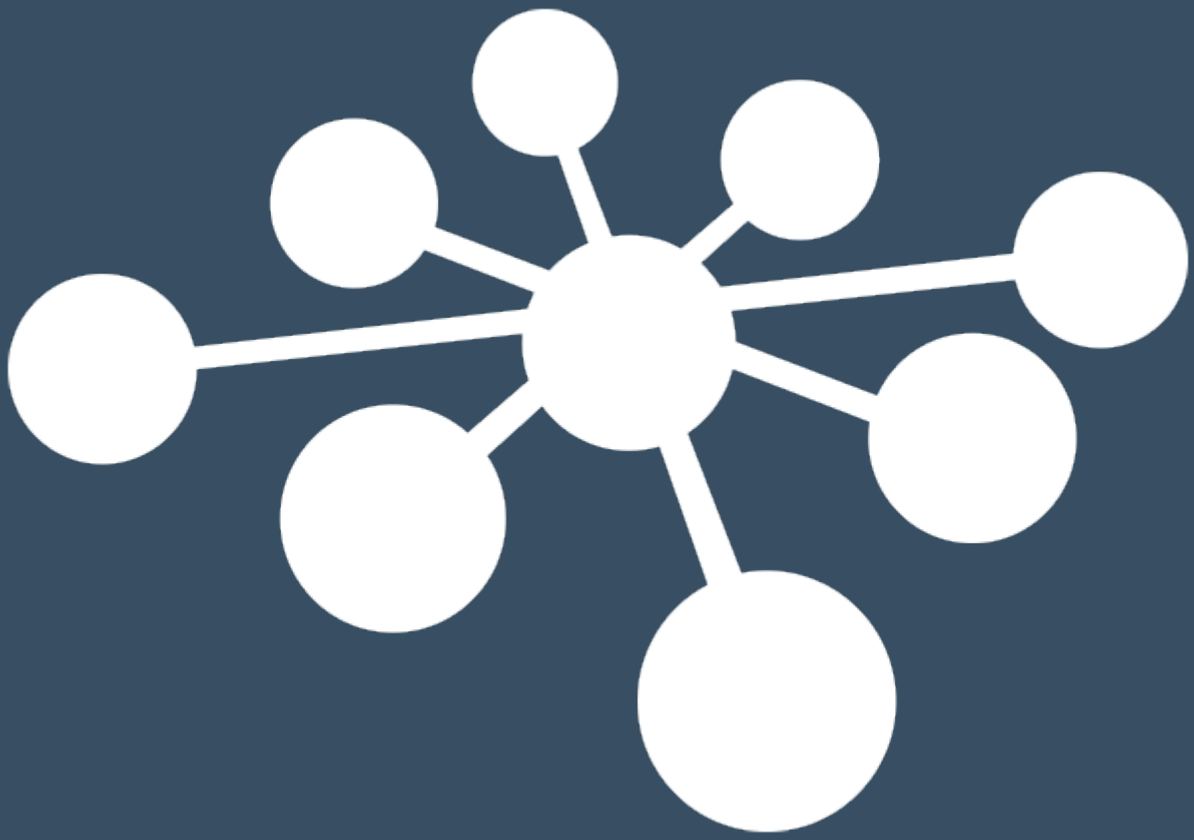
Instructions for Use

OtoAccess®

Database



D-0122623–E – 2024/03

Table of Contents

1 Introduction 4

1.1 About this Manual 4
1.2 Intended use of OtoAccess® Database 4

2 Precautions 5

2.1 Secure communication 5
2.2 Store backup safely 5
2.3 Security and access to data 6
2.4 Noah 6
2.5 Default credentials 6

3 Hardware and software requirements 7

3.1 .NET Framework 7
3.2 Hard disc 7
3.3 Monitor 7
3.4 Memory 7
3.5 Processor 7
3.6 Operating system support 7
3.7 SQL server 7
3.8 Using secure connections 8

4 Installation instructions 9

4.1 Installation recommendation 9
4.2 Setup 9
4.2.1 Installation type 10
4.2.1.1 Client only 11
4.2.1.2 Standalone installation 11
4.2.1.3 Server installation 12
4.2.2 Administration 12
4.2.3 UAC (User Account Control) 12
4.2.4 Progress 13
4.2.5 Finish 14
4.3 Removing the product 15
4.3.1 Modify 15
4.3.2 Reinstall or update 15
4.4 Network access 16
4.4.1 Basic connection 16
4.4.2 Check firewall exceptions 16
4.4.3 Check Services 17

5 Data migration From OtoAccess® V1.x to OtoAccess® Database 18

6 OtoAccess® Database user manual 24

6.1 User interface 24
6.1.1 The menu bar and toolbar 25
6.1.2 Side panel 26
6.1.3 Create patient and patient list 27
6.1.4 Patient search 29
6.1.4.1 Extended patient search 30
6.1.4.2 Search using syntax 31
6.1.5 Patient demographics 32
6.1.6 Session preview 32
6.1.7 Session list 33
6.1.8 Description 34
6.1.9 Activate license 34
6.2 OtoAccess® Database administration 35
6.2.1 General settings 36
6.2.1.1 Facility information 36
6.2.1.2 Service management 36
6.2.1.3 Default preferences 37
6.2.1.4 Improved patient privacy 37

6.2.1.5 Patient fields 38
6.2.1.6 User-defined patient fields 38
6.2.2 Users & groups 39
6.2.2.1 Users 39
6.2.2.2 Groups 40
6.2.2.3 User authentication 41
6.2.2.4 Microsoft Active Directory 42
6.2.3 Database 42
6.2.3.1 Information 42
6.2.3.2 Connection 43
6.2.3.3 Backup and scheduling 44
6.2.3.4 Restore 44
6.2.3.5 Logs 45
6.2.3.6 Security log 45
6.2.3.7 System log 45
6.2.3.8 Log retention policy 46

7 Noah export 47

7.1 Supported Noah versions 47
7.2 Functionality 47
7.3 Noah export license subscription 47
7.4 User interface 47
7.4.1 Exporting patient and measurement data 47
7.4.1.1 Outcomes of automatic patient lookup 48
7.4.1.2 Measurement export to Noah 49
7.5 Installation and setup 50
7.5.1 Activate Noah in OtoAccess® Database client 51
7.5.2 Setting up Noah 51
7.5.2.1 Noah Mobile network infrastructure requirements 52

8 Troubleshooting 52

8.1 Network connection problems 52

1 Introduction

1.1 About this Manual

This manual is valid for the OtoAccess® Database. The product is manufactured by:

OtoAccess A/S
Audiometer Allé 1
5500 Middelfart
Denmark

Thank you for purchasing the OtoAccess® Database PC application. The OtoAccess® Database is an application for easy management of client information and test evaluation. The OtoAccess® Database is a unique interface, which integrates audiological modules from different manufacturers.

OtoAccess® Database can be set up in the following three ways:

- OtoAccess® Database Server and Network Client
- OtoAccess® Database Network Client
- OtoAccess® Database Standalone

Disclaimer: All data used in this manual is randomly generated demo data.

1.2 Intended use of OtoAccess® Database

The OtoAccess® Database provides a comprehensive data management tool for patient demographics and evaluation data.

The OtoAccess® Database offers a seamless and fast way of adding a client, launching a measurement module and then, following the client evaluation, storing the data securely in the database.

2 Precautions

To avoid client information being captured during network transmission, the communication to the SQL database must be secure (encrypted).

Store backup of client data in a safe manner.

Create backup of patient's data regularly (for example once a week).

To avoid data from being misused, if stolen, the data must be encrypted.

To avoid unwanted data transfer from PC to the network, make sure that an appropriate Virus & Spyware scanner is installed, updated and effective; please contact your local administrator for help and guidance.

All users must have their own login to the database to ensure traceability and identification of data updated or deleted from the database.

2.1 Secure communication

The OtoAccess® Database can be installed as a client server environment where the data to and from the database is transmitted on a network.

To ensure the patient information is not captured during transmission, the communication to the SQL database must be secure (encrypted).

Setting secure communication up must done on the SQL server, this is not done by OtoAccess Database.

2.2 Store backup safely

The OtoAccess® Database automatically creates a backup of each database – the schedule and retention of the backups can be customized according to clinician need and preference.

To ensure that the data is not lost, as may occur, for example, in the event of hardware failure, the backups must be copied to a second secure location.

To ensure that the data is not misused, we recommend that the backups are stored on encrypted volumes or password protected.

2.3 Security and access to data

All users must have their own login by default. All sessions are stored in relation to each individual user and all the actions of each individual user are logged by the system.

It will significantly degrade security and logging efficiency if logins are shared or if the use of passwords is disabled.

It is possible to provide easier/quicker access to the database by relying solely on the Windows Logon to provide the security. This requires a system administrator to associate the user's security credentials. Note: This is not Active Directory compliant, but solely relying on the user being logged into Windows.

Following three unsuccessful login attempts, the system default is to logout the user for a period of 10 minutes.

The system allows the user to change the password and to enforce password strength.

The system does not expire passwords by default.

2.4 Noah

Although authentication process of Noah Mobile allows to autocomplete username - password in web browser, we recommend not using the autocomplete feature. Usernames and passwords are made vulnerable with autocomplete, and anyone logged into OtoAccess Database can use this data.

2.5 Default credentials

The first time you launch OtoAccess®, you will be prompted to enter the default username and password.

Username: admin
Password: password

Please make sure to change the password for the admin account if you need to restrict access to the application.

3 Hardware and software requirements

3.1 .NET Framework
.NET 4.5 is required for the application to run.

3.2 Hard disc
Disc space requirements will vary with the installation option.

Client only installation: at least 5Gb free disk space is recommended.
Standalone installation: at least 30Gb free disk space is recommended.
Server installation: at least 30Gb free disk space is recommended.

If a non-limited SQL server version is used, the available diskspace must reflect the anticipated usage.

3.3 Monitor
The minimum resolution supported is WXGA (1280x768).
OtoAccess® Database is recommended to run on a full HD 1920x1080 or higher resolution monitor.

3.4 Memory
Standalone: minimum recommended 8GB ram.

Client: minimum recommended 4GB ram.

Server: minimum recommended 16GB ram.

3.5 Processor
Standalone or client: Minimum recommended Intel i5-6th gen. or AMD Ryzen 3 1300.

Server: Minimum recommended Intel i7-6700 or AMD Ryzen 7 1700 or equivalent.

3.6 Operating system support
Windows 10 version 1703 or greater
Windows 11
Windows Server 2016 version 1709 or greater
Windows Server 2019
Windows Server 2022

Local or domain administrator account is needed to perform installation.

Note: The OtoAccess Database server and standalone requires 64bit operating systems, as this is a Microsoft SQL Express 2019 server requirement.
The OtoAccess Database client v2.3 is compatible with both 32bit and 64 bit operating systems.

3.7 SQL server
OtoAccess Database v2.3 is as standard installed with a SQL 2019 express server. SQL express has a 10Gb limitation set by Microsoft.

OtoAccess Database supports non-express SQL server without size limitations.

OtoAccess® Database will run on the following versions of Microsoft SQL Server:

SQL Server 2014 (SP1 – SP2)

SQL Server 2016

SQL Server 2017

SQL Server 2019 (OtoAccess Database v2.3 default in Express version)

SQL Server 2022

NB: OtoAccess® Database requires Service Broker to be enabled and corresponding Firewall Rules to allow access.

3.8 Using secure connections

Utilizing a secure network connection requires a certificate installed on the SQL Server.
For more information see: https://learn.microsoft.com/en-us/sql/database-engine/configure-windows/configure-sql-server-encryption?redirectedfrom=MSDN&view=sql-server-ver15

4 Installation instructions

4.1 Installation recommendation

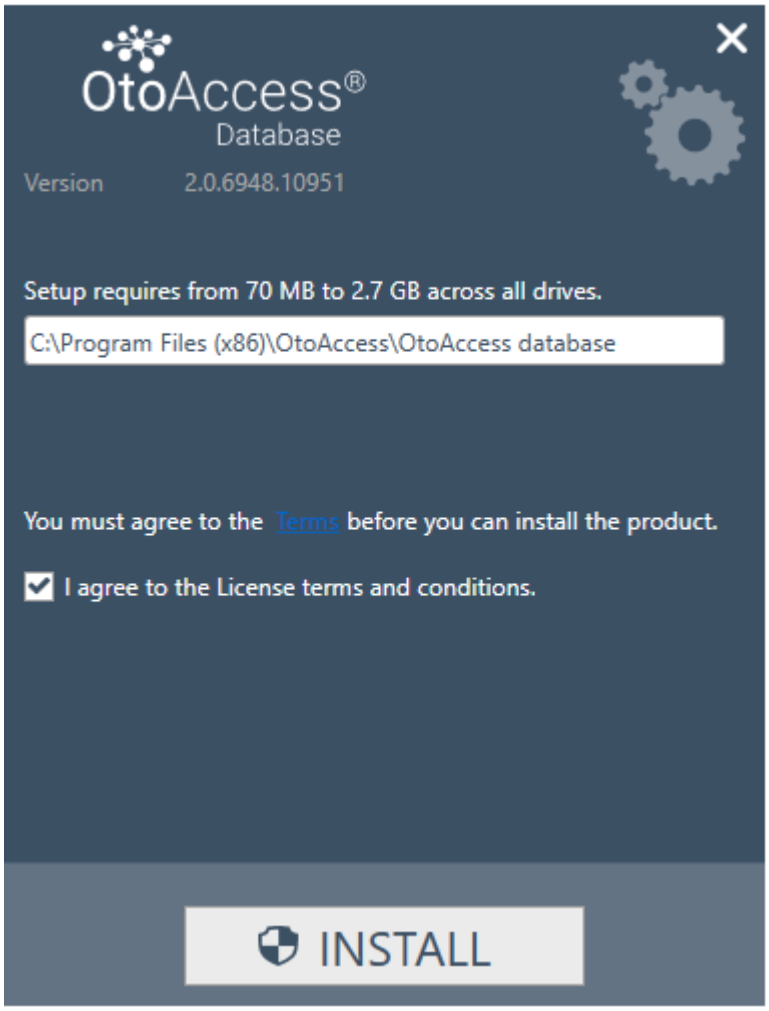
It is recommended to install OtoAccess Database in a server and client configuration to ensure data retention and client uptime.

Clinical workstation is recommended to always run as clients connected to a OtoAccess Database server.

The OtoAccess Database server should be utilizing a Microsoft SQL server license without size limitation, purchased separately. Either installed on the same server instance as OtoAccess Database server or utilizing a consolidated SQL setup.

4.2 Setup

From the installation media run OtoAccess.exe

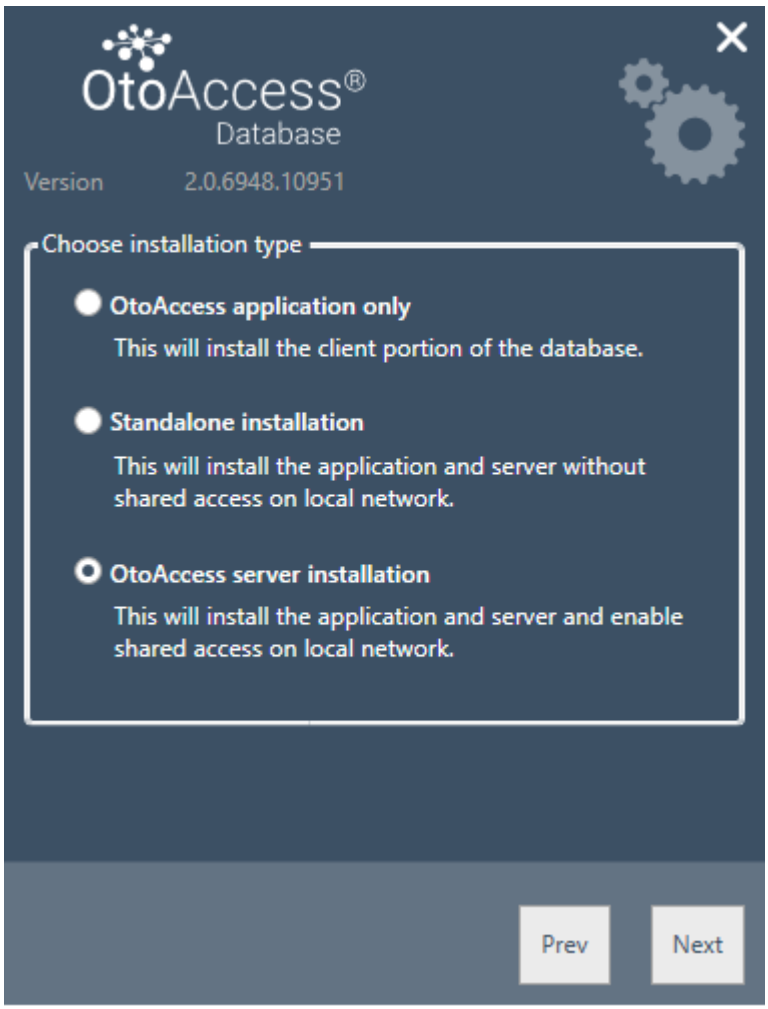


Carefully read the license agreement and tick off the “I agree” before continuing.

