smart optics

Setup Instructions

Noah Interface

mono Scan ■ duo Scan ■ duo Scan Touch ■ free Stage ■ ds Production

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Changes

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Brands and Trademarks

FlyCapture	Point Grey Research, Inc.
UpdatorGUI	
IPRO	IPRO GmbH, DE-71229 Leonberg
Noah	HIMSA II K/S, Copenhagen, (Denmark), Minneapolis (USA)
HIMSA	
PYLON	Basler AG, DE-22926 Ahrensburg
Windows	Microsoft Corporation, Redmond (Washington, USA)
.NET Framework	
Visual C++	

Royalty-free icons and illustrations from the image agencies Flaticon.com, Fotolia.com, Freepik.com and Pixabay.com are used in this operating manual.

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Table of contents

1   About this manual

Please save this operating manual, pass it on with the product and replace it with a new version after performing an upgrade.

Symbols and highlighting of important information

▷   Action step

✓   Result

📖 NN   Cross reference to pages (with hyperlink). Back to the starting point: Use the page navigation of the PDF reader ("Previous View", "Back").

Hyperlink 🔗 (in this PDF file or external)

Paid addition or module

Variant, depending on the scanner

Mouse operation, the key to be pressed is highlighted

TIP
Helpful advice

Product manufacturer

Software controls

OK	Button
Name	Fields
"Name"	Icon
File | New	Menu items
Name.txt	File and path names

Illustrations

The device and software images may differ from the customer's systems. For example, the screenshots display no customer data.

Units of measurement and numbers

Units of measurement | Units legally in force in Germany
International System of Units (SI)

Numbers | Decimal system with decimal places

Measurement	Unit	Abbreviation
Mass/weight	Kilogram	kg
	Gram	g
Length	Metre	m
	Centimetre	cm
	Millimetre	mm
	Micrometre	µm
Angle	Degree	°
Time	Hour	h
	Minute	m
	Second	s
Electrical power	Watt	W
Electrical voltage	Volt	V
	Alternating current	AC
Electrical frequency	Hertz	Hz
	Gigahertz	Ghz
Electrical current	Ampere	A
Protection class	International Protection	IP 1st digit: solids protection, 2nd digit: fluids protection
Temperature	Degree Celsius	°C
Memory (PC)	Random-Access Memory	RAM
Data volume	Megabyte	MB
	Gigabyte	GB
CAD data format	Standard Triangulation Language	STL
	American Standard Code for Information Interchange	ASCII
	Mesh	MSH
	Point Cloud Measurement	PCM
Picture element	Pixel	px (monitor) dpi (print)
	Megapixel	Mpx

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Warnings

Warnings provide information on:

— Possible personal injuries,

— Possible damages to objects,

— Risk avoidance.

Warning levels

NOTICE

Material damages

CAUTION

Minor injuries

WARNING

Minor injuries

DANGER

Death or severe injuries

Safety

Please follow the safety instructions:

Operating manual
For your safety

— for smart optics audiology scanners,

— for Noah.

smart optics

2   smart optics interface with Noah

2.1   Introduction

This manual is aimed at audiology, hearing technology and hearing acoustics facilities and companies which:

— Use or wish to use Noah from HIMSA,

— Scan auditory canal impressions with smart optics 3D scanners,

— Wish to manage scans through Noah.

This manual will show you how to set up the interface with Noah.

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TIP

Information on how to use the interface can be found in the operating manual of smart optics audiology scanners.

Operating manual
Chapter 10

10.1   Noah interface setup

10.2   Scanning with Noah

10.3   Viewing, editing and exporting scans from Noah

2.2   About the interface

Integration

The interface with Noah is:

— Integrated into the smart optics software,

— can be used without further installation or activation.

Functionality

The Noah Patient Browser fulfils the following functions:

— Patient documentation,

— Starting point of scans done with smart optics audiology scanners,

— Collection of scan actions, etc.

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2.3   About Noah

Manufacturer

Hearing Instrument Manufacturers' Software Association (HIMSA)

www.himsa.com

HIMSA provides detailed information about the following concerning Noah:

- General product information
- First time installation and setup
- Troubleshooting

Online sources

Please pay special attention to the following information before installing Noah and setting up the interface.

- Product information:
  https://www.himsa.com/products/all-about-noah-system-4/
- Knowledge base:
  https://www.himsa.com/support/noah-4-knowledge-base/
- Preparation for installation:
  https://www.himsa.com/support/noah-4-knowledge-base/preparing/
- Installation:
  https://www.himsa.com/support/noah-4-knowledge-base/installation-guidelines/
- Licence:
  https://www.himsa.com/support/noah-4-knowledge-base/installation-guidelines/noah-licensing-and-related-issues/
- Troubleshooting:
  https://www.himsa.com/support/noah-4-knowledge-base/noah-4-troubleshooting/
- Tutorials:
  https://www.himsa.com/support/noah-4-knowledge-base/the-learning-center-2/

Sales

Certified distributors

Website: About HIMSA ❯ HIMSA Distributors: Worldwide

2.4 Prerequisites

2.4.1 Qualification

To set up a Noah server, Noah clients and scanners, you must have knowledge of:

— Windows administration,

— Noah installation and setup,

— Commissioning of smart optics audiology scanners,

— Installation and setup of the smart optics scanning software (currently aural Scan).

