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## Natus<sup>®</sup> Platform Migration

### User Guide

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# 1. Overview

The **Natus Platform Migration Utility** is an application which migrates patient, exam, and report data from legacy source systems such as Nicolet NicVue and Study Room, Grass Twin, and Schwarzer DMS (Data management System) to the Natus Database application, used with NeuroWorks.

This document describes the process to use the application and provides preparation and follow-up tips when executing the migration process.



**Before proceeding with Migration it is important that the limitations in Section 10.2 are understood and communicated to the customer.**



NeuroWorks and SleepWorks share the same database and framework. Therefore, all further references in this document for NeuroWorks also apply to SleepWorks.

## 2. Pre-installation Requirements

### 2.1 Prerequisites

- NeuroWorks/SleepWorks . 8.5 GMA5, 9.1 GMA2, 9.2
- Natus Platform Migration Utility to be used with this User manual: NatusPlatformMigration\_Release\_9.0.0.4\_2004211617.exe”
- Nicolet and Grass platforms: Study data not located on removable media must be accessible online for the migration utility
- Schwarzer platform: All studies must be archived before migration. Studies which are not archived will be migrated but cannot be reviewed from NeuroWorks/SleepWorks database.
- The migration tool will only migrate patient and study records from the source database to the NeuroWorks database. It will NOT move any study data such as EEG and VIDEO.

### 2.2 Minimal specifications of databases for legacy platforms and NeuroWorks

	Nicolet – NicVue	Nicolet – StudyRoom	Grass – Twin	Schwarzer –DMS
<b>Database version</b>	NicVue ver 3.0 (SQL)	StudyRoom 5.93.0.424 (SQL)	Twin 5.2.0 (SQL)	DMS 7.1.210 (SQL)



**Note:** Systems running older versions of databases must be upgraded prior to migration.

### 2.3 Minimal specifications for the system running the Migration tool

<b>Migration tool</b>	NatusPlatformMigration_Release_9.0.0.3_2001271130.exe
<b>Operating System</b>	Win7 Pro or Ultimate, Windows 10
<b>SQL server</b>	Validated with SQL Server 2014
<b>MS Office</b>	Office/Word 2007 Office/Word 2010 32-bit Office/Word 2013 32-bit Office/Word 2016 32-bit
<b>TLS</b>	TLS 1.0 or 1.2 for Migration and review of NicVue / StudyRoom / Schwarzer legacy studies from NeuroWorks TLS 1.0 for Migration and review of Grass Twin legacy studies from NeuroWorks
<b>Legacy server, online study data and reports</b>	Migration tool requires access to the database location, online study data, and reports

## 2.4 Minimal specifications for the Natus NeuroWorks systems used for review with legacy readers

	NeuroWorks	Nicolet “NicOne”	Grass “Twin”	Schwarzer “Coherence”
<b>Operating System</b>	Win7 Pro or Ultimate (SP1) 32/64-bit Windows 10 IoT Enterprise 64-bit	Windows 7, 64-bit Windows 10	Windows 7 Pro or Ultimate, 32-bit or 64-bit	Windows 7 Pro or Ultimate, 32-bit or 64-bit
<b>SQL server</b>	SQL Server 2008 R2 (RTM or SP1) SQL Server 2014 SQL Server 2016	(not applicable-review only)	(not applicable-review only)	(not applicable-review only)
<b>MS Office</b>	Office/Word 2007 Office/Word 2010 32-bit Office/Word 2013 32-bit Office/Word 2016	Office/Word 2007 or higher	Office/Word 2007 or higher	Office/Word 2007, 2010, 2013
<b>CPU</b>	Core i5 or better	Intel-i7 or better	Core2 Duo or better	Core2 Duo or better
<b>RAM</b>	4GB or higher	4GB or higher	4GB or higher	4GB or higher
<b>Version</b>	NeuroWorks 8.5 GMA5, 9.1 GMA2, 9.2	NicoletOne min. version v5.9.0- W7, latest release recommended: v5.95.1	Twin 5.2.0	Coherence 7.1.3.2032 (= Coh 7.1 SP1)

Refer to the NeuroWorks User Manual or Release Notes for more details on requirements for installing NeuroWorks.

## 3. The Migration Scenario

Although the migration utility allows for conversion to an existing NeuroWorks database, only migration to an empty database has been validated. In a next step, the concept of Virtual databases in NeuroWorks allow showing the migrated database and a native NeuroWorks database as if they were a single database.

This process can be carried out from NeuroWorks system having access to SQL servers and data servers from the legacy and NeuroWorks platforms.

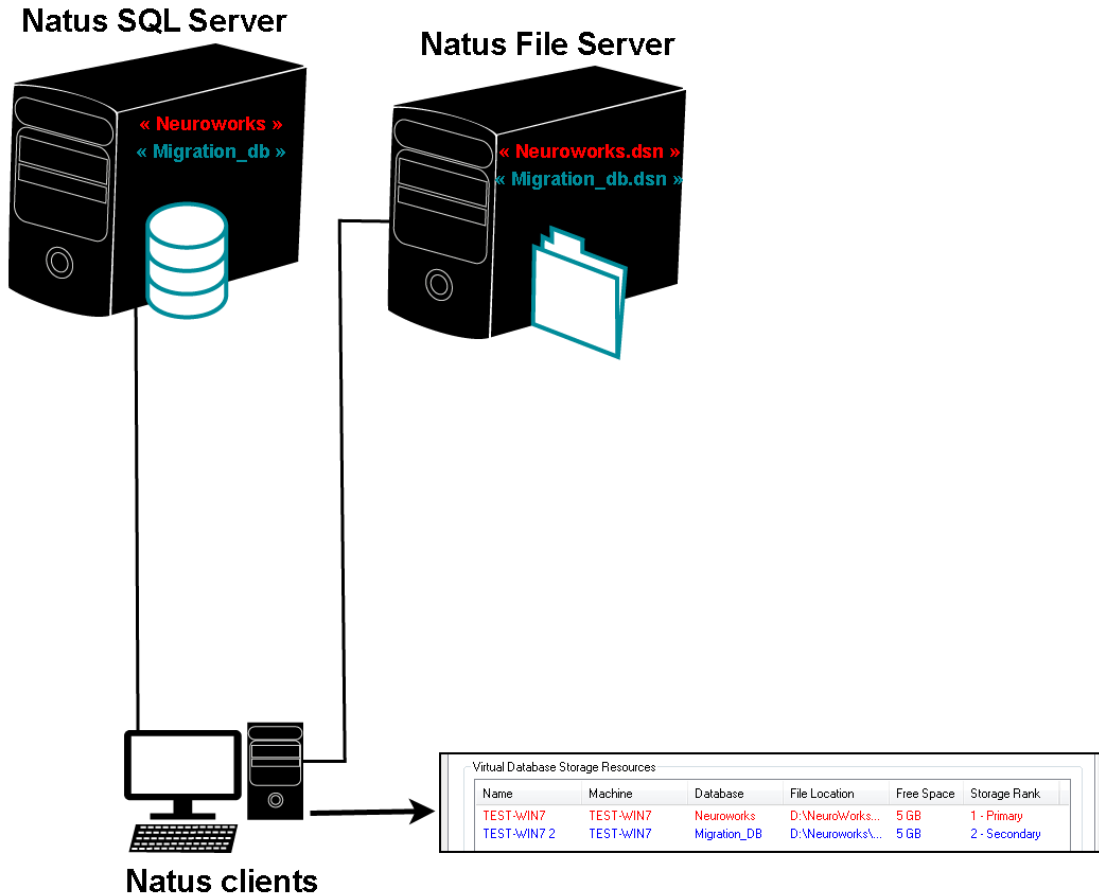


**Note:** Prior to migration, make sure to upgrade the site to NeuroWorks 8.5 or later.

**Migration workflow:**

1. Create a new database for migration of the legacy database and add its Storage resource to the Virtual database → refer to section 4.3
2. If required, add custom fields to the new database → refer to section 4.4
3. Run the migration utility to migrate the legacy database to the new database → refer to sections 4.5 and 5
4. Train the user on the features and limitations related to reviewing legacy studies in NeuroWorks

The following diagram shows a site with a **NeuroWorks** database for native NeuroWorks studies and a migrated database named **Migration\_db**. Both databases are presented to the user as a single database.



