sirona.

The Dental Company

SIDEXIS Plugin for XIOS XG

Operator's manual

English

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1 Description of plugin

1.1 SIDEXIS Plugin for XIOS XG

Dear customer,

We are pleased that you use the XIOS XG intraoral X-ray system from SIRONA.

The SIDEXIS plugin for XIOS XG offers the following functionalities:

- Image acquisition with the XIOS XG Select and XIOS XG Supreme sensors via USB (in connection with the XIOS XG USB module)

- Image acquisition with the XIOS XG Select and XIOS XG Supreme sensors via WiFi (in connection with the XIOS XG WiFi module)

- Unique identification of the WiFi interfaces via RFID is optionally possible (in connection with the XIOS XG RFID reader)

- Dynamic focus control:

  Image processing tool for exposures taken with XIOS XG Supreme type sensors)

- The SIDEXIS XG image processing functions are available for all exposures, see the "SIDEXIS XG Operator's Manual".

1.2 System requirements

In addition to SIDEXIS XG (version 2.56 and above) the SIDEXIS plug-in for XIOS XG must be installed.

The PC should meet the following minimum requirements for SIDEXIS XG and the SIDEXIS plug-in for XIOS XG:

Processor:	32-bit (x86), 1 GHz
RAM	2 GB
Free hard disk storage:	5 GB for SIDEXIS XG installation and database
Removable medium:	CD/DVD writer
Graphics card:	> 128 MB, minimum resolution 1024x768 pixels, 16.7 million colors ("TrueColor")
Screen:	Suitable for diagnostic applications
Network card:	Network RJ45, 100 MBit/s
USB port:	in accordance with USB 2.0 standard

The following operating systems are supported:

- Windows XP service pack 3 32-bit
- Windows Vista Service Pack 1 (32-bit)
- Windows 7 Professional SP 1 (32-bit or 64-bit)
- Windows 7 Ultimate SP 1 (32-bit or 64-bit)

If a WiFi interface is used, the WiFi network must meet the following requirements:

Technology:	2.4 GHz FM digital data transmission, IEEE 802.11b/g, WiFi-compliant
Frequency:	2.4-2.4835 GHz, 11 channels usable
Modulation technology:	DSSS, CCK, OFDM
Modulation type:	DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM
Network access modes:	Ad-hoc and infrastructure
Wireless data rate:	802.11b - 11 / 5.5 / 2 / 1 Mbs 802.11g - 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbs
Security protocols:	deactivated, WEP 64 and 128 bit, WPA (TKIP), WPA (AES), WPA2 (AES)

The system requirements are also listed under www.sidexis.com

2 Installation

Contents of the supplied CD

The following options are available on the supplied CD ("*Sirona XIOS XG Select/Supreme 1.0 - Installation*"):

- "*Installing the device connection with USB support*"

  This option installs the XIOS XG plug-in for USB device connection, the driver for the USB module and the Dynamic image sharpness control image processing tool.

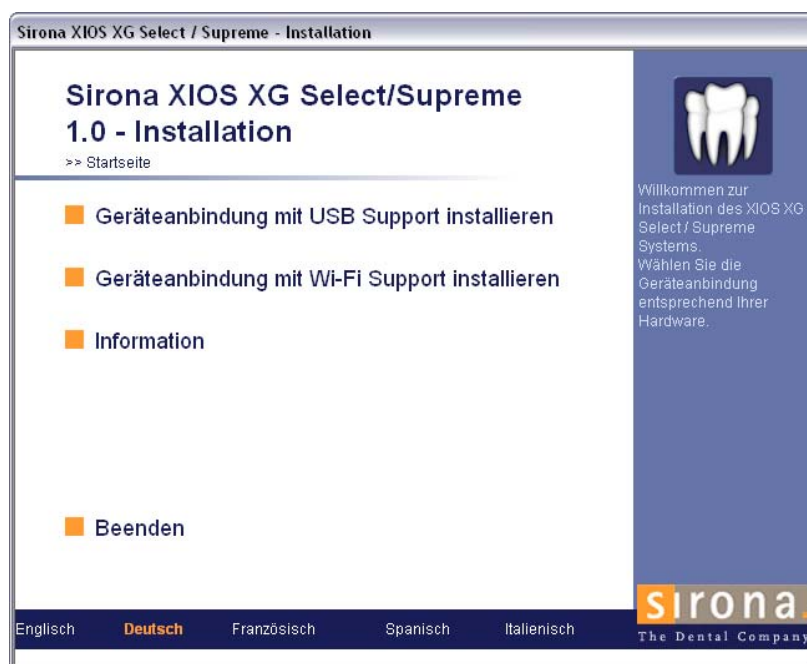- "*Installing the device connection with WiFi support*"

  This option installs the XIOS XG plug-in for WiFi device connection, the driver for the WiFi interface and the Dynamic image sharpness control image processing tool.
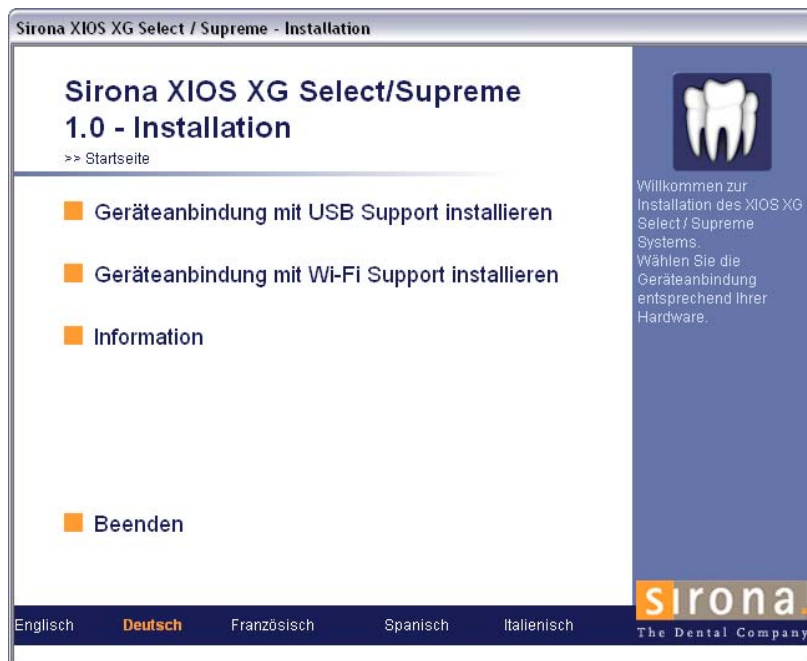
If you use the USB modules and the WiFi interface, then install both device connections.

Overview of the Setup window

2.1 Installing the plugin for USB device connection

✔ Make sure that SIDEXIS XG 2.56 or higher is installed.

1. Log onto your PC with an administrator account.

2. Insert the Sirona XIOS XG Select/Supreme 1.0 - Installation CD into your PC's CD/DVD drive.

3. The setup normally starts automatically. If the setup routine doesn't start, double-click the *Autorun.exe* file in the root directory of the installation CD.

   ᗉ The *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* window appears.

4. Click on *"Installing the device connection with USB support"* in the *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* window.

5. Follow the further instructions.

   ᗉ When the installation is completed, the program will return you to the Setup home page.

   ᗉ The XIOS XG plugin for device connection with USB support is installed.

6. Click the *"Quit"* button to close the *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* window.

2.2 Installing the plugin for WiFi device connection

✓ Make sure that SIDEXIS XG 2.56 or higher is installed.

1. Log onto your PC with an administrator account.

2. Insert the Sirona XIOS XG Select/Supreme 1.0 - Installation CD into your PC's CD/DVD drive.

3. The setup normally starts automatically. If the setup routine doesn't start, double-click the *Autorun.exe* file in the root directory of the installation CD.

   ↳ The *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* window appears.
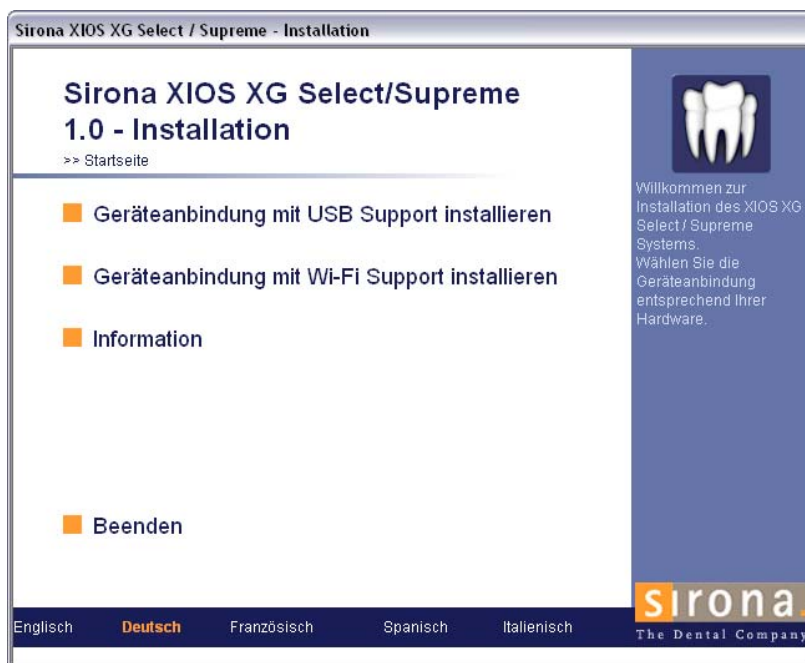
4. Click on *"Installing the device connection with WiFi support"* in the *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* window.

5. Follow the further instructions.

   ↳ When the installation is completed, the program will return you to the Setup home page.

   ↳ The XIOS XG plugin for WiFi device connection is installed.

6. Click the *"Quit"* button to close the *"Sirona XIOS XG Select/Supreme 1.0 - Installation"* Setup window.

3 Configuration

3.1 Opening the configuration dialog

Information on the XIOS XG Configuration configuration dialog

In the XIOS XG Configuration configuration dialog, you make all settings

- for the SIDEXIS plugin for XIOS XG
- for the XIOS XG sensors and modules
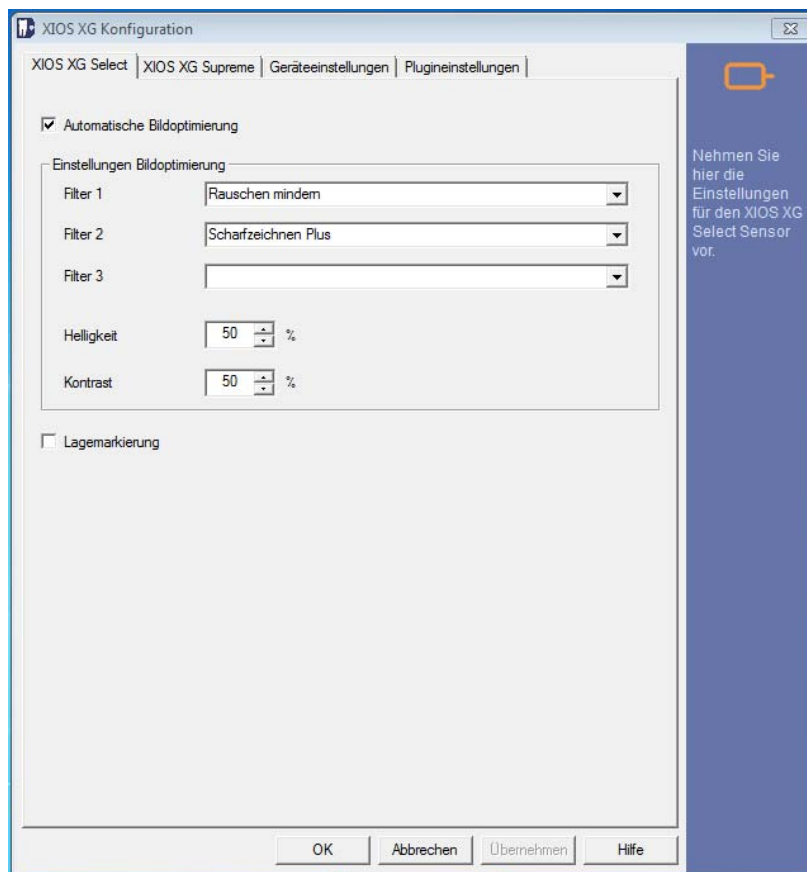
Opening the XIOS XG Configuration configuration dialog

✓ The SIDEXIS plugin for XIOS XG is installed.

1. Start the SIDEXIS Manager. You will find the SIDEXIS Manager in the Start menu under Programs --> SIDEXIS -->SIDEXIS Manager

2. Click the *"XIOS XG Configuration"* button in the SIDEXIS Manager.

↳ The XIOS XG Configuration configuration dialog box then opens.

