



Frequently Asked Questions

Wireless Scanning

A Abstract

The Scan2Pad® App requires a Scan2Net® Scanner with an installed hotspot option. With Scan2Pad® you can initiate scans, change scan parameters, export the scans in your Photo/PDF Library and edit the scans. Multiple scans are automatically organized in a job where the order of the scans can be changed.

Scan2Pad® is available in two languages. You can choose between English and German. To install the app, go to the iOS App store or the Google Play store and search for “Scan2 Pad”.

This FAQ describes the functionality, the purchase and installation processes. The intended target audience is the operator and the administrator of the scanner at the customer site.

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Authors	AKE, DI, FR, ER

A.1 Confidentiality

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

A.1.1 Revision History

Date	Rev.	Name	Description of Change	Reason of Change
06.06.2016	1.0	AKE	Initial Version	
18.01.2017	1.1	FR	Changed Screenshots to the new UI. Removed the platform specific parts, because the UI for Android and IOS is the same.	New Scan2Mobile Version
01.08.2017	2.0	FR	Added new format to the document and some new explanations and screenshots for the latest Scan2Pad Version (4.1)	New Scan2Pad Version

26.02.2018	2.1	ER	Minor formatting correction; New chapter: J Troubleshooting	Additional content: Resolve Routing Conflicts
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D Purpose

The purpose of this document is to answer frequently asked questions about how to use the wireless scanning capabilities of Scan2Net® scanners.

E Scope

The scope of the document includes all Scan2Net scanners like Bookeye or WideTEK scanners as well as OEM versions of these scanners. The firmware versions covered by this document are 6.30 and higher.

F Terms and Conditions

Term	Description, Meaning
Scan2Net®	Technology from Image Access implemented in many scanners. More at: www.imageaccess.de/?page=SoftwareScan2Net
Scan2PAD® iOS	Latest version 4.1.0, https://itunes.apple.com/de/app/scan2-pad/id1213745853?mt=8
Scan2PAD® Android	Latest version 4.1.0, https://play.google.com/store/apps/details?id=com.ImageAccess.scan2pad.apk&hl=de
WiFi	https://en.wikipedia.org/wiki/WiFi
QR-code	https://en.wikipedia.org/wiki/QR_code
Bookeye®	Book scanners. More at: www.imageaccess.de/?page=ScannersBookscanner
WideTEK®	Wide format scanner. More at: www.imageaccess.de/?page=ScannersWideformat

G Introduction

The target audience for this FAQ document is the operator of a Scan2Net scanner who would like to use the built in WiFi hotspot.

The document will provide a guideline to:

- Install and enable the internal WiFi hotspot of a Scan2Net scanner.
- Access the scanner via WiFi from laptops, pads, smartphones and other mobile devices.
- Download and use the Android app Scan2Pad.
- Download and use the iOS app Scan2Pad.

A Install and enable the internal WiFi hotspot of a Scan2Net Scanner

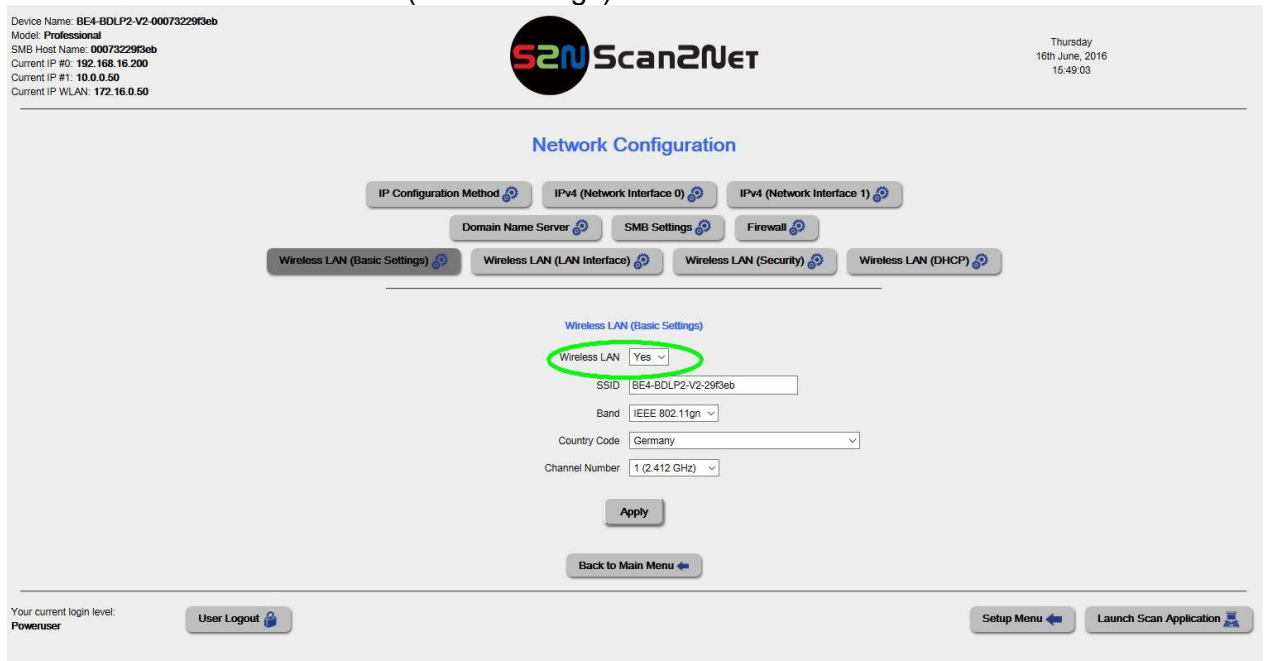
A.1 Install the internal WiFi hotspot

For details on how to install the internal WiFi hotspot, see the appropriate section in the service manual of your scanner.

You find the service manual at <https://portal.imageaccess.de>.

A.2 Enable the internal WiFi hotspot

Select the item "Wireless LAN (Basic Settings)".



Device Name: BE4-BDLP2-V2-00073229f3eb
Model: Professional
SMB Host Name: 00073229f3eb
Current IP #0: 192.168.16.200
Current IP #1: 10.0.0.50
Current IP WLAN: 172.16.0.50

Thursday
16th June, 2016
15:49:03

Network Configuration

IP Configuration Method | IPv4 (Network Interface 0) | IPv4 (Network Interface 1)

Domain Name Server | SMB Settings | Firewall

Wireless LAN (Basic Settings) | Wireless LAN (LAN Interface) | Wireless LAN (Security) | Wireless LAN (DHCP)

Wireless LAN (Basic Settings)

Wireless LAN:

SSID:

Band:

Country Code:

Channel Number:

Apply

Back to Main Menu

Your current login level:
Poweruser

User Logout

Setup Menu

Launch Scan Application

Figure 1: WLAN Access

Select Wireless LAN "Yes".

Device Name: BE4-BDLP2-V2-000732293eb
Model: Professional
SMB Host Name: 000732293eb
Current IP #: 192.168.16.200
Current IP #1: 10.0.0.50
Current IP WLAN: 172.16.0.50

Thursday
16th June, 2016
15:46:39

Network Configuration

IP Configuration Method IPv4 (Network Interface 0) IPv4 (Network Interface 1)

Domain Name Server SMB Settings Firewall

Wireless LAN (Basic Settings) **Wireless LAN (LAN Interface)** Wireless LAN (Security) Wireless LAN (DHCP)

Wireless LAN (LAN Interface)

IP Address

Subnet Mask

Default Gateway

Your current login level:
Poweruser

Figure 2: Wireless LAN

Select the item "Wireless LAN (LAN Interface)".
Set IP address, Gateway and subnet mask.

B Connect your device to scanner WiFi hotspot

B.1 iOS device

Click the "Settings" button of your iOS device.



Click „WLAN“.

All available WiFi networks will be displayed.

