

Installation and User Manual



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Imaging Software

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Introduction

This manual describes how to acquire and process dental images by any TWAIN compatible imaging software (such as practice management software or 3rd party imaging software) using GxTWAIN, the Gendex TWAIN interface.

The GxTWAIN interface is supported under the following operating systems:

- Microsoft® Windows 2000 Professional
- Microsoft® Windows XP Professional

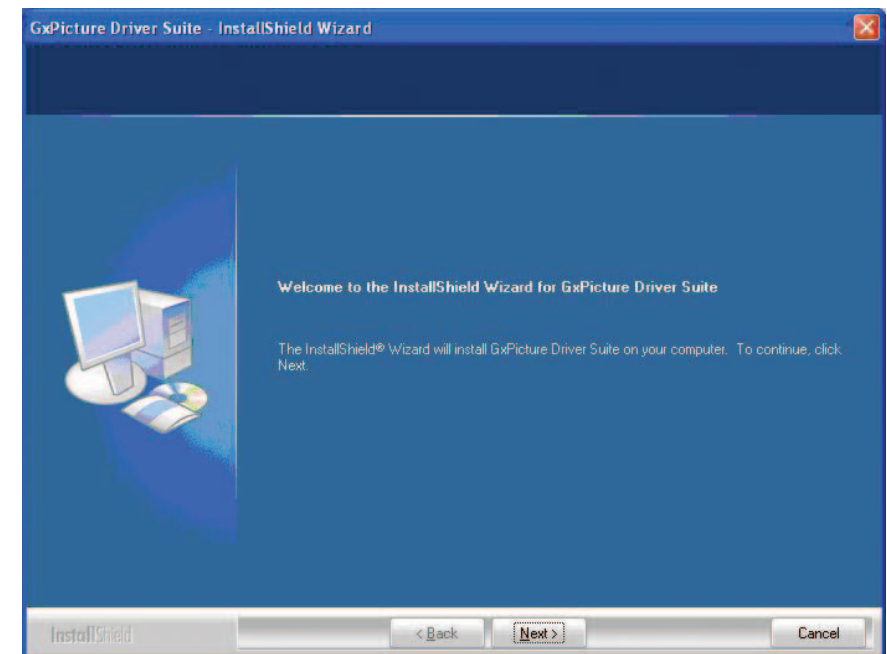
Note: Please read this manual carefully before using the GxTWAIN interface.

Installation

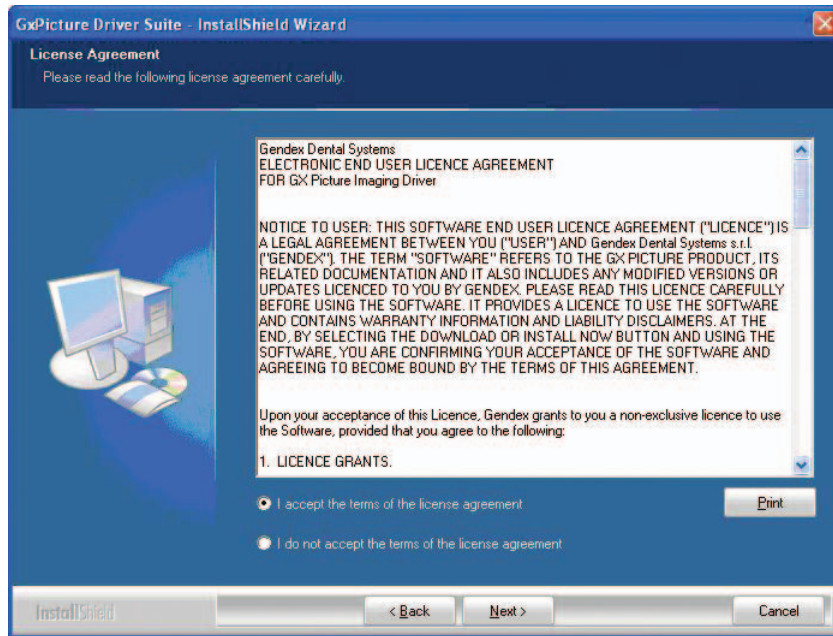
Note: To install this software you must have administrator rights for the PC. In case of problems contact your system administrator.

To install GxTWAIN please do the following:

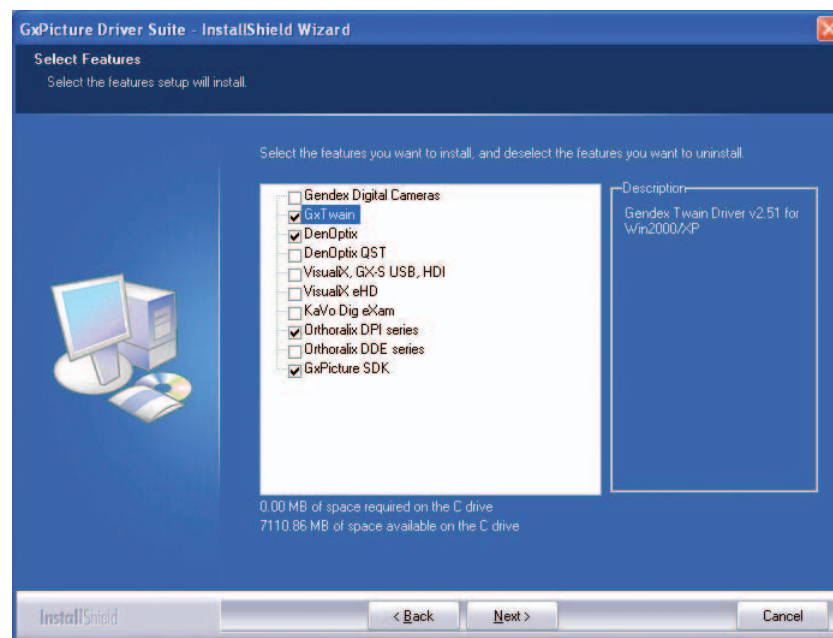
1. Insert the GxPicture CD (version 2.51 or higher) into your PC CD-drive.
2. Wait a few seconds and the following welcome window will appear. Click **Next** to continue.



