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First 64bit Printer Driver is Here, and Ready to Ship!

The 64-bit user-level monochrome printer driver is available for VISTA, XP and Terminal Server 2003 operating systems. The monochrome printer driver supports several 1 bit file formats. User-mode drivers cannot gain access to system data except by calling the Win32 API which, in turn,

calls system services. So the user-level printer drivers are more secure than kernel-mode printer drivers, and Windows VISTA supports user-level printer drivers only.

Next to be released will be the PDF printer driver. The Color, EMF and ColorPlus

printer drivers will be available on 64-bit operating systems coming soon as well.

The install projects of the new 64-bit drivers are made with InstallShield 12. InstallShield 12 has support for VISTA.

New DataMatrix Barcode SDK!

New error correction feature added to Black Ice Data Matrix Reader. A new version of the Data Matrix Barcode Reader has been released which has a new functionality to automatically detect and fix damaged codewords making the reader al-

gorithm more robust and more reliable in case of damaged barcodes. Previous versions of Black Ice Data Matrix readers were able to detect damaged codewords, but the new version (5.0) is able to fix them using the Peterson-Gorenstein-Zierler algo-

rithm based on the error correction codewords added to the barcodes.

Error Correction Capacity. The number of correctable codewords depends on the

(Continued on page 2)

Black Ice PDF Library Architecture Overview

Black Ice Software announces the release of a new PDF SDK which will be able to read vector PDF files with font information. The current version of the PDF library from Black Ice can only handle image PDF files. In this new release the PDF library and product architecture will change. There will be three separate products and three

DLLs with ActiveX controls:

1. Black Ice will keep the original PDF SDK that supports the image files. It is capable of loading and saving image PDF files. The Image PDF will be royalty free (no runtime fees).

2. There will be a PDF Read product that will support read-

ing PDF files. This PDF SDK will be able to read and load PDF files version 1.4 or earlier. The rendering module will render the PDF file to a DC – Client DC, Meta DC, Window DC, to BITMAP, or Device Independent Bitmap (DIB). The PDF Read SDK includes a rich set of func-

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15% off Printer Driver when you purchase Maintenance
15% off DataMatrix Barcode SDK



Offer Valid 3-1-07 to 3-31-07

Limitations of Windows Vista

Only the named PIPE message interface can be used for returning printer driver messages on Microsoft VISTA. The WM_COPYDATA window message and other registered window messages won't work on VISTA, for the following reasons:

"In Windows XP, Windows Server 2003, and earlier versions of the Windows operating system, all services run in the same session as the first user who logs on to the console. This session is called Session 0. Running services and user applications together in Session 0 poses a security risk because services run at elevated privilege and therefore are

targets for malicious agents who are looking for a means to elevate their own privilege level.

*The Microsoft Windows Vista operating system mitigates this security risk by isolating services in Session 0 and making Session 0 non-interactive. In Windows Vista, only system processes and services run in Session 0. The first user logs on to Session 1, and subsequent users log on to subsequent sessions. This means that services never run in the same session as users' applications and are therefore protected from attacks that originate in application code."**

Because of this the spooler service can't use window message functions such as **SendMessage** and **PostMessage** to communicate with an application. The PIPE message interface is the only method that works on VISTA.

*From <http://msdn2.microsoft.com/en-us/library/aa480152.aspx>

(PDF Overview from page 1)

tions to retrieve the components of a PDF file such as objects of a page, images on the page, text, and object paths. Also, a text search can be performed on the PDF document. The PDF Read SDK

will also support the loading and reading of Image PDF files.

3. The write PDF SDK will be a DLL and Active X control that supports creation of new PDF files, as well as PDF file manipulation such as adding pages,

sorting page order, deleting pages, modifying page content by deleting objects, adding new objects, modifying PDF properties, and writing PDF files. The Write PDF will support the conversion of the document Image PDF.

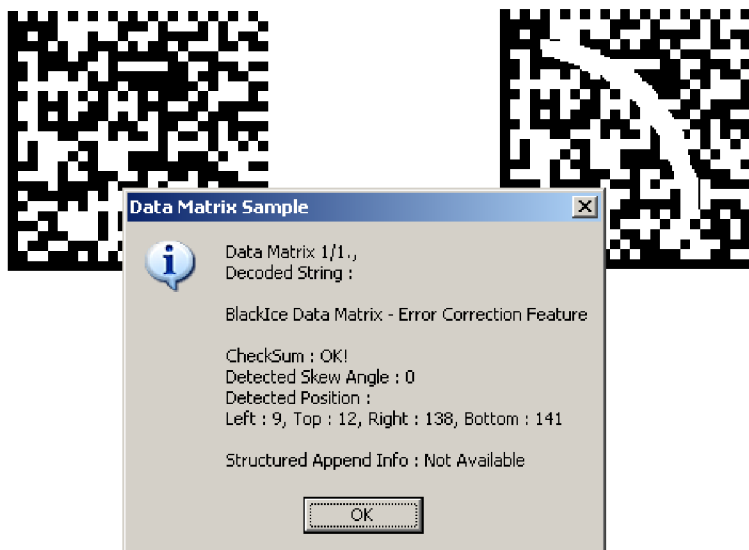
(Barcode SDK from page 1)

number of error correction codewords available which are defined by the logical size of the symbol. Two different types of erroneous codewords can be fixed with the error correction codewords: "erasures" (damaged codewords at known locations), and "errors" (erroneous codewords at known locations). Up to 310 errors and up to 590 erasures can be fixed (in case of the largest, 144x144 logical sized symbol). The larger the logical symbol size is, the more damaged codewords can be fixed.

