

REF 1888343



EPSON Perfection V850 Pro Quick Guide

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1 Overview

This document provides information on how to use the EPSON Perfection V850 Pro scanner and EPSON Scan software for creating pre-measurement scans that can be used for the automatic workflow and SCiLS™ autopilot in Bruker's flexImaging software.

2 Site Specifications

- EPSON Perfection V850 Pro (Bruker cat #1888343)
 - EPSON Scanner Driver and EPSON Scan Utility v3.9.3.4 (download from EPSON).
- IntelliSlide (Bruker cat #1868957) with sample.

3 System Requirements

- CPU: Pentium Core processor equivalent or better, clock frequency 1.6 GHz or more for satisfying data handling (Recommended: dual core workstation or better for acquisition).
- Hard disk: at least 12 GB of free disk space
- Main Memory: minimum 8 GB RAM. For handling large data sets, it is recommended to have 32 GB RAM or more.
- Operating System: Windows 10 64bit, English versions
- Graphic resolution: 1280x1024 pixels with true colors
- Interface: USB 2.0 (Type-B standard connector)

Note The setup program could change the settings of the Windows firewall to allow outgoing passive FTP connections to ftp.bdal.de for the automatic update notification feature. This change only affects systems where the default firewall settings had been modified.

4 Installation

You need administrator privileges for all installation/uninstallation tasks.

Please make sure that the scanner device is connected to the computer where this software will be installed.

1. Download the Scanner Driver and EPSON Scan Utility v3.9.3.4 from EPSON
2. Click V800_V850_3934_AM.exe and allow the program to make changes to your computer.
3. Follow the installation wizard instructions to set up EPSON Scan on your computer.
4. Click Finish when you get to the end of the wizard prompts.

Note Should you have difficulties installing the software due to anti-virus settings, please contact your server administrator for help.

5 Create a Scan

When using the EPSON Perfection V850 Pro to create high resolution scans of your slides, it is important to take note of the following:

- **Create your optical pre-measurement scan before matrix coating.**
While the IntelliSlide sprayer mask will keep the barcode, Bruker logo, and teach marks at the far edges free of matrix, visualization of tissue regions is hindered by matrix coating.
 - **The scan should be created with the slide facing upwards.**
This will prevent your sample from touching the surface of the scanner. The slide is facing upwards if the inscribed numbers and Bruker logo are legible.
1. Switch on the scanner and open the EPSON Scan software.
 2. Make sure that the sample (medium format) adapter has been placed on the scanning surface of the EPSON Perfection V850 Pro, with the white triangles on the holder and the scanner are aligned (see Figure 1-1).
 3. Adjust the height of the sample adapter to the lowest setting with the small slide controls, as indicated by the red arrows and rectanglesFigure 1-1. All slide controls of the holder must be adjusted to the same setting.

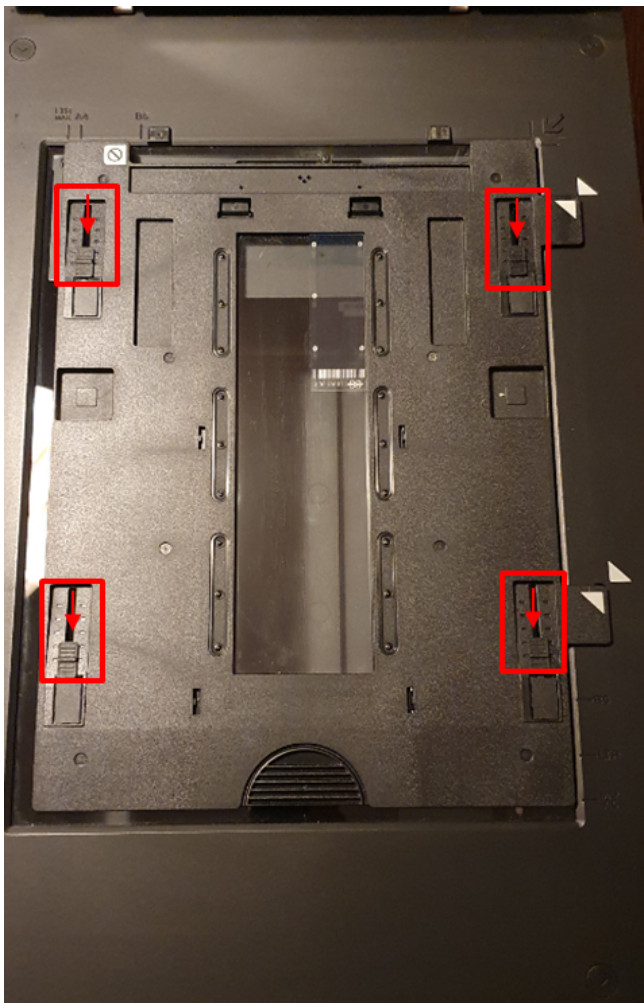


Figure 1-1 EPSON Perfection V850 with sample film adapter on scanning surface

Note Please note the alignment of the white triangles with each other at the right edge of the adapter and the height adjustment setting of the adapter (red boxes and arrows).