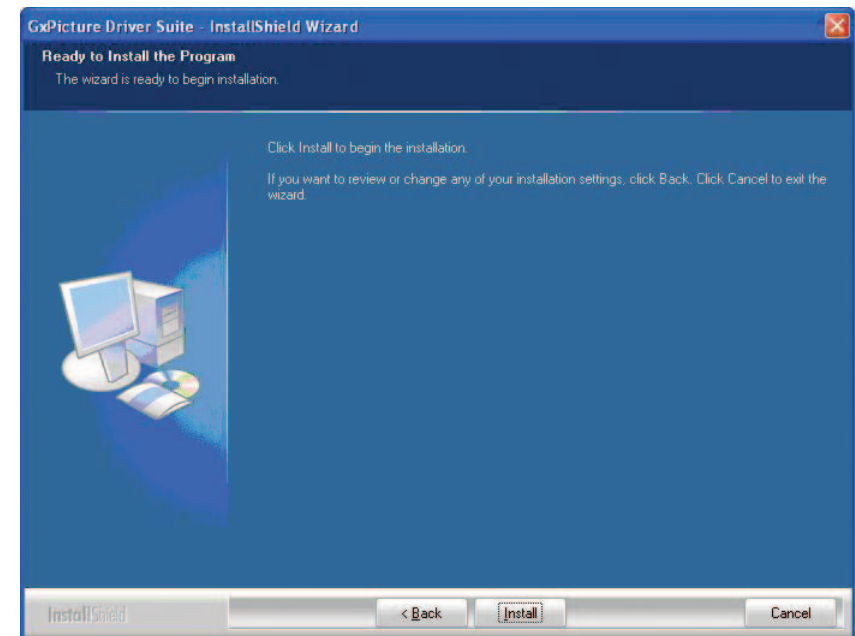
3. Select **I accept** and click **Next** to continue.



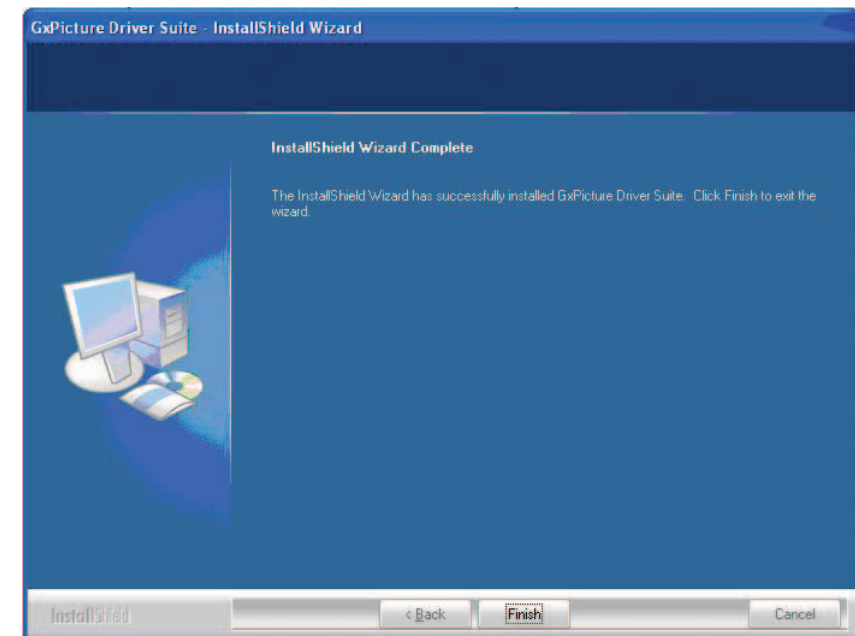
4. From the product list select **GxTWAIN** and any other imaging device you want to install. Click **Next** to continue.



5. Click **Install** for the installation to begin.



6. Click **Finish**.



Congratulations, you have successfully installed GxTWAIN.

Additional Camera Settings

If you want to use Gendex digital cameras from GxTWAIN, you need to exit and remove the GxVideo application as described below:

Exit GxVideo Application

Exit the GxVideo application by right-clicking the camera icon on the system tray and selecting **Exit**.



Remove GxVideo from Startup Sequence

Follow these steps to remove GxVideo from the Startup sequence:

1. Select **Start/Programs/Startup**, and right Click on the GxVideo.exe entry.



2. Select **delete**.
3. If an additional dialog box appears, click **Delete Shortcut**.

How to Launch GxTWAIN

The system must be configured properly before launching GxTWAIN from your imaging application software:

- The USB license key must be inserted. Without a valid license key GxTWAIN can only be used for a maximum of 30 days. Refer to page 19.
- The software license must be configured for either a single computer or for a network. Refer to pages 20 (single computer) and 21 (network).

Only if you plan to use GxTWAIN with your Gendex camera, it is necessary to:

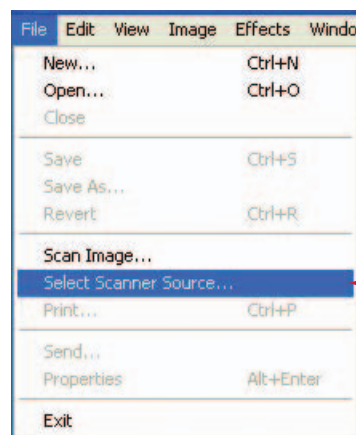
- exit the GxVideo application (page 8), and
- remove the application from the Startup sequence to prevent it from running in the future (page 8).