NB: If you do not agree to the license terms press the “X” in the top right corner, this will exit the application.

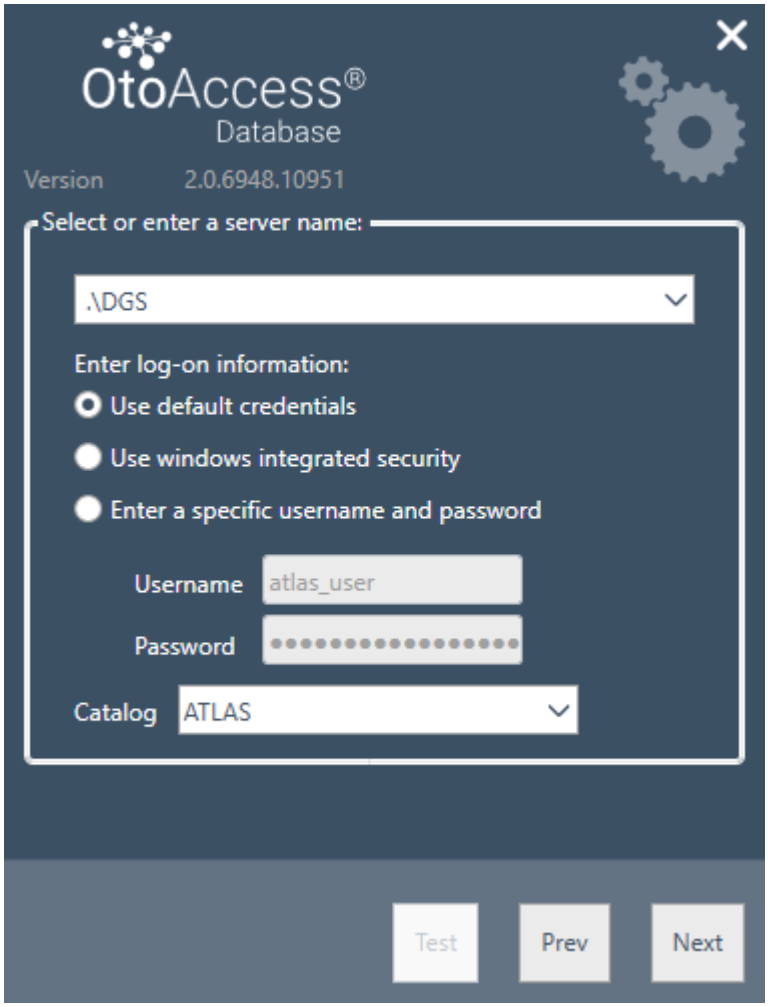
4.2.1 Installation type

OtoAccess® can be installed as a standalone installation or in a network environment with many clients accessing the same database.



4.2.1.1 Client only

Choose this type if you already have a server running and plan to use the same database between multiple clients.



The client installation allows the user to set up the connection to a server on the network.

Enter the server name followed by the instance name in the following format:
[Server name] \ [Instance name]

Choose to use default OtoAccess® credentials or specify Windows or other specific credentials.

The catalog/database name ATLAS is default but can be chosen from the server given the supplied credentials.

4.2.1.2 Standalone installation

Choose this installation type if you plan on using the application on a local machine and do not want to share access to the database.

NB: If a SQL server 2014 Express is already present on the system, it will be upgraded to SQL 2019 Express. The installation will inherit the settings from the previously installed instance, i.e. selecting Server or Standalone will not have any effect on the existing server configuration.

The OtoAccess database Atlas will also be upgraded to SQL 2019.

4.2.1.3 Server installation

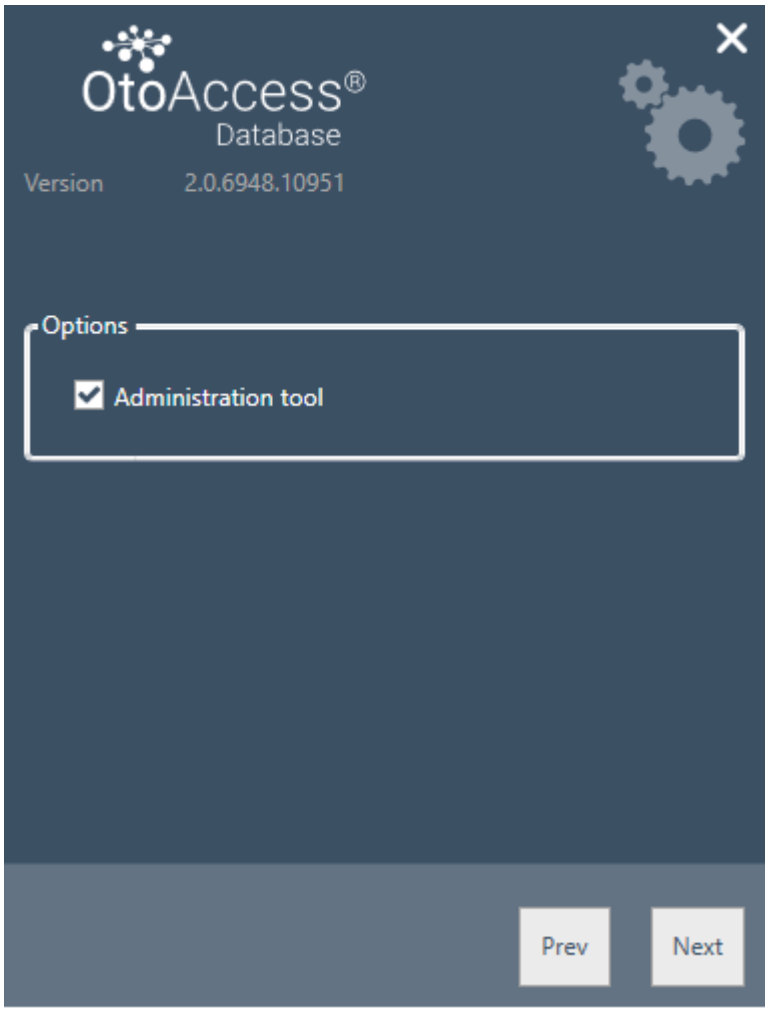
Choose this installation type if you plan to setup a database that is shared with other clients.

NB: If a SQL server other than SQL 2014 express is already present on the system, the installation will reuse it and inherit the settings from the previously installed instance, i.e., selecting Server or Standalone will not have any effect on the existing server configuration.

If a SQL 2014 Express is present, this will be upgraded to SQL 2019 Express.

4.2.2 Administration

The administration tool is optional but is required when doing system administration like, adding users checking logs, doing backup etc.



4.2.3 UAC (User Account Control)

When pressing Next after choosing the administration option the installer will prompt to let the user allow access to the system.

Saying “NO” will abort the installation.

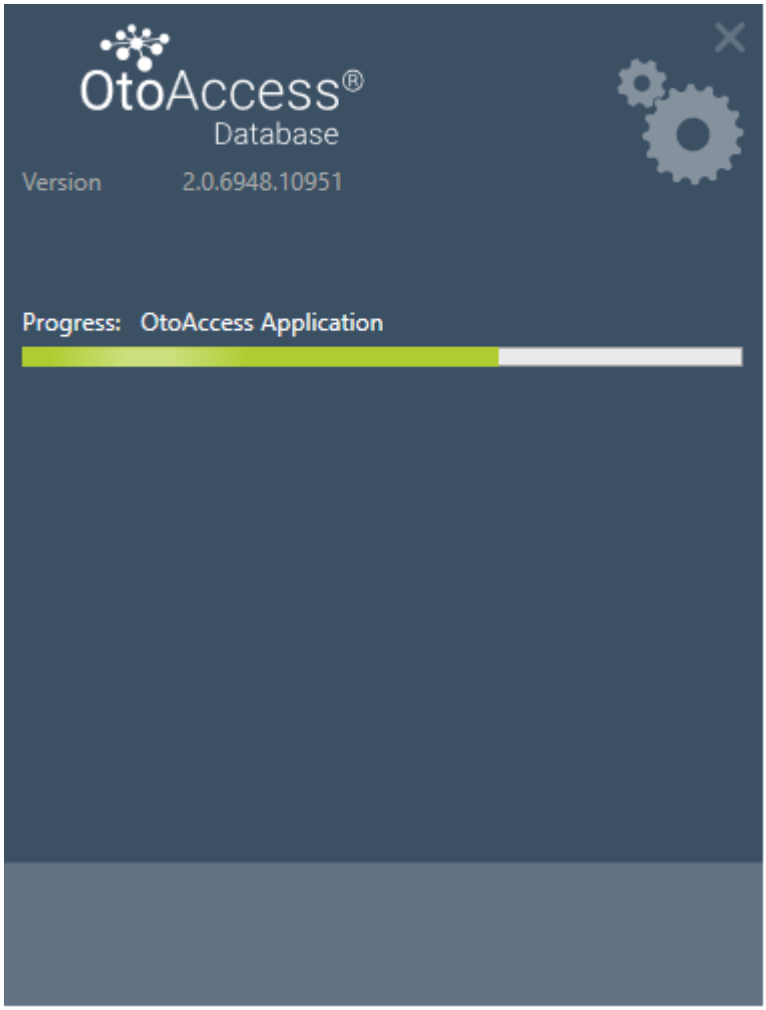
4.2.4 Progress

During the installation the installer will install .NET Framework, SQL Server and the application.

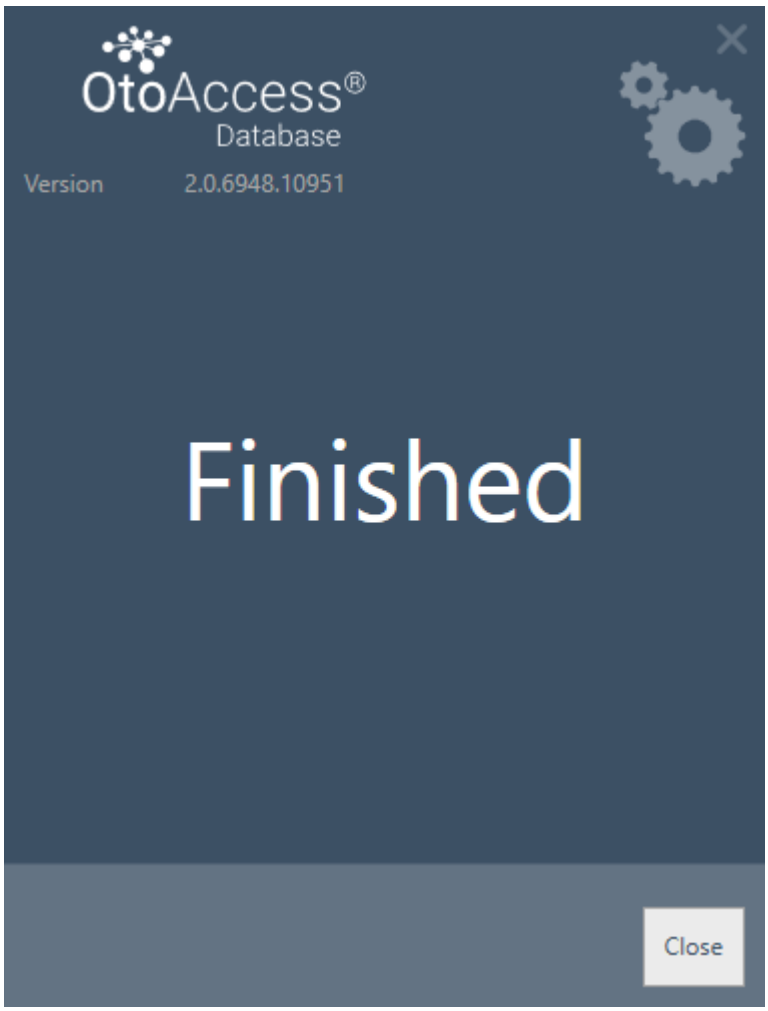
The duration of the installation will depend on existing components and to which degree the machine has been updated.

The expected duration for each component is listed below:

1) .NET 4.5 Framework approx. 4 min. (a reboot may be required)
   .NET Framework is preinstalled on Windows 8 and newer OS.
2) SQL Server approx. 12 min. (a reboot may be required)
3) OtoAccess® application approx. 2 min.



4.2.5 Finish

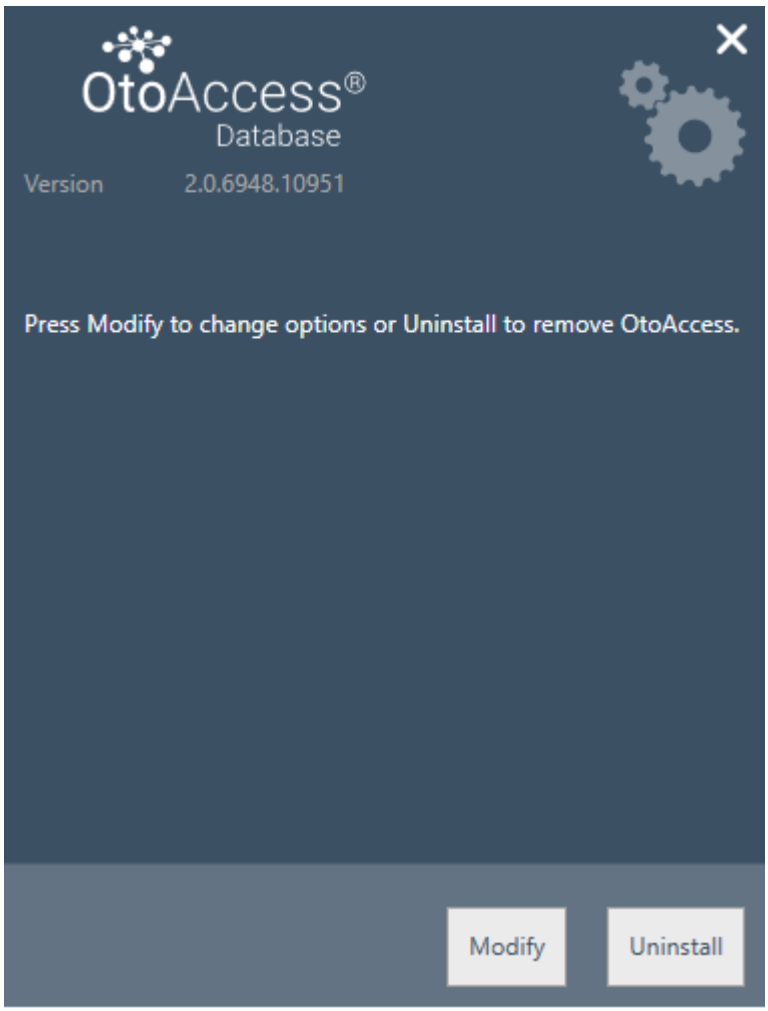


4.3 Removing the product

To remove the product, find OtoAccess® database from Program and Features and choose Uninstall.

Removing the product will uninstall the OtoAccess® application but leave the shared components like the SQL Server and the .NET framework including the database and all user generated files.

To remove the SQL server uninstall it from Program and Features.



4.3.1 Modify

To modify the installation, press Modify. This will allow the user to add or remove the administration from the installation.

4.3.2 Reinstall or update

To re-install the product launch OtoAccess.exe from the installation media. If the product is still present, the installer will abort.

Create a backup before reinstalling or update.

(Standalone or Server). The installer will detect any existing SQL database and perform a backup before creating a new blank database.
Please choose to use the existing database to retain existing patient and test data. If new database is selected existing data will be deleted.

4.4 Network access

By default, the server installation will announce itself on the network and let other clients connect to the machine.

