DTX Studio™ Driver 22.4 release

Affected products

Product(s)	Serial/version number(s)
DTX Studio™ Core	3.10, 3.11, 3.13
CLINIVIEW™	10, 11
SCANORA™	5, 6
DEXIS TWAIN	8
INSTRUMENTARIUM DENTAL TWAIN 7	7
SOREDEX TWAIN 4	4
DIGORA™ for Windows	2.9
DTX Studio Driver Link	1.4.0

Summary
DTX Studio™ Driver 22.4 with IAM 5.32 driver package (full version 5.32.21436) has been released including new features, fixes and updates. DTX Studio™ Driver 22.4 replaces the previous release.

Required actions
This release is recommended for all new installations and to upgrade existing installations. Before upgrading an existing installation, ensure all connected devices have supported firmware versions, especially for 3D devices. Please refer to Compatible imaging device firmware versions for details.

New features and fixes

- Support for DTX Studio Core 3.13
- Support for NVIDIA Quadro T1000 8GB GPU for 3D reconstruction
- New Option 2 setting for MAR (metal artifact reduction) for OP 3D in Dashboard
- Renamed Sampo noise reduction filter to EPNR (edge preserving noise reduction) in Dashboard
- OP 3D calibration status, QC calibration results and pixel calibration results are sent to DEXIS Connect
- Optimized 3D device geometry calibration for OP 3D
- Fixed issue where voxel values may overflow if Enhanced bit-depth is enabled in Dashboard with SCANORA 3D/3Dx (these devices do not support Enhanced bit-depth)
- Fixed issue where user license registration information was collected by NCI System Report tool
- Fixed invalid digital signature in Qt5Core.dll (anti-virus software may flag this as false positive)
- Fixed issue where OP 3D image processing may stop if network connection is temporarily disconnected during image transfer to 3D reconstruction PC
- Fixed Test3D.exe to check for the correct RAM requirement (8GB)
- Imaging devices are now logically grouped by brand in the Add manually window in NCI GUI
- Branding changes to NCI GUI for upcoming DEXIS TWAIN release
- Support for Pilot II devices (Neo-X, X-Knight and Captain) removed
- Updated Polaris Driver Suite to 2.0 for DEXIS IO sensors
- Updated DEXIS Connect to 1.5.0.52
- Updated recommended NVIDIA driver for GPU hardware-accelerated 3D reconstruction
- Updated manual
- Various minor maintenance improvements and fixes

Compatibility with other software

- DTX Studio™ Core used with supported version of DTX Studio™ Clinic:
  - 3.10 – 3.13
- CLINIVIEW™ 11:
  - 11.3.1 – 11.10.1
- SCANORA™ 6:
  - 6.3.1 – 6.10.1
- DEXIS TWAIN 8.0
- INSTRUMENTARIUM DENTAL TWAIN 7.7
- SOREDEX TWAIN 4.7
- DTX Studio Driver Link 1.4.0 (formerly DEXIS-KaVo)
- Polaris Driver Suite 2.0 for DEXIS IO sensors

NOTICE! DTX Studio™ Core versions older than 3.10.5 are not recommended due to the Log4Shell security vulnerability. Please refer to technical bulletins 36/2021 and 02/2022 for more information.

Compatibility with legacy software

- CLINIVIEW™ 10.2.6.x
- SCANORA™ 5.2.6.x
- DIGORA™ for Windows 2.9
- VixWin Platinum 3.6.5
- GxPicture 4.1.0
- SmartNAV 1.5
- CRANEX D UI 2.6

Compatibility with Operating Systems and GPU drivers

Operating Systems:

- Windows 11, 64-bit
- Windows 10, 64-bit
- Windows Server 2022 with Desktop Experience installed
- Windows Server 2019 with Desktop Experience installed
- Windows Server 2016 with Desktop Experience installed
- Windows Server 2012 R2 with Desktop Experience installed

NOTICE! Windows 10 version 1607 or later is supported.
NOTICE! Server operating systems support 2D imaging only.

Certified GPU drivers:

Recommended NVIDIA driver version (included in the installation media)

- 516.94 WHQL for Quadro GPUs
- 516.94 WHQL Studio Driver for GeForce GPUs

Minimum NVIDIA driver version

- 456.38 WHQL for Quadro GPUs
- 456.38 WHQL Studio Driver for GeForce GPUs

Other versions of software, operating systems and drivers are not verified compatible with this release. Please update the relevant components to the versions specified in this bulletin for verified compatibility.

