



Imaging Software

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## **About Gendex**

To learn more about Gendex, access the Gendex Dental System Website ([www.gendex.com](http://www.gendex.com)).

## **Language**

The original language of this manual is English.

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# CHAPTER 1 Overview

This user manual contains original instructions by Gendex Dental Systems.

## Intended Use

VixWin™ Platinum is a software program for general dental and maxillo-facial diagnostic imaging. VixWin Platinum manages and controls X-ray digital images from DenOptix®, DenOptix® QST, Visualix® /Gx-S USB/HDI, Visualix eHD, GXS-700, KaVo Dig eXam®, Orthoralix® DPI, and Orthoralix® DDE systems. It can also handle other types of images acquired by digitizing film with a flat bed scanner or color images from an intraoral or extra oral dental camera such as the AcuCam® Concept® IV FWT, GXC-300, and eZ1 series.

VixWin Platinum features DICOM DIR, a function that allows you to import and export images in a DICOM format. For more DICOM related information, contact your Gendex representative.

When properly installed, VixWin Platinum allows you to:

- Control scanning of X-ray images from imaging plates with the DenOptix and DenOptix QST scanners.
- Control the direct capture of X-ray images from Visualix/Gx-S USB/HDI, Visualix eHD, GXS-700, KaVo Dig eXam, Orthoralix DPI, and Orthoralix DDE systems.
- View and capture color images from specific cameras, such as a dental camera, via a suitable video capture card.
- Export and import digital images, such as those obtained by scanning a film, in various standard file formats.
- Process images with tools to enhance diagnostic value.
- Analyze and enhance images to gather additional diagnostic information that may not be immediately apparent on initial visual inspection.
- Create a database of patients and easily store images in patient folders.

This manual can be viewed by choosing **Help > User Manual** in VixWin Platinum.

# System Requirements

## Operating System

VixWin Platinum software requires one of the following operating system software:

	Windows XP® Professional	Windows Vista® Business, 32 bit	Windows 7® Professional, 32 and 64 bit
VixWin Platinum	Yes	Yes	Yes
VixWin Modules	Yes	Yes	Yes

**NOTE:** Other operating systems are not supported.

## Hardware

VixWin Platinum has the following server requirements:

Server System Requirements	Minimum	Recommended
Operating System	Microsoft® Windows® 2K Server	Microsoft® Windows® 2K Server
Processor	Pentium® 4 2.0 GHz	Pentium® 4 3.2 GHz
Memory	1024 MB	2048 MB
Hard Disk	30+ GB	200+ GB
Display Setting	1024x768 at 24 bit true color	1024x768 at 32 bit true color
Video RAM	4+ MB	8+ MB
Monitor	SVGA with 0.25/0.26 dot pitch	SVGA with 0.25/0.26 dot pitch
Network card	10/100 MB	10/100 MB

A backup device such as a tape backup or external hard drive will also be needed to store the contents of the hard drive.

VixWin Platinum has the following local workstation requirements:

Workstation System Requirements	Minimum	Recommended
Processor	Pentium® 4, 2.0 GHz	Pentium® 4, 3.2 GHz
Memory	1024 MB	1024 MB
Hard Disk	6+ GB	60+ GB
Display Setting	1024x768 at 24 bit true color	1024x768 at 32 bit true color
Video RAM	4+ MB	8+ MB
Monitor	SVGA with 0.25/0.26 dot pitch	SVGA with 0.25/0.26 dot pitch
CD-ROM	CD-ROM 6X+	CD-ROM 6X+
Network card	10/100 MB	10/100 MB

## Additional Requirements

- USB 2.0 port is required for DenOptix, DenOptix QST, Visualix eHD, GXS-700, KaVo Dig eXam, and GXC-300.
- A PCI expansion slot is required for AcuCam Concept IV.

## Network

You can operate the VixWin Platinum software on a Local Area Network (LAN). Based on the size of the practice and the volume of images captured per year, we recommend that you have a trained network technician set up your network and configure VixWin Platinum for network operation.

## Video Setting

Your video settings must be set to True Color 24 bit or 32 bit. A different video setting will not provide proper video quality. You can change the video setting in Windows XP Professional via **Start > Control Panel > Display > Settings**.

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## Peripheral Hardware Compatibility

The following peripheral hardware is compatible with VixWin Platinum:

- Gendex GxPicture 2.70 or greater.
- TWAIN: DLL version 1.5 or greater (32 bits only).
- Video camera: Video for Windows or Direct Show (Windows XP only).
- Printer: Windows driver.

## Applicable Standards

The following standards apply to VixWin Platinum:

- IEC 60601-1:1988 +A1:1991 +A2:1995
- IEC 60601-1-4:1996 +A1: 1999
- 93/42 EEC - European Directive concerning medical devices.

## About this Manual

This manual uses the following convention:

Fields requiring action are shown as a bold font and indicate that an action or selection must be completed.

Examples:

- Select the **Image folder layout**.
- Click **OK**.

# CHAPTER 2 Installation

The VixWin Platinum installation compact disc (CD) contains:

- the imaging software,
- software modules that allow you to customize the VixWin Platinum software.

After the VixWin Platinum software is installed, these modules can be installed:

- **VxDICOM** - Provides DICOM communication features such as DICOM storage, DICOM print, DICOM worklist and DICOM Query/Retrieve.
- **VxLink** - bridges VixWin Platinum with the following Practice Management software: Dentrax G3 and G4; PracticeWorks v7; Eaglesoft v14 and v15; SoftDent v12; Easy Dental 2008 and 2009; Julie v3.15.



## CAUTION

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Only Practice Management versions listed are supported. Other versions of Practice Management may cause loss or corruption of patient data.

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## CAUTION

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If you manually enter patient IDs into your Practice Management Software, then be careful. Never use leading zeros.

*Example: Do not use 0035, use 35.*

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- **VixWin Logbook** - a radiation dosage reporting tool to VixWin Platinum.

If you need more information about VixWin products, contact your Gendex representative.

## Prerequisites

Before installing the VixWin Platinum software, you must have the following:

- A computer system that meets or exceeds the minimum system requirements.
- Network connectivity, if you need to store the patient image database on a server.

## Install VixWin Platinum

To install VixWin Platinum:

1. Start Microsoft Windows and log on using an account with administrative privileges.
2. Close all open applications.
3. Disable any antivirus software that is running.

**NOTE:** You can install VixWin Platinum over previous versions of the VixWin software. Any previously existing patient and image databases as well as configuration data are not affected.

4. Insert the VixWin Platinum installation CD.
5. When the VixWin Platinum Introduction window displays, select **Install VixWin Platinum**. Setup will automatically start. Follow the on-screen directions.

At the end of the installation, a query box displays:

- **Run VixWin After Setup** - Select this checkbox if you want VixWin Platinum to automatically launch after the installation procedures on the CD.

**NOTE:** Do not select this if you have modules to install after the VixWin installation.

- **Automatically Run VixWin on Image Acquisition** - Select this checkbox if you want VixWin to automatically open when an image is received.

**NOTE:** This is the only time that you can set these options.

6. Click **Finish** at the end of the setup. The installation and setup program creates a Gendex Imaging folder in the Programs start menu and a VixWin Platinum icon on the desktop.

**NOTE:** If no modules are to be installed at this time, click **Exit**.

## Install VixWin Platinum Modules

**NOTE:** VixWin Platinum must be installed first.

To install the VixWin Platinum modules:

1. Select Install Modules from the VixWin Platinum Introduction window.

**NOTE:** If you do not see this introduction window, eject the CD and reinsert.

2. Select either of the following modules:
  - Install VxLink
  - Install VixWin Logbook
  - Install VxDICOM
3. Follow the on-screen directions and click **Finish** at the conclusion of the setup.
4. Repeat these steps until you have installed all the needed modules.
5. Reboot your PC when the installation is completed.

## After Installation

**NOTE:** When VixWin Platinum is run for the first time, you may be asked to provide initial configuration options such as language, preferences, and hardware. Refer to [“System and User Settings” on page 3-1](#) for additional information.