If you are unfamiliar with the procedure for launching GxTWAIN from your imaging application, please consult the applicable manual for instructions. Typically, all TWAIN compatible imaging applications provide a menu option to:

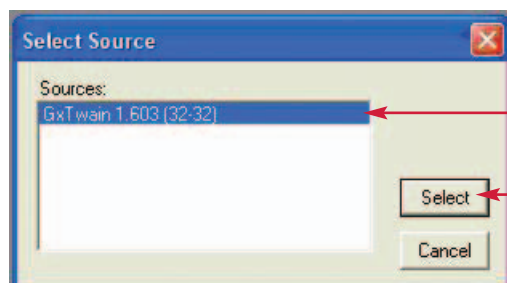
- 1) Select a TWAIN-compatible device.
- 2) Scan from selected TWAIN-compatible device.

Example

To select the specific TWAIN interface, the procedure may be similar to the following:
First, select the option **Select Scanner Source**. Next, select the GxTWAIN interface from the list of sources and click **Select**.



a. Select option **Select Scanner Source**



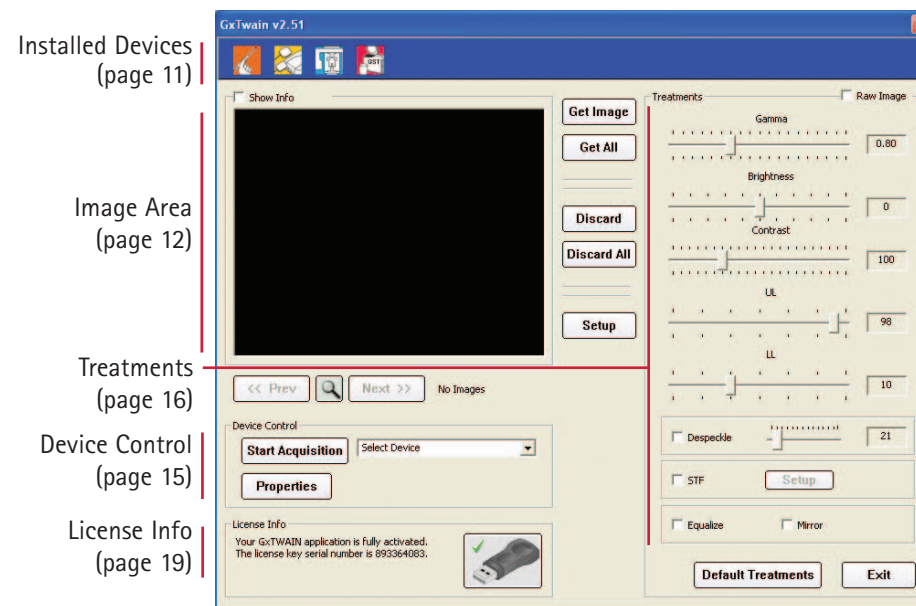
b. Select **GxTWAIN** interface

c. Click **Select**

User Interface

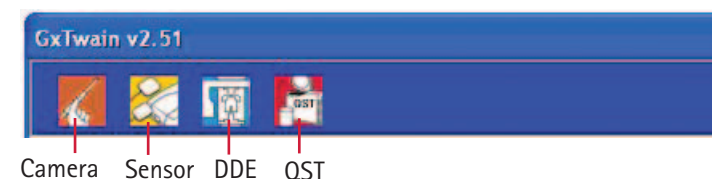
3

Launch GxTWAIN from your imaging application software. The various parts of the main window are shown below including page references for the descriptions of those parts.



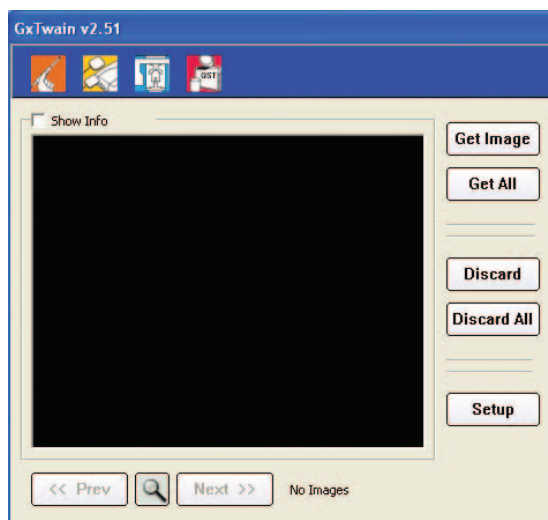
3.1 Installed devices

This bar shows all KaVo/Gendex imaging devices that have been correctly installed on the PC.



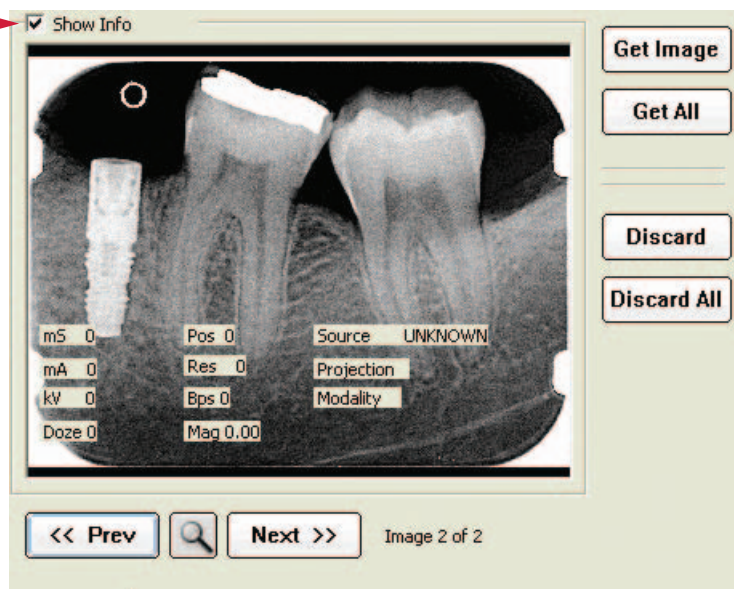
3.2 Image Area

Initially, the Image Area is dark indicating that there is no image(s) available.



