



DpuScan

Janich & Klass
Computertechnik GmbH



DpuScan 7 Reference Manual

Color Filter

Copyrights

© 1997 to 2024 © Janich & Klass Computertechnik GmbH. All rights reserved.
Printed in Germany. The information contained in this documentation is the property of © Janich & Klass Computertechnik GmbH, Wuppertal. Neither receipt nor possession hereof confers or transfers any right to reproduce or disclose any part of the contents hereof, without the prior written consent of Janich & Klass, Wuppertal

Trademarks

The DPU logo is a registered trademark of © Janich & Klass Computertechnik GmbH. All other product names and logos are trademarks or registered trademarks of their representative companies.

Disclaimer

The instructions and descriptions in this manual were accurate at the time of this manual's printing. However, we reserve the right to alter the description and/or the product at anytime without prior notice. As per the actual state of software technique it is not possible to develop programs that will work trouble-free under all conditions and in any configuration. © Janich & Klass Computertechnik GmbH assume no liability for damages incurred directly or indirectly from errors, omissions, or discrepancies between this manual and the product.

Actuality

It may happen that a more recent version of this manual for DpuScan is available for download from the Internet. Therefore, it is recommended that you should compare the version by means of the date printed on this page with the version on the Internet. You should please use the most up-to-date version of the manual.

Table of Contents

1 Filter	6
1.1 Overview	6
1.2 Filter-Configuration	6
1.3 DPU-Filtereditor (Color to Gray)	7
1.4 DPU-Filtereditor (Gray to Bitonal)	8
1.5 ACDP-Filtereditor (Color to Color)	8
1.6 ACDP-Filtereditor (Color to Gray)	8

1 Filter

1.1 Overview

The module color filter is intended to alter incoming images by a filter. To achieve this some colors will be emphasized and some other will be concealed as background colors.

The filtering follows up to three steps:

- 1.Step Color to Color
- 2.Step Color to Gray
- 3 Step Gray to bitonal(Black/White)

Which steps will be done depends on the kind of incoming images from the scanner (or disk) and the kind of images that are needed as output for archiving or recognition (OCR).

DpuScan allows to create arbitrary filters. Out of these a set of up to 3 filters can be loaded for front and rear sides and stored as a subprofile. This subprofiles can be selected for several base profiles and used in tasks that based on this base profiles.

Due to the [Filter-Configuration](#) filters can be created, edited and collected to build subprofiles.

The filter differs in their base methods: Weighting the color channels, calculating fore- and background colors or using static or dynamic thresholds.

Configuration Dialogs

[The Filter-Configuration](#)

Front Side	Filter on front side
Back Side	Filter on rear side
Available Filters	Creating and editing filters
Filtereditor Gray to Black/White	DPU, static threshold
Filtereditor Gray to Black/White	DPU, dynamic threshold
Filtereditor Color to Gray	DPU, weights of color
Filtereditor Color to Gray	ACDP, Background/Foreground
Filtereditor Color to Color	ACDP, Background/Foreground
ACDP-Filter Properties	Density and Priority

Miscellaneous:

- Fileopen-Dialog for multipage image files with preview
- Messages and Warnings
- Glossary

1.2 Filter-Configuration

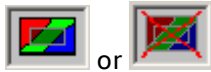
The filter manager is a dialog box that can be opened in the **base profile** configuration dialog, page "process". Because of that the box shows the base profile' name in the titlebar.

Subprofiles are handled like all other subprofile dialogs in DpuScan.

In addition to that there are two further control element:



Allows to enable or disable the configuration "on the fly"



Shows the current state (active or inactive)

Beneath the frame for the handling of complete subprofiles are three property pages that describes the current subprofile.

Front

Shows the filters used for front sides.

Back

Shows the filters used on the rear side. This page is always show, also for simplex scanners.

Available Filters

On this page filters can be created or edited. A list shows all available filters.