System diagram showing the scenario of a native « Neuroworks » database and a migrated database « Migration\_db ». A virtual database consisting of the original Neuroworks database and the migrated database allows displaying a combined view of both databases to the user.

Figure 1: Database Diagram



## 4. Preparation for Migration

### 4.1 Back Up Databases

A local backup of the primary source database and the clean NeuroWorks database should be stored in a safe location on a disk. While the source database is not modified by the process, the backup of the clean NeuroWorks database should be retained until the process is completed and approved. If there are issues with migration, this backup of the NeuroWorks database will need to be restored to allow the process to be run again.

### 4.2 Ensure access to SQL servers hosting source and destination databases

Make sure that the machine and User account running the Migration Utility have access to the server(s) hosting the Legacy and NeuroWorks/SleepWorks Databases.

### 4.3 Ensure Exam Repositories are Online

All machines and network locations which house study and report data must be online and accessible to the user account and machine on which the utility is run (except for removable archive media). If not, the utility will run slower and will warn the user as it is looking for files that are not accessible.

### 4.4 Create a new NeuroWorks database

1. Create a new **NeuroWorks** database using the **MigrateDB.exe** utility.

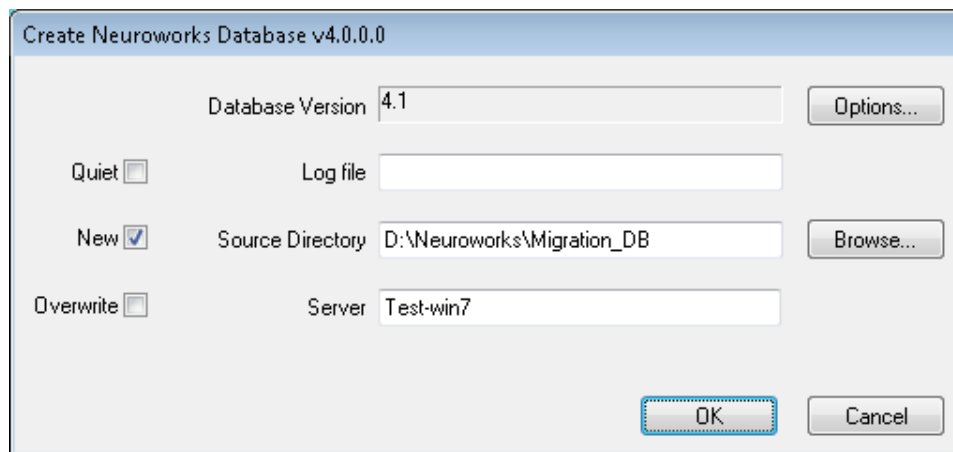


Figure 2: NeuroWorks Database Creation using MigrateDB.exe Utility

2. The default name of the new database (“Neuroworks”) must be changed to any other name by selecting the **Options...** button.

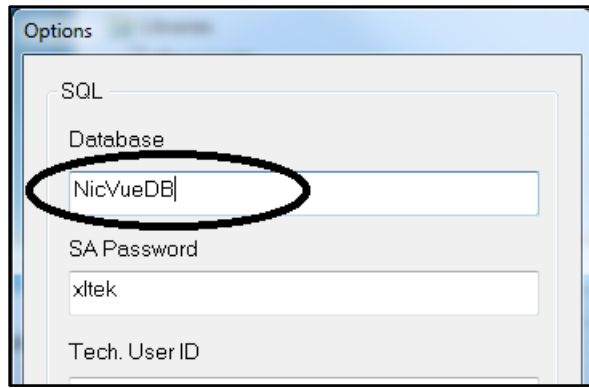


Figure 3: Updating the New Database Name

3. In **Natus Database**, go to **Tools > Options > Storage** tab.
4. Under **Virtual Database Storage Resources**, click **Add**.

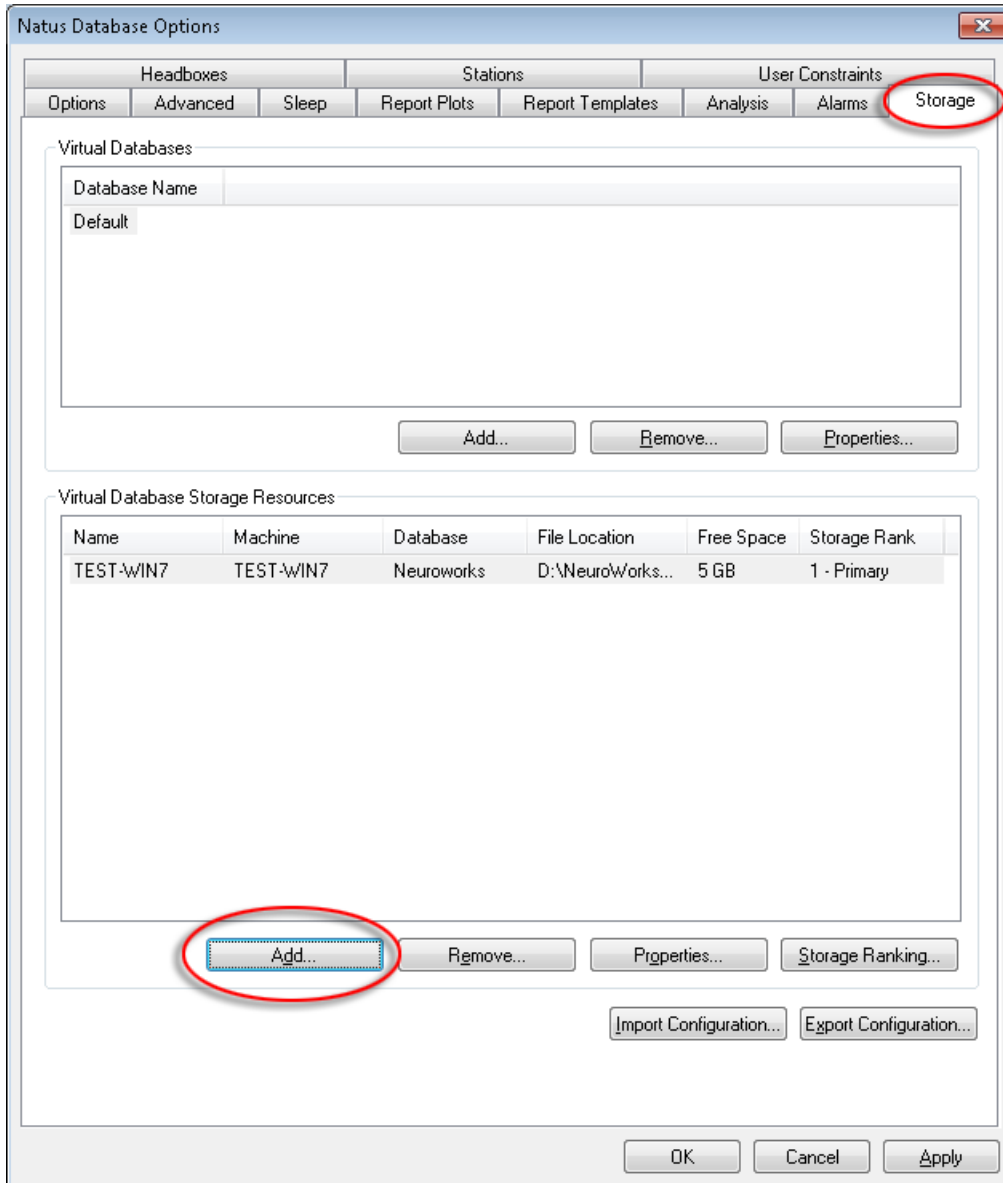


Figure 4: Storage Tab (Detail)