Example:

Original Barcode encoding the text 'Black Ice Data Matrix – Error Correction Feature'. Dimension: 26x26, 44 data codewords, 28 error correction codewords

Damaged Barcode, 11 wrong codewords fixed by Peterson-Gorenstein-Zierler algorithm making BlackIce Data Matrix reader able to decode the symbol properly.

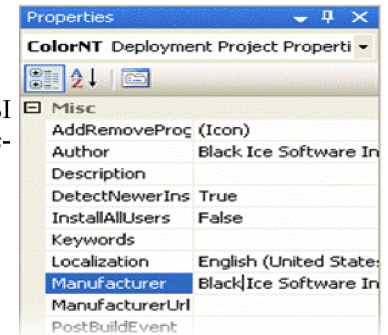


Printer Driver Tips: How to Change Manufacturer Name in an MSI Install

Initially the manufacturer's name is "Black Ice Software Inc" in the MSI install samples. Why do you need to change it? Because the default target path contains the name of the manufacturer, so if you want to create your custom MSI install application, you should change this. In order to change the manufacturer name of the MSI install sample, you must change the MSI sample, install dll and uninstall dll. In this example we change the Black Ice Color XP printer driver.

1. Modifications in MSI Install Project

You can change the manufacturer's name in the install project easily. After you open the MSI install sample (ColorNT.sln) with Microsoft Visual Studio 2005, you can modify the manufacturer's name on the properties pane. See figure to the right.



2. Modifications in Install DLL

Open the install dll project (project name: MyDll). Use the Win32 NT Release project setting. Search for the InitializeMSIVariable function in the SetupDll.cpp source file. Once you have located it you should modify the "Black Ice Software Inc" string to your manufacturer in the switch statement.

```
case ColorNT:
nResult = RegOpenKey(HKEY_LOCAL_MACHINE, L"SOFTWARE\\Black Ice Software
Inc\\ColorNT\\PrinterVariablesValues", &hKey);
break;
```

Rebuild the project, and copy the MyDll_NT.dll into the "Driver Files" directory of the MSI install project.

3. Modifications in the Uninstall dll

Open the uninstall dll project (project name: pfaxmv). Use the Win32 NT Color Release project setting. Search for the StartUninstallMSI function in the pfaxmv.cpp source file. Once you have located it you should modify the "Black Ice Software Inc" string to your manufacturer in the switch statement.

```
case ColorNT:
nResult = RegOpenKey(HKEY_LOCAL_MACHINE, "SOFTWARE\\Black Ice Software
Inc\\ColorNT\\PrinterVariablesValues", &hKey);
break;
```

Rebuild the project, and copy the BiCRmvNT.dll into the "Driver Files" directory of the MSI install project.

After these steps the MSI install will use your manufacturer name, and the default target path will be for example "C:\Program Files\Custom Manufacturer Name\Black Ice EMF Printer Driver\".



Notice:

The Printer Drivers for Windows 95 / 98 / ME will be discontinued at the end of this year. Black Ice Software will no longer offer Windows 95 / 98 / ME Printer Drivers after January 1st, 2008.

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Time to upgrade?



Latest Version Numbers

Printer Drivers			Impact Products		
Printer Drivers for ME/98/95 Mono, Color, ColorPlus, EMF, PDF	5.81	4/13/06	Impact Fax Server	7.05	10/30/06
Printer Drivers for XP/2000/NT Color, ColorPlus, EMF, Mono, PDF	10.0	2/1/07	Impact Fax Broadcast	5.11	11/29/06
Printer Drivers for 2003, Citrix and Terminal Servers Color, ColorPlus, EMF, Mono, PDF	10.0	2/1/07	Impact Fax on Demand	4.08	7/2/02
			Impact ColorFax	7.02	8/15/06
			Drag and Drop Printing	2.00	12/24/02
Fax, Voice, and Image Toolkits			Internet Tools		
Fax C++/ActiveX	12.31	12/18/06	Print2Email	5.13	10/19/06
Voice C++/ActiveX	12.31	12/18/06	Tiff Viewer Plug-in - Complete	8.0	3/1/07
Document Imaging SDK/ActiveX	10.72	1/10/07	Print Monitoring Server	3.00	9/16/04
PDF Plug-in	10.72	1/10/07	Print2RDP	3.0	9/6/06
Annotation SDK/ActiveX	10.72	1/10/07	Voice2Email	2.01	4/20/05
Image SDK/ActiveX	10.72	1/10/07	Print2FTP	2.02	8/15/06
Tiff SDK/ActiveX	10.72	1/10/07	Free Software		
Cover Page Generator SDK/ActiveX	10.72	1/10/07	Impact ColorFax Lite	7.02	8/15/06
Barcode SDK/ActiveX	5.0	3/1/07	Tiff Viewer Plug-in - Free Version	8.0	3/1/07
			ModemWeasel	2.00	8/01/02