



DTX Studio™ Core

Version 3.13

Installation Guide

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Welcome

Disclaimer of Liability

This product is part of an overall concept and may only be used in conjunction with the associated original products according to the instructions and recommendation of Nobel Biocare, hereinafter referred to as 'the Company'. Non-recommended use of products made by third parties in conjunction with products of the Company will void any warranty or other obligation, express or implied. The user has the duty to determine whether or not any product is suitable for the particular patient and circumstances.

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Description

DTX Studio Core is a software solution to manage and store patient media and image data of different types (2D X-ray, 3D X-ray, (CB)CT scans, photos, face scans) in a structured and centralized way to make captured data accessible anywhere in the dental clinic.

Cybersecurity

It is recommended that active and up-to-date anti-virus and anti-malware software, together with a correctly configured firewall, are installed on the computer on which the software is to be used. Furthermore, always lock the computer when it is left unattended.

Additional Information

A digital version of the DTX Studio Core Installation Guide is available as well. Please request it from your local customer support.

Good Practice Guidelines to a Secure Network

Install DTX Studio Core in a safe and secure local network. Measurements to obtain a safe and secure network may include — but are not limited to — the following:

- Secure the server with a password.
- Secure the client computer(s) with a password.
- Make sure to install an active and configured local firewall.
- Install a reliable anti-virus solution on both the server and the client computers in order to timely detect and stop Trojans, phishing attacks, etc.
- Install a separate guest network to allow ‘foreign’ and guest devices.
- Use a (WiFi) router password different from the standard administrator password.

Installing DTX Studio Core

Log on to your computer with a user account that has administrator rights. We recommend that all other software on your computer is closed before DTX Studio Core is installed.

Make sure to check the “Good Practice Guidelines to a Secure Network” on page 4 to prepare your network.

Get the Installer and Installation Key

1. Go to go.dtxstudio.com and log in with the username and password that were sent to you.
2. On the **Software** tab, click DTX Studio Core.



3. On the DTX Studio Core page, copy the installation key.



4. Add users to the license, if needed:
 - To add an existing user to the license, click **Add users** on this page and select the user.
 - To add new users to DTX Studio Go, click **Users** in the sidebar and click **Add new user**.
5. Click **Windows**. The DTX Studio Core installer (.exe) file is automatically downloaded.

Install the Software

Note

Before performing an upgrade of DTX Studio Core, create a snapshot first. Refer to the DTX Studio Core Quick Guide, Snapshots chapter. A snapshot will enable recovery in case of a failed upgrade installation.

Important

To upgrade DTX Studio Core 3.10 (or below) to a newer version while using continuous migration, you must skip DTX Studio Core version 3.11. Otherwise, all migration information will be lost. Do not skip version 3.13 though, as the last step of the 3.13 configuration wizard will run a tool to upgrade the old migration control center H2 database to the new migration control center PostgreSQL or Microsoft SQL database, and will save all migration information.

1. Double-click the installer executable.
2. If User Account Control is active, a message dialog appears asking you to allow this application to make changes to your computer. Click **Yes**.
3. If required applications are missing, a message appears asking you to install them. Click **Install**.
4. The InstallShield wizard will prepare the installation. A welcome message appears. Click **Next**.
5. The DTX Studio Core License Agreement is displayed. To accept the agreement, select **I accept the terms in the license agreement**, and click **Next**. To abort the installation, click **Cancel**. You can always go back a step in the installation wizard by clicking **Back**.
6. Click **Install**.
7. The installation might take several minutes. Once the installation is completed, click **Finish**.

Silent Installation

To install the software via command line:

1. Click the Windows® Start button.
2. Type `cmd`.
3. In the search results list, right-click **Command Prompt** or **CMD**.
4. Select **Run as administrator**.
5. If User Account Control is active, a message dialog appears asking you to allow this application to make changes to your computer. Click **Yes**.
6. At the command prompt, type `"executable_filename" /s /v"/qn"`.
7. Press Enter.

Configure the Software

1. After installation another wizard is opened that allows you to configure DTX Studio Core. If silent installation was performed, open the configuration wizard by clicking the DTX Studio Core Installation Wizard icon on the desktop.
2. Select the **Language** you want to use. Click **Next**. You can always go back a step in the configuration wizard by clicking **Back**. To cancel the configuration, click **Exit**.
3. The DTX Studio Core License Agreement is displayed. To accept the agreement, select **I accept the terms in the license agreement**. To get a copy of the agreement, click **Print**. Click **Next**.
4. Select the location where to store the DTX Studio Core data and click **Next**.
 - The **Working folder**'s default location is C:/DTX Studio/core/data.
 - To change this location, click **Browse**. Browse to the desired folder and click **OK**.
5. Select which database you want to use. Click **Next**.
6. Configure the database settings.

