

Service Bulletin

**Revised version:
Additional installation steps for VDI 3.1 added**

Release of NX 3.0.8950, XRDI 18.0, ASC 4.1 and VDI 3.1

Task			
Timing		Category	Scope
Next service as agreed with customer	<input type="radio"/>	Apply at all sites	Problem Record: PRB0051371, PRB0051748, PRB0049311, PRB0044902, PRB0052698, PRB0053758
	<input checked="" type="radio"/>	Apply at affected sites as listed below	
	<input type="radio"/>	Optional to improve functionality of product	

Task Tracking

After completion of your task the following entry in your Service Report is required:

DD+DIS059.16E

*

* Insert the document number into the field "Comment" (SMS form).

Purpose of this document:

- This document lists the new features of the released software items.
- It contains the installation instructions for these new software items.

Affected serial number(s) / batch: Upgrade those sites which require the new features or where the solved issues need to be implemented.

The signatures on the approval page indicate the solutions described in this Service Bulletin have been reviewed and are NOT reportable because no actions are taken to reduce a "Risk to Health" according to our risk assessment process.

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DX-D 100 / DX-D 100 Wireless

Agfa HealthCare Company Confidential Type 5410/050 Type 5411/050/300

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1 Introduction

The following software was released for world-wide delivery for the DX-D 100 / DX-D 100 Wireless systems:

- NX 3.0.8950
- XREDI 18.0 (X-Ray Device Interface)
- ASC 4.1 (Agfa Softconsole)
- VDI 3.1 (Viewworks Detector Software), respective DX-D 40/45 detector firmware and Mini SCU Box firmware

**NOTE:**

- Always install XREDI 18.0, ASC 4.1 and NX 3.0.8950 together. XREDI 18.0 does not support any previous versions of ASC or previous versions of the NX Software.
- For system version number and an overview of released systems versions and their components refer to
 - DX-D 100 Wireless V7 - Service Manual, Document ID [51229591](#), chapter 10 "Release Information"
 - DX-D 100 V7 - Service Manual, Document ID [51228328](#) chapter 10 "Release Information"

**NOTE:**

Up to NX 2.0.8900 / 3.0.8900 SU1 the NX service user "crservice" used a standard password which was communicated in the NX class room trainings. With introduction of NX 2.0.8900 / 3.0.8900 **SU2**, each NX computer has its own individual computer generated service password assigned via ELMS. The password must be organized in ELMS before upgrade to SU2 and before installation of new systems with SU2 installed ex factory.

For details refer to the respective NX Service Bulletin. See referenced documents.

1.1 New Features

**NOTE:**

For detailed information of new features in **NX 3.0.8950** refer to respective NX Service Bulletin: "Release of NX 3.0.8950", Document ID [54869033](#).

New features in XRD1 18.0, ASC 4.1 and VDI 3.1:

- Support for Manual Free exposure in Agfa soft console (same feature as already available in Sedecal soft console)
- Possibility to configure availability of Table or Wall Stand in Device Configuration > Room Settings
- Redesign of device status display in soft console (exam name in soft console; bright green bar to indicate readiness)
- Support for Detector Sharing functionality
- Improvements in software reliability and bugfixing

1.2 Solved Problem Records



NOTE:

For detailed information of solved problem records in **NX 3.0.8950** also refer to respective NX Service Bulletin: "Release of NX 3.0.8950", Document ID [54869033](#).

1.2.1 Sporadic license error after restart [PRB0051371]

Symptom Sporadically the NX issues a license error after restart. In the license manager the license is assigned to the MAC address of the wireless network card instead of the onboard network card. Each NX version ≤ 2.0.8900 / 3.0.8900 SU2 can be affected.
The issue was reported for DX-D 100 Wireless and HP ProBook 650 G1 only.

Cause Algorithm to detect the onboard network MAC address to verify the validity of the license files not reliable in case of a mix of wired and wireless network interfaces (like e.g. in DX-D 100).

Solution In NX 3.0.8950 the detection of the onboard network MAC address is improved.



IMPORTANT:

There is a chance, that the ALF file was created for the MAC address of the wireless network card (instead for the onboard NIC). In this case it could have happened that the issue did not occur so far or sporadically only. With software upgrade to NX 3.0.8950, in this case permanently a licensing error will be displayed. Solution: Forward the MAC address of the onboard NIC to the GSN. They create a new license file.