5. Import the DSN file for the newly-created database.

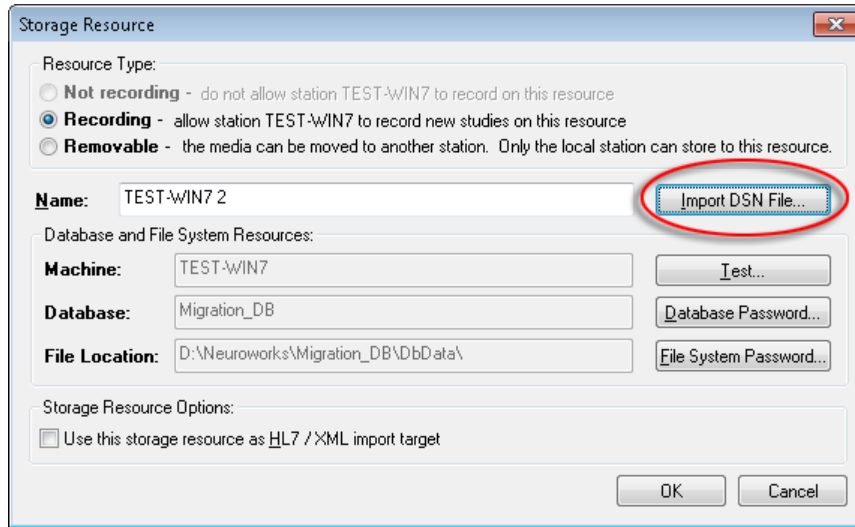


Figure 5: Importing DSN File – Storage Resource (Detail)

6. The Natus Database displays the following message indicating that the database will be updated to the latest version.

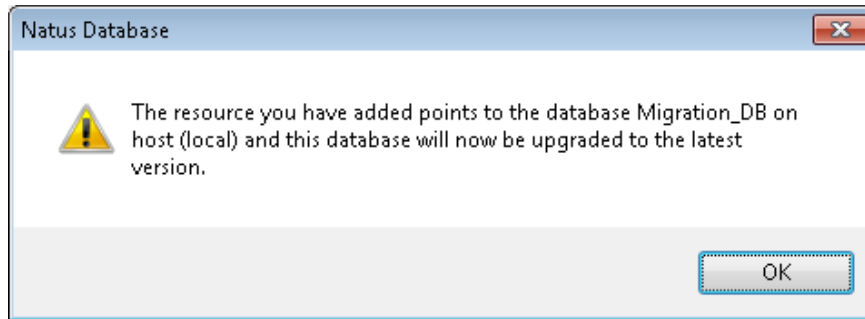


Figure 6: Database Upgrade Message

The database is upgraded.