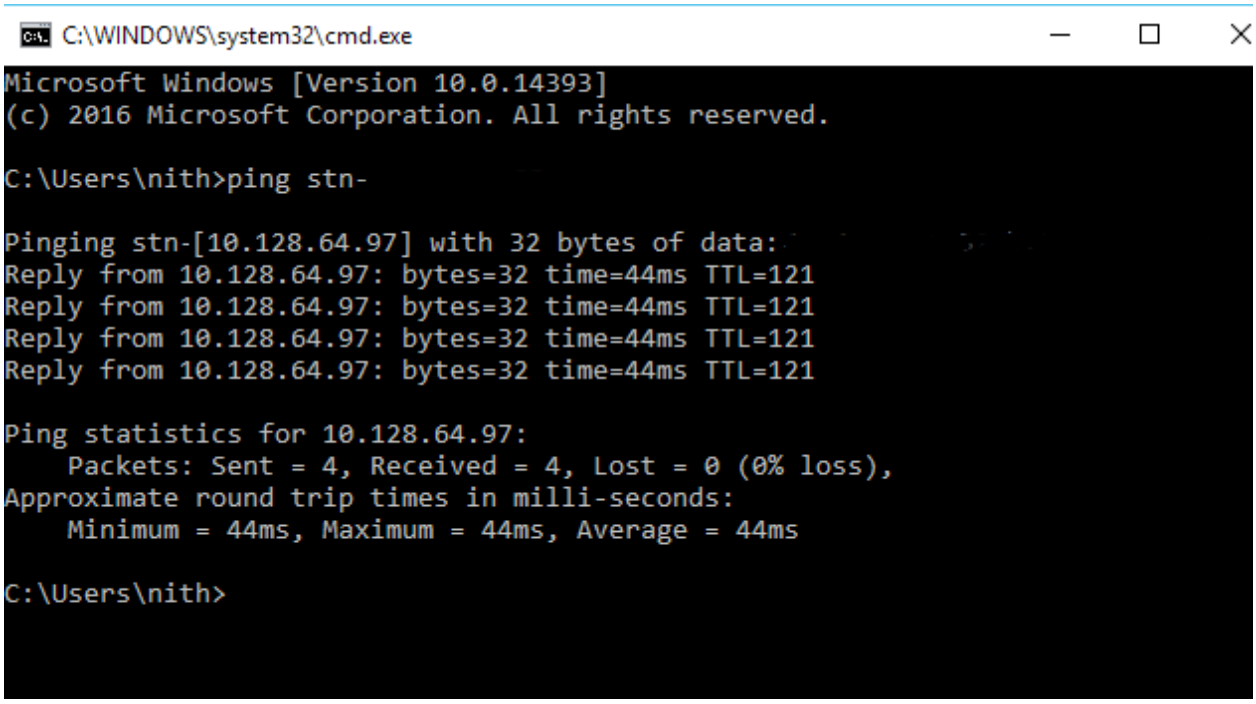
To diagnose and troubleshoot a problem on the server the following tips might be used:

4.4.1 Basic connection

Please ensure basic connectivity between client and server.

Press Windows + R, type CMD

In the command prompt type ping [name of machine]



4.4.2 Check firewall exceptions

Ensure that the firewall is allowing access through to the SQL server:

Press Windows + R, type firewall.cpl

Select Allow App or feature through Windows Firewall.

Select Allow another app…

Browse to the location of the instance of SQL Server that you want to allow through the firewall, for example C:\Program Files\Microsoft SQL Server\MSSQL13.<instance_name>\MSSQL\Binn, select sqlservr.exe and click open.

Click Ok.

Do the same for the SQL Browser service at this location:

C:\Program Files (x86)\Microsoft SQL Server\90\Shared\sqlbrowser.exe

The list of ports and protocols:
UDP 1434 (SQL Browser Services)

TCP 1433 (SQL Default Instance)

TCP * (SQL Server named instances – port is determined at start of service)

TCP 4022 (Service Broker)

For more information, see: https://msdn.microsoft.com/en-us/library/cc646023.aspx

4.4.3 Check Services

Ensure that all relevant services are running.

Press Windows + R, type services.msc

The following services must be running:

OtoAccess® Service

SQL Server (DGS)

SQL Server Browser

Using SQL Management Studio, check the following services:

SELECT is_broker_enabled FROM sys.databases WHERE name = 'ATLAS';

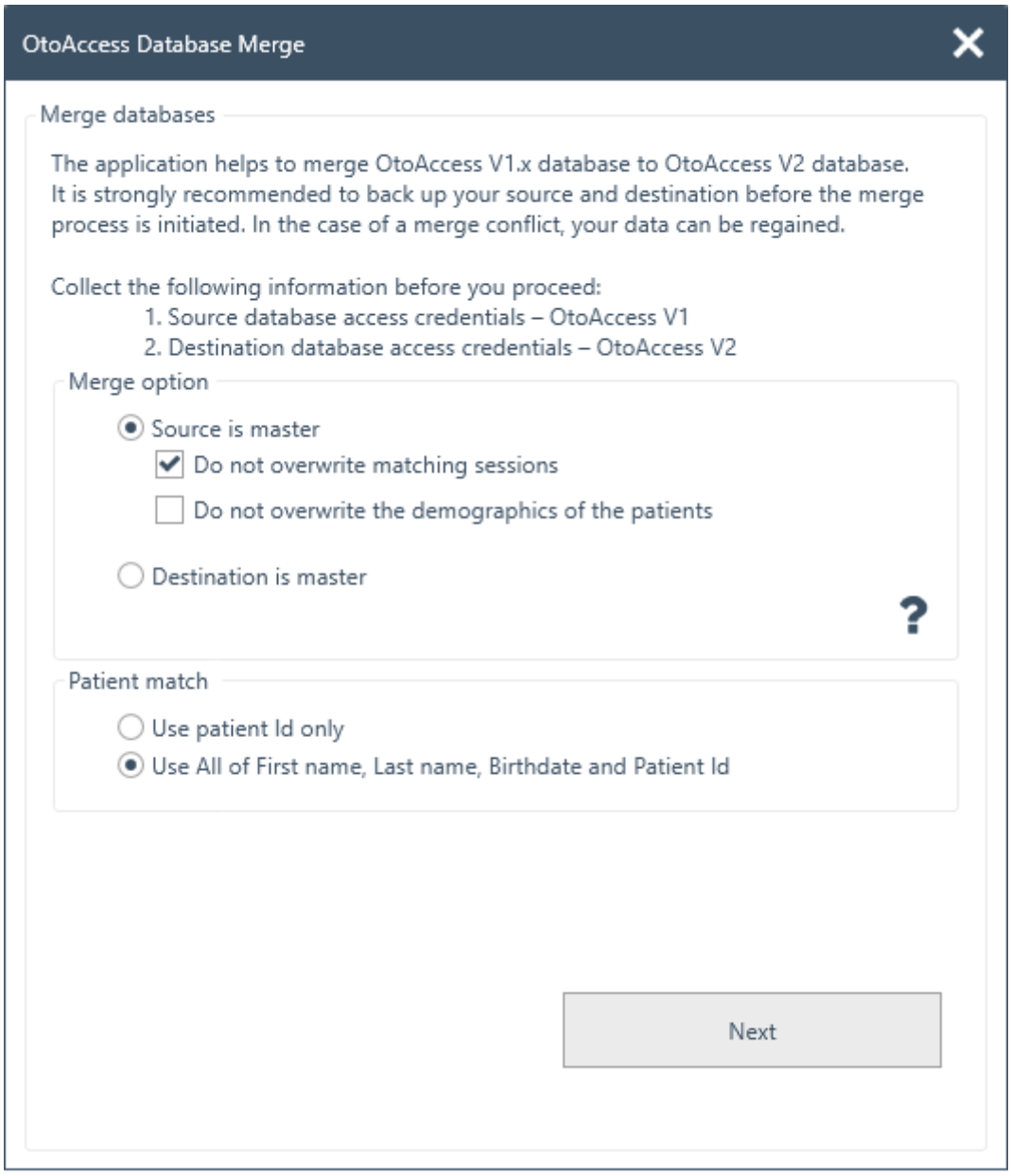
5 Data migration From OtoAccess® V1.x to OtoAccess® Database

This is the first step after the installation of the OtoAccess® Database if existing OtoAccess® V1.x data needs to be used with the OtoAccess® Database. (OtoAccess® Database is the replacement for OtoAccess® V1.x)

1. Navigate to the OtoAccess® Database installation folder and run the Merge.exe

   (For e.g. Default installation folder on X64 machine C:\Program Files (x86)\OtoAccess\OtoAccess database)

2. The OtoAccess® Database Merge software will be prompted.



3. The merge application will guide steps to proceed. Read each step carefully and choose the right merge options for the merge operation.
   - Source is master – OtoAccess® V1.x is master of the merge operation
     - Copies new patients and sessions to destination
     - Overwrites the existing patient and sessions in destination

  - If you do not want to overwrite sessions, which belong to a patient in destination, choose the option “Do not overwrite matching sessions”
  - If you do not want to overwrite patient demographics, which belong to a patient in destination, choose the option “Do not overwrite the demographics of patients”

- Destination is master – OtoAccess® Database is the master of the merge operation
  - Skip copying new patients and sessions to destination
  - Skip overwriting existing patients and sessions in destination
  - Only copies new patient sessions if patient match found

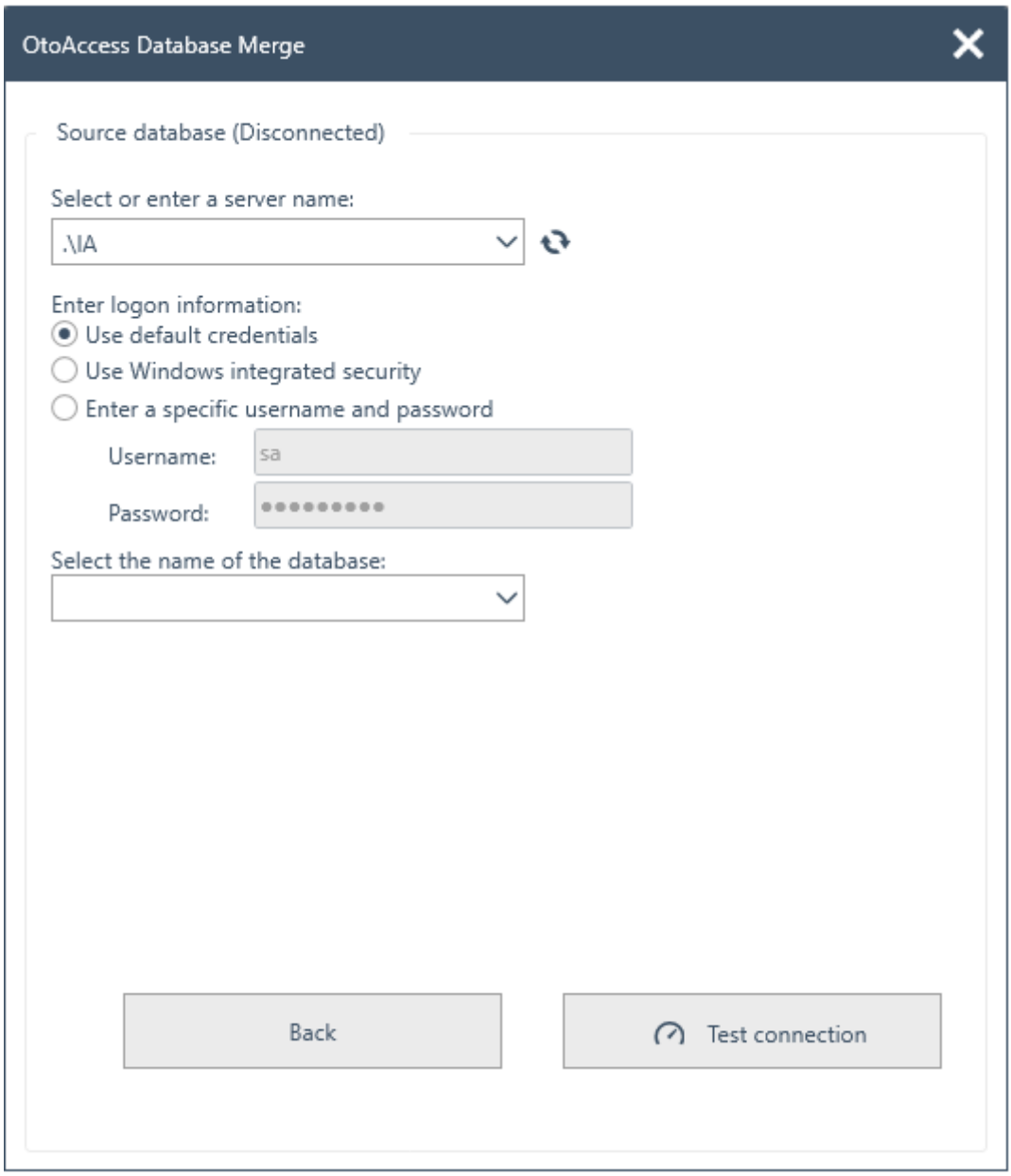
4. What will happen to the other data?
   - Facility (Clinic)
     - If the destination facility has the default installation data, it is overwritten by source facility data
     - If the destination facility name matches the source facility name, it is overwritten by source facility data. (when source is master)

   - Users/Examiners
     - All new users/examiners copy to destination. Skips overwriting existing user/examiner data. Combination of First Name, Last Name and Initials identifies the user/examiner

5. Patient match.
   Choose whether the patient should be identified as source or destination.

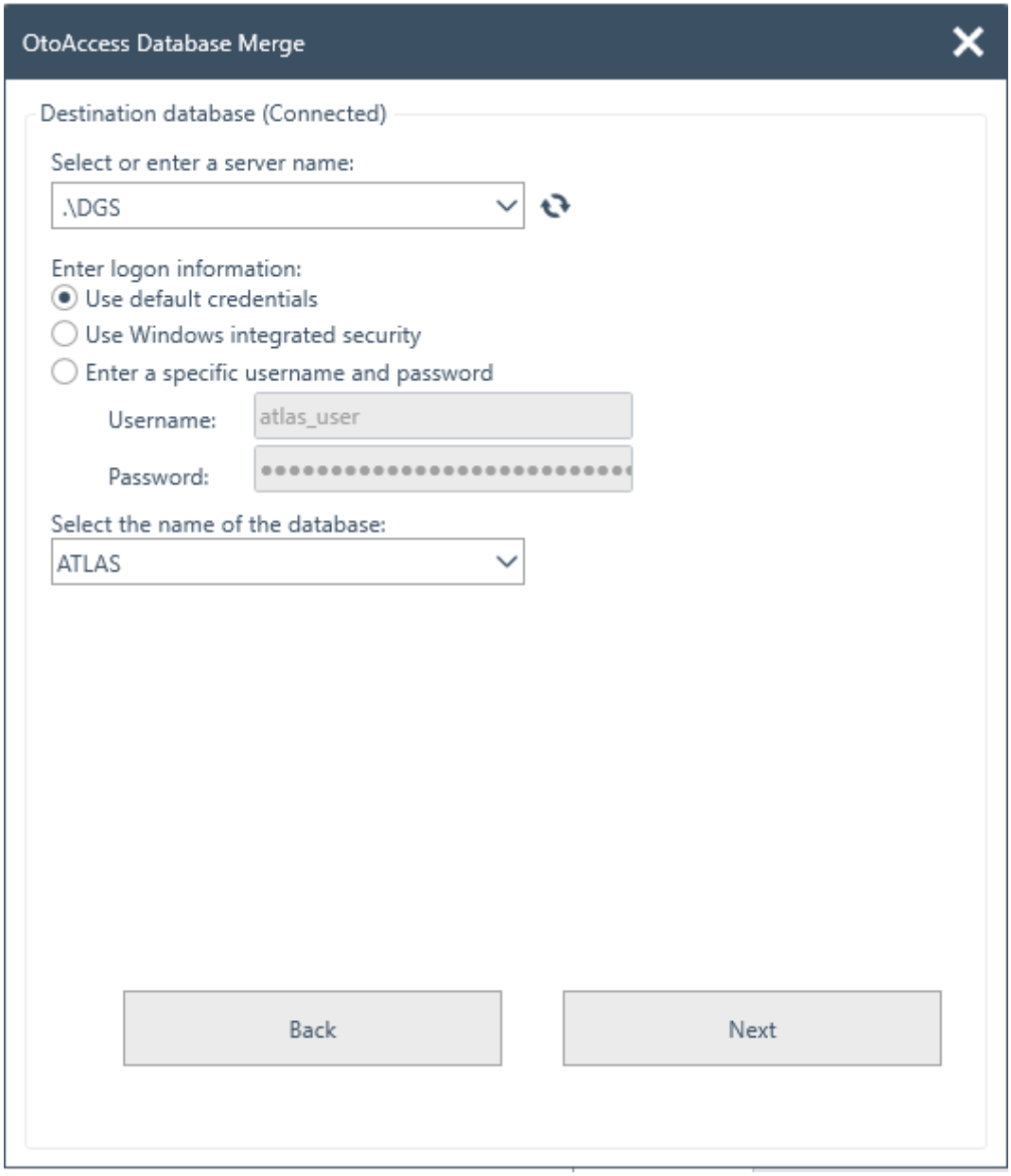
6. Click Next.

7. Provide source database (OtoAccess® V1.x) access credentials. Make sure connection is tested and connected. Connection status is visible at the top of the window. Default values provide access credentials to local OtoAccess® V1.x.



