newsletter archives
Spring, 2002

V.34 Fax is here!

Black Ice Software, Inc. is proud to announce the availability of the first software based fax driver that is V.34 compliant and is capable of sending and receiving faxes at speeds of up to 33600 bps. In the last few months several desktop fax machine manufacturers like HP, Lexmark and a dozen of other vendors released products capable of faxing at very high 33600 bps speeds. For a list of V.34 fax vendors, please see www.faxproducts.com. These desktop fax machines were able to send V.34 faxes to other desktop fax machines that also supported V.34 faxing; however there was no software solution available to take

New VB programming tool for the Printer Drivers

VB developers can now retrieve or change the printer driver settings or properties from Visual Basic or any other development tool that uses OCX methods. Black Ice provides the

BlackIceDEVMODE.OCX and the BlackIceDEVMODE.DLL, each containing over 130 functions, to easily change the printer settings programmatically at run time from VB or Delphi.

NEW! Terminal Server Printer Drivers

Black Ice announces the availability of the new metafile technology based printer drivers for Terminal Servers. All three **Monochrome**, **Color** and **Metafile** drivers are now available for the NT/Win2000 and Citrix Terminal Server systems.

The main advantage of the metafile printer driver technology is to eliminate memory constraints. The kernel level printer drivers have severe memory constraints in Terminal Servers and one could barely exceed 300 DPI color output for a Letter size or A4 page. The new driver moves page generation out of the Kernel level to the User

New Voice C++ ActiveX SDK Features

Custom tone detection support in the Voice C++ SDK
Voice C++ with Dialogic boards now can detect single, dual frequency tones and single, dual frequency tone cadences. The application can specify all the parameters of the tone or the tone cadence and every time the Dialogic board detects the specified tone, Voice C++ will send a message to the application that will identify the detected tone. This feature can be very useful when the

central office or the PBX generates non-standard tones or in some environments where the application must detect non-standard tones or tone patterns.

Answering machine detection support added to the Voice C++

Voice C++ now supports answering machine detection with Dialogic voice boards. With the new feature applications can now dial a number, wait for an answer and detect if the answer comes from an answering machine or from a real person.

MSI Board support will be added to the Voice C++ SDK in May 2002. Stay tuned...

TIFF ActiveX SDK

Clean Image function added to the TIFF SDK. This spectacular new feature can be used to completely clean a fax (image) received with the well known communication "noise". This "noise" is represented on the received image as black dots and lines.

V.34 Support for the Fax C++ *cont. from page 1.*

advantage of the new technology. Things changed when MultiTech released the MT5634ZBA external fax modem based on the Lucent chipset. The new MultiTech modem supports V.34 faxing along with the Class 1.0 command set. Fax C++ version 9.0 implements V.34 faxing based on the Class 1.0 fax command set and will send V.34 faxes with any fax modem or fax board on the market that supports Class 1.0 and V.34 faxing. A fax sent at 33600 bps is more than twice as fast as a fax sent at 14400 bps. The increased transmission speed produces enormous performance increases with drastically reduced training times. The same fax can be sent in half the time as before, saving considerable amount of money on phone bills. An average office document can be transmitted in 50 seconds at 14,440 bps and 25 seconds using V.34. Migrating existing Fax C++ applications to support V.34 faxing is fast and easy. The only modification needed is to detect if the modem supports Class 1.0 and open the COM port in Class 1.0 mode instead of Class 1.

V.34 faxing will have a drastic effect on Color Faxing. One of the reasons for color faxing's slow take off is transmission speed. A color page can take several minutes to transmit and that is longer than most users can wait. With V.34 faxing, the transmission time of color faxes will be reduced to monochrome faxes.

Black Ice software's new fast color printer driver technology and V.34 faxing will give a boost to an array of fax products. Black Ice Software is already in the process of releasing several products based on V.34 and Color Fax technology. The first products that will include V.34 and Color Faxing are the Impact Fax Broadcast and Impact Fax Server. Look for our Impact Fax newsletter for more details.

Fax board manufactures are lagging behind Multi Function Devices and desktop fax machine manufactures. Brooktrout, the leading fax board manufacturer, released the TR 1034 T1 digital board, with an Analog version due out later in the year. Intel/Dialogic offers the CPI200B and the CPI400B. There is no news yet from Natural Communications. Visit www.blackice.com to download the demo or contact sales@blackice.com for details.