## Software Registration

To register the software, refer to the registration instructions inside the VixWin Platinum software package.

## Configuration

Refer to [“System and User Settings” on page 3-1](#) for configuration options.

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## Uninstalling VixWin Platinum

To uninstall VixWin Platinum:

1. Select **Start > Control Panel > Add or Remove Programs**.
2. From the list, select **VixWin Platinum**.
3. Click **Remove** and follow the on-screen instructions.

## Upgrading from VixWin32, 2000 or PRO version

If you are currently a VixWin32, 2000, or PRO user, when upgrading to VixWin Platinum, you can maintain the existing Mount database or upgrade to the new Mount database.

**NOTE:** Custom mounts are lost when upgrading to a new mount database.



# CHAPTER 3 System and User Settings

VixWin Platinum provides the VixWin administrator with the capability to customize system settings (security and plugins) and user parameters (language, preferences, user interface) or to use the system default settings. Gendex strongly recommends that you carefully evaluate the available options.

The selected options provide you with the capability to accept the selection (OK), cancel the selection (Cancel), or use the default system settings (Default). If additional information is needed, refer to the Help section.

This chapter describes the following topics:

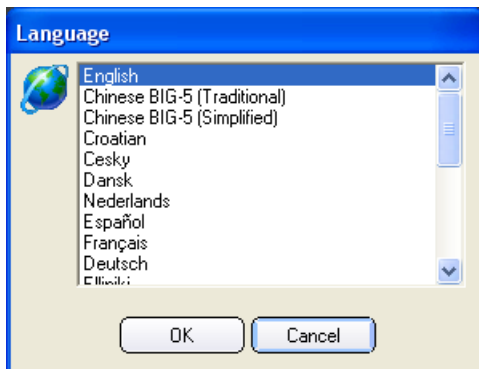
- Language
- Preferences
- User Interface
- Security
- Magnification Factor Correction
- Plugins

## Language

Select the language for the screens.

To configure the language option:

1. On the menu bar, click **Options** and select **Language**.
2. Select your language.
3. Click **OK**.



## Preferences

The Preferences window provides options for the Database, Settings, Full Mouth, Email, Customize, and Teeth.

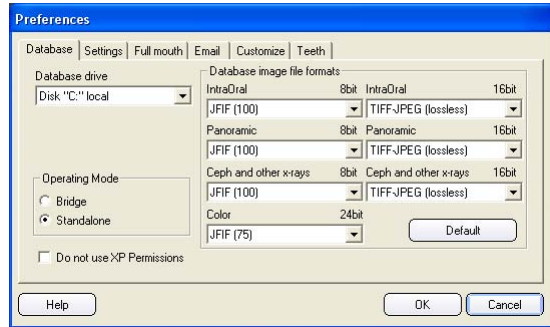
**NOTE:** Some selections are preselected with a check mark and indicate the default values. To change the default value, click to deselect the checkbox.

## Database

To configure the database:

From the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Database** tab.
3. Select an Operating Mode:



- **Bridge** – Activates the VixWin bridge to the Practice Management (PM) software that will be used. In Bridge mode, the Practice Management software owns and stores the patient database.

**NOTE:** If you need information about Practice Management (PM) software, contact your Practice Management Provider.

- **Standalone** – VixWin will store the patient data and images on the selected database drive.
4. If the operating mode selected is **Standalone**, click the **Database drive** arrow and select the drive where the patient/image database will be physically located:
    - Disk “C:” local if the patient database will be stored on the local computer.
    - The appropriate shared network drive, if the patient database will be stored on the network.
  5. If the operating mode selected is **Bridge**, click the **Drive for database image files** arrow and select the drive where the patient/image database will be physically located.
  6. Select the **Do not use XP Permissions** checkbox if you need to limit a user’s access to the database. Images and the database folders will inherit permissions from the parent folder.
  7. In the **Database image file formats** section, the default file formats are shown.
    - Make desired changes to the 8-bit image file formats if the driver for the capture device has been set to 8-bit images.
    - Make changes to the 16-bit image file formats if the driver for the capture device has been set to 16-bit images.

Refer to the chart and notes below to understand how changing the image file format can affect the image file size. The chart lists the file sizes in kilobytes by capture device type for each image file format option. (Sizes are approximate.)

Capture Device Type	Image File Format						
	TIFF (16 bit)	TIFF (8 bit)	TIFF-JPEG (16 bit)	TIFF-JPEG (8 bit)	JFIF %100	JFIF %75	JFIF %50
eHD size # 2 (Hi Res.)	4725	2364	1834	719	660	109	67
DenOptix size # 2 at 300 dpi	350	175	152	90	88	18	13
DenOptix Pan at 150 dpi	2888	1445	1256	760	719	125	76
DenOptix Ceph at 150 dpi	2758	1380	1199	787	776	134	79
Orthoralix DDE Std. Pan	8444	4225	3671	2234	1370	470	407
Orthoralix DDE Ceph	9521	4764	4139	1847	976	303	266

**NOTE: TIFF (uncompressed):** Lossless format. Fast, but uses more disk space than other formats.

**TIFF-JPEG (lossless):** JPEG compressed TIFF, lossless format. Slower, but uses about 30% less space than uncompressed files.

**JFIF 100%, 75%, 50%:** JFIF compressed format. The percent figure refers to the amount of information that is theoretically retained after compression. The loss of information on a dental X-ray image is virtually undetectable by the naked eye. JFIF 100% and 75% formats are practical for saving hard disk space, unless dictated by the need for very fast filing or by legal considerations prohibiting a lossy format in filing medical X-ray images. A medium or high compression format is always recommended for color camera images.

8. Click **OK**.

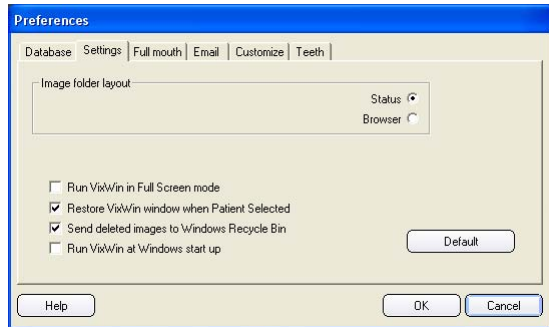
**NOTE:** In the Preferences window, when you click **OK**, the window will automatically close. To continue configuration activities for Settings, Full Mouth, Email, Customize, and Teeth, click the appropriate tab, make your changes as needed, and then click **OK**.

## Settings

To configure the view settings:

On the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Settings** tab.
3. Select the **Image folder layout**.



**NOTE:** Some selections are preselected with a check mark and indicate the default values. To change the default value, click to deselect the checkbox.

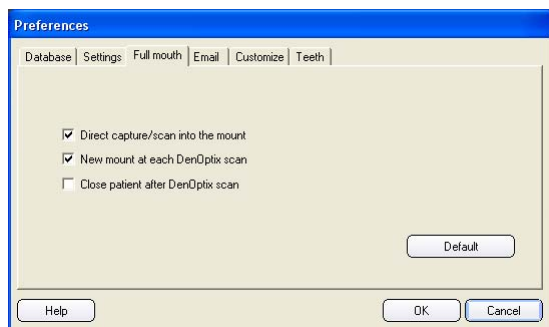
- **Status** - Preview thumbnails of saved images that have been arranged anatomically, according to the associated tooth. (Windows Layout mode only.)
  - **Browser** - Preview thumbnails of saved images in descending sequential order. (Windows Layout mode only.)
4. Select the following preferences:
    - **Run VixWin in Full Screen mode** - VixWin will be displayed in full screen mode each time you launch the application.
    - **Restore VixWin window when Patient Selected** - VixWin will appear in the foreground when a patient's information is sent from the Practice Management software.
    - **Send deleted images to Windows Recycle Bin** - Deleted images will be sent to the Windows recycle bin.
    - **Run VixWin at Windows start up** - VixWin will be launched automatically at every Windows start up.
  5. Click **OK**.

## Full mouth

To configure Full mouth settings:

On the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Full mouth** tab.