When an image or a series of images are acquired, they are previewed in the Image Area. The **Show Info** check box enables/disables the display of information regarding the captured image. Information displayed (such as mS, mA, KV, Doze, Pos, Res, Bps, Mag, Source, Projection, Modality, etc.) can vary according to the image type.

Show Info
check box



When you preview images, it is possible to magnify an image, and to display the previous or next image as required. For images you want to keep, you can choose to transfer the images individually or to transfer the entire set to the imaging application.

In cases where there was not enough exposure, or the image(s) is not of diagnostic quality, you can choose to discard the images individually or to discard the entire set. (There is no need to transfer them to the imaging application first).

3.2.1 Image Area Buttons

Several buttons are associated with the Image Area:

Button	Once the image(s) has been acquired,
	Click to transfer the current image to the imaging application.
	Click to transfer all the images in the set to the imaging application. This function can be configured according to your system. Refer to page 14.
	Click to display the previous image in the set.
	Click to magnify the image selected in the Image Area. (An alternative way to magnify an image is to double-click on the Image Area.)
	Click to display the next image in the set.
	Click to discard the current image.
	Click to discard all images in the set.

3.2.2 Configure the Get All Button

You can enable/disable the **Get All** button from the GxTWIN Setup window.

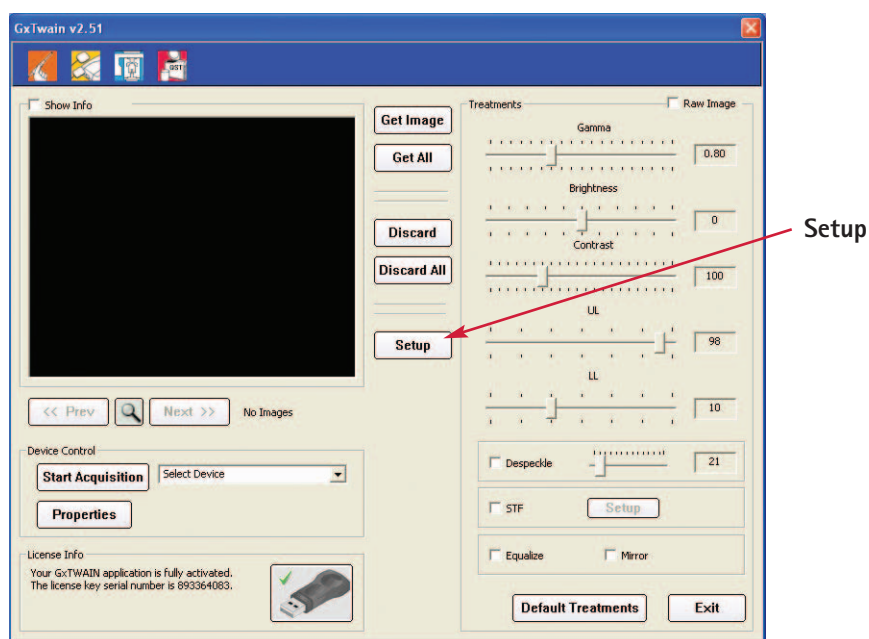
Note: If your imaging application does not support multiple image transfers, and you have the **Get All** button enabled, images might not be transferred to your imaging application.

The decision to enable or disable the **Get All** button depends on these considerations:

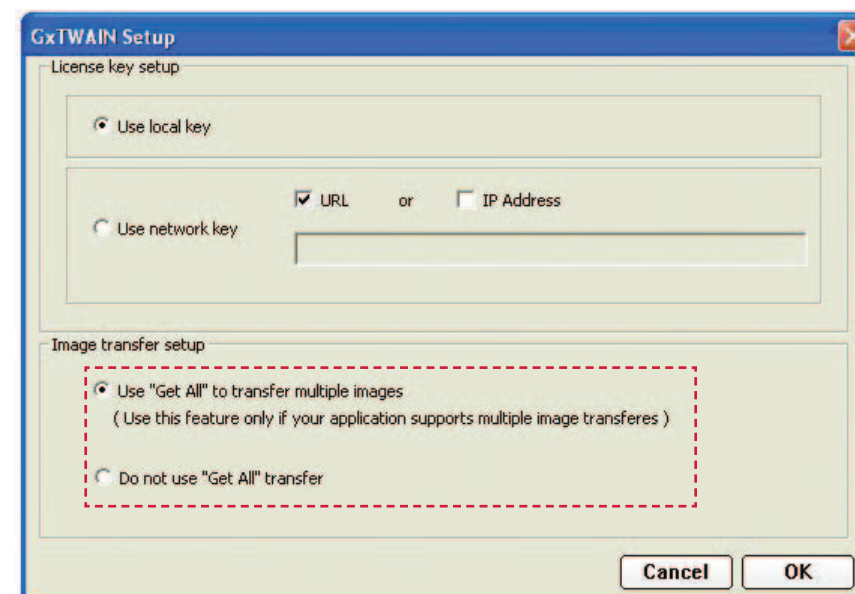
- The **Get All** button can be enabled only if the imaging application supports multiple image transfers via TWAIN.
- If your imaging application does not support multiple image transfers, disable the **Get All** button.

To change the status of the **Get All** button, follow these steps:

1. At the main window, click **Setup**.



2. The Setup Window displays the possible settings. Change the settings as desired and click OK to make the change.



3.3 Device Control

The Device Control area includes buttons to activate image acquisition from a phosphor plate scanner (for example DenOptix) or digital video cameras (for example AcuCam CIV FWT). If no psp scanner or camera product is listed, no driver has been installed on the PC.