3.2 Configuration of XIOS XG Select

In the XIOS XG Select configuration dialog, you can configure the automatic optimization of exposures. Exposures acquired with an XIOS XG Select type sensor are then automatically optimized based on these configurations.
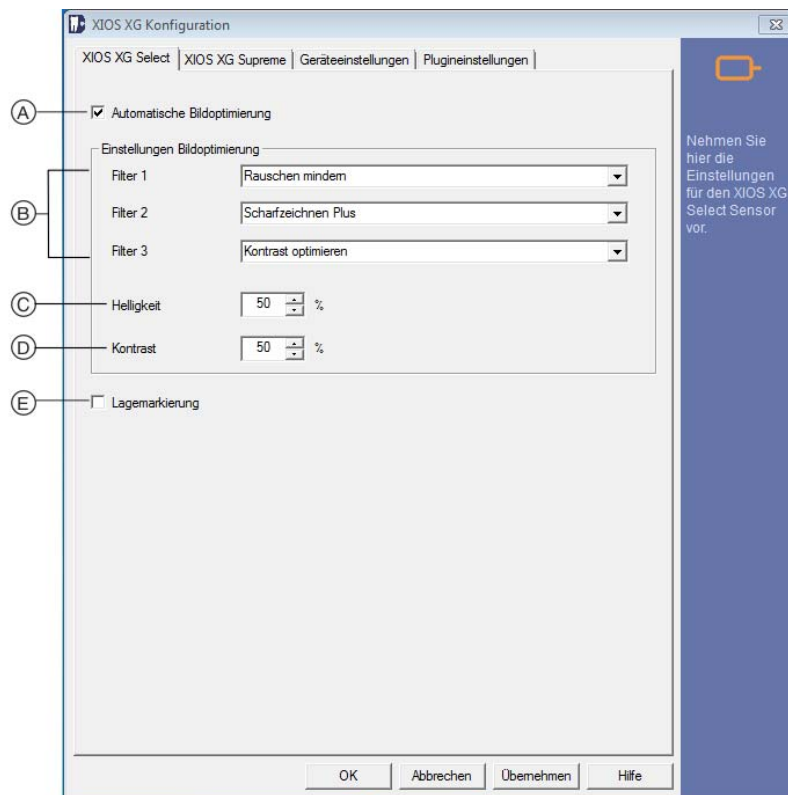
1. Start the XIOS XG Configuration configuration dialog.

2. When the *"XIOS XG Configuration"* configuration dialog is opened, the *"XIOS XG Select"* tab is selected by default.

3. Place a check mark in the *"Automatic Image Optimization"* check box to activate the Automatic Image Optimization for XIOS XG Select exposures.

   ↳ XIOS XG Select exposures are optimized automatically.

   ↳ In the *"Settings Image Optimization"* area you can make settings for the Automatic Image Optimization. These are described in the following.

4. Define the desired filter options in the drop-down menus (B). You can use all three filter options simultaneously or only one or two filter options. If you do not want to use any filter options, then remove all entries from the drop-down menus.
The image filters are used for XIOS XG Select exposures if the Automatic Image Optimization is activated.
The following image filters are available:

"Reduce noise": This filter removes minor disturbance information or individual pixels that cause a noisy image. The overall definition of the image is not reduced. It is advisable to use this filter for noisy images.

"Sharpen": This filter intensifies the contrast of neighboring pixels. The image thus appears sharper overall. It is advisable to use this filter for images that appear blurred.

"Optimize contrast": This filter analyzes the distribution of the gray scale values in the image and optimizes them in such a way that contrasts are heightened.

5. Use the *"Brightness"* (C) and *"Contrast"* (D) controls to adapt the Brightness and brightness Contrast for XIOS XG Select exposures. These settings are used if the Automatic Image Optimization is activated.

6. To deactivate the Automatic Image Optimization, remove the check mark from the *"Automatic Image Optimization"* check box.

7. To activate the Orientation marker, place a check mark in the *"Orientation marker"* check box (E).
If the Orientation marker is activated, the position of the sensor will be described during the exposure. For this purpose, a rectangle is drawn in one corner of the exposure to make the position of the sensor visible during the exposure. For more information, please refer to the section of the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors Operating Instructions on alignment of the X-ray image.
The Orientation marker can be used even when the Automatic Image Optimization is not activated.

8. Click the *"Apply"* button to save the configuration.

or

➢ Click the *"OK"* button to save the configuration and close the configuration dialog.

✎ The settings for the *"XIOS XG Select"* exposures are saved.

✎ Exposures of the type *"XIOS XG Select"* are optimized based on the settings made.

IMPORTANT
The configurations for XIOS XG Select only affect exposures that were taken using an XIOS XG Select type sensor.

3.3 Configuration of XIOS XG Supreme

The image filters for XIOS XG Supreme exposures are configured in the XIOS XG Supreme configuration dialog. They can optimize the display of exposures to meet your requirements.

If you take a XIOS XG Supreme exposure, an image filter with these settings will automatically be used for the exposure. Via the Dynamic image sharpness control image processing tool, you can use additional image filters for the exposure and change the focus.

1. Start the *"XIOS XG Configuration"* configuration dialog.

2. Click the *"XIOS XG Supreme"* tab in the *"XIOS XG Configuration"* configuration dialog.
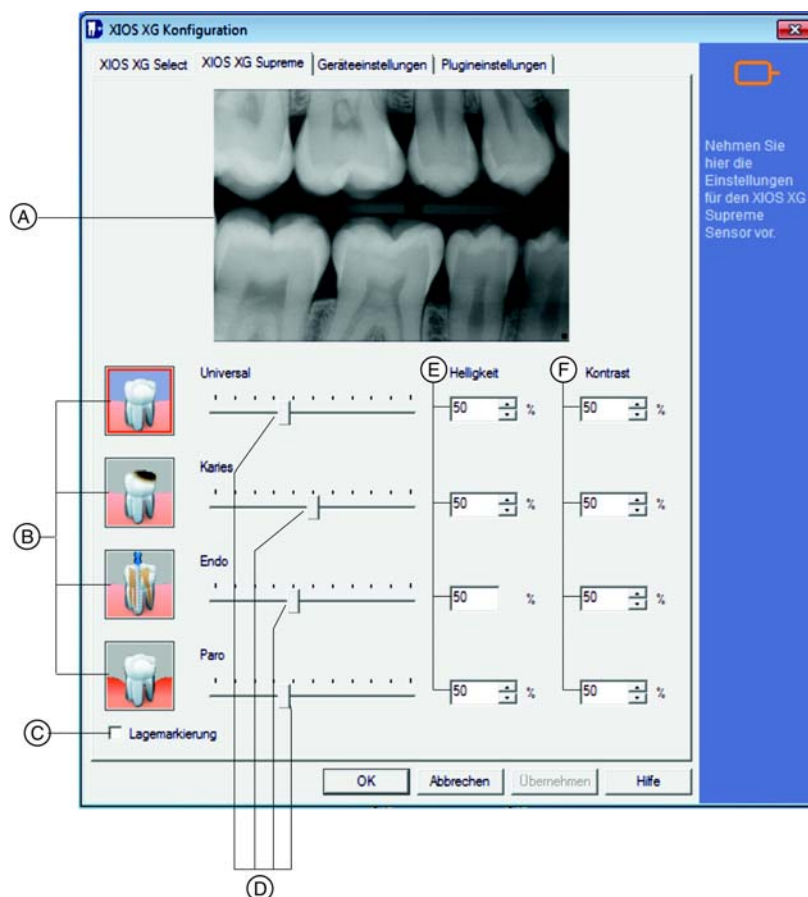
3. Click one of the image filter buttons (B) to select an image filter.
   ⮡ The selected image filter button is indicated by a red border. Now the image filter can be configured.

4. Adjust the focus for the image filter using the respective slider (D).

5. Adjust the Brightness for the image filter using the *"Brightness"* slider (E).

6. Adjust the Contrast for the image filter using the *"Contrast"* slider (F).
   ✎ The adjustments are displayed in the preview image (A).

7. Repeat steps 3 - 6 for the other image filters.

8. To activate the Orientation marker, place a check mark in the *"Orientation marker"* check box (C).
   The Orientation marker is used to describe the position of the sensor during the exposure. For this purpose, a rectangle is drawn in one corner of the exposure to make the position of the sensor detectable during the exposure. For more information, please refer to the section of the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors Operating Instructions on alignment of the X-ray image.

9. Click the *"Apply"* button to save the configuration.

or

   ➢ Click the *"OK"* button to save the configuration and close the configuration dialog.

   ✎ The image filters for XIOS XG Supreme are configured.

   ✎ An image filter is always used to take a XIOS XG Supreme exposure. The exposure is then filtered according to the settings contained therein.

IMPORTANT
The configurations for XIOS XG Supreme only affect exposures that were taken using an XIOS XG Supreme type sensor.

3.4 Device settings

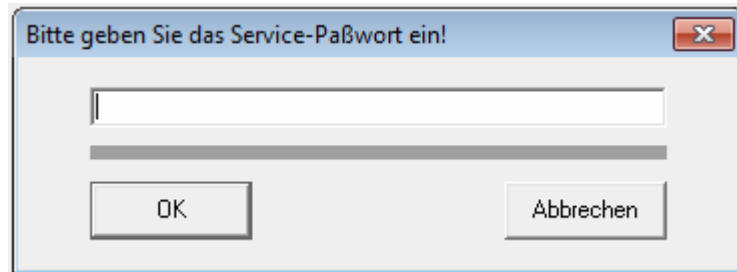**Information on the Device settings configuration dialog**
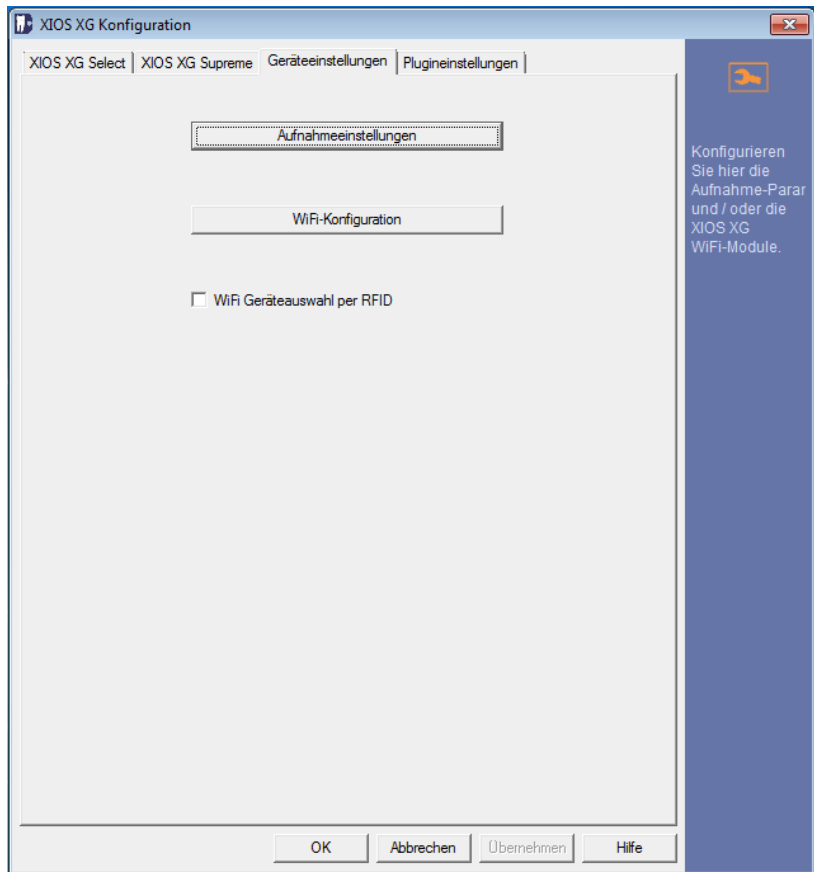
In the configuration dialog Device settings you can make the following configurations:

- Exposure settings

- WiFi configuration

- Activate/deactivate WiFi device selection via RFID

These configuration options are described later on in this section.

All configuration options in the Device settings dialog are password-protected. On opening a configuration, you will be prompted to enter the service password.

IMPORTANT
Incorrect configurations in the Device settings dialog may lead to malfunctioning of the SIDEXIS plugin for XIOS XG.
➢ Configurations should be performed in the Device settings dialog only by service engineers.

3.4.1 Exposure settings

Information on the Exposure settings

The Device settings --> Exposure settings dialog window offers you the following options:

- Switching between 8-bit and 12-bit exposures

- Display of installed sensor calibration files

- Installation of sensor calibration files (for type CDR2000 sensors only)

- Changing the binning mode (for XIOS XG Supreme type sensors only)

- Display of the serial number, size and date of the calibration files for a connected sensor

3.4.1.1   ### Switching between 8-bit and 12-bit exposures

12-bit exposures have better image quality, but also require a larger data volume in comparison to 8-bit exposures. Faster data transmission is possible with 8-bit exposures. Generating 8-bit exposures makes sense only for slow network connections. The performance of most networks is sufficient to transmit 12-bit exposures within a short time. SIRONA therefore recommends generating 12-bit exposures.