1.2.2 In a very special case a session is deleted 24 hours after its creation [PRB0051748]

Symptom If all of the following conditions are fulfilled, the session is deleted 24 hours after its creation on NX 2.0.8900 / 3.0.8900 SU2:

- The session contains at least one thumbnail on which a preview image was received, but the final image is never received.
- The session is in the closed list and is not locked.
- The session has no pending archive or print jobs. All acquired images are archived and/or printed prior to session removal.

Cause Software fault in NX 2.0.8900 / 3.0.8900 SU2.

Solution In NX 3.0.8950 the issue is solved. The cleanup of this special session is handled the same as any other session.

1.2.3 MESS310 at systems with touch screen when leaving Viewing and Editing screen [PRB0049311]

Symptom Error MESS310 when leaving the Viewing and Editing screen. The following preconditions must be fulfilled so that the symptom appears:

- System has NX 2.0.8900 / 3.0.8900 (SU1 / SU2) installed and is configured for touch mode (for DX-D 100 touch mode is always activated).
- Collimation Tool is deactivated (activated by default).

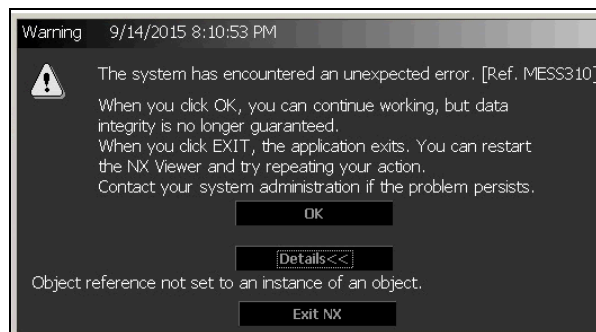


Figure 1

Cause Software bug introduced in NX 2.0.8900 / 3.0.8900 as part of the introduction of Touch Mode buttons in the Viewing and Editing environment: When leaving the Viewing and Editing environment, the software wants to close the Collimation Tool combo box. If this is not available MESS310 is shown.

Solution In NX 3.0.8950 the issue is solved.



NOTE:

A workaround for this fault was communicated in NX 2.0.8900 / 3.0.8900 SB11, Document ID [50978786](#).

1.2.4 Frequent small objects image processing failures [PRB0044902]

Symptom Poor image processing if all of the following conditions are fulfilled:

- Image is a small object, e.g. a finger.
- The user collimates very narrow for the exposure.
- The problematic images have a huge amount of pixel values below 65 (which is the Musica-internal clipping level)

The fault is independent on the NX software version.

Cause The module to compute the region of interest (ROI) fails in this special case.

Solution In NX 3.0.8950 the ROI detection is further improved. The following image processing packages contain the improved algorithm:
Musica3 Skeleton, Musica2 Adults Skeleton, Musica2 Pediatrics Skeleton and Musica2 Genrad.



NOTE:
Proper ROI detection cannot be guaranteed under all circumstances.

1.2.5 DX-D 40/45/60 Detector loses the link with laptop and Edimax router [PRB0052698]

Symptom NX cannot connect to any DX-D 40/45 detector at startup.
Restarting NX or detector does not help.

Cause Software issue:
Configuration file is corrupt.

Solution Workaround for installations below VDI 3.1:

- (1) Stop NX completely.
- (2) Open Vivix Setup.
- (3) Select detector(s) again (green).
- (4) Restart NX.

Solved with VDI 3.1 and some additional installation steps.
Install VDI 3.1 and pay attention to the additional installation steps described in the important notes in section 3.2".

1.2.6 Toggle between Viewworks detectors resulted in blank recovery image [PRB0053758]

Symptom Blank image arrives in NX.

Cause Software bug in VDI 3.0 (only this version!). The image from the wrong detector is taken. It only occurs when the system is working with 2 or more Viewworks DX-D 40/45 detectors AND both are configured to synchronize with generator, so they are not in selftrigger mode (AED).
What happens is that (the end of) an offset calibration is interrupting the current detector selection leading to a wrong setting of the detector-switch in the SCU.
Additionally, the user can also trigger the problem by fast switching between the 2 detectors in NX, e.g. by toggling quickly between 2 thumbnails of 2 different detectors.
As a result the image is taken from wrong detector.

Solution Install VDI 3.1.

