

BLACK ICE NEWSLETTER



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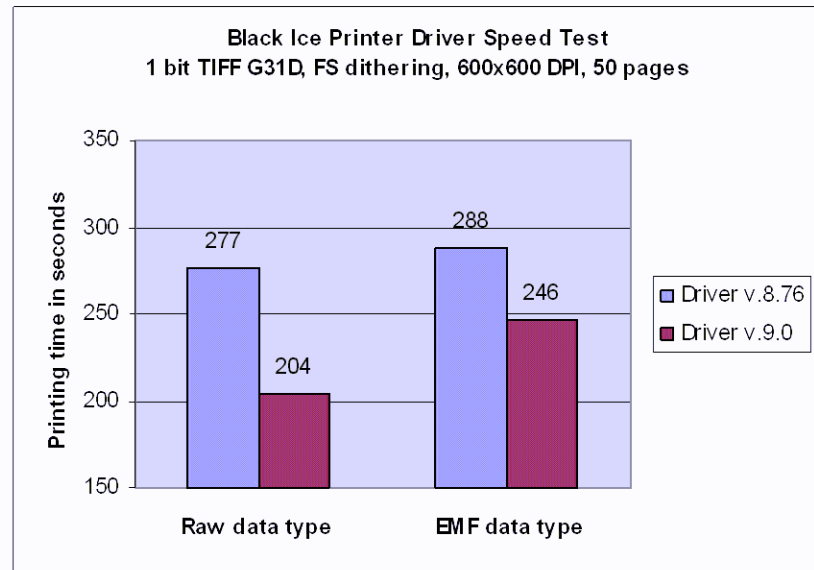
BLACK ICE SOFTWARE

New, Faster Version 9.0 Printer Drivers Released!

In our continuous effort to satisfy our customers, Black Ice Software strove to increase the speed of the printer drivers and was successful. The Black Ice printer drivers support both RAW and EMF datatypes, and the performance of the driver using both datatypes has been increased. The printing tests referred to in this article were performed on a Pentium 4, 1.6 GHz machine, 512 MB Ram, and at least 3 GB free space on the system drive. The printed document was a 50 page Word 2003 document, each page containing text, clip-art and an inserted image.

The chart on the right shows the printing speed in seconds, measured with the ColorPlus printer driver version 8.76 versus the new version 9.0.

As displayed in the chart, the performance of the driver using the RAW data type increased with an average



of 26.3% when printing with the above specified settings. The printing using the EMF datatype was improved by 14.5 %. Since the printing speed depends on the printed document, even better results may be obtained depending on the files being printed. *(Continued on Page 2)*

TIFF JPEG Compression Support Expanded in Imaging Toolkits

The Black Ice Software Engineering team recently expanded the Black Ice Imaging Toolkits to support additional JPEG compressed TIFF files. The Black Ice Imaging toolkits prior to version 10.25 supported Type 6 JPEG compressed TIFF files exclusively, based on the TIFF standards. When attempting to open a type 7 JPEG compressed TIFF file, the Black Ice Imaging tool-

kits prior to version 10.25 would report "Indispensable Tags are missing".

Version 10.25 of the Black Ice Imaging Toolkits adds support for type 7 JPEG compressed TIFF files, which is the recommended JPEG compression standard to be used, according to the TIFF specifications. Additionally, any JPEG compressed

TIFF files created with version 10.25 and higher will use type 7 compression by default. Type 7 JPEG compressed TIFF files can be displayed by most common imaging products developed by companies such as Microsoft.

Developers can visit the Black Ice website to download the latest evaluation toolkits for themselves.

