

# Black Ice June Newsletter

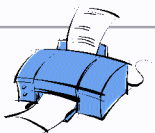
Black Ice Software

June 2004

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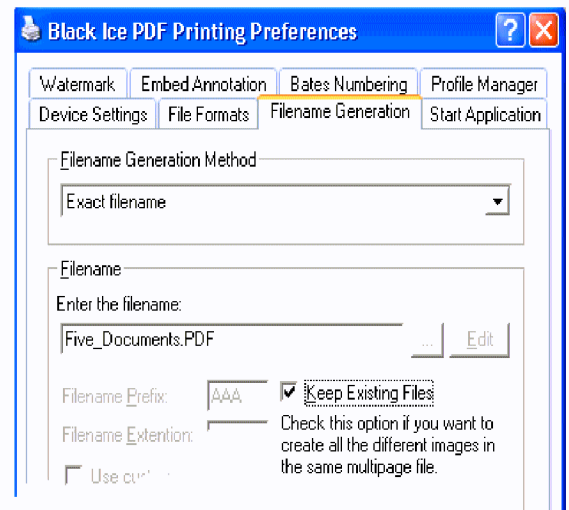
## New - Append PDF feature for the Black Ice PDF Printer Drivers

In the continuing effort to improve our Printer Driver products, Black Ice Software has added the option to create multipage and multi document PDF files by appending new pages to an already existing PDF file.

The Keep Existing Files option allows users to convert several documents and even different types of documents (i.e. two Word documents, one Excel document and two PowerPoint presentations) into one single PDF file.

Until recently, this option was available only for the TIFF and DCX file formats. In order to append new pages to an existing document select the Exact Filename for Filename Generation option. This way the printer driver will generate each output file (image) using the same file name. Check

the Keep Existing Files option to ensure that the printer driver will append the new pages to the existing file and will not overwrite the old file with the new images.



## Passing a Custom Parameter with the Black Ice Printer Drivers

The Black Ice printer driver can launch an application before or after printing. When the application is launched after printing, the driver can pass several command line parameters to the application. The 3<sup>rd</sup> party application can parse the command line and process the information passed in the command line parameters. Until now the following available command line parameters were:

- Document Name
- Group file name
- Printer name

- Number of pages printed
- Multipage image or not
- Page orientation (Portrait or Landscape)

As a new option in addition to the existing parameters now it is possible to pass a custom parameter. The parameter is 'custom' because it can contain any value or string, up to 260 characters in length.

The order in which the parameter will be passed to the application can be changed.

(Continued on Page 2)

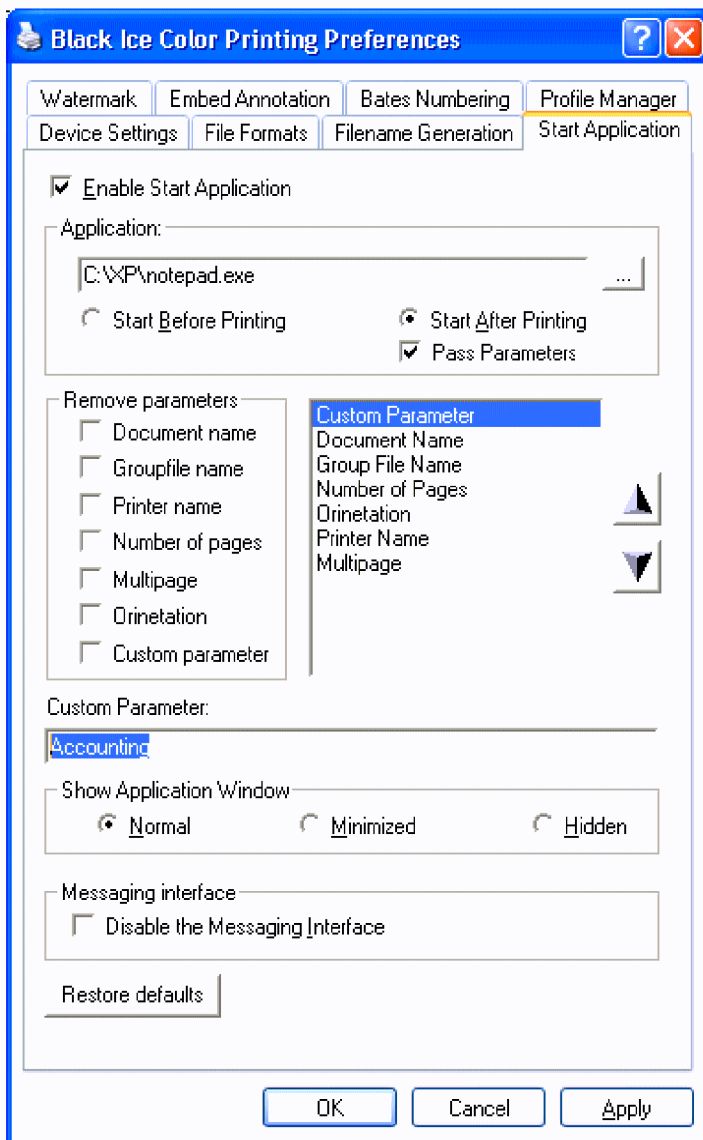
Subscription Service available for Printer Drivers, call for details.  
 Get your subscription to receive the latest technologies and upgrades!

