

CS 7200
Imaging Plate System
User and Installation Guide

Notice

The CS 7200 User Guide describes and illustrates the workflow for digital dental radiography using an imaging plate (storage phosphor screen) for radiographic diagnostic intraoral images.

The CS 7200, in addition, optionally provides the Scan & Go technology, which enables dental practitioners prior to acquisition to record exam acquisition data on the dental imaging plates.

We recommend that you thoroughly familiarize yourself with this guide in order to make the most effective use of your system.



Important:

- **Read and follow the operating instructions in this guide carefully, and always keep it within easy reach.**
- **The room in which this unit is to be installed must comply with all official applicable regulations.**
- **Improper use and handling can create hazards and cause damage to the unit.**
- **To prevent personal injury or material damage, you must observe all safety information.**
- **Consult the CS 7200 Safety, Regulatory, and Technical Specifications User Guide before using the CS 7200.**

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This document is originally written in English.

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The CS 7200 complies with the Medical Device Regulation (EU) 2017/745 and UK Medical Devices Regulations 2002 (SI 618) as subsequently amended by the EU Exit Regulations of 2019 (SI 791) and 2020 (SI 1478).



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1

Conventions in This Guide

Conventions in This Guide

The following special messages emphasize information or indicate potential risk to personnel or equipment:



WARNING: Warns you to avoid injury to yourself or others by following the safety instructions precisely.



CAUTION: Alerts you to a condition that might cause serious damage.



Important: Alerts you to a condition that might cause problems.



Note: Emphasizes important information.



Tip: Provides extra information and hints.

2 CS 7200 Overview

Indications for Use

The CS 7200 is intended for use in dental digital radiography using imaging plates (phosphor storage screens) for dental intraoral X-ray imaging of pediatric and adult patients.

Introduction



Note: The CS 7200 is intended for dental professionals. You are required to have training to use the CS 7200.

The CS 7200 system is used to scan and review intraoral dental X-ray images. When scanning the X-ray exposed imaging plate, a digital image is displayed on the workstation screen. After scanning, the scanner erases the imaging plate and ejects it. The imaging plate is ready for re-use.

The exam acquisition's scanned image is sent to the Dental Imaging Software on the workstation. Use the Dental Imaging Software to process and review the image.

The system is composed of the following elements:

- CS 7200 scanning device ([page 4](#))
- Imaging plates ([page 7](#))
- Scan & Go device (optional [page 9](#))



Note: The scanner is supplied with a separate viewing and archiving software package: *Dental Imaging Software*, approved by Carestream Dental.



Note: The CS 7200 User Guide is provided on the supplied CD/DVD-ROM.

CS 7200 Components Overview

Scanner Overview

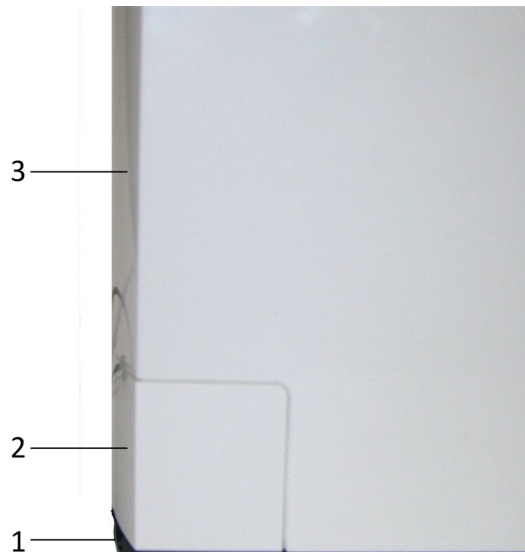
The CS 7200 scanner performs the functions necessary for scanning and acquiring images from the imaging plates.

Figure 1 CS 7200 Front View



- On/Off switch
- 1 Turn scanner On: Press for 1 second
Turn scanner Off: Press for 3 seconds
 - 2 Indication LEDs
 - 3 Cover
 - 4 Base
 - 5 Intraoral imaging plates tray
 - 6 Plate insertion entry
 - 7 Plate size selection knob
 - 8 Insertion panel

Figure 2 CS 7200 Back View

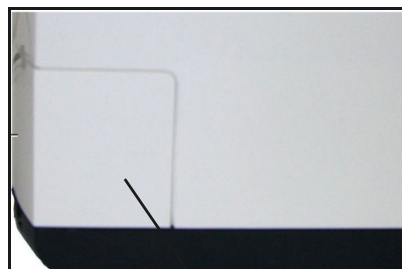


- 1 Base
- 2 Cables compartment
- 3 Cover

Figure 3 Cables Compartment in Detail



- 1 LAN cable port
- 2 Power supply inlet
- 3 USB port
- 4 Compartment cover



4

Indication LEDs Statuses

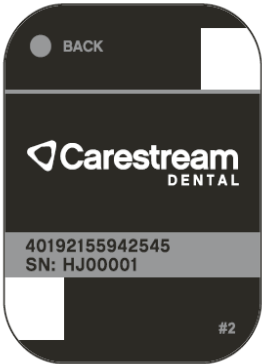
The scanner LEDs status indicator shows the following scanner states:

LED Color	Scanner State		Remark
Off	Off		
Yellow		Power up	
Blinking Yellow		Shut down	
Yellow with Door Closed		Stand by	Unactivated, memory full, front panel unmounted.
Blinking Cyan		Plate is fully loaded. Take out envelope.	Beeps twice, sync with light.
Green		Insert plate	
Blinking Green		Load & recovery	
Green		Ready for scan	
Red		Error	

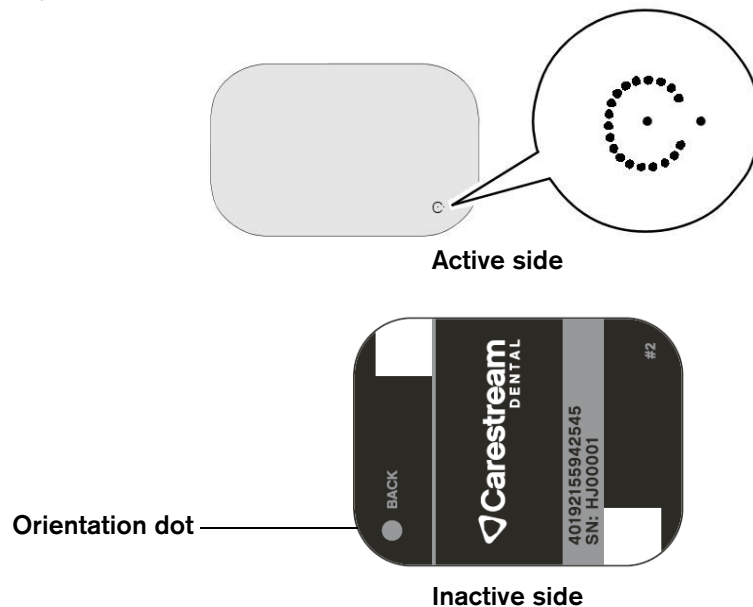
Imaging Plates Overview

The CS 7200 works with three imaging plate sizes: 0, 1, and 2. The scanned image file size depends on the imaging plate size and the scanning resolution set by the user.

Table 1 Intraoral Imaging Plate Sizes

Size	Illustration	Application
0		Periapical exam (Pediatric dentistry)
1		Bitewing exam (Pediatric dentistry)
2		Periapical exam (Adult)

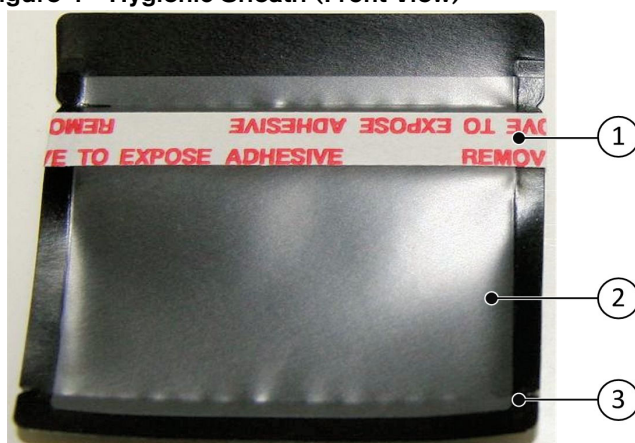
The imaging plate has two sides: the active side for capturing the X-ray image and the inactive side. The active side of the imaging plate includes an orientation “c” mark with a dot inside to facilitate positioning protocols within the patient’s mouth. The inactive side has a printed dot that corresponds to the location of the orientation mark on the active side. This dot is visible through the transparent side of the hygienic sheath.



Hygienic Sheaths

For each imaging plate size, a one-time use, disposable hygienic sheath is used for preventing cross contamination. The transparent side enables you to see the dot, while the opaque side protects the active side of the inserted imaging plate from image degradation.

Figure 4 Hygienic Sheath (Front View)



- 1 Adhesive strip (for sealing the hygienic sheath)
- 2 Sheath transparent side to see the plate reference
- 3 Tear line to be opened when inserting the plate into the scanner

Scan & Go Overview

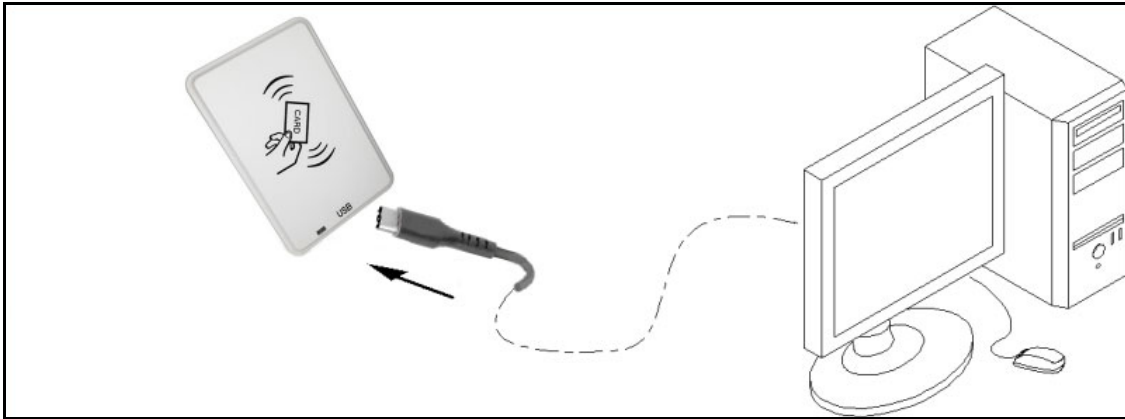
Scan & Go is an optional device that enables you to link the imaging plate to a specific exam acquisition (for example, patient) prior to acquisition. When the plate is inserted into the scanner, the information which was tagged onto the plate is retrieved by the scanner, and the imaging plate is scanned automatically according to this information (resolution, target workstation, etc). Scanned images are then routed automatically to the correct workstation, associated to the correct exam acquisition, and placed in the correct frame in the CS 7200 image Acquisition interface.

Figure 5 Scan & Go Device



- 1 USB port
- 2 Green LED status indicator
 - Power Up: One beep
 - Ready: Slow blink (2Hz)
 - Tag Detected: Fast blink
 - Read/Write: LED on
 - Tagging OK: Two beeps
 - Tagging Fail: One long beep

Connecting the Scan & Go Device



To connect the Scan & Go device:

Connect the USB cable to the computer and to the USB port on the Scan & Go device.

3 Setting Up the CS 7200

Site Preparation Before Installation

Environmental Requirements

Check the following ambient operating condition requirements of the room before installing the unit:

Temperature: 15–35 °C

Relative humidity: 30–85% Non-condensing

Atmospheric pressure: 700–1060 hPa

For optimal results, it is recommended that the light level in the room is approximately 500 lux (normal light conditions) to minimize the imaging plates' exposure to light.



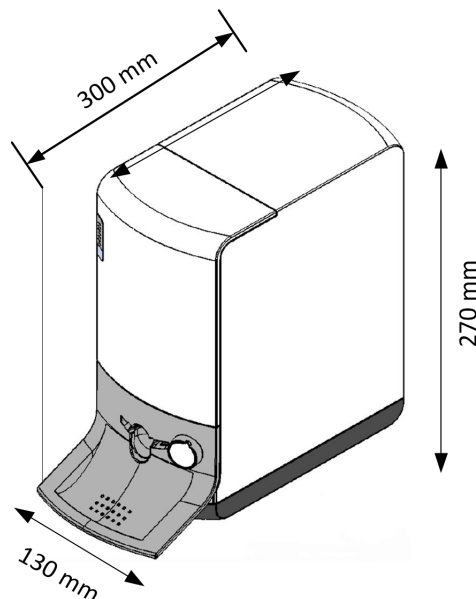
Important: The scanner should be positioned so that there is always easy access to the mains power supply socket.



Important: It is recommended not to install the scanner close to the opened window to prevent the exposure to direct sunlight.

Unit Dimensions and Space Requirements

The scanner should be placed on a flat, stable surface.



The unit dimensions illustrated in the above figure are as follows:

- Height of the unit: 270 mm. (10.6 in.)
- Width: 130 mm. (5.1 in.)
- Depth: 300 mm. (11.8 in.)

Electrical Requirements

Table 2 Electrical Installation Specifications

Electrical Installation Specifications	
Power Supply	100 V AC – 240 V AC, 0.8 - 0.4 A
Frequency	50/60 Hz
UPS (online, recommended)	700 VA (UPS is connected to the scanner, computer, and monitor)
Minimum clearance between the table and the mains wall outlet	10 cm / 3.5 in.