3. Select preferences for Full mouth:
  - **Direct capture/scan into the mount** – Check this box if you want to have images captured directly into the mount. Recommended for Visualix/Gx-S, Visualix Gx-S USB/HDI, Visualix eHD, GXS-700, and KaVo Dig eXam users.

**IMPORTANT:** If the Load Sequence has been set in the Mount Editor, the images can be captured directly into the mount. Otherwise the images go directly into the new image bin.

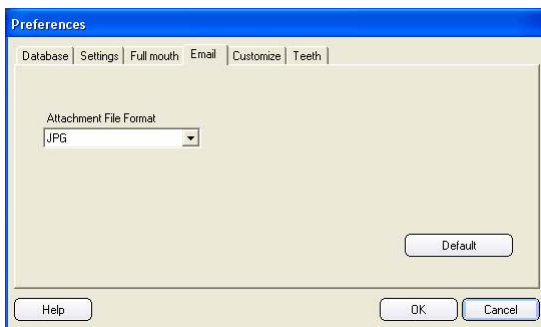
- **New mount at each DenOptix Scan** – Check this box if you want to be prompted to select a new mount before each scan.
  - **Close patient after DenOptix scan** – Check this box if you want to have the selected patient folder automatically close after the scanning ends. You can then access the patient folder from a different workstation.
4. Click **OK**.

## Email

To configure email attachments:

On the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Email** tab.
3. Click the **Attachment File Format** arrow and select the appropriate file format. The selected file format defines the image file type that will be sent via email as an attachment to the email.



**NOTE:** To optimize the compression of images sent as an attachment, Gendex recommends that you use the default JPG format.

The email function can only be used if your email software (Outlook or Lotus Notes) is properly configured on your computer. The email function does not operate with Outlook Express, web-based email accounts such as Hotmail, Yahoo, or any other web-based account.

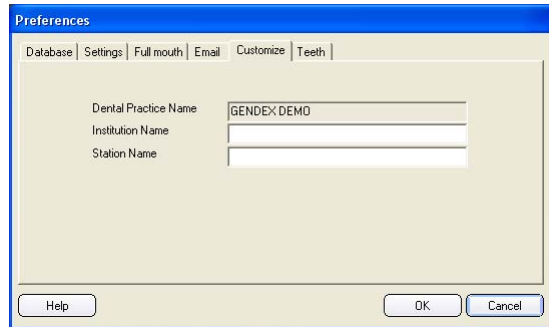
4. Click **OK**.

## Customize

To configure the dentist information:

On the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Customize** tab.



**NOTE:** The name seen in the **Dental Practice Name** field, that is printed on the same page as the image, was entered when VixWin Platinum was registered.

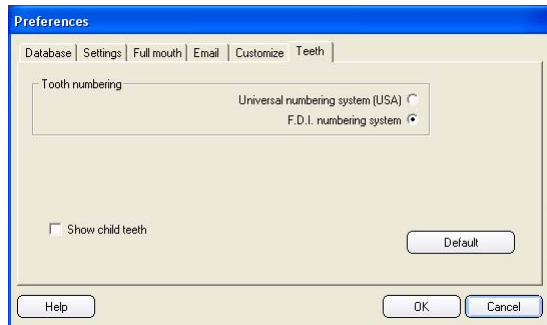
3. Enter the **Institution Name** or the legal name of the dental practice.
4. Enter the **Station Name** or the location where the images are taken.
5. Click **OK**.

## Teeth

To configure teeth options:

On the menu bar:

1. Click **Options** and select **Preferences**.
2. Click the **Teeth** tab.
3. Select a **Tooth numbering system**:



- Universal numbering system (USA) - Designates the location of the teeth from 1 to 32.
  - F.D.I. numbering system - Designates the location of the lower teeth from 11 to 18 and 21 to 28 and the location of the upper teeth from 31 to 38 and 41 to 48.
4. To display the child teeth list, select the **Show child teeth** checkbox.
    - The deciduous teeth list (child teeth list) will display when an image is saved and a child tooth will be assigned to it.

**NOTE:** This is available in Windows Layout or when assigning a tooth number.

5. Click **OK**.

## User Interface

You can configure the background color, toolbar, and sidebar of your VixWin Platinum software to fit your requirements.

The selected options provide you with the capability to accept the selection (OK), cancel the selection (Cancel), or use the default system settings (Default). The Default button is available on many screens. If additional information is needed, refer to the Help section.

### General

To set the general background color:

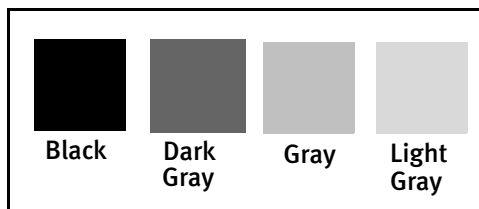
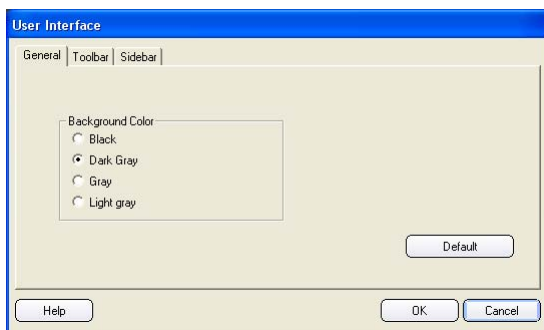
On the menu bar:

1. Click **Options** and select **User Interface**.
2. Click the **General** tab.
3. Select a **Background Color**:
  - Black
  - Dark Gray
  - Gray
  - Light Gray

The background color samples are shown.

4. Click **OK**.

**NOTE:** In the **User Interface** window, when you click **OK**, the window will automatically close. To continue configuration activities for the Toolbar and the Sidebar, click the appropriate tab, make changes as needed, and then click **OK**.



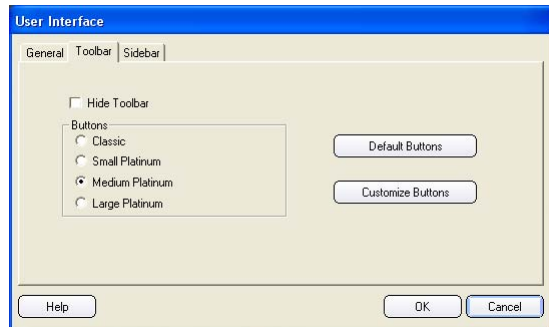
## Toolbar

To customize the toolbar:

On the menu bar:

1. Click **Options** and select **User Interface**.
2. Click the **Toolbar** or the **Sidebar** tab.

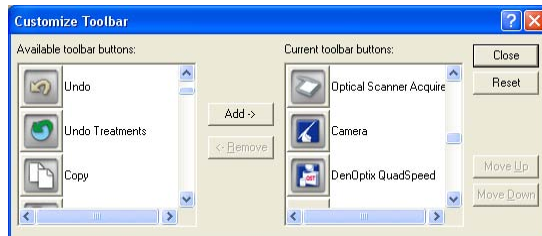
**NOTE:** From the **Toolbar** and the **Sidebar** tabs, you can customize the position, graphic style, and size of the buttons.



3. To hide the toolbar from view, select the **Hide Toolbar** checkbox.

The toolbar and/or the sidebar will be hidden from the software user interface on the VixWin screen.

4. Click **Customize Buttons** if you need to rearrange, add, or remove the button icons on the toolbar and/or sidebar.

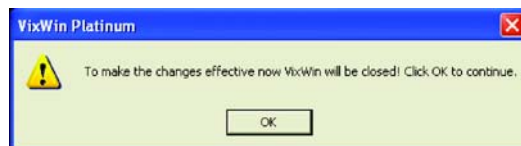


- In the **Customize Toolbar** window, select the button icon and use the **Add >** button or the **< Remove** button to move the button icon from one column to the other.

- To rearrange the position of the button icons, click on the button icon to be moved then click the **Move Up** or the **Move Down** button until the button icon is in the desired location. (You can also drag the buttons.)