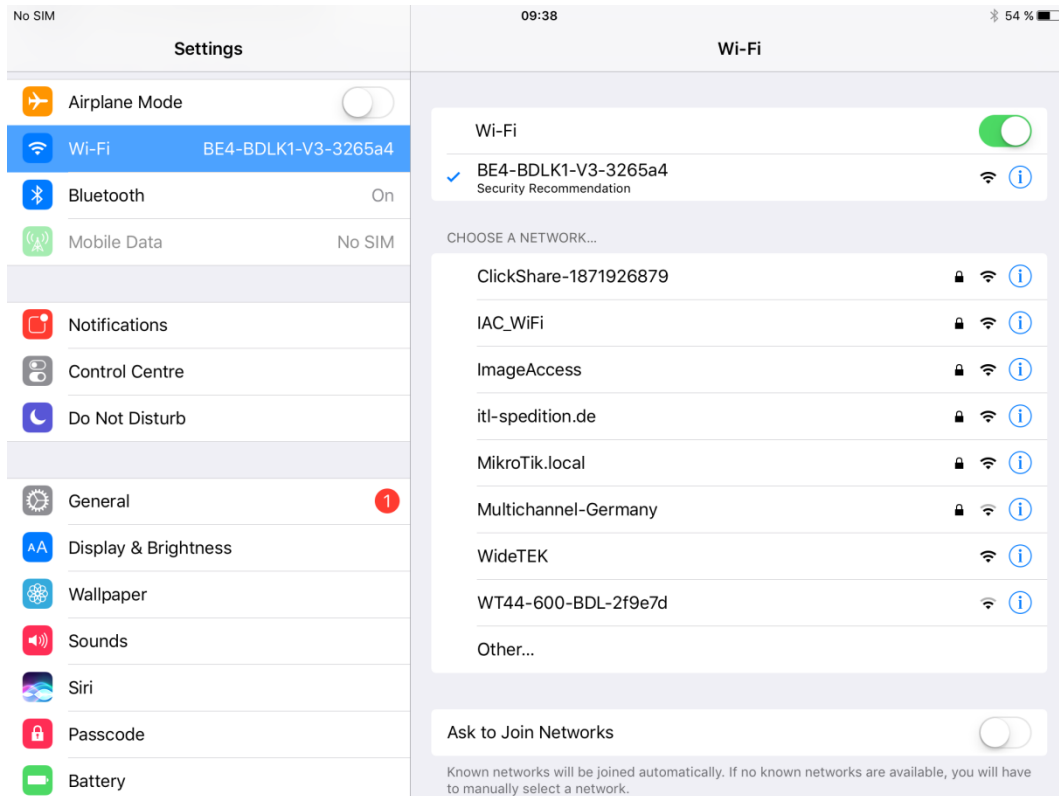


Figure 3: iOS network settings

The WiFi network of the scanner with the Scan2Pad option installed will be displayed with the defined name. The default name – known as SSID – is the device name.

The SSIDs “Bookeye4xx” and “WideTEKxx” are predefined with settings to establish communication between scanner and iOS device.

Select the WiFi network of the scanner.

If one of the predefined SSIDs will be selected, the APP sets automatically the default IP address 10.0.0.50.


B.2 Android device

Under "Wireless & networks," touch **WiFi**.


Touch the WiFi switch to turn it to the **On** position.

You will see a list of saved and available networks.

Touch a network name from the list of available networks to connect to it.

You'll see a lock icon  if the network is secured and you need to enter a password to connect.

Once connected, your device will say "Connected" under the network name and it will show up in your saved networks list. Your device will automatically connect to it when in range.

Tip: If your device is running Android 5.0 or higher and the saved network you want to connect to isn't showing up in the list of networks, touch the Menu icon  in the top right corner of the screen. Then touch **Refresh** to reload the list of networks. Touch **Add**

network and enter the network's name (SSID) and other security details, if needed, then touch **Save**.

C Download Scan2Pad

C.1 iOS

Scan2Pad® is available for iOS free of charge in the [iTunes Store](#). Look for the App "Scan2Mobile" or simply search for Bookeye® or WideTEK.

C.2 Android

For Android Tablets and Smartphones, download the App with a single mouse click right here on our home page. Click on [Scan2Pad®](#).

D Connect Scan2Pad to the Scanner

D.1 Connect with QR code

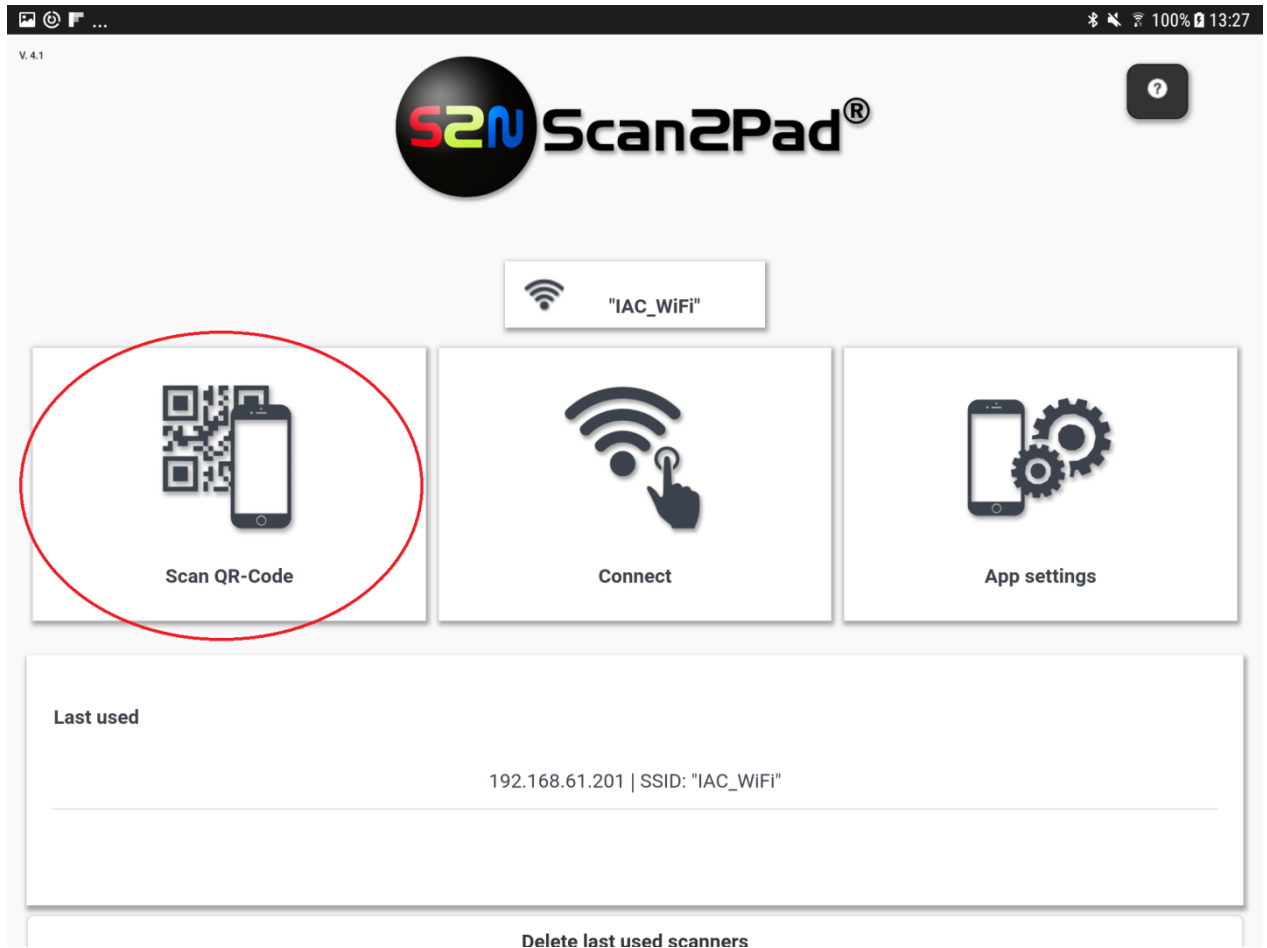


Figure 4: QR-Code Button

After touching the QR-Code button, you have to allow the camera access.