Minimum System Requirements

For installation of the CS 7200 intraoral imaging software, the computer must meet the minimum computer system requirements specified in the **CS 7200 Safety, Regulatory, and Technical Specifications User Guide**.



Important: It is **MANDATORY** to check that the computer system configuration is compatible with the computer minimum system requirements specified in the **Safety, Regulatory, and Technical Specifications User Guide**. If necessary, you must update your computer system configuration.

Networking Requirements

If your practice implements a local area network configuration and not a direct cable connection between the scanner and computer, the site must have an available RJ-45 network socket for plugging in the scanner.

The workstation computer must meet the minimum computer requirements as specified in the **CS 7200 Safety, Regulatory, and Technical Specifications User Guide**.



Important: The scanner cannot connect to a computer through wireless communication.

Software Installation



Important: To install the Dental Imaging Software and CS 7200 image Acquisition interface you must have administrator privileges.



Important: To be able to send images by the Dental Imaging Software to a central database, all workstations need to be in the same workgroup.



Important: Do not connect the Scan & Go device before you have installed the Dental Imaging Software and the image Acquisition interface.

CS Imaging Software Installation

To install the CS Imaging software, see the **CS Imaging Installation Guide (SM840)**.



NOTE:

Before installing CS Imaging Software, check that:

- The computer meets the minimum computer system requirements. See the CS 7200 Safety, Regulatory, and Technical Specifications User Guide.
- You have the two software DVD-ROMs: one for CS Imaging Software and the other for Scanner Driver Software.
- The sleep mode in the computer is disabled.

After you have completed the CS Imaging installation and restarted your computer, proceed to [“CS 7200 Drivers Installation” on page 14](#).

CS 7200 Drivers Installation



Important: The Dental Imaging Software must be installed prior to installing the CS 7200 image Acquisition Interface.

To install the CS 7200 drivers, follow these steps:

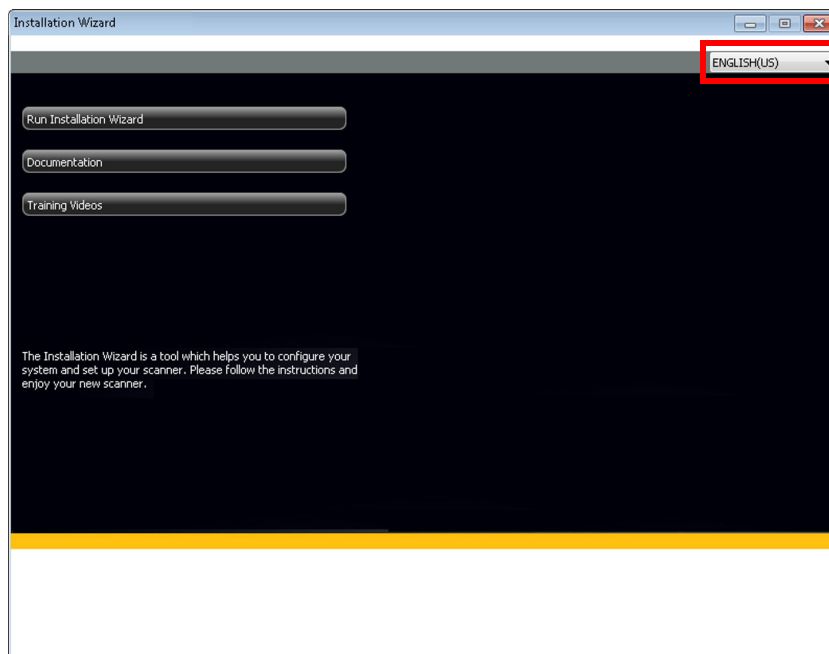
- 1 Insert the Scanner Driver Software DVD-ROM into the DVD-ROM drive.
- 2 Wait for the installation program to start.



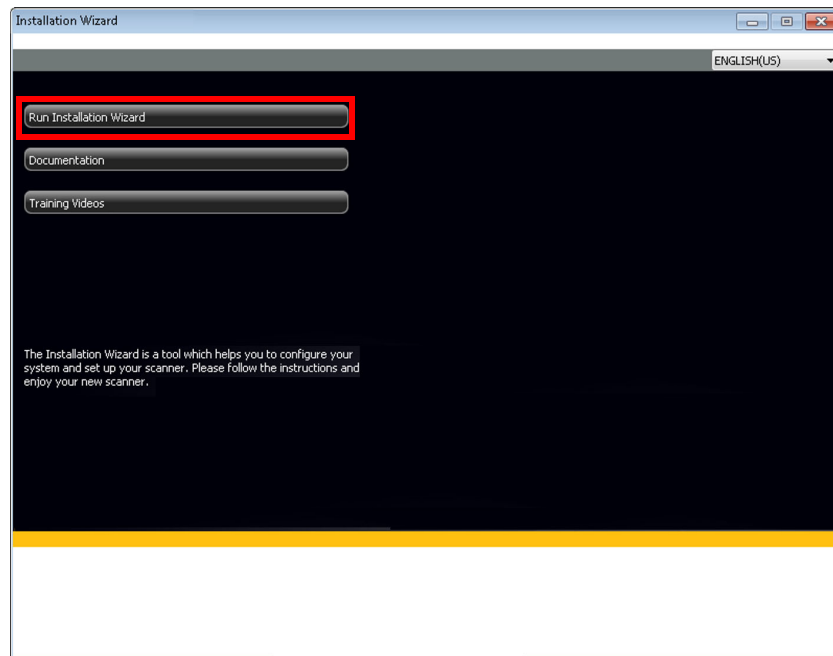
Note: If the installation wizard is not loaded, run the **setup.exe** file located on the installation DVD-ROM.

☐ Name	Date modified	Type
data	7/22/2022 4:38 PM	File folder
autorun.inf	7/22/2022 4:38 PM	Setup Information
freeglut.dll	7/22/2022 4:38 PM	Application extension
OpenCL.dll	7/22/2022 4:38 PM	Application extension
☒ setup.exe	7/22/2022 4:31 PM	Application

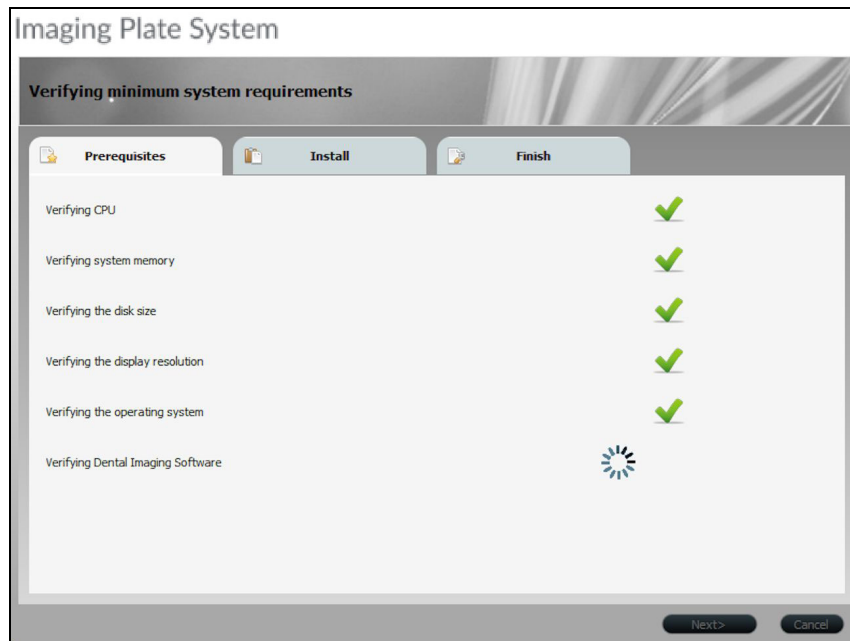
- 3 Select a language from the list on the upper-right side of the **Installation Wizard** window.



- 4 Click **Run Installation Wizard** to continue the installation.

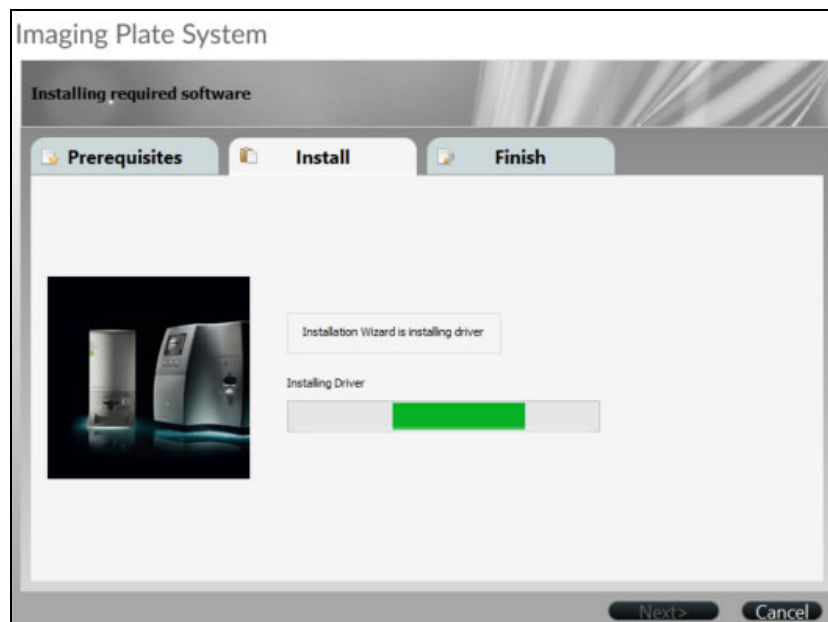
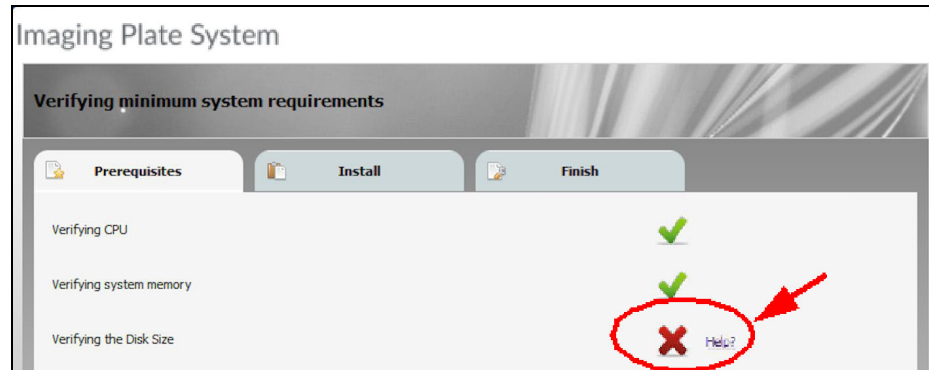


- 5 Minimum system requirements are verified, and the status of each checked item is displayed. Click **Next** to continue the installation.

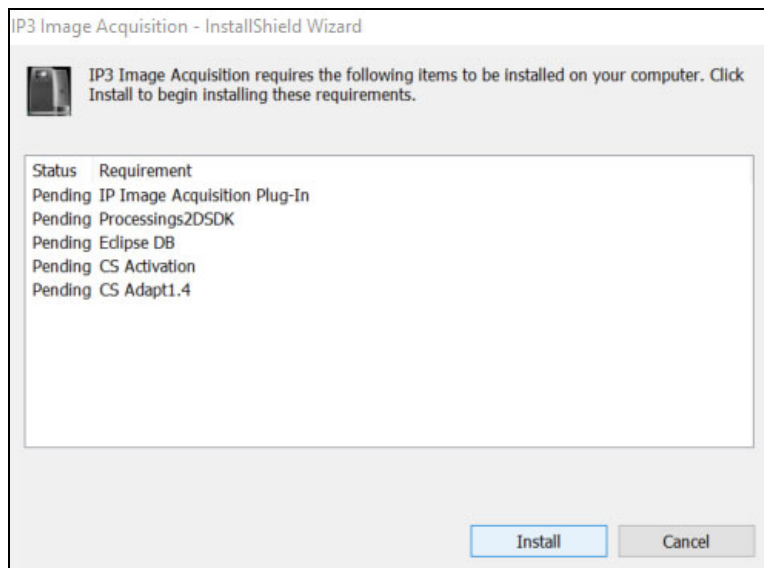




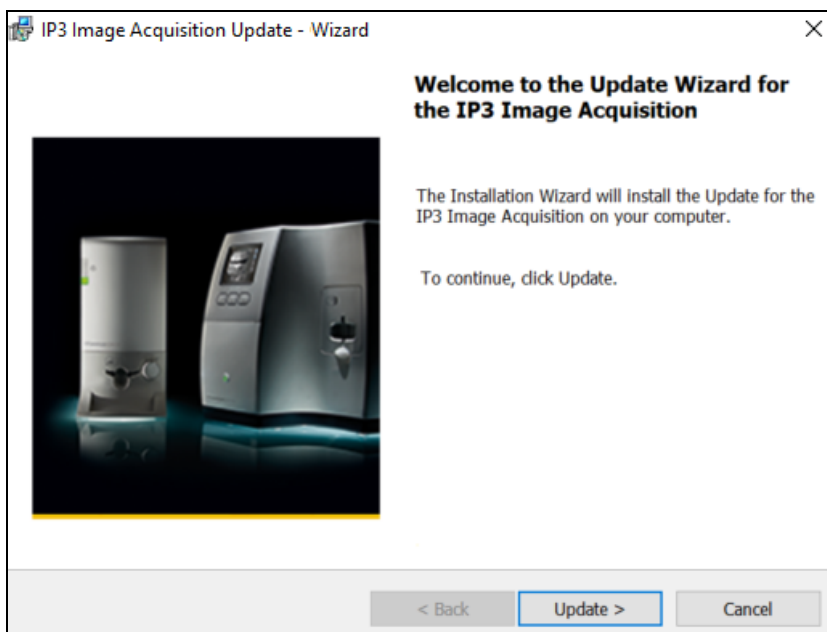
Note: If a red X displays next to one of the items, click **Help?** to view the description of the problem. Then, make sure your computer meets minimum system requirements.