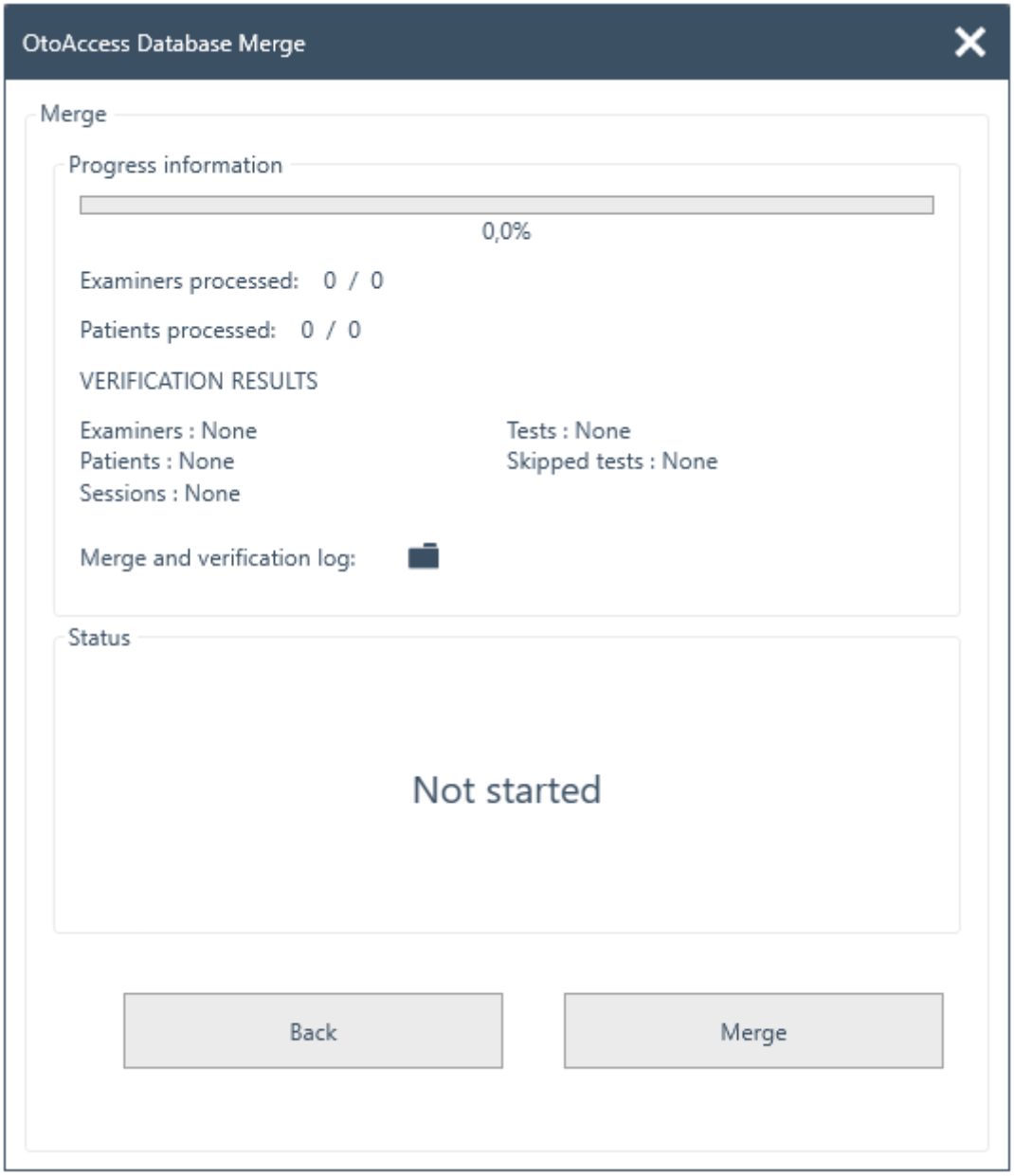
8. Click Test connection and then Next.

9. Provide destination database (OtoAccess® Database) access credentials. Make sure connection is tested and connected. Connection status is visible at the top of the window. Default values provide access credentials to local OtoAccess® Database.



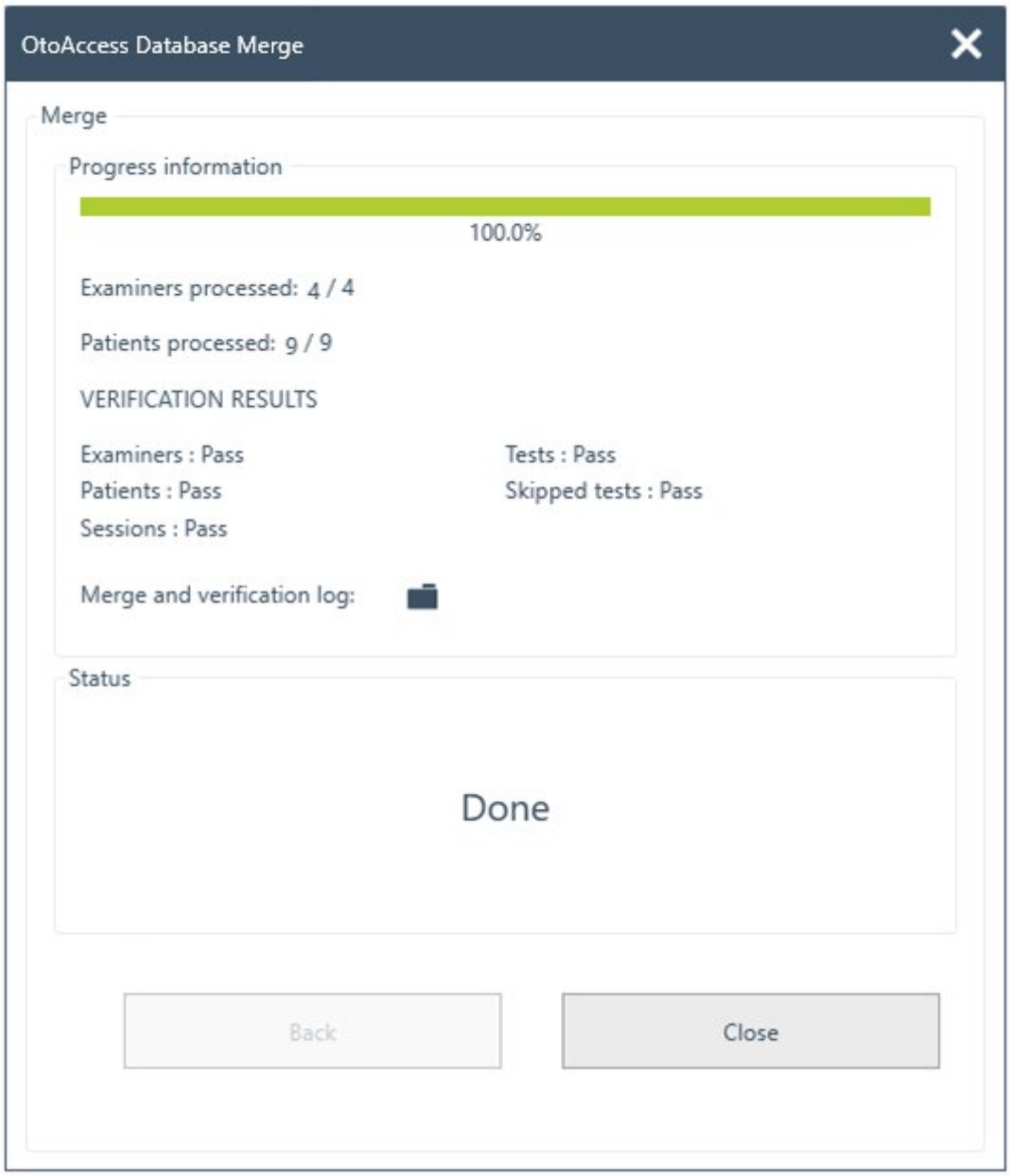
10. Click Test connection and then Next.

11. Now the state is ready for merge operation. Click Merge button. Please be patient until the database merge operation finishes. Progress bar indicates the progress state. Merge process state will pass through “Not Started”, “Started” and then “Done”.



12. When progress state is 100% and the merge process state is “Done”, this is end of the merge operation.

13. Carefully analyze Examiners processed, Patients processed, and VERIFICATION RESULTS displayed in the window above. If you find any “Fail”, status is imported to analyze the merge log details. Merge log can be opened by clicking the folder icon.

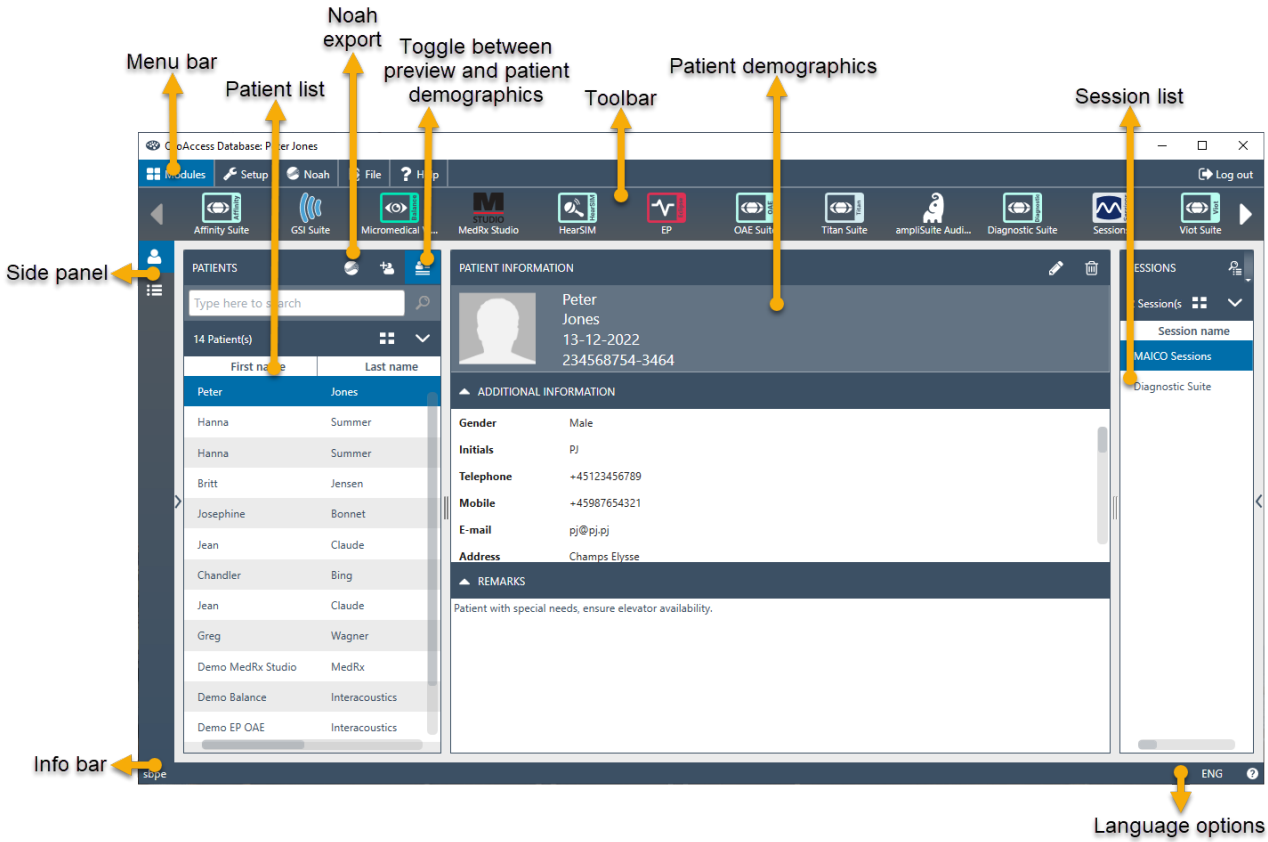


If the status shows ‘stopped’ at the end – please examine the merge and verification log for further information.

6 OtoAccess® Database user manual

6.1 User interface

The main screen consists of a menu bar, toolbar, side panel, patient list, patient demographics, session list and info bar.

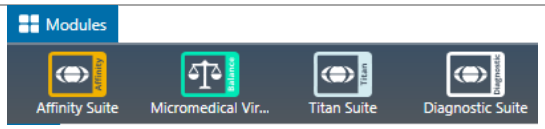


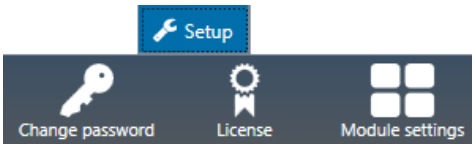
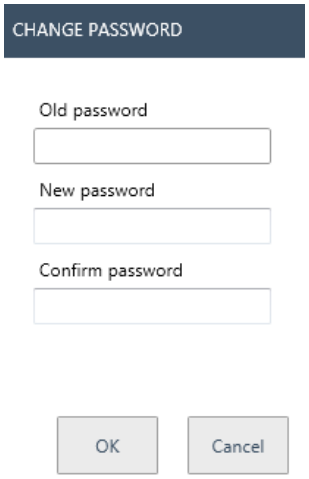
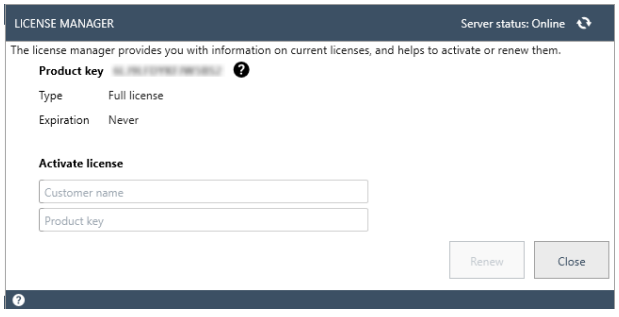
In the menu bar, a help icon can be found. Select this button to open the manual.

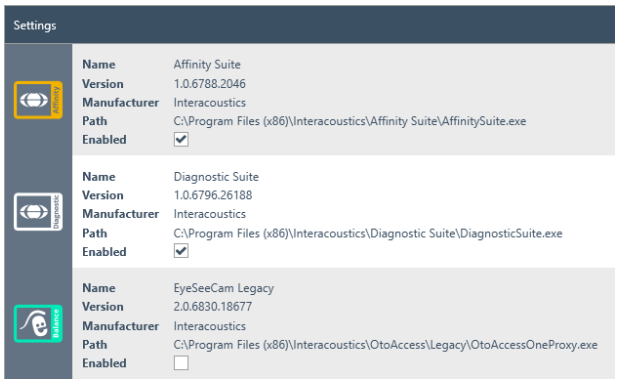
In the far-right corner of the info bar, you can change the language. Select the abbreviation ENG to display a dropdown list of options. If you select a new language, you will then need to restart the OtoAccess® Database to allow the language change to take effect.

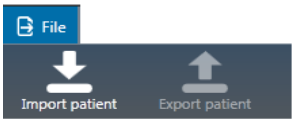
6.1.1 The menu bar and toolbar

The menu bar consists of the following items: Modules, Setup, File and Help. The toolbar items change according to the selected menu item. You can then select the desired function from these toolbar options.

Modules	
	Under the Modules menu, the toolbar shows the installed modules. Launch a module by selecting it.

Setup	
	The Setup menu options are to: change the current user's password; view/update the license; show/hide the modules. To create a new password, select **Change password.** The following popup then appears:  Firstly, enter your old password. Then enter your new password and confirm the password change by re-entering this new password in the third text field. Select **OK** to confirm the change and **Cancel** to discontinue.
	Select **License** to display the License manager where you can see which license is currently active and/or activate a new license key. After entering a new key, select **Activate License** to verify the key and activate the license. If a valid license is active, the Activate License button will instead read Check license, allowing you to check your license status and activate updated features.

	Select **Module settings** to access some useful information about the modules installed such as version number, the manufacturer's name and the location from which the file was installed. Additionally, you can select whether each module is active or visible.

File	
	Select **File** to display the following two options in the toolbar: • *Import patient*: imports a patient file • *Export patient*: exports the patient data and session(s) to a file. Please note that the patient must be selected first, before the export button becomes available When the export function is selected, a popup will appear to choose the filename and location. • Select ***.Oto** if you want to export the patient into an encrypted file. This file can only be used in an OtoAccess® application • Select ***.xml** or '**.json**, if a public file is needed

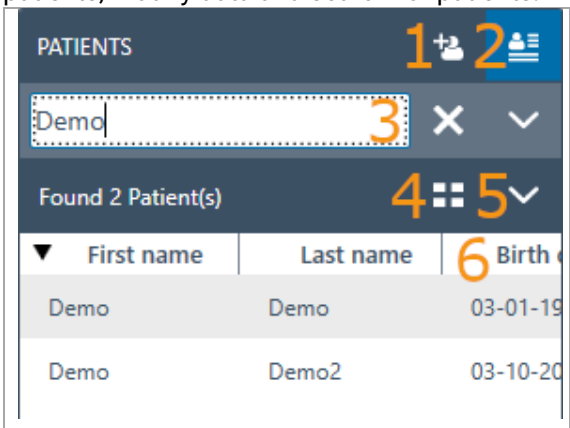
Help	
	In the help menu you can find the user guide and version information about the OtoAccess® Database.