2.4.2 Rights, licences, hardware

For the subsequent tasks you will need:

☐ Administration rights on all PCs

☐ Noah server license

☐ Noah client license for each:

— Scanner workstation

— Scan data viewer

☐ For each scanner workstation:

— Audiology scanner

— Scanning software

— Calibration data

☐ For each scan data viewer:

— Scanning software (license-free)

— Calibration data (of a scanner workstation)

2.4.3 Software compatibility

| Software	Version	Where to find the version info
Noah	4.8 or higher	— Name of the Noah installation file, e.g. `Noah_System_4.8.0.3805.exe`

Scanning software aural Scan	2.5.06 or higher 3.0 or higher	— Label on the installation data carrier
		 — Properties of the setup file:
		 `aural Scan.exe`
		 `dsProduction.exe`
		 `duoscan.exe`
		 `monoscan.exe`
		 Right click, field **Description:**
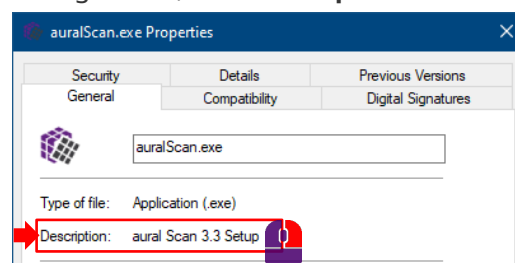
aural Scan	3.0 or higher	aural Scan info dialogue: ☰ Menu ? Info
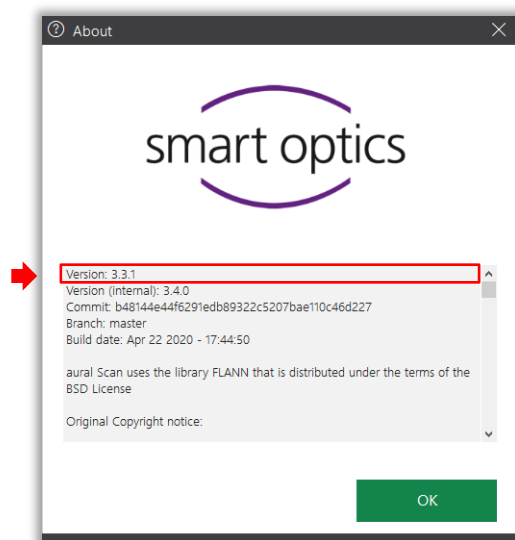
3   System configuration examples

Example 1

Noah server

Noah client

Noah database

— Data flow

Scanner workstation

Scan data viewer

Scan data storage

—— Device connection

PC 1 = Noah server*

PC 2 = Noah client**

Example 2

PC 1 = Noah server*

PC 2 = Noah client**

*   Freely selectable audiology scanner

**   Additional client PCs possible

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Key

- Noah server
- Noah client
- Noah database
- Data flow
- Scanner workstation
- Scan data viewer
- Scan data storage
- Device connection

Example 3

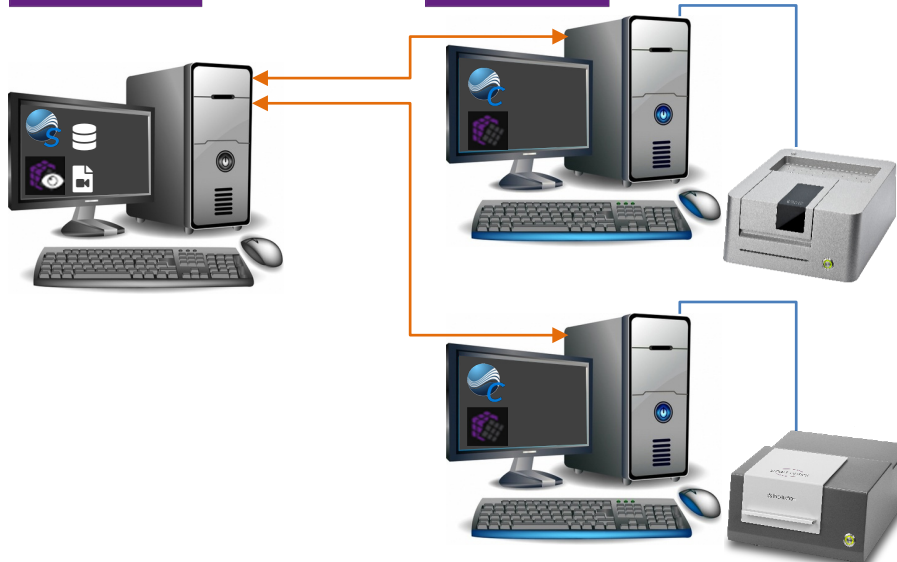PC 1 = Noah server*   PC 2 = Noah client**
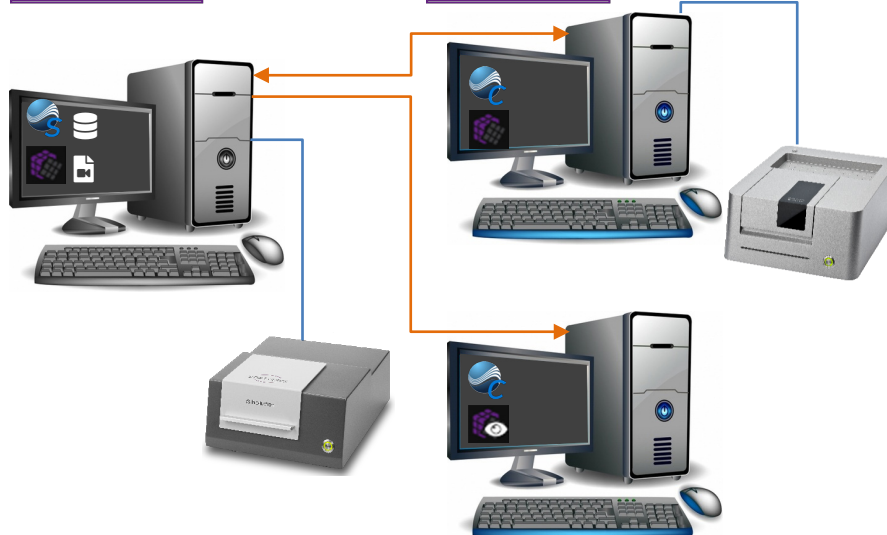
Example 4