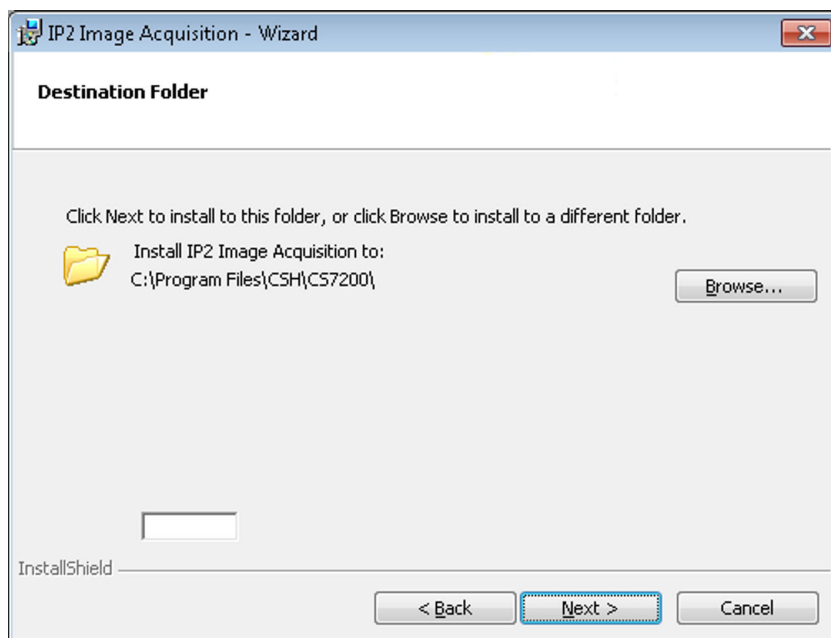
- 6 In the **IP3 Image Acquisition** window, click **Install** to install the required plug-ins on your computer.



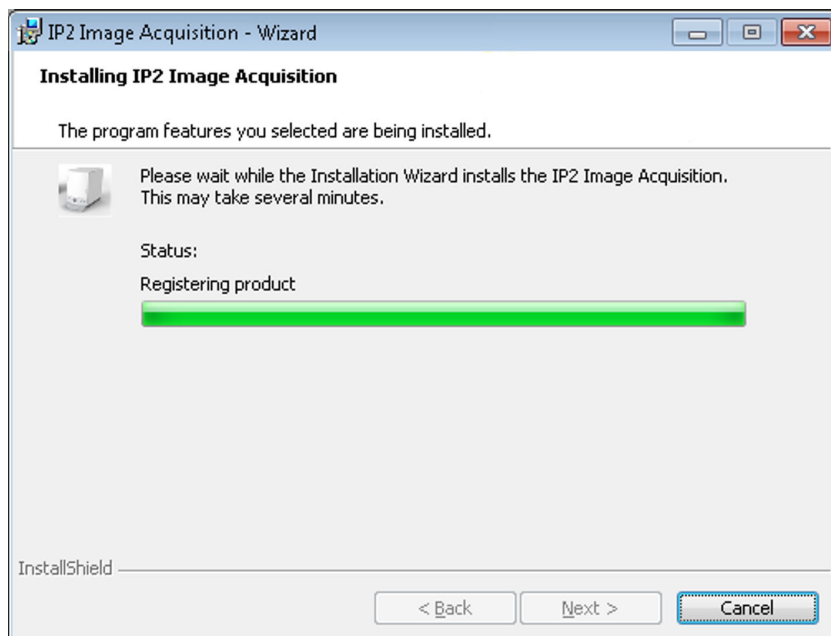
- 7 The **Welcome** window is displayed. Click **Next** to continue the installation process.



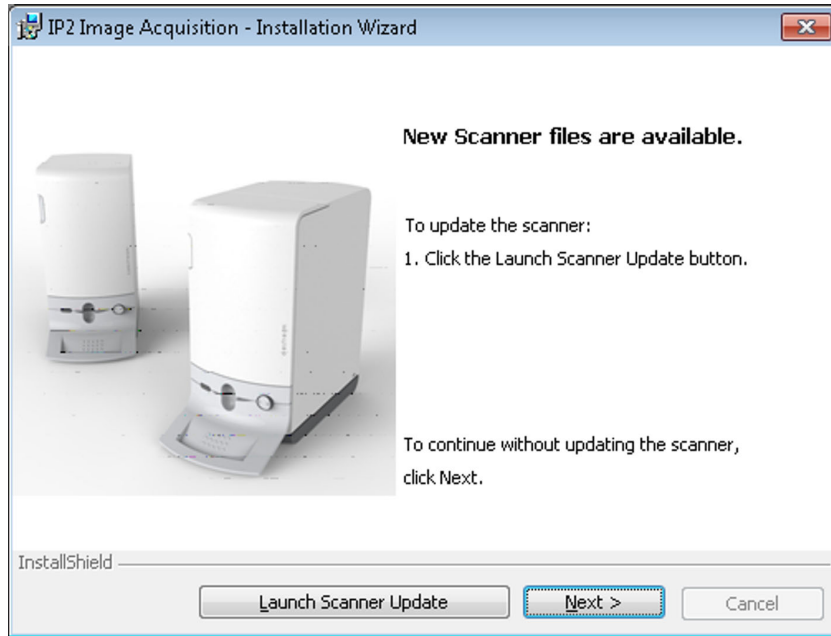
- 8 The **Destination Folder** window is displayed. Click **Next** if you accept the default destination folder, or browse to choose another destination folder, and then click **Next**.



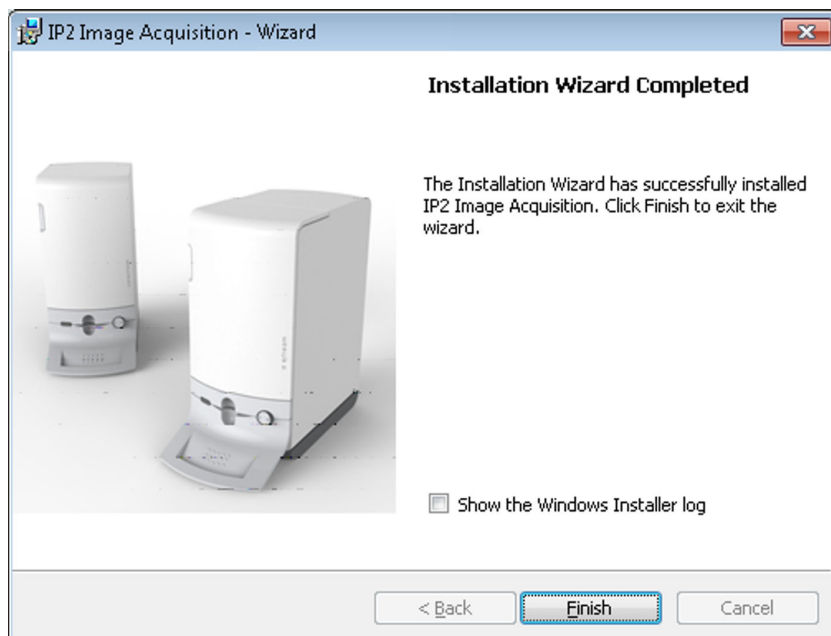
- 9 Wait until the system installs the software.



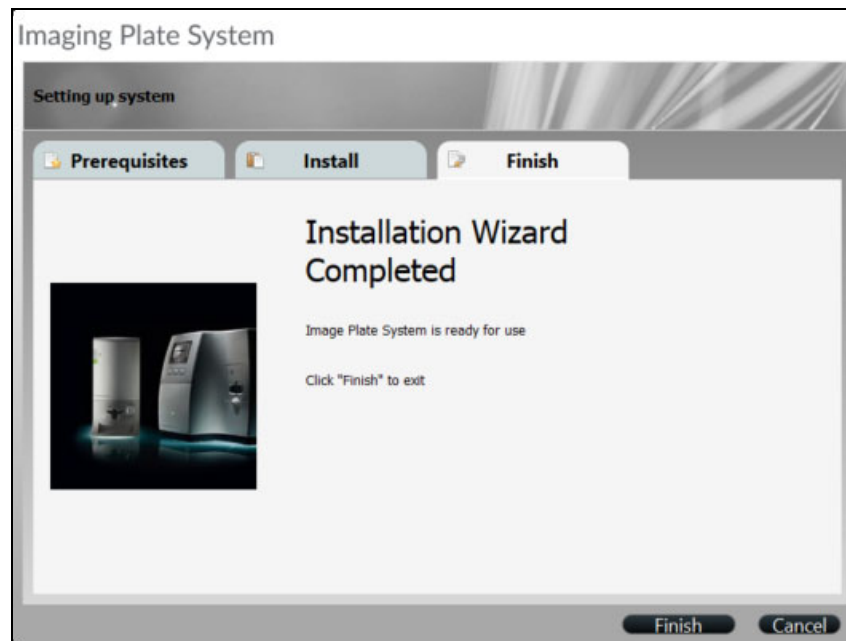
- 10 The **New Scanner Files** window is displayed. Click **Next** to continue without updating the scanner files.



- 11 The **Installation Wizard Completed** window is displayed. Click **Finish** to finish the installation.



- 12 On the **Finish** tab, click **Finish** to complete the installation.

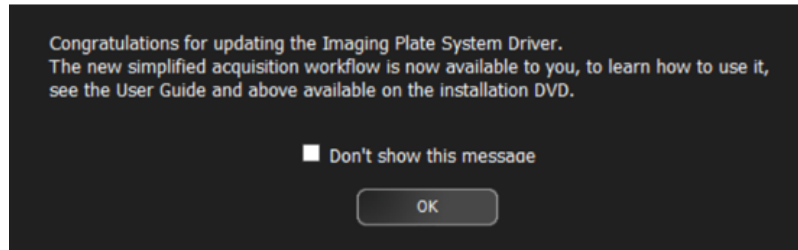


Opening the Image Acquisition Interface for the First Time

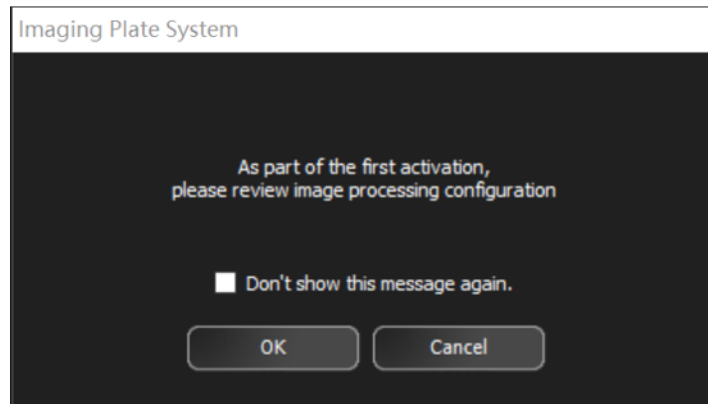
To open the image Acquisition interface for the first time, follow these steps:

- 1 After selecting a patient, either double-click the patient or click an arrow to open the image Acquisition software.

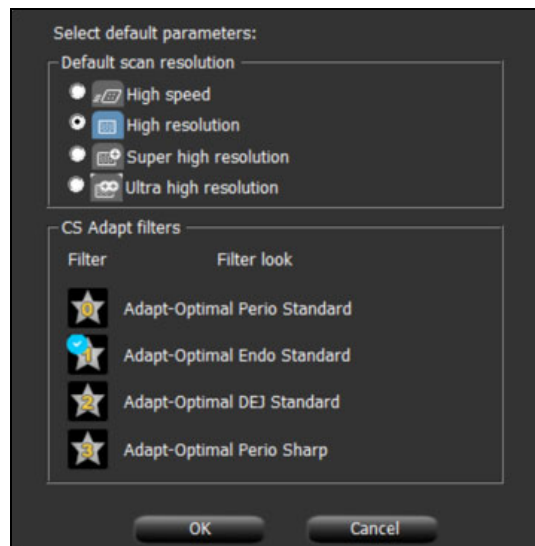
The following message is displayed on the image Acquisition main screen:



- 2 Click **OK** to close the message and continue with the setup. The following message is displayed on the image Acquisition main window:



- 3 Click **OK** to close the message. The following window is displayed:



- 4 Select a default scan resolution and CS Adapt filters, and click **OK**. The CS Adapt Library is launched. See [“Adapt Filtering Options”](#) on page 22.