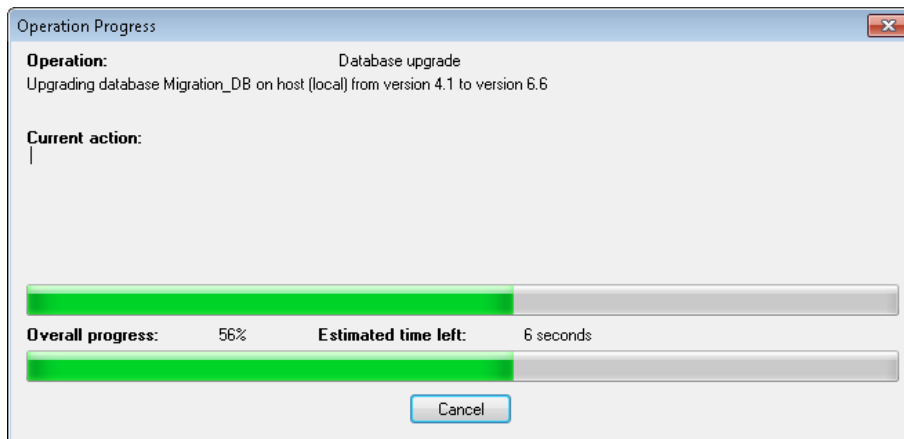


Figure 7: Database Upgrade Progress

7. The new database displays under **Virtual Database Storage Resources**.

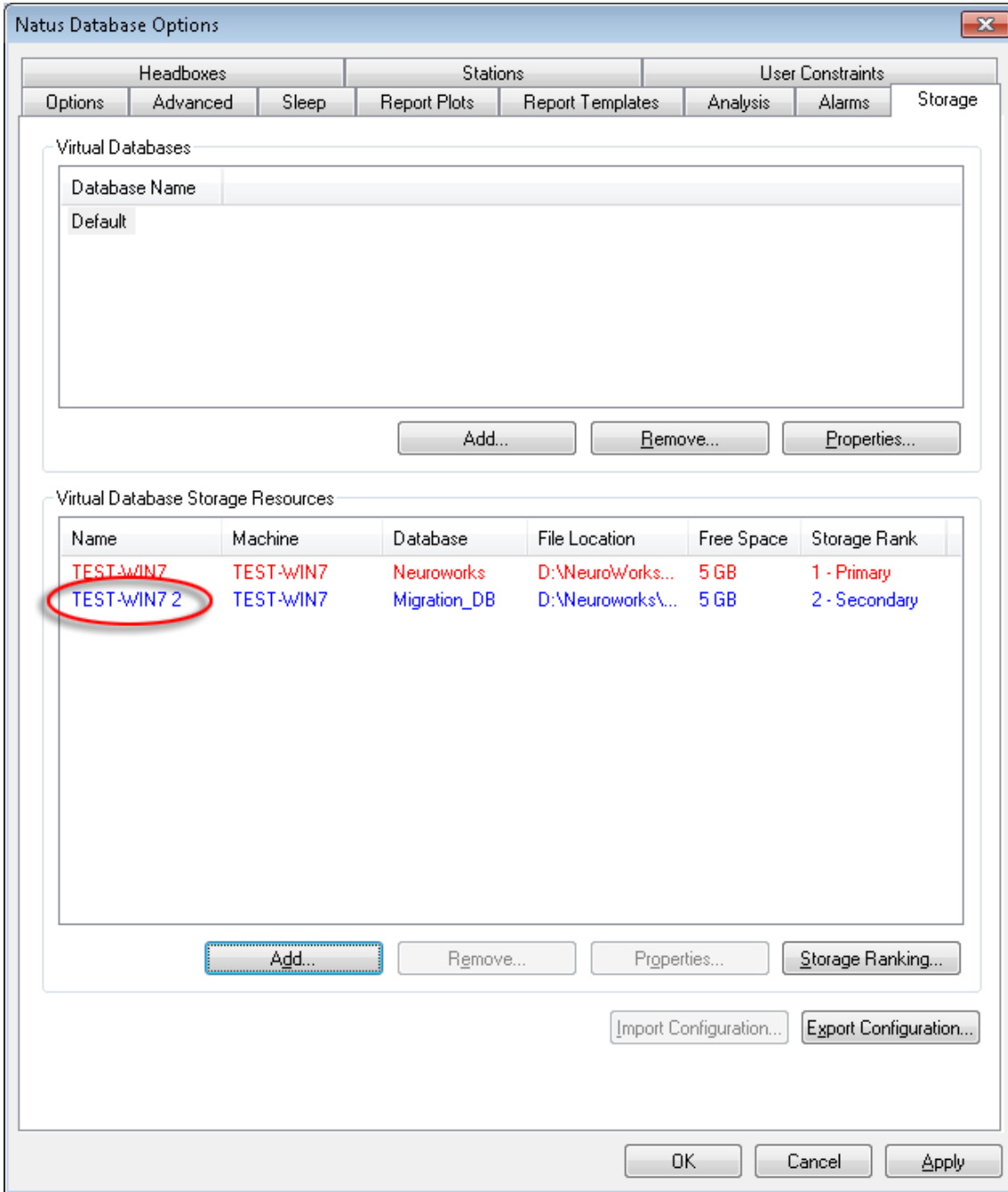


Figure 8: Storage Tab with New Virtual Database Storage Resource

## 4.5 Create/Initialize Custom Fields in NeuroWorks

You may need to create custom fields in the new NeuroWorks database:

1. Because NeuroWorks does not have the appropriate field to migrate to.
2. Because in some cases the corresponding field in NeuroWorks is not available for migration.

Custom fields need to be created prior to running the migration utility. Custom fields from a source database cannot be mapped to standard fields in the Natus Database.

Your NeuroWorks installation should be configured to synchronize settings with any existing NeuroWorks systems at the site.

The following legacy fields require migration to custom field in NeuroWorks:

Twin		DMS	
Field name in Twin	Field type in NW	Field name in DMS	Field type in NW
Archived	Text	Patient remark	Text
Disc Label	Text	File name	Text
End Date Time	DateTime	Archive label	Text
Interp Date	DateTime	Data drive	Strings
Message Code	Text	Location	Text
Order Number	Text	Medication 1 to 4	Text
Procedure Code	Text	Medication 5 to 8	Text
Scored	Text	Medication 9 to 12	Text
Scoring Tech	Text	Medication 13 to 16	Text
Test Site	Text	Clinical info	Strings
Complaint	Text	Comment	Strings
Diagnosis	Text	Diagnosis 1 to 4	Text
Electrodes	Text	Diagnosis 5 to 8	Text
Medication	Text	Recording Remark	Text
Refer Last, First Name	Text	Case Nr.	Text
Refer Last Name	Text		
Comments	Strings		
ESS	Number		
Neck Size	Number		

NicVue		StudyRoom	
Field name in NicVue	Field type in NW	Field name in StudyRoom	Field type in NW
Exam Comments	Strings	Patient Site	Text
CPT Code	Text	Maiden Name	Text
Exam History	Strings	Patient Notes	Strings
ICD-9	Text	Medication	Text
Medication field 1	Text	Test Notes	Strings
Medication field 2	Text	Patient State	Text
Order ID	Text	Abbreviated Study Type	Text
Exam type	Text	Secretary	Text
Patient Comments	Strings	Recording Site	Text
Insurance Company	Text	Recording "Type	Text
Insurance Number	Text	Diagnosis	Text
Primary Physician	Text	Archive Label	Text
Archive Label	Text	Archive Path	Text
Archive Path	Text		
Exam Title	Text		

Additional considerations when creating custom fields include:

### 4.5.1 List Types

Avoid using predefined lists for text fields; use plain text entry types instead. The utility will only allow mapping of fields to "free text" types. If source data is in a selection list, the selected value or values will be migrated as text.

### 4.5.2 Custom Radio Buttons

Avoid using "custom radio buttons" where labels are overridden. If custom radio buttons are required, ensure the first value is the "false" value and the second is the "true" value.

## 4.6 Gather Additional Information

Specific platforms may require additional steps prior to migration. As such, additional information may need to be gathered or managed prior to migration of the database. Currently TWin and Study Room both have additional steps required for migration to occur smoothly.

### 4.6.1 Grass TWin

- **Unit of Measure for Patient Height and Weight** – Since TWin has no standard unit of measure for Patient Height and Weight in the database, the unit of measure for each of these values must be determined prior to migration of the data. Height can be in Centimeters, Meters or Inches. Weight can be in Grams, KG or Pounds.

### 4.6.2 Nicolet Study Room

- **Report Format – Microsoft Word Reports** – Study Room has the option to turn off HTML reports and use Microsoft Word format for reports. If the Study Room installation being migrated uses Microsoft Word format for reports, there is an additional step to convert these to a format that can be launched from within the Natus Database.
- **Unit of Measure for Patient Height and Weight** – Since Study Room has no standard unit of measure for Patient Height and Weight in the database, the unit of measure for each of these values must be determined prior to migration of the data. Height can be in Centimeters, Meters or Inches. Weight can be in Grams, KG or Pounds.

### 4.6.3 Schwarzer DMS



**For DMS, customer must make sure that all studies are archived prior to migration.**

This is required in order for the NeuroWorks database to launch the Coherence viewer with a valid data path and filename.



The LTM slideshow option in DMS allows for study files of a same recording being archived on more than one disk, while NeuroWorks requires one archive media for all files belonging to the same study. In this case the migration utility will split the study in several studies containing the same clinical information and report but with a link to a single archive disk. The original study showing “&Slide” archive label cannot be reviewed and may be deleted from the migrated database in NeuroWorks by sorting the study list by archive media and use “Permanently delete study”.

## 5. Using the Utility

### 5.1 Verify Backups

Upon launching the utility, the following welcome screen displays:

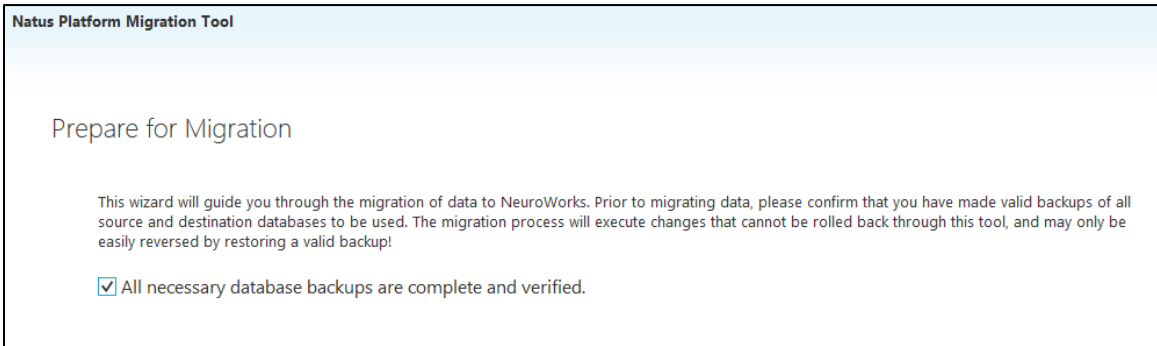


Figure 9: Preparation for Migration Screen

The application asks for verification that all databases have been backed up. Migration cannot proceed until the box verifying that you have completed the back-up process has been selected. Once the necessary backups have been created, select the checkbox and click **Next** to continue.

Database back-ups should be done using SQL Server tools. These tools are available with SQL Server or free from Microsoft, and are not included with this utility.