PC 1 = Noah server   PC 2 = Noah client*   **
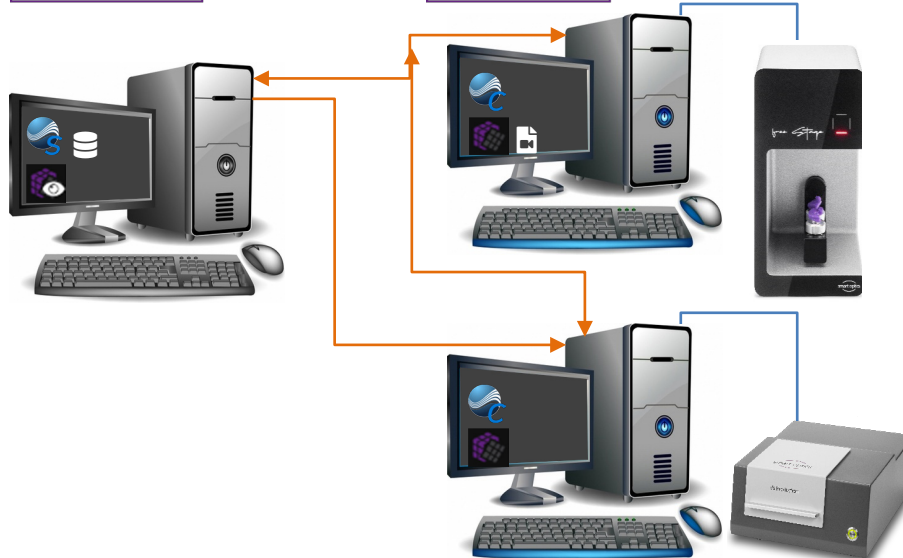

*   Freely selectable audiology scanner
**   Additional client PCs possible

4   Set up the Noah server

4.1   Overview

📖 11

Before you start

▷   Plan your system configuration (➜ Examples 1-4).
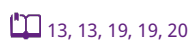
Respect the task sequence

📖 13, 13, 19, 19, 20 ☐   Install the scanning software

☐   Share the scan data folder as a network path

☐   Set up the network path as work folder

☐   Copy the calibration data folder for viewer clients (optional)

☐   Install Noah as a server

4.2   Install the scanning software

🖥 PC 1

Audiology scanners
operating manual
Chapters 5.3, 6

▷   Before installing, connect a scanner to the Noah server.

▷   Install the scanning software.

▷   Load the scanner's calibration data.

▷   Open the scanning software and close it again.

✓   The folder `C:/Scans` (scan data folder) will be created.

> ℹ️ **TIP**
>
> If the Noah server is not intended to be a scanning workstation, you can remove the scanner again.

4.3   Share the scan data folder as a network path

The scan data folder on PC 1 (Noah server):

—   Should save the scan data of all scanning workstations,

—   must be shared as a network path for client access.

> ℹ️ **TIP**
>
> Example 4
>
> Setup of the central scan data folder on a PC 2 (Noah client).

4.3.1 Folder sharing (part 1: sharing)

💻 PC 1   **1.**
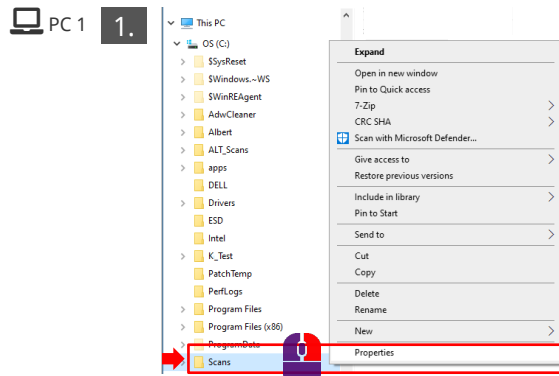
Open the properties of C:\Scans

▷ In Windows Explorer, right-click the folder `C:\Scans`.

▷ Select **Properties**, to open the dialogue.

2.
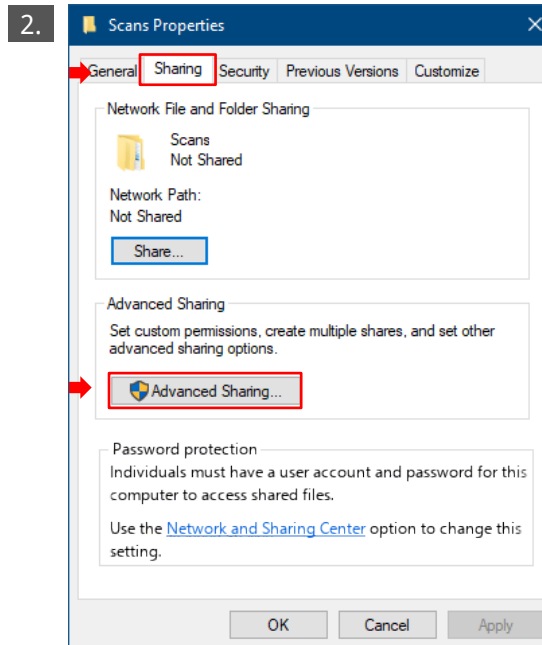
Open the advanced sharing of C:\Scans

▷ Open the tab **Sharing**.

