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Filename Generation Without Original File Deletion

Previously, if the filename generation method of the Black Ice printer driver was *Use Document Name* and the output file already existed, the original file was overwritten. So if you printed the same document for example 3 times, only the last printed document was kept. From version *10.33* the *Use Document Name* filename generation method has changed.

If the *Keep Existing Files* option is not checked and the output filename already exists, the printer driver adds an integer number extension to the end of the filename. For example if *Test.tif* already exists the next output filename will be *Test (1).tif*. If *Test (1).tif* already exists the next printed image file will be *Test (2).tif* and so on. The previously printed document(s) won't be overwritten. If the *Keep ExistingFiles* option is checked the printed pages will be appended to the existing document as usual. The filename generation methods can be set through the printing preferences dialog or programmatically using the BlackIceDEVMODE dll or ActiveX control.

How to Specify the Path and Filename of the BiPlugin.dll

The BiPlugin.dll is used for creating a real printer hook. The BiPlugin.dll is loaded by the printed driver during printing. The printer driver calls pre-defined functions from the Plug-in at each phase of printing, and will not continue printing until the function returns. Developers have full access to the DLL and can insert their own custom code to each DLL function to perform a variety of tasks as required by their application.

Usually the BiPlugin.dll should be placed in the System32 directory of Windows. If the printer driver finds the BiPlugin.dll in the System32 directory it automatically calls the functions of the dll.

But in some cases the Plug-in can not be copied into System32 directory, for example if you can't copy any files to System32 because of security reasons. In this case you can change the path and filename of the Plug-in dll using printer driver's INI file. For example:

```
[Default Settings]
Plugin File-
name=C:\Temp\Plug1
.dll
```

If you enter the settings above into the INI file, the printer driver will call the functions of *Plug1.dll* at *C:\Temp* location.

Note: The printer driver's INI file is located at *\system32\spool\drivers\w32x86\3* and *\system32\spool\drivers\w32x86*. You should modify the INI file at both locations. The name of the INI file depends on the type of the installed Black Ice printer driver.

How to Programmatically Set Custom Printer Paper Sizes

In this article we demonstrate how to set custom paper width and height using BlackIceDEVMODE.ocx. For example we want to print papers in 17.7 x 24.4 inch. In this case we can choose between *Variable Paper Size* and *Variable Paper Size in Pixels* printer paper sizes. We can specify the paper size and paper width and length programmatically. (The code snippets below are written in VB.NET.)

1. Using *Variable Paper Size in Pixels*

If you want to specify the paper size in pixels you have to calculate the paper size in pixels using DPI and inch values. Because *DPI = dot / inch*, the *paper width in pixels = paper width in inch * horizontal DPI* and *paper height in pixels = paper height in inch * vertical DPI*

```
' Change paper size to
'Variable Paper Size in
Pixels'
BlackIceDEVMODE.SetPaperSi
ze(259, iDevmode)
' Set paper width in pix-
els (inch * DPI)
BlackIceDEVMODE.SetPaperWi
dthInPixel(17.7 *
BlackIceDEVMODE.GetXDPI
(iDevmode), iDevmode)
' SetPaper height in pix-
els
BlackIceDEVMODE.SetPaperHe
ightInPixel(24.4 *
BlackIceDEVMODE.GetYDPI
(iDevmode), iDevmode)
```

2. Using *Variable Paper Size*

If you want to use *Variable Paper size* you have to specify the paper size in

0.1 mm units. (*1 inch = 2.54 cm*)

```
' Change paper size to
'Variable Paper Size'
BlackIceDEVMODE.SetPaperSi
ze(258, iDevmode)
' Set paper width in 0.1
mm (inch * 254)
BlackIceDEVMODE.SetPaperWi
dth(17.7 * 254, iDevmode)
' SetPaper height in 0.1
mm
BlackIceDEVMODE.SetPaperLe
ngth(24.4 * 254, iDevmode)
```

Note: These settings can, of course, also be done using the BlackIceDEVMODE.dll.
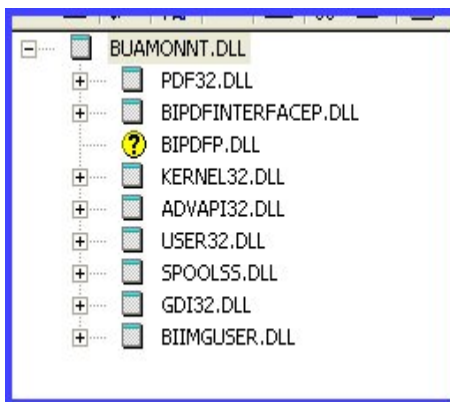
How to Check Missing Dependent Files of the Printer Driver

Some components have to be installed on the machine for proper working of Black Ice printer drivers. For example the ColorPlus and PDF printer drivers use GDI+ for generating PDF files. If the GDI+ isn't installed, the printer driver can't work.

The Black Ice installer of the printer driver installs the necessary components before installing the driver itself. But if you create your custom installer you have to install the dependent components on your own.

If your printer driver doesn't work after your installer was finished you should check the missing dependent files of the printer driver first. You can use the Dependency walker free utility

for checking file dependencies (http://www.dependencywalker.com/). If you load printer driver files (port monitor dll, user interface dll, etc) with Dependency Walker you can see the missing dependencies. For example:

In this example if you load port monitor of ColorPlus driver with Dependency Walker you can see the *BuAMonNT.dll* uses *BiPDFP.dll* but the *BiPDFP.dll* can't be loaded, so your installer has to be copy the *BiPDFP.dll* too.

So the Dependency Walker is useful to check missing components for creating printer driver installer.

Permissions for Changing Printer Settings

If the settings of the Black Ice printer can't be changed programmatically using the BlackIceDEVMODE, check the security permissions of the specified printer. The security permissions can be set at the security tab of the printer properties.

The *Manage Printers* permission should be checked allowing the user to change the printer settings programmatically.