#### 5.1.1 Source System Database

While the source system databases are not modified during the migration process, it is a recommended practice to create a backup of source system databases as a “point in time” reference for support if needed.

#### 5.1.2 NeuroWorks System Database

Ensure that a backup of the clean database is made. If there are issues during migration, the procedure for recovery is to restore the clean backup and then re-run the migration.

### 5.2 Select Source System

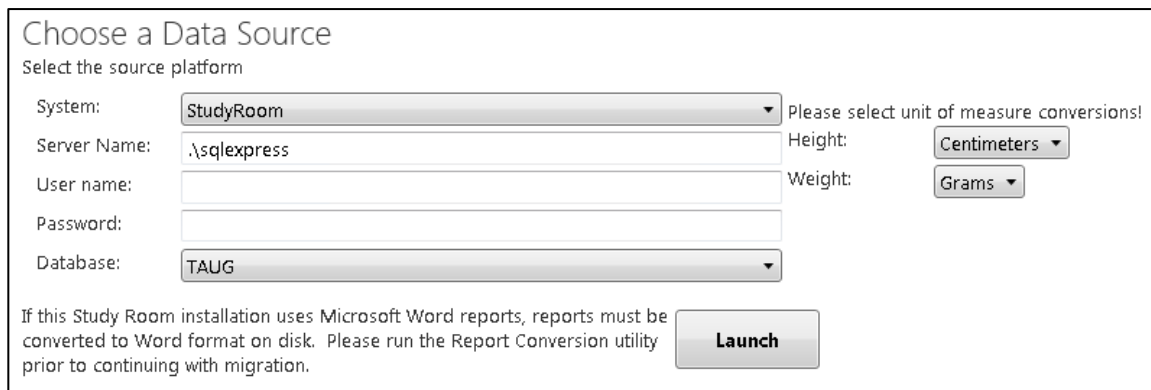


Figure 1: Source System Selection Screen (Detail)



Enter connection information for the source system, and then click **Next** to continue.

1. Select the **source system**. The source system selected will determine the adapter that is used to extract data. The source platform should match the software and version of the source database.



**Note:** You do not need to have the software installed for the source system; you just need to be able to access the database with “read” permissions on the primary database.

2. Enter database connection parameters (Server Name, User name and Password).



**Note:** If the logged-in user account has “read” permissions on the source system database, leave the User name and Password fields blank to use Windows integrated security.

3. For **Twin** or **Study Room** migrations, select **Unit of Measure** used in the source implementation for Height and Weight. The height and weight units specified here will be used to convert height and weight values to NeuroWorks standard Grams and Centimeters during the migration process.



**Note:** This is not necessary for NicVue migrations, which have standardized height and weight stored in the database.

4. For **Study Room** installations that use Microsoft Word, launch the **Report Conversion** utility and run it on those reports.
  - a. The report conversion utility must be run on a machine with Microsoft Word installed. Ensure file system write access permissions are available on the Study Room reports folder.
  - b. Enter the database connection information for the Study Room database.
  - c. Click **Convert Reports**. The reports will be converted in place to \*.doc format and information will be shown in the log window of the **Report Conversion** utility.

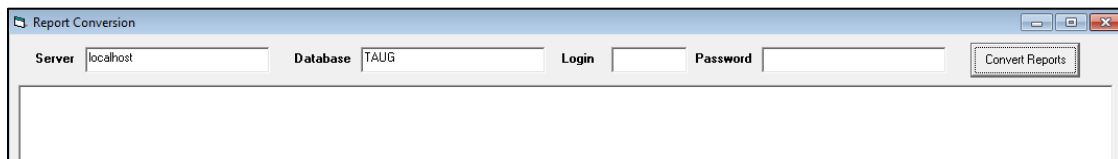


Figure 2: Report Conversion Dialog

5. For **Schwarzer DMS** migrations, the migration utility needs to detect important settings from the site configuration. Therefore it is required to browse to a DMS database configuration file “nke.ini” containing this information when selecting DMS source database in the migration utility. Make sure to use an nke.ini having the following parameters set up correctly:
  1. Path to main database folder on the Server → This path will be used as a target for extraction of reports from the DMS database:  
[MAIN\_DATABASE\_DIRECTORY]\Reports\YYYY (YYYY = year of recording of the study).  
This extraction will take place during the “Preview” phase in the Migration process (see 5.5).
  2. If existing, path to Online Archives: Refer to parameter “LABEL\_ARCHIVE\_ON\_SERVER=” in the nke.ini file or verify the settings in the configuration tool.

### Choose a Data Source

Select the source platform


System:

Server Name:

User name:

Password:

Database:

 Ini File Location:

3. Make sure that the DATA\_ARCHIVE and/or LABEL\_ARCHIVE\_ON\_SERVER in the configuration file from the DMS database are configured (not empty!). Missing configuration of these settings results in an error “nke.ini file not found although the Ini file location is correctly configured”

## 5.3 Select Destination System (NeuroWorks)

### Choose a Destination

Specify the destination platform

System:

Server Name:

User name:

Password:

Database:

Offline Reports:

UNC Format: \\server\share\directory

Figure 3: Destination System Selection Screen (Detail)

Enter connection information for the NeuroWorks destination system..

1. Select the **destination system version**. This will be a version of NeuroWorks supported by the tool.
2. Enter database connection parameters (**Server Name**, **User name**, and **Password**).



**Note:** If the logged-in user account has administrator permissions on the NeuroWorks database, leave the User name and Password fields blank to use Windows integrated security.

3. IMPORTANT notes about using the “Offline reports” field:
  - a. For migration from Nicolet StudyRoom, which does not have a concept of offline reports, the path to the online documents folder must be added in the field “Offline reports”. This path is used for studies archived on removable media! Click the Test button to validate the path.
  - b. For migration from Schwarzer DMS: The path to the “Reports” folder should be specified in the following way: \\SERVER\SHARE\DMS.MDB\REPORTS (in this example the folder

for the DMS is named DMS.MDB) located in the DMS application folder on the server (= [Main\_database\_directory]\Reports). During the “Migration” phase (refer to 5.6) the migration utility will create an INI file with the path to the report file for each report. NeuroWorks opens the report stored in this location available from the report INI file. Note that for large databases this process can take several hours. An incorrect path leads to DMS reports not being found from the NeuroWorks platform.

Click **Next** to continue.

### 5.3.1 Settings Database Connection

If the target NeuroWorks database is not a primary database and thus does not contain the custom fields schema, the user will be prompted for credentials for a primary NeuroWorks database. By default, this is the database named “NeuroWorks” on the local SQL Server instance. The location of the primary database can be changed by editing the key “SecondaryDbServerForCustomFields” in the PlatformMigration.WindowsClient.exe.config file.

Figure 4: Credentials Prompt for Primary NeuroWorks Database

### 5.4 Custom Field Mapping

Source Field	Datatype	Maps To	Will Transfer
Image Parameters-Start Date Tir	DateTime	Sleep latency	<input checked="" type="checkbox"/>
Image Parameters-Slice Thickness	Number	Unmapped	<input type="checkbox"/>
Image Parameters-Number of SI	Number	Unmapped	<input type="checkbox"/>
Image Parameters-Pixel Height	Number	Unmapped	<input type="checkbox"/>
Image Parameters-Orientation	String	Unmapped	<input type="checkbox"/>
Image Parameters-Filename	String	Text Field 1	<input checked="" type="checkbox"/>
Image Parameters-Modality	String	Text Field 2	<input checked="" type="checkbox"/>
Image Parameters-Rows	Number	Unmapped	<input type="checkbox"/>
Image Parameters-Bits per Pixel	Number	Unmapped	<input type="checkbox"/>
Image Parameters-End Date Tim	DateTime	Unmapped	<input type="checkbox"/>

Figure 5: Custom Field Mapping Screen (Detail)

With this utility, there is the option to map custom fields within the patient record to the clean NeuroWorks database.