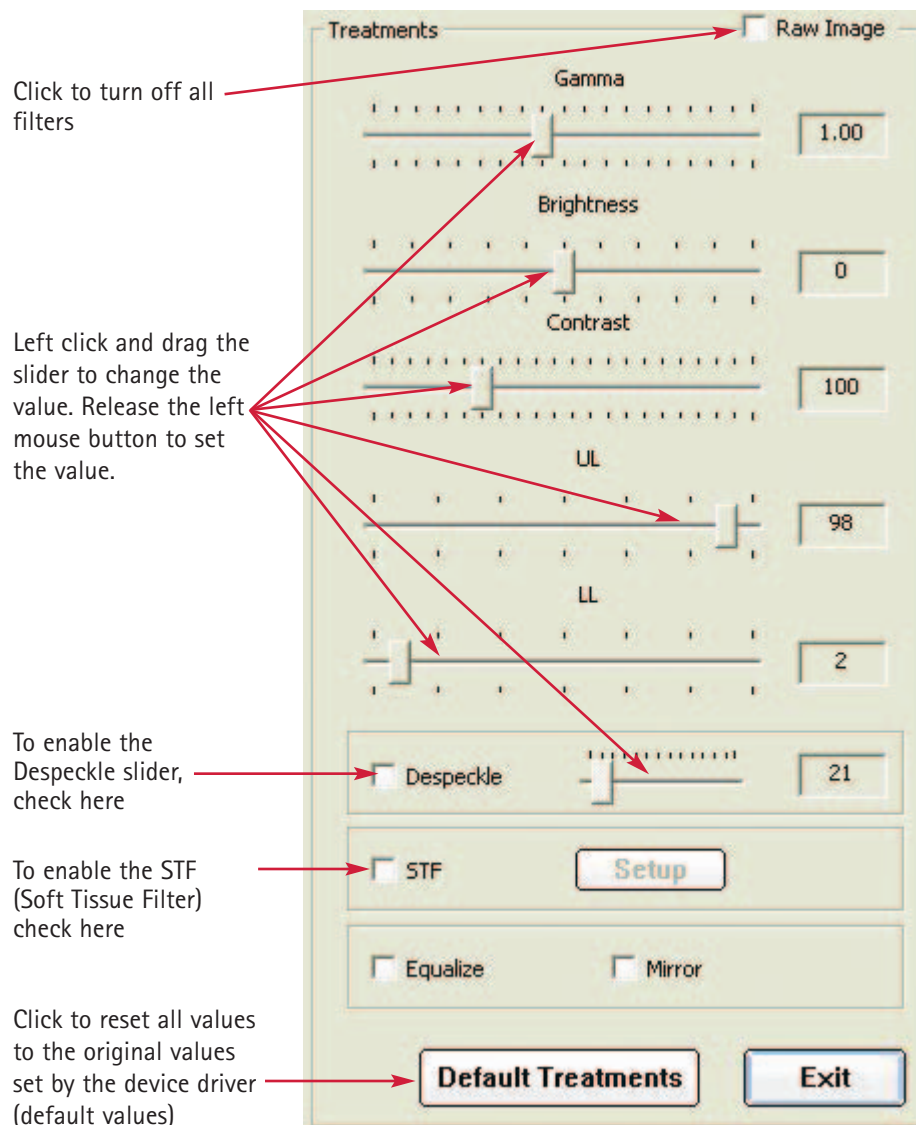
Note: To acquire images from direct digital devices such as sensors (i.e. Visualix) or pan/ceph systems (Orthoralix 8500/9000/9200) no activation is required.

The properties button can be used to set device-specific settings such as Resolution, Layout etc.



3.4 Treatments

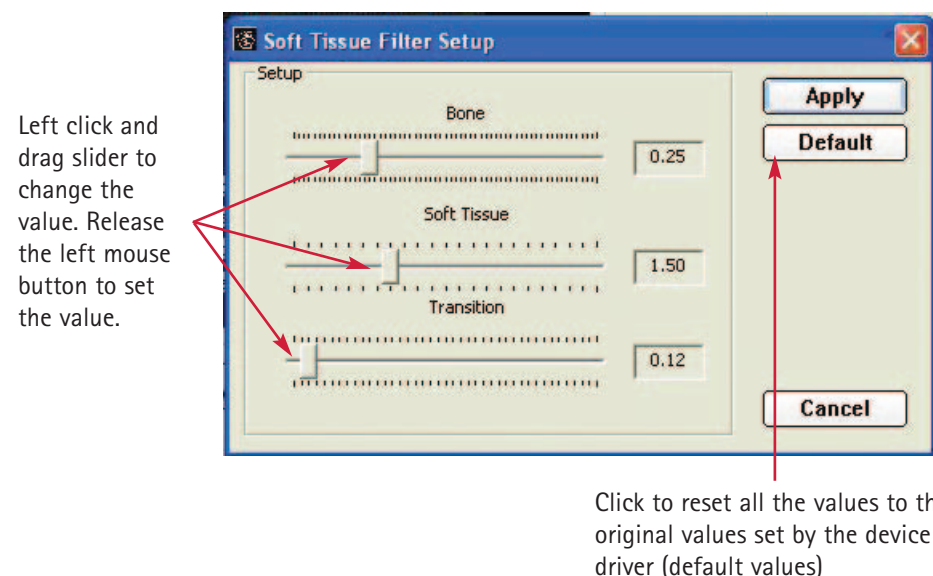
The Treatments group of controls is used to adjust the values for a variety of image filters such as Gamma, Brightness, and Contrast etc.



3.4.1 Soft Tissue Filter (STF)

This filter can only be used with images acquired with the Orthoralix 9200 DDE. With this filter you can optimize the display of soft and hard tissue in Latero-Lateral images.

1. Click inside the **STF** check box to select the filter.
2. Click **Setup**.
3. The Soft Tissue Filter group of controls allow you to set the desired values for Bone, Soft Tissue, and Transition.



3.4.2 Redefining Default Treatments

To redefine default image treatments, go to the corresponding driver control panel and change the treatment values according to your preferences. Access to the driver control panel varies.

Example

DenOptix or DenOptix QST

Use the Properties function in the Device Control area to pre-set the default treatment values.