- If you selected **DTX Studio Core database (default)** (a PostgreSQL database), adjust the **Database port** if necessary.

- If you selected **Existing Microsoft SQL server database**, enter the server name, the database port, and the username and password for the database.

Note

Selecting which database you want to use, is only available during the initial installation.

7. Click **Next**.
8. Adjust the HTTPS port numbers for accessing the different DTX Studio Core applications if necessary. Select **HTTP Communication** if you want to enable HTTP communication. Adjust the HTTP port numbers if necessary. Click **Next**.
9. Select **Self-signed certificate (default)** or **Custom certificate**. Click **Next**.
10. If you chose **Self-signed certificate (default)**, adjust the **Network hostname** if necessary. You will be able to download and install the root certificate later on, when DTX Studio Core has been installed (refer to the 'Security' section of the Helpfiles).

If you chose **Custom certificate**, upload the **Private key** (.key) and **Public key** (.cer or .cert) to use your custom SSL certificate that was issued by a trusted certificate authority. Click **Next**.

11. Select the integration features you want to enable for DTX Studio Core:
 - **3Shape Dental Desktop integration**: Activate the 3Shape integrator to be able to get the scans made with your 3Shape intraoral scanners in DTX Studio Clinic.
 - **PMS communication**: Allow PMS systems to exchange patient and image information directly with your DTX Studio Core.
12. Click **Next**.
13. Continue with the integration configuration, if applicable.
 - If you selected **3Shape Dental Desktop integration** in step 11, provide the name of the **3Shape server** and the **Port** number to make a connection to the 3Shape Dental Desktop server. Click **Verify** to

make sure DTX Studio Core is connected successfully to the 3Shape Dental Desktop server.

- If you selected [PMS communication](#) in step 11, adjust the settings, if needed.

14. Click [Next](#).

15. Setting up the environment (DTX Studio Core, Scan Center, Core Manager and Migration Control Center) can take some minutes. When the installation is complete, click [Finish](#).

Note

If several web browsers are installed on your computer, you are requested to select in which browser you want to open DTX Studio Core. Select [Always use this app](#) to set the selected browser as default program to open DTX Studio Core. Click [OK](#).

16. DTX Studio Core is opened in the selected web browser.

Note

Four icons are now available on the desktop to start one of the following:

- DTX Studio Core
- DTX Studio Core Scan Center
- Core Manager
- DTX Studio Core Installation Wizard (to rerun the installation wizard and change the configuration).

17. Enter the license key and click [Activate Your License](#).

18. Log in to DTX Studio Core using any of the users specified in DTX Studio Go.

Configure the Firewall

DTX Studio Core generates its own firewall rules. However, these are only valid for the Windows® firewall. If the user is using another firewall, it might be necessary to open the ports described below.

Following table describes the URLs used by DTX Studio Core to access DTX Studio Go. These URLs are only accessible through HTTPS. The corresponding IP addresses of these URLs can be found by doing a DNS lookup. For example, on Windows® this can be done by opening a command prompt and using the `nslookup` command, e.g. `nslookup nobellicense.nobelbiocare.com`.

URL	Description
nobellicense.nobelbiocare.com	URL used to contact the DTX Studio Go license server.
nobelstats.nobelbiocare.com	URL used to send statistical information to DTX Studio Go.

Following table describes the applications calling DTX Studio Core and which port numbers DTX Studio Core uses to listen to them.

Note

This table lists the default ports. The actual ports used can be found and configured in the configuration wizard or in the properties files of DTX Studio Core.

Application	Application Description	Port Description	Port
DTX Studio Core web application	The web application to manage the DTX Studio Core configuration.	Default HTTPS port to call the DTX Studio Core API from the frontend applications.	33000
DTX Studio Clinic	DTX Studio Clinic is a software application for dental/medical practioners used to analyze 2D and 3D imaging data, in a timely fashion, for the treatment of dental, craniomaxillofacial and related conditions.	Default HTTP port to call the DTX Studio Core API from the frontend applications. This port is disabled by default, but it can be enabled through the DTX Studio Core configuration wizard. However, it is recommended to use the HTTPS port instead.	33001
ScanCenter	ScanCenter is the DTX Studio Core web application to manage scan requests.	Default HTTPS port to host the ScanCenter application. Default HTTP port to host the ScanCenter application. This port is disabled by default, but it can be enabled through the DTX Studio Core configuration wizard. However, it is recommended to use the HTTPS port instead.	34000 34001
Migration Control Center (MCC)	Migration Control Center is the web application to manage migrations of an existing database to the DTX Studio Core database.	Default HTTPS port to host the MCC application. Default HTTP port to host the MCC application. This port is disabled by default, but it can be enabled through the DTX Studio Core configuration wizard. However, it is recommended to use the HTTPS port instead.	35000 35001