4. Place your slide onto scanner surface into one of the corners of the adapter with the slide facing upwards.
5. Close the scanner lid.

6. In the EPSON Scan software, make sure you have applied the following settings:

- Mode: Professional Mode
- Document type: Film (with Film Holder)
- Image Type: 24-bit Color
- Resolution: 3200 dpi
- Scale: 100%

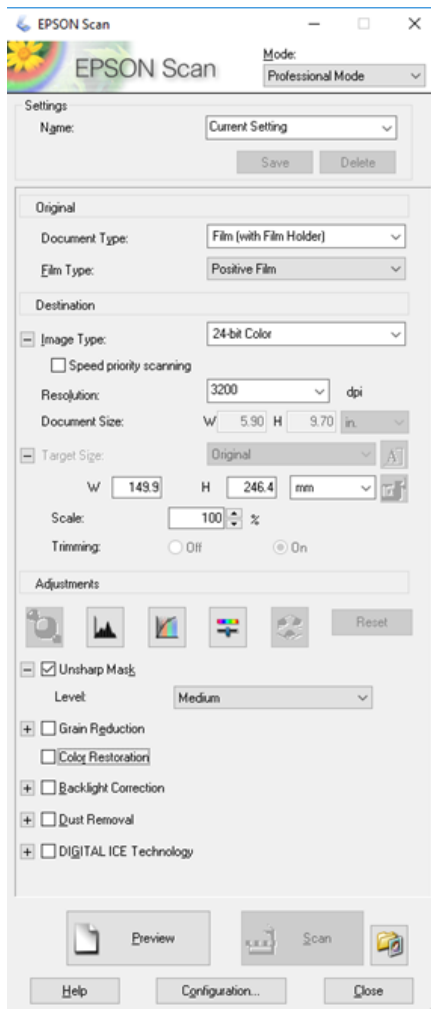


Figure 1-2 EPSON Scan software showing the recommended scan settings

7. Click the “Preview” button on the bottom left

- Creation of a low-resolution preview scan of your sample starts.
- Two new windows open:
 - Progress window showing a green progress bar.
 - Preview window showing the preview image.

Note If an EPSON Scan window with the statement “Cannot find a document. Preview is displayed in Normal mode” appears after completion of scan, click ‘Close’.

- A low-resolution scan of the sample appears automatically in the Preview window

8. Hold down the left mouse button and drag over the IntelliSlide in the Preview window.

- A dotted line box will form around the low-resolution scan of your slide.
- This dotted box defines the region of interest (ROI) for the high-resolution scan.

9. To scan the entire IntelliSlide, set the Document Size and Target Size parameters in the EPSON Scan software to W: 24.4 mm, H: 74.2 mm.

Note The precise selection of these dimensions covering the entire IntelliSlide are important as barcode reading will only work if the inscribed features are not cropped.
The barcode reading may also fail if the area for the slide is too large. Ideally the scan border is just inside the edge of the slide.