1. Start the XIOS XG Configuration configuration dialog.
2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.
3. Click the *"Exposure settings"* button.
4. Enter the service password in the window which then opens and click *"OK"*.
   ↳ The *"Eigenschaften von Xray Acquisition Control"* window opens.
5. Click the *"Xray"* tab in the *"Eigenschaften von Xray Acquisition Control"* window.
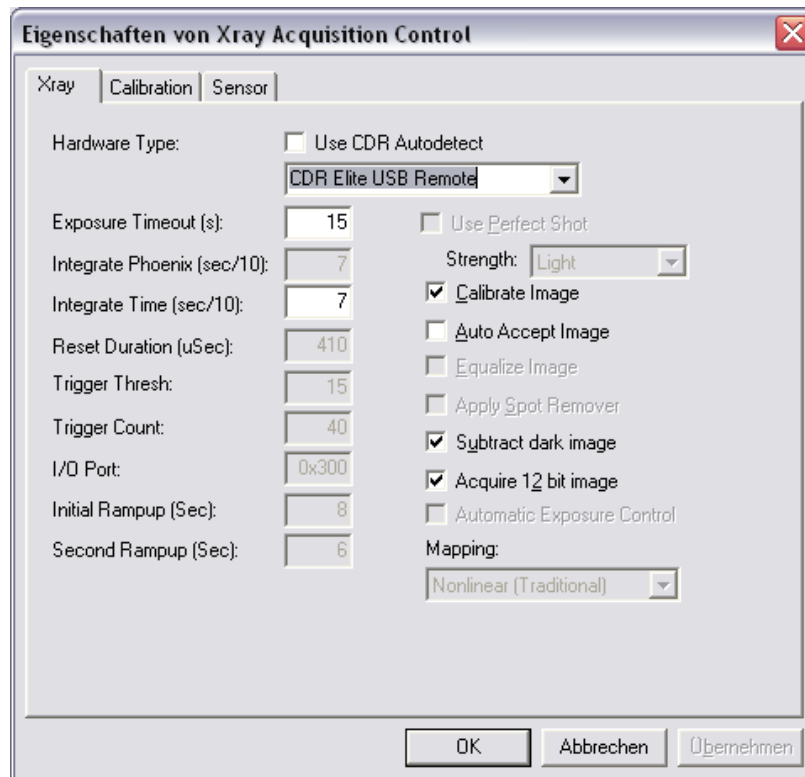
6. To generate 12-bit exposures, place a check mark in the *"Acqire 12 bit image"* check box.
7. To generate 8-bit exposures, remove the check mark from the *"Acqire 12 bit image"* check box.
8. Do not change any other settings.
9. Click the *"OK"* button.
↳ The settings are accepted.

3.4.1.2   **Display of installed sensor calibration files**

The sensor calibration files contain information on the correction of pixel errors. An individual calibration file exists for each sensor.

For XIOS XG Select and XIOS XG Supreme type sensors, the calibration files are saved on the sensor and are automatically installed the first time the sensor is connected to the PC.

You can check whether the sensor calibration files are properly installed via the *"Eigenschaften von Xray Acquisition Control"* dialog window. You also can display the installation path for the sensor calibration files.

1. Start the XIOS XG Configuration configuration dialog.
2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.
3. Click the *"Exposure settings"* button.
4. Enter the service password in the window which then opens and click *"OK"*.
   - ⮥ The *"Eigenschaften von Xray Acquisition Control"* window opens.
5. Click the *"Calibration"* tab in the *"Eigenschaften von Xray Acquisition Control"* window.
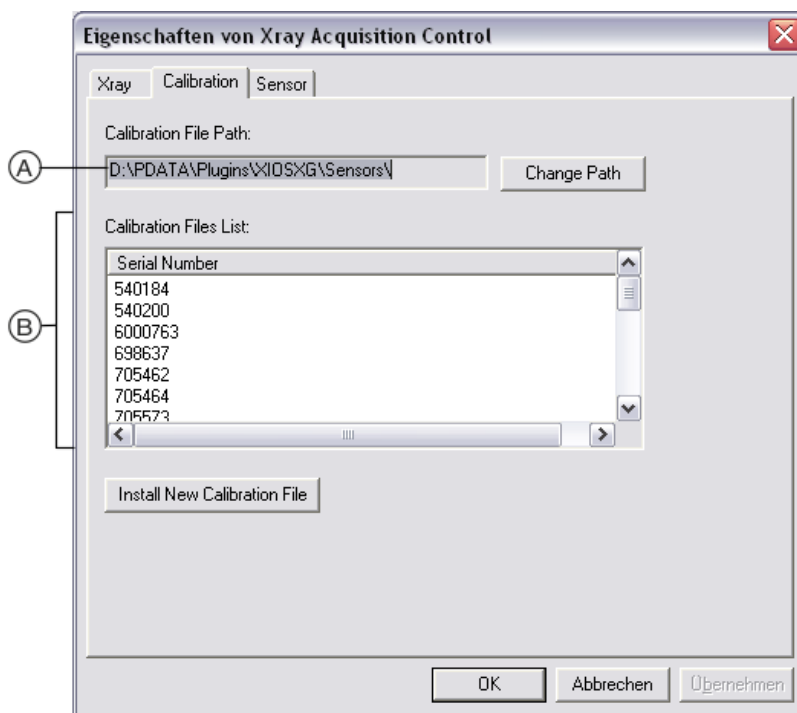
- ⮥ The installation path for the calibration files is displayed under *"Calibration File Path"* (A). This path is automatically properly defined during the installation of the plugin. A change of the path via the *"Change Path"* button is not required.

6. To locate the serial number of a sensor, refer to the *"Calibration File List"*. This serial number is then printed on the sensor housing.

   ↪ The serial numbers of the sensors for which calibration files are installed are specified in the *"Calibration File List"* (B).

   ↪ If the serial number of the sensor is specified in the list, the calibration file is correctly installed for this sensor.

3.4.1.3   **Installation of sensor calibration files (for type CDR2000 sensors only)**

The sensor calibration files of type CDR 2000 sensors are contained on a data carrier supplied along with them. These sensor calibration files must be installed manually via the *"Eigenschaften von Xray Acquisition Control"* dialog window.

1. Insert the CD with the calibration files for your CDR 2000 sensor in the CD / DVD drive of your PC.
2. Start the XIOS XG Configuration configuration dialog.
3. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.
4. Click the *"Exposure settings"* button.
5. Enter the service password in the window which then opens and click *"OK"*.
   ↳ The *"Eigenschaften von Xray Acquisition Control"* window opens.
6. Click the *"Calibration"* tab in the *"Eigenschaften von Xray Acquisition Control"* window.
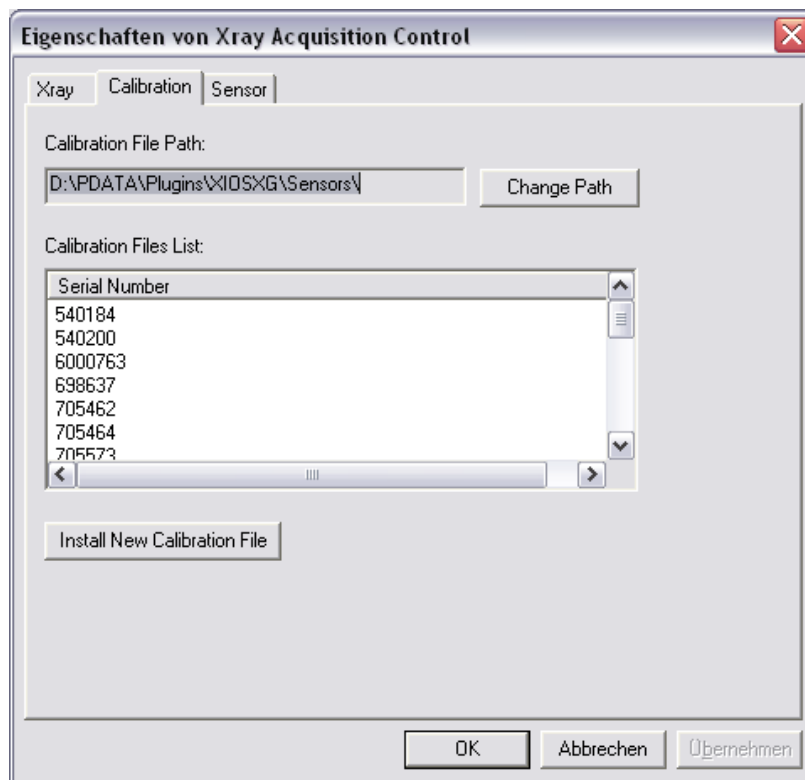
7. Click the *"Install New Calibration File"* button.
8. Navigate to the inserted CD and mark the calibration file.
9. Follow the additional instructions.
   ↳ The calibration file for the CDR 2000 sensor is installed. The serial number of the sensor is specified in the *"Calibration File List"*.

3.4.1.4 **Changing the binning mode (for XIOS XG Supreme only)**

2 binning modes are available for exposures with XIOS XG Supreme sensors. Maximum image quality is attained in the 1x1 binning mode (*"High Resolution Acquisition"* activated). In the 2x2 binning mode, 4 pixels are combined to form a single pixel. The resolution of the exposure is then lower and less storage space is required.

SIRONA recommends using the 1x1 binning mode.

1. Start the XIOS XG Configuration configuration dialog.
2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.
3. Click the *"Exposure settings"* button.
4. Enter the service password in the window which then opens and click *"OK"*.
   ↳ The *"Eigenschaften von Xray Acquisition Control"* window opens.
5. Click the *"Sensor"* tab in the *"Eigenschaften von Xray Acquisition Control"* window.
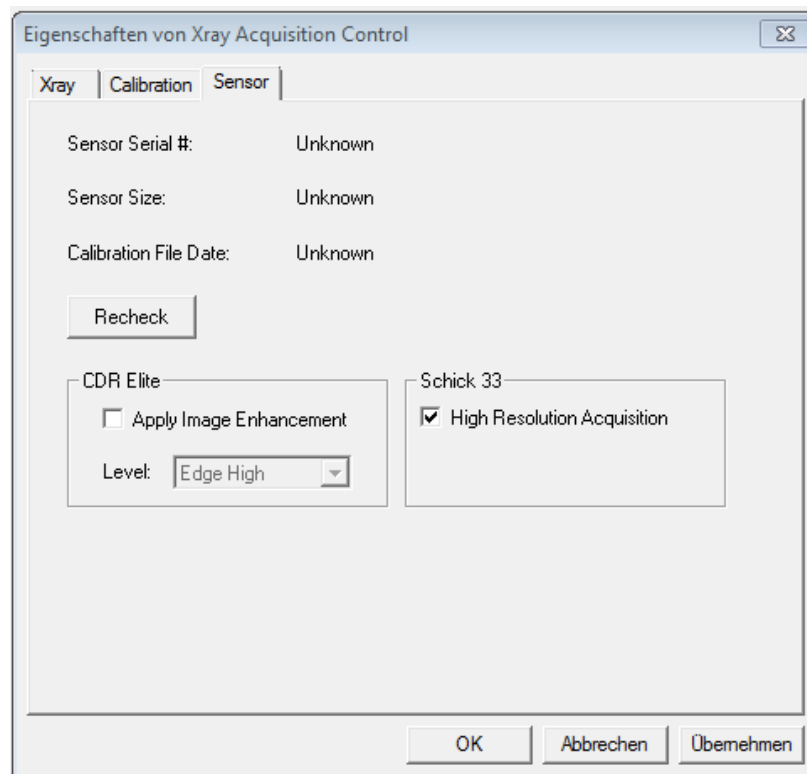
6. To generate exposures in the 1x1 binning mode, place a check mark in the *"High Resolution Acquisition"* check box.
7. To generate exposures in the 2x2 binning mode, remove the check mark from the *"High Resolution Acquisition"* check box.
8. Do not change any other settings.
9. Click the *"OK"* button.
↳ The settings are accepted.