▷ Click on Advanced Sharing … to open the dialogue.

3.
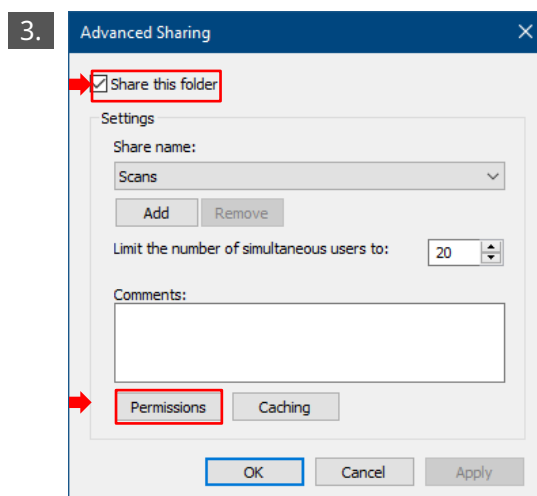
Open permissions for folder "C:\Scans"

▷ Check **Share this folder**.

▷ Click on Permissions … to open the dialogue.

⬜ PC 1   **4.**

Permissions for Scans

Share Permissions

Group or user names:

Jeder
Administratoren (REDAKTION02\Administratoren)

Add...   Remove

Permissions for Jeder	Allow	Deny
Full Control	☐	☐
Change	☐	☐
Read	☑	☐

OK   Cancel   Apply
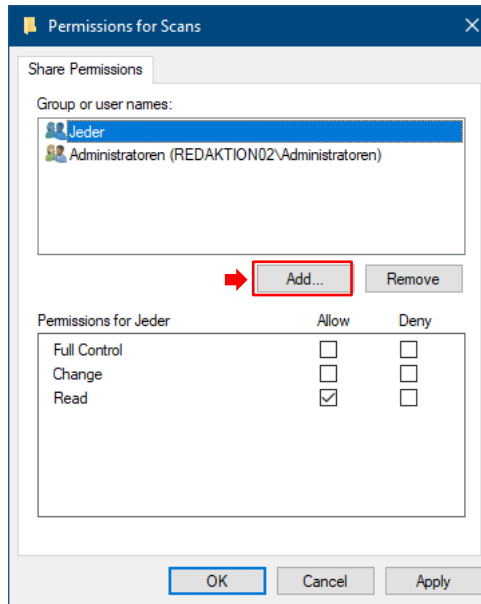
Add users/groups to permissions

▷ Click on Add... to open the dialogue.

5.

Select Users, Computers, Service Accounts, or Groups

Select this object type:
Users, Groups, or Built-in security principals   Object Types...

From this location:
smart-optics.local   Locations...

Enter the object names to select (examples):

Check Names

Advanced...   OK   Cancel

Expand the "Select users or groups" dialogue

▷ Click on Advanced ... to open the dialogue.

6.

Select Users, Computers, Service Accounts, or Groups

Select this object type:
Users, Groups, or Built-in security principals   Object Types...

From this location:
smart-optics.local   Locations...

Common Queries

Name: Starts with ∨
Description: Starts with ∨

Columns...
Find Now
Stop

☐ Disabled accounts
☐ Non expiring password

Days since last logon: ∨

OK   Cancel

Search results:

Name	E-Mail Address	Description	In Folder
ANONYMOU...			
Users			DESKTOP-014

Search for the "Users" group

▷ Click on Search now.

▷ Select **Users** in **Search results**.

▷ Click OK (twice).

✓ The group **Users** will be displayed in the dialogue box **Permissions for "Scans"**.

🖥 PC 1 **7.**

Permissions for Scans

Share Permissions

Group or user names:
- Jeder
- ➤ Users (DESKTOP-0T4PLJU\Users)

Add...   Remove

Permissions for Administratoren   Allow   Deny
Full Control   ☐   ☐
Change   ☑ ➡   ☐
Read   ☑   ☐

OK   Cancel   Apply

Assign the permission "Change" to the group "Users"

▷ Select the group **Users**.

▷ Under **Permissions for Users** check **Change** in the column **Allow**.

▷ Click on OK.

✓ The permission for the group "Users" is transferred to the tab **Share** under **Scans Properties**.

Client setup information

📖 21   To perform later tasks on PC 2, you will need:

— Username and password of the server user who shares the folder,

— The network path to PC 1.

🖥 PC 1

Scans Properties

General | Sharing | Security | Previous Versions | Customize

Network File and Folder Sharing
- Scans
- Shared

Network Path:
\\REDAKTION02\Scans

Share...

Advanced Sharing
Set custom permissions, create multiple shares, and set other advanced sharing options.

🛡 Advanced Sharing...

Password protection
Individuals must have a user account and password for this computer to access shared files.
Use the Network and Sharing Center option to change this setting.

Close   Cancel   Apply

Strg + C

Copy the network path

▷ Select the name of the server folder **[PC_1]**\Scans under **Network Path**.

▷ Make a note of the network path. Copy the path to the clipboard.

✓ You need the path/content of the clipboard on PC 2 (Noah client) to:

— Scanning software settings,

— Network registration (Client ➔ Server).

4.3.2   Folder sharing (part 2: security)

i

TIP

The steps are almost the same as in Part 1: sharing.

PC 1   **1.**

Edit permissions for "C:\Scans"

▷   In the dialogue box **Scans Properties**, go to the **Security** tab.

▷   Click on Edit... to open the dialogue.

2.