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Dithering methods

Most Black Ice customers are using monochrome (1 bit) file formats such as TIFF G3D1, 1 bit PDF, etc. On Windows operating systems, every document is printed by the printing application as a 24 bit color document. In order to convert the final image to a 1 bit image, the Black Ice printer driver can use one of the following dithering algorithms:

- Disable Photo Quality (No dithering)
- Floyd Steinberg
- Jarvice–Judice–Ninke
- Sharp
- Smooth
- Stucki
- Threshold

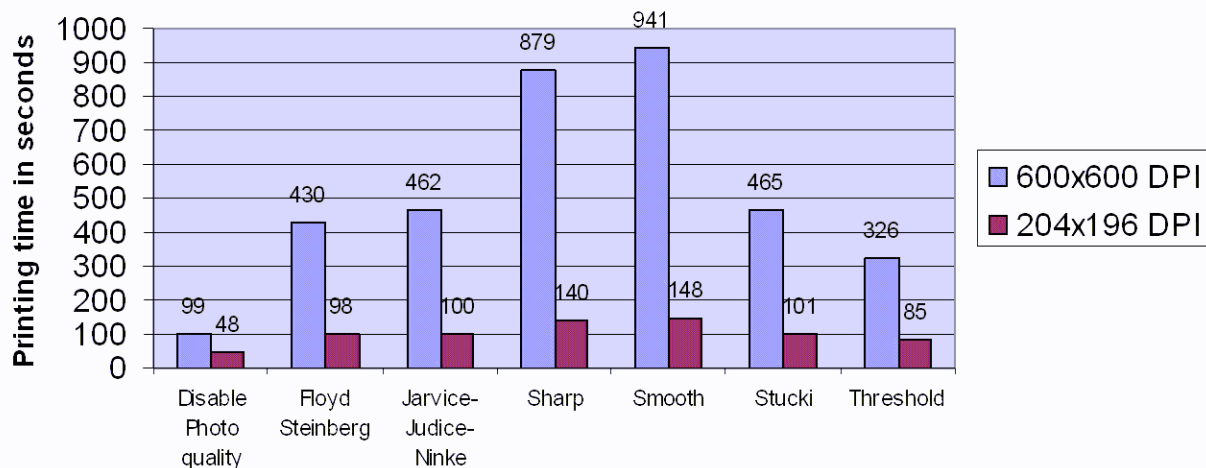
Different dithering methods will produce different results, in quality as well as in file size. The printing time depends on a variety of factors, including the dithering algorithm selected in the File Formats tab of the Black Ice printer driver settings. The test below was performed on a 400 MHz machine by printing 20 pages from a Word document containing text, clip-arts and images.

The fastest printing results are obtained using the "Disable Photo Quality" option which beats all other dithering methods by 400%. If you are printing text only documents or simple drawings such as architect design worksheets, this method will provide a good image, however if your document contains clipart, the quality of the image generated using "Disable Photo Quality" option might

be insufficient. Since the quality of the final image depends on the printed document itself in addition to the selected dithering method, Black Ice recommends trying all of the dithering methods to see which one produces the best results in your particular case.

The conversion speed also depends on the resolution of the image, if a lower resolution is used the image will be generated faster. When using 600x600 DPI the Disable Photo Quality method is 9.5 times faster than using Smooth dithering, however when using 204x196 (fax) DPI the Smooth dithering takes only 3 times longer than the Disable Photo Quality option.

