Frequently Asked Questions

Background Optimizing

Title	Background Optimizing
Revision	1.1
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Category	FAQ
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1. Confidentiality

Status	Interested Party	Source	PDF
Public Information	Image Access Support	**Yes**	**Yes**
	Authorized Service Providers	**No**	**Yes**
	Image Access Customers	**No**	**Yes**

2. Revision History

Date	Rev.	Name	Description of Change	Reason for Change
13.09.2017	1.0	AKU	Initial Version	
24.09.2018	1.1	ERI	Revised version	Expansion of chapter 10

3. Table of Contents

4. Purpose

The purpose of this document is to answer frequently asked questions about how to scan various documents with a WideTEK scanner so that the background is perfectly white (RGB 255 255 255) without losing any content.

5. Scope

The scope of the document includes all WideTEK scanners. The firmware versions covered by this FAQ document are 6.70 and higher.

6. Terms and Definitions

Term	Description, Meaning
ScanWizard	Scanning application embedded in the scanner system
(WideTEK) scanner	All WideTEK scanner models, flatbed, wide format and art scanners

7. Introduction

The target audience of this FAQ document are the operators and the administrators of WideTEK scanners. They should have experience in modifying scan parameters and in creating and modifying scan templates.

This document helps you to:

- reduce speckles, especially from a bitonal image
- improve colors
- make a white background of the document appear white in the image, even if the document has large paper pores, the paper is transparent or half transparent or very thin, the printing is faded, or the background of the original is yellowed or otherwise discolored.

8. Hardware conditions

The following hardware conditions impact the scan result significantly:

- ➢ the nature of the document, for example material (paper, fabric, plastic, wood etc.), thickness, transparency, structure, glossiness etc.
- ➢ the quality of the document, for example wrinkled, yellowed, dirty paper, faded ink or colors, dark documents with low contrast
- ➢ the scan background, black, white or gray
- ➢ the illumination: default, top, bottom, 3D, backlight (depending on the scanner model)

9. Software conditions

The following software conditions impact the scan result additionally:

- ➢ scan parameters: brightness, contrast, chosen color space, ICC profile
- ➢ color depth: 24bit/8bit color, grayscale, binary/enhanced halftone
- ➢ enhancements: auto exposure, threshold (binary modes only), despeckle

10. Improve the scan result

The types of documents and other originals that can be scanned with a WideTEK or a Bookeye scanner is so varied, that we can give only general hints how to get the best quality even from barely legible or worn out objects. Make yourself familiar with these hints and try out the modifications described below to see the impact of different scan backgrounds, higher and lower contrast or brightness and so on.

10.1. General recommendations

We recommend using the ScanWizard, either on the external touchscreen or via web browser, and to modify scan settings without rescanning to see their immediate effect on the image.

When you try out different settings to optimize the image quality, change only one parameter at a time. Otherwise, you will not know which change is significant.

If you scan the same type of document repeatedly, find out the best settings for these documents. Then store the settings in a template.

10.2. Scan white documents with low grammage or large paper pores

- ➢ Increase contrast and brightness when scanning with a black background.
- ➢ If possible, use a white scan background.
- ➢ Set illumination = default. Avoid scanning with illumination: top, bottom or 3D.
- ➢ WT36C/48C and WT36CL/48CL: increase contrast and brightness.

### 10.3. Scan transparent or semitransparent documents

- ➢ WT36/44/48: Use the white scan background (insert the white pressure drum instead of the default black one).
- ➢ WT36CL/48CL: For bitonal images start with default settings, then increase contrast and/or brightness step by step.
- ➢ All scanners: In the **Enhancements** menu set **Exposure** = Auto.
  Two additional sliders, black threshold and white threshold, help you find the best setting for deep black and bright white parts of your specific documents.