- To reset the buttons, click **Reset** to restore the default values.

- Click **Close** to exit from the **Customize Toolbar** window.



- Click **OK** to make the changes effective.

5. To change the size of the button icons on the **Toolbar** or **Sidebar** window, select one of the following:

- **Classic** – Standard VixWin Pro user interface.
- **Small Platinum** – New VixWin Platinum user interface. Suggested for monitor resolutions of 800x600.



- **Medium Platinum** – New VixWin Platinum user interface. Suggested for monitor resolutions of 1024x768.
- **Large Platinum** – New VixWin Platinum user interface. Suggested for monitor resolutions of 1280x1024, 1600x1200, or touch screen monitors.

The button sizes are shown:



## Security

For security purposes, you can configure up to eight different user accounts in order to manage user access, editing, and deletion of patient information and images.

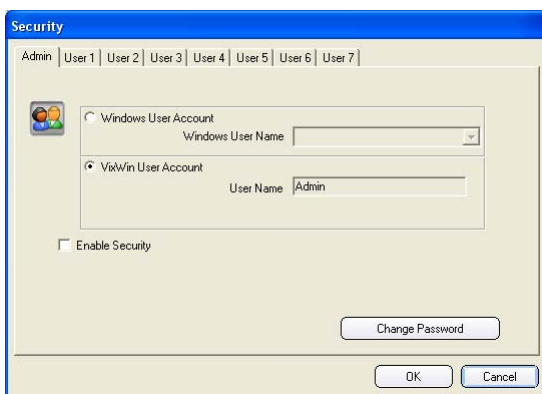
The first tab of the Security window is reserved for the VixWin administrator account. The VixWin administrator is the only account that can enable or disable the security feature. For password protection, the default VixWin administrator password is 123456. Gendex highly recommends that the default VixWin administrator password be changed.

## Security

To enable security:

On the menu bar:

1. Click **Options** and select **Security**.
2. Click the **Admin** tab and select **VixWin User Account**.
3. Select the **Enable Security** checkbox.



**NOTE:** Select **Change Password**. A new, smaller password window will display.

4. At the password window, enter the old password (default password is 123456) and type the new password twice.

**NOTE:** Passwords are case sensitive.

5. Click **OK** to exit from the **VixWin Platinum** password window.
6. Click **OK** to exit from the **Security** window.

**NOTE:** In the Security window, when you click **OK**, the window will automatically close. To continue security activities for User 1, User 2, User 3, User 4, User 5, User 6, and User 7 click the appropriate tab, make changes as needed for each user, and then click **OK**.



## User

To create or edit user information:

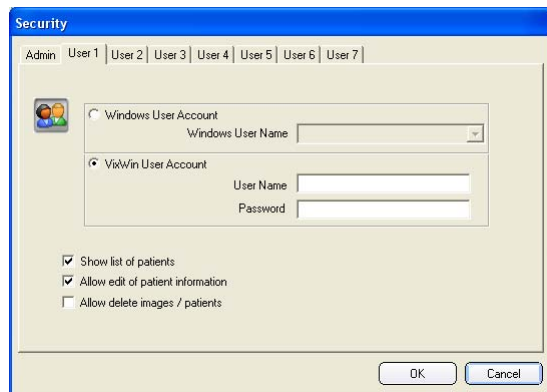
On the menu bar:

1. Click **Options** and select **Security**.
2. Click the appropriate tab: **User 1**, **User 2**, **User 3**, **User 4**, **User 5**, **User 6**, or **User 7**.
3. Select an account type:

- **Windows User Account** – Enter the Windows User Name.
- **VixWin User Account** to enable additional security – Enter the User Name and the Password.

**NOTE:** Editing the VixWin user account information can only be done by the VixWin administrator.

4. Select the user account privilege:
  - **Show list of patients** – VixWin will not show the entire patient list when the user logs into the system. In this case, users need to specify the patient's first and last name to access the image folder.
  - **Allow edit of patient information** – The edit function on the patient database will be disabled and the user will not be able to edit any patient data.

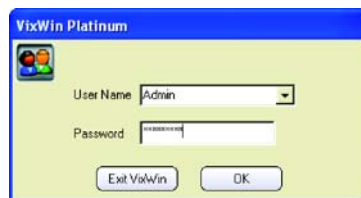


- **Allow delete images/patients** – The user will not be able to delete images or patients from the VixWin database.

5. Click **OK**.

**NOTE:** When you click **OK** to exit from the **Security** window, the system will prompt you to enter a password.

Enter the default password or the new password. Click **OK**. If you do not enter a password, click **Cancel** to exit from the **VixWin Platinum** password window.



When VixWin is launched again, VixWin users will need to enter their account information (User Name and Password) to use the software.

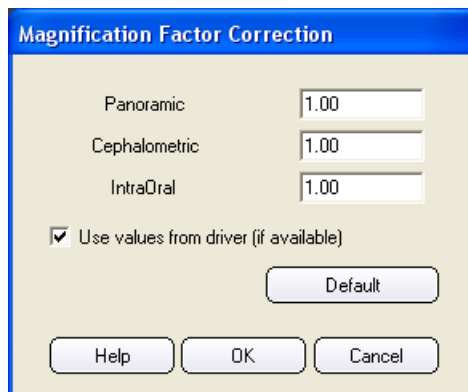
## Magnification Factor Correction

The VixWin Platinum software provides the user with magnification options that can be applied when measuring panoramic, cephalometric, and intraoral images. The default values for panoramic and cephalometric are related to the Orthoralix DDE/DPI standard panoramic and cephalometric projections. If you are using a different panoramic machine, you can modify the factors based on the manufacturer’s recommendations.

To set the magnification factor:

On the menu bar:

1. Click **Options** and select **Magnification Factor Correction**.
2. Click **Default** to activate the selection on this window.
3. Enter the **Panoramic** value.
4. Enter the **Cephalometric** value.
5. Enter the **IntraOral** value.



**NOTE:** Measurements on a digital X-ray image, even with calibration, have limited accuracy due to incorrect positioning, magnification, and manual selection.

6. If using an Orthoralix DDE system, select the **Use values from driver (if available)** checkbox to have the magnification factor automatically set by the driver.

**NOTE:** All automatic image filters are set in the corresponding imaging product driver. We recommend that you keep the **Use values from driver (if available)** checkbox enabled, unless there is a special need not to use the drivers.

- Click **OK**.

## Plugins

Plugins allow third party applications to receive information from VixWin or it can be used to start any program with an .exe extension.

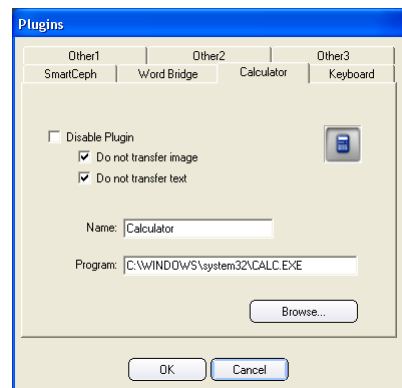
To enable plugins:

On the menu bar:

- Click **Options** and select **Plugins**.
- Click the appropriate tab: **SmartCeph, Word Bridge, Calculator, Keyboard, Other1, Other2, Other3**.

**NOTE:** SmartCeph is not available in the U.S. and Canada.

- **Disable Plugin** checkbox. When selected, the disabled Plugin will not be available.
  - **Do not transfer image** checkbox. When selected, prevents images from being sent to the application.
  - **Do not transfer text** checkbox. When selected prevents the text from being sent to the application.
- Enter the **Name** of the plugin.
  - Enter the program location of the plugin file or click **Browse** to find the plugin .exe program. When you click **Browse**, the Open window displays.
    - Browse to find the needed .exe file.
    - Select the .exe file.
    - Click **Open** or double-click the selected file. The new application will display in the Program field and it will appear as a new menu selection in VixWin.
  - Click **OK**.



# CHAPTER 4 Configuration

VixWin Platinum is used to acquire images from all KaVo/Gendex digital imaging devices. When installed, you can view the KaVo/Gendex driver properties and options. To change the properties, you will need to identify the device and customize the settings to best fit your dental practice needs.

