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BLACK ICE SOFTWARE

INSIDE THIS ISSUE:

Phone: (603) 882-7711

Fax: (603) 882-1344

sales@blackice.com

www.blackice.com

How to Manually Remove a Black Ice Printer Driver

In certain cases you may need to remove the Black Ice printer driver and driver files manually from your computer. In this article we show the steps how to do this easily. The steps and screenshots are made for Microsoft Windows XP, but the procedure is the same on Terminal Servers and Vista.

1. Remove Black Ice Printer Driver

- Open *Printer and Faxes* dialog from the Control Panel or Start menu.
- Select the Black Ice printer (e.g. Black Ice ColorPlus) and delete it.
- Open *File\Server Properties* and go to the *Drivers* tab. Select the Black Ice printer driver (e.g. Black Ice ColorPlus Driver) and click the *Remove* button.
- Go to the *Ports* tab, select the Black Ice printer port (e.g. IcePortAUR:) and delete it by clicking on the *Delete Port* button.

2. Remove Driver Files

The printer driver files are installed to the following locations:

Windows\System32 (e.g. BuAMonNT.dll)
Windows\System32\Spool\prtprocs\w32x86 (e.g. BuAProNT.dll)
Windows\System32\Spool\Drivers\w32x86 (e.g. BuAUifNT.dll)
Windows\System32\Spool\Drivers\w32x86\3 (e.g. BuAUifNT.dll)

The complete list of the driver files is available in the printer driver manual. Note: If you have more than one Black Ice printer driver installed do not delete additional driver files (e.g. Tiff32.dll, Jpeg32.dll, BilmgUser.dll etc.) that are shared. If the spooler locked the files stop the spooler before deletion (run *net stop spooler* from command prompt, *net start spooler* to restart).

Required Components of the Black Ice Printer Drivers

Q: Does the printer driver use .NET Framework?

A: The Black Ice printer drivers don't use .NET Framework. So the .NET Framework doesn't need to be installed on the target machine, nut the PDF and ColorPlus printer driver needs the GDI+ and Visual C++ redistributable files for generating PDF documents. These components are downloadable free from the Microsoft web site. The components can be installed in your custom install also. You should install the components first before installing the printer driver.

DIFFERENCES BETWEEN 32 BIT AND 64 BIT PRINTER DRIVER FILES

This article lists differences between 32 and 64 bit printer driver files. This information is useful to create a custom printer driver install, because if the install uses an incorrect driver file version the printer won't be installed correctly.

Driver files: All printer driver files (including remove dll and additional dlls) have separate versions for 32 and 64 bit. For example the port monitor dll (e.g. BuAMonNT.dll) has 2 versions with same name for 32 and 64 bit XP or Vista.

Install dll (MyDll_NT.dll): The install dll also has separate versions for 32 and 64 bit. The source of the install dll is available in the printer driver resource toolkit. The install dll is developed in C++ language. Select *NT Release* project configuration for building the install dll for 32 bit and *NT Release x64* for 64 bit. The name of the install dll is the same for 32 and 64 bit.

ENCRYPTION AND PASSWORD HANDLING WITH THE LOW LEVEL INTERFACE FOR PDF SDK

As in one of the previous articles it has been mentioned that there are properties of saving a PDF document to a file that one may set. Some of these properties are about PDF document encryption - or in other words: passwords (both user and owner). A PDF document supports encryption so its contents can be protected from unwanted access. The PDF uses a password protection scheme that all PDF applications are expected to implement. The PDF SDK uses the RC4 encryption algorithm with 40-bit length keys.

PDF 1.4 documents support using up to two passwords for a document: an owner access password and a user access password.

When a user opens an encrypted PDF file, password input will be asked from that user. Entering either the user or owner password will enable opening the document and displaying its contents on the screen. Opening a document with the user password however will limit possible additional operations with the document, depending on what the document's creator restricted. The following cases may happen:

- A document opened with the correct owner password will give the user full access to the document. This includes an ability to change the document's contents, change the passwords or modify the user access permissions.
- A document opened with the correct user password will give the user only a limited access to the document. Operations the user may perform can be limited by the creator of the document when saving it. The limitations that the document's creator may set are called the access permissions and they are stored in the document's encryption dictionary.

The modifiable access permissions are the following:

- Modifying the document's contents.
- Copying or extracting text or graphics in any way from the document including accessibility purposes.
- Adding or modifying interactive forms and/or PDF annotations.
- Printing.

And now, let's see how to set encryption, passwords and access permissions using the PDF SDK:

```
CPDF pdf;

// set metadata

CPDFPage page = pdf.AddPage
(700.0, 900.0);

// load the content into page

// set encryption and passwords
pdf.SetEncryption(true, "userPW",
"ownerPW");
// set access permissions
pdf.SetPermissionPrinting
(false);
pdf.SetPermissionCopy(false);
pdf.SetPermissionContentModifica
tion(true);
pdf.SetPermissionAnnoAndFieldMod
ification(true);

// set compression

// set font embedding

pdf.SavePDFToFile
("c:\\hello.pdf");
```

The upper code snippet sets the user password to "userPW" and sets the owner password to "ownerPW". The first parameter of the SetEncryption method must be true, if one wants to use encryption. If it is false, the PDF file will be non-encrypted.

