 down. This also determines the number of snapshots on a printed page. If OPS is inactive, the title bar reads `:~~`;

Below are a row of iconic buttons. The first 6 display graphically the current configuration and status. If a button is empty, it is not used in the current configuration. If it displays a page icon it is storing a snapshot; if the icon is grayed out, it is waiting for a snapshot.

In the sample above, 4 buttons are configured: the first two are active and contain snapshots; the second two are awaiting snapshots; the last two are unused in the current configuration.

The remaining buttons let you

       *Delete all snapshots
       *Snap a portion of the desktop
       *Print/Preview all snapshots
       *Get help

There are menu choices that correspond to the toolbar buttons. The most frequently used menu items are also available on the **System Menu** which can be reached from the program icon. the **File/Print To Disk...**option is only available from the menu bar.

Putting Otto`s PrtScr to Work

Launch the program PRTSCR.EXE however you wish. First time users will want to choose **File/Configure...** to set the printing margins and the snapshot grid. You can choose these options from either the System Menu or the File menu. The grid you choose determines the number of snapshots stored by OPS before printing. For example, a 2 by 2 grid would store 4 snapshots before printing. For the details on configuring OPS, see the **Configuration** section.

Taking Snapshots

Once you have selected a grid you can start taking snapshots. Just hit **PrtScr** to snap the whole desktop and **Alt-PrtScr** to snap the active window. As each new snapshot is stored the next button on the button bar is activated (as well as the corresponding **Page** on the **Pages** menu).

When you have filled the grid (for example 3 snapshots for a 1 by 3 grid) OPS starts printing. It pops up a **Printer Options** dialog box that lets you confirm the printer (and change the orientation using the **Options** button). Once you choose **OK**, printing begins. If you wish, you can choose **Cancel** and go back to work.

To take a snapshot of a *portion* of the screen, click on the **Snap** menu item or button. The cursor will change to a cross. You can then click and draw out a selection rectangle anywhere on the screen. When you let up the mouse button, that region will be snapped, copied to the clipboard, and captured in OPS just like any other snapshot. This way you can select a part of a window, or several windows together. You can cancel the snapshot by clicking with the right mouse button.

When you have filled the grid, OPS starts printing automatically. It pops up a **Printer Options** dialog box that lets you confirm the printer (and change the orientation using the **Options** button). Onlceyou choose OK, printing begins. If you wish, you can choose **Cancel** and go back to work. You can also choose to **Print to Disk** which will save the output as a bitmap file. See the **Print to Disk** section below.

While the OPS (and Windows) is at work printing, you can return to other applications. If you try to take more snapshots (**NOT** a good idea) OPS ignores them.

Whe the print job is over, the current snapshots are deleted from memory and you can start over accumulating snaps.

If you exit OPS and there are unprinted snapshots, you will be given a chance to print them before leaving the program.

Managing Snaps

There are a couple of options that let you control the snapshots stored by OPS. You can click the button of an active snapshot to delete that snapshot. If you delete a snapshot in the middle, the following snaps are moved up to fill the gap. Proceeding this way you can delete all the snapshots one by one. If you press the **Del** button, you delete all the snapshots at one stroke.

Previewing Snaps

To see a *preview* screen of the currently stored snaps, just click the **Printer** icon on the toolbar. OPS will zoom to full screen and let you see the snaps. You can use the magnify cursor to enlarge the view. The snaps are captioned with a number that corresponds to their icon. If you see a snapshot you no longer want, cancel the preview and click the icon with the same number. Remember that the other snaps will be moved up to occupy the empty slot.

Rearranging Snaps using Drag & Drop

You can rearrange the snapshots using drag and drop. To make this work, hold down the Shift key throughout the operation.

Now, press with the primary mouse button over an existing snap. The cursor changes to an Up-Arrow. Move it to another active snapshot (while holding down the shift key), and let up on the mouse button. The first snap will be inserted at this point and the other snapshots moved to fill the space. You are not deleting snapshots with this operation - you are merely moving them on the printing grid.

If you "drop" the snap on an inactive button, or on anything other than an active snapshot, the operation is cancelled.

To make this worthwhile, you really need to use PrintPreview to verify the existing layout, then make some moves, and do a final check.

Deactivating OPS

You can turn off the screen capture by choosing **File/Deactive PrtScr**. This "unhooks" OPS without closing the application. The title bar changes to read *Otto`s PrtScr :~~*. You can reactivate OPS by choosing **File/Activate PrtScr**. OPS always starts up active. Right clicking on the title bar/icon also toggles the current state.

Emptying the Clipboard

Under the **File** menu there is an option to empty the clipboard. In high resolution graphics modes (16 and 24 bit color), the size of a snapshot on the clipboard is often substantial. You can recover this memory if you wish by deleting the clipboard object with this menu option.

You can Configure OPS to automatically delete the image on the clipboard after it captures   it. This helps to keep memory consumption under control. See the `File/Configure` options below.

