

Please Read This First

Getting Started with CDR DICOM

*For complete details about your CDR DICOM software,
please refer to the User Guide on the DVD or
our website at www.schicktech.com*



Getting Started

Congratulations on your purchase of CDR DICOM, the imaging software product from Schick Technologies.

To install the software, please follow the steps starting on page 4 of this Guide (*instructions are also in the CDR DICOM User Guide on the Software CD*). For the latest updates, please check our website at www.schicktech.com.

Brief descriptions of several new features and options in CDR DICOM 5 start on page 8 of this guide. Additional details, including step-by-step instructions and screen shots, may be found in the CDR DICOM User Guide.

CDR DICOM Requirements

Client or Standalone

- » Windows 7 and Windows 7 x64, Windows Vista SP2, and Windows XP Professional SP3
- » Intel Core 2 processor or better
- » 2 GB RAM
- » 256 MB graphics card
- » 250 GB hard drive (practice-specific, depends on number of patients)
- » Intel USB chipset with at least 2 powered USB 2.0 ports (USB 1.1 also supported).

Server

- » Windows Server 2003 R2 (SP1 minimum) and Windows Server 2008 R2
- » TCP/IP networking protocols (for DICOM Servers)
- » Intel Core 2 processor or better
- » 2 GB RAM (*recommended*)
- » 500 GB (*recommended*).

Although not required, we recommend that customers upgrade from CDR DICOM 4.5 to CDR DICOM 5.

To achieve maximum image transfer-to-display speed, we recommend quad-core processors, 8 GB RAM, Windows 7 operating system, and 512 MB graphics card. Recommended minimum display resolution is 1280x1024.

Server or Standalone Installation

For Standalone installations, install both the Server and the Client.

1. Prepare for Installation

- » Exit CDR DICOM (or EagleSoft or Patterson Imaging).

2. Install the Server *(server workstation only)*

- » Insert the *CDR DICOM 5* disk into your DVD drive.
- » Click *Install CDR DICOM 5 Server* when the start page is displayed. If the start page does not display, browse for the *Server* folder and double-click on *CDR DICOM Server Setup.exe*.
- » Click *Install* to add the CDR Prerequisite Checker and, if prompted, Microsoft SQL Server files or other updates.

Depending on your system, several prerequisite programs may be required and these may take several minutes to install. For a successful installation of CDR, it is necessary for these prerequisites to install successfully as well, so allow the installation to continue until complete.

Server or Standalone Installation (continued)

- » If prompted, click *Yes* to restart the laptop or desktop PC.
- » Click *Next* at the CDR DICOM Server Welcome screen.
- » Click *Next* after agreeing to the software license agreement.
- » Click *Next* after entering customer information.
- » Click *Next* after choosing where your database server is located (*for many users this will be (local)\CDRDICOM*) and login preference.
- » Click *Next* after choosing the folder where your images will be stored (*typically, this is "C:\images"; but if your images are stored at a different location, select it here*).
- » Click *Next* after choosing the type of setup (Complete).
- » Click *Install*.
- » Click *Finish*.
- » Continue with the Client setup, described in the next section. If you are installing Client software at a different workstation, remove the CDR DICOM 5 disk and insert it in the DVD drive of that system.

Client or Standalone Installation

1. Install the Client

- » Click *Install CDR DICOM 5 Client* on the start page. If the start page does not display, browse for the *Client* folder and double-click on *CDR DICOM for Windows Setup.exe*.
- » If prompted, click *Install* to add any updates.
- » Click *Next* at the CDR DICOM Client Welcome screen.
- » Click *Next* after agreeing to the software license agreement.
- » Click *Next* after entering customer information.
- » Click *Next* after choosing the type of setup (Complete).
- » Click *Install*.
- » Click *Finish*.
- » Remove the *CDR DICOM 5* disk.

2. Start CDR DICOM and Configure the Database

- » Start the CDR DICOM program by double-clicking on the desktop shortcut. The Configure Database Connection dialog will display.
- » If you are connecting to an external server (*for example, your images are stored on a workstation different from the one you're at currently*), click on the down arrow and select your server from the list.
- » Select the option, "Connect with my Windows login credentials."
- » Click the Test Connection button.
 - If the connection is good, click *OK* . Installation is complete.
 - If the connection fails, continue with the following steps.
- » De-select the option, "Connect with my Windows login credentials."
- » Type in "cdr" as the user name and "cdr" as the password. Enter the user name and password without quotes.
- » Click the Test Connection button. When the connection is good, click *OK*.