### 5.4.1 Mapping Custom Fields

To map custom fields, select the Natus Database custom field from the selection list in the **Maps To** column. These selections will be the destination of the fields loaded in the **Source Field** column via the utility. Only custom fields where the source system datatype maps to the target system datatype can be mapped.



**Note:** Not all source systems support custom fields. For these systems, the **Map Custom Fields** screen shown above will not appear.

### 5.4.2 Exporting the Custom Field Mapping CSV Report

Clicking the **Export CSV** button will generate a comma-separated values (CSV) file that will open in Excel. This file is a report listing all custom fields in the source system and their current mapping in the destination system. This report can be used as a historical record of the mapping settings used at the time of migration or as a tool to communicate and plan mapping of custom fields.

## 5.5 Migration Preview

Loading Preview Data...  
Click the stop button to interrupt the migration.

**Validating Database Records** 100 / 100

**Importing Database Records** 37 / 100

Patients Ready To Migrate	37
Studies Ready To Migrate	82
Reports Ready To Migrate	58

Custom Fields Migrated	522
Custom Fields Failed	0

Patient Failed Validation	0
Online Studies, No File Found	0
Offline Studies with Reports	174
Offline Reports	0

Stop
Re-run
Export CSV

Figure 6: Migration Preview Screen (Detail)

The Migration Preview screen performs the following actions:

- Retrieves all patient records that have non-deleted studies
- Retrieves each study and report record for selected patients
  - Checks for the presence of study and report data files for “online” studies
- Retrieves custom field values from patient records per the mapping settings performed in the prior step

Errors and warnings will be displayed in the “Log Report” section of the window, which is located on the right-hand side of the utility screen. At the end of the Migration Preview, statistics and record counts are displayed. Review these and only continue if they are as expected.

### 5.5.1 Migration Preview CSV Export

The **Export CSV** button will generate a report containing statistics as well as the warning and error entries in the Log Report. This can be used to clean up records in the database and investigate file system access issues. This report can be saved as a record of the migration process.

## 5.6 Data Migration

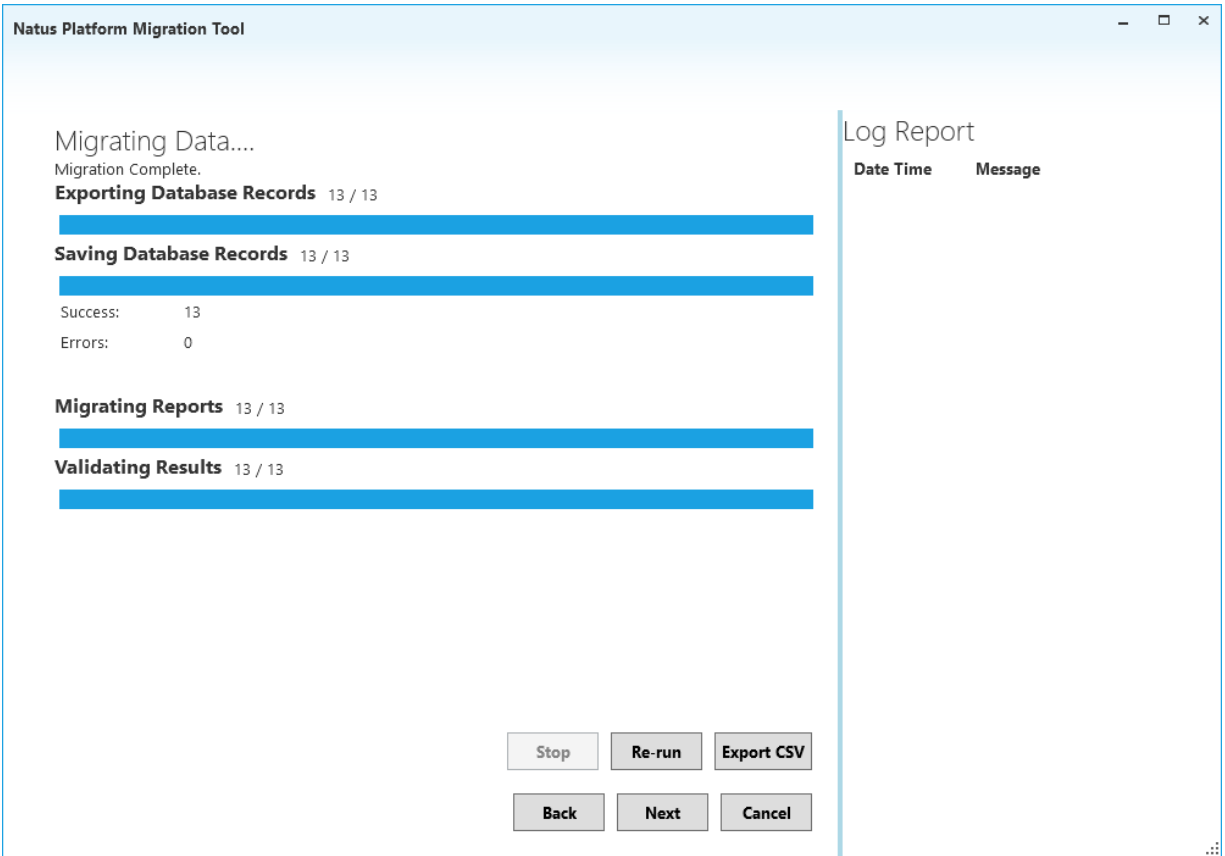


Figure 7: Data Migration Screen (Detail)

The Data Migration step displays a progress view with details of the migration process. Errors and warnings will be displayed in the **Log Report** section of the window.

### 5.6.1 Re-running Migration

If there are a significant number of errors or any critical errors displayed in the **Log Report** section, the migration process can be re-run by performing the following steps:

1. Restore the backup of the **clean** NeuroWorks database over top of the destination database to reset all data
2. Re-run the migration process after fixing the issues that caused the errors.

## 5.7 Post Migration Validation

During the migration process, a separate set of validation checks are run against files and data records in the NeuroWorks database. These results can be viewed on the **Post Migration Validation** view and can be exported using the **Export CSV** button.

## 6. Install Legacy review applications

Legacy review applications must be installed using the respective installers.

For Grass TWin and Nicolet NicOne applications, using exclusively hardware USB dongles, the existing USB dongles can be reused on the NeuroWorks/SleepWorks review stations requiring access to Legacy study data.

For Schwarzer/Deltamed Coherence, using software licenses, an activation code may be requested for each NeuroWorks/SleepWorks review unit requiring access to Legacy study data. The number of free Coherence review licenses shall not exceed the number of existing Coherence review units. Additional review licenses must be purchased separately.

## 7. After Migration

After migration is complete, the user can perform the following steps:

1. Perform appropriate spot-checks as necessary to confirm that migration completed successfully.
2. Merge the NeuroWorks database into the network per Natus Database standard operations/tools.
3. Save exported CSV reports to a safe location for long-term storage and reference.

## 8. Notes

### 8.1 General Notes

#### 8.1.1 Height and Weight

When Height and Weight are migrated to NeuroWorks, they are converted to centimeters and grams. The values stored in NeuroWorks are whole numbers (no fractions or decimal places), so if values are converted from the source system they may be slightly rounded.