6.1.2 Side panel

In the side panel, it is possible to select the patient or session category. The patient view shows the patient list and the sessions for each patient. The session view shows the entire session list for all patients in the database.

6.1.3 Create patient and patient list

The patient list shows the patient as created in the OtoAccess® Database. From here it is possible to add new patients, modify data and search for patients.

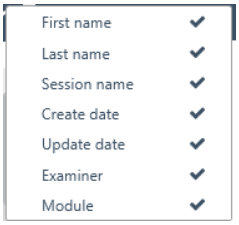


1. Add new patient.
2. Toggle between the detailed patient demographics and detailed session information.
3. Search field.
4. Toggle between patient details on grid view and combined view.
5. Select the patient fields to be viewed.
6. Sorting order.

Selecting the grid view button changes the list view to display all patients in a grid format.

Selecting the combined view button will display all demographic data in one field instead of columns. This view disables the function to sort according to a specific field such as Last name or First name.

Select the down arrow next to the list view icon to change the fields that are displayed in the list. A dropdown will appear listing all items. The items with a tick in front are included in the patient list.



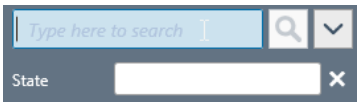
To search for a patient, use the search box above the patient list. Search items can be Person ID, Last name, First name and Birth date.

Enter the characters for your search into the search field and press either the **Enter** key or the **Search** icon.

When you wish to enter some new information on a patient, the patient list will search for the patient that matches the new entry information and then update the information stored on the chosen patient accordingly. If you are presented with more than one patient to apply this new information to, make sure to select the correct person. The updated information will then appear in the Patient Information section.

To view the complete patient list again, hit the cross that appears in the position of the search Icon.

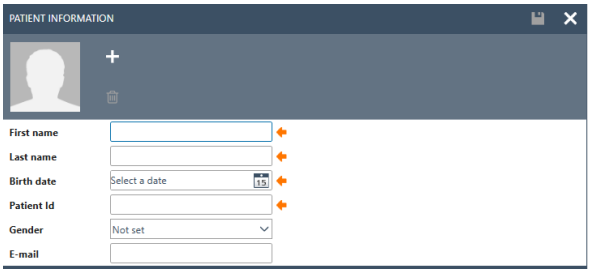
To perform an advanced search for a patient, click in the search field and a dropdown arrow will appear. Press this arrow button to display a list from which you can select your advanced search criteria.



When you select an item, a tick appears next to it in the list and this search item is then displayed below the search field.

The field can now be edited or deselected by selecting the cross next to it .

To create a new patient hit the add button above the patient list to open a blank patient information screen.



This new patient screen consists of a picture of the patient, general demographic data of the patient, along with some additional fields. The area below the picture contains additional information, which can be added to the patient.

Both areas (general and additional demographic data) can be customized in the settings. Please refer to the Administration Tool document for a description of setting up these fields.

To add a picture of your patient, select the add button . A popup file selection box then opens from which you can choose the picture you wish to upload. Alternatively, you can drag and drop a picture into this area. The size and quality of the picture is adjusted automatically.

To delete a picture, select the trash can button .

As soon as all data are entered successfully, the save button becomes enabled and the entered data can be stored in the database. To discard any of the changes, select the cancel button .

Depending on the settings (please refer to the Administration document), it may be necessary for the patient ID to be unique.

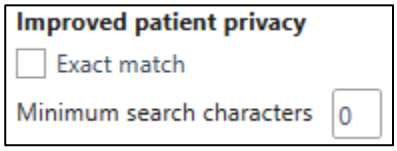
For instances where the newly entered ID already exists in the system, a magenta cross will appear instead of the arrow as well as a magenta frame around the ID field.

6.1.4 Patient search

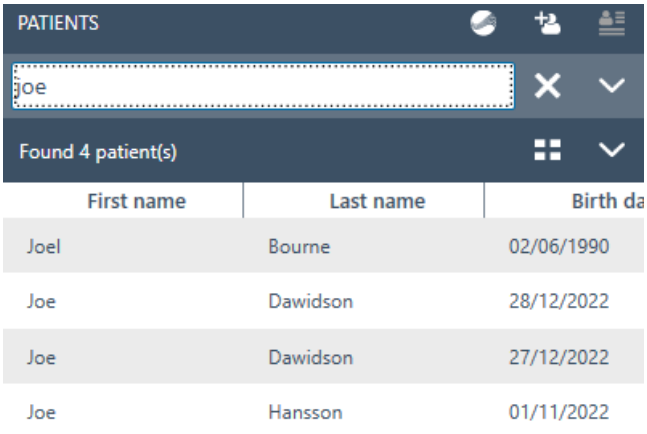
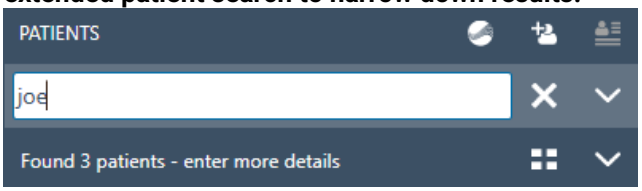
OtoAccess Database offers multiple search methods to help meet different regulatory requirements. Search options are set in the administration tool under default preferences. OtoAccess Database Application must be restarted for the changes to take effect.

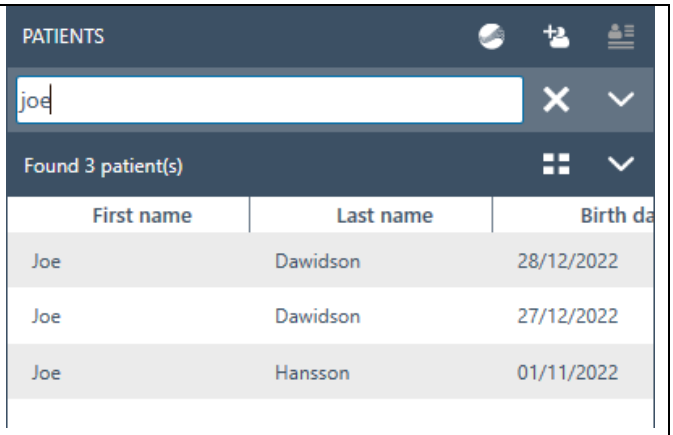
Note: When a patient is selected regardless of the settings, this patient will be visible in the patient list until another patient is actively selected.

Note: Search is not case sensitive.



Setting in the Administrator tool under default preferences.

Default setting – patient list populated at start	No change in behavior to previous OtoAccess Database v2.x versions. Patient list is fully exposed, and search will be in effect from the first character typed in the search field. 
Exact match – patient list empty at start	Strict patient match is enforced, patient info is only displayed when the search result is reduced to one matching patient. Number of found patients will be displayed. **Use extended patient search to narrow down results.** 
Minimum search characters – patient list empty at start	The minimum number of characters will determine when results are displayed. E.g., if the value is set to four characters, then result will start showing when you input the fourth character, except for patient names that are shorter than four characters, they will, if they match the search, be displayed when matching. In below example 'minimum search characters' is set to '4'.

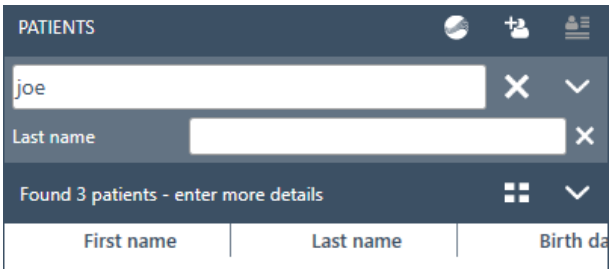
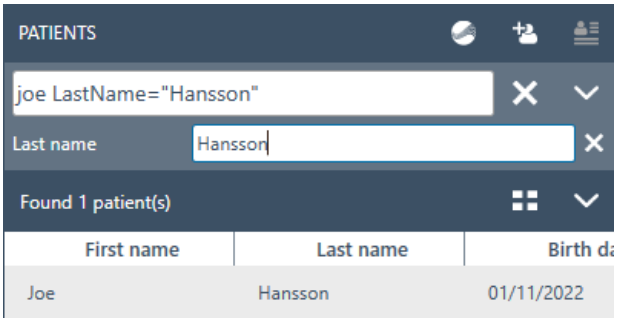
	

6.1.4.1 Extended patient search

OtoAccess Database has extended search functionality available. Adding dedicated search fields allows you to narrow down the search. Search fields selected will automatically appear when you start searching.

Choose the search fields that are relevant.

Example, ‘Exact match’ set enabled:

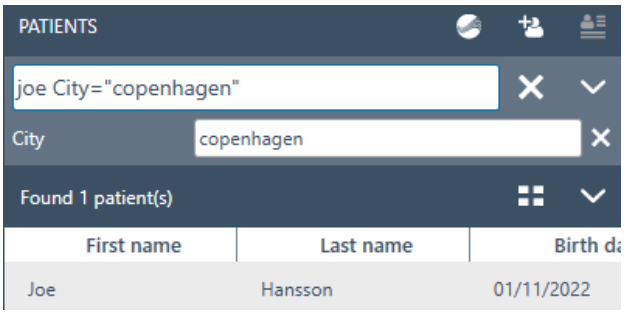
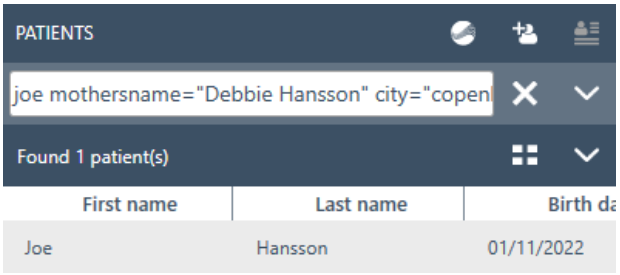
Searching for ‘Joe’	Too many results found. Pre-added search field “Last name” is displayed automatically. It is possible to add additional search fields. 
Adding ‘Hansson’ in Last name field	Unique patient found and displayed 

6.1.4.2 Search using syntax

Using Added search fields will display the syntax used in the main search field. More fields and combinations than shown below are available.

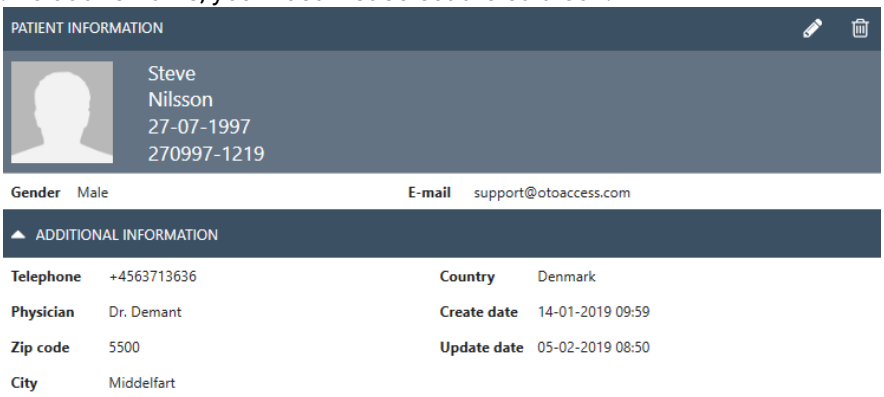
Patient example
First name: Joe
Last name: Hansson
City: Copenhagen
Mother's name: Debbie Hansson

Results of input in the main search field

Joe "Hansson"	Patient found.
Joe City="Copenhagen"	Patient found. 
joe mothersname="Debbie Hansson" city="copenhagen"	Patient found. 

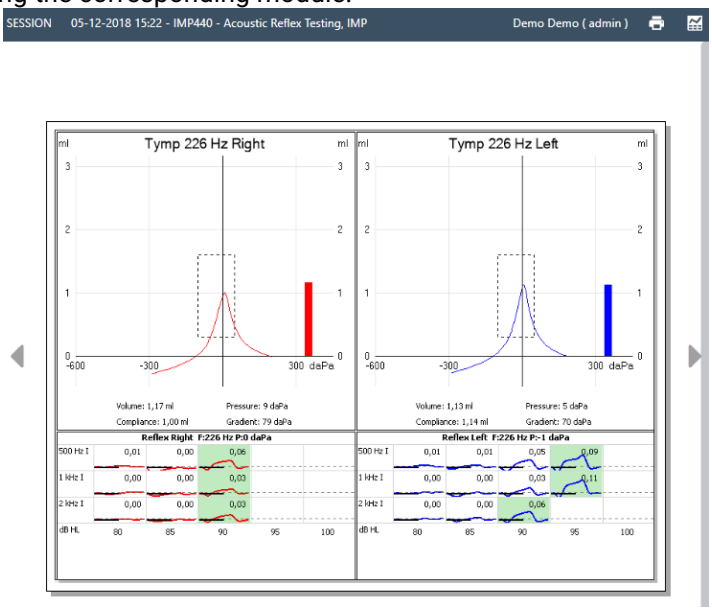
6.1.5 Patient demographics

Patient demographics display patient details. From this view, you can edit (1), delete (2) or add remarks (3) about the patient. To add remarks, you must first select the edit icon.



6.1.6 Session preview

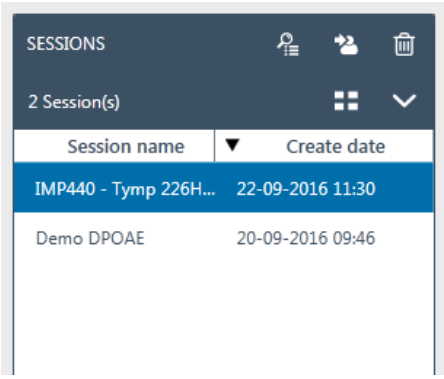
From the patient list, click the toggle button to toggle between patient demographics and session preview. The session preview shows a preview and information about the session directly in the OtoAccess® Database, without opening the corresponding module.



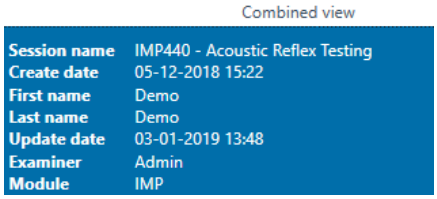
Information: Depending on the manufacturer of the module, some modules may not support the preview function.

6.1.7 Session list

On the right of both the patient demographics and the preview of test results, there is a session list with all available tests for the selected patient.

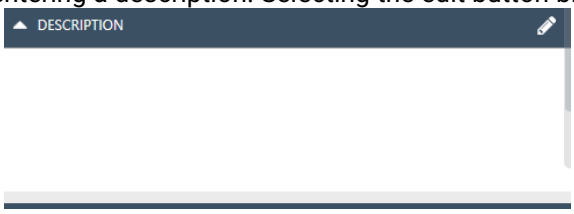


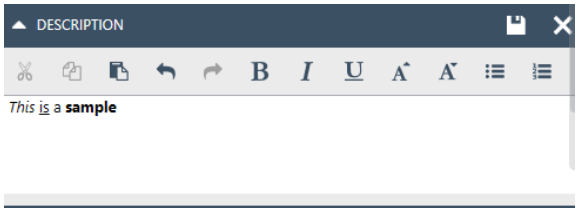
From here, single click to present a preview of the selected session in the OtoAccess® Database. Double-click to open the session in the measurement module.

	The list view displays all sessions in a list format.
	The combined view displays all items in one field instead of in a column. 
	To review measurements in a measurement module, select the relevant sessions and then the review icon to open the corresponding module.
	The move icon assigns the selected measurement(s) to another patient. Multiple selection of sessions (max. 5) is possible. As soon as the move button is pressed, the session list changes to the patient list to select the destination patient. Search can be applied to find the destination patient. Select the destination patient and hit the move icon again or select the cancel button to stop the process.
	To delete the current selected measurement(s) (max. 5), hit the delete button.

6.1.8 Description

In the description box, you can add a comment about the measurement. Select the edit button to start entering a description. Selecting the edit button brings forward a toolbox.

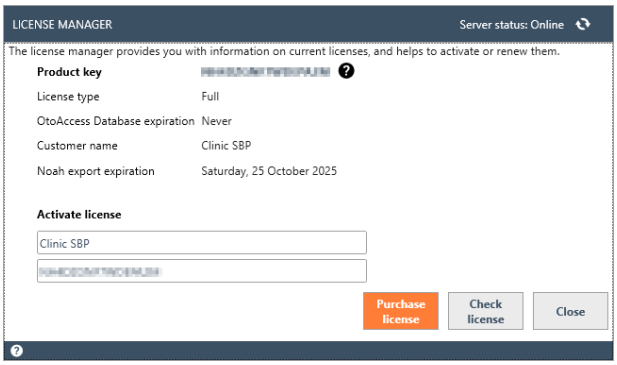




The table below describes the different functions available for modifying the text. Edits and changes can be stored by selecting the save icon or be discarded by selecting the cancel icon .