This chapter covers the following topics:

- Visualix/GX-S Frame Grabber
- GXS-700
- Visualix eHD
- Visualix/Gx-S USB/HDI
- KaVo Dig eXam
- DenOptix
- DenOptix QST
- Orthoralix DDE
- Orthoralix DPI
- Camera
- Optical Scanner
- Automatic Optimizer
- Automatic Image Treatment

Refer to the specific device manuals to configure the device properties. VixWin Platinum is compatible with KaVo/Gendex devices.

You can configure settings or use the system default values. Gendex strongly recommends that you carefully evaluate the available options.

**NOTE:** If you are unable to access a listed product, then the corresponding driver is not installed.

The imaging devices provide you with the capability to accept the selection(s) (OK), cancel the selection (Cancel), or use the default system settings (Default). The Default button is available on many screens.

---

## Visualix/Gx-S Frame Grabber

This section applies to the Visualix system available prior to 2002.

To set the Visualix/Gx-S Frame Grabber properties:

On the menu bar:

1. Click **Imaging Devices** and select **Visualix/Gx-S Frame Grabber**.
2. Select **Properties**.
3. Select **CCD sensor hardware**.
4. Make any adjustments or changes as needed or refer to the Visualix/Gx-S user manual.

## GXS-700

To set the GXS-700 properties, click **Imaging Devices** and select **GXS-700**. Refer to the device user manual to configure the properties.

## Visualix eHD

To set the Visualix eHD properties, click **Imaging Devices** and select **Visualix eHD**. Refer to the device user manual to configure the properties.

## Visualix/Gx-S USB/HDI

To set the Visualix/Gx-S USB/HDI properties, click **Imaging Devices** and select **Visualix/Gx-S**. Refer to the device user manual to configure the properties.

## KaVo Dig eXam

To set the KaVo Dig eXam properties, click **Imaging Devices** and select **Dig eXam**. Refer to the device user manual to configure the properties.

## DenOptix

To set the DenOptix scanner properties:

On the menu bar:

1. Click **Imaging Devices** and select **DenOptix**.
2. Select **Properties**.
3. In the General section, select any of the following general scanner attributes:
  - **Notice and Warning sounds** – Enables audible tones for the DenOptix notice and warning.
  - **Scan Edit button (allows editing scan types)** – Allows the user to modify the default scanning selection.
  - **Hi Res #2's button (scans top row of #2's at 600 dpi)** – For scanning size 2 intra orals at 600 dpi.
  - **Display Scanning dialog** – Displays the scan status.
  - **16 bit images** – Uses the 16 bit image file format.

**NOTE:** Selecting the **Hi Res #2's button** checkbox enables a higher resolution/dpi for enhanced image definition. (Both the scanning time and the file size increase with this setting.)

IntraOral (dpi) and Pan/Ceph (dpi): The higher the dpi selected, the better the image definition, but the scanning time and the file size increases.

Default values are defined in order to match the requirements for standard clinical use.

4. Select the IntraOral (dpi):
  - **150** (standard resolution)
  - **300** (high resolution)
  - **600** (very high resolution)
5. Select the Pan/Ceph (dpi):
  - **150** (standard resolution)
  - **300** (high resolution)

**NOTE:** You can use the default resolution for standard applications or set a higher resolution when a special clinical case requires it.

6. Click **OK**.

## DenOptix 8/16 bit

To set the bit depth for DenOptix images:

On the menu bar:

1. Click **Imaging Devices** and select **DenOptix**.

2. Select **Options**.
3. Select **8 bit** or **16 bit** for the appropriate DenOptix image files:
  - IntraOral
  - Panoramic
  - Cephalometric

**NOTE:** Handling 8 bit or 16 bit images

You can scan DenOptix images and obtain 16 bit image files (65,535 gray levels) instead of 8 bit (256 gray levels). While 16 bit images contain more information, they create larger files. When importing 16 bit images, you will need to define the image type (intraoral, panoramic or cephalometric) to apply the correct 16 bit enhancement.

4. Click **OK**.

## DenOptix QST

To set the DenOptix QST properties, click **Imaging Devices** and select **DenOptix QST**. Refer to the device user manual to configure the properties.

## Orthoralix DDE

To set the Orthoralix DDE properties, click **Imaging Devices** and select **Orthoralix DDE**. Refer to the device user manual to configure the properties.

## Orthoralix DPI

To set the Orthoralix DPI properties, click **Imaging Devices** and select **Orthoralix DPI**. Refer to the device user manual to configure the properties.



## Camera

To set the camera:

On the menu bar:

1. Click **Imaging Devices**, select **Camera**, and then select **Device**.
2. Select the video camera interface:
  - Video for Windows (Windows XP only)
  - Direct Show (Windows XP only)

**NOTE:** Select Video for Windows or Direct Show if you are connecting a video camera using a video capture board. The video capture board must be compatible with Video For Windows or Direct Show.

**NOTE:** Select Gendex Digital Camera if you are connecting a video camera using a video capture board. The video capture board must be compatible with Gendex Digital Camera.

**NOTE:** The Gendex Digital Camera, corresponding to the AcuCam Concept® IV FWT, GXC-300, and eZ1, is the default. This option requires GxPicture/ GxVideo.

- KaVo ErgoCam
3. Click **OK**.



## Optical Scanner

Optical image scanners are supported through the TWAIN protocol.

To set the Optical Scanner:

On the menu bar:

1. Click **File > Optical Scanner Select**.
2. Select the **TWAIN source** or the driver needed from the list.
3. Click **Imaging Devices**.
4. Select **Optical Scanner** and then **Automatic Image Treatment**.
5. Click **Flip** to automatically flip all incoming images acquired from the optical scanner or TWAIN compliant devices.
6. Click **OK**.

## Automatic Optimizer

Some of the imaging devices allow the Optimizer filter to be automatically applied to newly acquired images. Images can then be displayed with consistently high image quality, without the need for user interaction.

To set the Automatic Optimizer:

On the menu bar:

1. Click **Imaging Devices > [device] > Automatic Optimizer**.
2. Click the appropriate tab.
3. Select the **Optimizer** checkbox.
4. Make the Automatic Optimizer adjustments:
  - To adjust the sharpness of the image, move the **Detail** slider control to the left (decrease) or to the right (increase).
  - To adjust the intensity of the image, move the **Intensity** slider control to the left (decrease) or to the right (increase).
  - To adjust the level of reduction in noise (the amount of graininess in the image), move the **Noise Reduction** slider control to the left (decreases) or to the right (increase).
5. Click **OK**.

## Automatic Image Treatment

Some of the imaging devices allow image processing to be automatically applied to newly acquired images. Images can then be displayed with consistently high image quality, without the need for user interaction.

To automate the image treatment:

On the menu bar:

1. Click **Imaging Devices > [device] > Automatic Image Treatment**.
2. Click the appropriate tab.
3. To adjust the exposure level of the image, move the **Gamma** slider control to the left (decrease) or to the right (increase).

**NOTE:** The image contrast can be significantly enhanced by adjusting the gamma values.

4. To adjust the luminance of the image, move the **Brightness** slider control to the left (decrease) or to the right (increase).

5. To adjust the color or light of the image, move the **Contrast** slider control to the left (decrease) or to the right (increase).

**NOTE:** When you move the slider control to the left or to the right, the number will appear in the associated **Gamma**, **Brightness**, and **Contrast** text fields.

6. Click **OK**.



# CHAPTER 5 Operation

Operating and using the VixWin Platinum software provides you with the capability to acquire/capture and analyze images while moving seamlessly between different layouts to display images. You must select the layout view (Windows Layout or Full Mouth) prior to acquiring images.

