



VISUAL DOT V.1.5

DOT PROOFING INKJET TECHNOLOGY

UPGRADE RELEASE : VisualDot v.1.5 & DotBatch v.1.5

Date : 1st SEP. 2005

Dear partners, evaluators and customers who are testing VisualDot version 1.3 from VALLOY Inc, This report is prepared to inform you that VisualDot new upgrade, v.1.5 is available, which was enhanced from the previous version with help from many of you. New VisualDot v.1.5 and DotBatch v.1.5 program is meeting all requirements asked by you so far completely. New features can be summarized as below;

- SHARPNESS OF DOTS : Very enhanced by new algorithm and approach
It is required to 'calibrate' your environment at starting to get the best quality.
- SPOT COLORS : New spot color library is containing Pantone Index as a default for your convenience.
Users can add/modify/delete spot colors in the library without limitation.
Users can import max. 4 additional Spot colors to CMYK. (extended up to 12 soon)
- AUTOMATIC RECOGNITION OF COLORS : VisualDot and DotBatch is using both of 'jobname' and 'filename' to recognize characters of each 1 bit screen for automatic composition.
Any complicated name of spot color can be recognized if it is identical to that in the library.
- OUTPUT FORMAT : Version 1.5 of VisualDot and DotBatch creates Dot-proof output file as 8 bit separate TIFF format as well as 32 bit composite TIFF, PDF and PS the previous version supported.
This option can maximize the functionality of your own proof Rip to get the best final output.
- SPEED : Dot-proofing speed is very improved. Very useful in automatic process using DotBatch.
- MIMO ENVIRONMENT : New DotBatch v.1.5 is supporting very enhanced SERVER feature with providing Multi-Input-Multi-Output structure. User can create unlimited number of Hot-Folders, where input folder and related options, dot-proof creation folder and related options, and preview file creation folder and related options each differently.

Let's get into details now.

1. SHARPNESS OF DOTS

Dot sharpness is controllable parameter. However, it is very sensitive on the proof output. People are expecting as hard (sharp) dots as possible on inkjet proof too, just like the same look with press. However, if we making the dots sharper at very higher level, unexpected moiré can come up or smooth shades can appear with steps in it. We improved dot-generation algorithm for each color screen now. Furthermore, new version is providing more structured process to get the best sharpness by controlling sharpness of each color screen differently. To find the best optimized (as sharp dots as possible without any Moire problem), it is highly recommended to proceed Calibration process. It is important to calibrate your Dot-proofing environment before creating Dot-proof output. Each different Rip software and Color Management Workflow has its own characteristics and parameters which make effect on quality on Dot-proof and Press output.

Currently VisualDot's default sharpness is optimized to EPSON4000+TOPAZ RIP software. It is required to find the best optimized condition of sharpness control of your own dot-proofing environment, Because the environment varies due to different rip software's, proofers, papers and original 1 bit TIFF images.

Please find Colorchart.PDF or Colorchart.PS file which is located installation folder of VisualDot (e.g. .../Programfiles/codelsystems/visualdot/...).

Load the Colorchart image with your own PS Rip software and create 1 bit TIFF images by parameters like resolution, line per inch, screen type, screen ruling and etc. as the same with those are going to be used for final press output and dot-proofing.



After creation of 1 bit TIFF images, open those with VisualDot software.

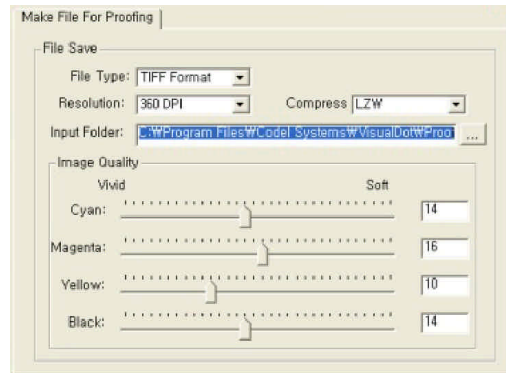
Now it is required to calibrate the "Sharpness of Dots" as the maximum sharpness without unexpected moire effect. Generally too vivid (clear or sharp) Dots can cause unexpected Moire effect on the proof output.

To find the optimal level of sharpness, VisualDot supports "Sharpness Control of Each Color Plate" as the below image. Go to "Make file for Proofing" and create dot-proof image for the first time. Print it with your proofer printer and check if there's any moire effect at any position of C, M, Y, or K.

If you see unexpected moire in C, this means the Dot Sharpness of Cyan screen is too sharp in a certain condition and you need to set the level of C sharpness at lower position.

If you cannot see any moire in K, this means you may have more room to increase the sharpness of K screen by adjusting the level at higher position.

With this kind of trials and errors, you'll be able to find the optimal sharpness level for each color screen to get the best dot-proof output with maximum sharpness later.



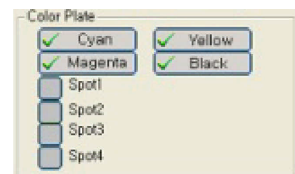
2. SPOT COLORS

New version 1.5 supports importing up to 4 SPOT colors for a single composite image. This will be extended into 12 spot colors very soon, to meet very professional users in the field.

In the Spot Color Library of new version, basic Pantone color index is available as default. When any of your 1 BIT TIFF images are using Spot Color which is not available in Pantone index, you need to define the customized RGB value of the Spot Color here in advance. Spot colors can be added as many as you want in the library.