3.4.1.5 **Display of the serial number, size and calibration files of a connected sensor**

1. Start the XIOS XG Configuration configuration dialog.
2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.
3. Click the *"Exposure settings"* button.
4. Enter the service password in the window which then opens and click *"OK"*.
   - ↳ The *"Eigenschaften von Xray Acquisition Control"* window opens.
5. Click the *"Sensor"* tab in the *"Eigenschaften von Xray Acquisition Control"* window.
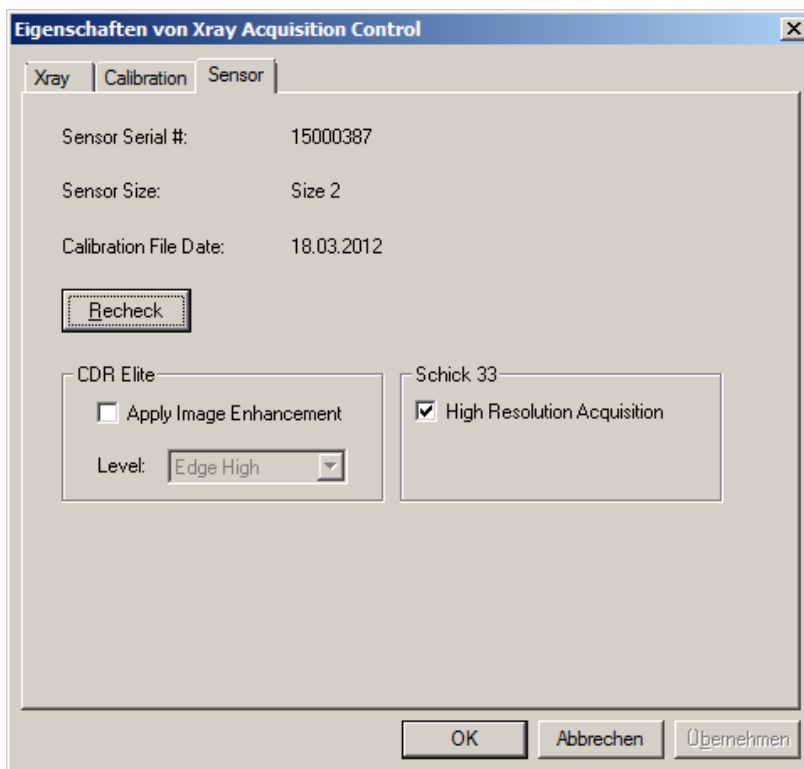
6. Click the *"Recheck"* button.
   - ↳ The serial number of the sensor, size of the sensor and date of the calibration files of the connected sensor are displayed.

3.4.2 WiFi configuration
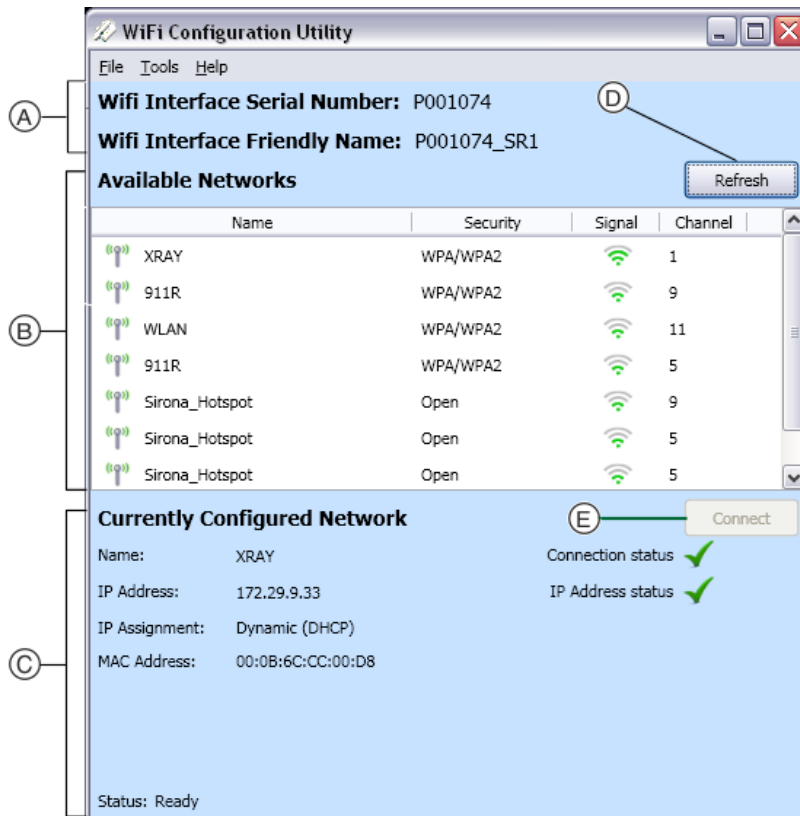
Information on WiFi configuration

The *"Device settings"* --> *"WiFi configuration"* dialog window offers you the following options:

- Display of available WiFi networks and connection status of WiFi interfaces

- Connecting WiFi interfaces to a WiFi network

- Connecting WiFi interfaces to hidden WiFi networks. The name of the hidden WiFi network must be known for this purpose.

3.4.2.1 **Display available WiFi networks and connection status of WiFi interfaces**

✔ The WiFi charging cradle is connected to the PC via USB.

✔ The WiFi charging cradle is connected to the power supply via a power plug.

✔ The WiFi interface is located in the charging cradle.

1. Start the XIOS XG Configuration configuration dialog.

2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.

3. Click the *"WiFi configuration"* button.

4. Enter the service password in the window which then opens and click *"OK"*.
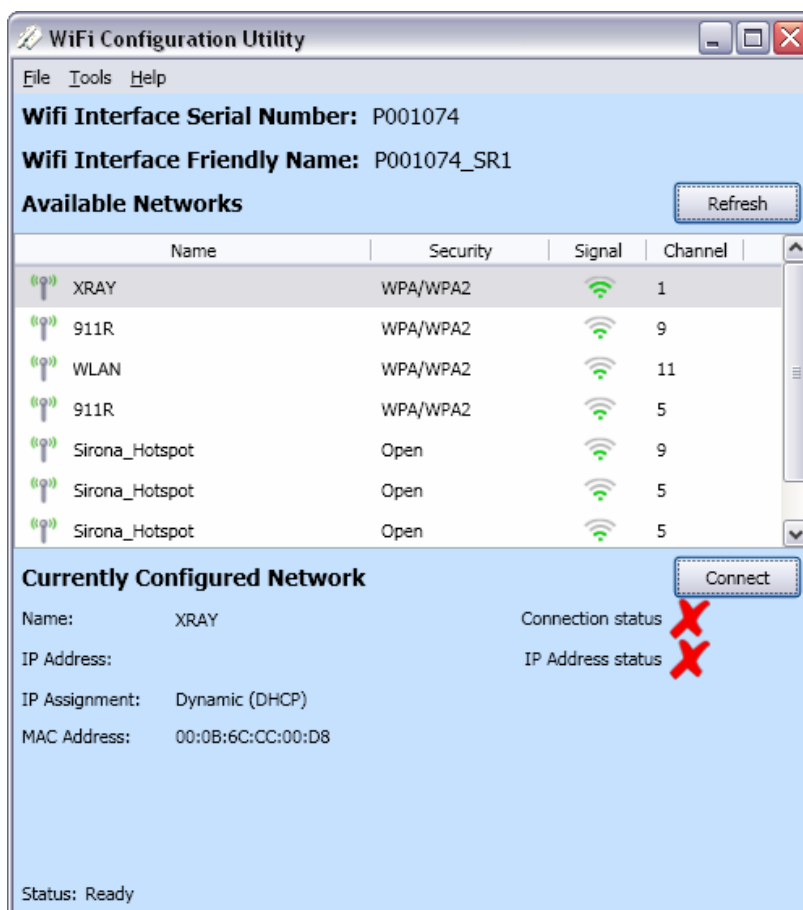
↳ The *"WiFi Configuration Utility"* window opens. The following information is displayed in this window:

| A	Information on the registered WiFi interface
B	Available networks. The following information is displayed for each network: • Name • Encryption (*"Security"* column) • Signal strength (*"Signal"* column) • Channel (*"Channel"* column)
C	Information on the currently configured network
D	*"Refresh"* button. Updates the list of available networks
E	*"Connect"* button

3.4.2.2   **Connecting the WiFi interface to a WiFi network**

✔   The WiFi interface is located within range of a WiFi network.

✔   The WiFi router is operated in the G or Mixed mode. For more details, please refer to the operating instructions of your WiFi router.

✔   The WiFi charging cradle is connected to the PC via USB.

✔   The WiFi charging cradle is connected to the power supply via a power plug.

✔   The WiFi interface is located in the charging cradle.

1.   Start the XIOS XG Configuration configuration dialog.

2.   Click the *"Device settings"* tab in the XIOS XG Configuration dialog.

3.   Click the *"WiFi configuration"* button.

4.   Enter the service password in the window which then opens and click *"OK"*.

   ↳   The *"WiFi Configuration Utility"* window opens.


5.   If not networks are displayed in the *"WiFi Configuration Utility"* window, click the *"Refresh"* button.

6.   Click the network in which you would like to register the WiFi interface in the *"WiFi Configuration Utility"* window.

7.   Click the *"Connect"* button.

   ↳   The *"Connect network"* window opens.
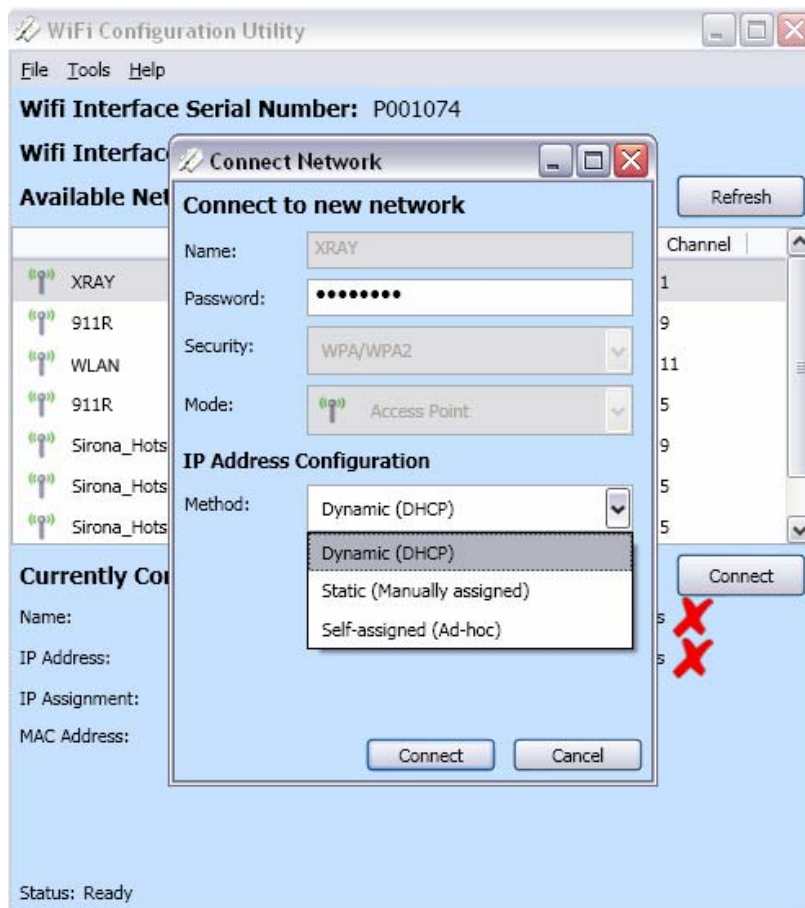
8. If the network is password-protected, enter the password. Select the appropriate allocation method for the IP address. For more details, please refer to the operating instructions of your WiFi router.

9. Click the *"Connect"* button in the *"Connect network"* window.

↳ The WiFi interface is connected to the network. A progress bar and the text *"Waiting to connect"* are displayed while a connection is being established.