	Cut
	Copy
	Paste
	Undo and Redo
	Bold, Italic and Underline
	Increase and Decrease font size
	Paragraph Alignment

6.1.9 Activate license



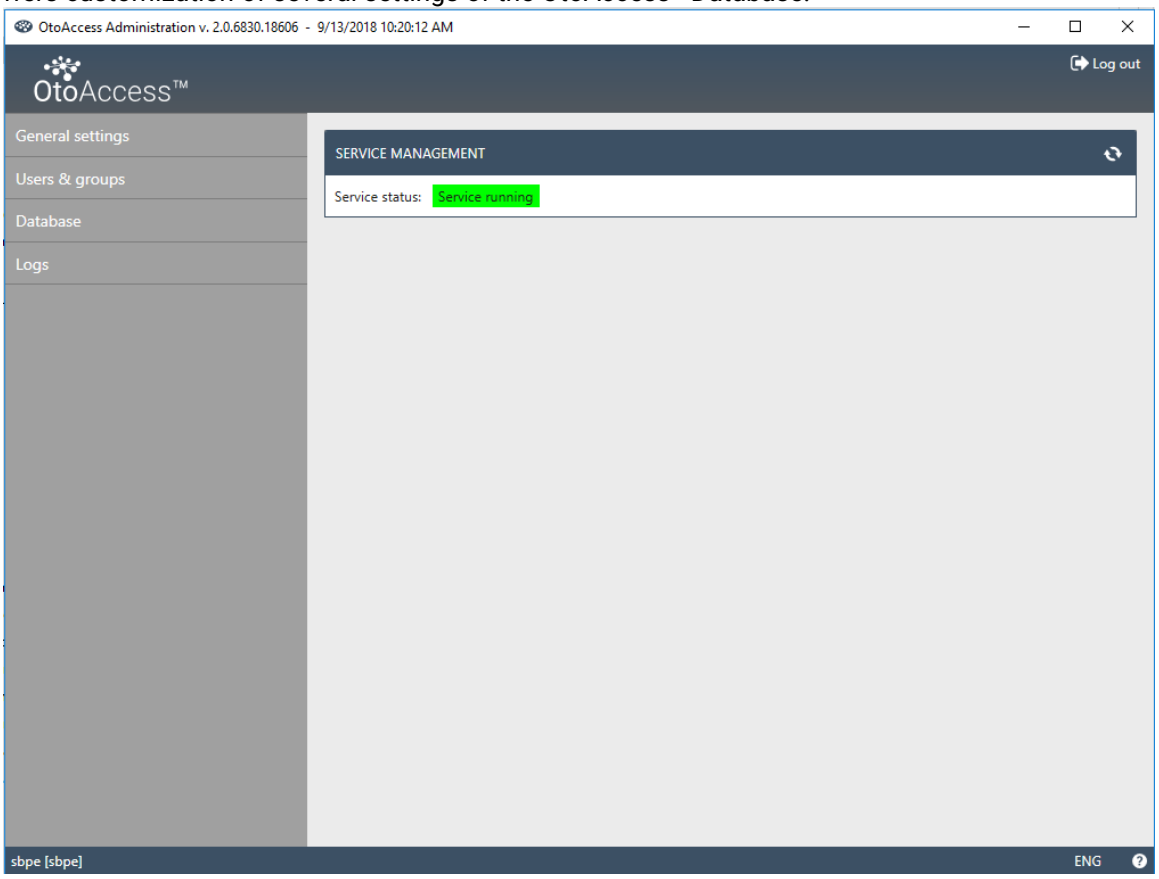
Select **License** to display the License manager where you can see which license is currently active and/or activate a new license key. After entering a new key, select **Activate License** to verify the key and activate the license.

If a valid license is active, the Activate License button will instead read **Check license,** allowing you to check your license status and activate updated features.

Purchase license will take you to the OtoAccess.com website where you can enable Noah export on your licenses and purchase OtoAccess Database licenses.

6.2 OtoAccess® Database administration

Installation of the OtoAccess® Database also installs the OtoAccess® Database Administration Tool. The tool offers customization of several settings of the OtoAccess® Database.



The adjustable settings include general settings regarding user preferences in the patient database, user management and the option to view and manage log files.

General settings Users & groups Database Logs	**General settings:** All settings regarding user preferences in the patient database and your facility.
	Users & groups: All settings regarding user management and user authentication.
	Database: General information and settings regarding the database and backup function.
	Logs: Settings and review of all available log files.

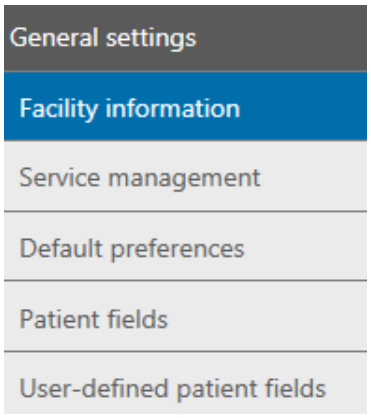
The help icon is situated in the menu bar. Select this button to open the manual.

In the far-right corner of the info bar, you can change the language. Select the abbreviation ENG to display a dropdown list of options. If you select a new language, you will then need to restart OtoAccess® to allow the language change to take effect.

Information: If the language is changed in the OtoAccess® Database Administration Tool, the language will automatically change in the OtoAccess® Database.

6.2.1 General settings

The general settings give you the option to customize your ATLAS database.



Facility information: To enter data regarding your facility.

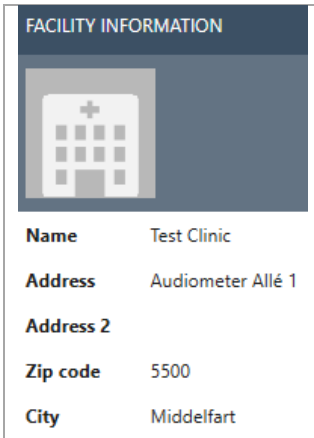
Service management: To check the state of the service connecting to the database, and possibly to restart the service if there are connection problems.

Default preferences: To set defaults for the patient database.

Patient fields: To define the order preferences of primary and secondary fields in the database.

User-defined patient fields: To add up to seven customized user-defined fields.

6.2.1.1 Facility information



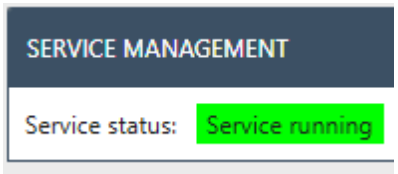
Use the edit button to edit the facility data.

Select the header picture or the add icon to add a logo. Select the trash can icon, to remove a logo.

After entering all the required data for your facility, select the save icon in the upper right corner to store your edits.

6.2.1.2 Service management

Indicates the OtoAccess® service status.



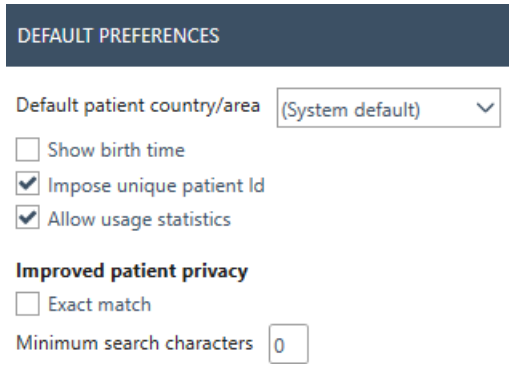
Service status: This displays *Service running, Start pending* or *Service stopped*

The restart button stops and restarts the service.

The *Service running* state is essential for normal OtoAccess® Database operation.

6.2.1.3 Default preferences

The patient settings allow you to set some general settings for the patient database. Changes to settings are saved automatically.

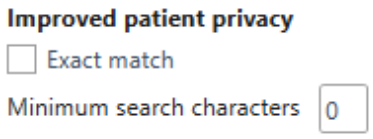
	**Default patient country:** Sets the default country value for newly created patients.
	Show birth time: Shows the time of birth. You can select whether the time of birth is displayed in the patient view (only relevant for infants).
	Impose unique patient Id: Imposes a unique patient Id. It is then not possible to have two patients with the same Id.
	Allow usage statistics: Enables anonymous logging of the usage of the software. This logging helps to improve the usability and workflow of the software. Please note that patient and facility information is not logged.

6.2.1.4 Improved patient privacy

OtoAccess Database has an option to force improved patient privacy in the OtoAccess Database under interface.

Are these options enabled, the patients list in OtoAccess will be empty by default, and not be showing any patient unless search criteria are met.

Changes made to Improved privacy will affect all OtoAccess Database clients in the setup and will come into effect once the OtoAccess Database clients log in.

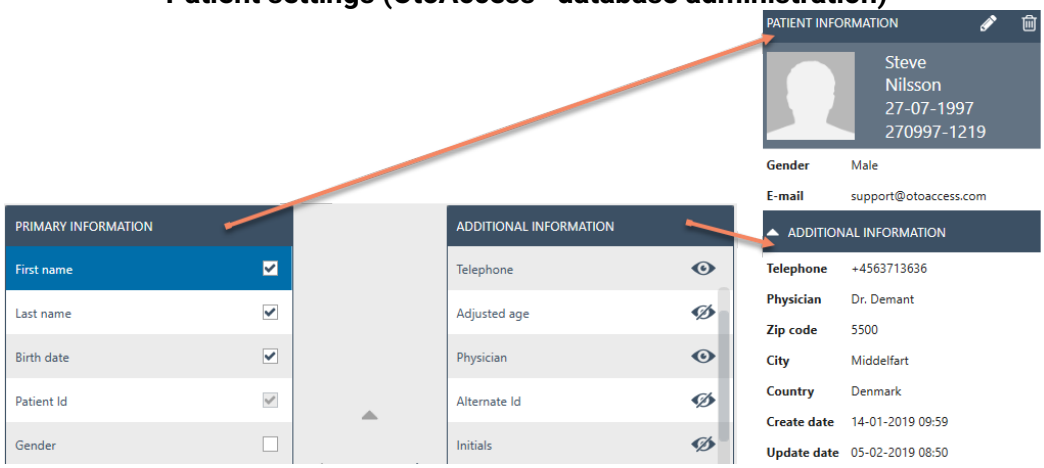
	**Standard setting:** Have neither of below settings been altered, OtoAccess will show the complete patient list.
	Exact match: Patient list is empty and strict patient match is enforced. To select a patient, search is required. Search will only display one unique patient at the time. If multiple patients are found, none will be shown, but the application will inform you to narrow your search.
	Minimum search characters: Patient list is empty and search input is required to show patients. There is no limit to the number of patients that can be displayed. First name search will show results, even if the required number of characters is not reached to ensure search results with short names.

See 'Patient search' for details on the search functionality.

6.2.1.5 Patient fields

Select the tab **Patient fields** to define the information that is displayed in the OtoAccess® patient database. There are two preference lists: the left one represents the Patient Information and the right one the Additional Information.

Patient settings (OtoAccess® database administration)



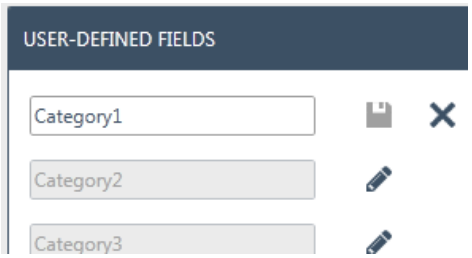
Use the left and right arrows to move items from one preference list to the other. You can arrange the order of the items in the list with the up and down arrows.

The Patient Information table must always contain at least one item, up to a maximum of 10. Use the checkboxes beside each item to determine which fields are mandatory.

The eye icon indicates if the information is visible to the user or hidden .

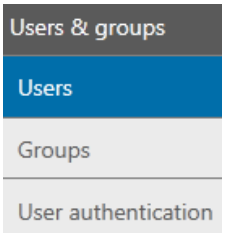
Reset	Select the reset button to return the primary and secondary fields back to factory default settings.

6.2.1.6 User-defined patient fields

	You can create up to seven User-Defined Fields for use in the database. Select the edit button to start editing a field. Changes can be stored by selecting the save icon or discarded by selecting the cancel button. **Information:** The User-Defined Fields are text fields only.

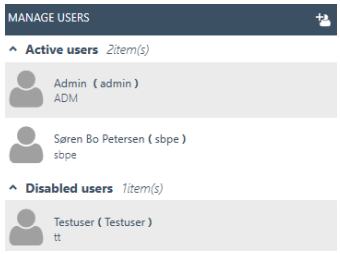
6.2.2 Users & groups

The User Management is controlled from the Users & groups tab.

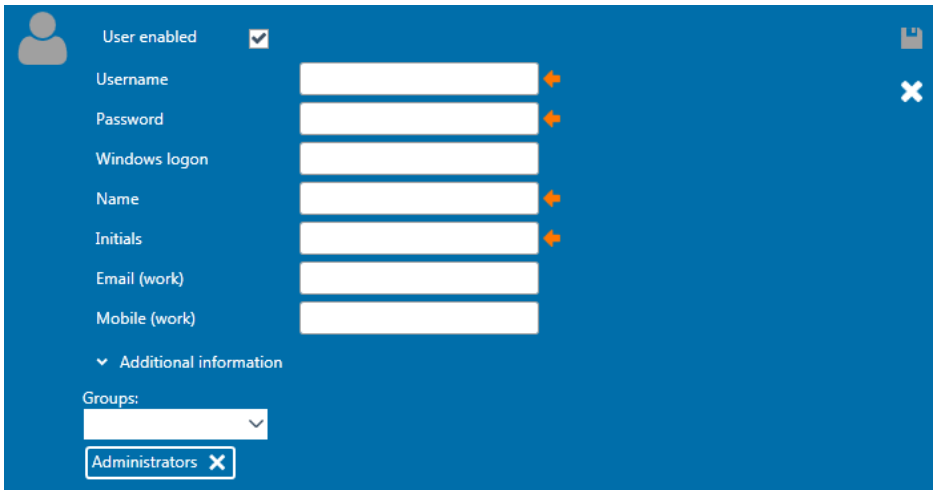
	**Users:** To manage your current users and add new if required.
	Groups: To manage your user groups and the different group permissions.
	User authentication: To manage the settings related to login.

6.2.2.1 Users

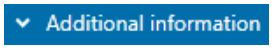
The Manage Users tab provides a list of all available users.

	The list contains both the active and the disabled users. When you select a user from the list, any additional information regarding the user will then be displayed. Selecting a patient also reveals the edit? icon and delete? icon buttons.

To add a new user, select add in the upper right corner. A new user screen will appear.



You can now add the new user details. Username, Password, Name, and Initials are all mandatory fields and are highlighted with an orange arrow. You must complete each of these fields before the data can be stored.

Enable the checkmark **User enabled** to activate the user. This field is enabled by default. Select 

to add more demographic data about your user.

You can add a user to any number of groups. It is important to assign the user to at least one group to apply the permission level.

When you have entered all the data successfully, the save button becomes enabled and the entered data can be stored in the database. To discard any changes, select the cancel button .

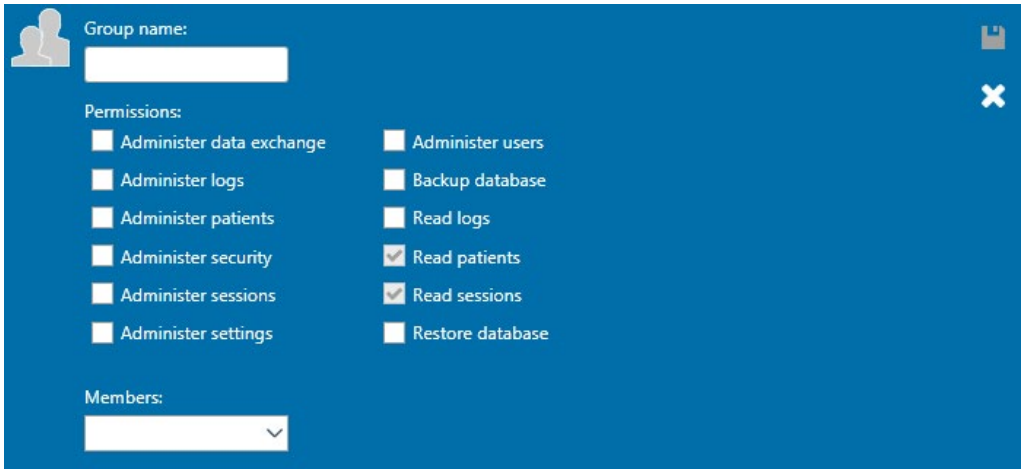
6.2.2.2 Groups

The Manage Groups tab provides a list of all the available groups.