Compatibility with network controller chipsets
For the best performance and compatibility, Intel I225, Intel I219 or Broadcom chipsets are strongly recommended. Network controller chipsets from other manufacturers may not meet performance or compatibility expectations.

Compatibility with imaging devices by software

o = supported x = not supported	DTX Studio suite	CLINIVIEW 11 / SCANORA 6	TWAIN 8 / 7 / 4	DTX Studio Driver Link 1.4
DEXIS/KaVo				
OP 3D Pro	o	o	o[2]	o
OP 3D	o	o	o[2]	o
OP 2D	o	o	o	o
Pan eXam / UV	o	o	o	o
Pan eXam Plus	o	o	o[2]	o
Scan eXam	o	o	o	o
Scan eXam One	o	o	o	o
IXS	o[1]	o	o	o[3]
GXS-700	o[1]	o	o	o[3]
ERGOcam One USB	o[1]	o	x	o[3]
DIAGNOcam	o[1]	o	x	o[3]
DEXIS				
Titanium	o[1]	o	o	o[3]
SOREDEX				
SCANORA 3D / 3Dx	o	o	o[2]	o
CRANEX 3D / 3Dx	o	o	o[2]	o
CRANEX D	o	o	o	o
CRANEX Novus e	o	o	o	o
CRANEX Novus	o	o	o	o
DIGORA Optime (all)	o	o	o	o
DIGORA Toto	x	o	o	o
Instrumentarium Dental				
OP300/Maxio	o	o	o[2]	o
OP200 D / OC200 D	o	o	o	o
OP30	o	o	o	o
EXPRESS	o	o	o	o
EXPRESS Origo	o	o	o	o
SNAPSHOT	x	o	o	o
Gendex				
GXDP-700 / 800	o	o	o[2]	o
GXDP-300	o	o	o	o
GXPS-500	o	o	o	o
GXS-700	o[1]	o	o	o[3]
Third-party TWAIN in DTX Studio™ (via TWAIN host)				
Dürr VistaScan Mini View	o	x	x	x
Carestream CS7600	o	x	x	x

[1] Device integrated directly to DTX Studio™ Clinic, does not use DTX Studio™ Driver
[2] TWAIN supports 2D image acquisition only
[3] Device integrated directly to DEXIS, does not use DTX Studio™ Driver

Compatibility with imaging devices by legacy software

o = supported x = not supported	**CLINIVIEW 10**	**SCANORA 5**	**DIGORA for Windows 2.9**
DEXIS/KaVo			
OP 3D Pro	x	x	x
OP 3D	x	x	x
OP 2D	x	x	x
Pan eXam	o	x	x
Pan eXam Plus	o	x	x
Scan eXam / UV	o	x	x
Scan eXam One	o	x	x
IXS	x	x	x
GXS-700	x	x	x
ERGOcam One USB	x	x	x
DIAGNOcam	o	x	x
DEXIS			
Titanium	x	x	x
SOREDEX			
SCANORA 3D / 3Dx	x	o	x
CRANEX 3D / 3Dx	x	o	x
CRANEX D	x	o	o
CRANEX Novus e	x	o	o
CRANEX Novus	x	o	o
DIGORA Optime (all)	x	o	o
DIGORA Toto	x	o	o
Instrumentarium Dental			
OP300/Maxio	o	x	x
OP200 D / OC200 D	o	x	x
OP30	o	x	x
EXPRESS	o	x	x
EXPRESS Origo	o	x	x
SNAPSHOT	o	x	x
Gendex			
GXDP-700 / 800	x	x	x
GXDP-300	x	x	x
GXPS-500	x	x	x
GXS-700	o	x	x

Compatible imaging device firmware versions:

Device	Firmware
DEXIS/KaVo	
OP 3D	2.3.2, 2.4.0, 2.4.1, 2.4.2
OP 3D Pro	2.06, 2.07, 2.08
OP 2D	2.12, 2.13 (future release)
Pan eXam	1.09
Pan eXam Plus	1.32
Scan eXam / UV	6.22
Scan eXam One	1.08
IXS	207.5.1.4
GXS-700	0.5.11
DEXIS	
Titanium	207.5.1.4
SOREDEX	
CRANEX 3D / 3Dx (R1)	1.24
CRANEX 3D / 3Dx (R2)	2.02
CRANEX D	2.05
CRANEX Novus e	2.12
CRANEX Novus	1.022
DIGORA Optime UV / CR55	6.22
DIGORA Optime	1.08
DIGORA Optime Classic	0.79
SCANORA 3D / 3Dx	3.08
DIGORA Toto	2.7
Instrumentarium Dental	
OP300 / Maxio	1.32
OP300 / Maxio	2.06
OP30-1	1.09
OP30-2	2.12
OP200 D / OC200 D	2.9
EXPRESS / CR55	6.22
EXPRESS Origo	1.07
Snapshot (R2)	4.7
Gendex	
GXDP-700 / 800 (R1)	1.20
GXDP-700 / 800 (R2)	2.03
GXDP-300	1.06
GXPS-500 / CR55	6.22
GXS-700	0.5.11

NOTICE! Imaging device performance and compatibility are not guaranteed if older firmware versions are used. Please update the device firmware to a compatible version for maximum performance and compatibility with this release.

3D reconstruction GPU compatibility
The following NVIDIA GPUs are compatible with 3D reconstruction in this release when used with a certified GPU driver:

				OP 3D Pro platform*	
GPU	**Chipset**	**Memory**	**OP 3D**	**SFOV**	**MFOV**
GeForce GTX 1650	TU117	4GB	✓	✓	✓
Quadro T1000	TU117-300-A1	4GB/8GB	✓	✓	✓
Quadro P1000	GP107GL	4GB	✓	✓	✓
GeForce GTX 1050 Ti	GP107-400	4GB	✓	✓	✓
Quadro M2000	GM206GL	4GB	✓	✓	✓
Quadro K2200	GM107GL	4GB	✓	✓	✓

* also includes the following devices:
- OP300 / Maxio
- CRANEX 3D / 3Dx
- GXDP-700 / 800
- Pan eXam Plus

NOTICE! SCANORA 3D/3Dx devices are supported using the above GPUs or an original GPU shipped with the device with at least 1GB memory. GPUs with less than 1GB memory are no longer supported for 3D reconstruction. If using an original 1GB GPU shipped with these devices, please check the minimum NVIDIA driver version specified in Compatibility with Operating Systems and GPU drivers is compatible with the GPU before proceeding. In some cases, replacement of the GPU may be required due to driver compatibility.

Compatibility with third-party software
- CS Imaging Software 7.0.20.4.d2 (CS7600 via TWAIN host)
- Dürr VistaScan TWAIN 1.4.0 (VistaScan Mini View via TWAIN host)

Known issues
1. In large network CLINIVIEW and SCANORA installations, DTX Studio™ Core can become unreliable when there are more than approximately 15 DTX Studio™ Driver installations in the same network. Symptoms include not being able to connect to DTX Studio™ Core and failure to save images to DTX Studio™ Core following image capturing. To resolve this issue, disable unused brokers using the DTX Studio™ Driver Dashboard on computers that are not used for image capturing, e.g. image viewing computers.
2. Ceph images acquired from OP200 D and CRANEX D may appear too light in versions of DTX Studio™ Clinic below 2.4.11. Images are usable and can be adjusted as needed in DTX Studio Diagnose. This issue is fixed in DTX Studio Clinic 2.4.11.
3. Panoramic images acquired from SCANORA 3D/3Dx may appear too light in versions of DTX Studio™ Clinic below 2.4.11. Images are usable and can be adjusted as needed in DTX Studio Diagnose. This issue is fixed in DTX Studio Clinic 2.4.11.
4. QC images acquired from OP 3D Pro and OP 2D may appear too dark in versions of DTX Studio™ Clinic below 2.4.11. Images are usable and can be adjusted as needed in DTX Studio Diagnose. This issue is fixed in DTX Studio Clinic 2.4.11.

Installation/Upgrade procedure
Run the installer **DTXStudioDriverInstaller.exe** included in the installation media and follow the onscreen instructions.

NOTICE! If you downloaded the ZIP file package, you must first fully extract the contents of the ZIP file before running the installer. Right-click the ZIP file and select Extract All… from the popup menu. Do not run the installer from inside the ZIP file.

How to get DTX Studio™ Driver
The software can be downloaded from:

https://tech.dexis.com

For more information please contact techsupp@dexis.com

Kind regards,

DEXIS Technical Support

OP 3D™ | OP 3D™ Pro | Scan eXam™ One | Scan eXam™ | FOCUS™ | IXS™ | Titanium | Medit i700 | DTX Studio™