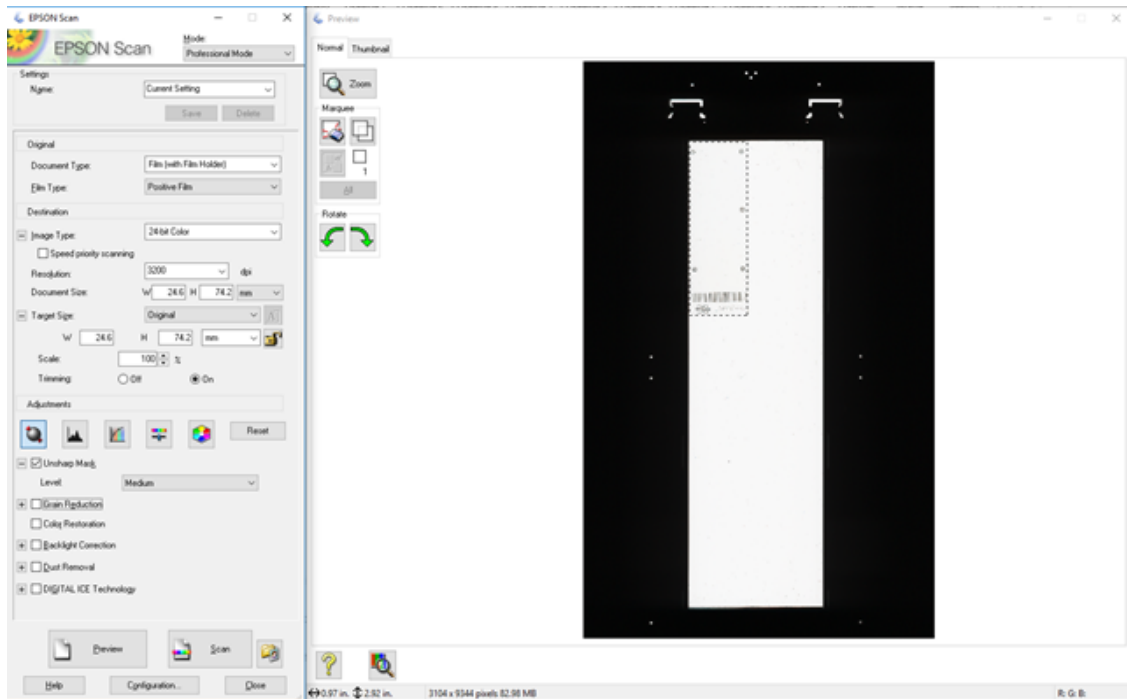


Figure 1-3 EPSON Scan software showing low resolution preview in Prescan Image tab, and dotted line box indicating scan area

10. Click “Zoom” in the Prescan window to check that the ROI defined for the high-resolution scan encompasses the entire IntelliSlide without cropping any of the inscribed features.

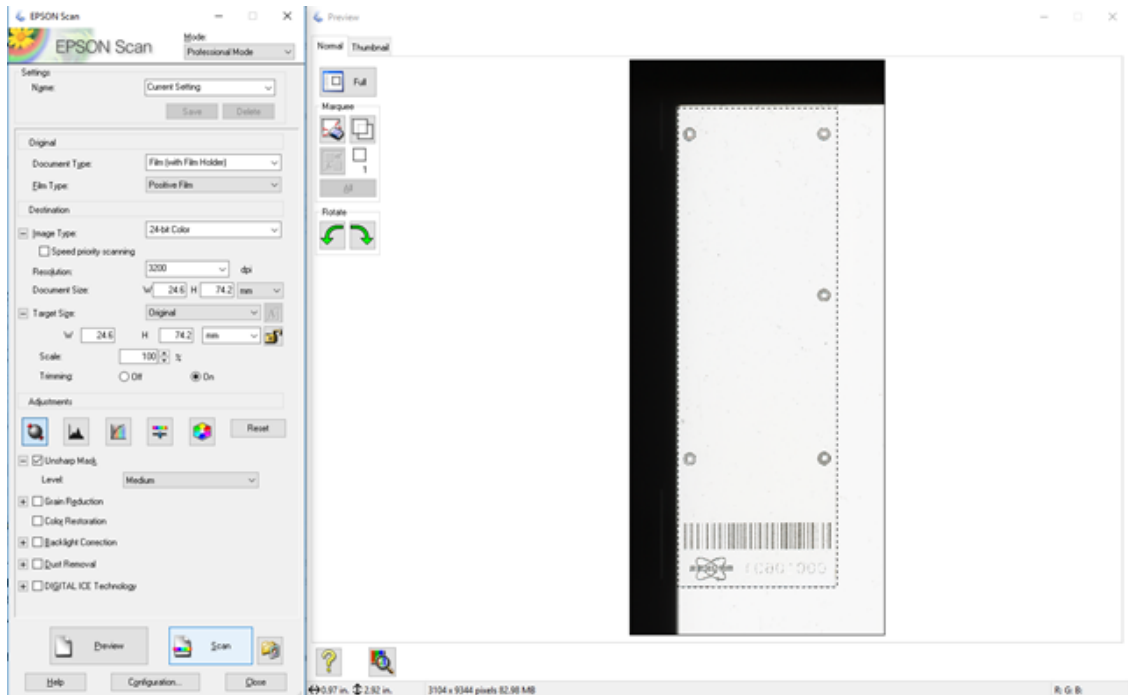


Figure 1-4 Zoomed view of the defined ROI for the high-resolution scan

Note If the dotted box crops some of the inscribed features, hold down the left mouse button to move the dotted box so that the features are included in the area.