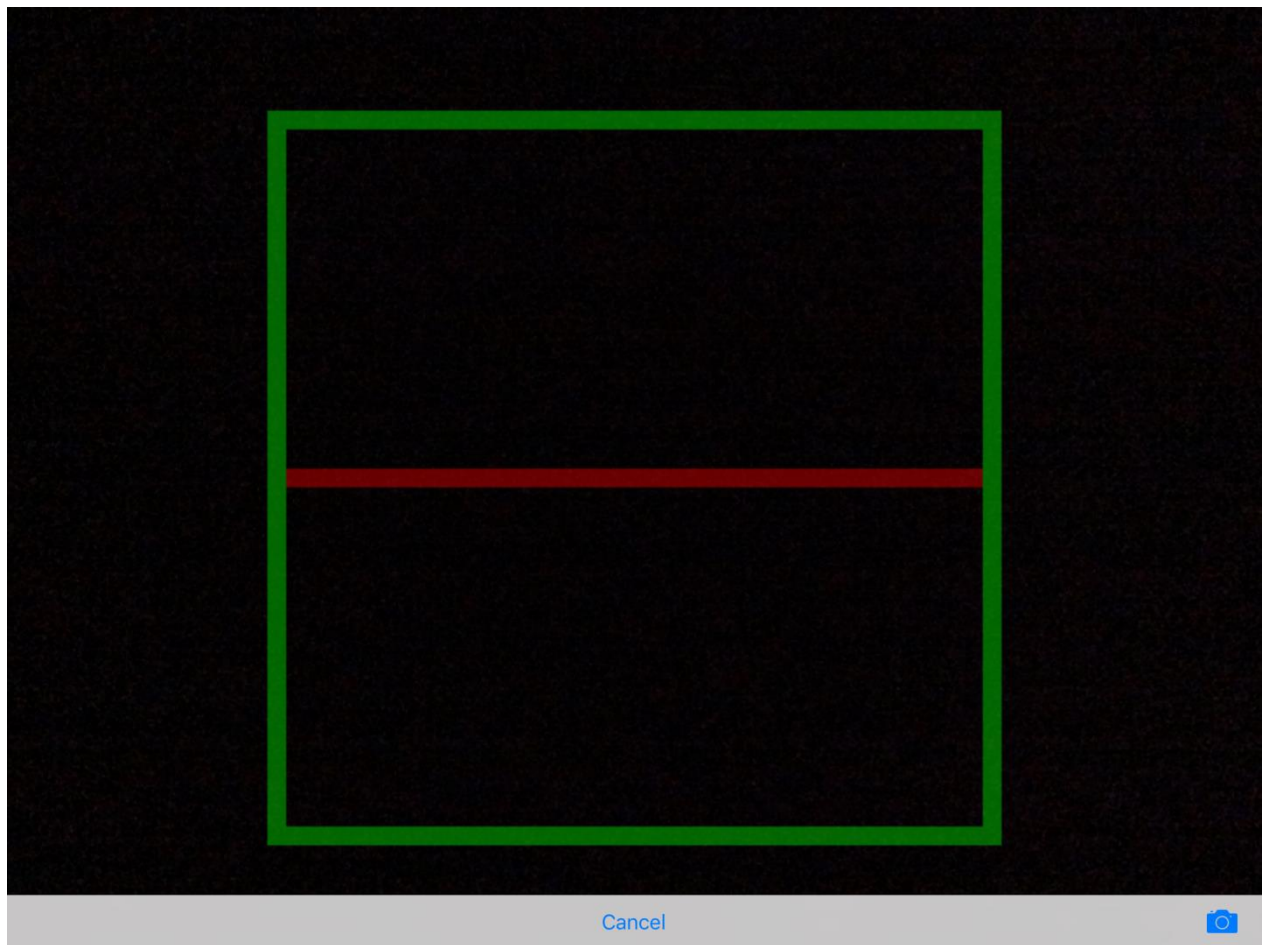


Figure 5: Scanning QR-Code

If the QR-Code is visible and in the green box, the app will connect to the scanner.

D.2 Connection with scanner IP address

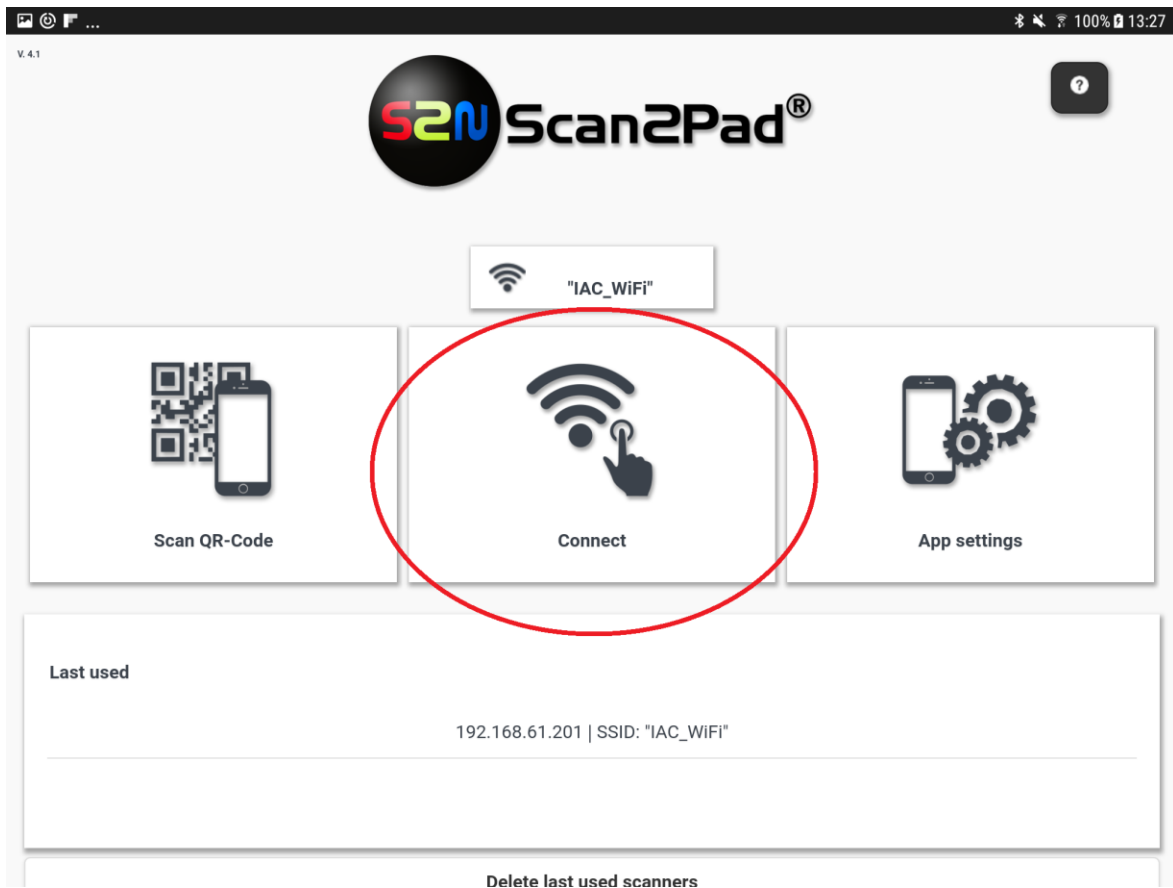


Figure 6: Connect button

To connect to the scanner using the IP address, the scanner and the mobile device must be in the same network or the mobile device has to be connected to the internal WiFi-hotspot of the scanner.

You can select a previously used IP address from the last used list or enter a new IP address by pressing the button "Connect". The following dialog opens:

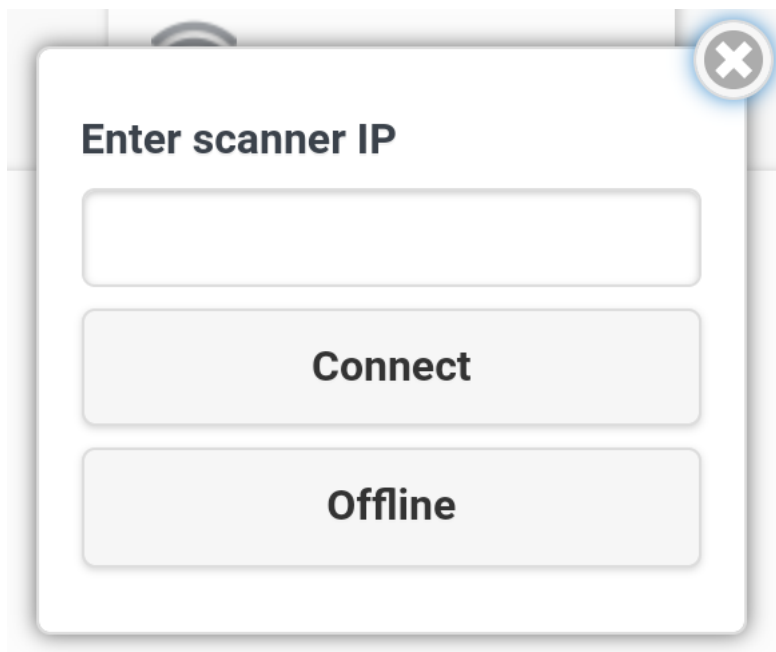


Figure 7: Scanner IP dialog

Touch the textbox at the top, and enter the IP address of the scanner.