Fax C++ fax queue management was rewritten and improved

The fax queue management in Fax C++ version 9.0 was rewritten and improved. The new queue management routines are highly optimized and thread-safe. They were designed to manage and distribute large numbers of faxes in a high-density environment for 96 or more channels per workstation. Optimally distributing faxes to fax channels can be a difficult task. By using Fax C++'s internal fax queue, the application does not have to worry about distributing faxes to channels; everything is done automatically by the fax driver. The application simply puts faxes into the internal fax queue of the Fax C++ and the fax driver will send them out one by one as fax channels become available. Existing applications can take advantage of the new queue management by upgrading to Fax C++ version 9.0. There is no need to modify the code of the application, just rebuild the application with the new include and library files and update the Fax C++ DLLs shipped with the application.

Also, Fax C++ version 9.0 includes a new Fax OCX that exports out queue management methods. This way Visual Basic, Delphi, MS Access, MS FoxPro developers can handle fax queue management tasks with a few methods, thus avoiding time consuming queue implementation. Visit www.blackice.com to download the demo or contact sales@blackice.com for details.

Real time access to faxes received with the Fax C++ SDK

Fax applications based on the Fax C++ SDK can now access the image data of received faxes in real time. This feature is only available for modems and Brooktrout boards. If real time access to the received faxes is enabled, the Fax C++ will send a message to the application every time a buffer containing a portion of the image data has been received from the modem or board. The application can retrieve the image information and can use it to display the faxes being received in real time or to run an OCR software application on the image. Visit www.blackice.com to download the demo or contact sales@blackice.com for details.

New Brooktrout & Dialogic drivers supported by the Fax/Voice C++

Fax/Voice C++ version 9.0 has been tested and supports the following drivers from Brooktrout and Dialogic:

- Brooktrout Fax and Voice API version 4.3
- Dialogic System Release 5.1

Terminal Server Printer Drivers *cont. from page 1*

mode and one can have up to a 1500 DPI color page. An additional advantage of the new driver is CPU utilization. Several customers had problems using the printer driver on a Terminal Server with database applications. The printer driver, running in Kernel mode on high priority, used up most of

the CPU time and database applications came to a halt during printing. With Version 6.0X of the TIFF or Color drivers, images are generated in User mode and CPU utilization is more even handed.

New features in the Terminal Server Printer Drivers:

- **Separate output directory for each user.** Now each user can specify a separate directory for the output files. The driver will generate the image files to the output directory selected by the user who prints.
- **Environment variables to specify the output directory.** An environment variable can be specified, at installation time or after the installation has finished, as the output directory. The printer driver will generate the output images to the directory specified in the system's environment variable. For example, if %TEMP% is specified, the printer driver will generate the files to each user temp directory.
- **No more kernel memory allocation.** The amount of memory that can be allocated by the printer driver is now limited only by the actual system configuration. Most modules of the printer driver are running on the User level. No more kernel memory allocation. No more limitations.
- **Custom resolutions up to 1500 DPI.** Images can be printed using custom resolutions up to 1500 DPI.
- **Application launching using the user's permissions.** The Black Ice Printer Driver can launch an application before or after the printing process. Now the application is launched using the security context (the permissions of the user account) of the user doing the printing. The application can now access all the network resources that can be normally accessed by the user who is doing the printing.
- **Works with CITRIX Terminal Server.** The Black Ice Printer Drivers were successfully tested using Citrix Terminal Server 1.8

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TIFF ActiveX SDK *cont. from page 1*

This telecommunication "noise" is usually caused by a noisy or low quality phone line. The new "Clean Image" function will completely clean the noise from the received image. The new feature will work for both monochrome (1 bit) images and 256 color (8 bit) grayscale images. The following image was received with 80% noise. The received image is practically unusable; but look at the results after using the new "Clean Image" feature!

The first image is the original image received with 80% noise. The picture is unrecognizable. The second image shows the results after applying the Clean Image filter a single time. The image is much cleaner and the face is now recognizable on the image. After applying the Clean Image function a second time, almost all of the remaining noise was removed and the resulting image is clear. Please note, that 80% communication noise is a very extreme situation. Usually the communication noise on an image is under 5%. In this case, applying the Clean Image function only a single time will completely clear the noise on the image that was received!

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