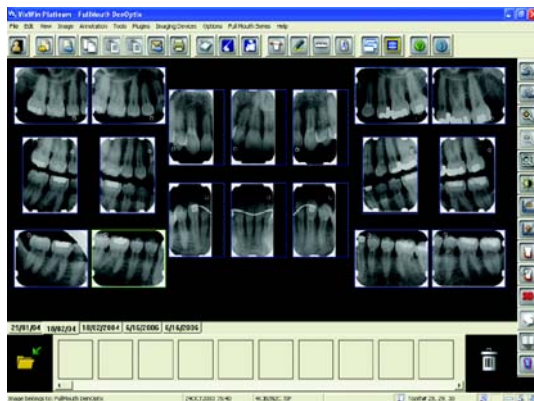
In Windows Layout view, you can display several images simultaneously on the the VixWin work area. You can move, minimize, cascade, or zoom in and out using different magnification scales.

In Full Mouth view, images will be mounted in predefined locations on the screen. If you take a large number of images including video images for each patient, we recommend that you use Full Mouth view. We also recommend using the mount templates in Full Mouth view for better organization of your images.

In Windows Layout and Full Mouth view, the selected options provide you with the capability to accept the selection(s) (OK), cancel the selection (Cancel), or use the default system settings (Default). The Default button is available on many screens. If additional information is needed, refer to the Help section.

This chapter describes the following sections:

- Launching VixWin
- Accessing and creating a new patient
- Editing a patient
- Deleting a patient
- Searching for an existing patient
- Creating and managing mounts – for Full Mouth view
- Acquiring images
- Assigning images to patients



- Treating and analyzing acquired images
- Printing images
- Loading patient images – for Windows Layout view
- Moving images to and from a different patient
- Emailing images

## Launching VixWin

Depending on the Operating Mode (Standalone or Bridge) that was configured, the user launches VixWin accordingly.

Operating Mode	Function
Standalone	Uses the VixWin patient database
Bridge	Enables access to 3rd party Patient Management software

### Standalone Mode

To start your VixWin Platinum software when configured in Standalone mode:

1. Open VixWin Platinum from **Start > All Programs > Gendex Imaging** or click the VixWin icon on the desktop:
2. Wait a few seconds until the **Patient Folder** window appears.



### Bridge Mode

**NOTE:** Properties related to the dental Practice Management software are set up independently from VixWin. The Bridge mode feature enables communication between the imaging software and the Practice Management software. Refer to your Practice Management software user manual for more information.

In Bridge mode, the Practice Management software owns and stores the patient database.

To start your VixWin Platinum software when configured in Bridge mode:

1. Click on the link in the **Practice Management** software to launch the VixWin program.

2. Wait a few seconds until VixWin Platinum opens and the patient name appears in the title bar.

## VxLink Module – Separate Software

**NOTE:** If VxLink is installed, Bridge mode must be selected to enable VxLink to communicate with the Practice Management software.

To start your VxLink software when VixWin is configured in Bridge mode:

1. Select the patient chart in your Practice Management software (Dentrix, Easy Dental, Eaglesoft, PracticeWorks, Softdent, or Julie).

**NOTE:** When using the VxLink interface module, VixWin will automatically update to a new patient when a new patient is selected in the Practice Management software.

2. Double-click the Vx button present in the system tray. VixWin will launch and display the patient name on the title bar and any images previously stored (if any).



## Exit VixWin

To close the VixWin Platinum software, click the **Exit** icon in the top right.



## Accessing and Creating a New Patient

To start a VixWin session, you must create a new patient or select an existing patient before acquiring images.

**NOTE:** You can click the **Patient Folder** button to access the **Patient Folder** window.



To create a new patient folder:

On the menu bar:

1. Click **File > Patient Folder**.
2. On the **Patient Folder** window, click **New** to enter new patient information.
3. Enter the new patient **Last name** and any other patient information.

**NOTE:** In order to avoid duplicate entries, VixWin displays a warning message in case a patient's **Last name** and/or **Health code** already exist in the database. If the existing patient name shown is not your patient, you can differentiate your patient from the existing patient by spelling out the patient middle name or entering a differentiating fact in the database.

4. Click **OK** to enter the name in the patient's list.
5. Click **OK** to open the folder for the selected patient.

## Editing a Patient

Patient data can be modified at any time using the **Edit** button. The edit function also prevents the user from accidentally modifying patient data. During the edit operation, the user can confirm the changes by clicking **OK** or use **Cancel** to cancel modifications during the edit session.

To edit a patient:

On the menu bar:

1. Click **File > Patient Folder**.
2. On the **Patient Folder** window, select the patient name to be edited and click **Edit**.
3. Make the appropriate changes and click **OK** to accept the changes. If you need to cancel the modifications entered during the edit session, click **Cancel**.

## Deleting a Patient

To remove a patient from the VixWin database, you can delete the patient folder and all associated image files.

To delete a patient:

On the menu bar:

1. Click **File > Patient Folder**.
2. On the **Patient Folder** window, select the patient name to be deleted and click **Delete**.
3. At the **Confirm Delete** window, click **Yes** to delete the selected patient and all associated images from the database.





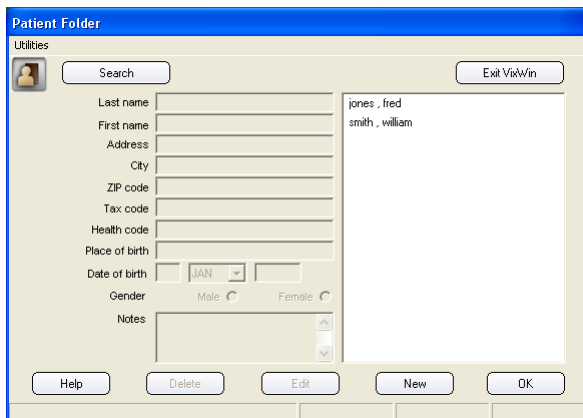
**NOTE:** Removing a patient permanently removes all records and images associated with the patient. To restore the information, you must restore the database from a backup.

## Searching for an Existing Patient

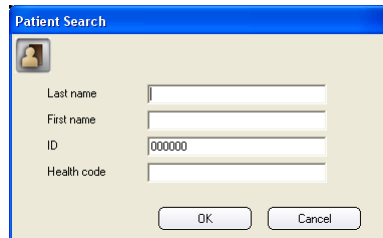
To search for an existing patient:

On the menu bar:

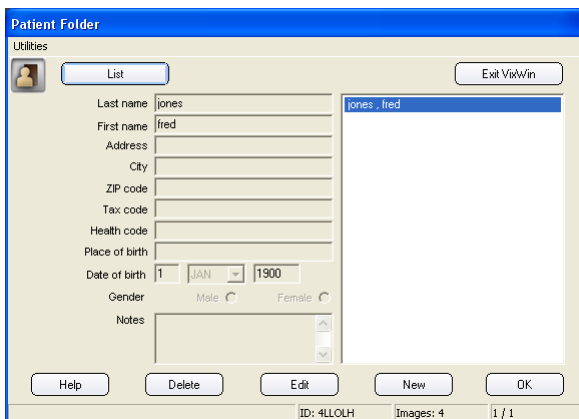
1. Click **File > Patient Folder**.



2. On the **Patient Folder** window, click **Search**.



3. In the **Patient Folder** window, enter the patient's **Last name** or patient information.
4. Click **OK**.
5. Click **List** to enter another query and to repeat the search sequence.



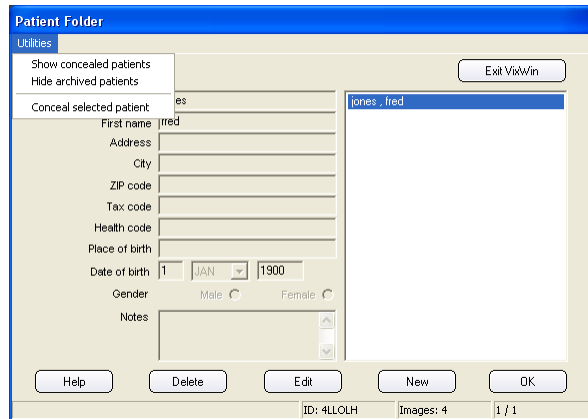
## Utilities

Additional functionality exists to conceal and view patient names in the patient folder.