The four methods that follow set the permissions of user access. In this sample printing and copying are disabled, and content, annotation and field modifications are enabled.

USING THE HIGH LEVEL INTERFACE FOR PDF SDK TO LOAD A PDF DOCUMENT INTO THE OBJECT ORIENTED STRUCTURE

This article will explain how one can create a new document or load an existing one in the High Level Interface for PDF SDK, and access the document data to read or modify it.

When starting to work with the High Level Interface, the first task is always the same: instantiate a CPDFInt object. The following line does this, and creates a new CPDFInt that will contain a new document:

```
CPDFInt pPDFInterface
=
CPDFInt::CreateInterfa
ce();
```

If one wishes to load an existing PDF file:

```
// Try to load the PDF
file
if (!pPDFInterface-
>LoadPDFFile
(lpszPathName))
{
   // If error hap-
   pened
   if (pPDFInterface-
   >GetLastError() ==
   PDFERR_PASSWORD_AUT
   HENTICATION_ERROR)
   {
      // Ask for pass-
      word input if
      password error
      happened and re-
      try
      ...
   }
}
```

After a new PDF document has been created or an existing loaded, one can create the object oriented structure for it to work with it:

```
// Create the inter-
face structure
CPDFDoc pPDFDocument =
pPDFInterface-
>GetInterfaceStructure
();
```

From this point, one will do most work with the CPDFDoc object.
A CPDFDoc object has many different members contained. For example, the following objects allow access to metadata about the PDF document letting one query or modify their settings:

```
m_info          Infor-
mation about the PDF
document
m_version       The
document's PDF version
m_compression   The
document's compression
settings
m_encryption    The
document's encryption
settings
```

The most important member of a CPDFDoc however is the following:

```
m_vectPage      Vector
of all pages of the
document
```

The m_vectPage vector contans an array of CPDFPageObj objects. These objects contain all needed data about a PDF document's page. The most important property of a CPDFPageObj object is that it implements a list of other objects, which it contains. These objects can be of many different types, both visual and non-visual, like a line of text on the page, or a picture, or perhaps a group containing another list of such objects. Properties of such objects may be edited directly. In order to load the contents of a page, the following function can be used:

```
// Load the new page
if (!page->ReadFromPDF
())
{
   // Error handling
}
```

The CPDFPageObj class also contains a drawing function with which the page can be rendered on an output device. Drawing the contents of a page is as simple as setting the position and size of the page to be rendered through a coordinate transformation matrix, and then calling its draw function. One can use the following code snippet to display a page in an MFC Document/View program in the OnDraw method of the View (it supplies a pDC as the target device context to draw onto):

```
// Generate a trans-
formation matrix to
display the page at
the proper position
and size
XFORM xform;
xform.eM11 = scaleX;
   xform.eM12 = 0;
xform.eM21 = 0;
   xform.eM22 =
scaleY;
xform.eDx = left;
   xform.eDy = top;

// Set the transforma-
tion in the target DC
pDC->SetGraphicsMode
(GM_ADVANCED);
pDC->SetWorldTransform
(&xform);

// Render the page
onto the DC
pPDFDocument-
>m_vectPage[nPage - 1]
->Draw(pDC->m_hDC);
```

Settings for the High Level Interface's rendering quality can be found in the m_renderSettings member object of the CPDFDoc object.

BLACK ICE
SOFTWARE, LLC

20 Broad St
Nashua, NH 03064

Phone: 603-882-7711
Fax: 603-882-1344
E-mail: sales@blackice.com

Time to upgrade? Latest Version Numbers

Development Tools

Printer Drivers	10.30	12/01/08
Fax & Voice C++/ActiveX	12.50	06/18/07
Document Imaging SDK/ActiveX	10.97	12/10/08
Image PDF Plug-in	10.97	12/10/08
PDF SDK/ActiveX Professional	2.50	11/01/08
Annotation SDK/ActiveX	10.97	12/10/08
Image SDK/ActiveX	10.97	12/10/08
Tiff SDK/ActiveX	10.97	12/10/08
Cover Page Generator SDK/ActiveX	10.97	12/10/08
Barcode SDK/ActiveX	5.10	05/07/07

Impact Products

Impact Fax Server	8.03	05/21/08
Impact Fax Broadcast	6.5	07/02/08
Impact ColorFax	8.02	02/25/07
Print2Email	7.10	04/25/08
Tiff Viewer Plug-in - Complete	8.13	09/04/08
Print Monitoring Server	4.10	03/14/08
Print2RDP	4.80	09/04/08
Print2FTP	2.02	08/15/06
FileMorph	2.13	05/20/08
FileMorph DS	2.12	04/25/08

Free Software

Impact ColorFax Lite	8.02	02/25/07
Tiff Viewer Plug-in - Free Version	8.13	09/04/08
ModemWeasel	2.00	8/01/02