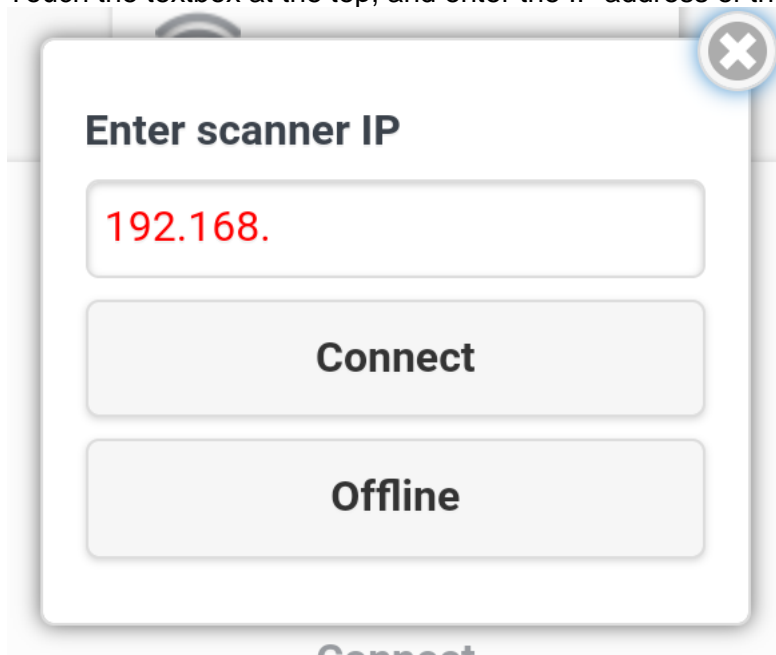


Figure 8: Not valid IP address

If the entered IP address is displayed in red, it is not a valid IP address. If green, you entered a valid IP address.

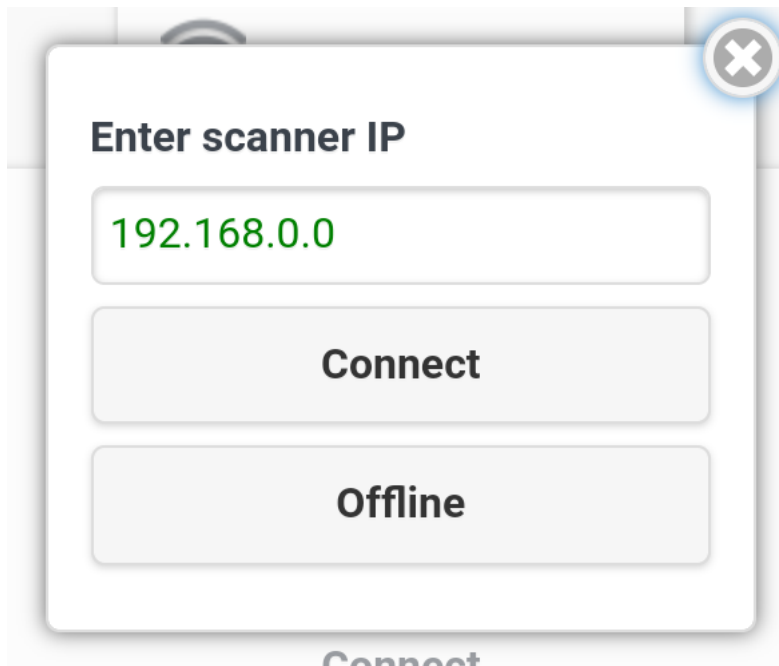


Figure 9: Valid IP address

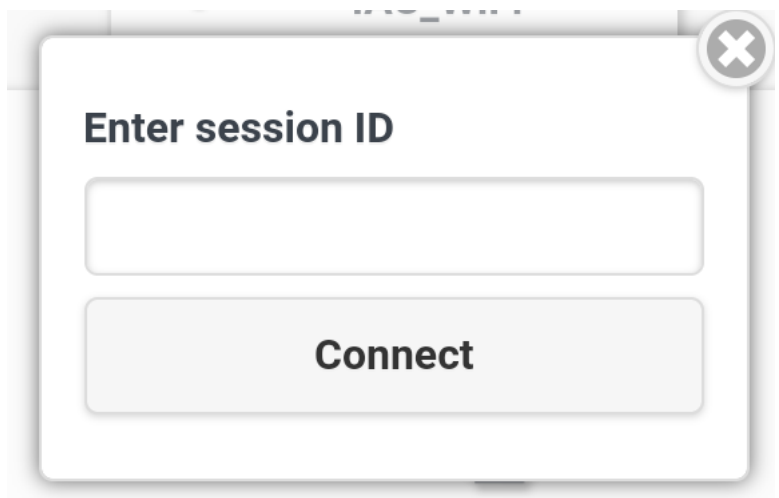


Figure 10: Enter the session ID

Now you have to enter the session ID that is displayed on the scanner.

After successfully entering the session ID, touch the connect button. Now you can work with the scanner.

D.2.1 Error Handling

When connecting to a scanner, there are three error messages you may receive: "Connection error", "Scanner in use" and "Invalid session ID". The connection error is caused by an invalid IP address or the scanner you want to connect to is not available. When a popup with "Scanner in use" appears, make sure that no one else is using the scanner with the Scan2Pad app, or wait 1 minute.

Invalid Session ID means that the session ID you entered is invalid. Make sure that the session ID you entered is the same as the session ID appearing on the screen of the scanner.

E Offline Mode

If there is no scanner to connect to, you can use the offline mode to edit and export your scans. Just touch the “Offline” button in the “Enter scanner IP” dialog

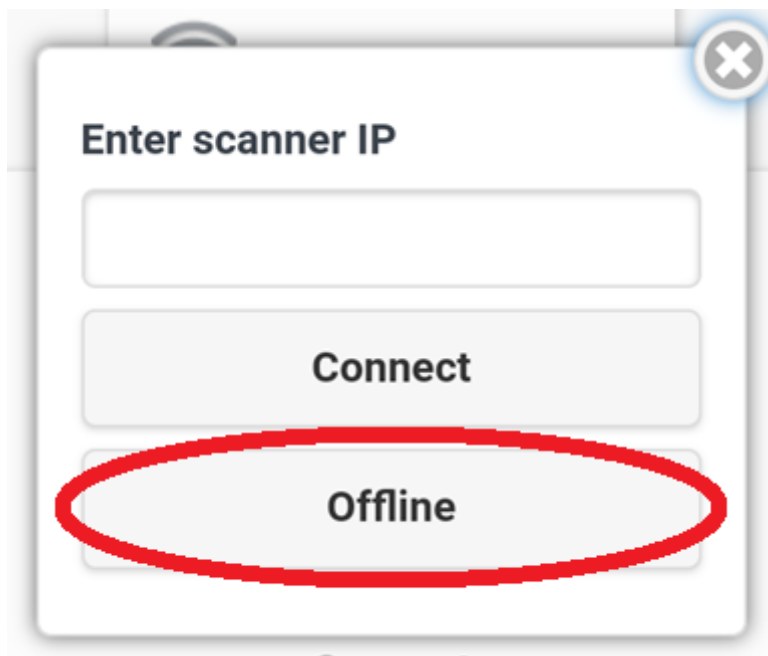


Figure 11: Offline button

Disabled features in offline mode:

- Virtual rescan
- Scanning
- Scan Settings

F Scan2Pad Overview

After connecting to a scanner, or selecting the “Offline mode”, you will see the following screen:

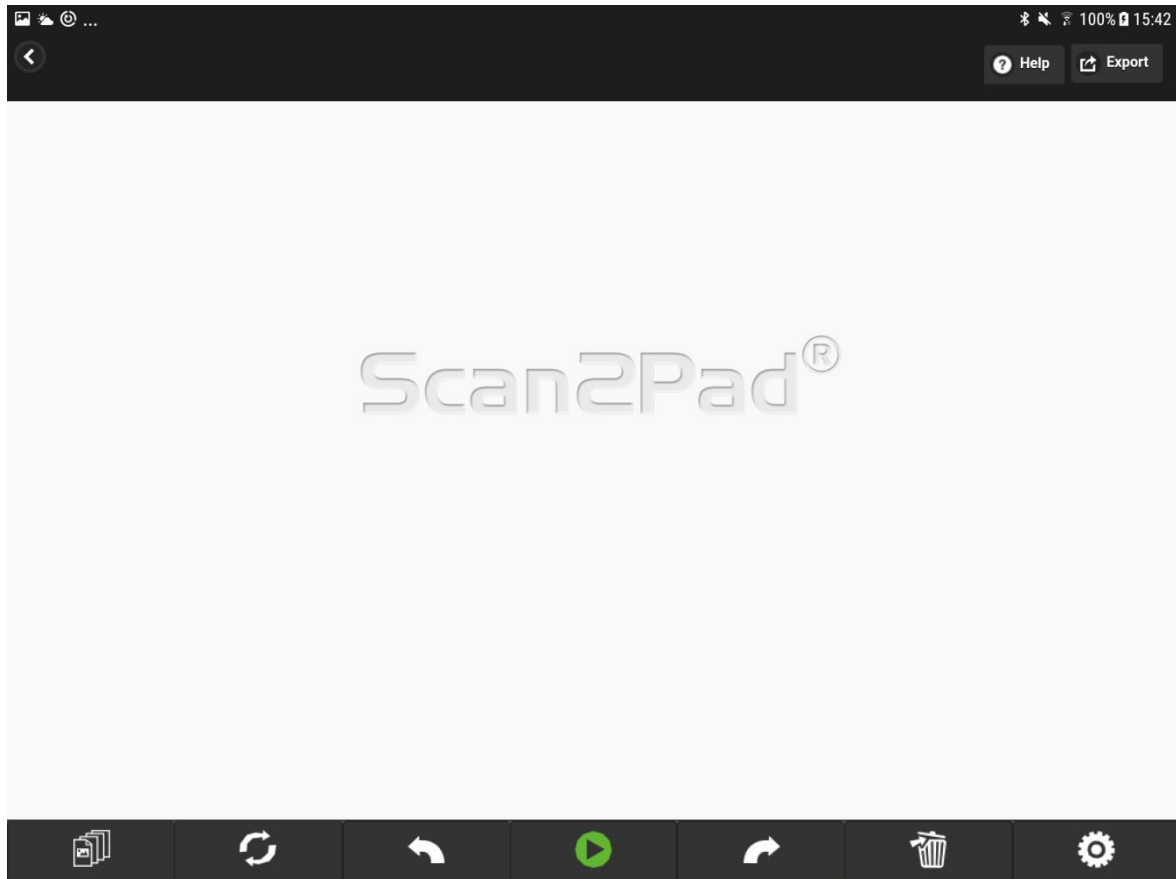
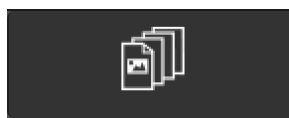


Figure 12: Scan2Pad overview



Show all scanned images (Preview list)



Rescan the current image



Rotate left



Start the scan



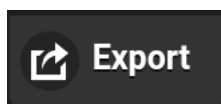
Rotate right



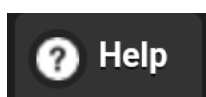
Delete all scans or the current scan



Open the scan settings



Export the scans



Open the help menu



Disconnect from the scanner and go to the start page

G Basic scan settings

G.1 Color mode

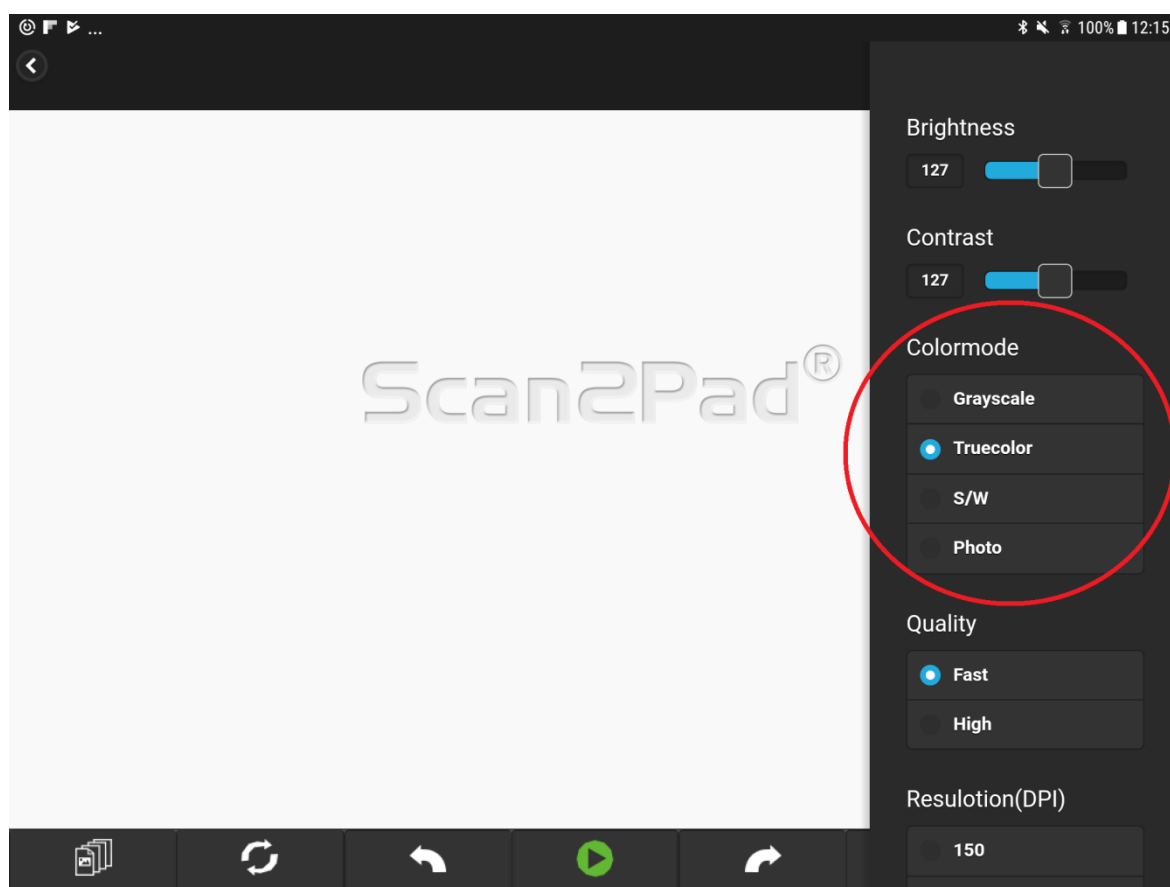


Figure 13: Color mode buttons

In Scan2Pad you can choose between four color modes (if the scanner you connected to provides) :

- Grayscale
- Truecolor
- S/W (Black and White)
- Photo

To change the color mode, just touch the option you want to activate.