Note The image in the preview window and the scan output will be a mirror-image of the slide.

11. Click “Histogram Adjustment”
12. Change the input values in the newly opened dialog to 154 for the black, 1.34 for the gray and 232 for the white channel
 - The output should range from 18-255.
13. Close the dialog.

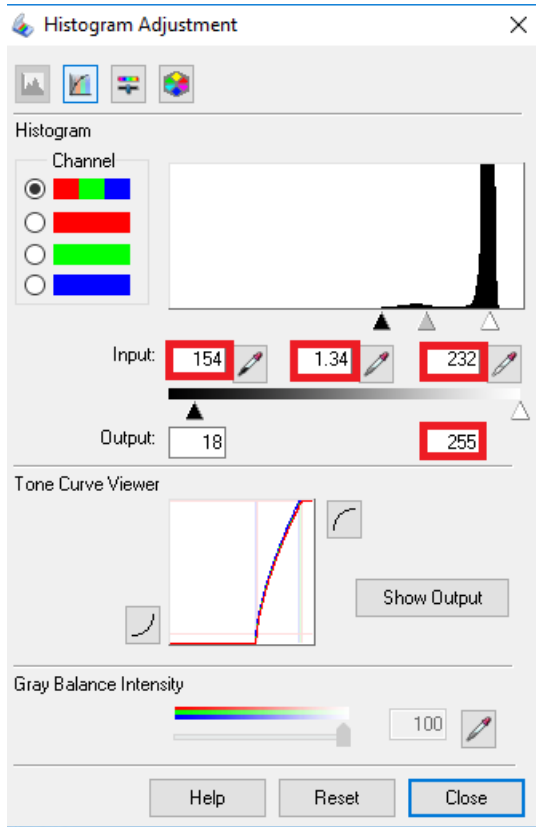


Figure 1-5 Histogram adjustment settings

Note The adjusted histogram settings are important for the automatic tissue recognition during the SCiLS™ autopilot.

14. Click the “Scan” button to create a high-resolution scan of the area defined in the Prescan tab.
 - A File Save Settings dialog box opens.
15. Use the settings shown in Figure 1-6.
16. Click "OK" to commence scanning.

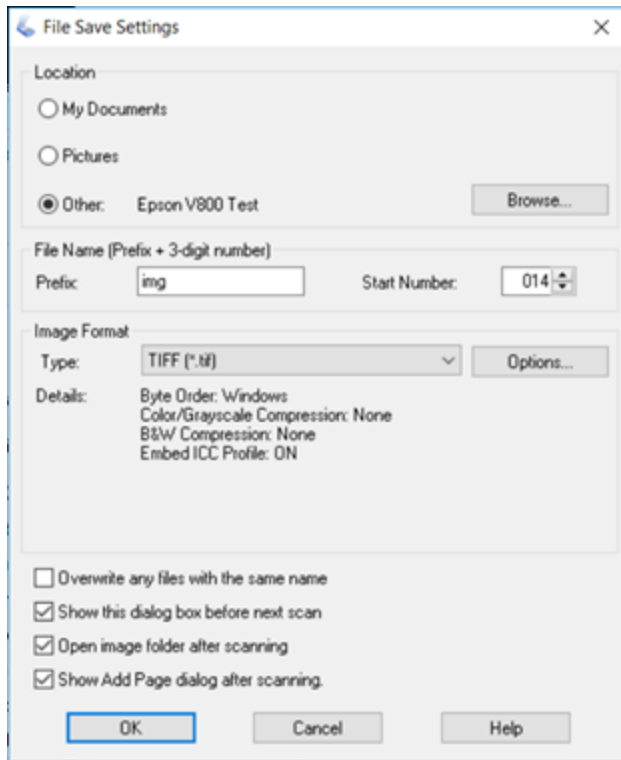


Figure 1-6 High resolution scan in Scan Image Tab

Note The folder in which your image is saved should open immediately after the scan is complete.