Image Acquisition and Enhancement

CDR DICOM 5 is designed to optimize and enhance the quality of images taken with CDR Elite and Schick 33 Sensors.

Schick 33 Sensors are capable of acquiring images in either high-resolution mode, which is unique to Schick 33 Sensors, or normal mode. By default, high-resolution acquisition is automatically selected.

For CDR Elite Sensors, other options are available: Edge High, Edge Low, and Smooth. These options, like the one for High Resolution, are controlled in the Sensor tab of X-ray Settings. Image Enhancement is enabled by default with the Edge High option selected.

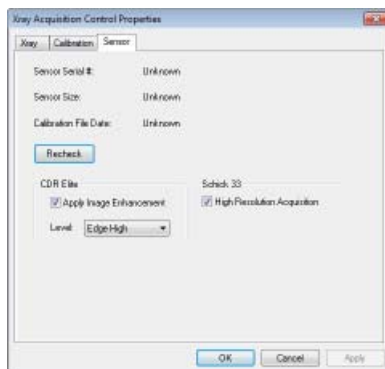


Image Acquisition and Enhancement (continued)

Please note that the image enhancements introduced with the CDR Elite product — Edge High, Edge Low, and Smooth — have no effect on images acquired with Schick 33 Sensors and their effects are effectively ignored. (They are still available, when enabled, for images taken with CDR Elite Sensors.)

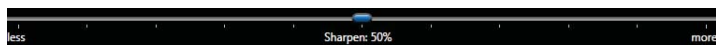
Sharpen

Sharpen is an enhancement feature developed specifically for Schick 33 images. Sharpen optimizes Schick 33 images for detail and contrast and is applied automatically to every image taken with Schick 33 Sensors.

Sharpen can be adjusted dynamically, using either a slider or a cursor. To access the Sharpen cursor right-click on a current image in the Zoom window and select “Sharpen” from the context menu.

Moving the slider towards the “more” end of the scale (more Sharpen) increases image contrast. Adjusting the slider towards the “less” end of the scale (less Sharpen) provides a smoother image. The mid-point between the two ends of the slider is where contrast and smoothness are equally balanced.

A percentage on the slider serves as an easy way to mark the specific Sharpen settings that are most useful to you.



Sharpen Slider

Sharpen (continued)

User profiles can save Sharpness settings for commonly-performed clinical tasks such as Endodontic, Periodontic, General Dentistry, and Restorative. For example, once you have set a particular Sharpness setting for a clinical task, the slider will move automatically to that position.

The Sharpen slider can be positioned at the Top or Bottom areas outside the image, or as an Overlay on the image.



Sharpen Slider Positioned Below Image

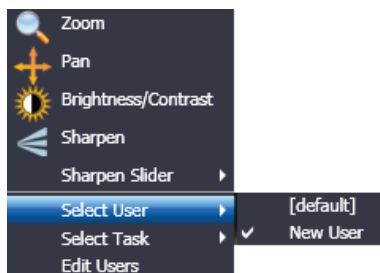
User Profiles and Task Settings

User profiles customize Sharpen slider settings so you can pre-select the appropriate amount of image sharpening for commonly-performed clinical tasks such as Endodontic, Periodontic, General Dentistry, and Restorative.

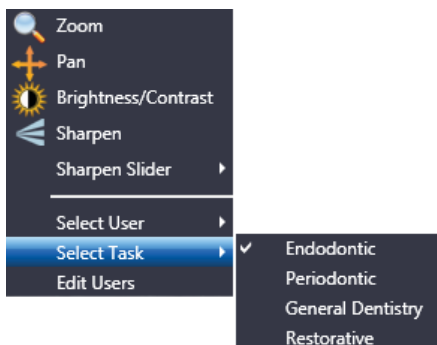
As you work with the dynamic Sharpening, you may find that some Sharpen settings provide you with optimal viewing results. User Profiles enable you to associate a Sharpen value with any of the task categories mentioned above and save that information with your profile. This Sharpen value is applied automatically for that task so you can focus on image details and results.