Application	Application Description	Port Description	Port
Migration Service	The Migration Service is the service which performs the actual migrations, configured in MCC.	Default HTTPS port to call the Migration Service API, used by the MCC application.	9002
		Default HTTP port to call the Migration Service API, used by the MCC application.	9000
		This port is disabled by default, but it can be enabled through the DTX Studio Core configuration wizard. However, it is recommended to use the HTTPS port instead.	
Core Manager	Core Manager is the DTX Studio Core web application to configure more advanced configurations options, especially relevant when using DTX Studio Core in combination with DEXIS™, VixWin® or CLINIVIEW™.	Default HTTPS port to call the API used by the Core Manager application.	36000
		Default HTTP port to call to API used by the Core Manager application.	36001
		This port is disabled by default, but it can be enabled through the DTX Studio Core configuration wizard. However, it is recommended to use the HTTPS port instead.	

Off-line License Activation

If the machine you are using has no active connection to the Internet, off-line license activation is possible.

Note

When DTX Studio Core is in off-line mode, you will not receive any automatic software updates.

1. On the activation page, click [Off-line activation of your license](#).
2. Click [Download](#) on the [Download registration file](#) card.
3. Save the generated registration file on e.g. a USB stick and take it to a machine connected to the Internet.
4. Access the DTX Studio Go customer portal.
5. Upload the file in DTX Studio Go.
6. An activation file is generated, which you can download and save to the USB stick and take it to the original machine.
7. Upload the activation file by dragging it and dropping it into the dedicated area. Alternatively click [Choose file](#) and select the activation file.
8. The activation is completed.
9. You can now log in to DTX Studio Core using any of the users specified in DTX Studio Go.

Sleep Mode and Hibernation

Please make sure that the PC or server on which DTX Studio Core is installed, does not go into sleep mode or hibernation.

Disable Hibernation

1. Click the Windows® Start button.
2. Type `cmd`.
3. In the search results list, right-click [Command Prompt](#) or [CMD](#).
4. Select [Run as administrator](#).
5. If User Account Control is active, a message dialog appears asking you to allow this application to make changes to your computer. Click [Yes](#).
6. At the command prompt, type `powercfg.exe /hibernate off`.
7. Press Enter.

Disable Automatic Sleep

1. Go to the Windows Control Panel.
2. Click [Power options](#).
3. Click [Change plan settings](#) next to your current power plan.
4. In the [Put the computer to sleep](#) drop-down menu, select [Never](#).
5. Click [Save changes](#).

Optional: Pin the Scan Center to the Home Screen

Pin the Scan Center to your home screen on a tablet or smartphone to facilitate access to the scan requests.

On your computer, click the Scan Center desktop shortcut to find the Scan Center web page.

Note


In iOS it is recommended to use a bookmark instead.

Pin Scan Center on Android


1. Launch Chrome for Android and open the Scan Center web page.

Note

Other popular Android browsers also offer this feature, like for example Firefox for Android.

2. Tap  on the browser's toolbar.
3. Tap [Add to Home screen](#).
4. Enter a name for the shortcut.
5. The icon will appear on your home screen. You can drag it around and put it wherever you like.

Pin Scan Center on iOS

1. Launch Safari and open the Scan Center web page.
2. Tap  on the browser's toolbar.
3. Tap **Add Bookmark**.
4. Enter a name for the bookmark.
5. Select a location. Tap **Save**.

Pin Scan Center on Windows

1. Launch Internet Explorer and open the Scan Center web page.
2. Tap **More (...)**.
3. Tap **Pin to Start**.
4. The website will appear as a tile on your start screen.

Migration Control Center (MCC)

Migrate an Old Database to a New DTX Studio Core Database.

Important

Please ensure there is sufficient free disk space on the target server before starting migration.

The following databases are currently supported:

- CLINIVIEW 10 or higher
- Dexis 9.1.0 or higher
- Dexis 10.0.3 or higher
- VixWin Platinum 3.3 or higher
- VixWin Pro 1.5.f or higher
- DIGORA for Windows 2.5 R1 or higher
- Scanora 5 or higher

The following data cannot be migrated into a DTX Studio Core database:

- Volumetric Tomography (VT) images.
- Annotations, logos, audio fragments and videos.
- User accounts created in the old software. New user accounts will need to be created in Core Manager for each user.

Initiate Migration

The steps below describe accessing the MCC (Migration Control Center) from the DTX Studio Core interface.