Note: Treatment values are synchronized with the values on the GxTWAIN main window. If, for example, the Gamma filter for the DenOptix QST Intraoral is set to 0.8, this value will be carried over to the value for the Gamma slider in the GxTWAIN main window.

In the case of direct digital devices, such as Visualix sensors or Orthoralix DDE, click on the device icon in the system tray and redefine the treatment values on the Treatments tab.

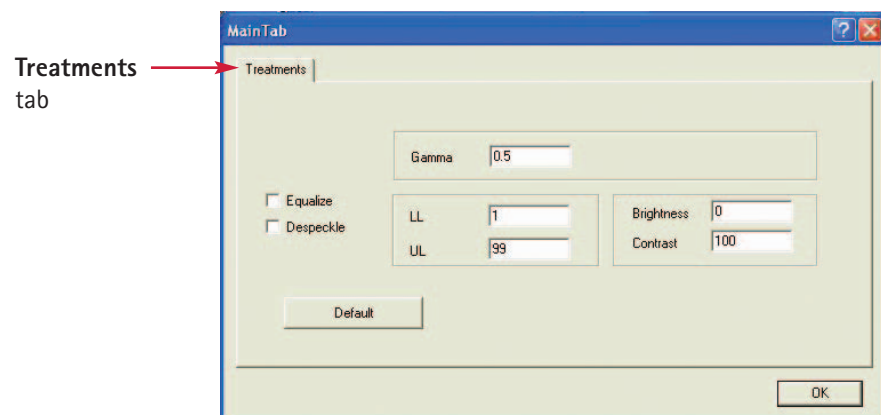
Example

Visualix eHD

1. To apply a Gamma filter of 0.6 to all images acquired from this device, double-click on the Visualix eHD icon on the bottom right corner of the system tray.

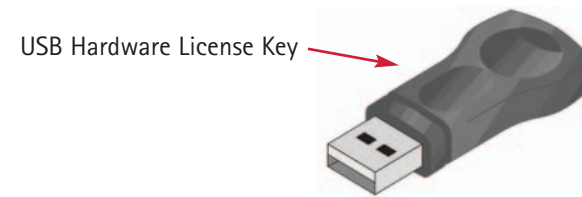


2. Set the desired values in the **Treatments** tab. These values will be applied to all the images acquired.



3.5 License Info

A USB hardware license key is required to use the GxTWAIN interface beyond the 30-day trial period.



The License Info area of the main window displays the current license status:

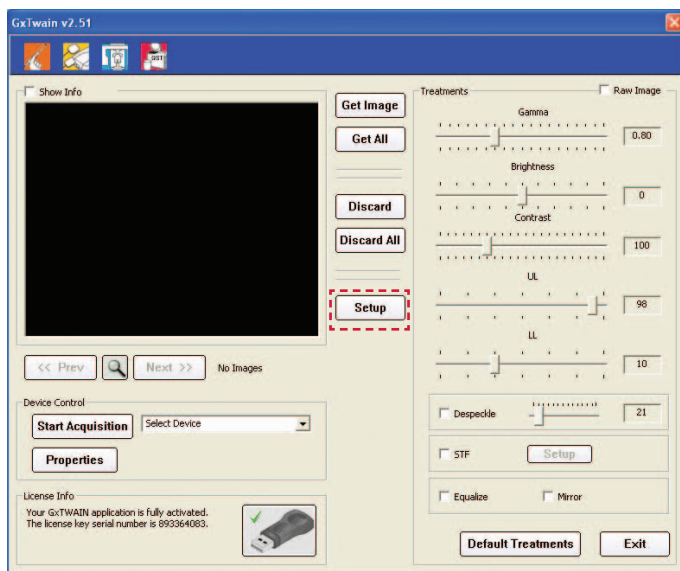
Valid License	<p>License Info</p> <p>Your GxTWAIN application is fully activated. The license key serial number is 893364083.</p>
Invalid License	<p>License Info</p> <p>Please insert the GxTWAIN USB key to use all features provided by the software. Please contact Gendex sales representative for more information.</p>

You can set GxTWAIN in two different modes: single-user and multi-users. Refer to page 20 to set up a single user. Refer to page 21 to set up multiple users.

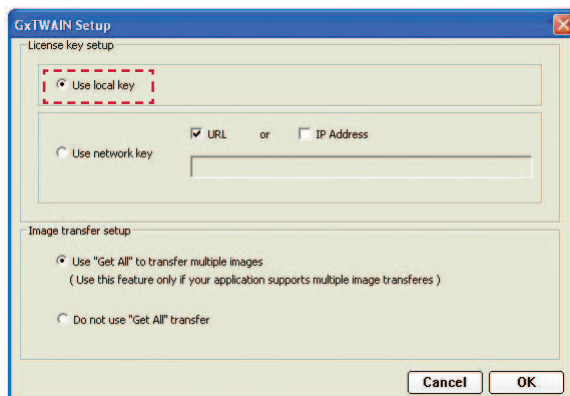
3.5.1 Setting up GxTWIN on a Single PC

To use GxTWIN on a single PC do the following:

1. Plug in the USB license key into one of the PC's USB ports.
2. At the main GxTWIN window, click **Setup**.



3. Check the **Use local key** option and click **OK**.

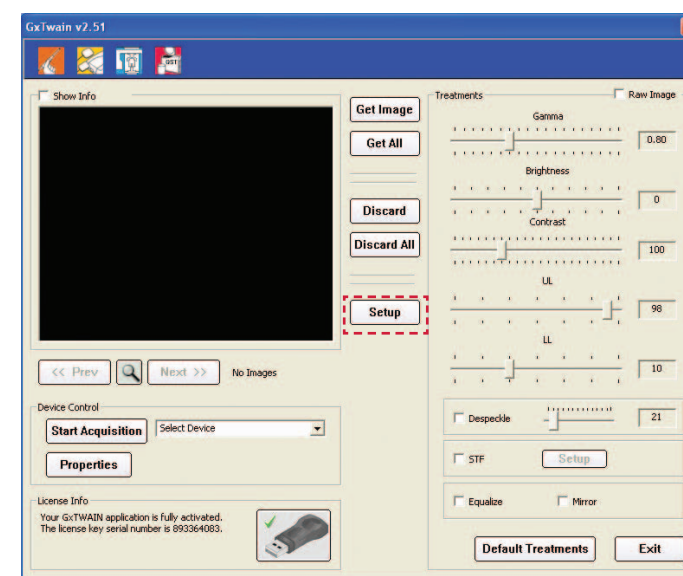


4. Exit and reopen GxTWIN to make the change effective.

3.5.2 Setting up GxTWIN on a Network

To use GxTWIN on a network of up to 15 PCs do the following:

1. On the server:
 - Install the license server software, GxLicenseServer.exe, version 2.51 (this can be found on your GxPicture CD (version 2.51 or higher) under the folder "\Utilities\GxLicenseServer")
 - Insert the USB license key into one of the USB ports on the server.
2. At the main GxTWIN window, click **Setup**.

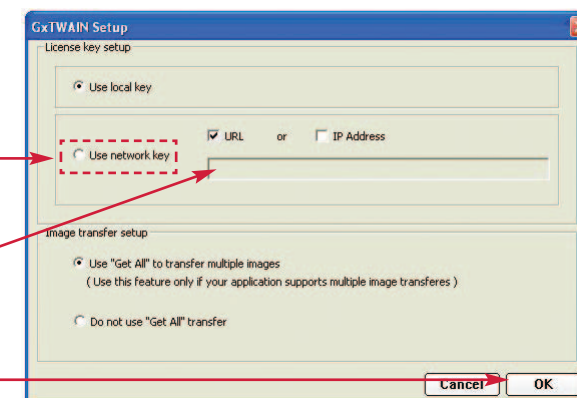


3. Check the **Use network key**.
4. Type the IP Address or the URL of the server.
5. Click **OK**.

Select **Use network key** (3)

Type the server IP address or URL (4)

Click **OK** (5)

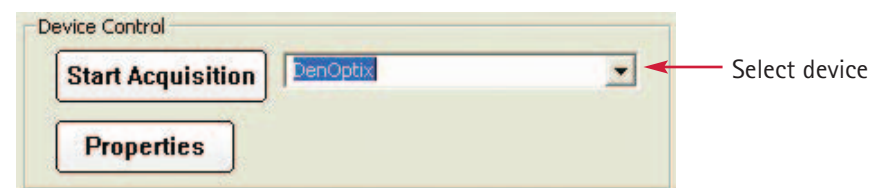


6. Exit and reopen GxTWIN to make the change effective.

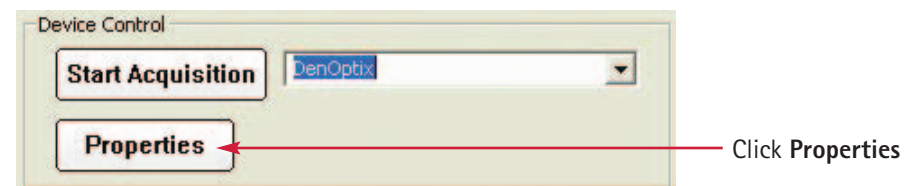
Image Acquisition

4.1 Using DenOptix or DenOptix QST

1. At the main window, in the Device Control area, select **DenOptix** or **DenOptix QST** from the list of options.

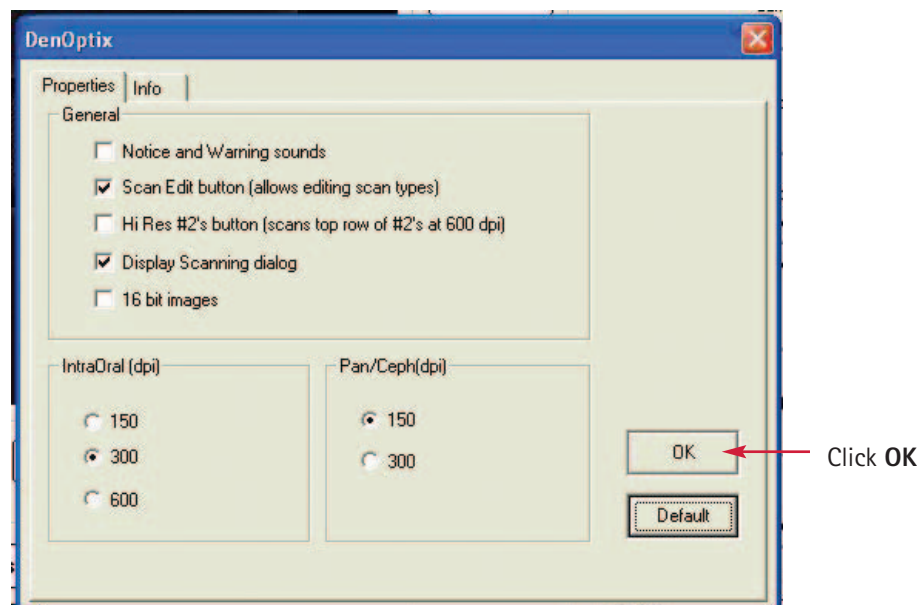


2. If you know the scanning properties are set correctly, continue to step 4. Otherwise, click the **Properties** button.



3. Make the required changes, then click **OK**.

Note: The changes made are saved until they are modified at some future time.



4. Click **Start Acquisition**.
5. Please refer to the User Manual to customize settings. If you are unable to locate the User Manual, you can find an electronic copy on the Gendex website.

Note: Once images are scanned, they will appear in the Image Area.