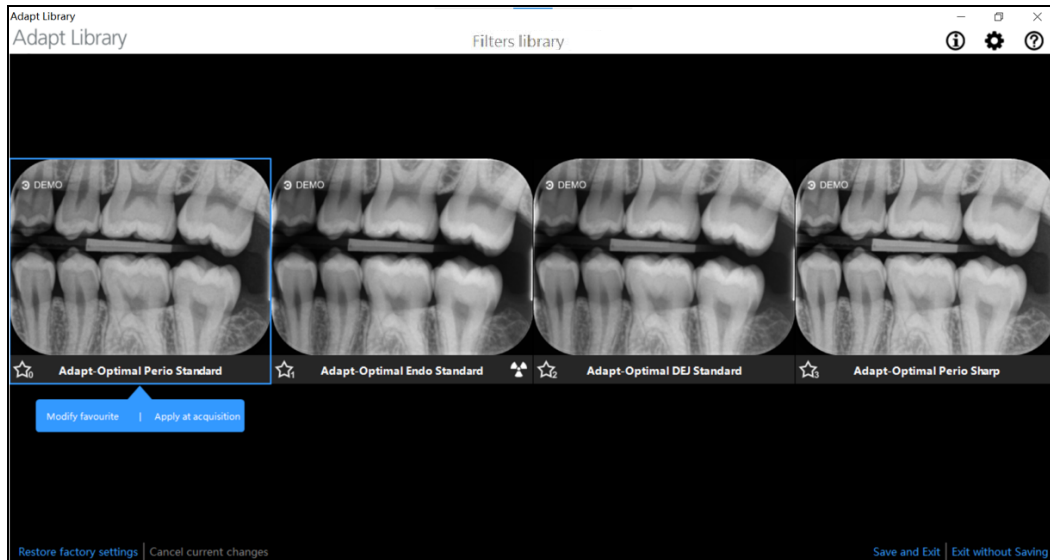
Adapt Filtering Options

The Adapt filtering options enable the user to select the preferred look of the scanned image.

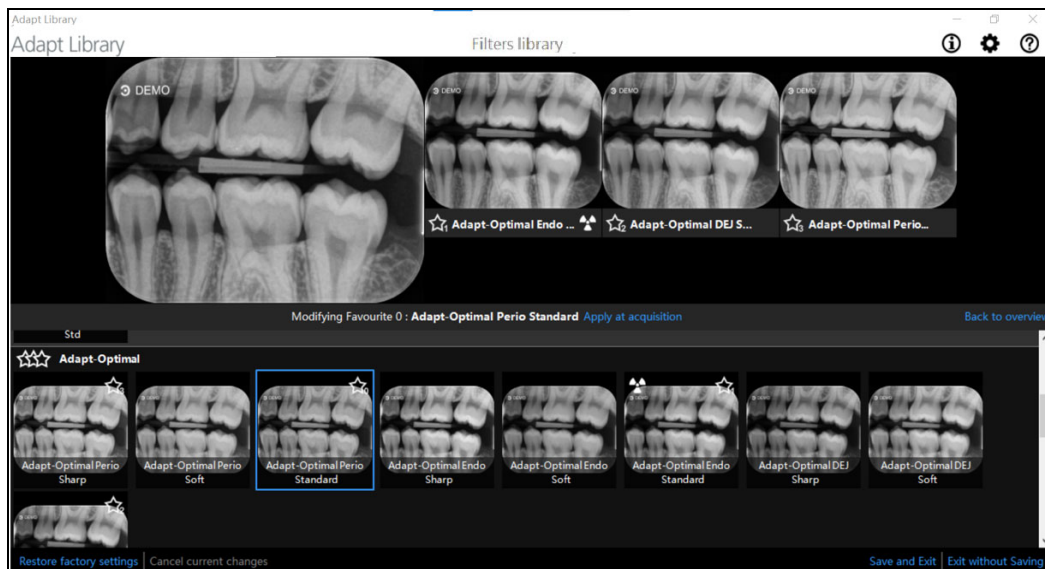
Access Adapt Library

To access the Adapt library, follow these steps:

- 1 Click **Modify favorite** to change the preferred look that will be applied after the scan. The gallery of the available looks is displayed at the bottom of the screen.

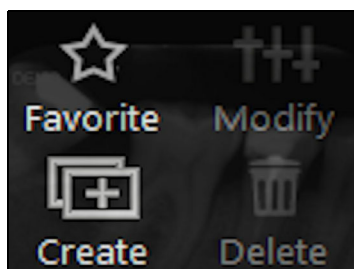
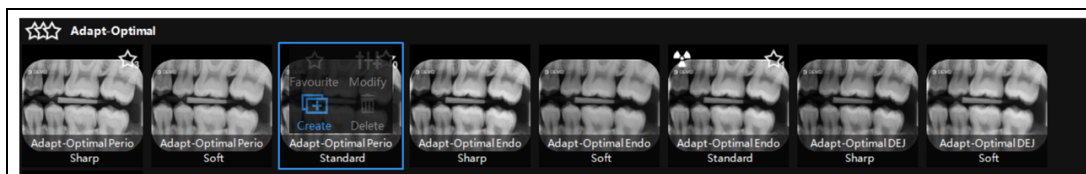


- 2 Click **Apply at acquisition** to apply this view during the image acquisition process.



- 3 Hover the mouse pointer over the selected frame in the gallery.

The following options are available:



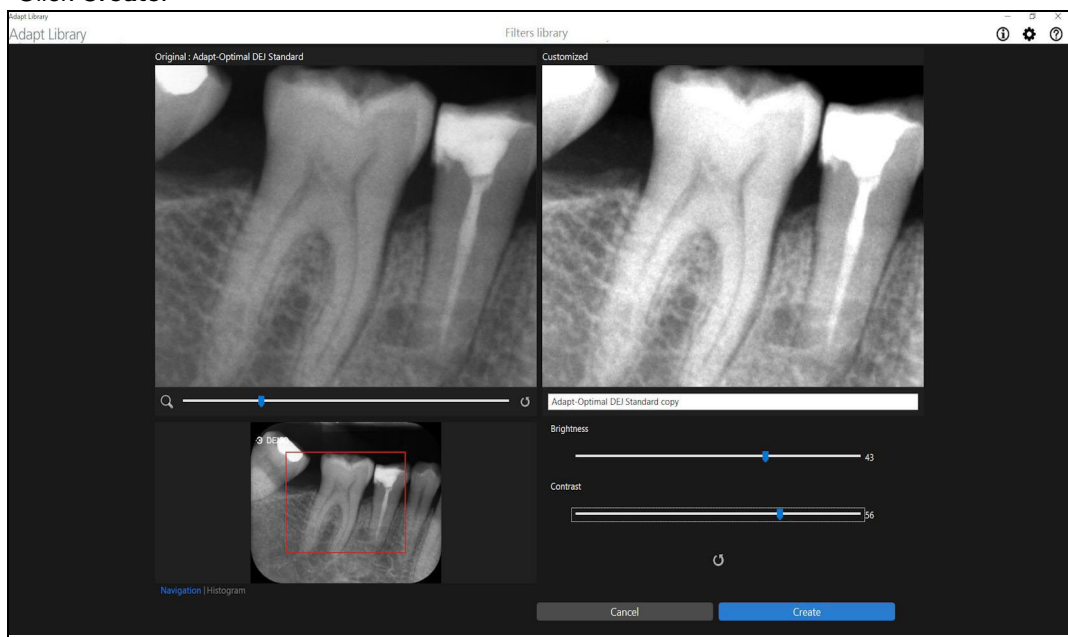
Action	Description
Favorite	Click to add the selected look to the favorites list.
Create	Click to create a new look based on the selected look.
Modify	Click to modify the selected look. The option is available only for the looks created by the user.
Delete	Click to delete the selected look from the gallery. The option is available only for the looks created by the user.

Create a Customized Look

To create and add a customized look to the favorites gallery, follow these steps:

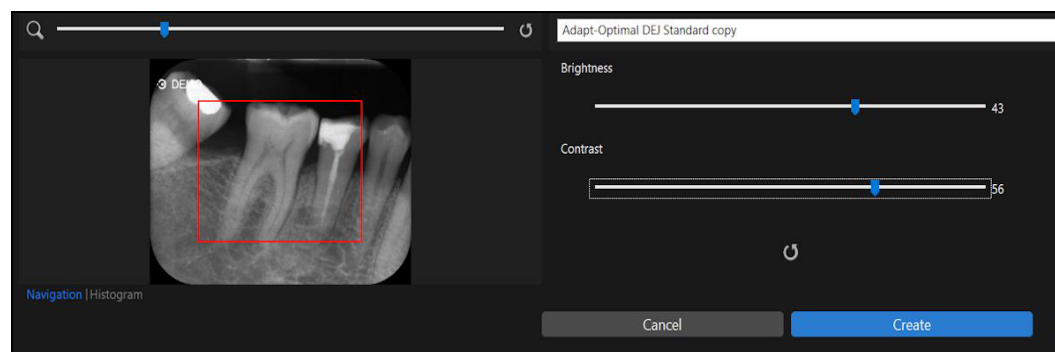
- 1 Select the frame to be customized.
- 2 Hover the mouse pointer over the selected frame.

3 Click **Create**.

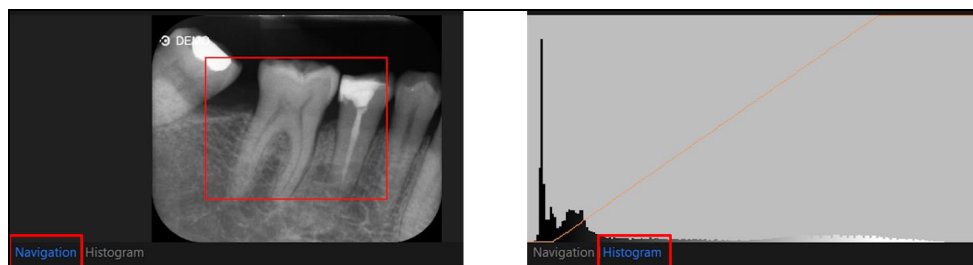


4 Adjust the brightness and contrast of the new look by using the **Brightness** and **Contrast** sliders.

Use the zoom slider to zoom in or out on certain areas of the image.



Choose either the **Navigation** or **Histogram** view when adjusting the new look.

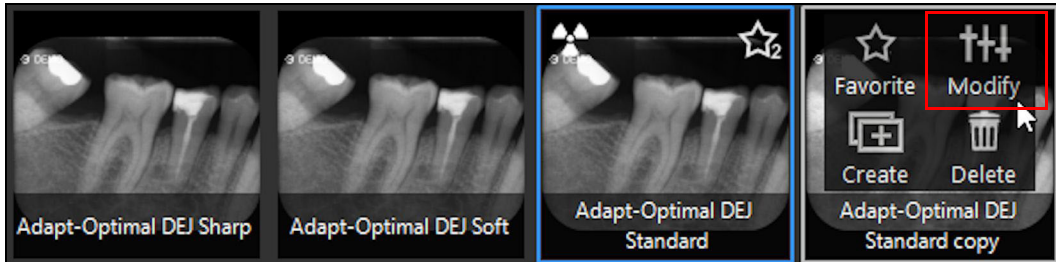


5 Click **Create** to create a new modified look and add it to the frames gallery.

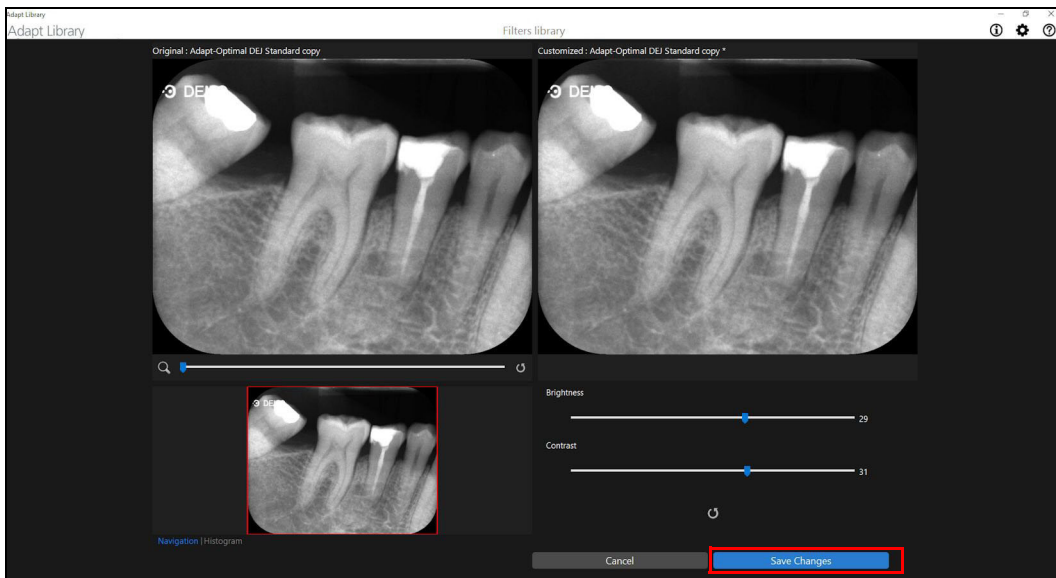
Modify the Existing Customized Look

To modify the existing customized look, follow these steps:

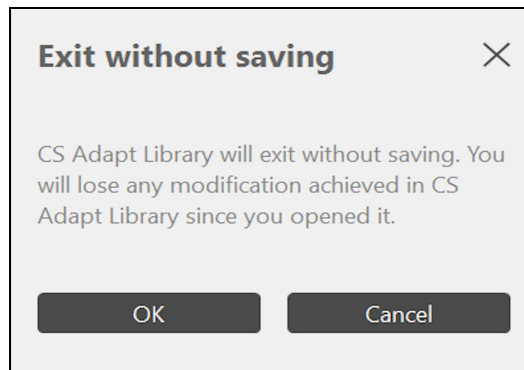
- 1 Select the frame to be customized.
- 2 Hover with the mouse pointer over the selected frame.
- 3 Click **Modify**.



- 4 Perform the required changes and click **Save Changes**.