(Custom Parameter, continued from Page 1)

Also, if some parameters are not necessary, checking the Remove Parameters option can disable them.

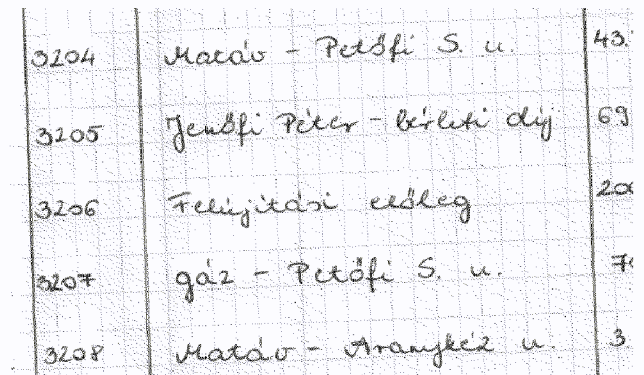
The value of the custom parameter can be set manually through the user interface, programmatically through the BlackIceDEMODE.OCX and BlackIceDEMODE.DLL controls or at install time using the INI file (i.e.: BiClin-iNT.ini in the case of the Black Ice Color Printer Driver).

The custom parameter option creates great flexibility for developers who may need to process the output images based on different criteria. For example, passing the name of the department which generated the images will enable the application to process the images differently from one department to another.



## Document Imaging SDK Image Cleaning

Filtering a noisy scanned hand written image

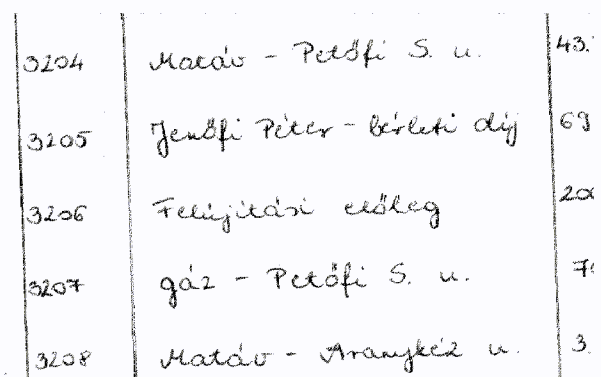


The original image

The original image is a scanned, hand written image with a strong additive noise due to the scanning process and the poor quality of the original paper. Images such as the one used in this example can be filtered in order to remove the noise from it.

It is important to note that simple filtering alone cannot create wonders, and it's also important to bear in mind that none of the filtering methods are able to make a new image containing more information than the original, after filtering we always lose some information, but if the filtering is chosen well, the information that we need stays on the image, and we lose the noise. A filtering method is only able to create a new image where the information important to us appears stronger than before the filtering.

One of the best filters (in these special cases like this example) for removing additive, salt and pepper noise is a very simple filtering method called the Median filter.



Median filtered image with 2x2 sized matrix

(Continued on Page 3)

(Filtering a Noisy Image, continued from Page 2)

Using the Median filter, the additive salt and pepper noise is removed, but we also lost some information from the handwriting itself. In this case a 2x2 sized matrix was used for the Median filtering due to the small size of the noise regions. The larger the matrix size, the more noise is removed, but also more information is lost from the important parts of the image. So the best solution is to find a middle ground that removes the most noise while preserving the most image integrity.