The buttons beside it are working in the well known manner:

OK

closes the dialog and assigns the selected subprofile to the base profile shown in the titlebar. If the subprofile itself was modified the changes will be stored too.

Cancel

closes the dialog without saving changes to base profile and subprofile. Be aware that changes made to the filters are stored (resp. dropped) when dismissing the appropriate editor.

Help

opens this help file.

Attention: If a filter is not found when loading the subprofile the corresponding filter step will be *missed out*. The resulting images can't be generated, display or stored.

See also [Overview](#).

1.3 DPU-Filtereditor (Color to Gray)

This editor shows the filter name in the titlebar. On the left side the filtered **gray image** will be displayed and on the right side in a little smaller view the original **colored image**.



With the button a colored image can be loaded as input. The editor displays the input image on the right side. If it is not a valid image a warning is shown.

Input images should be always of the **same quality** as those ones the filter works on later. E.g. if the scanner serves uncompressed images this type should be used here.

In the lower right corner of the dialog is a frame titled with **Weights**. Here the weights of the base colors may be adjusted.

The sliders for **Red**, **Green** and **Blue** states the appropriate color weight. The button **100%** sets all weights back to the default value of 100%.


The button **Save As** stores the filtered gray image to make it available for subsequent steps of image processing, e.g. a binarization or a hand script comparison of a signature.

If the dialog is dismissed with OK the filter is stored with the shown name and the extension "CG" in the filter directory.

1.4 DPU-Filtereditor (Gray to Bitonal)

This editor shows the filter name in the titlebar. On the left side the filtered **black/white image** will be displayed and on the right side in a little smaller view the original **gray image**.



With the button  a gray image can be loaded as input. The editor displays the input image on the right side. If it is not a valid image a warning is shown.

Input images should be always of the **same quality** as those ones the filter works on later. E.g. if the filter should work on images that come out of another color filter, exact this kind of images should be loaded here.

In the lower right corner of the dialog is a frame titled **Threshold**. The slider inside adjusts the fixed threshold for the conversion from gray to black. The changes are immediately displayed in the left pane.

The button **Save As** stores the filtered bitonal image to make it available for subsequent steps of image processing, e.g. an OCR or a binary pattern recognition.

If the dialog is dismissed with **OK** the filter is stored with the shown name and the extension "GB" in the filter directory.

1.5 ACDP-Filtereditor (Color to Color)

This filters transforms an incoming color value into an outgoing color or gray value by an algorithm. To generate the parameters for that algorithm one or more original *images* (direct from the scanner and usually uncompressed,) are collected in a *project*.

On the image(s) will be areas marked that defines foreground colors and background colors. Colors in a background area will become white on the output image, except those ones that are also in a foreground area. Moreover the visible colors some contiguous colors in the spectrum will be affected too.

The Editor shows a workspace where either one of the input images or the corresponding output image is displayed. In the titlebar the name of the current project is shown.

It can be controlled by the menus File, View, and Mode.

Upon the workspace is a toolbar, that allow a quick access to important menu items und below the image pane displays a statusbar information about the current state of the project.

Index

- C -

- Change a configuration 6
- Color to Color-Filter (Table) 8
- Color to Gray-Filter (Table) 8
- Color to Gray-Filter (Weights) 7
- Create a configuration 6
- Create a test image for OCR 8

- D -

- Delete a configuration 6

- E -

- Editor for Color to Gray-Filter (Weights) 7

- G -

- Gray to Bitonal Filtereditor 8

- I -

- Introduction 6

- M -

- Modify a Color-to-Color-Filter 8
- Modify a Color-to-Gray-Filter 7, 8
- Modify a Static-Threshold-Filtereditor (Gray to Bitonal) 8

- O -

- Overview 6

- S -

- Select a configuration 6
- Static-Threshold-Filtereditor (Gray to Bitonal) 8

Reference Manual Color Filter

© Janich & Klass Computertechnik GmbH

Wuppertal, Germany, 2024