- 5 If you close the **CS Adapt Library** window without saving the performed actions, the following dialog box is displayed:

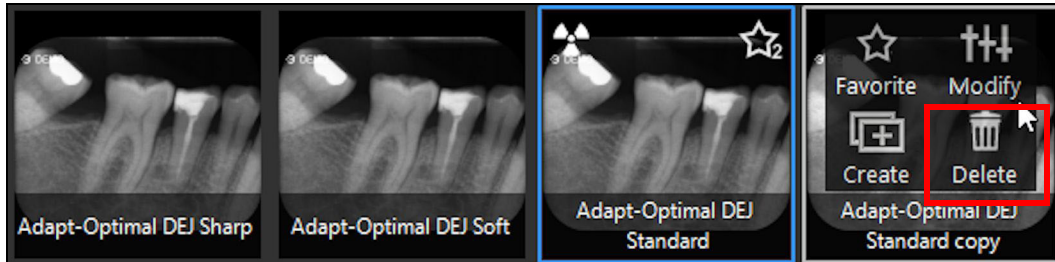


- 6 Click **OK** if you want to exit without saving changes, or click **Cancel** to return to the **CS Adapt Library** window.

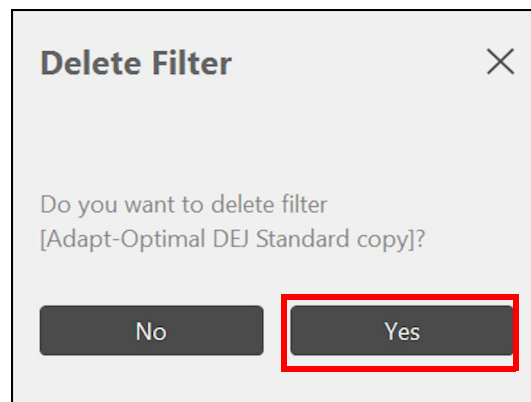
Delete Existing Filter

To delete an existing filter, follow these steps:

- 1 Select the frame to be customized.
- 2 Hover with the mouse pointer over the selected frame.
- 3 Click **Delete**.



- 4 In the **Delete Filter** dialog box that is displayed, click **Yes** to confirm the action.



Setting Up the CS 7200

Connecting Cables

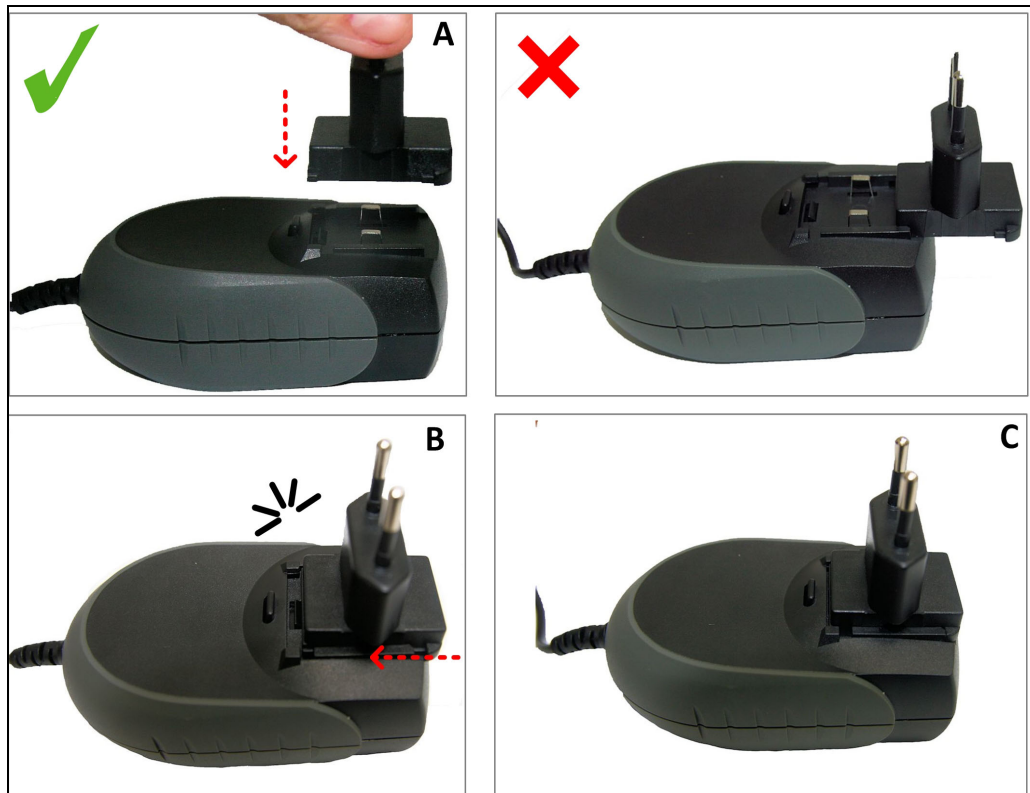
This section describes how to connect the power supply and USB cables to the CS 7200:



Note: The CS 7200 must be powered by the dedicated AC/DC adapter model TR30RAM240, manufactured by Cincon Electronics Co., Ltd.

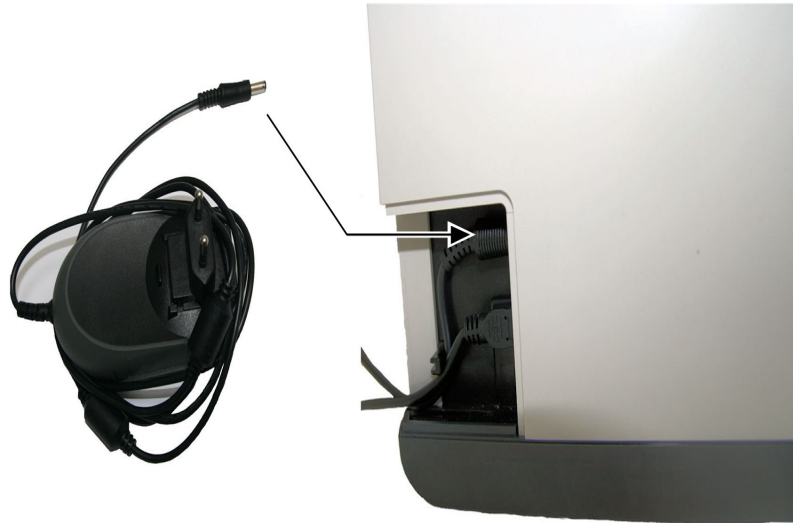
To connect the CS 7200 cables, follow these steps:

- 1 Install the power supply adapter on the power supply as shown below.

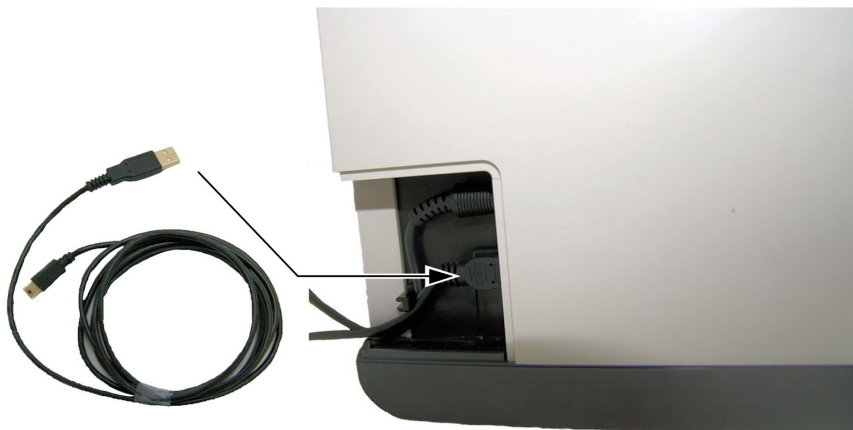


- 2 Remove the cable compartment cover.

- 3 Connect the power supply cable to the power supply inlet in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.



- 4 Connect the USB cable to the dedicated connector in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.



OR

Connect the LAN cable to the ethernet port in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.



Note: You **cannot** use a LAN and USB connection at the same time. If both LAN and USB cables are connected, only the USB connection is available.

- 5 Close the cable compartment cover.



- 6 Connect the free end of the USB cable to the main USB port in the back of the computer.

OR

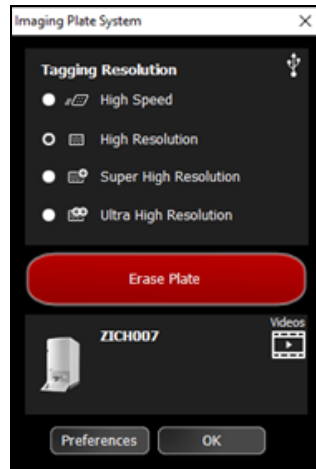
Connect the free end of the LAN cable to the ethernet port in the computer.

- 7 Connect the power supply cable plug to the mains wall socket.

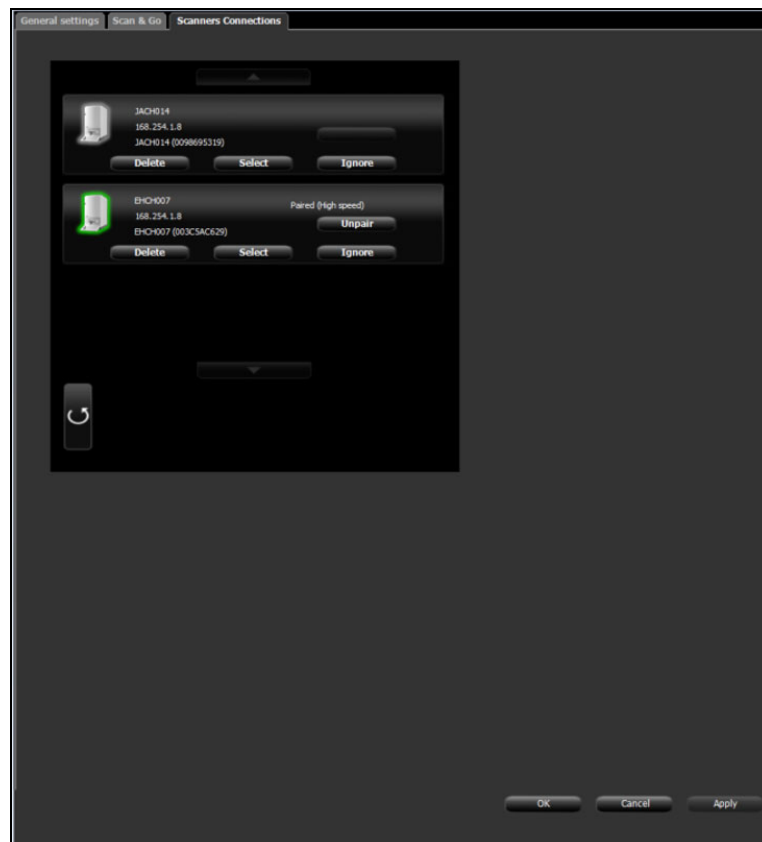
Scanner Activation

To activate the scanner, follow these steps:

- 1 On the main tool bar, click the **Configure** icon . The **Imaging Plate System** window is displayed.



- 2 Click **Preferences**. The **Imaging Plate System Preferences** window is displayed, with the **General Settings** tab selected.
- 3 Click the **Scanners Connections** tab. The **Scanners Connections** window is displayed.



- 4 Select the scanner to activate.



- 5 Click **Activate**. The following message is displayed.

CS 7200 scanner needs to be activated before it can be used.
Do NOT disconnect the scanner or power off until the activation is finished.

- 6 Connect to <https://cs-licensing.carestreamdental.com/> to download the latest CS Activation software.
- 7 Launch the **CS Activation** software from the Windows **Start** menu and follow the online instructions.

CS 7200 Setup Configuration Options

There are three main setup configuration options:

- Single scanner, single computer, see [page 32](#).
- Single scanner, single computer, single Scan & Go device, see [page 33](#).
- Single scanner, multiple computers with multiple Scan & Go devices, see [page 33](#).



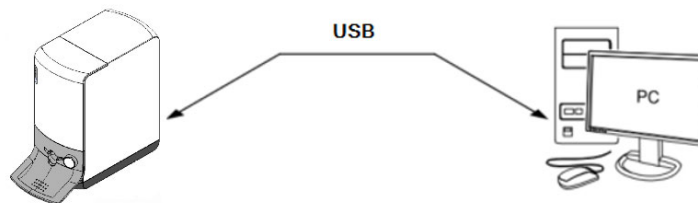
Note: The above are the most common configuration implementations. Multiple scanner configurations are also available.



Tip: Save time in selecting a scanner by making a peer-to-peer link from the scanner to the computer.

Single Scanner and Single Computer

To set up a single scanner and single computer configuration, see “[Setting Up a Single Scanner and Single Computer With or Without the Scan & Go Device](#)” on [page 34](#)



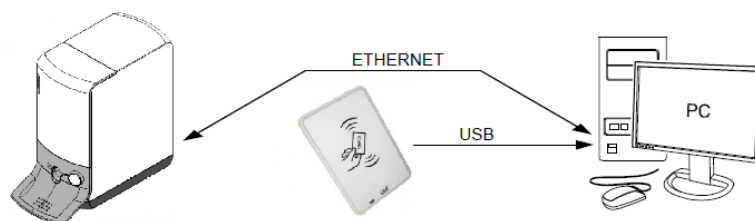
This configuration is suitable for a dental clinic with the following setup:

- Single chairside
- Single computer, chairside

The scanner is connected directly to the computer for chairside operation.