When you select a group from the list, any additional information regarding the group will then be displayed. Selecting a group also reveals the edit and delete buttons.

There are 3 system-defined groups: Administrators, Examiners and Observers

To add a new group, select add in the upper right corner. A new? group screen will appear



Firstly, name your group. Then you can allocate permissions to this group regarding how the group members can operate the OtoAccess® Database. The only mandatory field (Group name) is highlighted with an orange arrow. You must complete this field before the data can be stored.

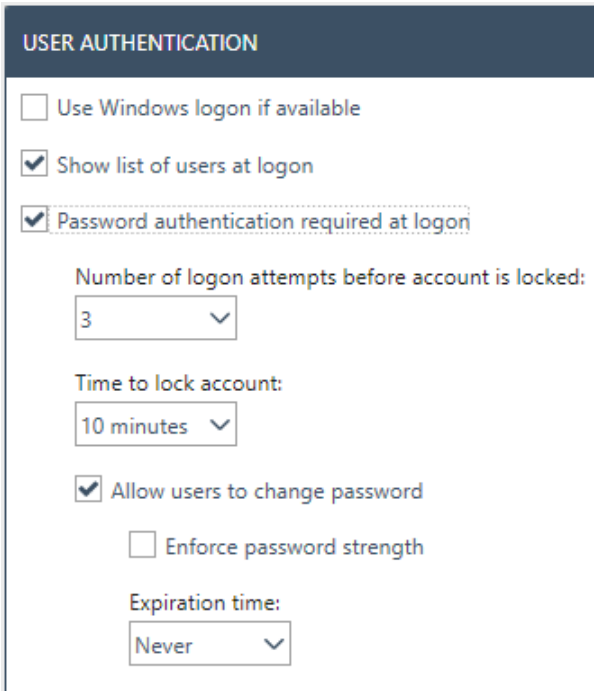
You then select the permissions for allocation to the group by enabling the checkmark in front of the required list item. *Read Patients* and *Read sessions* are always active.

In addition, you can assign users to the group via the Members dropdown box. This is also possible via the Users Settings (please refer to chapter Users 6.2.2.1 for further information).

When you have entered all the data successfully, the save button becomes enabled and the entered data can be stored in the database. To discard any changes, select the cancel button.

6.2.2.3 User authentication

The user authentication sets the settings for User login.

T	
	**Allow users to change password:** Enable this checkmark to allow the user to change his/her password. The password strength can be enforced. The new password must then have a minimum of six characters and include capital letters and numbers. Setting an expiration time for the password will require the user to change password at a predetermined interval.
	Number of logon attempts before account is locked: Set the number of attempts the user has to enter a valid password. Any further attempts will lock the account.
	Time to unlock account: When an account has been locked, you can set the time that the user must wait before being able to make another login attempt.
	Show list of users at logon: Enable this checkmark to show a list of all available users in the login screen. You can then select from this list. If unchecked, you must then enter the username manually.
	Password authentication required at logon: When the option to show a list of users is enabled, the option to allow login without setting a password is enabled.
	Use Windows logon if available: Enables users to automatically be logged in based on their Windows logon. The Windows logon field for users in the Users section should be properly set for this to work. Use Windows logon if available must be checked to use Microsoft Active Directory as authentication mode. See section 6.2.2.4.

6.2.2.4 Microsoft Active Directory

From OtoAccess® Database v2.4, Microsoft Active Directory (AD) is supported for user generation and validation.

OtoAccess® Database will check AD groups and users and add, activate, or deactivate users accordingly.

Groups in AD and OtoAccess® Database must be aligned and the option 'User Windows logon if available' under OtoAccess® User Authentication must be enabled.

Example:

Three AD groups called e.g., "OtoAccess® Examiners" and "OtoAccess® Read-only" and "OtoAccess® Administrators" are created, and the relevant users added in each group.

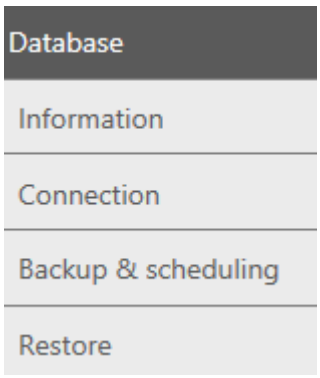
Then in the OtoAccess® Database administrator tool the same three groups are created with the exact same naming and the relevant rights defined.

When an AD user now opens the OtoAccess® Database client or Administrator tool on a workstation the user will be validated against the rights assigned in OtoAccess®.

If a user is removed or changing groups or deactivated in AD this will be reflected on next login to OtoAccess® Database.

6.2.3 Database

In the database settings, general information such as server name, product name, etc. can be viewed. Backups can also be managed from this section.

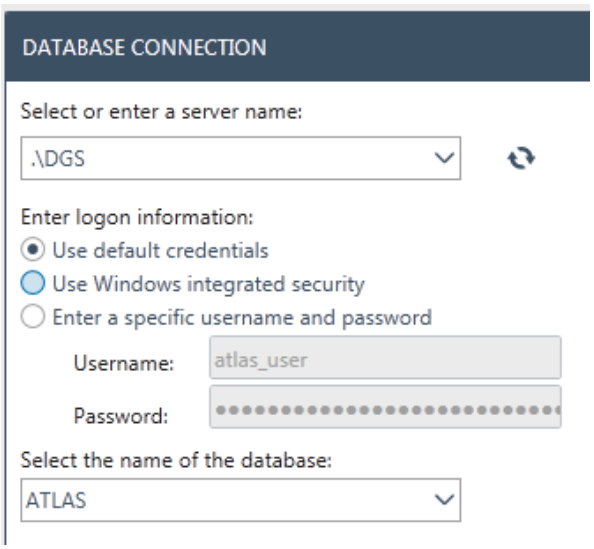
<table>
<tr><td rowspan="5"> 
</td><td>Information: Contains general database and backup information.</td></tr>
<tr><td>Connection: Connection settings for the server.</td></tr>
<tr><td rowspan="2">Backup & scheduling: To define backup location and time range when backup is performed.</td></tr>
<tr><td>Restore: To restore database from backup data.</td></tr>
</table>

6.2.3.1 Information

In this tab you can find general information such as the server name, the product name, the edition of the database, language and used space.

6.2.3.2 Connection

The connection settings:



Server Name:

Type in the name of the server or select from the dropdown. Hit the refresh button to load a list of available servers.

The format is [DNS name or IP]\[Instance name]
Default is: ".\DGS".

Log on information:

Setting default credentials uses the native SQL credentials created when installing the system.

Employing windows credentials uses the domain and windows user credentials of each individual user to log on to the SQL server.
This option requires Windows users to be mapped to the SQL server.

Enter a specific username and password if special credentials are needed to access the server.

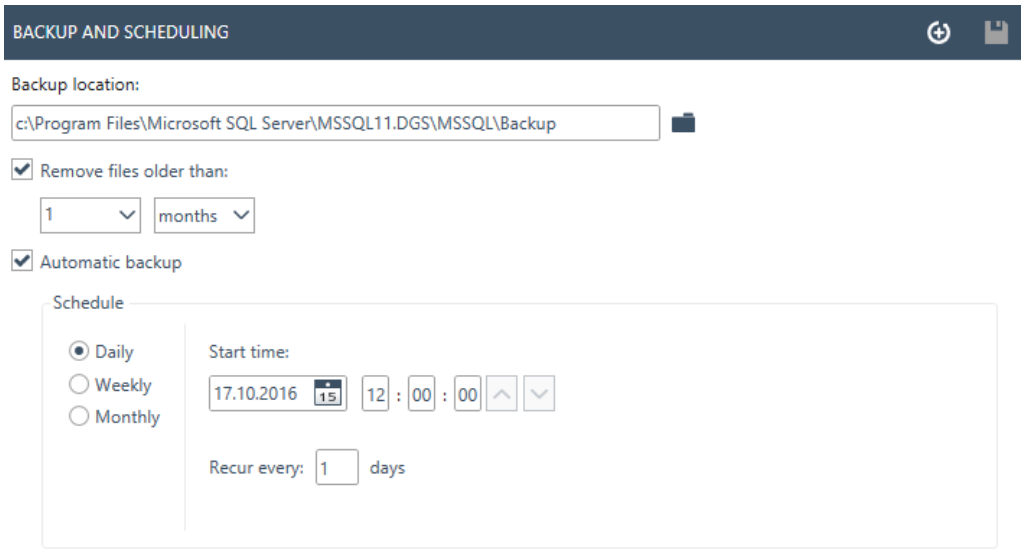
Name of database:
Select the name of the database. Default is "ATLAS".

To test the connection settings, select the test connection button in the upper right corner . To save all the changes, hit the save icon .

6.2.3.3 Backup and scheduling

The OtoAccess® Database Administration Tool allows you to perform regular backups.

Information: The backup file always includes the patient database **and** the settings.



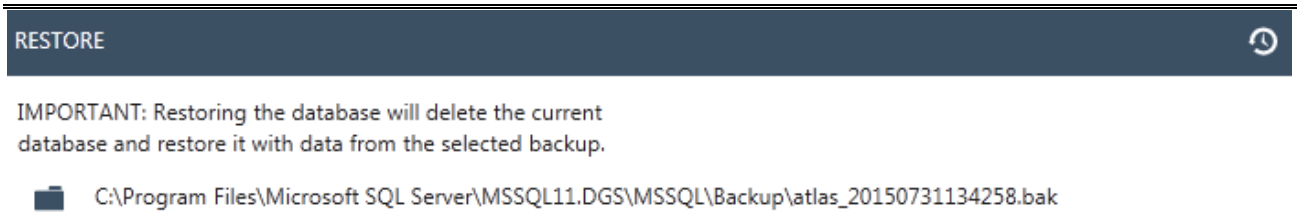
Firstly, select the location for storing the backup. The 'Select Folder' view supports UNC for direct path input.

You can then set a timescale for the deletion of older backups by enabling *Remove files older than:*

To store backups automatically, enable the checkbox *Automatic backup*. You can also set the timeframe for these backups to be carried out. To perform a manual backup, select the Backup now icon. Confirmation of successful backup is displayed in the lower left corner, next to the help icon.

6.2.3.4 Restore

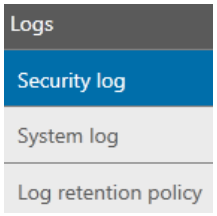
To restore the database, select the location of the backup file with the open icon. The location is written behind the open icon. To start the restore function, hit the restore icon in the upper right corner.



Information: Restoring the database will delete the current database and restore it with data from the selected backup.

6.2.3.5 Logs

In the log settings you can find all available log entries.



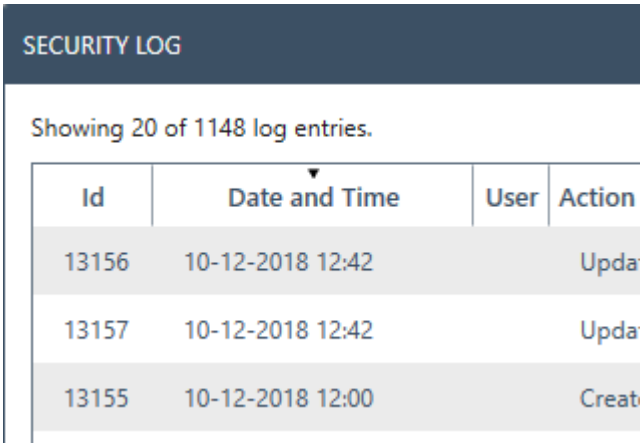
Security log: Provides information about changes in the patient database.

System log: Provides insight relevant to debugging any bugs/issues with the OtoAccess® Database.

Log retention policy: Defines the timescale for keeping the logs and when to run the script for cleaning up the logs.

6.2.3.6 Security log

The security log indicates which user performed a operation and when.



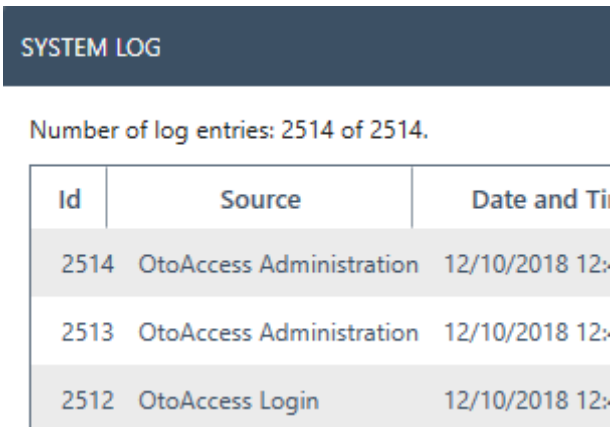
Refresh : To refresh the log information.

Save log : To export the log.

Clear the log : To erase all log entries.

6.2.3.7 System log

The system log shows events that are logged by OtoAccess® Database related applications. This information can also be viewed through the windows event viewer under the name of ATLAS.



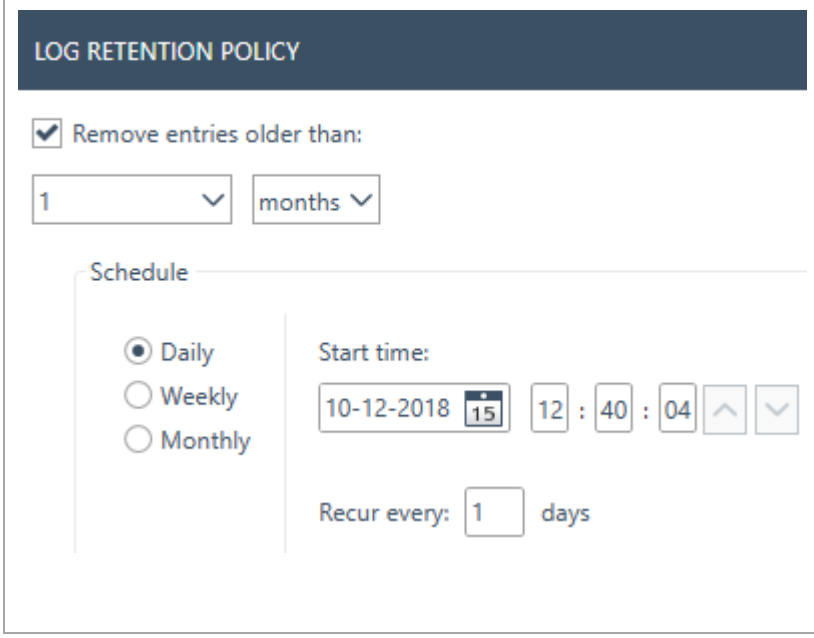
Refresh : To refresh the log information.

Save log : To export the log.

Clear the log : To erase all log entries.

6.2.3.8 Log retention policy

The log retention policy keeps logs for a set period, as selected by the user. This defaults to one month.



Save : To save the policy.

Remove entries older than: Removes files older than a pre-selected time. This is used to save hard drive space.

7 Noah export

7.1 Supported Noah versions

The OtoAccess Noah export works with Noah from version 4.9.2 and newer.

7.2 Functionality

The OtoAccess Noah export enables the transfer of patient and measurement data from OtoAccess Database to the Noah Database.

Either creating a new patient in Noah or adding measurement data to an existing patient in an easy integrated workflow.

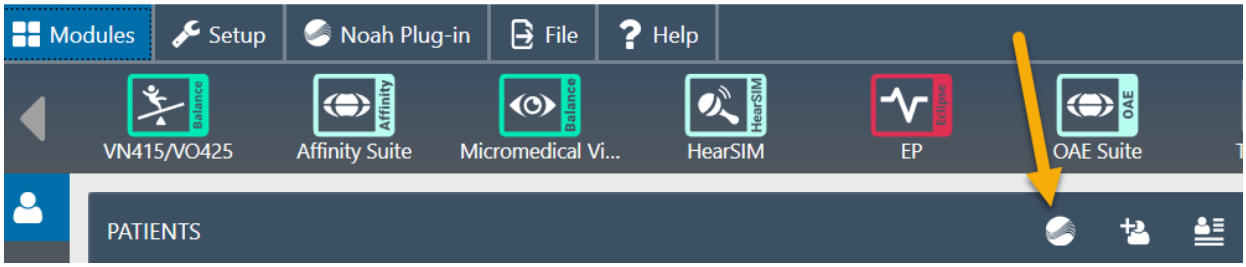
The solution is based on the Noah Mobile service provided by HIMSA.