Workaround for installations below VDI 3.1:

- (1) Avoid toggling quickly between 2 different detectors when not really needed (see above).
- (2) When the dialog with MESS20 is shown '*offset calibration is running for panel XXXXX. This might take a few seconds*'
then do NOT select another detector - either by clicking a thumbnail in NX for another detector or by selecting another detector in the detector drop down list above.
Instead, wait half a minute until the current detector becomes ready.

Solved with VDI 3.1.

1.3 Solved Software issues



NOTE:

For detailed information of solved software issues in **NX 3.0.8950** also refer to respective NX Service Bulletin: "Release of NX 3.0.8950", Document ID [54869033](#).

- When configuring a DR portable Table exposure for DX-D 300 the grid was set to "not used". It must be set to "required".
- When using a DX-D 40 / DX-D 45 detector and receiving the image as recovery image for any reason, the exposure parameters were not received.
- Exposure type print setting is configured as true size, but image in Editing Print View is displayed as best fit.
- When using a DX-D 30 in landscape and selecting a portrait exposure the image is rotated by 90°.
- The multi panel GUI is empty after an exposure. The detector needs to be selected again.
- During detector calibration the HU (Heat Units) display in the soft console is always empty (The heat unit's display shows the percentage of the thermal capacity of the X-ray tube that is used).
- The system shows an error after creation of a system snapshot, despite all data are collected properly.
- During calibration the selected detector is sometimes not displayed in Soft console.
- When working with 2 detectors and 1 detector is not working properly in some cases the room state gets green when switching to the detector which is not ready. The room state should be gray however.
- When changing values for kVp, mA, mAs, max ms and max mAs in the config tool, the input is not checked whether these are allowed values.
- If the detector is in an error state due to too high temperature, this is not displayed on NX.
- In a configuration without generator integration, when using the "Edit Exposure Modality Settings" in the config tool, the width & height value behaviour is inversed (red for correct and green for OK).
- In mixed use of CR and DR: When removing the DR detectors from the configuration, error for bucky height for exposures appear but it is not possible to enter a height.
- CR free with subexposures has 2 different position parameters.
- DR 600 positioner values are not displayed ("NaN" is displayed) if NX regional settings (in Windows) are configured to use comma as separator instead of a dot.
- Icon for "door open" not displayed after calibration of a detector (when opening the door). The room state changes to error correctly.

- Regional settings changed, but the APC messages are still displayed in the previously selected language.
- Very sporadically NX room does not get ready after restart when using retrofit box with USB option and retrofit box is not operational.
- Modality position "free" should be not selectable in some configurations (e.g. only fixed detectors), but is selectable. No exposure possible because everything is disabled.
- In some very specific configurations the thumbnail for the detector becomes green, then briefly gray, then green again.
- When cancelling a FLFS exposure and want to start the exposure again, it is possible to change patient size and tube load, but all controls should be disabled.
- Starting a FLFS exposure sequence in portrait mode the option for continuing in landscape should be disabled, but is enabled.
- DX-D30C images are displayed with wrong image orientation in NX for some special configurations.
- In FLFS mode it is not possible to switch to a second detector of the same type (e.g. 2 x DX-D 40).
- When adding a DRP table exposure in sensitivity "low" and adding a CR / DRP free exposure, the pre exposure settings are not correct of the DRP table setting are displayed.
- Open an exposure with AEC and set the AEC setting to off. Expose and than copy this exposure leads to an error.
- When working with the detector calibration tool, the DR 600 Tube head display is not rotated when the tube head is rotated.

2 Prerequisites

- (1) Organize a new license file (ALF) for the NX via ELMS.
For further information concerning obtaining or creating the ALF (Application License File), refer to the *Simplified ELMS DR Subproduct Interoperability Matrix*.

**NOTE:**

Downloading plug-ins for the new installers for the NX offline configuration tool is not required. By loading the installer on the Service PC with the NX offline configuration tool installed, the plug-in is installed automatically. The plug-ins are integrated for XRD1 as of version 15.