↳ You can end the connection attempt by clicking the *"Stop waiting"* button.
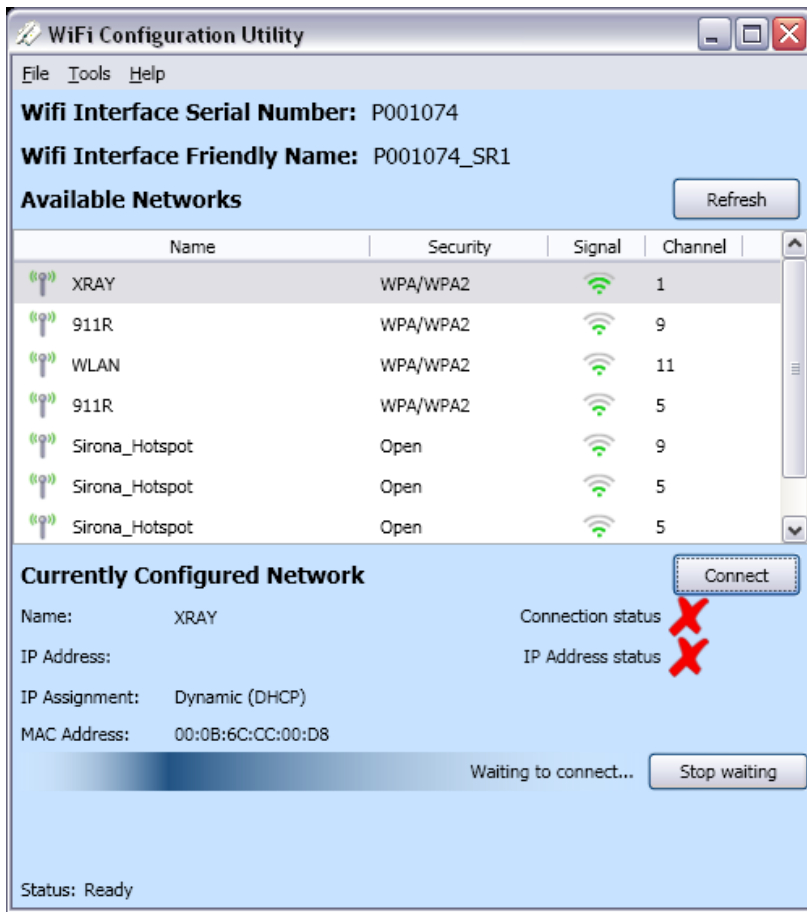

    🖑   If the WiFi interface was successfully connected to the desired network, this is indicated by two green check marks placed next to the *"Connection status"* and *"IP Address status"* fields. The name, IP address, MAC address, and connection type of the network are still displayed.
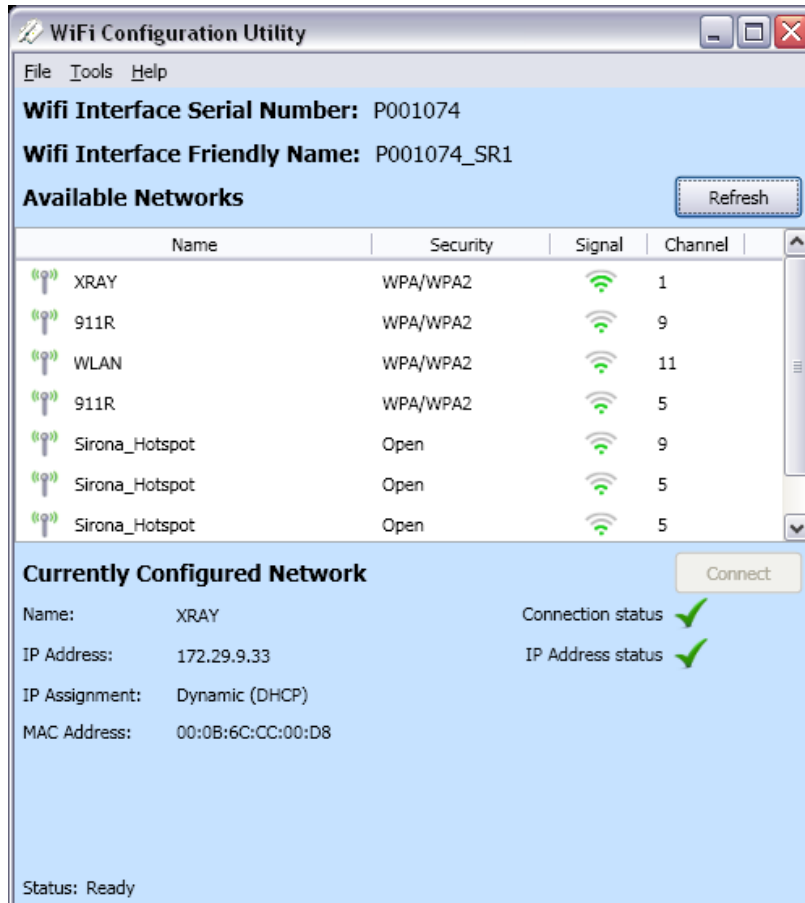
3.4.2.3   **Connecting the WiFi interface to a hidden WiFi network**

Hidden WiFi networks are not displayed in the network list by default. You can connect WiFi interfaces to a hidden network with the corresponding access data.

✔ Have the access data for the hidden network ready. You can obtain this information from your network operator.

✔ The WiFi interface is located within range of a WiFi network.

✔ The WiFi router is operated in the G or Mixed mode. For more details, please refer to the operating instructions of your WiFi router.

✔ The WiFi charging cradle is connected to the PC via USB.

✔ The WiFi charging cradle is connected to the power supply via a power plug.

✔ The WiFi interface is located in the charging cradle.

1. Start the XIOS XG Configuration configuration dialog.

2. Click the *"Device settings"* tab in the XIOS XG Configuration dialog.

3. Click the *"WiFi configuration"* button.

4. Enter the service password in the window which then opens and click *"OK"*.

   ↳ The *"WiFi Configuration Utility"* window opens.

5. Click the *"File"* menu in the *"WiFi Configuration Utility"* window.

6. In the *"File"* menu, select the menu option *"Create a new Network"*.
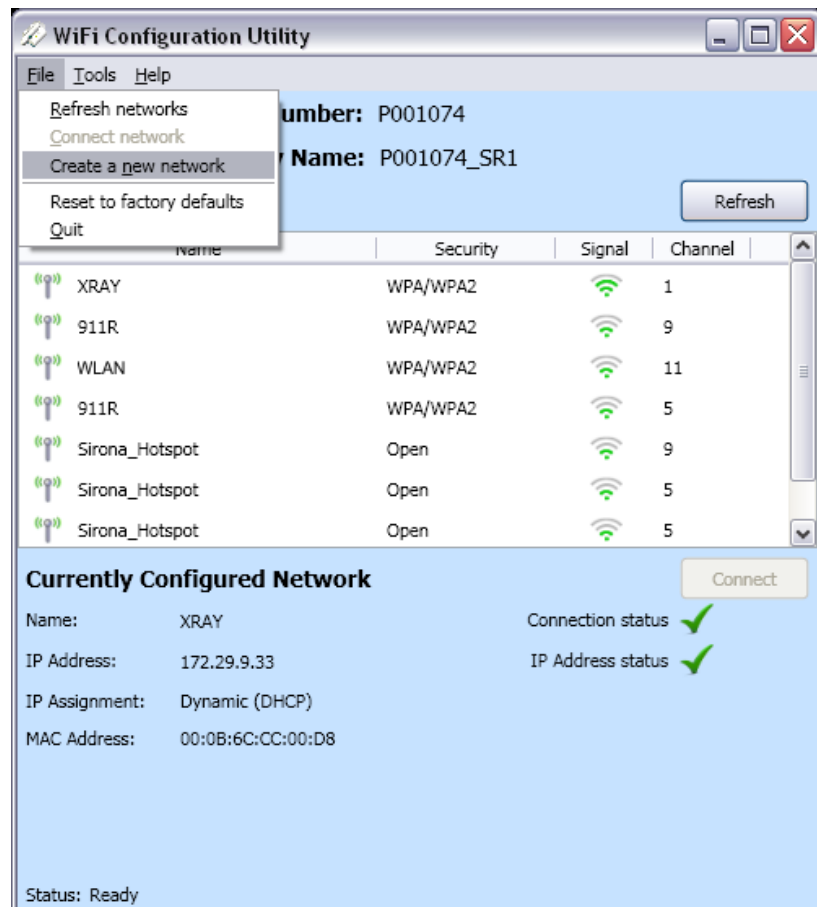
   ↳   The *"Connect network"* window opens.

7. Enter all of the data required for the hidden network in the *"Connect network"* window. Contact your network operator for more information.
8. Click the *"Connect"* button.

    ↳   The WiFi interface is connected to the hidden network.

3.4.3   Activating/deactivating WiFi device selection via RFID

It is advisable to use WiFi device selection via RFID whenever multiple WiFi interfaces are used on different PCs. The WiFi interface is paired with the PC by holding it against an RFID reader, and does not have to be identified based on the device number. This prevents accidental pairing with the wrong WiFi interface. For details on pairing WiFi modules via RFID, refer to the XIOS XG WiFi System and Sensors Operating Instructions.
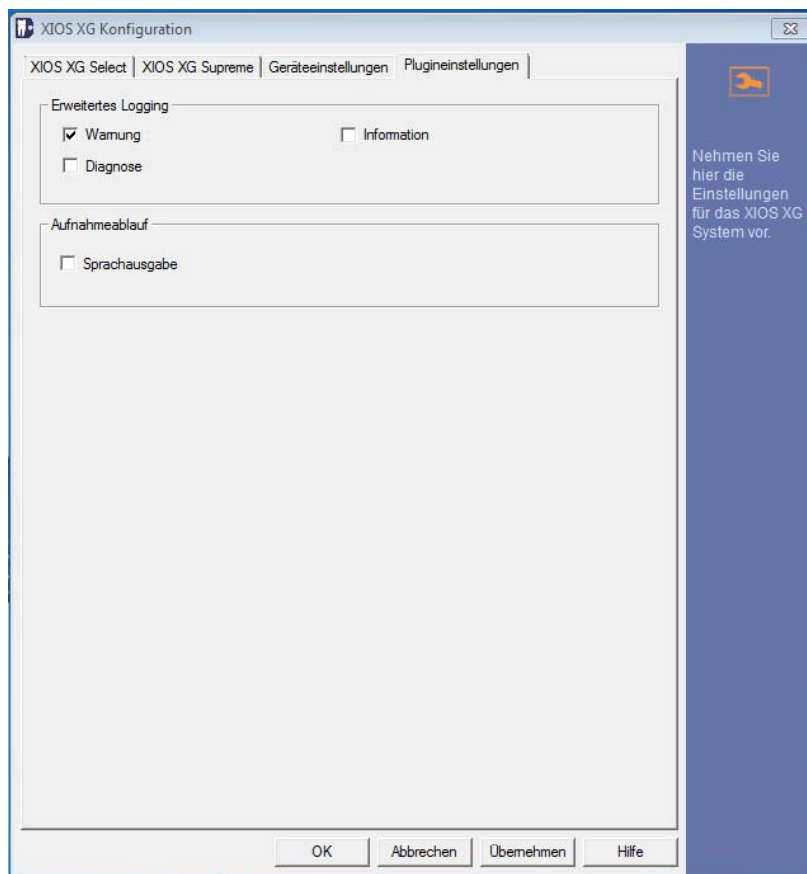
1. Start the XIOS XG Configuration configuration dialog.
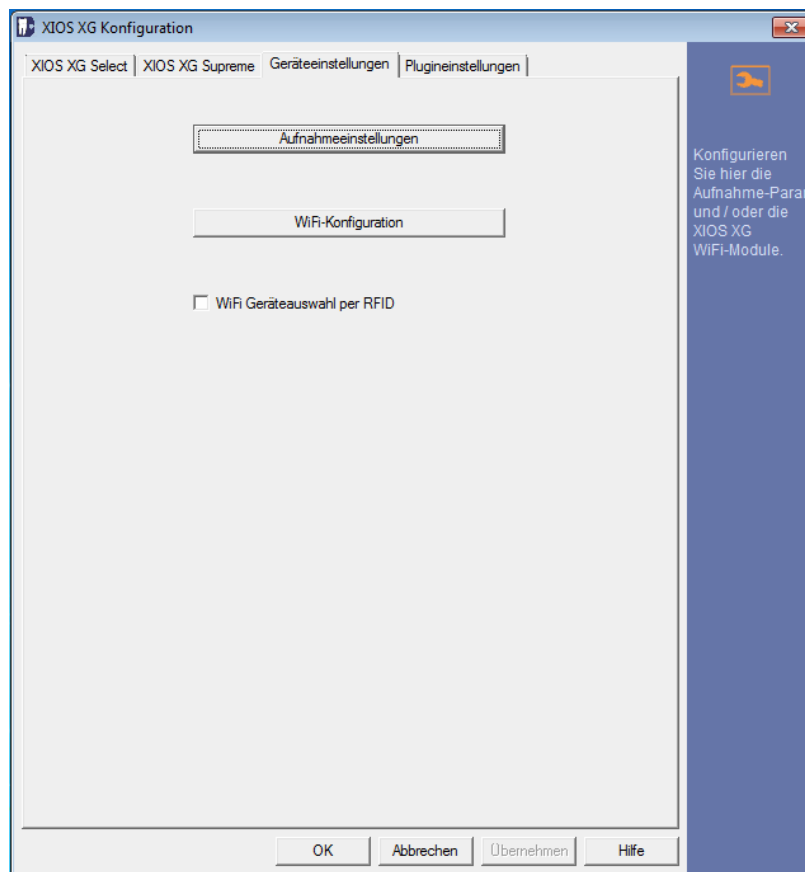
2. Click the *"Device settings"* tab in the XIOS XG Configuration configuration dialog.

3. Place a check mark in the *"WiFi device selection via RFID"* check box to activate the WiFi device selection via RFID function. You will be prompted to enter the service password.

4. To deactivate the WiFi device selection via RFID, remove the check mark. You will be prompted to enter the service password here too.

5. Click the *"Apply"* button to save the configuration.

or

➢ Click the *"OK"* button to save the configuration and close the configuration dialog.

↳ WiFi device selection via RFID is activated.

↳ WiFi interfaces can be paired with the PC via RFID.