In offices with multiple practitioners, each doctor or hygienist can select his or her own profile and change the Sharpen values without affecting the preferences of other users.

User Profiles and Task Settings (continued)



Select User Profile



Select Task Setting

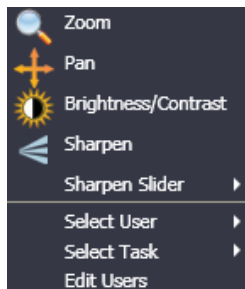
Enhanced Zoom Window Features

Although Sharpen is unique to images taken with Schick 33 Sensors, other features have been enhanced in CDR DICOM 5 software and these are available for high-resolution and normal-resolution images.

The following image tools have been enhanced in CDR DICOM 5:

- » Zoom
- » Pan
- » Brightness / Contrast.

These items are available from a short menu, which makes accessing them, or switching between them, simpler and faster. Right-click on an image in the Zoom window to display the menu shown below.



Refer to the table on the next page for more information about using these updated features.

Enhanced Zoom Window Features (continued)




Feature	Double-Click the Left Mouse Button to:	Press and Hold Down the Left Mouse Button to:
 Zoom	Magnify the image 500%. Double-click again to return the image magnification to 100%.	Move the cursor up to increase magnification. Move the cursor down to decrease magnification.
 Pan	Magnify the image 500%. Double-click again to return the image magnification to 100%.	Move the cursor either up / down or left / right to pan around the image at the same magnification.
 Brightness / Contrast	Remove any brightness and contrast adjustments.	Move the cursor up to increase brightness. Move the cursor down to decrease brightness. Move the cursor to the right to increase contrast. Move the cursor to the left to decrease contrast.

Image Sharing

Sending images by e-mail has been supported in CDR DICOM software for many years, but in CDR DICOM 5 new options for image sharing are available, which include:

- » E-mailing images individually or by series in the popular JPEG format
- » Saving a CDRZIP file to a location that you specify so it can be attached and sent by e-mail
- » Saving JPEG images to another location
- » Creating a “postcard” including selected images or the entire exam for patients or other professionals.

The illustration on the next page describes the several options. Step-by-step instructions can be found in the CDR DICOM User Guide.

In the current software, it is also possible to change the background color of the postcard. To change the background, perform the following steps:

- » Go to the System menu in CDR DICOM.
- » Select CDR Options.
- » Select the Windows tab.
- » Choose a color from the Postcard Background drop-down list.
- » Click OK.

Image Sharing (continued)

Send Mail

Patient Information:

Last Name: CHECKUP
First Name: SERIES
ID Number: 123-45-6789
Examination Date: 1/9/2012

Dentist Information:

☒ CDRZIP
☐ JPEG
☐ Postcard

☒ Selected Images 7
☐ Entire Examination

☐ Email
☒ File

Generate attachment Cancel

Choose the format the current exam is to be sent in or saved as.

If you have selected the images in the exam manually, that number will appear here; otherwise, the entire examination can be selected.

Choose "E-mail" to have the selected images or the entire exam attached to an e-mail message. Choose "File" to save the selected images or entire exam to your workstation.

QuickZoom

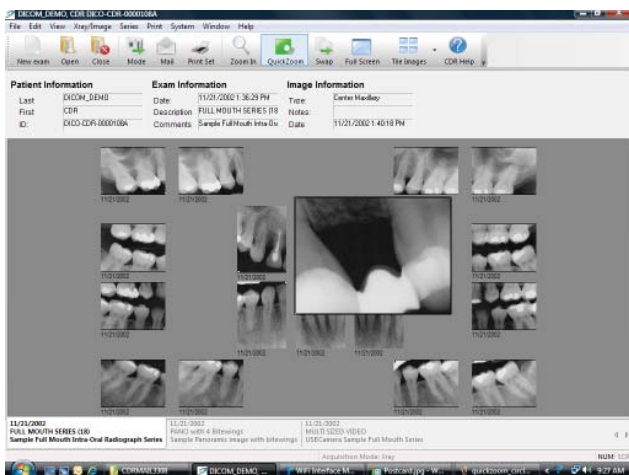
The QuickZoom option can be used to view all the images in the current exam at one of several magnifications. If you are familiar with this feature, you know that its principal advantage is the opportunity to pan easily from image-to-image in the exam viewset, choosing different magnifications, viewing sizes, and shapes.