Single Scanner, Single Computer, and Scan & Go Device

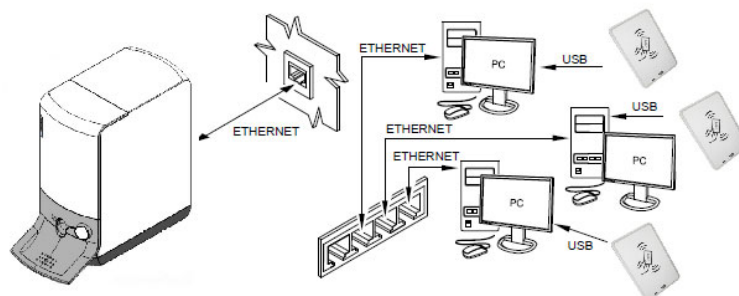
To set up a single scanner with a single computer and Scan & Go device, see [“Setting Up a Single Scanner and Single Computer With or Without the Scan & Go Device”](#) on page 34.



This configuration is suitable for one chairside option and when working with a single workstation. This configuration also allows more cable length between the scanner and the workstation.

Single Scanner, Multiple Computers With Multiple Scan & Go Devices

To set up a single scanner with multiple computers and multiple Scan & Go devices, see [“Setting Up a Single Scanner and Multiple Computers With the Scan & Go Device”](#) on page 39



This configuration is suitable for a dental clinic with the following setup:

- Multiple dental chairs with multiple workstations
- Multiple Scan & Go devices

Setting Up Procedures

Setting Up a Single Scanner and Single Computer With or Without the Scan & Go Device



Note: If your site's configuration includes MULTIPLE computers, continue to the next procedure: "[Setting Up a Single Scanner and Multiple Computers With the Scan & Go Device](#)" on page 39.



Important: All software must be installed; otherwise, it is impossible to verify that the installation was successful.



Tip: Save time in selecting a scanner by making a peer-to-peer link from the scanner to the computer.

To set up the scanner, follow these steps:

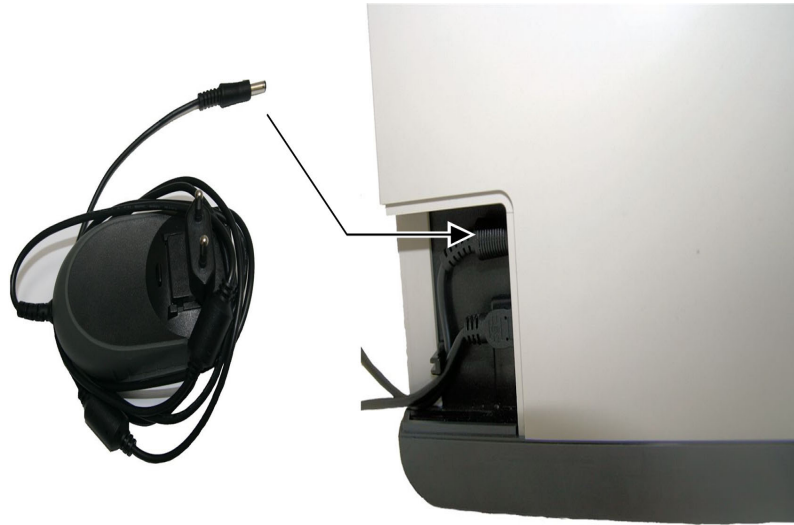
- 1 Place the scanner on a stable, level surface.



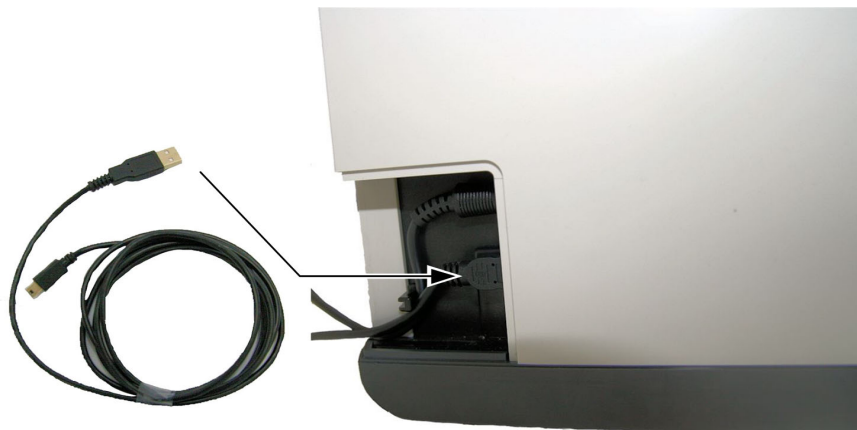
Important: Strong light (greater than 500 lux) may affect image quality; avoid placing the scanner beneath windows or sources of direct, strong light.

- 2 Remove the cables compartment cover at the back of the system.

- 3 Connect the assembled power supply cable to the power supply inlet in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.



- 4 Connect the USB cable to the dedicated connector in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.



OR

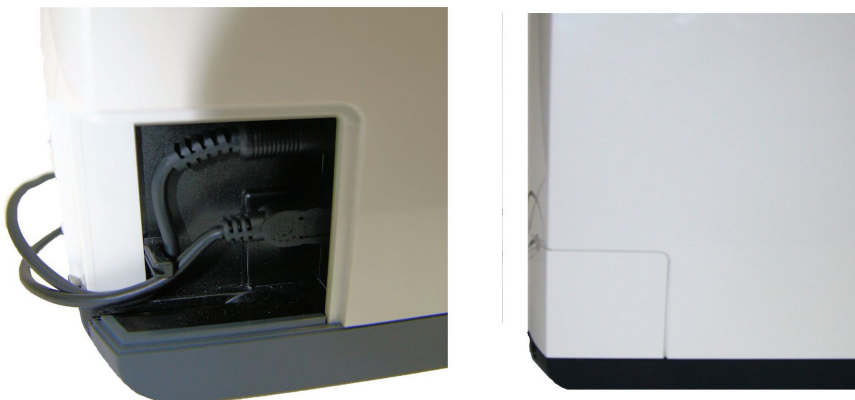
Connect the LAN cable to the ethernet port in the cable compartment, and route the cable as shown in the image below to secure the cable in its place.





Note: You **cannot** use a LAN and USB connection at the same time. If both LAN and USB cables are connected, only the USB connection is available.

- 5 Close the cable compartment cover.



- 6 Connect the free end of the USB cable to the main USB port in the back of the computer.

OR

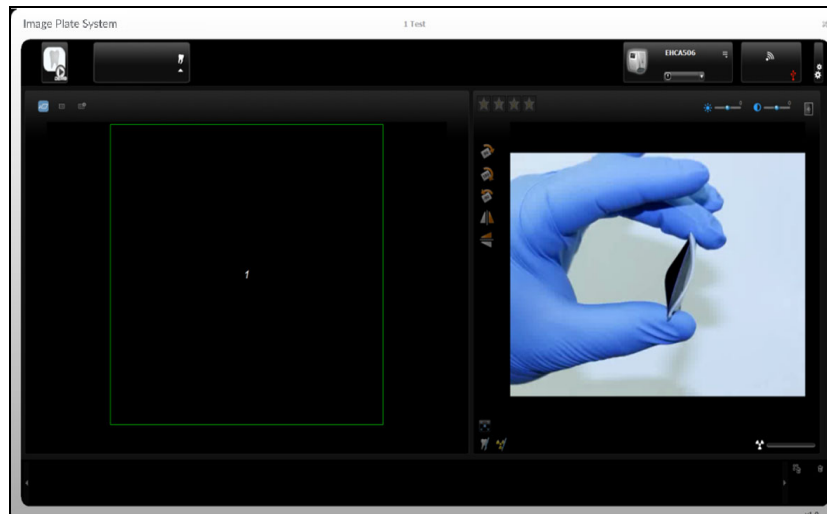
Connect the free end of the LAN cable to the ethernet port in the computer.

- 7 Connect the power supply cable plug to the mains wall socket.
- 8 If you have a Scan & Go device, connect the USB cable of the Scan & Go device to the computer.
See [“Connecting the Scan & Go Device” on page 10](#).
- 9 Turn on the scanner.



- 10 Turn on the computer.
- 11 Access the image Acquisition interface. See [“CS 7200 Image Acquisition Interface Overview”](#) on [page 61](#).

Figure 6 Image Acquisition Interface



- 12 In the image Acquisition interface, check that the scanner is highlighted with a green frame.



Note: If the Image Acquisition Interface does not detect the scanner, the automatic dynamic IP assignment may not function (see [page 45](#)). If you need to set a manual IP, see [page 41](#).

Setting Up a Peer-to-Peer Connection (Skip If Using USB)

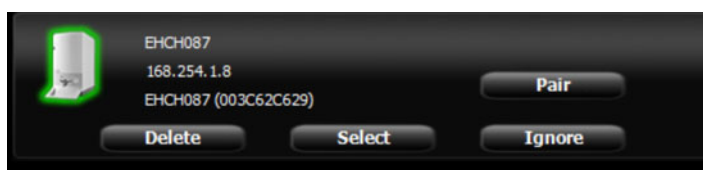


Tip: Save time in selecting a scanner by making a peer-to-peer link from the scanner to the computer.

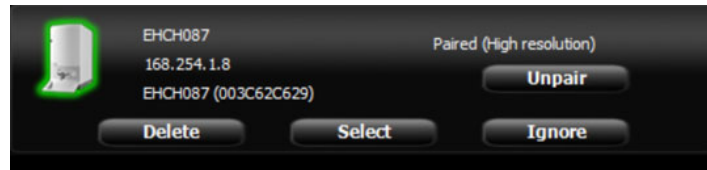
For more information on peer-to-peer setup, see [“About Peer-to-Peer Connection”](#) on [page 101](#).



- 13 In the image Acquisition interface, click **Settings**. The **Imaging Plate System Preferences** window is displayed.
- 14 Click the **Scanners Connections** tab. The **Scanners Connections** window is displayed.



15 Click **Pair**.



The status (located above the **Pair/Unpair** button) changes from **Connected** to **Paired** (connection speed).

16 Insert an exposed (X-ray) imaging plate into the scanner by positioning the open side of the hygienic sheath in the scanner's insertion panel slot.

17 If you have a Scan & Go device:

- Place an imaging plate near the Scan & Go device recording surface to record the exam acquisition data.
Two audible beeps and two successive blinks of the LED indicate the exam acquisition information was recorded. Additionally, the Image Acquisition Interface marks the corresponding frame as recorded (frame color changes to indicate recorded status).
- Perform a test scan of the recorded imaging plate (step 16 above) and check that the image populates the correct frame in the image Acquisition interface.

18 Perform the post installation test. See [“CS 7200 Post Installation Test” on page 49](#).

Setting Up a Single Scanner and Multiple Computers With the Scan & Go Device

To set up the scanner, follow these steps:



Important: All software must be installed; otherwise, it is impossible to verify that the installation was successful.

- 1 Place the scanner on a stable, level surface.



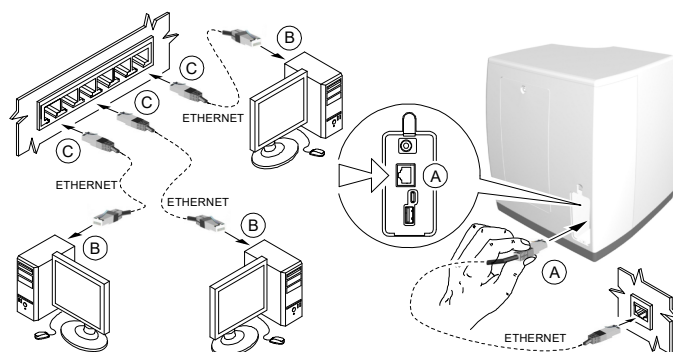
Important: Strong light (greater than 500 lux) may affect image quality; avoid placing the scanner beneath windows or sources of direct, strong light.

- 2 Remove the cables compartment cover at the back of the system and connect the assembled power supply's cable to the scanner's mains outlet and to a mains wall socket.



- 3 Connect the standard Ethernet cable (A) to the scanner's Ethernet port, and to the RJ-45 terminal/wall socket (C).

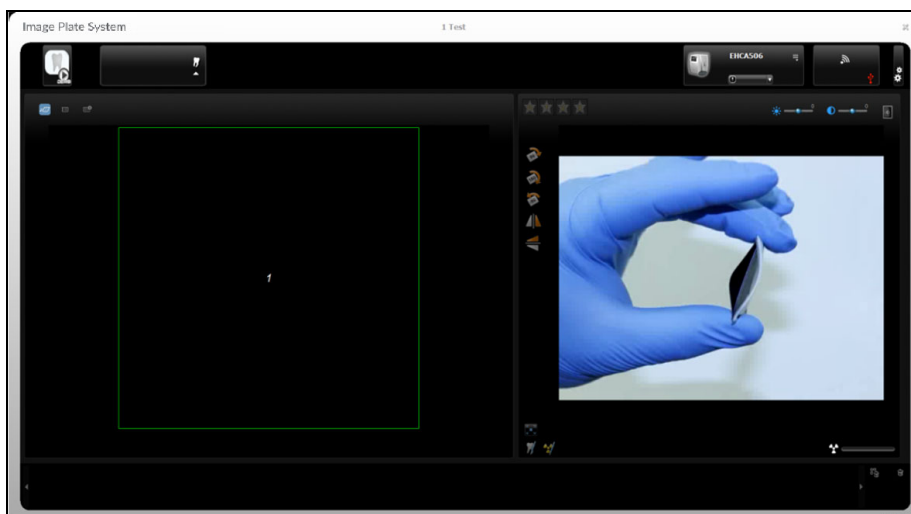
- 4 Make sure the room's computer (B) is connected to the same LAN network as the scanner.