- The scan output from the EPSON Perfection V850 Pro will be a mirror-image of the slide
17. Rotate the image (horizontal flip) before use via Windows applications such as Photos, Paint, or Paint 3D for the correct orientation

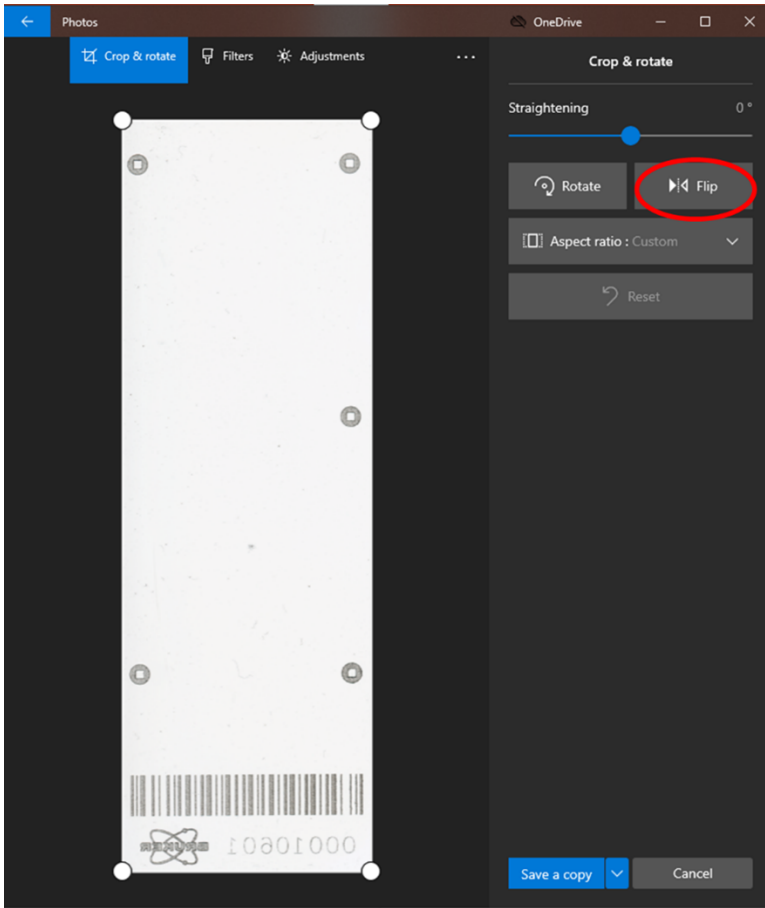


Figure 1-7 Location of 'flip' function in Windows Photos

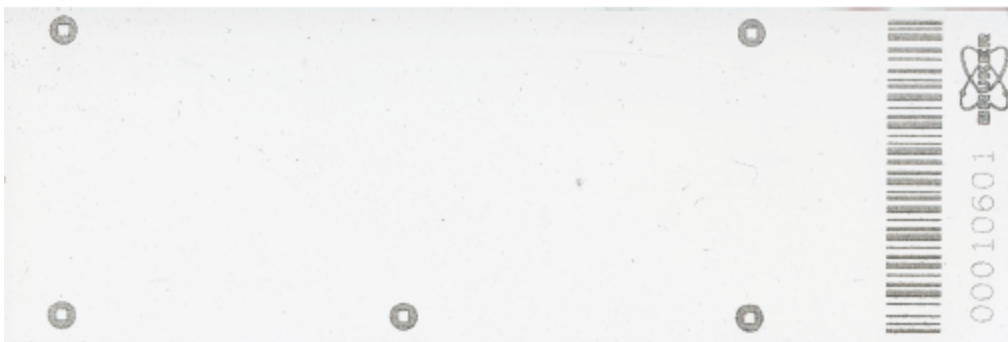


Figure 1-8 Correct orientation of a scanned IntelliSlide (without sample)

6 Troubleshooting

Incorrect definition of the high-resolution scan ROI can produce scans that are incompatible with the automated workflows in Bruker's flexImaging software.

The following are examples of scans resulting from incorrect ROI definition.



Figure 1-9 Scan created using ROI larger than IntelliSlide

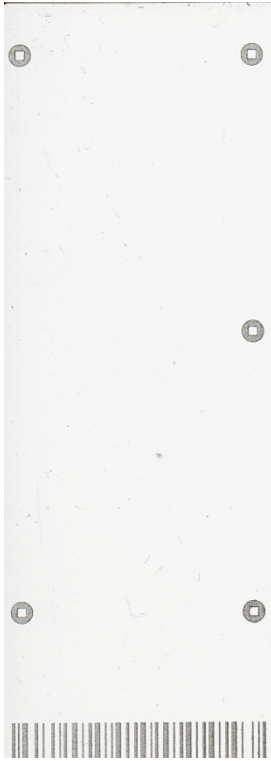


Figure 1-10 Scan created using ROI smaller than IntelliSlide, resulting in cropping of barcode, serial number and Bruker logo



Figure 1-11 Scan created using ROI smaller than IntelliSlide, resulting in cropping of barcode and teach marks

7 Service Information

For questions, please contact service.bdal.de@bruker.com

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