G.2 Brightness and contrast

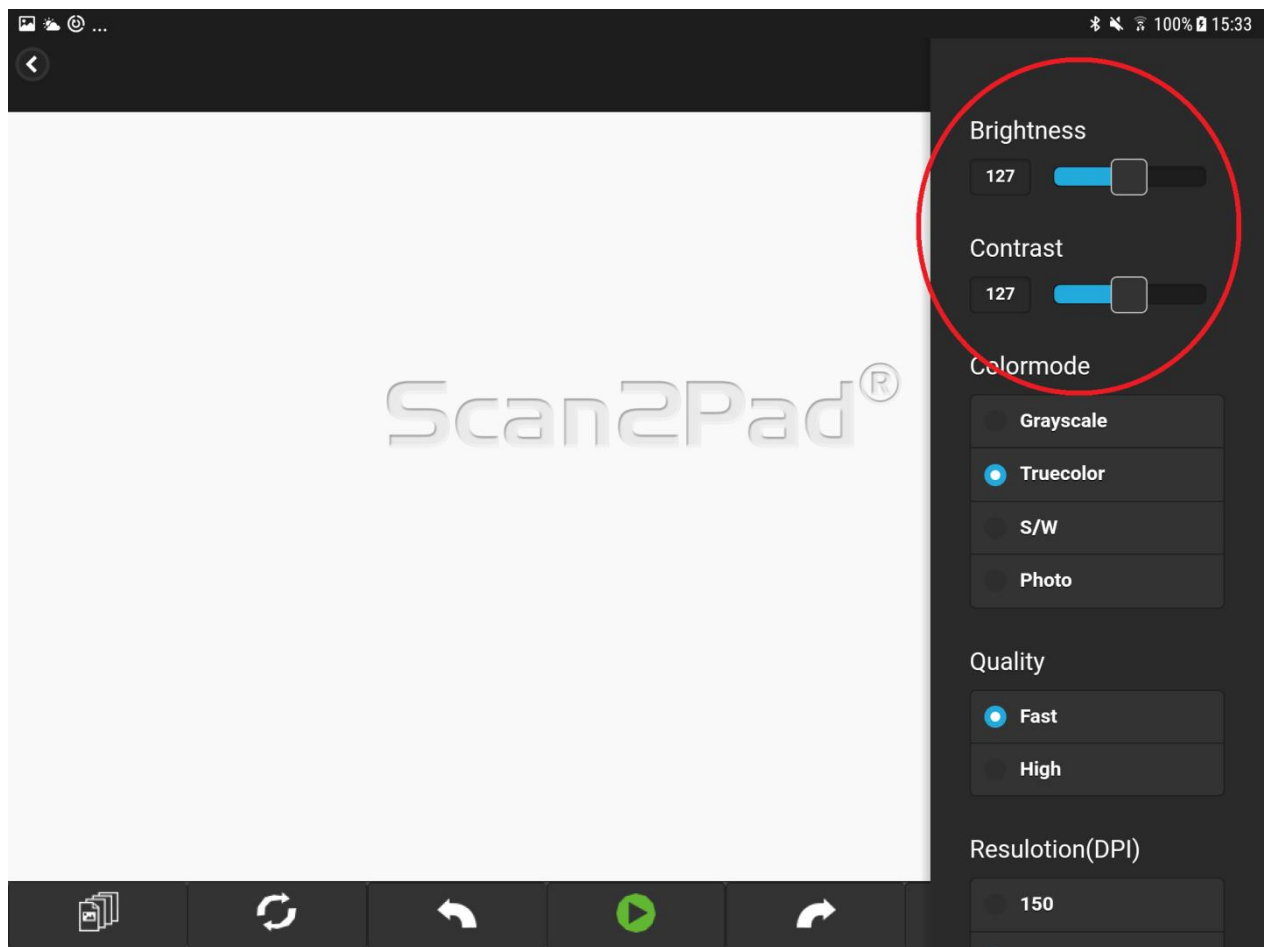


Figure 14: Brightness and contrast

You can select a brightness/contrast value between 0 and 255. Touch and drag the slider to the preferred value.

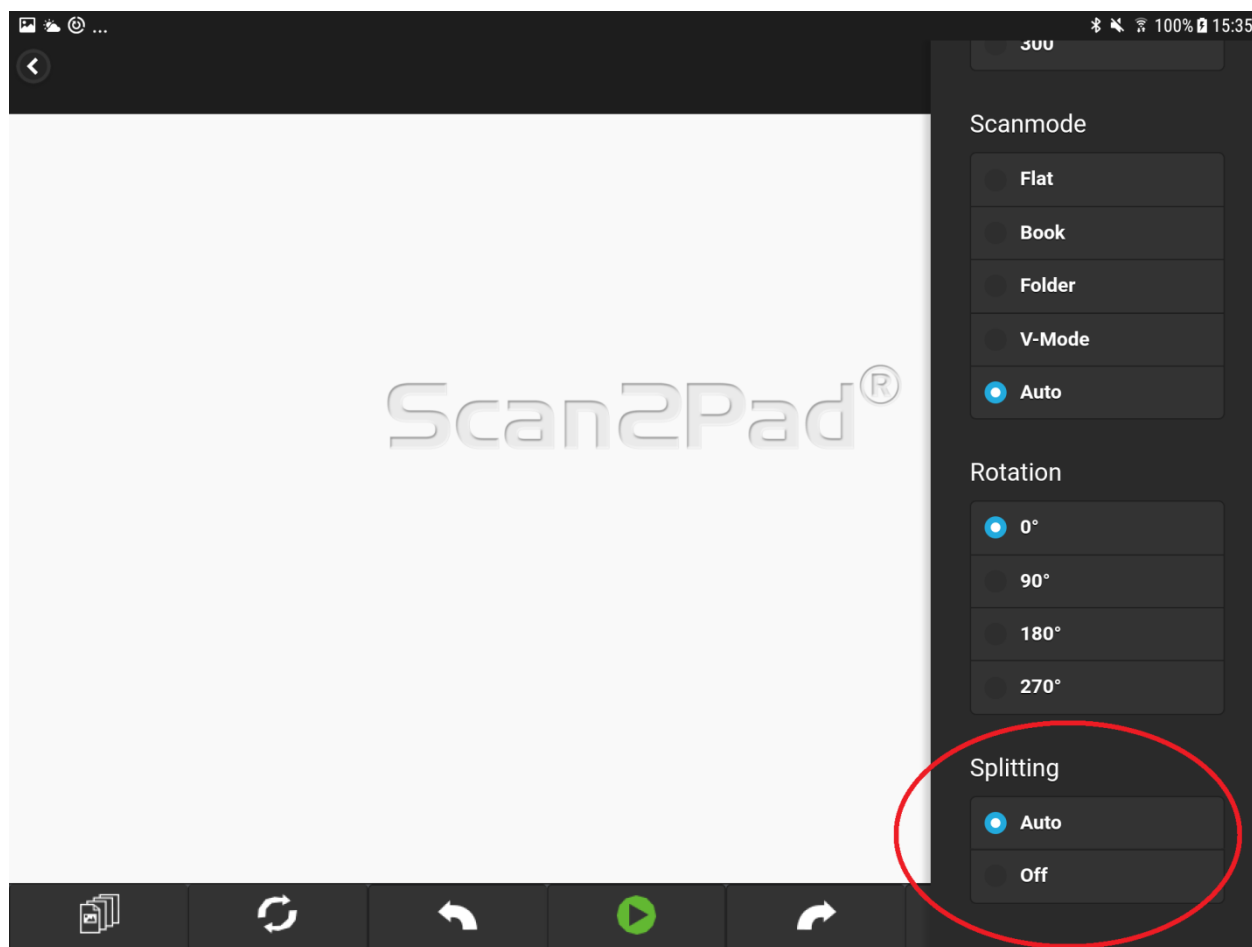


Figure 15: Splitting

G.3 Virtual Rescan



With the virtual rescan, you can change some scan parameters for the last scan, without making a new scan. You can change the following parameters:

- Color mode (truecolor -> grayscale <-> lineart <-> photo)
- Dpi
- Rotation
- Brightness
- Contrast

H Image Functions

H.1 Create a job

In Scan2Pad, you can create a job automatically by scanning multiple times. You can select the image you want to view or to edit in the jobview. The jobview opens by touching the following button:

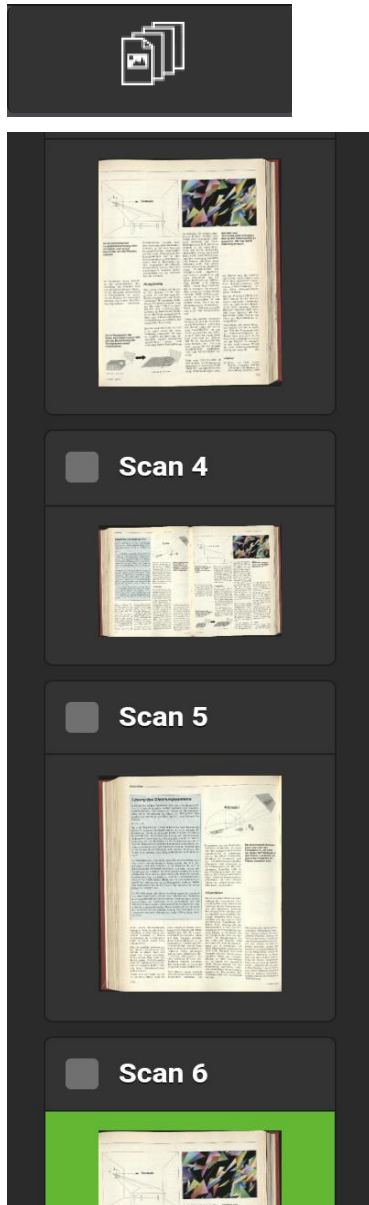
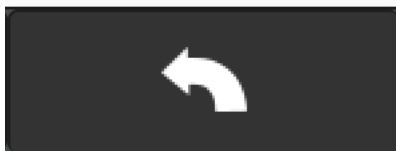


Figure 16: Jobview

The green bordered image is the image that is currently displayed.

