June Developer Newsletter

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Encryption / Password Handling in the PDF SDK

Since PDF version 1.1, a PDF document can be encrypted to protect its contents from unauthorized access.

The PDF SDK supports reading and handling encrypted PDF files that are protected with a password. There are two ways for setting the password:

1. Calling the constructor
2. Calling the LoadPDFFile function.

The following sample code shows the technique to test the password protection, set the password and load a PDF file. (See Figure 1 on page 2)

The lpstrFileName is a LPCTSTR type string that contains the name and path of the PDF file.

The lpstrPassword is a LPCTSTR type string that contains the password for the PDF file.

If one tries to read a pro-

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Communication Between 64 bit user-mode Printer Driver and a 32 bit Application

If you have a 32 bit application, you can run it on 64 bit operating systems (for example Windows Vista). The Microsoft 64 bit operating systems can run 32 bit applications, But you can't install a 32 bit printer driver on a 64 bit operating systems.

So if your 32 bit application communicates with a Black Ice printer driver using messages, you need to do some simple changes to make your application compatible with 64 bit operating systems.

First of all, your installer should install a 64 bit user-level printer driver on 64 bit operating systems. Your installer can detect the target operating system, and if the target OS is 32 bit the installer should use the 32-bit printer driver files, otherwise the 64 bit driver files. The names of the 32 and 64 bit driver files are the same. Your installer should have the install dynamic link library for installing the printer driver, and there is a separate install dll for 32 and 64 bit operating systems. However, the name of the functions and parameter lists are the same in both of the install dlls. So you can install a 32 bit printer driver like a 64 bit printer driver.

After these changes, your installer can install the printer driver to 32 and 64 bit operating systems. If you want to run your ap-

(Encryption from page 1)

tected PDF file without specifying a password, the LoadPDFFile method returns with false and the GetLastError method will return with PDFERR_PASSWORD_AUTHENTICATION_ERROR constant.

If one tries to read a non-protected PDF file while specifying a password, the LoadPDFFile method will simply ignore it._

```cpp
// PDF object                                              Figure 1
CPDF pdf;

// Try to load the PDF file
if (!pdf.LoadPDFFile(lpstrFileName))
{
        // Check if the file is protected
        if (pdf.GetLastError() ==
                PDFERR_PASSWORD_AUTHENTICATION_ERROR)
        {
                // Try to load the PDF file with password
                if (!pdf.LoadPDFFile(lpstrFileName,
                        lpstrPassword))
                {
                        // Cannot open PDF file
                }
        }
        else
        {
                // Other error occurred during load PDF file
        }
}
```

(Communication from page 1)

plication on Microsoft Windows Vista, you must use pipe messages for communication between your application and the printer driver. If you used windows messages before, you need to modify your application because the windows messages will not work on Vista. Using the pipe messages is thus the best choice, because it works on both Vista and Terminal Server systems._

Common Problems with 1D Barcodes in the 1D Barcode Read/Write Toolkit

We have seen some common problems reading 1D Barcodes in our Barcode toolkit in the case where the barcode is not standard. The inability to read these barcodes is not a fault in the toolkit, but with the barcode itself. Figure 2 below is an example of a non-standard Code3of9 barcode.

To understand why the barcode is not standard, you need to know that a Code3of9 barcode always starts with a START codeword and always ends with an END codeword. This is not the case with the example below, as this barcode contains 1 extra codeword after the END codeword, which is the codeword of a space character. See Figure 2 below for a visual example of this.

Our decode function is able to properly decode the encoded string of this barcode, but after that it detects that the END codeword is not at the end of the barcode, causing the reader function to fail, which is the expected behavior.

If you are having difficulty reading a barcode, and our reader is giving you an error message stating that a barcode was found, but could not detect the type, the reason could be that it is a non-standard barcode like this one._

Figure 2

STRT | 1 | 0 | 0 | 2 | 3 | 6 | 7 | END | SPACE

Printing Tips: Bates Numbering Settings

In case of kernel-level printer drivers the settings of the Bates numbering is stored in the INI file of the printer driver. The user-mode printer drivers (from version 10) store the Bates numbering settings in the registry. This change is necessary because of Windows Vista. The INI file can't be modified on Vista in some cases, so the printer driver can't save the settings into it. The printer drivers save the settings of Bates numbering into the registry to

```
HKEY_CURRENT_USER\Software\Black Ice
Software, Inc.\[PRINTERNAME]
\BatesNumbering
```