To conceal a patient name:

On the menu bar:

1. Click **File > Patient Folder**.
2. On the **Patient Folder** window, select the patient name to be concealed.



3. From the menu bar on the **Patient Folder** window, click **Utilities**.

**NOTE:** The Utilities function enables the Conceal/Reveal functions to be toggled On/Off.

4. Select **Conceal selected patient**. The patient name will not be displayed and you will not be able to view the patient name.
5. To revive a patient, click **Utilities** and select **Revive selected patient**. The patient name will be displayed.

Optional: To show or conceal patient names, select one of the following:

- **Show concealed patients** or **Hide concealed patients** - Displays a list of previously concealed patients or hides the previously concealed patient names.
  - **Show archived patients** or **Hide archived patients** - Displays a list of archived patient names or hides the previously stored or archived patient names.
6. Click **OK**.

# Creating and Managing Mounts – For Full Mouth View

You can set up mounts at any time. You can acquire/capture new images directly into the mount or into the new image bin. The acquired/captured images can be arranged in mounts and the mounts are organized in the patient folder. Mounts are used to designate the specific location of the teeth X-rayed.

## Creating Mounts

**NOTE:** To access the mount screens, you must be in the Full Mouth view.

All images that are in the new image bin can be moved into a mount. Select a mount and then drag each image into its new position.

If you are using the Direct capture/scan into the mount option, you can rearrange the images if they are not in the correct position.

To create a new mount:

From the menu bar:

1. Click **View** and select **Full Mouth**.

**NOTE:** VixWin opens in the mode it was in when VixWin was exited last.



2. In the Full Mouth view, to display the **Quick Mount Selector** window, click the **New Mount** icon.



Or click **Full Mouth Series > New Mount**.

The **Quick Mount Selector** window is divided into two sections:



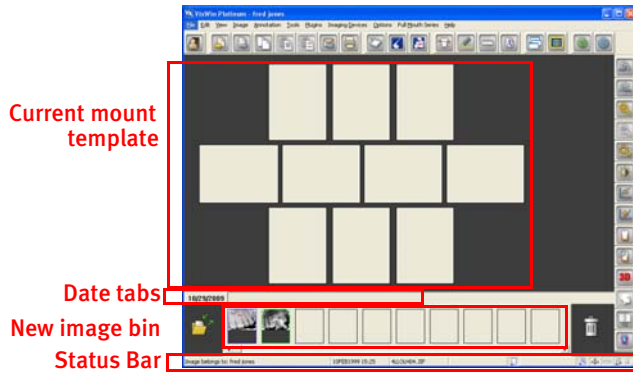
- **Most used templates** (includes the four templates most commonly used), and
- **Other templates** (contains all the predefined mounts).

You can customize the **Most used templates** section by dragging templates from the **Other templates** section into the **Most used templates** section.

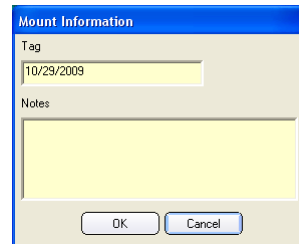
3. Select one of the template mounts: Choose from the **Most used templates** choices, or for additional mount templates, scroll through the **Other templates** choices.

**NOTE:** As you scroll through the templates listed, the template is highlighted and the name is displayed on the window title bar.

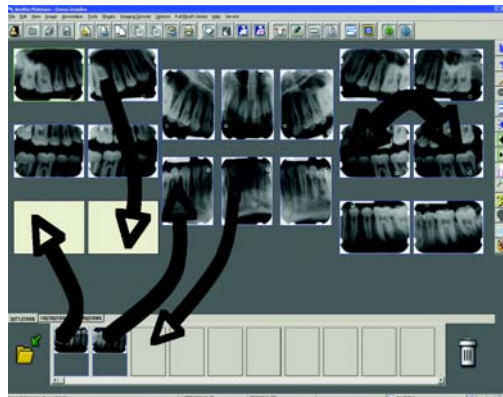
4. Click **OK** to open the selected mount template. The empty mount automatically displays with the current date displayed on the tab.



5. Right-click on the **Date** tab to open the mount information window. If necessary, replace the date. Add notes applicable to the mount. The notes will only print when **File > Print > Mount** or **File > Print > Screen** are used.



6. All images that are in the new image bin can be moved into a mount. Select a mount and then drag each image into its new position. When you drop an image over an existing image, images will swap position. All modifications are automatically saved. You do not need to manually save your changes.



**NOTE: Using DenOptix**

If the Load Sequence has been set in the Mount Editor, the images can be captured directly into the mount. Otherwise the images go directly into the new image bin.

Select **Options > Preferences** and click on the **Full mouth** tab:

- **Direct capture/scan into the mount** – Check this box if you want to have images captured directly into the mount.
- **New mount at each DenOptix Scan** – Check this box if you want to be prompted to select a new mount before each scan.

When you are ready to create a new mount, click Scanner, if prompted, select a mount from the mount list, and scan your images. Depending on the option selected, the images go directly into the mount or into the new image bin.

**NOTE: Using Visualix or KaVo Dig eXam sensors**

A green highlight will indicate the position where the next image will be located. The green shade will automatically advance to the next position after the image is acquired.

7. Continue to the next patient or exit from the mount screen.

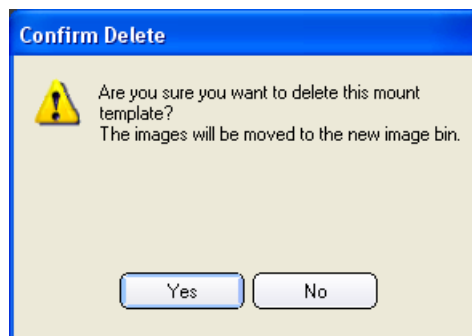
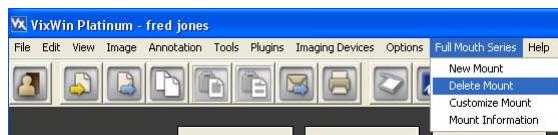
## Deleting Mounts

To delete a mount:

On the menu bar:

1. Click **Full Mouth Series > Delete Mount**.
2. To confirm the deletion, click **Yes**.

**NOTE:** The images are not deleted. They are moved to the new image bin at the bottom.



## Customizing Mounts

Occasionally, a new mount template may be needed. Refer to [“VixWin Mount Editor” on page 8-1](#).

## Acquiring Images

Any image can be acquired, then selected for treatment, analysis, and saving. When the currently acquired image is selected, it is highlighted by a title bar or frame of a different color.

### Acquiring Images with DenOptix



#### Scanner Setup

To acquire images with DenOptix, refer to the DenOptix user manual for scanning information.

### Acquiring Images with DenOptix QST

For complete DenOptix QST information, refer to the DenOptix QST user manual.

#### Scanner Setup

Load the carousel into the scanner and close the DenOptix QST top cover.

#### Operation

**NOTE:** When VixWin is running, it checks whether a DenOptix QST scanner is properly connected, interfaced, and powered by running an initializing routine, lasting approximately 5 seconds.

To acquire/capture images with DenOptix QST:

1. Select the DenOptixQST button on the VixWin toolbar. The system will automatically detect the carousel type and the plate selection screen will appear.
2. Select the plate positions you want to scan or use a predefined template and click **Scan**. Wait until the end of the process. Once the scanning is completed all images will appear in VixWin.



**NOTE:** To start scanning imaging plates with the DenOptix QST, follow the procedure in the DenOptix QST manual.

## Acquiring Images with Visualix/GXs-S HDI/USB, GXs-700, or Visualix eHD Sensor

**NOTE:** No connection or synchronization is needed between the X-ray generator and the CCD sensor. After the detection of the X-ray image by the sensor, VixWin will automatically display the image on the screen (unless you have disabled the sensor). You can immediately examine the image, or use any of the various features for enhancement and analysis.

To capture a new X-ray image with the sensor:

1. Position the sensor in the patient's mouth using the paralleling technique.
2. Position and aim the device according to the recommended manner for the dental X-ray source. Refer to the sensor product User Manual.
3. Take an exposure.