**REFERENCED DOCUMENTS:**

- Simplified ELMS DR Subproduct Interoperability Matrix
General Info > Agfa HealthCare > Publications > Service Manual
- Service Manual with more information concerning installation and licenses
Computed Radiography > CR Workstation Software > NX X.0.xxxx > Service Manual
- **Agfa HealthCare Library > Computed Radiography > CR Workstation Software > NX 3.0.8950 > Service Bulletin**
NX 3.0.8950 Service Bulletin No. 01, "Release of NX 3.0.8950",
Document ID [54869033](#).
- DX-D 100 V7 Wireless - Service Manual
Direct Radiography > DX-D 100 Wireless > DX-D 100 Wireless V7 > Service Manual, Document ID [51229591](#)
- DX-D100 V7 - Service Manual
Direct Radiography > DX-D 100 > DX-D 100 V7 > Service Manual,
Document ID [51228328](#)
- DX-D 40 / DX-D 45 - Service Manual
Direct Radiography > DR Detectors > DX-D 40/DX-D 45 > Service Manual,
Document ID [45016244](#)
- NX 2.0.8900 / 3.0.8900 SB 12,
Unique password per NX for user crservice as of NX 8900 SU2,
Document ID [51679365](#)

**SOFTWARE:**

Download the software from the Agfa HealthCare Library to a USB flash drive (checked to be virus-free):

- XRDI 18.0
Direct Radiography > DR Components > XRDI > Software
- ASC 4.1
Direct Radiography > DR Components > Generator > Software
- VDI 3.1
DX-D 40 Firmware v01.20
DX-D 45 Firmware v1.0.3.37
SCU Box Mini Firmware v1.0.3.35
Direct Radiography > DR Detectors > DX-D 40/DX-D 45 > Software

3 Instructions

3.1 Installation of NX 3.0.8950

**REQUIRED TIME:**

- Installation of a new system:
The Mean Time to Install (MTTI) of a staged system is specified for 4 hours. For details refer to the Service Plan NX 3.0.8950 Document ID [49349728](#).
- Upgrade installation:
Approximately 1.5 hours or more. Depends on the complexity of the situation on site. Note that installing hotfixes may already take up to 1 hour, depending on the hotfix status.

**NOTE:**

For instructions how to install or upgrade the NX refer to NX 3.0.8950 Service Bulletin No. 01, "Release of NX 3.0.8950", Document ID [54869033](#).

3.2 Installation of XRDI 18.0, ASC 4.1 and VDI 3.1



REQUIRED TIME:
30 minutes



IMPORTANT:

Note that the following error may occur during installation!

Symptom During installation, Windows security triggers a pop-up message

Cause

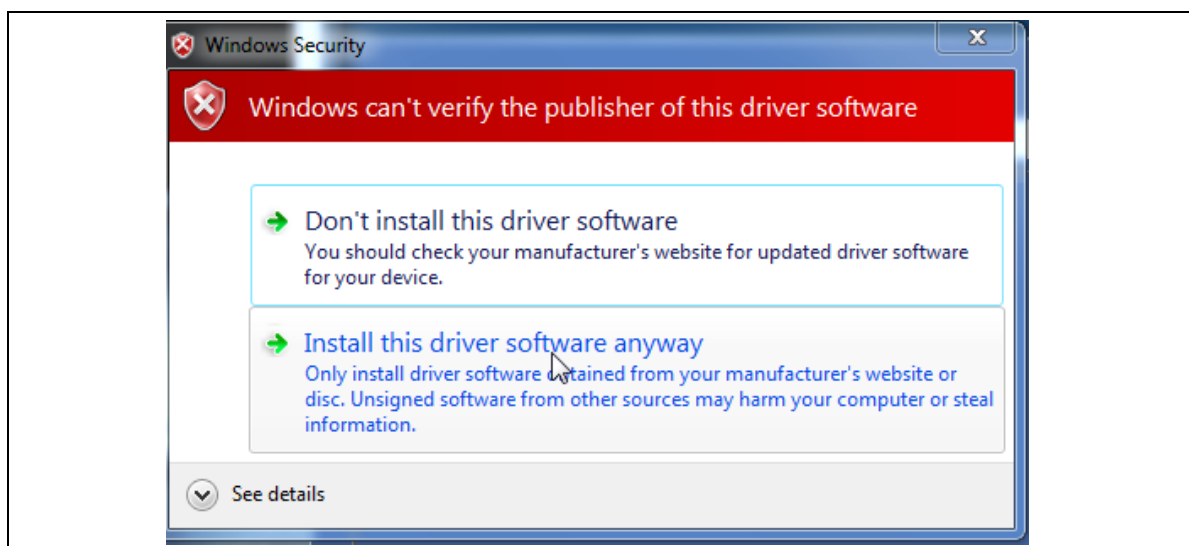


Figure 2

Solution Workaround solution: Select “Install this driver software anyway”.