- 5 Turn on the scanner.



- 6 Turn on the computer at each workstation.
- 7 Launch the image Acquisition interface at each workstation. See [Chapter 4—CS Imaging Software Overview](#).



- 8 In the image Acquisition interface, check that the scanner is highlighted with a green frame.



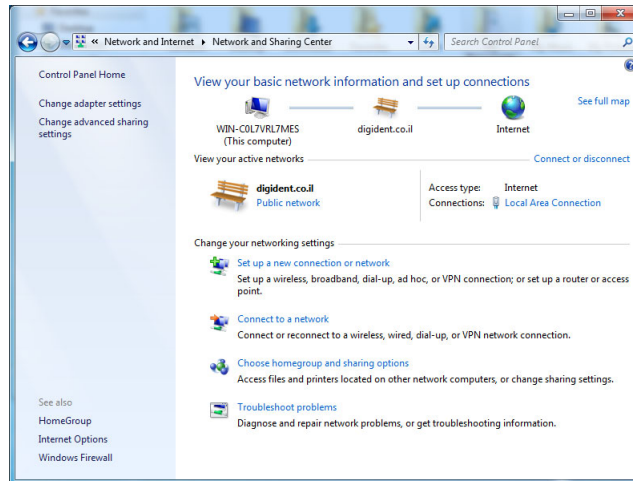
Note: If the image Acquisition interface does not detect the scanner, the automatic dynamic IP assignment may not function (see [page 45](#)). If you need to set a manual IP, see [page 41](#).

- 9 Insert an exposed (X-ray) imaging plate into the scanner by positioning the open side of the hygienic sheath in the scanner's insertion panel slot.
- 10 If you have a Scan & Go device:
- Place an imaging plate near the Scan & Go device recording surface to record the exam acquisition data. Two audible beeps and two successive blinks of the LED indicate the exam acquisition information was recorded. Additionally, the image Acquisition interface marks the corresponding frame as recorded (frame color changes to indicate recorded status).
 - Perform a test scan of the recorded imaging plate (step 9 above) and check that the image populates the correct frame in the image Acquisition interface. Do this for each workstation that uses a Scan & Go device.
- 11 Perform the post installation test. See “[CS 7200 Post Installation Test](#)” on [page 49](#).

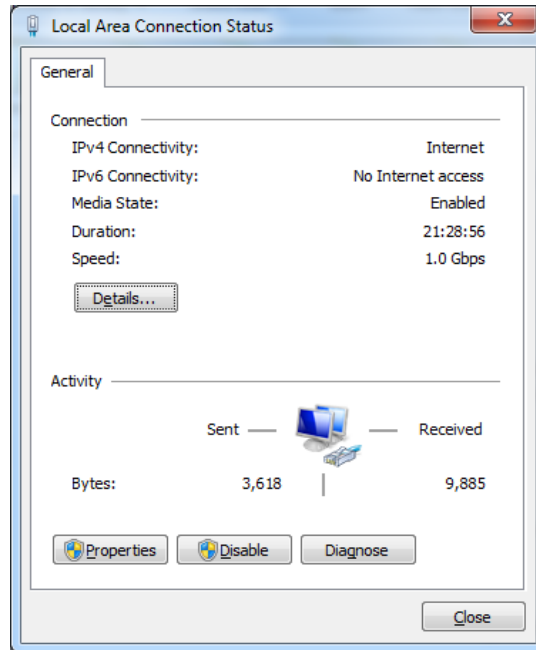
Setting Up Network Connections, Windows 10

If your network requires configuring IP addresses manually, follow these steps:

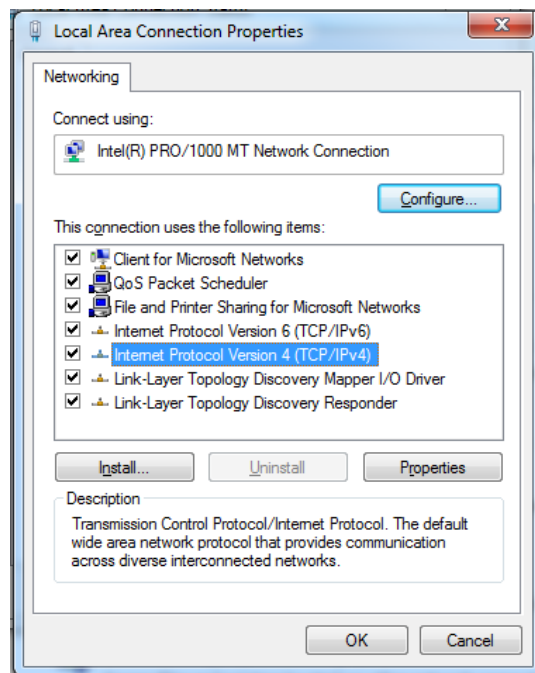
- 1 Click **Start > Control Panel > Network and Sharing Center**.



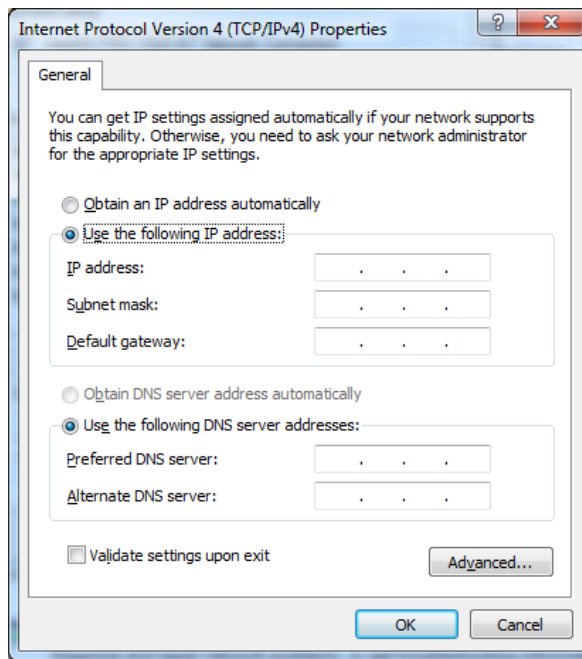
- 2 In the Network and Sharing Center window, click **Local Area Connections**. The **Local Area Connection Status** window is displayed.



- 3 Click **Properties**. The **Local Area Connection Properties** window is displayed.



- 4 Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**. The **Internet Protocol Version 4 (TCP/IPv4) Properties** window is displayed.

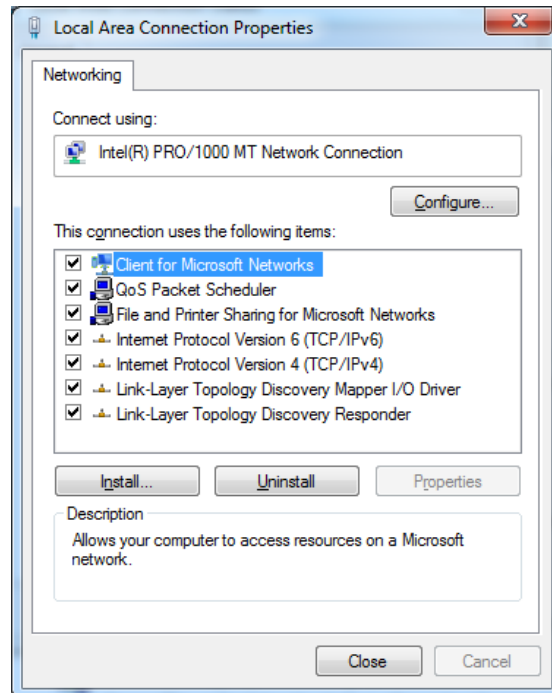


- 5 Select **Use the following IP address**. To enable communication between the computer and the scanner, both should use the same network identifier in their IP address. See also “[Scanner Manual IP Setup](#)” on page 45.
- 6 In the **IP address** box, type the IP address.
- 7 In the **Subnet mask** box, type the subnet mask address.

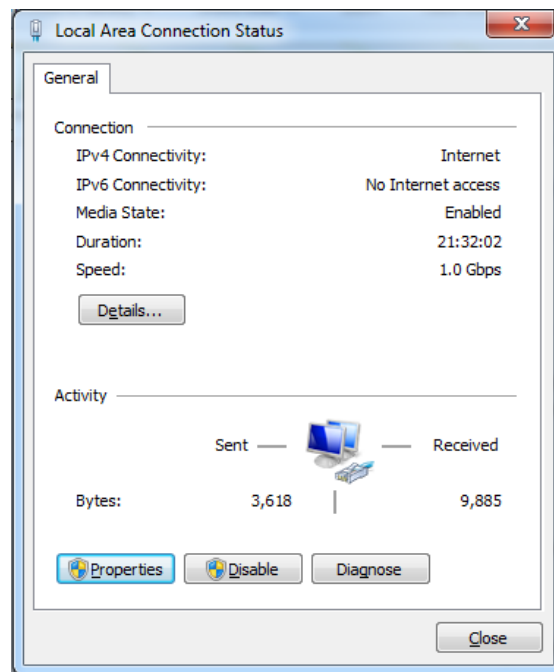


Important: Make sure the IP address entered here uses the same network identifier as the scanner. Consult with your network administrator for the appropriate IP settings.

- 8 Click **OK** after entering the IP settings. The **Local Area Connection Properties** window is displayed.

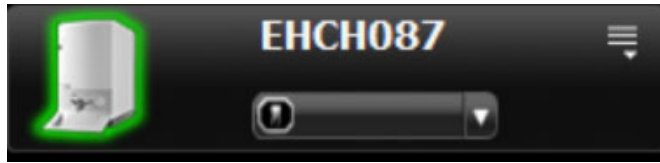


- 9 Click **Close**. The **Local Area Connection Status** window is displayed.



- 10 Click **Close**. You have exited the **Network and Sharing Center**.

- 11 Start the CS 7200 image Acquisition interface, wait 20 seconds, and check that the scanner is displayed with a green highlight in the scanner area.



- 12 If the scanner is not displayed with a green highlight, see [Chapter 11–Troubleshooting](#).

Scanner Manual IP Setup

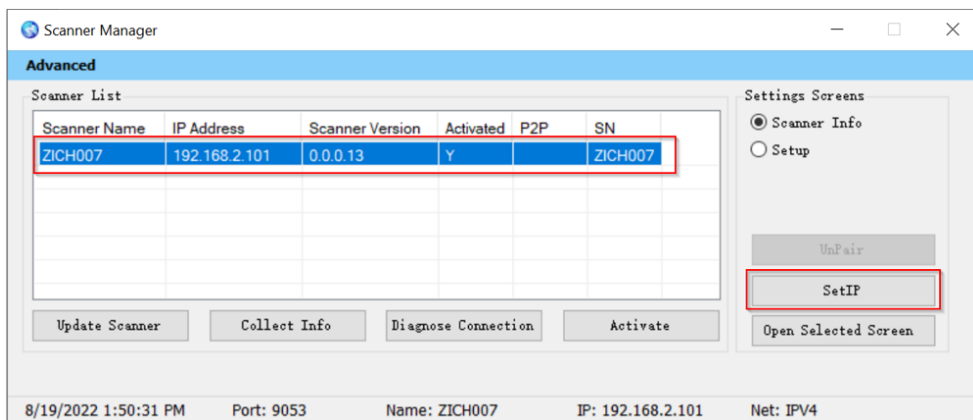
To perform a manual IP setup, follow these steps:

- 1 Do one of the following:
 - On the desktop, double-click on the **Scanner Manager** icon.

OR

 - Click **Start > Programs > IP3 Image Acquisition > Scanner Manager**.

The **Scanner Manager** window is displayed.



- 2 After the scanner version displays in the Scanner List, select the scanner.
- 3 Click **SetIP**. The **ScannerManager – IPSet** window is displayed.



- 4 Select **Obtain an IP address automatically** (DHCP), or select **Use the following IP Address** and set the IP address and netmask. Click **Set**.
- 5 Return to Scanner Manager and wait 15 seconds until the scanner shows the correct IP address.

Scanner Setup

To set up the scanner, follow these steps:

- 1 Do one of the following:

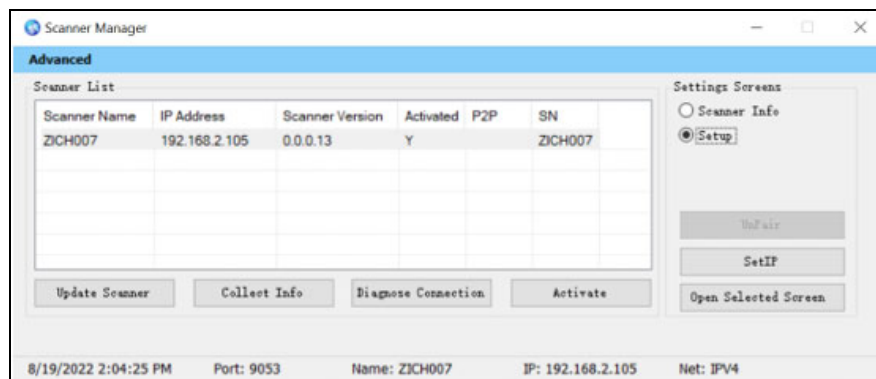
- On the desktop, double-click the **Scanner Manager** icon



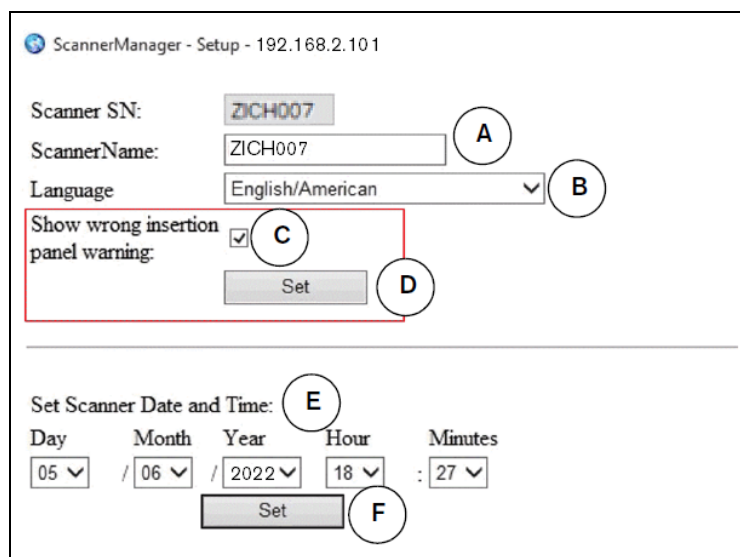
OR

- Click **Start > Programs > IP3 Image Acquisition > Scanner Manager**.