Add permissions for "C:\Scans"

▷   Click on Add... to open the dialogue.
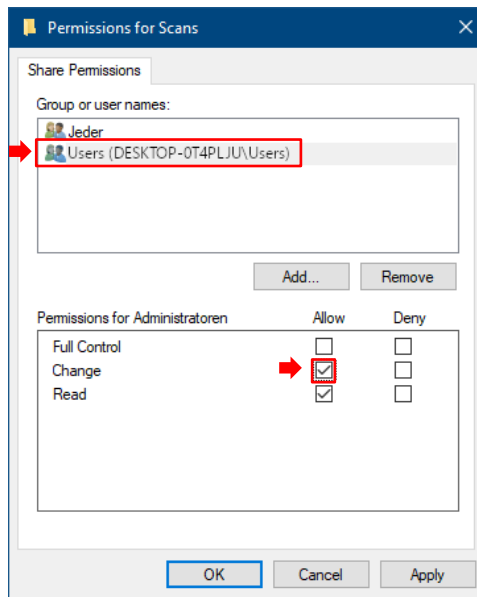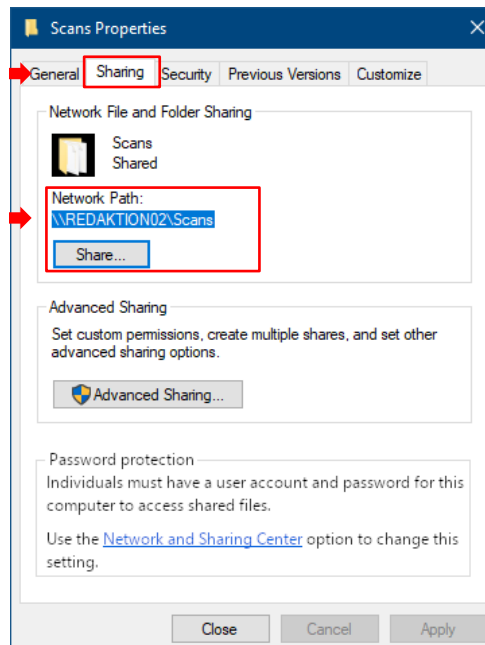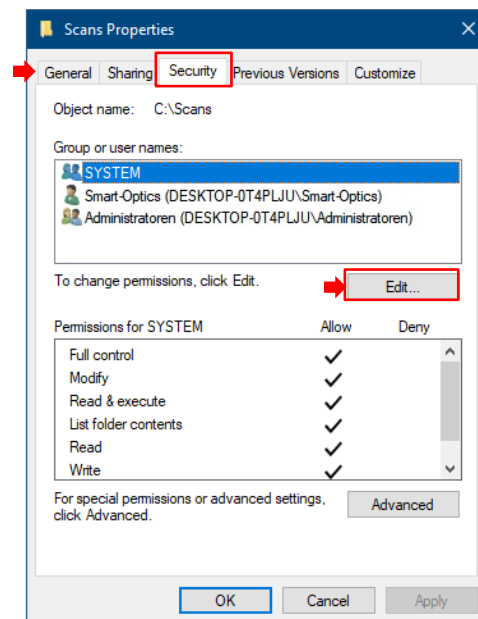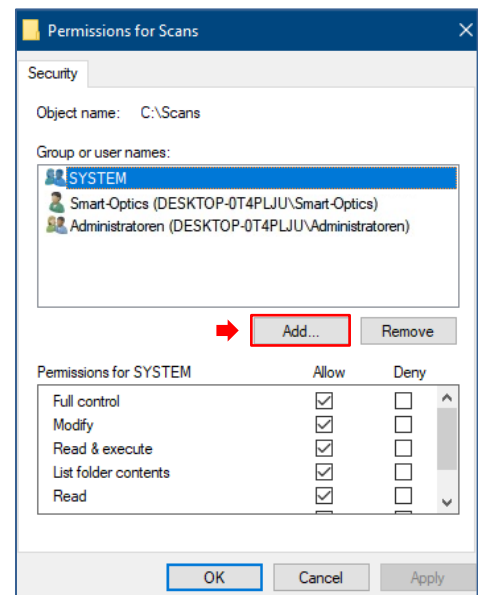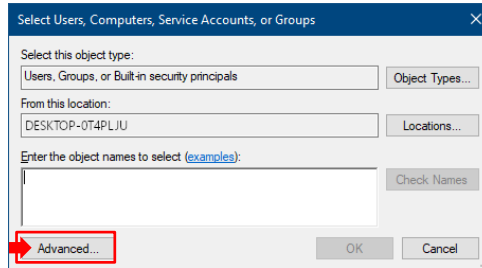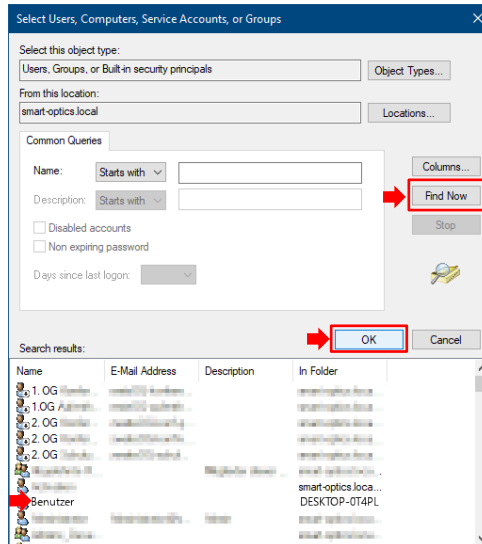
🖥 PC 1 **3.**

Expand the "Select users or groups" dialogue

▷ Click on Advanced … to open the dialogue.

4.