IMPORTANT:

Before installing VDI 3.1:

Firmware upgrade for DX-D 40, DX-D 45 and Mini SCU Box is required.
Refer to DX-D 40 / DX-D 45 - Service Manual for upgrade instructions.
For other VDI installation instructions also refer to the service manual.

Perform the following steps on the NX workstation:

- (1) Stop NX.
- (2) Copy the installers **XRDI 18.0, ASC 4.1 and VDI 3.1** to **C:\Agfa\Healthcare\NX\Installers** into the appropriate subdirectory on the NX.

Create the folder if it doesn't exist.

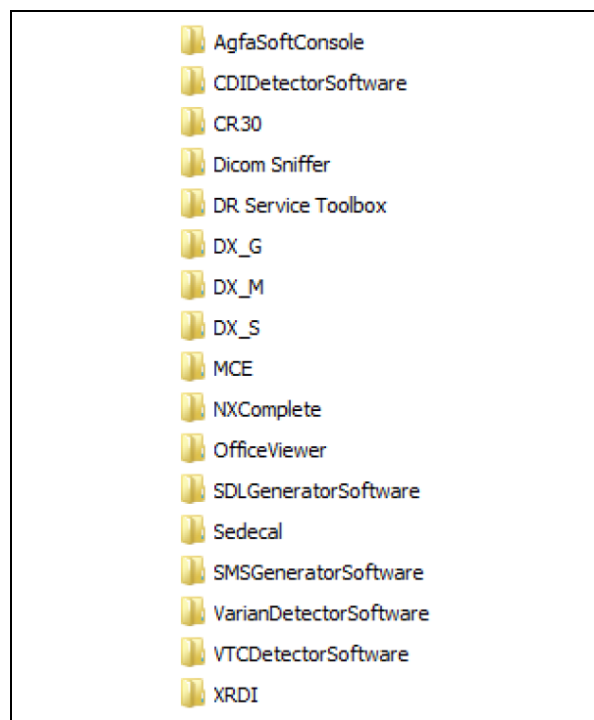


Figure 3

- (3) Export the current NX configuration via NX configuration tool.
- (4) Load the updated NX license file (.alf) via the license manager.
- (5) Load the new installers by using the Activation Utility Helper.
- (6) Reload the previously saved NX configuration via NX configuration tool.
- (7) Activate the configuration.



IMPORTANT:

After the installation of VDI 3.1 it is required to perform the following steps:

- Make sure that the detectors are green selected in Vivix Setup.
- Open the VDI Panel Installation tool.
- Click the 'Create InstalledPanel.xml' button.

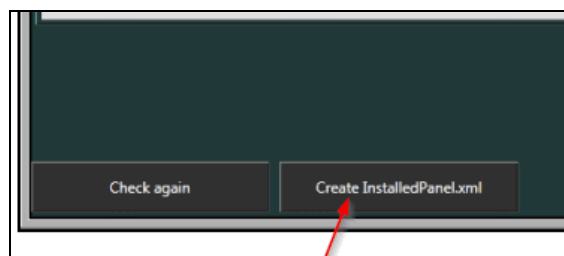


Figure 4

3.2.1 Microsoft Security Essentials Autoconfigurator (MSEA)

**NOTE:**

As from XRDl version 15, it is necessary to run the Microsoft Security Essentials Autoconfigurator (MSEA) after a higher XRDl version has been installed. For details on how to work with the MSEA, refer to the following Service Bulletin:

DR Service Toolbox version 3.0 available. Refer to Agfa HealthCare library

Direct Radiography > DX-D 100 > Service Bulletins or refer to Document ID [45186624](#).

4 Verification

Correct functionality of the respective DX-D system is verified by performing the following Acceptance Test procedures:

- On system level: System Acceptance Test
- On component level: NX workstation Acceptance Test procedure

5 Keywords

4406/303, DX-D 100 / DX-D 100 Wireless, release, installation, upgrade, XRDI, ASCI, VTI

6 Version history

Version	Change	Date
1.0	Initial version	07-2016
1.1	Added PRB0053758 in Scope (page 1)	08-2016
1.1	Added information for VDI 3.1 in section 1.2.5 Added important note in section 3.2	10-2016



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