3.5 Plug-in settings

Information on the Plug-in settings

The Plug-in settings dialog window offers you the following options:

- Configuring Extended logging
- Activate/deactivate Language output

3.5.1 Configuration of extended logging

All error messages are logged by the SIDEXIS plugin for XIOS XG by default.

You can use the Extended logging option to determine what other data will be logged.

1. Start the XIOS XG Configuration configuration dialog.
2. Click the *"Plug-in settings"* tab in the XIOS XG Configuration configuration dialog.
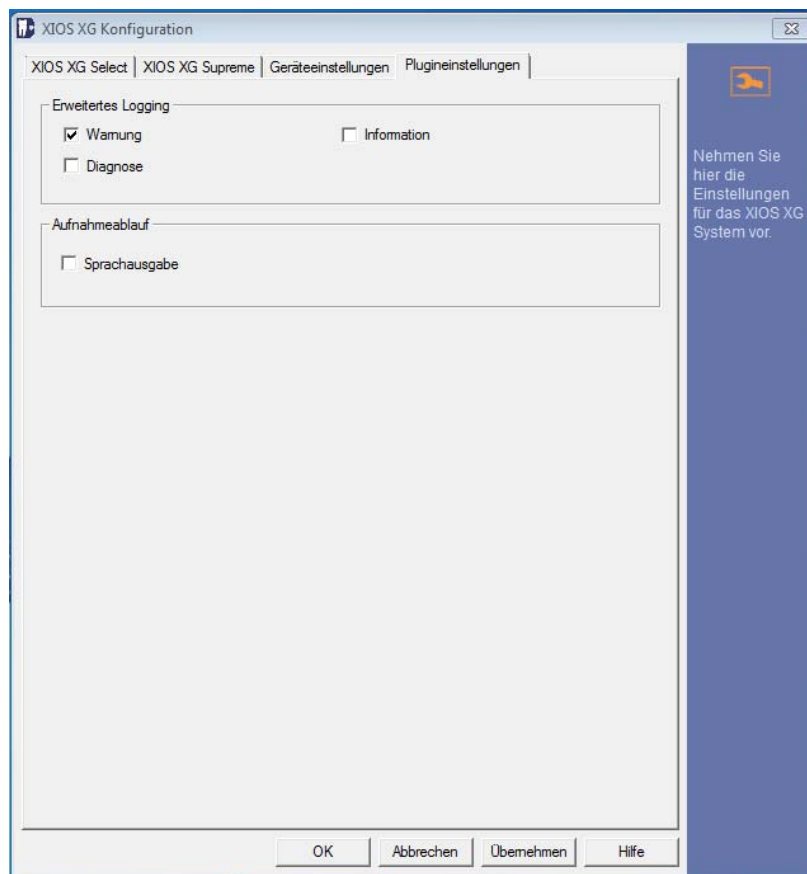
3. Place a check mark next to *"Warning message"* to log all warnings.
4. Place a check mark next to *"Information"* to log events that do not constitute an error during a normal exposure sequence, however, may be useful when errors occur and for troubleshooting purposes.
5. Place a check mark next to *"Diagnose"* to log diagnostic information. The logging of diagnostic information can be used for troubleshooting when errors occur.

IMPORTANT

High storage space requirement, slow system speed

The logging of diagnostic information requires a lot of storage space. This can cause the system to slow down during an exposure.

➢ Activate the logging of diagnostic information only after consulting with Customer Service.

---

6. Remove the check marks to deactivate the extended logging options.

7. Click the *"Apply"* button to save the configuration.

or

➢ Click the *"OK"* button to save the configuration and close the configuration dialog.

♦ The Extended logging option is configured.

3.5.2 Activating/deactivating voice output

The Language output emits the following acoustic signals when exposure readiness has been established:

- *"Waiting for exposure ..."* (signal indicating that exposure readiness has been established)

- *"Error"* (signal indicating that exposure readiness was not established due to an error or that an error occurred during the exposure.)

A sound card must be installed in order to use the voice output.

1. Start the XIOS XG Configuration configuration dialog.

2. Click the *"Plug-in settings"* tab in the XIOS XG Configuration configuration dialog.
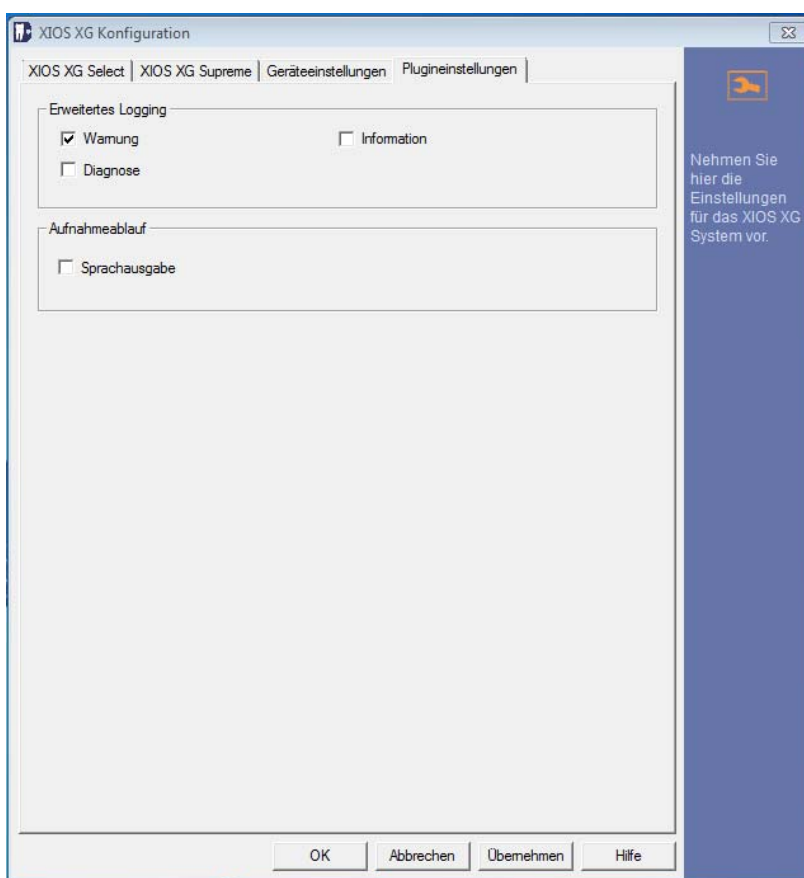

3. Place a check mark in the *"Language output"* check box to activate the Language output function.

4. To deactivate the Language output, remove the check mark.

5. Click the *"Apply"* button to save the configuration.

or

> ➢ Click the *"OK"* button to save the configuration and close the configuration dialog.

> ✎ The settings are accepted.

3.6 Prior to initial startup

3.6.1 Install the driver for the USB module

This procedure is required only if you are using a USB module on a PC for the first time.

✔ The SIDEXIS plugin for XIOS XG, device connection with USB support, is installed.

1. Log onto your PC with an administrator account.
2. Connect the USB module to a USB interface of your PC.

↳ The driver for the USB module installs automatically. A confirmation message appears once the installation has completed.
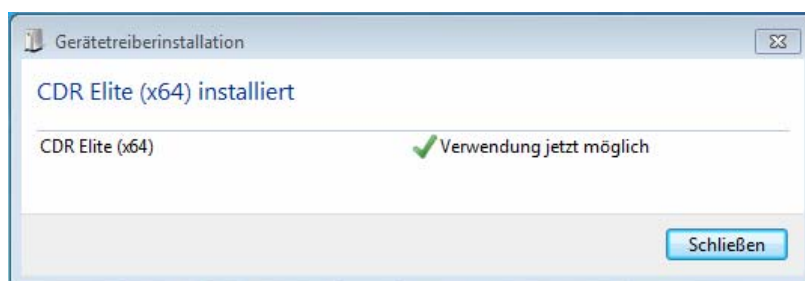

↳ The USB module does not have to be enabled in SIDEXIS XG. No further steps are required.

↳ The USB module is ready for operation.
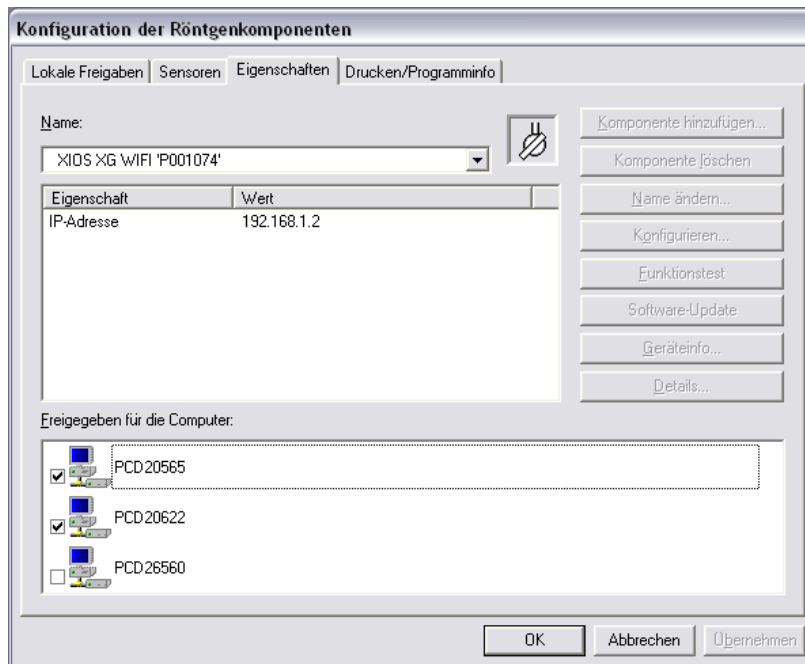
3.6.2   **Enable the WiFi interface in SIDEXIS XG**

This procedure is required only if you are using a WiFi interface on a PC for the first time.

✔ The SIDEXIS plugin for XIOS XG, device connection with WiFi support, is installed.

✔ The PC is connected to a WiFi network.

✔ The WiFi interface is connected to the same WiFi network as the PC. Refer to WiFi configuration.

1. Start the SIDEXIS Manager.

2. Click the "SiXABCon" button in the SIDEXIS Manager.

3. Enable the WiFi interfaces that are to be used to transmit X-ray exposures to this PC on the Local approvals tab. The WiFi interfaces connected to the wireless network are displayed in the list along with their serial numbers. The serial number is indicated on the housing of each WiFi interface. WiFi interfaces for which no check mark has been placed are disabled for this PC.
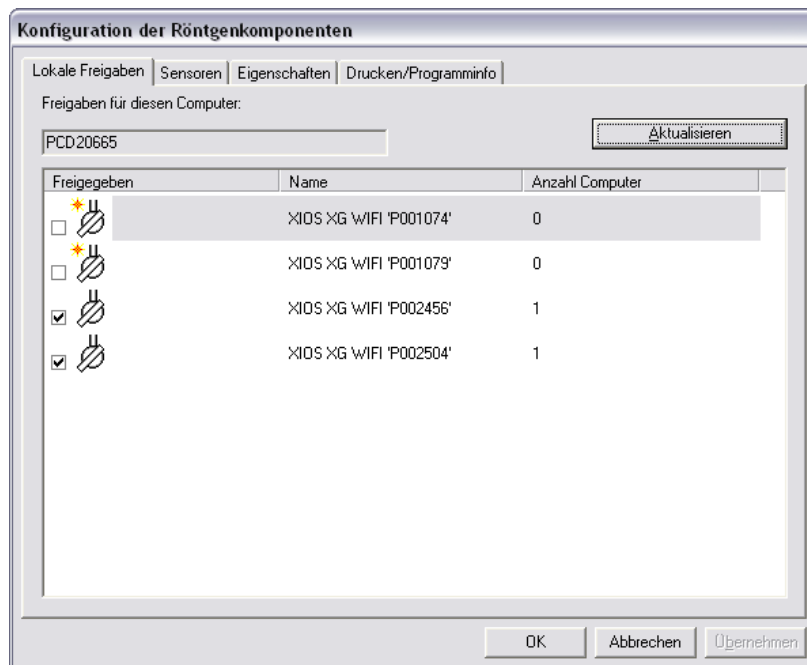
4. Enable WiFi interfaces on any other SIDEXIS XG workstations if necessary.

   ⮡ The WiFi interfaces are registered in SIDEXIS XG.

Alternatively, the service engineer also can enable the WiFi interfaces for other SIDEXIS XG workstations in the network via the *"Attributes"* tab. The service password is required to make changes on this tab; see the "SIDEXIS XG Service Manual".

3.6.3 Install the driver for the RFID reader

This procedure is required only if you are using an RFID reader on a PC for the first time.

✔ The SIDEXIS plugin for XIOS XG, device connection with WiFi support, is installed.

✔ *"WiFi device selection via RFID"* is activated.