4.2 Using Gendex Cameras

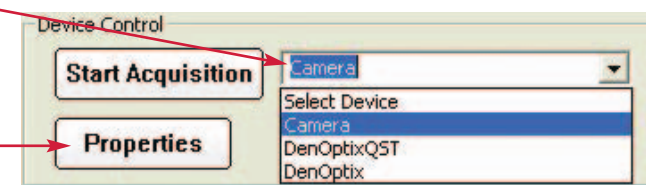
4.2.1 Initial Setup

Set Up Camera

1. At the main window, in the Device Control area, select **Camera** from the drop down menu.
2. Select Properties to set the camera properties for first time use or to change any pre-selected properties.

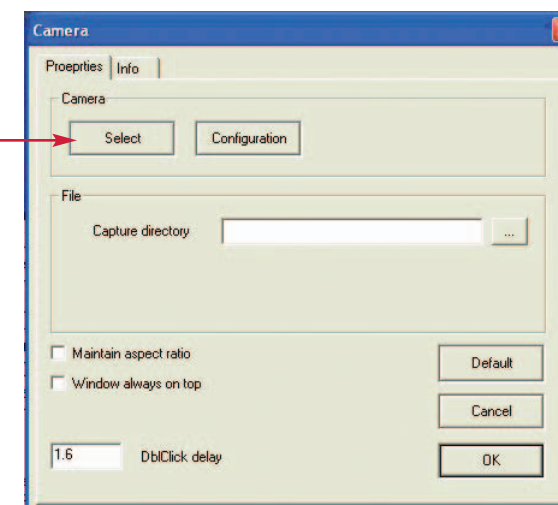
Select
Camera (1)

Click
Properties (2)



3. On the Properties dialog box, click **Select** to choose the camera product that is already installed. After selecting the camera to use, you can set other properties such as the Capture directory, Maintain aspect ratio, Window always on top, etc.

Click **Select** to
choose the
camera product
already installed



Note: Click **Default** to use pre-defined values for these properties. In most cases default values should be sufficient, but check your particular system setup to find out what are the best options. In some cases it might make sense to select Default properties and then change only the ones that are necessary. To set these properties please refer to Orthoralix 8500 DDE User Manual. If you are unable to locate the Orthoralix 8500 DDE User Manual you can find an electronic copy on Gendex website.

4.2.2 Start Acquisition

1. If this is the first time you are using GxTWAIN, go to page 25 to do the Initial Setup procedure. Otherwise, go to step 2.
2. Run your imaging application.
3. Launch GxTWAIN from your imaging application software.
4. At the main window, in the Device Control area, select **Camera** from the drop down menu.

Select
Camera



5. Click **Start Acquisition**.

Note: In most cases, the camera will start taking images after you have clicked **Start Acquisition**. If the camera does not start, the camera device is probably not selected. Refer to page 25 to select the camera device and other properties.

Once you start seeing the live video feed on the screen, you can capture images. (For example, you can capture an image using the button on the back of eZ1 or the foot switch. Please consult your camera manual.)

Note: Returning the camera to its stand will cause the live video feed to disappear. The GxTWAIN main window returns to the screen.

4.2.3 Stop Acquisition

Click **Stop Acquisition** to stop video capture mode.

Note: The recently captured images appear in the Image Area and are kept in a buffer at this point. Now you can perform all the operations permitted by the Gendex TWAIN interface. You can browse through the captured images, apply different treatments (page 16), discard images that are not of interest (page 13), and/or transfer the images to the imaging application (page 29).

4.3 Using Direct Digital Devices

This section applies to sensor images (Gendex Visualix HDI/eHD and KaVo Dig eXam) and Pan/Ceph (Orthoralix DPI/DDE series).

To capture a new image from the TWAIN interface:

1. Expose the IntraOral/Pan/Ceph sensor.
2. Once the image has been acquired and pre-processed, the image will appear in the Image Area. It appears with all the selected treatments already applied. (You can apply additional treatments at this stage.)

Show Info
check box

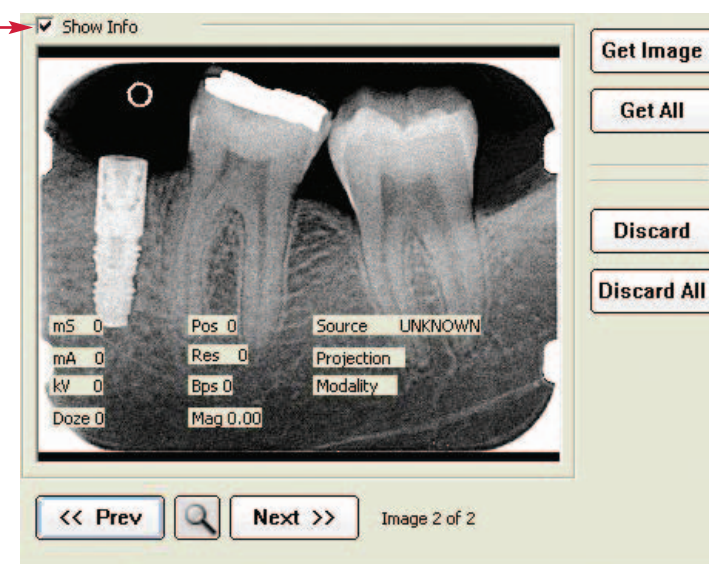


Image Transfer to Imaging Application

Once acquired, the total number of images acquired are shown. A set of buttons allow you to view images in order to decide which ones to transfer and then to transfer an image or the full set of images. Additional buttons allow you to discard a single image or the full set of images. These buttons are described on page 13.

After applying the proper settings to the image(s) you want to transfer, at the main window, click **Get Image** or **Get All**:

- Click **Get Image** to transfer only the currently displayed image to the imaging application.
- Click **Get All** to transfer all the acquired images to the imaging application.

Note: To use the **Get All** button the imaging application must have the ability to support multiple image transfer via TWAIN. Refer to page 14 to set up this function accordingly.

Images remain in the temporary location until they are discarded and can be brought up again when the application runs again. All the images that will not be transferred to the imaging application can be discarded, using the **Discard** button or the **Discard All** button. These images are permanently deleted.