Printing times using different dithering methods for a 20 page test document



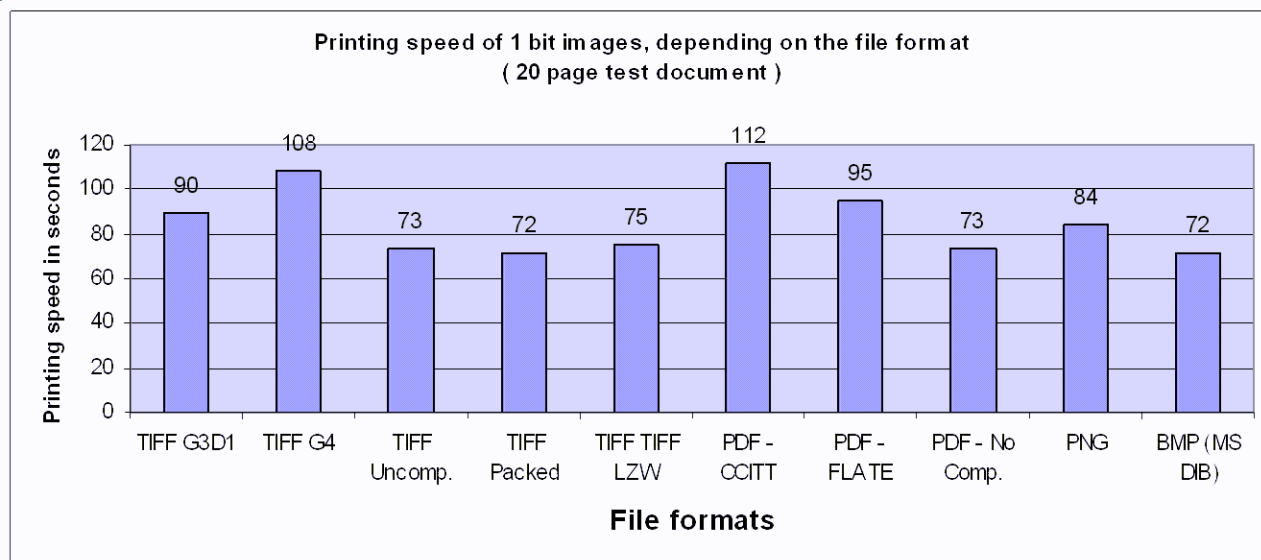
Printing speed affected by the output file type

The Black Ice printer drivers can convert everyday documents such as Word, Excel, PDF, HTML, etc into several popular image formats, including TIFF Group 3 D1, TIFF Group 4, JPEG, BMP, PNG, PDF, etc. Printing the same document to

different file formats will produce different results in the speed of the printing. Some file formats such as BMP, do not require heavy processing power and the image can be encoded faster, however other file formats such as TIFF Group 4 require more processing power in order to create a compressed image.

The chart on the top of page 3 shows the time in second used by the Black Ice ColorPlus printer driver version 9.0 to print the same 20 page document, using 1 bit and Floyd Steinberg dithering, and saving the image in different file formats.

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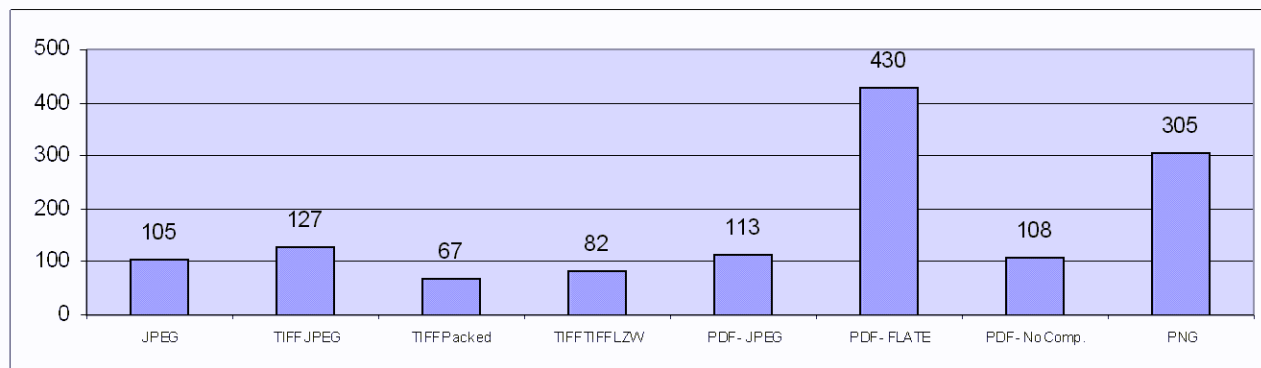


(Printer Drivers. Continued from Page 1)

The chart below shows the printing speed for 24 bit color images, saved in different file formats.

As you can see generating a PDF file using Flate compression and the PNG file formats are slower than others, however the size of the final file is substantially smaller. If the file size is a bigger issue than the print-

ing speed Black Ice recommends using one of the higher compressed file formats. Again, the actual settings you use depends on which factors are most important for your application.