1. Log onto your PC with an administrator account.
2. Connect the RFID reader to a USB interface of your PC.

↳ The driver for the RFID reader installs automatically. A confirmation message appears once the installation has completed.
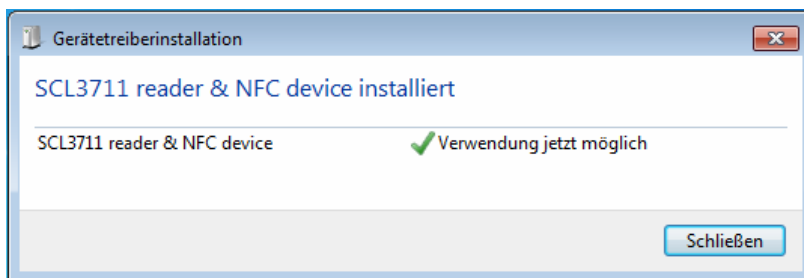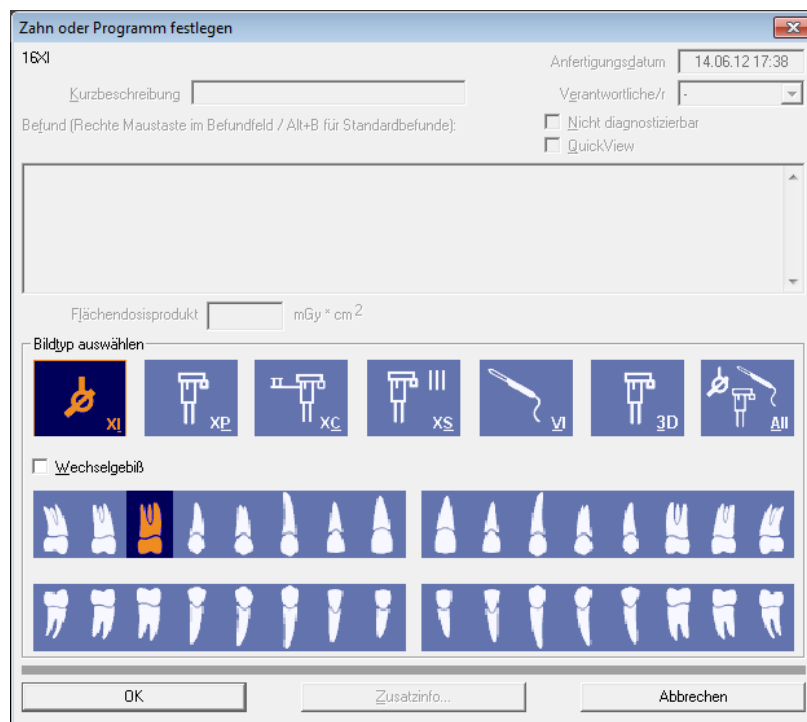

↳ The WiFi reader is ready for operation.

4 Operation

4.1 Establishing exposure readiness with the XIOS XG Select sensor

✔ The SIDEXIS plugin for XIOS XG is installed.

✔ The driver for the USB module is installed or a WiFi interface is enabled in SIDEXIS XG.

✔ When WiFi device selection via RFID(optional) is used:
The WiFi device selection via RFID is activated.
The driver for the XIOS XG RFID reader is installed.
An XIOS XG RFID reader is connected to a USB interface of the PC.

1. Start SIDEXIS XG.

2. Register a patient. See the SIDEXIS XG Operator's Manual.

3. Connect a XIOS XG Select sensor to the USB module or the WiFi interface. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

4. Place the sensor in its exposure position. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

5. Click the *"Enable exposure readiness for an intraoral X-ray"* button in SIDEXIS XG.

   ✇ The *"Set tooth or program"* window opens.

   ✇ In the *"Set tooth or program"* window, the image type *"Intraoral X-ray exposure"* is selected.
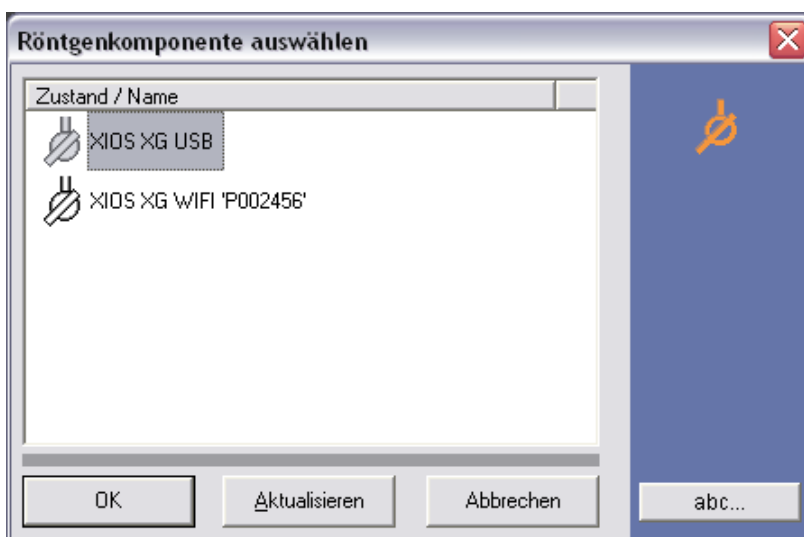

IMPORTANT
If no patient has been registered yet, the *"Register patient"* window initially appears. In this case, register a patient.

6. Click on the tooth you want to examine.

7. To examine a Mixed dentition, place a check mark in the *"Mixed dentition"* check box. Then click on the tooth to be examined in the Mixed dentition view.

IMPORTANT
For more information on the tooth displays, refer to the SIDEXIS XG Operator's Manual.

8. Click the *"OK"* button.
   - ⮫ The *"Select X-ray component"* window opens.

- ⮫ All of the USB modules and WiFi interfaces connected to the PC are listed in the *"Select X-ray component"* window.
  A USB module always has the designation XIOS XG USB.
  WiFi interfaces have the designation XIOS XG WIFI 'device number' (e.g. XIOS XG WIFI 'P002456'). The device number of the WiFi interface can be found on the bottom side of the WiFi interface.
  If a name has been assigned to the WiFi interface, it will appear instead of the device number. For more information on assigning names for WiFi interfaces, refer to the XIOS XG WiFi System and Sensors Operating Instructions, Section on "Web Server and Upgrade Utility", page on --> Adjusting a WiFi interface.
  When the WiFi device selection via RFID is used, the entry XIOS XG WIFI RFID is displayed instead of the WiFi interfaces with the device numbers.

9. If the connected USB module/WiFi interface does not appear in the *"Select X-ray component"* window, click the *"Aktualisieren"* button. If necessary, check the connection and click the *"Aktualisieren"* button again.

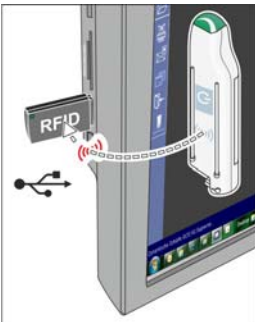**10.** Select the desired X-ray component
USB module:
Click on the XIOS XG USB entry in the *"Select X-ray component"* window. Then click the button marked *"OK"*.
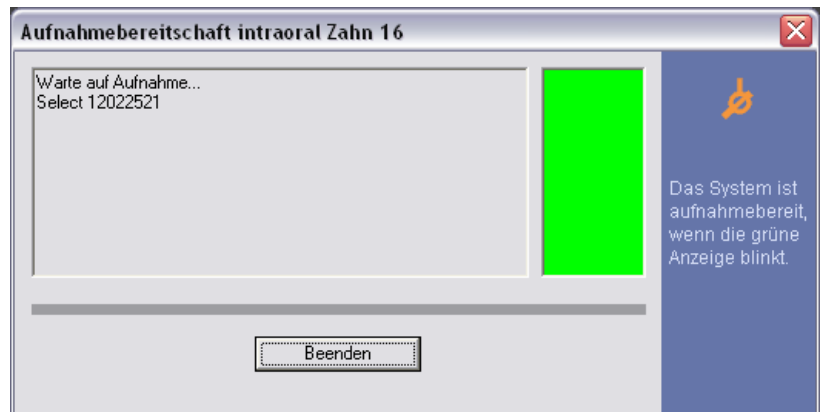**WiFi interface** (without WiFi device selection via RFID):
Click on the WiFi interface connected to the sensor in the *"Select X-ray component"* window (entry XIOS XG WIFI 'device number'). Then click the button marked *"OK"*.
WiFi interface (with WiFi device selection via RFID):
Click on the entry XIOS XG WiFi RFID. Then hold the wireless symbol on the WiFi interface on the RFID reader. (as described in the figure)

  ✎ The *"exposure readiness"* window appears.

  ✎ When a green rectangle starts flashing in the *"exposure readiness"* window, the XIOS XG Select sensor is ready for an exposure.

11. Now release the exposure. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

or

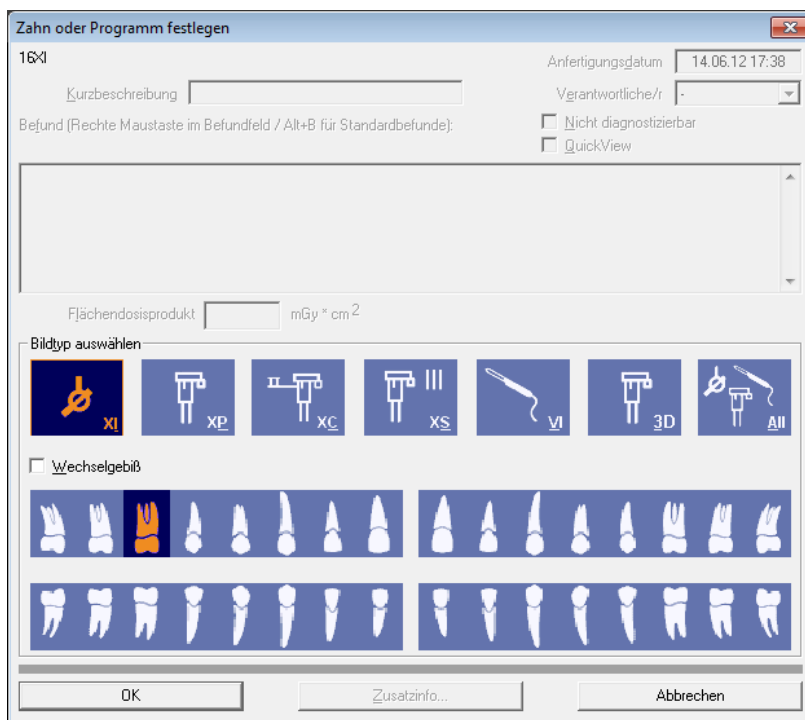 ➢ Cancel the exposure readiness by clicking on the *"Quit"* button.

  ✎ A status display appears while the sensor is acquiring the exposure.

  ✎ As soon as the exposure has been acquired, it is automatically transferred to SIDEXIS XG.

4.2 Establishing exposure readiness with the XIOS XG Supreme sensor

✓ The Sidexis plugin for XIOS XG is installed.

✓ The driver for the USB module is installed or a WiFi interface is enabled in SIDEXIS XG.

✓ When WiFi device selection via RFID(optional) is used:
The WiFi device selection via RFID is activated.
The driver for the XIOS XG RFID reader is installed.
An XIOS XG RFID reader is connected to a USB interface of the PC.

1. Start SIDEXIS XG.

2. Register a patient. See the SIDEXIS XG Operator's Manual.

3. Connect a (XIOS XG Select or XIOS XG Supreme) sensor to the USB module or the WiFi interface. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

4. Place the sensor in its exposure position. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

5. Click the *"Enable exposure readiness for an intraoral X-ray"* button in SIDEXIS XG.

   ↳ The *"Set tooth or program"* window opens.

   ↳ In the *"Set tooth or program"* window, the image type *"Intraoral X-ray exposure"* is selected.
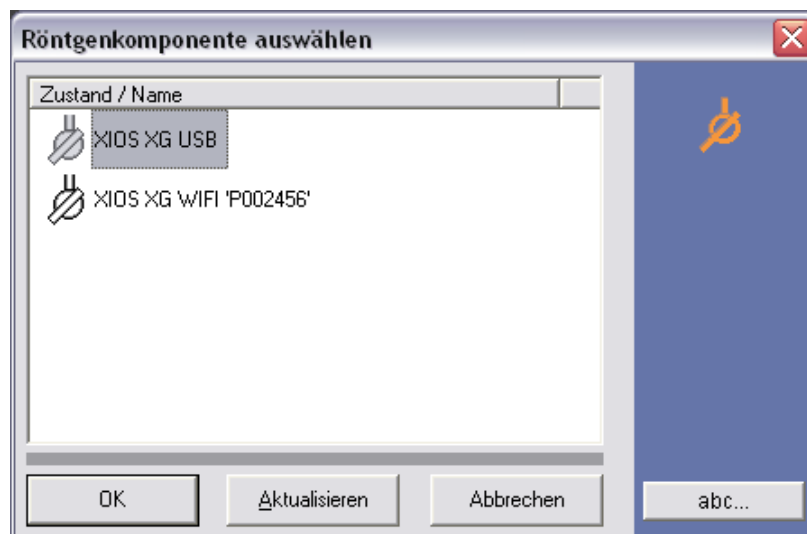

IMPORTANT

If no patient has been registered yet, the *"Register patient"* window initially appears. In this case, register a patient.