Search for the "Users" group

▷ Click on Search now.

▷ Check **Users** in **Search results**.

▷ Click OK (twice).

✓ The permission for the group "Users" is transferred to the tab **Security** under **Scans Properties**.

5.
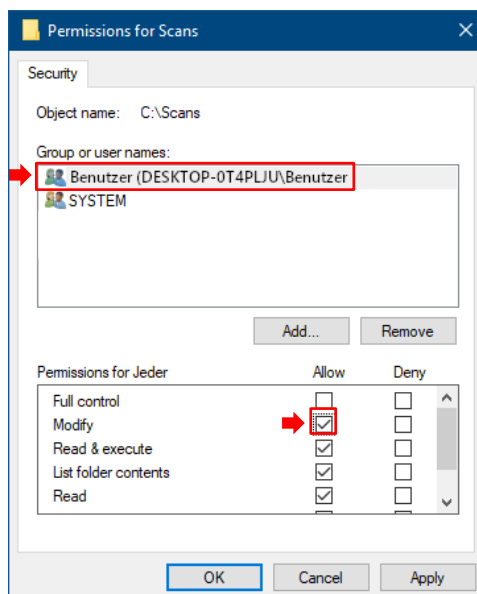
Assign the permission "Change" to the group "Users"

▷ Select the group **Users**.

▷ Under **Permissions for Users** check **Change** in the column **Allow**.

▷ Click on OK.

✓ The permission for the group "Users" is transferred to the tab **Share** under **Properties of Scans**.

▷ Close the dialogue box **Scans Properties** by clicking on OK.

✓ The installation and folder sharing have been completed.

4.4 Set up the network path in the scanning software

PC 1

▷ Start the scanning software on the Noah server (in this case: aural Scan).
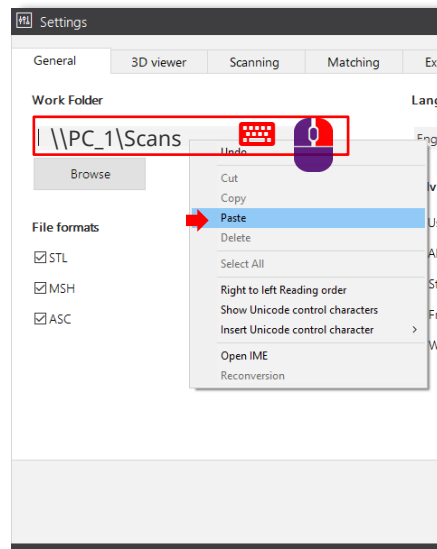
Settings

General | 3D viewer | Scanning | Matching | Exp

Work Folder

| \\PC_1\Scans

Browse

File formats
☑ STL
☑ MSH
☑ ASC

Undo
Cut
Copy
Paste
Delete
Select All
Right to left Reading order
Show Unicode control characters
Insert Unicode control character
Open IME
Reconversion

▷ Open **Settings.**

▷ In the field **Work Folder**, enter the network path to the shared folder `\\[PC_1]\Scans` (contents of the clipboard).

▷ Save the settings and close the scanning software.

In older scanning software:
Settings: Tab **Installation**, Field **Export Folder**

✓ The group "Users" can save scan data in the central scan data folder.

4.5 Copy the calibration data folder for viewer clients

PC 1

📖 11

Paths:
aural Scan
Older scanning
software

These steps are necessary if you wish to set up viewer clients (→ Examples 1-4, not for scanning workstations).

▷ Copy the calibration data folder from the data folder:

`C:\Program Files (x86)\3D-Scanner\`**`aural Scan`**`\data\`

`C:\Program Files (x86)\3D-Scanner\`**`[scanner name]`**`\data`

Folder name (structure): `SO-202XX.XX-XX-XXX`
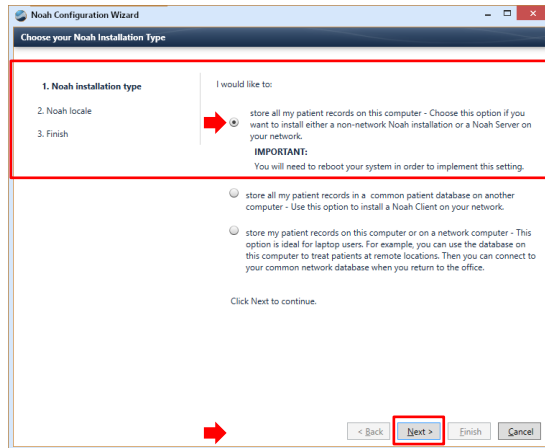
▷ Paste under `C:\Scans\` (shared scan data folder).

✓ Client PCs can use the scanning software as viewer.

4.6   Install Noah as a server

🖥 PC 1

Himsa Information:
www.himsa.com/
himsa_download/
noah-system-
download/

▷ Install Noah.

▷ Select the installation option "Server" in the configuration wizard.

▷ Follow the instructions of the wizard.

▷ Establish a connection between Noah and the scanning software by opening and closing in the order below:

— Start Noah,

— Minimize the software window,

— Start the scanning software,

— Close the scanning software,

— Close Noah,

▷ Restart the server PC.

✓ Noah will have been installed as Noah server and the scanning software will be ready for use.

🖥 PC 1   **The Noah server must always be switched on for clients to access it. Noah works in the background.**

5 Set up the Noah client

5.1 Overview

Prerequisites

☐ The Noah server is installed and set up.

📖 16 ☐ Client setup information is available:

— Username and password of the server user,

— The network path to PC 1 (Noah server).