The [PRINTERNAME] is the name of the printer. For example *Black Ice Color*. The *Number of Formats* (type REG_SZ) value contains the number of defined Bates number settings.
The different Bates numbering settings have their own key. For example if you have 2 settings, there are 2 settings in the registry:

```
HKEY_CURRENT_USER\Software\Black Ice
Software, Inc.\[PRINTERNAME]
\BatesNumbering\1
```

and

```
HKEY_CURRENT_USER\Software\Black Ice
Software, Inc.\[PRINTERNAME]
\BatesNumbering\2
```

The *Name* (type REG_SZ) value under \1 and \2 stores the name of your Bates numbering settings, so you can differentiate the settings.

So if you need to modify the Bates numbering settings programmatically you can simply use the registry manipulation functions._
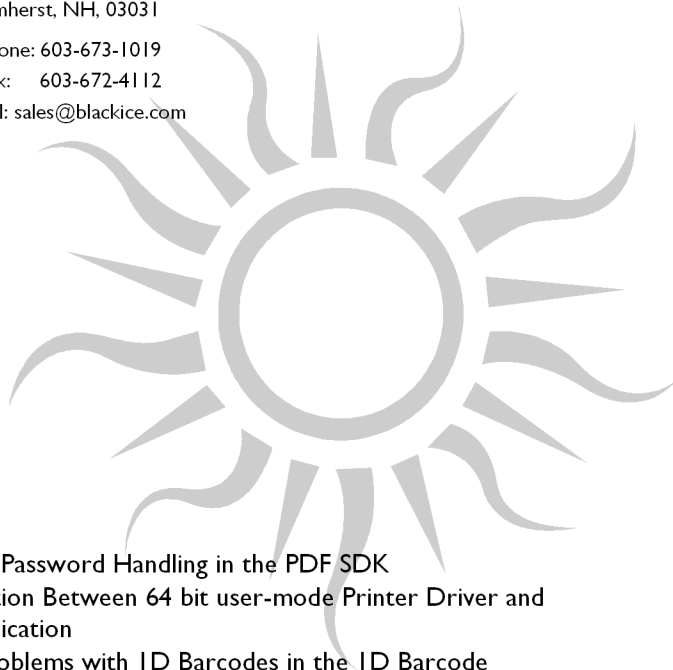
! **Notice:** The Printer Drivers for Windows 95 / 98 / ME, and the Voice C++/ActiveX Toolkit will be discontinued at the end of this year. Black Ice Software will no longer support these products after January 1st, 2008.

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Time to upgrade?   Latest Version Numbers

Printer Drivers

Printer Drivers for ME/98/95	5.81	4/13/06
Mono, Color, ColorPlus, EMF, PDF		
Printer Drivers for Vista / XP	10.03	5/9/07
Color, ColorPlus, EMF, Mono, PDF		
Printer Drivers for 2003, Citrix and Terminal Servers	10.03	5/9/07
Color, ColorPlus, EMF, Mono, PDF		

Fax, Voice, and Image Toolkits

Fax C++/ActiveX	12.40	4/12/07
Voice C++/ActiveX	12.40	4/12/07
Document Imaging SDK/ActiveX	10.77	5/3/07
PDF Plug-in	10.77	5/3/07
Annotation SDK/ActiveX	10.77	5/3/07
Image SDK/ActiveX	10.77	5/3/07
Tiff SDK/ActiveX	10.77	5/3/07
Cover Page Generator SDK/ActiveX	10.77	5/3/07
Barcode SDK/ActiveX	5.10	5/7/07

Impact Products

Impact Fax Server	7.31	5/18/07
Impact Fax Broadcast	5.11	11/29/06
Impact ColorFax	7.02	8/15/06

Internet Tools

Print2Email	5.13	10/19/06
Tiff Viewer Plug-in - Complete	8.01	5/3/07
Print Monitoring Server	3.00	9/16/04
Print2RDP	3.0	9/6/06
Print2FTP	2.02	8/15/06

Free Software

Impact ColorFax Lite	7.02	8/15/06
Tiff Viewer Plug-in - Free Version	8.01	5/3/07
ModemWeasel	2.00	8/01/02