The **Scanner Manager** window is displayed.

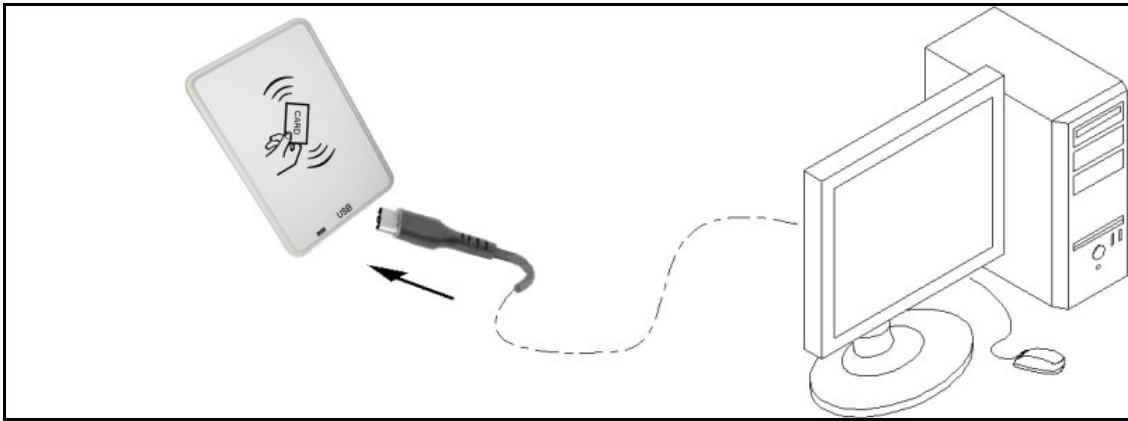


- 2 After the scanner version displays in the Scanner List, select the 192.168.2.105 scanner.
- 3 Select the **Setup** option, and click **Open Selected Screen**. The **ScannerManager - Setup** window is displayed.



- 4 Make sure the **ScannerName** field (A) has the correct scanner name, as noted in Step 1 above.
- 5 To change the scanner's interface language from the default of English, in the **Language** field (B), click the arrow and select a language.
- 6 Select the **Show wrong insertion panel warning** checkbox (C) to display a warning message when plate #0 is inserted to a 1-2-3 insertion panel. Click **Set** (D).
- 7 To change the scanner's date and time, select the correct date and time settings from the **Day**, **Month**, **Year**, **Hour**, **Minutes** lists (E). Click **Set** (F) to apply these settings.

Scan & Go Device Setup



To connect the Scan & Go device:

Connect the USB cable to the computer and to the USB port on the Scan & Go device.

Configuring the DICOM Character Set Encoding

To ensure the information is rendered correctly on DICOM viewers, regardless of the locale, set the applicable DICOM character set encoding for the site.

To set the applicable DICOM character set encoding for the site, follow these steps:

- 1 Access the CS 7200 image Acquisition interface (see [Chapter 4–CS Imaging Software Overview](#)) and click  to access the **General Settings** tab.
- 2 In the DICOM Character Set area, select the character set encoding for the site.

Table 3-3 Supported Character Sets

Character Set	Languages
Default	English only (no DICOM tag sent)
ISO_IR 100	European Languages
ISO_IR 101	Polish
ISO 2022 IR 6	English only
GB18030	Chinese
ISO 2022 IR 87	Japanese for Kanji, full only Katakana, Hiragana
ISO 2022 IR 13_87	Japanese for Kanji, full and half Katakana, Hiragana
ISO 2022 IR 6	Korean
ISO 2022 IR 149	Korean
ISO_IR 126	Greek
ISO_IR 144	Cyrillic (Russian)
ISO_IR 148	Turkish
ISO_IR 166	Thai
ISO_IR 192	UTF-8 for Thai

- 3 Click **OK**.

CS 7200 Post Installation Test

After software and scanner installation, check that all scanner components are properly installed and the scanned images are properly displayed in the CS Imaging Software.

To perform a post installation test, follow these steps:

- 1 Start the CS Imaging Software and select or create a test patient. See [“Starting the Imaging Software” on page 68](#).
- 2 Expose a plate size 2 with a metal object (such as a coin or key) on it.
- 3 Load the exposed plate into the scanner, and wait until the scan is complete and the image is displayed on the CS Imaging Software main window.



- 4 Close the CS Imaging Software main window.

4 CS Imaging Software Overview

General Software Overview

The CS 7200 operates with the CS Imaging Software. You can acquire:

- Single images
- Full Mouth Series (FMS)

Single Image Acquisition Overview

You can acquire individual images using the CS Imaging Software.

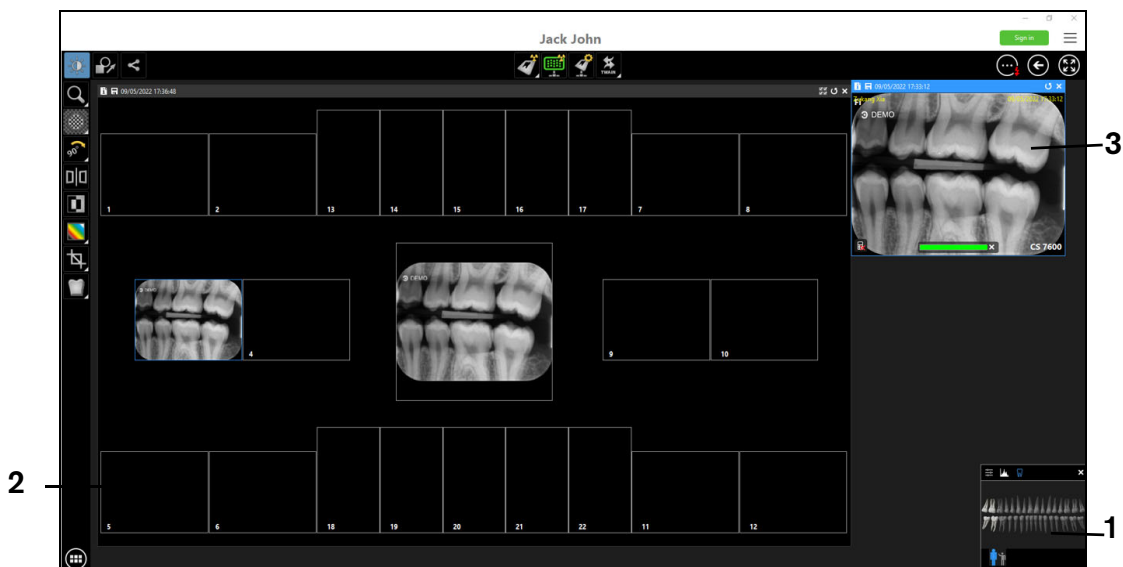
Figure 7 CS Imaging Software with Active CS 7200 Scanner Connected



Full Mouth Series (FMS) Image Acquisition Overview

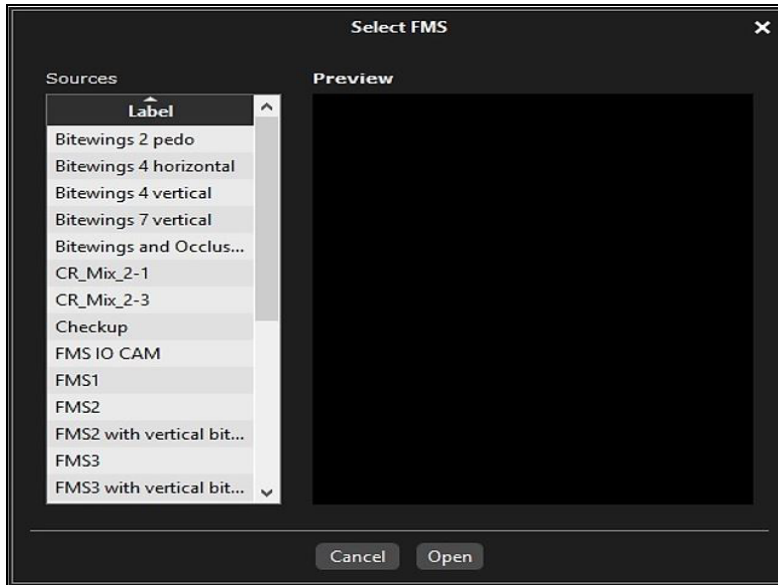
The Full Mouth Series (FMS) is a static representation of the mouth of the patient using a series of intraoral images. The images are placed in fixed numbered frames.

Figure 8 CS 7200 FMS Acquisition Interface Home Page



- 1 **Dental arch:** Highlights the acquisition zone.
- 2 **FMS template:** Displays frame templates for acquisition.
 - Green highlight: Frame ready for new acquisition.
 - Blue highlight: Frame in the revue and retake mode. This mode interrupts the automatic acquisition sequence.
- 3 **Preview screen:** Displays the currently acquired image.

Figure 9 FMS Select a Format

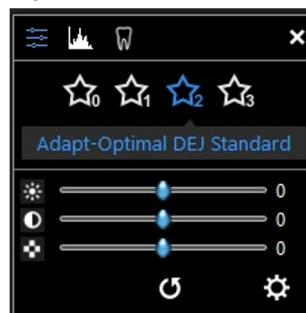


Select a Format enables you to select FMS template options for acquisition. You can modify existing templates and create new templates (see the **CS Imaging Software Online Help**).



Note: Only FMS templates for CR images can be used. Using other FMS will cause images not to be displayed.

Figure 10 Control Panel with CS Adapt Buttons



Control Panel: Enables you to adjust the brightness and contrast of the image. For more information on Control Panel functions, see the **CS Imaging Software Online Help**.



CS Adapt Library: Opens the CS Adapt Library software that enables you to manage your filters.



Adapt - Unfiltered Perio: Enhances the display of periodontal tissue.



Adapt - Unfiltered Endo1: Enhances contrast at the canals and roots (produces brighter images).



Adapt - Unfiltered DEJ1: Optimizes contrast at crowns, amelo-dentinal junctions, and roots (produces brighter images).



Adapt - OptimizedContrastEndo: Enhances contrast at the canals and roots.

Figure 11 Image Toolbar and Drawings & Annotations Toolbar

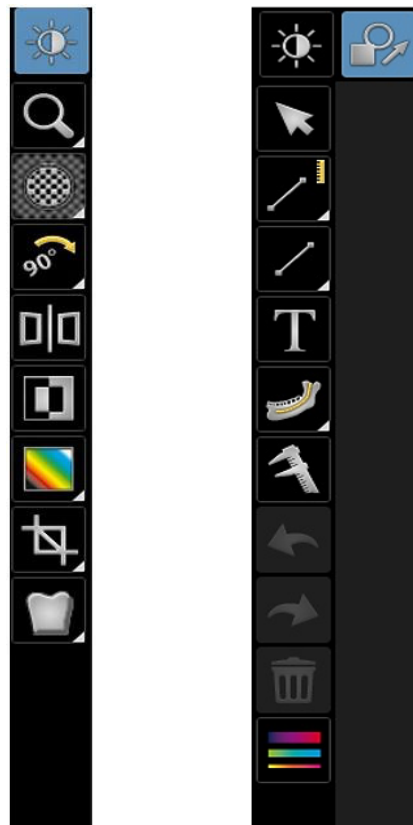


Image toolbar: Enables you to adjust the image display. For more information on Image toolbar functions, see the *CS Imaging Software Online Help*.

		Zoom icon: Click to magnify a specific region.
		Highlight: Click to optimize contrast within a region of interest.
 Rotate icon group		90° rotation: Click to rotate the image by 90° clockwise.
		Flip: Click to rotate the image by 180° clockwise.
		Mirror icon: Click to create a mirror image of the original image.
 Colors icon group		Colors #1 icon: Click to replace grays by a color.
		Colors #2 icon: Click to replace grays by sepia colors.
		Grayscale icon: Click to replace colors by grays.
 Density icon group		Crop image: Click to access the Crop panel. Cropping is not permanent and can be undone at any time.
		Isodensity dots: Click to apply color to pixels of the same bone density.
		Densitometric analysis: Click to analyze bone density.
 Filter icon group		Relief filter: Click to enhance the outlines of the shapes in an image by displaying the image in relief mode.
		Pseudo - 3D: Click to display gray scale levels as height values.
		Logicon icon: In RVG images, click to launch the Logicon Caries Detector to detect interproximal caries. Note: This tool is available only if you have the Logicon Caries Detector software installed.
		Negative icon: Click to apply an inverse video effect to an image.
		Cosmetic module icon: Click to add cosmetic treatments to color images. Note: This tool is available only if you have the Cosmetic Imaging Module software installed.