H.2 Rotate



By touching the rotate button, you can rotate the currently selected scan in 90° steps. If last scanned image is selected, and the connection to the scanner is up, the app is rotating with a virtual rescan. If the selected scan is too big (6000x6000), you can rotate it using a virtual rescan.

H.3 Sort images in preview list

Sort images by dragging and dropping them in the image list.

H.4 Mark images

By activating the checkbox above the image preview in the joblist, you can mark scans for export.

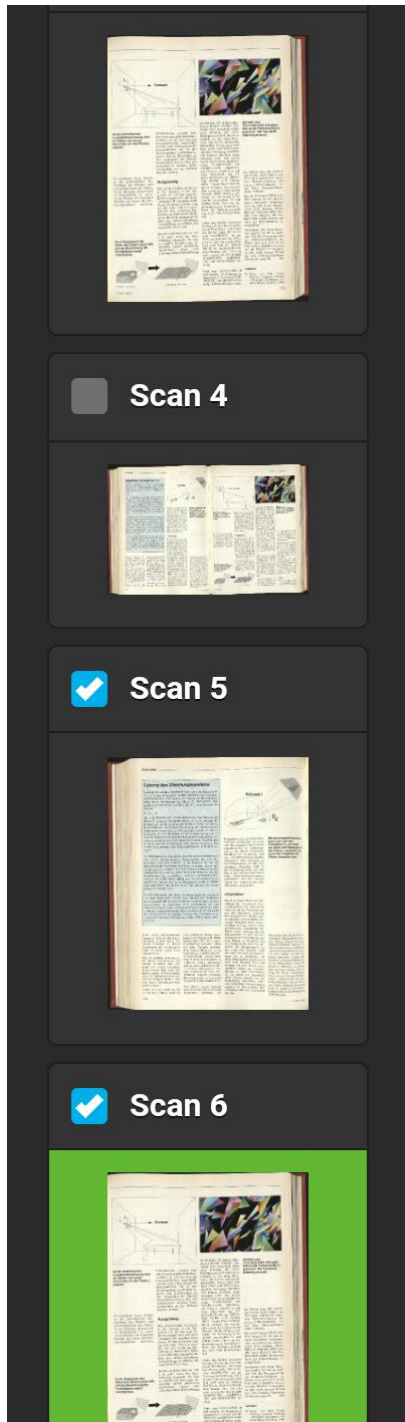


Figure 17: Marked images jobview

H.5 Zoom image

Zoom images by using the two finger gesture for zoom.

H.6 Delete image



By touching this button, a dialog with delete options open. You can delete all scans, or just the currently selected scan.

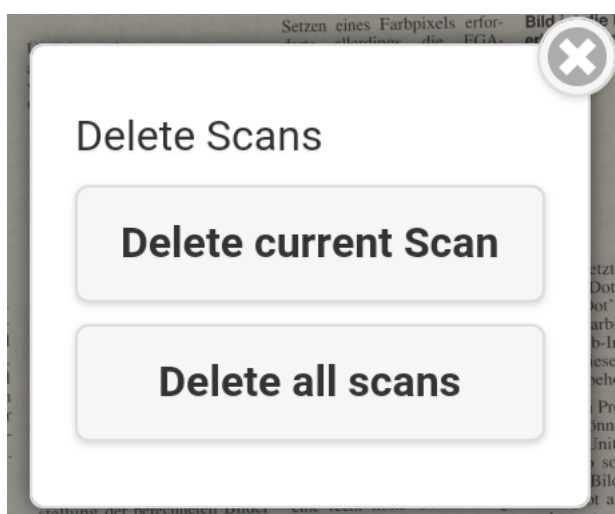
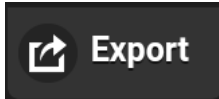


Figure 18: Delete dialog

I Save/Export job

If you want to export the scanned images to iBooks (PDF) or to your phone's photo library (JPEG), touch the "Export" button.



The following dialog will open:

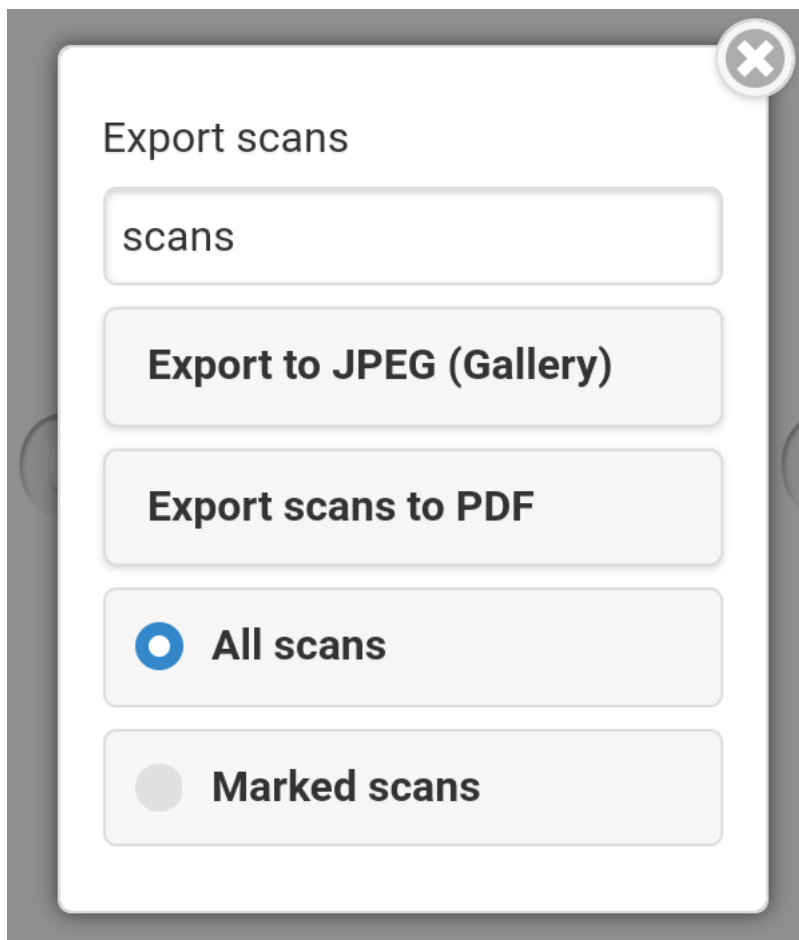


Figure 19: Export scans dialog

You can export just the selected scans or the whole job. In the textbox, you can define the filename for the JPEG files or the pdf.

I.1 Disconnect from scanner

When you have finished scanning, disconnect the app from the scanner by pressing the disconnect button. The session will be closed, and the scanner can be used again. (If you press the home button of your device, this will happen too).



J Troubleshooting

J.1 Resolving Routing Conflicts

J.1.1 Preliminaries

WideTEK and Bookeye scanners are equipped with onboard ethernet adapters, represented by **Network Interface 0**. Optionally, a WiFi hotspot can be implemented and is represented by **Network Interface 1**.

Both network interfaces come with preset IP addresses from two different private address ranges. The factory default IP address of **Network Interface 0** is 192.168.1.50; the factory default IP address of **Network Interface 1** is 10.0.0.50. The WiFi Hotspot is preset to the default IP address 10.0.0.1.

Further information about IPv4 addressing and private networks can be found here:

<https://en.wikipedia.org/wiki/IPv4>

https://en.wikipedia.org/wiki/Private_network

J.1.2 What is a routing conflict?

The default network configuration of a WideTEK or Bookeye scanner prevents that one and the same IP address is allocated both to network interface 0 and 1. It also makes sure that the wired and the wireless interface are kept entirely apart.

Should the scanner be connected to a wired network in the private IP address range 10.0.0.x/24 or 10.0.x.x/16 and therefore the scanner's *first* network interface (network interface 0) is within this range, the result may be a routing conflict between both network interfaces.