Improved Class 1 Faxing with Fax C++/ActiveX

Fax Class 1 is the most commonly used class for fax transmissions, and is also the oldest available fax class which is still in use. As technology progresses and computer and communication speeds increase, modifications must be made to ensure that applications and protocols keep up.

To attain this goal, Black Ice Software recently enhanced Class 1 fax support in the Fax C++/ActiveX. Class 1 faxing is now more reliable than ever thanks to the modifications introduced in version 10.11 of the Fax C++/ActiveX.

Put the latest Fax C++/ActiveX to the Test! Developers are encouraged to download the latest Fax C++/ActiveX evaluation from the Black Ice website to see the results for themselves: <http://www.blackice.com/Fax C++ ActiveX.htm>

Fax/Voice C++/ActiveX

20% Off!

License either the Fax or Voice C++/ActiveX during the month of November and save 20% of the toolkit price!

Black Ice Software

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Expiration Date: 11/30/2004

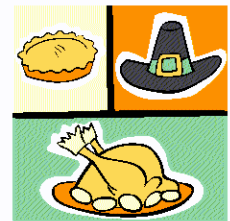
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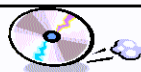
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Inside

**New Faster Printer Drivers,
 Enhanced TIFF JPEG Support and more**



Time to upgrade?



Latest Version Numbers

Printer Drivers

| Product | Version | Date |
|---|---------|----------|
| Color Printer Driver for Win95/98/ME | 5.63 | 04/20/04 |
| Metafile Printer Driver for Win95/98/ME | 5.63 | 04/20/04 |
| Mono Printer Driver for Win95/98/ME | 5.63 | 04/20/04 |
| PDF Printer Driver for Win95/98/ME | 5.63 | 04/20/04 |
| Mono Printer Driver for NT/Win2000/XP | 9.00 | 10/28/04 |
| Color Printer Driver for NT/Win2000/XP | 9.00 | 10/28/04 |
| Mono Printer Driver for NT/W2K/XP | 9.00 | 10/28/04 |
| Metafile Printer Driver for NT/W2K/XP | 9.00 | 10/28/04 |
| PDF Printer Driver for NT/W2K/XP | 9.00 | 10/28/04 |
| Terminal Server Printer Drivers/2003 | 9.00 | 10/28/04 |

Impact Products

| Product | Version | Date |
|------------------------|---------|----------|
| Impact Fax Server | 4.36 | 02/18/04 |
| Impact Fax on Demand | 4.06 | 12/01/00 |
| Impact Fax Broadcast | 4.00 | 09/13/04 |
| Impact ColorFax | 6.00 | 07/22/04 |
| Drag and Drop Printing | 2.00 | 12/24/02 |

Fax, Voice and Image Toolkits

| Product | Version | Date |
|----------------------------------|---------|----------|
| Fax C++/ActiveX/COM | 10.11 | 10/01/04 |
| Voice C++/ActiveX/COM | 10.11 | 10/01/04 |
| Tiff SDK/ActiveX/COM | 10.27 | 10/15/04 |
| Annotation SDK/ActiveX/COM | 10.27 | 10/15/04 |
| Cover Page Generator SDK/ActiveX | 10.27 | 10/15/04 |
| Image SDK/ActiveX | 10.27 | 10/15/04 |
| Document Imaging SDK/ActiveX | 10.27 | 10/15/04 |
| Barcode SDK/ActiveX | 4.10 | 10/04/04 |

Free Software

| Product | Version | Date |
|------------------------------------|---------|----------|
| Impact ColorFax Lite | 6.00 | 07/22/04 |
| Tiff Viewer Plug-in - Free Version | 6.00 | 07/22/04 |
| ModemWeasel | 2.00 | 08/01/02 |

Internet Tools

| Product | Version | Date |
|--------------------------------|---------|----------|
| Print2Email | 3.01 | 01/20/03 |
| Tiff Viewer Plug-in - Complete | 6.00 | 07/22/04 |
| Print Monitoring Server | 2.40 | 04/02/04 |