The server user must have a password to log on to the network (not a "blank password").
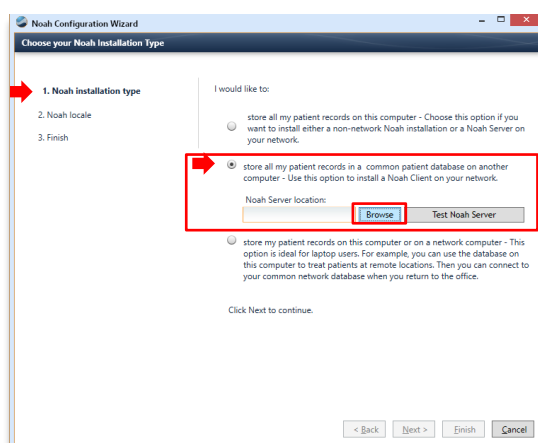
Respect the task sequence

📖 21, 22, 23, 26 ☐ Install Noah as a Client

☐ Register the client PC on the Noah server

☐ Set up Noah clients as:

— Viewer (without a scanner)

OR

— Scanning workstation

5.2 Install Noah as a client

🖥 PC 2

Himsa Information:
www.himsa.com/
himsa_download/
noah-system-
download/

▷ Install Noah.

▷ Select the installation option "Client" in the configuration wizard.

▷ To connect the Noah client to the Noah server, click Browse.

✓ A dialogue box to establish a server connection will open.

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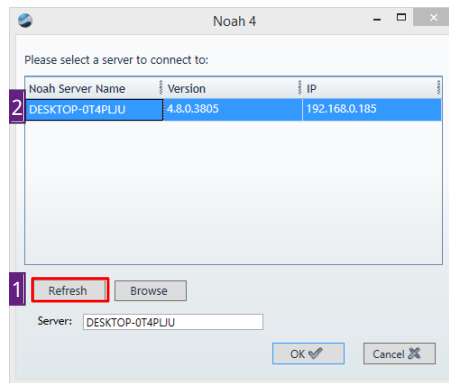
▷ Click Update.

▷ Select PC 1 (Noah server – network name)

▷ Click on OK.

▷ Follow the instructions of the wizard.
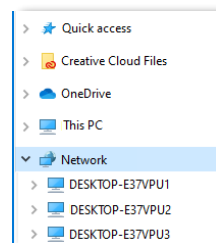
🖥 PC 2

✓ The Noah client will have been:
— Installed,
— Connected to the Noah server.

5.3 Register the client PC on the Noah server

🖥 PC 2

▷ On the client PC, open:
— Windows Explorer,
— The section **Network**.

▷ Click on [`PC 1`](Network name).

📖 16

▷ Log in as a server user (username + password).

✓ Windows Explorer will now display the content of the Noah server.

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5.4 Set up the scanning software

11, 23, 26

▷ Select an option according to your system configuration (➜ Examples 1-4):

— Set up the scanning software as a viewer (without a scanner)

— Set up the scanning software as a scanning workstation

5.4.1 Set up the scanning software as a viewer (without a scanner)

Install the scanning software

🖥 PC 2
Audiology scanners
operating manual
Chapter 6

▷ Install the scanning software:

— Without a scanner,

— Without calibration data.

Copy the calibration data folder from the server

Strg + C

▷ Copy the calibration data folder from the Noah server to the clipboard.

Folder name (structure)

```
SO-202XX.XX-XX-XXX
```

Path

Paths:
aural Scan
Older scanning
software

```
\\[PC1]\Program Files (x86)\3D-Scanner\aural Scan\data
```

```
\\[PC1]\Program Files (x86)\3D-Scanner\[scanner name]\data
```

▷ Paste to PC 2 (Noah client) under:

```
C:\Program Files (x86)\3D-Scanner\aural Scan\data\
```

```
C:\Program Files (x86)\3D-Scanner\[scanner name]\data
```

✓ The Noah client will have the calibration data of the Noah server.

Create and edit custom settings file

1. **To create**

🖥 PC 2

▷ Start the scanning software.

✓ The file `Settings.xml` for custom settings will be created.

ℹ **TIP**

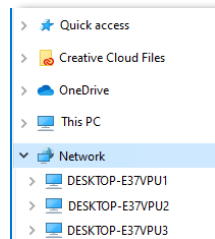The below error message will be displayed because no scanner is connected:

Couldn't connect to the scanner.

Close and ignore the message.

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2. **Copy the network path**

PC 2

▷ Open:

— Windows Explorer,

— The section **Network**.

```
> ⭐ Quick access
> 📁 Creative Cloud Files
> ☁ OneDrive
> 💻 This PC
∨ 🖪 Network
  > 💻 DESKTOP-E37VPU1
  > 💻 DESKTOP-E37VPU2
  > 💻 DESKTOP-E37VPU3
```

▷ Open the shared scan data folder on PC 1 (Noah server):

Scan data folder

`\\`**`[PC 1]`**`\Scans`

Strg + C

▷ Copy the network path from the address bar.

▷ Open the local folder `AppData` (PC 2 -Noah client) by:

— Writing "% appdata%",

Enter

— Pressing "ENTER".

ℹ **TIP**

`AppData` is the local roaming folder (usually hidden).