In the next step, the errors in the hand writing generated by the Median filter should be fixed. This image contains only black and white pixels. There are many excellent filtering methods for these binary images as they are called, but unfortunately the original images are not always binary. So the image should be binarized now.

3204	Macedo - Petöfi S. u.	43.
3205	Jenöfi Péter - Béleki díj	69
3206	Fellegvári eszleg	20
3207	gáz - Petöfi S. u.	70
3208	Macedo - Aranyköl u.	3.

Binarized image with Floyd-Steinberg error diffusion dithering

For binarization, the Floyd-Steinberg error diffusion dithering method was used. On the already binarized image the holes in the hand writing due to the Median filter could be filled up with a binary Dilation filter. Dilation filter makes the lines stronger, fills up the small holes and make the lines continuous. In this example a 3x3 sized full one matrix was used for dilation.

The Black Ice Document Imaging SDK/ActiveX includes many powerful filters and effects to perform a wide range of image correction and processing, including the functionality listed in the above article.

## New Sample Source Code and documentation for the Black Ice Imaging Toolkits!

Black Ice Software is pleased to announce the addition of over 60 pages of new sample source code and documentation which provides detailed examples of how to perform a full array of image processing and image specific functionality. Over 40 new topics including displaying an image, converting images from one file type to another, processing images in memory, scanning, image correction and much more. Sample code is provided with each item in C++, VB, and C#, allowing developers to use their language of choice or easily port the provided samples over to other popular programming languages, such as VB .NET and J#!

The new sample documentation and source code is included in the documentation bundled with the toolkits and is also available from the online documentation posted on the Black Ice website at: <http://www.blackice.com/onlinedocs.htm>

## New - Append PDF feature for the Document Imaging SDK/ActiveX

Newly released version 10.21 of the Document Imaging SDK/ActiveX includes functionality to append additional images to PDF files created with the Black Ice Document Imaging SDK/ActiveX. Using this functionality, developers can easily merge multiple images into a single PDF, either all at once or by adding files to an already existing PDF file. Visit <http://www.blackice.com/> to learn more and to download an evaluation version.

### Upcoming topics in future newsletters:

- 2D Barcode SDK/ActiveX
- Single function installation for the Black Ice Printer Drivers
- VB Install for Black Ice printer drivers

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**Inside**

## Printer Drivers: *New Append PDF and Custom Parameter* Much more inside...

### Time to upgrade?



### Latest Version Numbers

#### Printer Drivers

Product	Version	Date
Color Printer Driver for Win95/98/ME	5.62	04/20/04
Metafile Printer Driver for Win95/98/ME	5.62	04/20/04
Mono Printer Driver for Win95/98/ME	5.62	04/20/04
PDF Printer Driver for Win95/98/ME	5.62	04/20/04
Mono Printer Driver for NT/Win2000/XP	8.65	05/13/04
Color Printer Driver for NT/Win2000/XP	8.65	05/13/04
Mono Printer Driver for NT/W2K/XP	8.65	05/13/04
Metafile Printer Driver for NT/W2K/XP	8.65	05/13/04
PDF Printer Driver for NT/W2K/XP	8.65	05/13/04
Terminal Server Printer Drivers/Win2003	8.65	05/13/04

#### Impact Products

Product	Version	Date
Impact Fax Server	4.36	12/18/02
Impact Fax on Demand	4.06	12/01/00
Impact Fax Broadcast	3.51	05/07/04
Impact ColorFax	5.51	05/07/04
Drag and Drop Printing	2.00	12/24/02

#### Fax, Voice and Image Toolkits

Product	Version	Date
Fax C++/ActiveX/COM	10.05	05/03/04
Voice C++/ActiveX/COM	10.05	05/03/04
Tiff SDK/ActiveX/COM	10.21	05/14/04
Annotation SDK/ActiveX/COM	10.21	05/14/04
Fax Cover Page Generator SDK/ActiveX	10.21	05/14/04
Image SDK/ActiveX	10.21	05/14/04
Document Imaging SDK/ActiveX	10.21	05/14/04
Barcode SDK/ActiveX	2.23	05/03/04

#### Free Software

Impact ColorFax Lite	5.51	05/07/04
Tiff Viewer Plug-in - Free Version	5.00	03/26/03
ModemWeasel	2.00	08/01/02

#### Internet Tools

Print2Email	3.01	01/20/03
Tiff Viewer Plug-in - Complete	5.01	06/26/03
Print Monitoring Server	2.40	04/02/04