Although this option, like the e-mail option mentioned earlier, has been available in CDR DICOM for many years, it has been updated by the latest software as follows:

- » Clicking on the QuickZoom button prepares the viewing window, switches CDR DICOM to QuickZoom mode, and opens the QuickZoom window. *Once opened, you no longer need to press and hold the mouse button to keep the QuickZoom window active.*
- » To change a QuickZoom setting, left click again to close the QuickZoom window, then right click for options (Size, Zoom, Shape).
- » To exit QuickZoom mode, right click and select "Off" from the menu.

A screen shot of QuickZoom is provided on the next page.

QuickZoom (continued)



QuickZoom Window

Exam Comments

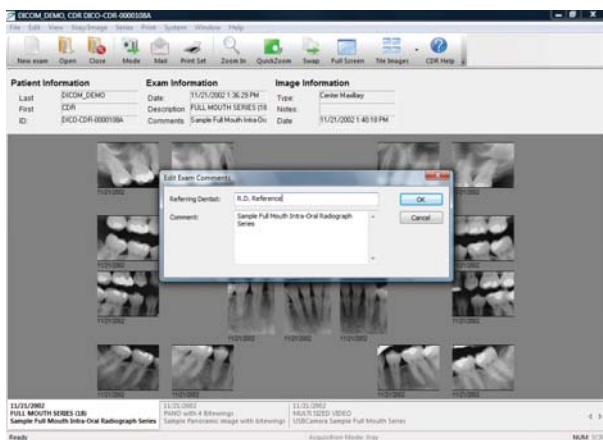
Exam comments provide an opportunity to add a general notation to an exam (*also called a study in DICOM terminology*). Unlike custom notes, which are specific to a single image and are entered separately for each image, exam comments are entered once, but are applied automatically to every image in the exam.

Practitioners who use exam comments tend to add or edit them at the conclusion of an exam as an easy way to record a general observation. Because an exam comment is displayed in the “Exam Information” area above the viewset, it serves as a convenient reminder.

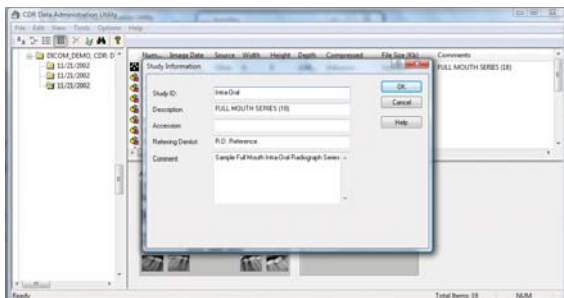
In previous versions of CDR DICOM, exam comments could be added when starting a new exam, but they could only be edited in the CDR Data Administration Utility. In the current software, exam comments can be added and edited in either location.

Click Edit Exam Comments under the Edit menu to do this in CDR DICOM. With the exam (*study*) list open, click Study Information under the Edit menu to do this in the CDR Data Administration Utility.

Exam Comments (continued)



Exam Comments in CDR DICOM



Exam Comments in CDR Data Administration Utility

Exposure Quality

Exposure Quality is designed to convey, in a visual way, an assessment of images by highlighting a range where image exposure is considered optimal (*may be unavailable for most non-Schick 33 images*).



At the top of the meter, the range shown in green means that the image has been exposed optimally for the technique factors that were used.

The range in blue suggests that the image was underexposed and adjusting technique factors would improve image quality.

The range in orange suggests just the opposite: that the image was overexposed and adjusting technique factors would reduce patient dose without reducing image quality.

If you prefer to keep the Exposure meter from being displayed, it can be hidden automatically by turning this option off in CDR Settings > Windows, or it can be closed manually, during each session, by unchecking Display Exposure Meter in the Windows menu.

Exposure Quality (continued)

The Exposure Quality meter may be unavailable for most images acquired with non-Schick 33 Sensors. When these images are displayed, the meter will appear dimmed with the wording, "Not Available for this Image," appearing above it.