#### 8.1.2 Temp Data Lock File Warning

In order to complete the migration, the utility temporarily stores source system data into an intermediate database before sending it into NeuroWorks. This allows the user to review the initial migration and begin again without having to load the clean NeuroWorks database if possible.

If the utility is run multiple times, the intermediate database may lock and the following warning will fire prior to launching the utility:

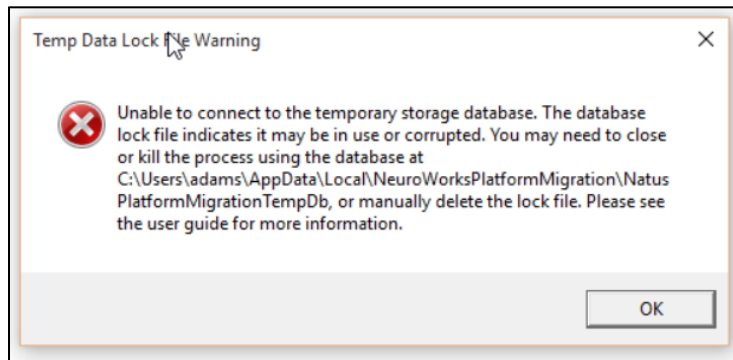


Figure 8: Troubleshooting: Temp Data Lock Warning Dialog

In order to remove the lock follow the path listed in the warning pop-up, locate the file called “mongod.lock”, right-click the option, and then delete it. The warning will disappear from the utility.

## 8.2 NicVue Migration Notes

### 8.2.1 City and State Fields

In **NicVue**, there is only one field for city and state. This is mapped to the “City” field in NeuroWorks.

In **Study Room**, there is only one field for all address data. This is mapped to the “Address 1” field in NeuroWorks.

### 8.2.2 Compatibility with Persyst



If Persyst 11 is installed on NeuroWorks units used for reviewing Nicolet legacy studies, it is required to upgrade to Persyst 12 or higher.

## 8.3 TWin Migration Notes

### 8.3.1 Removing TWin Portal Study Placeholder Entries

For those sites migrating from TWin 5.2.0 and also using the TWin Portal HIS/HL7 application, HL7 study placeholders are imported from TWin into the NeuroWorks database. Post-migration, it will be desirable to remove these placeholders from the NeuroWorks database.

The placeholder studies can be identified in the NeuroWorks database having Duration values of “0:00:00” and Legacy Paths as “MTYP=PATH;MLID=;MSID={Created by HL7 TwinPortal}”. These entries in the NeuroWorks database can be easily removed by following instructions.

4. Open the **Natus Database**.
5. Sort the database by clicking the **Legacy Path** column header. Notice all studies with a Legacy Path of “MTYP=PATH;MLID=;MSID={Created by HL7 TwinPortal}” move to the top of the database.
6. Use **<Ctrl>+Click** or **<Shift>+Click** to select the studies to be removed.
7. **Administration > Permanently Delete**
8. In the **Enter Password** window, type the password and then click OK.
9. In the **Warning!!!!** Window, click “**Yes to All**” to delete the selected HL7 placeholder studies.

## 8.4 Study Room Migration Notes

### 8.4.1 Study Room Upgrade to SQL Server

The **Study Room** database must be upgraded to the current SQL Server version of the application prior to migration. This can be done using the **NicoletOne** utility **Database Tool**.



**Note:** Administrator permissions in SQL Server (server sysadmin, owner or master) are required to complete this process.

1. Open the **Database Tool (Start > NicoletOne Utilities > Database Tools)**
2. Create a blank **TAUG** database
  - a. In the **Common** section, enter the following:
    - i. Server = SQL Server name
    - ii. Database Type = TAUG
  - b. In the **Action** section, set the **Action** to **Create**
  - c. In the **Create** section, enter the database name and click “Create”
3. Import the **Access** database
  - a. In the **Import** section, do the following:
    - i. Select the .mdb file of the Access database being upgraded in the **From Access** file picker.
    - ii. Select the new blank database that was created in the **Destination Database** drop-down.



- iii. Click **Import**.

## 9. NeuroWorks Settings

There are a number of settings used to govern how the Natus Database interacts with migrated (legacy) studies. In the Natus Database, click **Tools > Legacy Product Settings**. The following dialog appears:

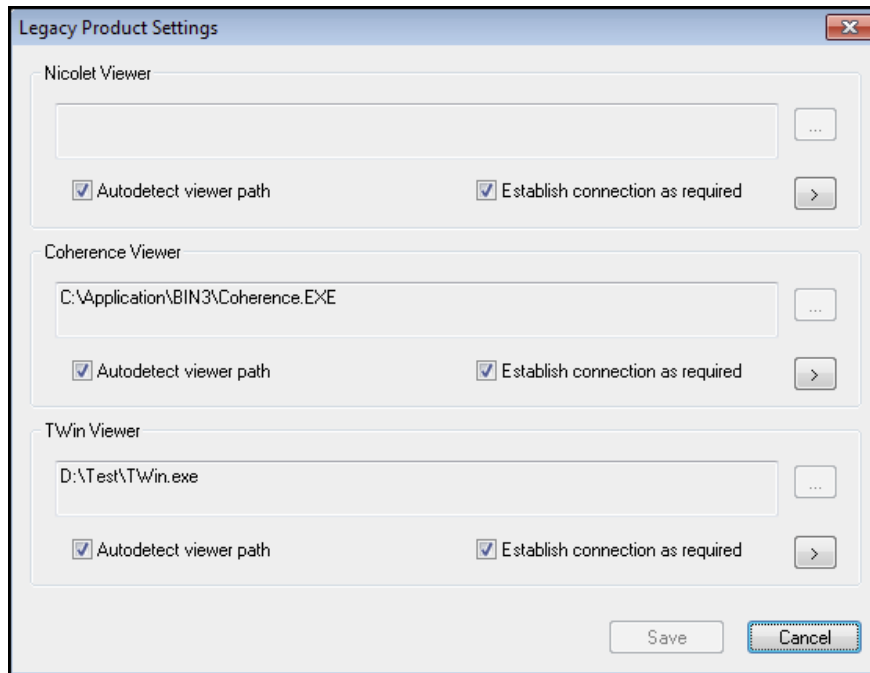

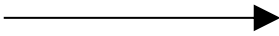


Figure 9: Legacy Product Settings Dialog

### Settings:

Setting	Description
Viewer path	This read-only field displays the path to the legacy viewer's executable file used to launch a review session for studies of this product type. The path displayed will either be automatically detected or can be manually entered using the "... " browse button when the 'AutoDetect viewer path' option is unchecked (the browse button is disabled when 'AutoDetect viewer path' is checked).
AutoDetect viewer path	Check this to have Natus Database attempt to automatically determine the location of the viewer executable. When this option is selected, the browse "... " button is disabled.
Establish connection as required	This option enables use of the Credentials Cache technology to establish a connection to the share indicated by the resolved study file path and/or alternate report location. If this option is not enabled, the logged-on user must have access to these shares. The STORAGE_RESOURCE touch-point must be enabled to make use of the Credentials Cache for legacy integration. Note that although 'AutoDetect viewer path' appears as a separate setting for each product type, in reality, once a network connection is established for one product, it is available to all products.
Additional Options	Click on the ">" button to open the 'Additional Options' dialog for each product as discussed below.