In a network configuration like this, the scanner cannot detect which of both network interfaces connects to the WiFi hotspot 10.0.0.1.

On the other hand, should a host in the wired network have the IP address 10.0.0.1, it can no longer be reached reliably.

NOTE: Since both networks are physically separate, this is not an IP address conflict. Instead, it is a routing conflict, where the scanner cannot detect which of two physical network interfaces connects the wired host and which connects the WiFi hotspot.

J.1.3 Known Issues

Should the scanner's IP address 10.0.0.50 be hard coded in the scanning app, the app can no longer access the scanner once the scanner's IP address is changed.

J.2 Resolution

There is not just one method to resolve a routing conflict. One of the methods available is modification of the metrics in the internal routing tables, which requires console access and should be made exclusively by experienced network administrators. Since it is easier and less prone to error to modify the WiFi hotspot's network configuration, we recommend choosing this option.

The WiFi hotspot must be given a different IP address from within another IPv4 address range or at least from within another subnet.

Within the range of all possible IPv4 addresses, the responsible organizations IETF and IANA excluded several address ranges from general use. The following ranges are reserved for private use:

IPv4 address range	Number of addresses	Subnet mask
10.0.0.0 – 10.255.255.255	16,777,216	10.0.0.0/8 (255.0.0.0)
172.16.0.0 – 172.31.255.255	1,048,576	172.16.0.0/12 (255.240.0.0)
192.168.0.0 – 192.168.255.255	65,536	192.168.0.0/16 (255.255.0.0)

We recommend using the private IP address range 172.16.0.0 – 172.16.0.255. Using the example of this network range, the following instructions explain what to do

ATTENTION!	
	<p>Whenever you modify the settings of one of the network interfaces via a web browser, the web browser loses the connection to the network interface as soon as you apply the change.</p> <p>You must establish a new connection to the network interface using the modified settings if you want to access the scanner via a web browser again.</p>

J.2.1 Touch Screen

The easiest way to assign another IP address to the WiFi hotspot is to enter the address using the touch panel.

Begin Process of Resolving a Routing Conflict Using the Touch Panel

Power on the scanner.

Tap the gear icon to access the Poweruser area.



Figure 20: Start screen of the touch panel

Enter user name and password of login level Poweruser and tap **OK** to confirm.

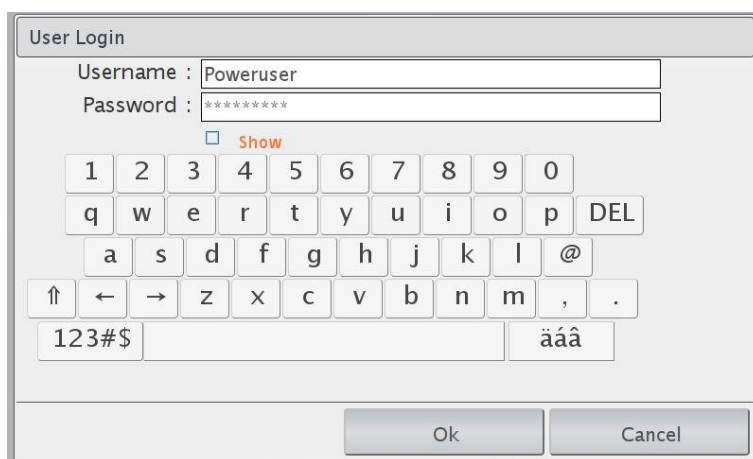


Figure 21: Login screen

Tap the **IP Address** button.



Figure 22: Setup menu

Change the LAN and/or the WLAN (= WiFi hotspot) network settings and tap the corresponding **Set network settings** button to apply.

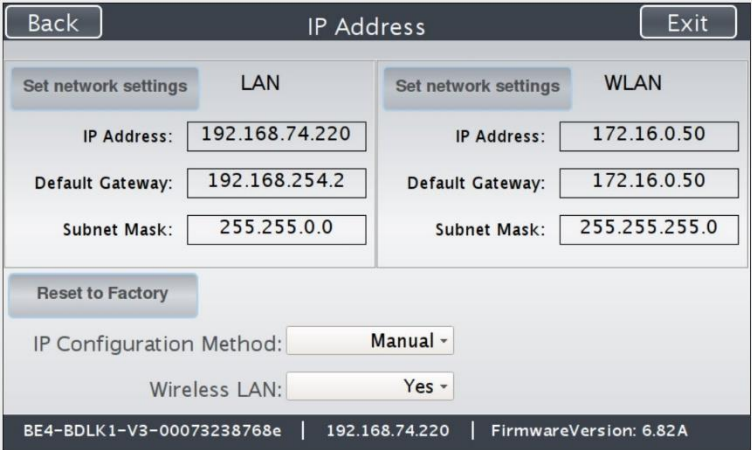


Figure 23: Network settings

The numeric keyboard is shown as soon as you tap one of the address/gateway/subnet mask entry fields.

Confirm the changes with the **OK** button or tap **Cancel** to return to the previous screen without change.

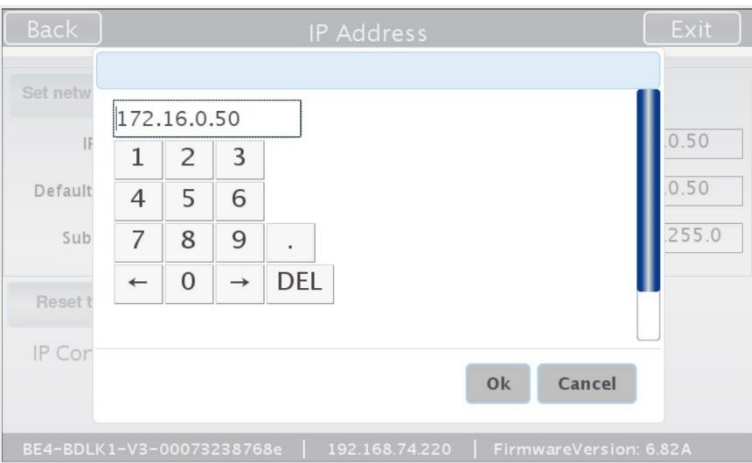


Figure 24: Numeric keyboard

End Process of Resolving a Routing Conflict Using the Touch Panel

J.2.2 Web Browser

In case you have no physical access to the scanner, you can also assign different IP addresses remotely. The following instruction applies to executing the necessary action using a web browser. Please follow the instruction step by step. Do not skip steps and do not change the order of steps.

Begin Process of Resolving a Routing Conflict Using a Web Browser

Step	Action
1	Start the scanner and log on as Poweruser . Go to Base Settings and select Network Configuration . Make sure that IP Configuration Method is Manual .
2	Select IPv4 (Network Interface 0) . Note the current settings of this interface, you will need them later.

3	<p>Change the configuration of IPv4 (Network Interface 0) temporarily to the factory default, i.e. set</p> <p>IP Address 192.168.1.50 Subnet Mask 255.255.255.0 Gateway 192.168.1.50</p> <p>and tap Apply.</p>
4	<p>This change of the settings interrupts the connection between the web browser and network interface 0.</p> <p>Reconnect using the now valid IPv4 address 192.168.1.50.</p> <p>Log on as Poweruser again and return to the Main Menu.</p>
5	<p>In the Additional Hardware section select Wireless LAN.</p> <p>Go to Wireless LAN (DHCP).</p> <p>Set DHCP Client Range 172.16.0.51 - 172.16.0.251.</p>
6	<p>Go to Wireless LAN (LAN Interface). Set</p> <p>IP Address 172.16.1.1 Subnet Mask 255.255.255.0 Gateway 172.16.1.1</p> <p>and tap Apply.</p>
7	<p>Return to Base Settings and select Network Configuration. Go to IPv4 (Network Interface 1).</p> <p>Set</p> <p>IP Address 172.16.1.1 Subnet Mask 255.255.255.0 Gateway 172.16.1.50</p> <p>and tap Apply.</p>
8	<p>Go to IPv4 (Network Interface 0), undo the temporary changes and restore the previous setting.</p> <p>The successful restoration of the previous setting interrupts the connection between the web browser and network interface 0.</p> <p>Reconnect using the now valid IPv4 address from network range 10.0.0.x/24 or 10.0.x.x/16.</p> <p>Both network interfaces of the scanner are now fully functional and the scanner is ready for operation.</p>

End Process of Resolving a Routing Conflict Using a Web Browser

End of Document