7.3 Noah export license subscription

OtoAccess Noah

7.4 User interface

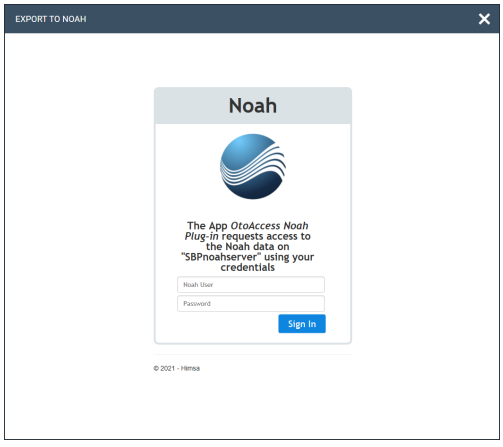
From OtoAccess Database version 2.3 you have a new icon in the Patient view.
Please see chapter 7.5.2 for installation and setup.

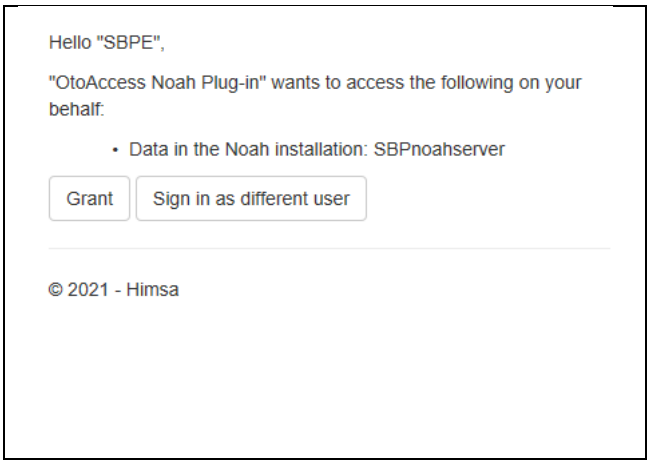


7.4.1 Exporting patient and measurement data

Choosing a patient and pressing the icon will open the export to Noah window. Where you will have to log in using your Noah credentials.

After signing in, Noah asks for permission to communicate, please press Grant to continue.
This is a requirement set by Noah and therefore not something OtoAccess can bypass.

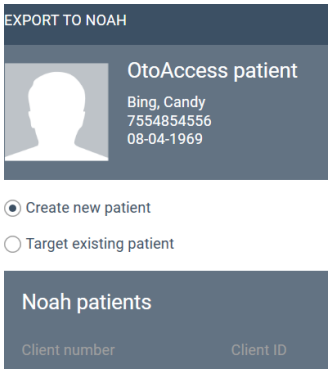
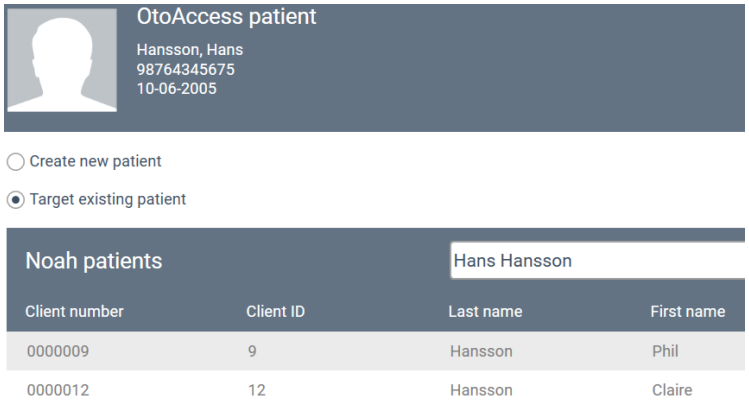
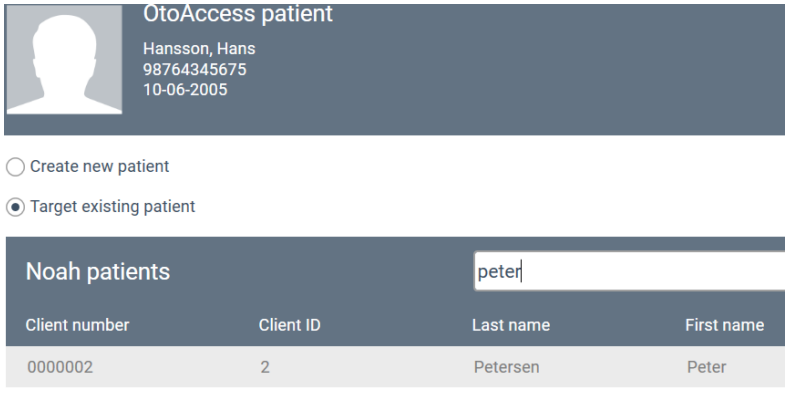




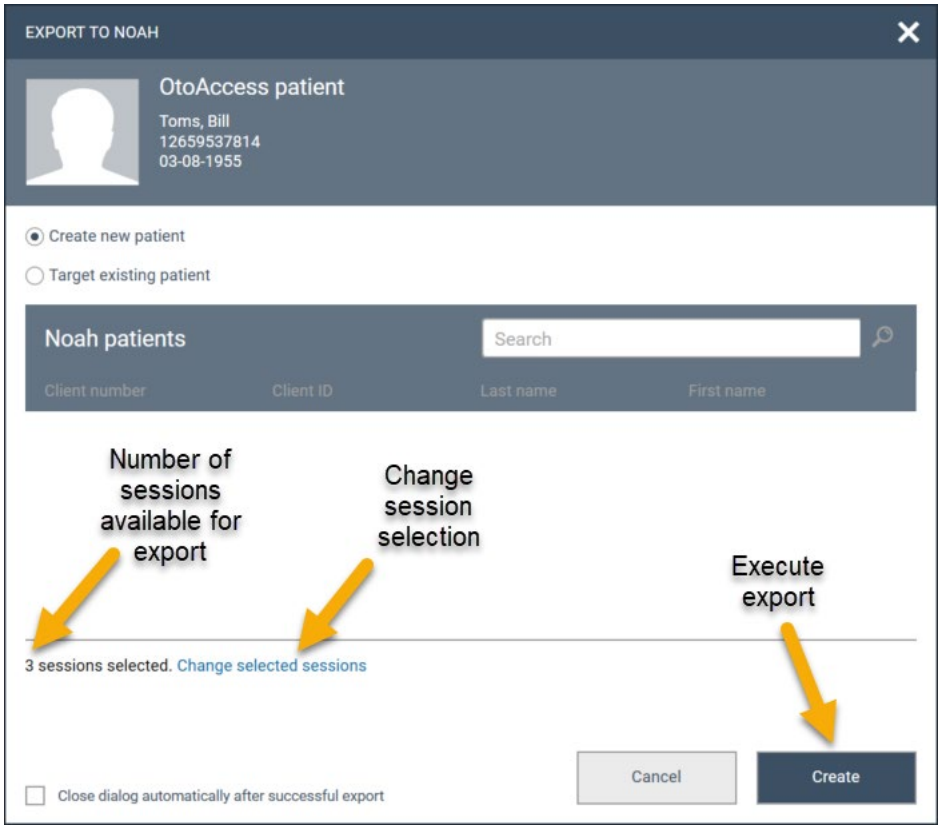
When access is granted, the Noah plug-in will ask whether to create a new patient in Noah with the demographics from OtoAccess Database or add the measurement data to an already in Noah existing patient.

7.4.1.1 Outcomes of automatic patient lookup

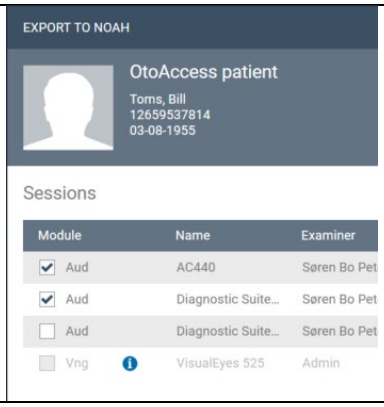
Using the name and patient ID from the chosen patient in OtoAccess database, the following results are possible when looking up a patient in Noah.

No match on first name, last name or patient ID.	Create new patient will be automatically chosen. Doing so will result in the patient being created in Noah. 
Match on or more of first name, last name or patient ID.	Target existing patient will be automatically chosen. More potential matched will be shown. The user must choose the correct match or alternatively choose to create a new patient. 
Noah patient is existing, but not matched automatically. This could happen for several reasons e.g., typing errors, name change, etc.	The user can type in first or last name in the search field to find the patient in the Noah Database. If the search field is left empty starting a search, the entire Noah patient list will be shown. 

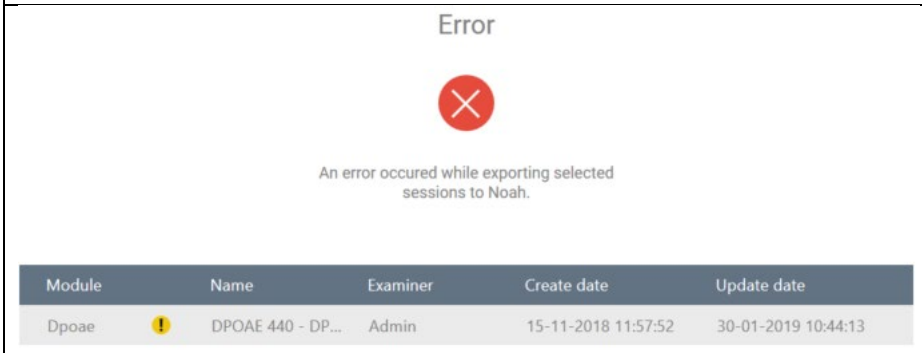
7.4.1.2 Measurement export to Noah



After patient selection you have the following options.

Export default selection of measurement sessions.	The supported session will automatically be stored on the patient in Noah
Change session selection	Only sessions ticked off will be exported. Unsupported sessions will be greyed out. 
No sessions available or supported.	If the patient already exists in Noah, nothing will be changed. If the patient does not exist in Noah, the patient will be created.

After exporting you will get a status.

	No issues, patient and measurement data exported successfully.
	Will only display failed sessions. Other chosen sessions and patient data not shown are exported successfully.

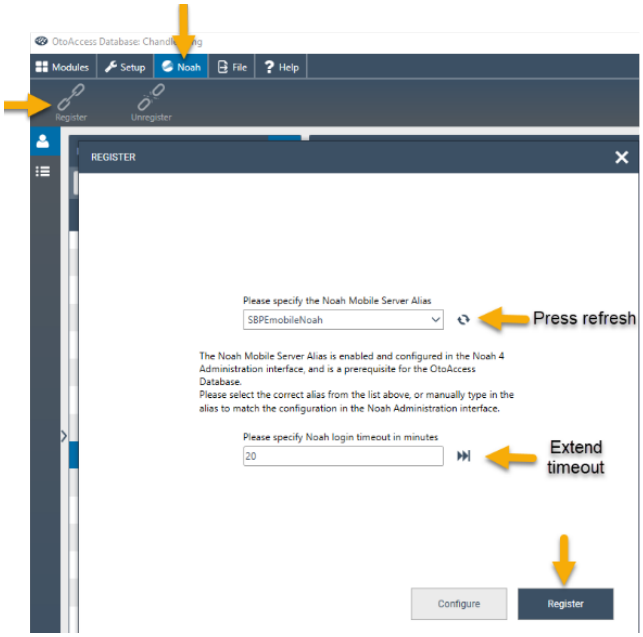
Now the export is completed.

7.5 Installation and setup

The Noah export feature is available in the OtoAccess® Database software package from version 2.3.

The feature will be available after updating to OtoAccess Database version 2.3 and will be ready for use when the feature is added to your OtoAccess Database license.

7.5.1 Activate Noah in OtoAccess® Database client



This can only be done when Noah has been set up. Please see chapter 7.5.2.

To activate the Noah export in the OtoAccess® Database client, you must open the Noah tab and choose Register.

In the register windows you may have to press the refresh icon to find the Noah server available on your network.

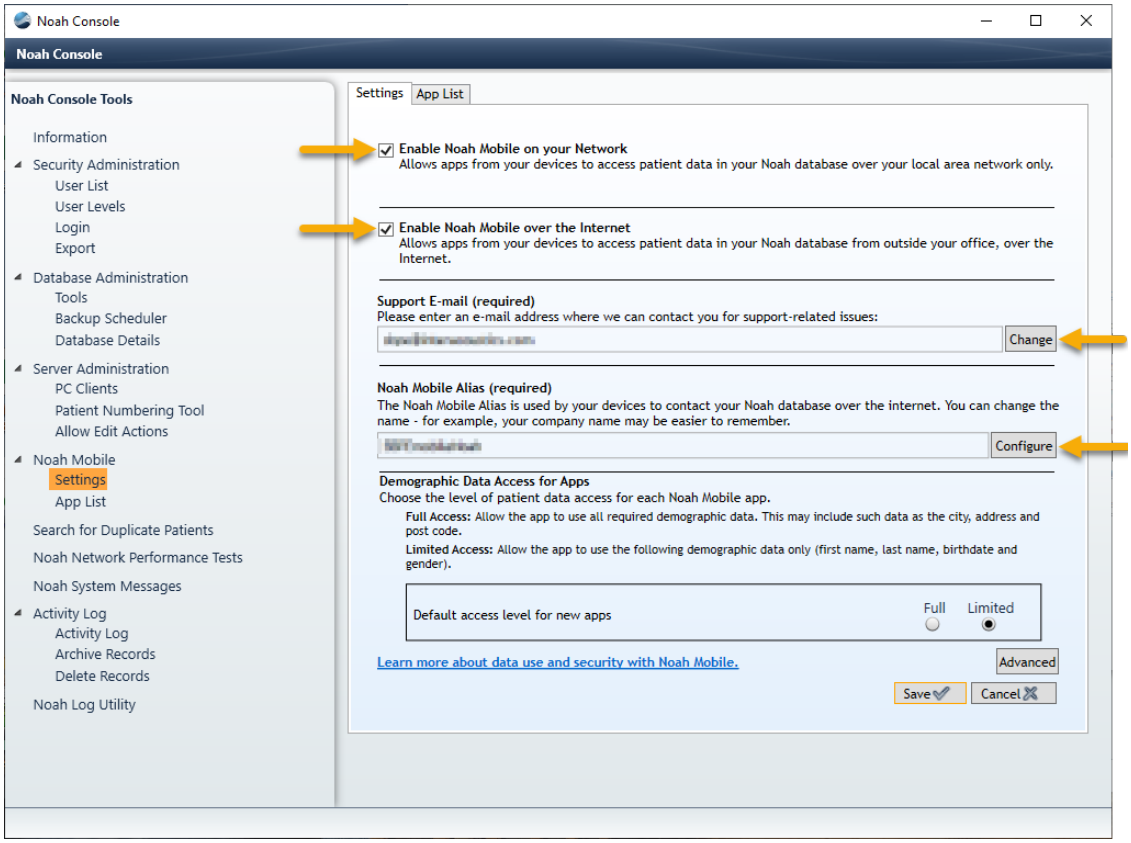
Noah has a standard 20-minute logout time, this can be extended up to 240 minutes. Press the extend time icon or type in the value you prefer.

After pressing register, you will be asked to login with your Noah credentials and grant access.

You should now be successfully registered and can start using the Noah plug-in.

7.5.2 Setting up Noah

Open Noah and go to Setup – Administration – Noah Mobile. Depending on your Noah version, menus can be a bit different. Below example is made with Noah 4.14.1.



- Enable Noah Mobile on your Network.
- Enable Noah Mobile over the Internet
- Add a support E-mail address by pressing Change and follow the guide.
- Create a Noah Mobile Alias by pressing Configure, input name and press add.
    - This Alias is the name that the clients will find and register to.
- Press Save
    - You will be prompted to fill in your information and choose your country.

Your Noah server is now Noah Mobile enabled, and your OtoAccess Noah Plug-in will be able to register on the OtoAccess Database clients.

7.5.2.1 Noah Mobile network infrastructure requirements

OtoAccess Noah export is utilizing Noah mobile which is a service created and hosted by HIMSA in Microsoft Azure.

Noah version 4.9.2 and later will support Noah Mobile. For Noah Engine based systems, these must support Noah Engine to utilize OtoAccess Noah export.

As Noah Mobile is based in Azure, access must be available. Please find detailed information on the HIMSA website or follow this link https://www.himsa.com/support/noah-enterprise-support/noah-network-ports/ for network requirements.

8 Troubleshooting

8.1 Network connection problems

In the event of any problems arising during the use of the OtoAccess® Database, the following checklist may help to indicate initial areas to consider/initial steps to take:

- Check the internet connection and verify a proper connection
- Verify that the Site Code and the Manufacturer Id are correct
- Verify that the Server URL is correct
- Check that security programs (Firewall, Anti spyware software, Antivirus, etc.) are running and may be blocking the connection to OtoAccess® server.
    - If you are uncertain whether any security programs are running on your computer, please contact your local IT support
- Verify that the server connection is stable and responding. If not, please get in touch with your service contact.