6. Click on the tooth you want to examine.

7. To examine a Mixed dentition, place a check mark in the *"Mixed dentition"* check box. Then click on the tooth to be examined in the Mixed dentition view.

IMPORTANT
For more information on the tooth displays, refer to the SIDEXIS XG Operator's Manual.

8. Click the *"OK"* button.

  ✤ The *"Select X-ray component"* window opens.

  ✤ All of the USB modules and WiFi interfaces connected to the PC are listed in the *"Select X-ray component"* window.
    A USB module always has the designation XIOS XG USB.
    WiFi interfaces have the designation XIOS XG WIFI 'device number' (e.g. XIOS XG WIFI 'P002456'). The device number of the WiFi interface can be found on the bottom side of the WiFi interface.
    If a name has been assigned to the WiFi interface, it will appear instead of the device number. For more information on assigning names for WiFi interfaces, refer to the XIOS XG WiFi System and Sensors Operating Instructions, Section on "Web Server and Upgrade Utility", page on --> Adjusting a WiFi interface.
    When the WiFi device selection via RFID is used, the entry XIOS XG WIFI RFID is displayed instead of the WiFi interfaces with the device numbers.

9. If the connected USB module/WiFi interface does not appear in the *"Select X-ray component"* window, click the *"Aktualisieren"* button. If necessary, check the connection and click the *"Aktualisieren"* button again.

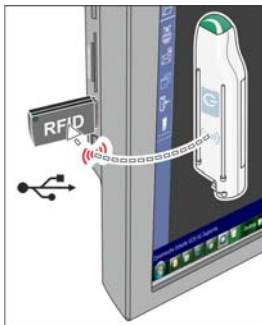**10.** Select the desired X-ray component
   USB module:
   Click on the XIOS XG USB entry in the *"Select X-ray component"* window. Then click the button marked *"OK"*.
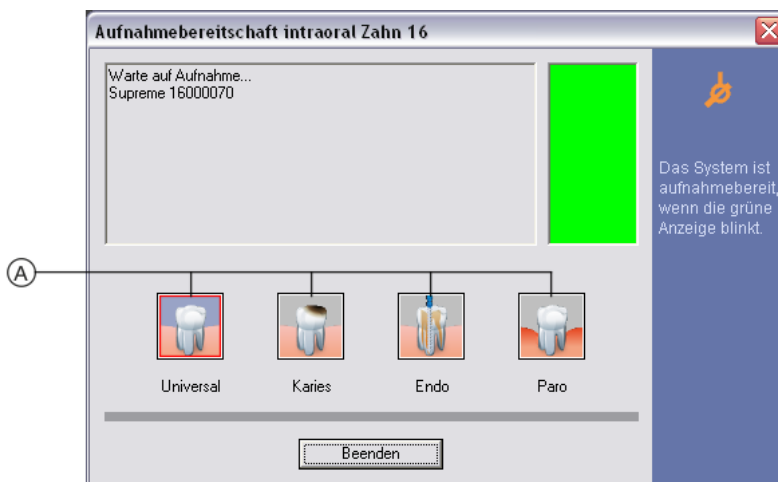   **WiFi interface** (without WiFi device selection via RFID):
   Click on the WiFi interface connected to the sensor in the *"Select X-ray component"* window (entry XIOS XG WIFI 'device number'). Then click the button marked *"OK"*.
   WiFi interface (with WiFi device selection via RFID):Click on the entry XIOS XG WiFi RFID. Then hold the wireless symbol on the WiFi interface on the RFID reader. (as described in the figure)

   ⮡ The *"exposure readiness"* window appears.

   ⮡ When XIOS XG Supreme sensors are used, buttons for selecting an image filter are displayed in the *"exposure readiness"* window. This enables you to select the image filter to be used for the exposure. Via the Dynamic image sharpness control image processing tool, you can then process the exposure, using different image filter.

11. Click one of the image filter buttons (A) to select a specific image filter. The selected image filter button is indicated by a red border. The *"Universal"* image filter is selected by default.

12. Now release the exposure. See the Operating Instructions for the XIOS XG USB System and Sensors or the XIOS XG WiFi System and Sensors.

or

➢ Cancel the exposure readiness by clicking on the *"Quit"* button.

↳ When a green rectangle starts flashing in the *"exposure readiness"* window, the XIOS XG Supreme sensor is ready for an exposure.

↳ A status display appears while the sensor is acquiring the exposure.

🚫 Reading image...

↳ As soon as the exposure has been acquired, it is automatically transferred to SIDEXIS XG.

4.3   Editing exposures

4.3.1   Editing exposures with SIDEXIS XG

The SIDEXIS XG image processing functions are available for XIOS XG Select exposures.

See the SIDEXIS XG Operator's Manual concerning this.

4.3.2 Editing exposures with the dynamic focus control image processing tool (for XIOS XG Supreme only)

The Dynamic image sharpness control image processing tool is available for processing exposures acquired with a XIOS XG Supreme type sensor. Image processing via the standard functions of SIDEXIS XG is therefore not required.

The Dynamic image sharpness control tool features 4 image filters used to optimize exposures for different diagnostic functions:

- *"Universal"*: Image filter for general diagnostics
- *"Caries"*: Image filter for caries detection
- *"Endo"*: Image filter for endodontics
- *"Perio"*: Image filter for periodontology
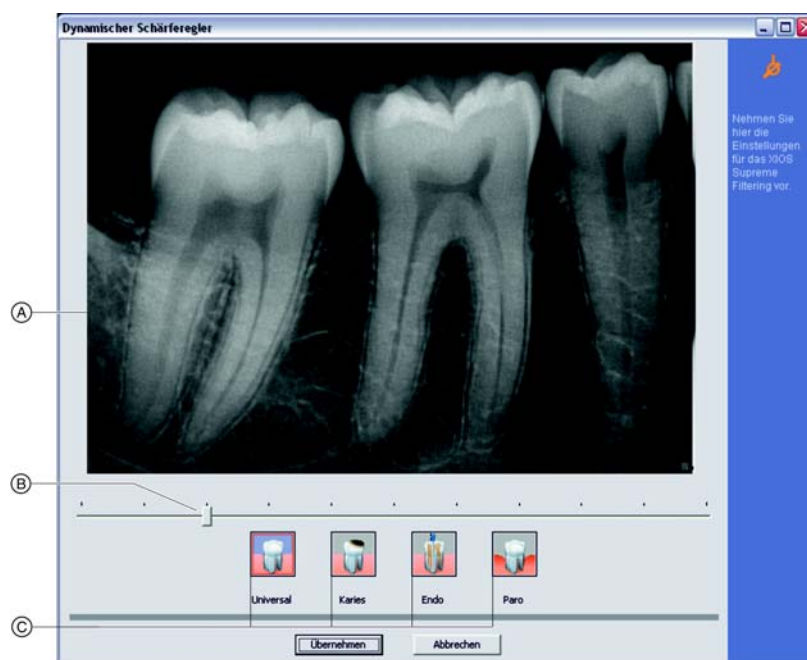
Use the image filter buttons (C) to apply an image filter to an exposure. The selected image filter button is indicated by a red border.

Adjust the focus for the selected image filter using the slider (B).

All adjustments are displayed in the preview image (A).

The focus, brightness, and contrast for the image filters can be predefined in the configuration dialog. See XIOS XG Supreme"Configuration".
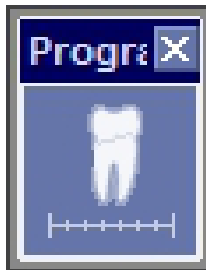
Editing exposures with the Dynamic image sharpness control image processing tool

✔ An exposure that was generated with a XIOS XG Supreme type sensor has been opened in SIDEXIS XG.
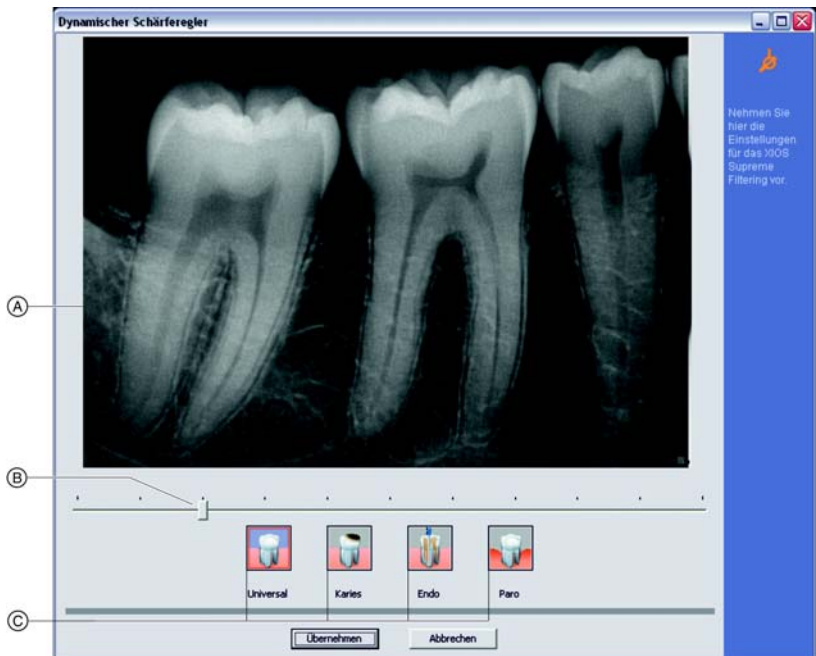
1. Click the "IO" button (A).
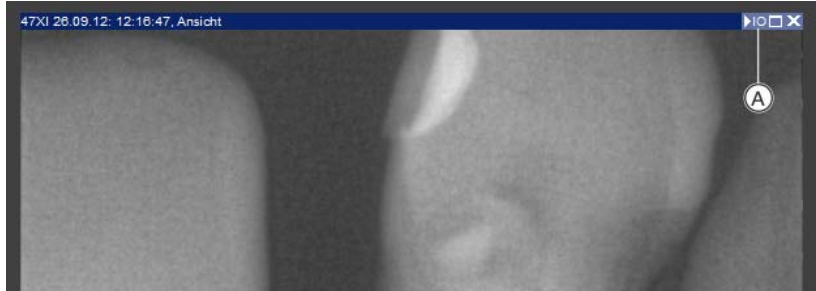
2. You also can start the tool by clicking the *"Dynamic image sharpness control"* button (figure) or via the menu *"View"* --> *"Dynamic image sharpness control"*.

↳ The exposure is opened in the *"Dynamic image sharpness control"* dialog window.

3. Click an image filter button (C).

    ↲   The button you have just clicked is indicated by a red border. The image filter is used on the exposure.

    ↲   The view in the preview image (A) changes.

4. Adjust the focus with the slider (B) until the exposure in the preview image (A) corresponds to your requirements.

5. Click the *"Apply"* button to apply the changes to the current SIDEXIS exposure.

    ↲   The changes are then applied to the current SIDEXIS exposure and can be saved to SIDEXIS XG as the new view.

4.4 Transferring untransferred exposures to SIDEXIS XG (rescue)

During the course of normal acquisition with XIOS XG, the exposures are transferred to SIDEXIS XG immediately after acquisition.

If an error occurs while an exposure is being transferred to SIDEXIS XG, the exposure will be stored locally in a buffer store.

This exposure then remains available for transfer to SIDEXIS XG the next time exposure readiness is established.

The following dialog window appears:
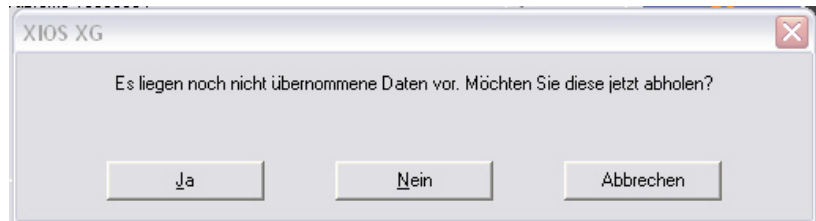
1. If you want to export the exposure still stored on the sensor to SIDEXIS XG and then establish exposure readiness, click the *"Yes"* button.

2. If you want to delete the exposure still stored on the sensor and then establish exposure readiness, click the *"No"* button.

3. To cancel the process, click the *"Cancel"* button. Exposure readiness will not be established. The message stating that an untransferred exposure exists will appear again the next time exposure readiness is established.

We reserve the right to make any alterations which may be required due to technical improvements.