For additional details on the Exposure Quality meter, including steps on making it available for new images, please refer to the user guide on the CDR DICOM software disk.

Image Tiling

Tiling is a feature that displays selected images in a non-overlapping arrangement. In previous versions of CDR DICOM, the software arranged the images automatically, arriving at a layout that made the best use of the display area.

In CDR DICOM 5 you have more control over the tiling arrangement. There are three tiling options:

- » Tile Vertical
- » Tile Horizontal
- » Tile Multiple.

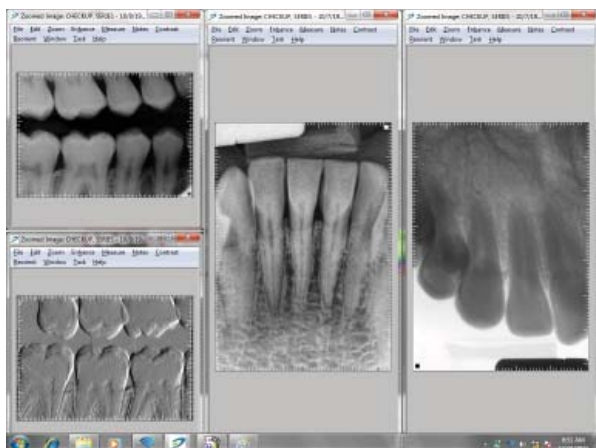
To use Tiling, select two or more images from the current exam and select a tiling option from the Windows menu or from the Tile icon on the toolbar.

If you choose Tile Vertical, the images will appear one below another. In Tile Horizontal, the images are displayed side-by-side. The Tile Multiple option orders the images automatically to optimize their viewing.

On the next page you can see an example of the Tile Multiple option, showing images in both vertical and horizontal tiling arrangements.

Image Tiling (continued)

Tiling doesn't change the orientation of the images themselves or the view boxes, only their layout on the screen when you open and view several images at once.



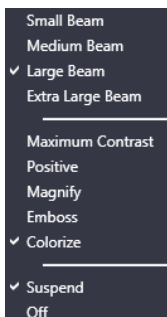
Flashlight

In CDR DICOM 5, additional enhancements are available in Flashlight besides Maximize Contrast (which was available previously), and these are applied just inside the beam area.

The following enhancements are available with Flashlight:

- » Maximize Contrast
- » Positive
- » Magnify
- » Emboss
- » Colorize.

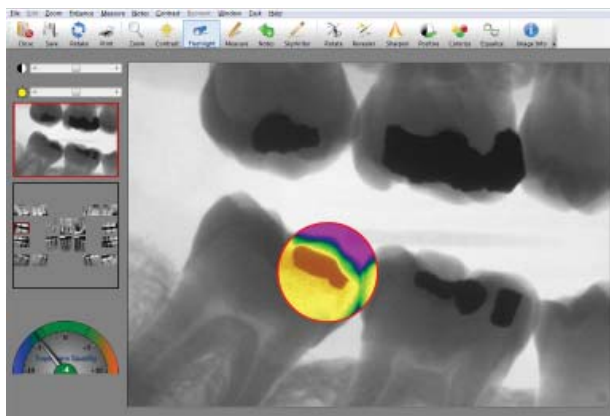
To apply them, click on the Flashlight icon in the Zoom window and right-click on the image to display a short menu of options, as shown below.



Flashlight (continued)

Some enhancements in the Zoom window can be applied to the entire image without affecting the area inside the Flashlight beam. Colorize and Positive, for example, work this way and are applied by clicking on the appropriate Zoom window toolbar icon or menu.

As an example, the image below shows Flashlight with Colorize inside the beam area while Positive has been applied to the image as a whole.



Safety and Compliance

Wait for Appropriate Prompts before Operating X-ray Source

To avoid exposing the patient to unnecessary X-rays, ensure that the CDR exam window viewbox is flashing green (default color) in AutoTake mode, or that the message, "Waiting to take X-ray," is displayed before triggering the X-ray Source.

Product Manuals from Schick Technologies

The contents of document are subject to change without prior notice. For the latest version of this guide and other product information from Schick Technologies, please visit our website: www.schicktech.com.



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