1. Log in to DTX Studio Core.
2. In the sidebar, click [Advanced settings](#).
3. Click [Migration Control Center](#).
4. The MCC will start searching DTX Studio Core databases and importable databases. If no database is found, click [Add manually](#), enter the database's URL and click [Add](#).
5. On the left [Source database](#) card, click the [Source](#) database field and select the old database to be imported.
6. On the right [Destination database](#) card, enter the user credentials for the DTX Studio Core database.
7. Click [Continue](#).
8. In the [Migrate patient data](#) group, schedule the migration by specifying the preferred days and hours.
 - The migration can take up to 100% of the CPU usage of your device. Please make sure to schedule the migration during non-working hours.
 - By default, all patient data (2D/3D X-rays, (CB)CT scans, photos, ...) acquired less than 18 months before the migration is included. Click the drop-down menu in the [Only for patients with patient data](#) field and select another range, if needed.

9. Optional settings are available:
 - The [Synchronize patients](#) option is applicable for Dexis 9, Dexis 10 and VixWin. When enabled, patients in the DTX Studio Core database are synchronized with the source database every five minutes. As a result, patients appear faster in DTX Studio Clinic.

Note

During scheduled migration hours the [Synchronize patients](#) functionality is not active.

- Enable [Also include patient data](#) to synchronize the patient data as well.

Note

This configuration can cause heavy load on the legacy system and on DTX Studio Core.

10. Click [OK](#).
11. The migration process is shown.

Start a New Migration

Sequential migrations allow you to stop a current migration and start a new one. You cannot start a migration that was already run. Therefore, when migrating multiple databases, make sure you migrate the database with continuous migration as the last.


1. Click [☰](#) at the top right and select [Start new migration](#).
2. Click [Start new migration](#) to confirm you want to discontinue the current migration.
3. This brings you back to the log-in window. To view the history of previous database migrations, click [Show database migration history](#). Click [Add manually](#) to select another database. Enter the legacy database URL and click [Add](#).
4. On the right [Destination database](#) card, enter the user credentials for the DTX Studio Core database.
5. Click [Continue](#).

Follow Up on the Migration Process

Once the migration process is initiated, the overview page offers an overview of the migration status. Regularly refresh the page to get the current migration status.

1. In the DTX Studio Core web interface sidebar, click [Advanced settings](#).
2. Click [Migration Control Center](#).
3. Enter the username and password.
4. Click [Login](#).
 - Click [Pause migration](#) or [Resume](#) to halt or resume the migration process.
 - To reconfigure the migration schedule, click [☰](#) at the top right and select [Adjust schedule](#).
 - To view the database migration history, select [Previous Database Migrations](#).
 - To log out, click [☰](#) at the top right and select [Logout](#).

The following tabs are available:



Migration details	Displays the migration process and statistics on how many patients and media have been migrated.
General alerts	Displays all general alerts involving databases and DTX Studio Core. To reinitiate a certain activity, hover over its entry and click Retry at the right.
Source conflicts	Displays all potential conflicts in the source database.
Migration issues	Displays all migration-related issues. To reinitiate the migration of a certain patient, hover over its entry and click Retry at the right. Use the top-right search field  to filter specific patient names and PMS IDs.

Patient Record Conflicts

If the old database contains duplicate patient record information (same PMS ID, different PMS ID but the same name, gender, date of birth, etc.). Conflicting patient records will not be migrated until the conflict is solved.

- Patient records without media are not migrated.
- Conflicting patient records are automatically merged if the PMS ID and all the patient metadata have the same values.

Solve Patient Record Conflicts

1. On the MCC overview page, click the [Source conflicts](#) tab.
2. Click [Resolve conflict](#) to expand a conflict group, showing its duplicate patient records. Alternatively, click .
 - The patient record in bold is the master patient record. This is the patient record containing the most recently acquired media.
 - To merge all shown patient record information of the old database in one patient record in DTX Studio Core, click [Migrate as 1 patient](#).
 - To migrate the conflicting old patient records individually to DTX Studio Core, click [Migrate as # individual patients](#).
 - To migrate all conflicting patient records individually, click  and select [Migrate all patients individually](#).
 - When migrating duplicate patient records as individual patient records, only the master patient record in the conflict group keeps the PMS ID. For the other patient records, the PMS ID is cleared. The value is stored in the metadata as “Original PMS ID”. In the PMS, these other patient records cannot be opened directly in DTX Studio Clinic.

Technical Support

If you encounter any problems during the installation, please contact DTX Studio Technical Support:

- support@dtxstudio.com
- <https://tech.dexis.com>

For North America:

- Phone number: 1-888-88-DEXIS
- <https://dexis.com/en-us/contact-us>

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