Printing

OPS stores snapshots for only one printed page at a time. The grid you establish in **File/Configure**... determines the number of snapshots. When you have `filled` the current grid, OPS prints the page.

You can force OPS to print the current page, even if not full, by clicking the **Printer** icon. You will first see a preview of the printed output. You can then click **Print** or **Cancel** as needed.

The individual snapshots are scaled to fit in the grid based on the aspect ratio of the original image- You will have to experiment a bit with the printer orientation to see what works best for a given grid. I find that portrait usually works best with 1x2 and 2x3 grids, while landscape is best with   1x1 and   2x2.

If you click **Cancel** from the print dialog box, the snapshots are not deleted from memory. You can then add another snapshot, but remember that printing will be based on the current grid regardless of how many snapshots there are.

OPS remembers the printer orientation from session to session. When it starts, it temporarily changes the system printer orientation to match the last session. You can override this setting by using the **Setup** button in the printer selection dialog box. You can also discover the current orientation by looking at the display in **Print Preview**. This magic is designed for those who pretty much use one kind of setup and don't wish to configure the printer each time.

Printing to Disk

The **File/Print to Disk** option lets you save the print image as a graphic rather than producing p[rinted output. The option is modal - it places a checkmark by the option on the menu, and remains active until you select the option again to turn it off.

It works like this. When OPS is ready to print (or you choose **File/Print Page**) OPS will prompt you for an output file name. Choose an existing file to overwrite, or type in a new name. OPS will then create an output bitmap that is sized according to the DIB Width and Height you have configured. If your current printing setup calls for landscape output, the width and height dimensions are *exchanged* to simulate landscape output.

Then all the snapshots are placed on this bitmap just as on the printed page (except that page margins are ignored). The result is converted to a device independent bitmap and written to disk. The output file is a single .bmp file that contains the snapshots arranaged and scaled just as if they had been printed You can control the size and proportion of the output image by setting the **Width** and **Height** parameters in the configuration dialog. You control the number of snapshots in the output image by configuring the printing grid.

Printing to disk does not affect the *Print Preview* capability - you can activate Print To Disk and still use Print Preview to check out the page before it prints to disk.

Configuring OPS

Choose **File/Configure** to set printing and the grid options. You will fill in the following dialog:
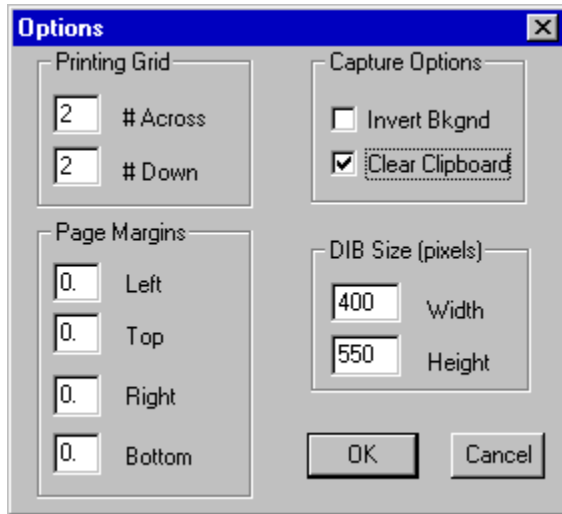
OPS stores and prints snapshots based on a grid that you specify (within limits!). You can choose a grid with :

    across: 1 or 2 cells
    down   1, 2 or   3

 As a result you can print from 1 to 6 snapshots per page.

The margins you set affect the entire page. These margins are specified from the edge of the paper and must be greater than the printer minimum (usually .25 to .5 inch) to have an effect.   For example a left margin of .125 inch is likely to be ignored as the printer minimum (say .25) is probably greater.

Unfortunately, the only unit of measure for margins is inches (or fractional parts).

You can change the printing grid at any time without losing snapshots. But, if you reduce the number of snapshots on the grid (for example going from a 2x3 grid to a 2x2) and already have a #5 snapshot stored in memory, that fifth snapshot will never print -- unless you change the grid again.

The **Invert Bkgnd** option changes the way screen shots are captured and printed. When active, the screen shots are converted to monochrome bitmaps at the time of capture. At print time the monochrome images are inverted so that dark become light and *vice versa*. This rather specialized option helps to print DOS text windows and certain Windows applications emulating text based sessions, such as mainframe terminal emulators.

OPS remembers remembers the printer page orientation that you use from session to session. There is no entry in the Configuration dialog, but whenever you setup the printer the page orientation is remembered.

The **Clear Clipboard** option will automatically empty the clipboard after each image is captured.   For systems running in 16 or 24 bit color modes, the size of the the bitmap on the clipboard is often substantial - 1 mb or greater is not unusual. You can have OPS automatically recover this memory by checking this option.

The **DIB Size** option lets you set the dimensions (in pixels) of the bitmap created by **Print toDisk**. These dimensions, like a piece of paper, correspond to the portrait printing mode. You can set the DIB Width between 0 and 2200 pixels, the DIB Height between 0 and 3200 pixels.