10.4. Scan faded, yellowed or otherwise discolored originals in bitonal mode

- ➢ WT36/44/48: Use the white scan background (insert the white pressure drum instead of the default black one).
- ➢ Start with default settings, then increase contrast and/or brightness step by step.
- ➢ In the **Enhancements** menu, set **Exposure** = Auto.
  Two additional sliders, black threshold and white threshold, help you find the best setting for deep black and bright white parts of your specific documents.
- ➢ Use the despeckle function (Enhancement menu) to remove single dark spots.
- ➢ Reduce sharpness.

10.5. Example images : semi-transparent document, WT36-600, black pressure drum
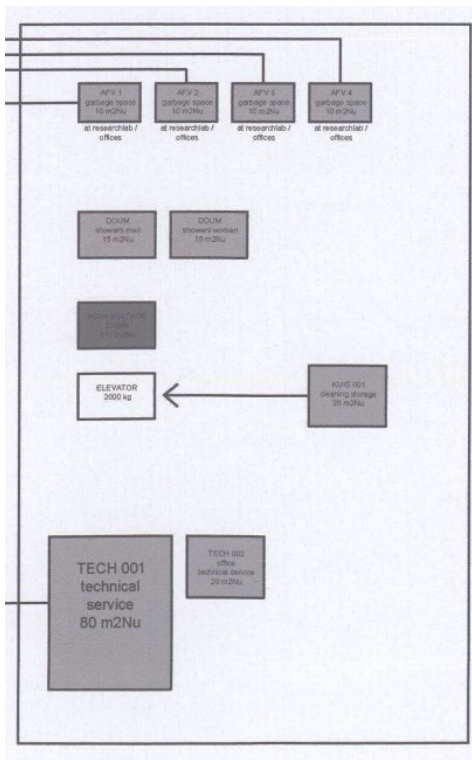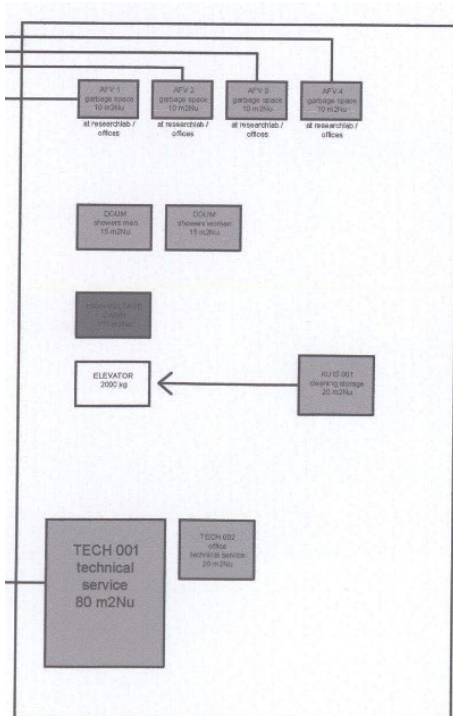
➢ default settings   contrast = 60, brightness = 55
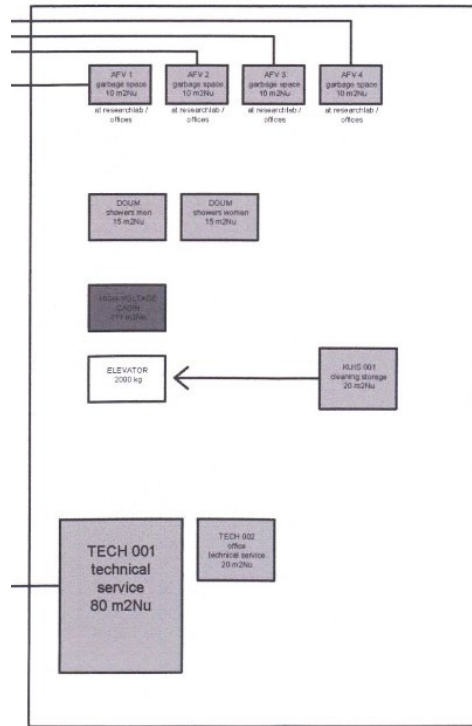
10.6. Example images, same document, WT36-600, white pressure drum

default settings   contrast = 55, brightness = 55

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