Users can add/modify/delete spot colors in the library without limitation. You can create as many spot colors as possible if you need.

However, please remember that the name of Spot Color is very important for automatic recognition of each color-separate screens.

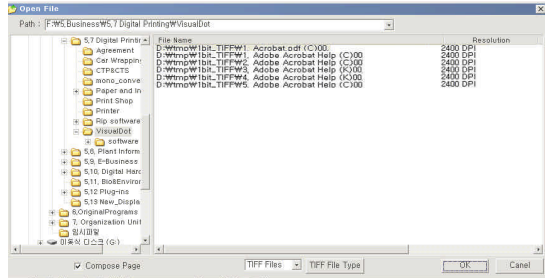


Name	R	G	B
PANTONE Yellow	247	224	23
PANTONE Yellow 012	247	217	23
PANTONE Orange 021	237	110	0
PANTONE Warm Red	245	64	41
PANTONE Red 032	237	46	56
PANTONE Rubine Red	207	3	92
PANTONE Rhodamine Red	230	0	148
PANTONE Purple	186	31	181
PANTONE Violet	102	0	161
PANTONE Blue 072	41	5	161
PANTONE Reflex Blue	23	23	150
PANTONE Process Blue	0	140	204

3. AUTOMATIC RECOGNITION OF COLORS

There's very convenient way of multiple file loading. By defining naming rules of your own for your TIFF files, you can load TIFF files set at once, with automatic color plate placement. This is very important for automatic process using DotBatch program.

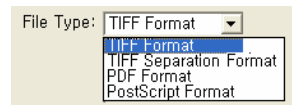
For sorting of files, the list can be sorted by "TIFF JOB name", "TIFF FILE name" or "RAS files". With selection of TIFF JOB name, files will be sorted by internal job name with color information. With selection of TIFF FILE name, files will be sorted by physical file name and it is required to build a customized naming rules to import each separate file as a composite at once. To add and edit your own naming rules for importing TIFF files, press 'TIFF File Type...' button in the File Browser dialog window and define your own naming rules. To define a naming rule of TIFF FILE NAME for Spot color plates, it is recommended to use <Color> rather than <C>, because a single alphabet cannot stand for a specific spot color. If each color separated files are named by rules registered in 'TIFF file type' setting, you can easily select combined set of files by activating 'Compose page' option.



The original list of TIFF files will be simplified into the right window where sets of TIFF files will appear by combining TIFF files with the defined naming rules. Select a single set of TIFF files and press 'OK' to load the TIFF file set. Placing into the each color plate will be done automatically.

3. OUTPUT FORMAT

Proof image file format can be selected between 32 bit composite TIFF, 8 bit separate TIFF, PDF and PS formats. Resolution of proof image can be determined between 300, 360, 600 and 720 DPI.



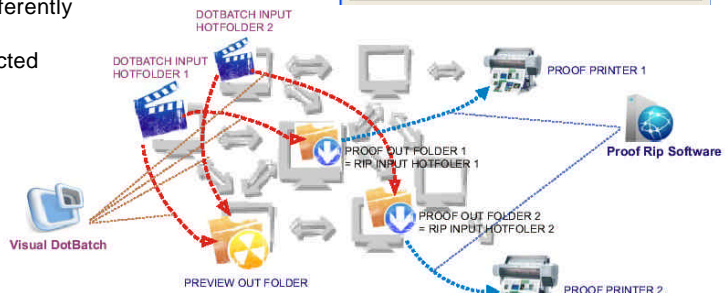
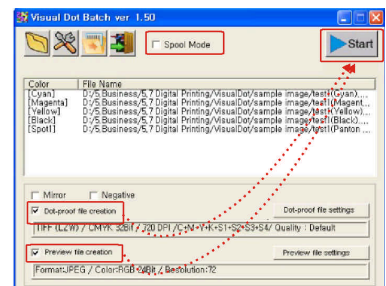
720 DPI resolution is recommended for Epson printers and 600 DPI resolution is recommended for HP and Canon printers. During creation of proof image you can select compression type as None, Packbit or LZW. Image quality can be also adjusted in the slide bar controller. With moving the slide to the left, screen dots will be generated more clearly for each color screen. Too vivid (clear or sharp) Dots can cause unexpected Moire effect on the proof output. You're advised to calibrate the environment of Dot-proofing first to get the maximum sharpness of the output before dot-proofing.

When creating proof output image in 8 bit Separate TIFF format, TIFF images for each color plate will be generated as 8 bit data. This can help your enhanced color management in your own color proofing software. The names of separate TIFF files will be like below;

JOBNAME(Cyan).TIFF, JOBNAME(Magenta).TIFF, JOBNAME(Yellow).TIFF, JOBNAME(Black).TIFF, JOBNAME(Spotcolor1).TIFF, JOBNAME(Spotcolor2).TIFF and etc.

4. MIMO ENVIRONMENT

Visual DotBatch is Automatic processingmodule for prompt Dot-proofing workflow without manpower. DotBatch monitors multiple Hotfolders for file input and automatically convert separated 1 bit TIFF files into 32 bit composite or 8 bit separate Dot-proof file and Preview image file and those files can be saved into different folders specified. Parameters including Spot colors, Resolution, File format, mirroring and other settings can be differently defined to each hotfolder to generate Dot-proof file and Preview file as expected under the differently defined output folders.



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