## 9.1 Additional Options

An additional UI component is used to configure auto-placement and report extensions. Click . The following dialog appears: 

Use this dialog to enable dual-monitor auto-placement and to configure report extensions. Note that a list of known report extensions is enforced by this dialog and must be among the following list: doc | docx | pdf | mht | htm | png | jpg | jpeg | bmp | txt | rtf. Leaving this list empty will allow NeuroWorks to use legacy product defaults; otherwise this list overrides those defaults.

Note that dual-monitor placement should not be selected for reviewing studies migrated from DMS. The Coherence review application does not support startup on the second monitor.

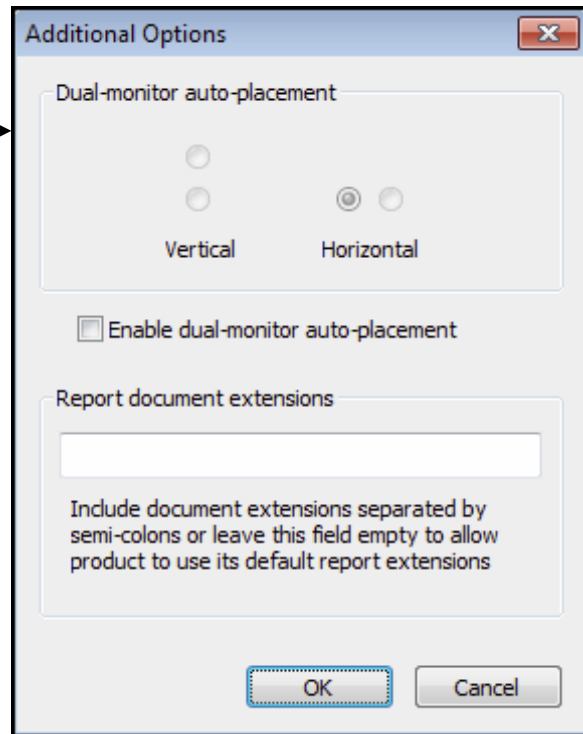
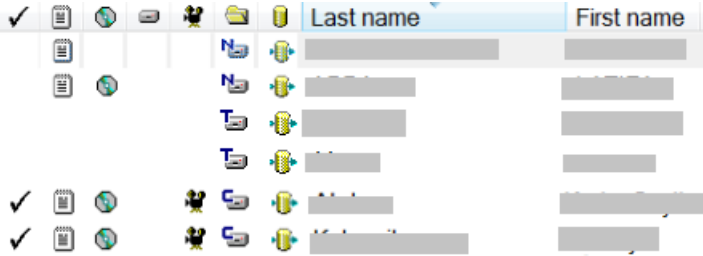
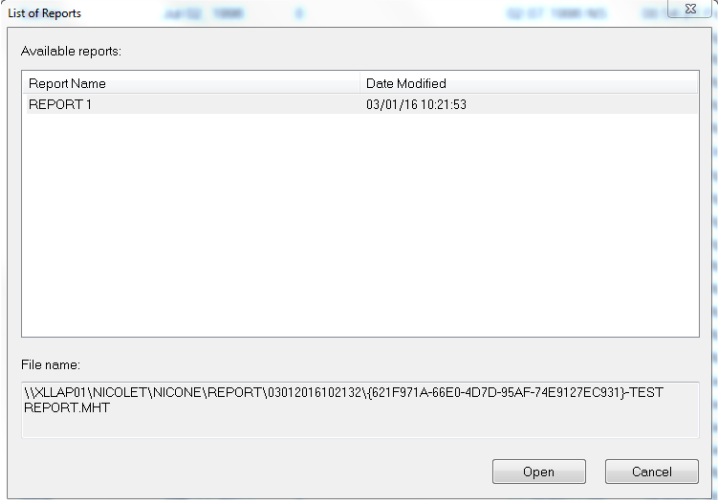


Figure 10: Additional Options Dialog

# 10. Features and limitations related to legacy studies in NeuroWorks

Training users on features and limitations related to the implementation of legacy review applications is part of the installation process.

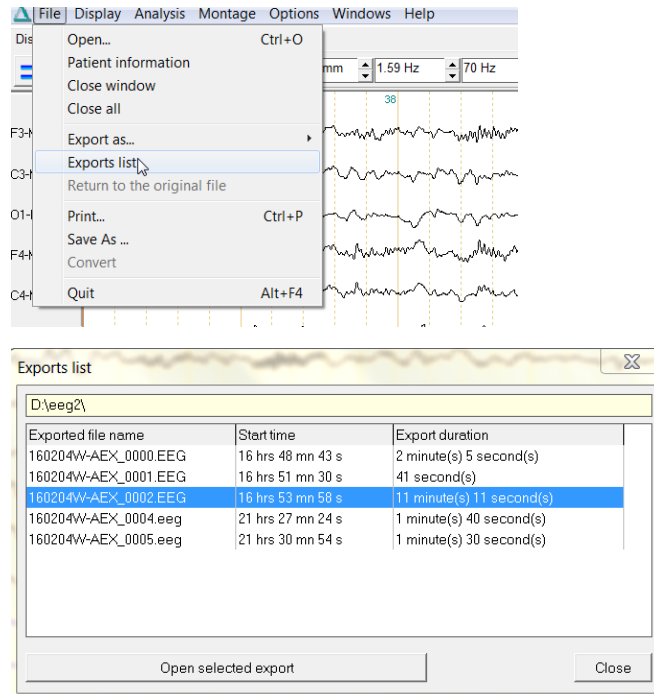
## 10.1 Features:

<p>Reviewing the study</p>	<p>Studies migrated from Legacy platforms are represented by the icons representing Nicolet NicOne, Grass TWin and Schwarzer Coherence:</p>  <p>Like with native NeuroWorks studies, reviewing legacy studies can be accomplished either by double-clicking the study, or by selecting the study and clicking the “Review” button. This will launch the appropriate legacy viewer providing the same functionalities to the user as with the legacy platform. For example: any changes in the study, like changes to montages and annotations, will be stored in the data files providing that these are not read-only (archived on CD/DVD media).</p>
<p>Displaying Study Reports</p>	<p>For Legacy studies with the “Report” icon displayed in the “Reported” column, the user may <b>right click the Study and select the option “Legacy Reports”</b> to display the list of available reports. Select a report and click the “Open” button to display the report.</p> 
<p>Access to “Exports” (=pruned study data) after migration from</p>	<p>Unlike with DMS, the NeuroWorks/SleepWorks database does not know if exported data exist. When reviewing a study migrated from DMS, the NeuroWorks/SleepWorks database will always open the original recorded</p>

DMS

study.

If Exported study data exist, these can be opened from the “File” Menu in Coherence Review. From the exported data it is possible to return to the original study data in the same way.



## 10.2 Limitations:



The use of Legacy viewers in NeuroWorks should be limited to reviewing existing study data. New Study files generated by analysis features in the legacy viewer are NOT managed by NeuroWorks.



Legacy EEG, VIDEO and REPORT study data shall remain on their location once migrated to NeuroWorks. As a result, legacy studies shall not be moved or archived from NeuroWorks.



For Legacy studies, the “Technologist’s Report” tab in the Study Info window is not shown in NeuroWorks 8.1 GMA5. Consequently, information like “Handedness” is not visible.



For Schwarzer DMS databases including studies migrated from Schwarzer Brainlab® or Harmonie® platforms, the user must be informed that the EEG and VIDEO study data cannot be reviewed from the NeuroWorks/SleepWorks database after migration.



In case a patient migrated from the Legacy database is also present in the existing NeuroWorks/SleepWorks database a new patient record will be added. Patient records are never merged, resulting in duplicate records for those patients.