▷ Open the subfolder:

Paths:
aural Scan
Older scanning
software

`\Roaming\3D-Scanner\`**`aural Scan`**`\config`

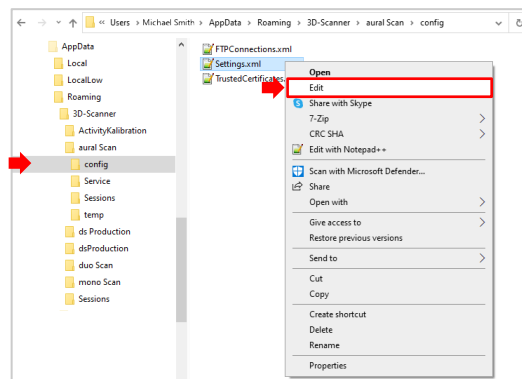`\Roaming\3D-Scanner\`**`[scanner name]`**`\config\`

Example:

`C:\Users\Michael Smith\AppData\Roaming\3D-Scanner\`**`aural Scan`**`\config\`

`C:\Users\Michael Smith\AppData\Roaming\3D-Scanner\`**`duo Scan`**`\config\`

3. **To edit the custom settings file**

▷ Open the file `Settings.xml` to edit it (Windows Notepad).

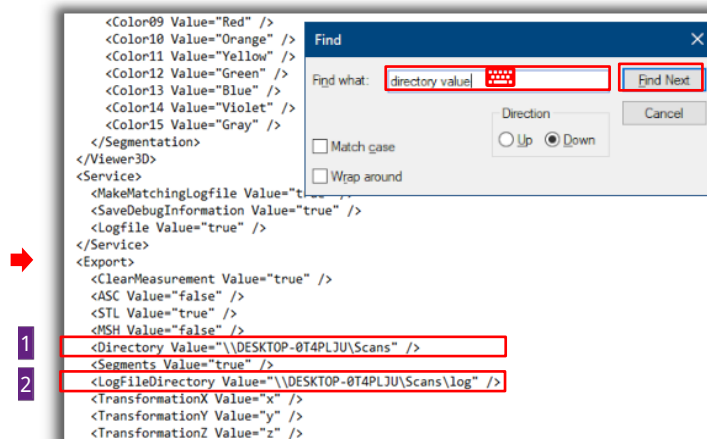**TIP**

The file `Settings.xml` in the folder `data` is for the standard settings.
Please do not modify it!

▷ Select **Edit | Find**.

▷ Look for "Directory Value" in the group **Export** (twice).

Strg + V

Example
`\\DESKTOP-0T4PLJU\Scans`

▷ Replace the path `C:\Scans` with the copied network path.

▷ Replace the path `C:\Scans` in the same way with the value
"LogFileDirectory". The `\log` part must remain unchanged.

▷ Save the file `Settings.xml`.

▷ Close Notepad.

✓ The scanning software on PC 2 (Noah client) will recognize the scan data
folder on PC 1 (Noah server).

Results

☐ The scanning software can be used on the PC 2 (Noah client) to view scans (without a scanner).

☐ PC 1 (Noah server) and PC 2 (Noah client) have access to:

— The Noah Database,

— The scan data folder.

Restrictions

Without a scanner:

— The scanning software does not start for processing,

— The smart optics button in the Noah Patient Browser has no function (→ camera error message).

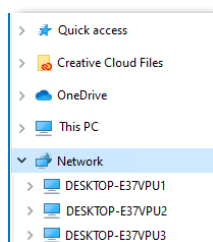| 5.4.2	Set up the scanning software as a scanning workstation

Install the scanning software

▷ Connect the scanner.

▷ Install the scanning software.

▷ Load the scanner's calibration data.

Enter the shared scan data folder into the scanning software

🖥 PC 2

▷ Open:

— Windows Explorer,

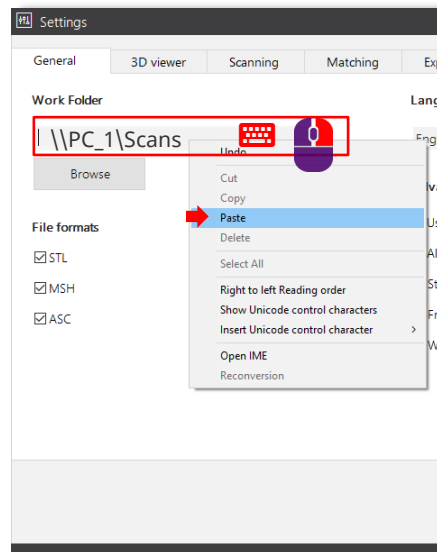— The section **Network**.

▷ Open the shared scan data folder on PC 1 (Noah server):

Scan data folder

`\\[PC 1]\Scans`

[Strg] + [C]

▷ Copy the network path from the address bar.

▷ Start the local scanning software (in this case: aural Scan).

▷ Open **Settings**

▷ In the field **Work Folder**, enter the network path to the shared server folder (contents of the clipboard).

▷ Save the settings and close the scanning software.

In older scanning software:
Settings: Tab **Installation**,
Field **Export Folder**

✓ The scanning software on PC 2 (Noah client) will recognize the work folder on PC 1 (Noah server). The scan data will be saved here.

Connect Noah and the scanning software

🖥 PC 2

▷ Establish a connection between Noah and the scanning software by opening and closing in the order below:

— Start Noah (minimize the software window),

— Start the scanning software,

— Close the scanning software,

— Close Noah.

▷ Start Noah again.

✓ PC 2 (Noah client) and PC 1 (Noah server) will have been connected.

Results

☐ PC 1 (Noah server) and PC 2 (Noah client) can:

— Scan,

— Save data on PC 1 (Noah server) in the shared folder `\\PC_1\Scans`,

— Save data in the Noah database.

☐ A subfolder `Noah` will be automatically created.

smart optics

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DGZ Qualitäts Management System
Deutsche Gesellschaft
für Zertifizierung
DIN EN ISO 9001

DGZ Qualitäts Management System
Deutsche Gesellschaft
für Zertifizierung
DIN EN ISO 13485

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