## Acquiring Images with the KaVo Dig eXam Sensor

**NOTE:** The KaVo Dig eXam sensor acquires 16 bit images only.

To acquire/capture images with KaVo Dig eXam Sensor, refer to the KaVo Dig eXam user manual.

## Acquiring Images with Orthoralix DDE/DPI

To acquire/capture images with Orthoralix DDE/DPI, you only need to properly position the patient and take the X-ray exposure. VixWin will automatically display the image on the screen.

You can immediately examine the image or use any of the various features to enhance and analyze the image.

Refer to the Orthoralix DDE/DPI user manual for more information.

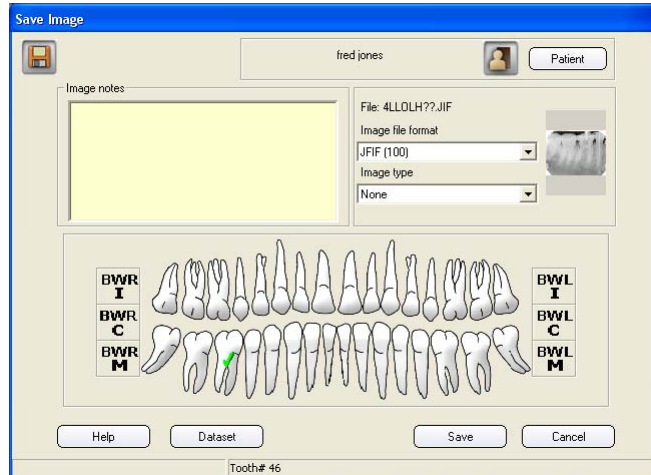
## Assigning Images to Patients

The window in which images are assigned to patients is the **Save Image** window:

**NOTE:** Images are not saved until the **Save** button in this window is clicked.

**NOTE:** The maximum number of images which can be saved for each patient is 256 in Standalone mode and 4096 in Bridge mode.

**NOTE:** For an image that has been saved, the first time you switch from Windows Layout view to Full Mouth view, this window will display:



Click **Yes** to have VixWin automatically place the images in a mount that you will be prompted to select. If you do not need to use a mount, click **No**. To manually create a mount, refer to [“Creating and Managing Mounts – For Full Mouth View”](#) on page 5-7.



To assign a newly acquired image or image set to a patient:

1. In Windows Layout view,



for an image set, select **File > Save All Images** or click the corresponding button on the toolbar.



for an image, select **File > Save Image** or click the corresponding button on the toolbar.

2. The image(s) are now saved with the patient that is currently selected.

In standalone mode only, the image(s) can be reassigned to a different patient or to a new patient. To reassign to a new or different patient, click the **Patient** button.

3. From the patient folder select the patient or create a new patient to which the image(s) should be assigned. Click **OK**.
4. When reassigning images to a different patient or to a newly selected patient, a dialog box displays asking, “Are you sure you want to move this image to the newly selected patient?” Click **Yes**.
5. To reassign the images to the original patient, click the **Patient** button and select the original patient from the patient list.

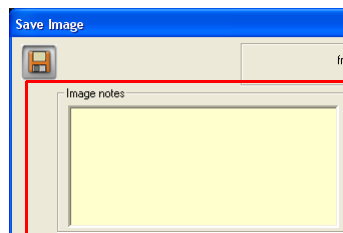
## Adding Associated Data to Images

With the **Save Image** window open, it is possible to add notes, change the image file format, and associate the image to a specific tooth position.

When all additions and changes have been made, click **Save** on the **Save Image** window. (If you need to cancel out of the image, click **Cancel**.)

### Add Notes

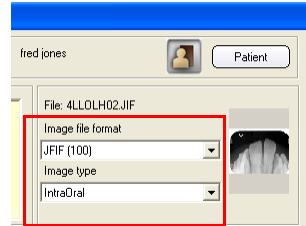
Enter any image information in the **Image notes** text field.



## Change Image File Format or Image Type Parameters

If desired select a different image file format or the image type parameter.

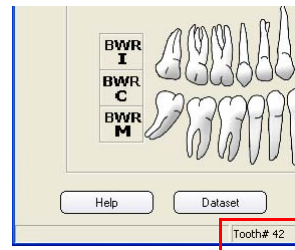
**NOTE:** To change the default image file format, select **Options > Preferences > Database** and then select a different format.



## Assign Tooth Location

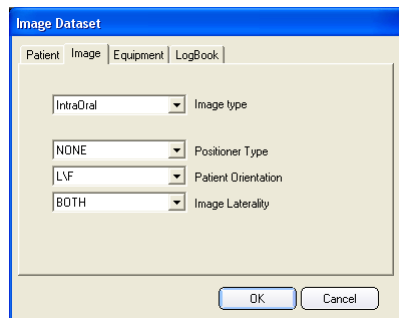
- To select the location of a tooth, click the tooth in the tooth chart area or select one of the bitewing positions:
  - BWRI** – Bitewing Right Incisor  
**BWLI** – Bitewing Left Incisor
  - BWRC** – Bitewing Right Canine  
**BWLC** – Bitewing Left Canine
  - BWRM** – Bitewing Right Molar  
**BWLM** – Bitewing Left Molar
- The tooth identification number is displayed.

**NOTE:** It is not necessary to assign an image to a tooth position. Tooth assignment is not used with panoramic X-ray, cephalometric X-ray, or camera images.



## Manage X-ray Dose Setting

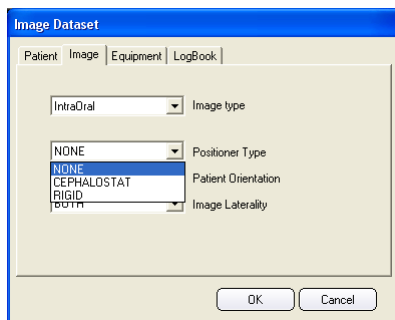
- To manage X-ray dose settings used to acquire the image or DICOM specific dataset information, click **Dataset**. The **Image Dataset** window will display.
- At the **Image Dataset** window, click the **Image type** arrow and select one of the following:
  - None
  - IntraOral
  - Panoramic
  - Cephalometric



**NOTE:** If None, Panoramic, or Cephalometric was selected, you will not be able to select the Positioner Type.

3. If you selected IntraOral, click the **Positioner Type** arrow and select one of the following:

- None
- Cephalostat
- Rigid



4. Click the **Patient Orientation** arrow and select one of the following:

- L\F – Left \ Feet  
F\A – Foot \ Anterior
- R\F – Right \ Feet  
A\F – Anterior \ Feet
- R\H – Right \ Head  
P\F – Posterior \ Feet
- A\L – Anterior \ Left

The following object tags apply to the above list:

IntraOral / Bitewing	L\F, P\F, A\L, A\F, R\F	Default L\F
Panoramic	R\F, L\F, F\A	Default L\F
Cephalometric	L\F, F\A, R\F, A\F	Default L\F

5. Click the **Image Laterality** arrow and select one of the following:

- Both
- Left
- Right

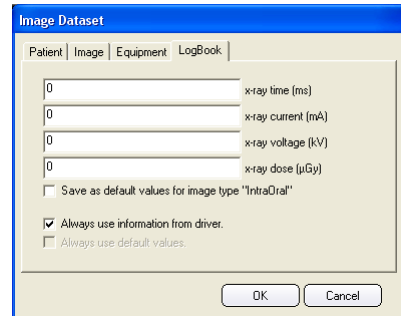
6. To view Patient, Series, Study, or Equipment status information, click on the appropriate tab. No user information is entered on these tabs.

7. To add X-ray attributes, click the **LogBook** tab and enter the following:

- X-ray time (ms)
- X-ray current (mA)
- X-ray voltage (kV)
- X-ray dose (µGy)

8. If you want to save the settings as the default setting, select the **Save as Default values for the image type “...”** checkbox.
9. To use the driver information, select the **Always use information from driver** checkbox.
10. Click **OK** to accept the values and to exit the **Image Dataset** window.

**NOTE:** If you click **Cancel**, the dataset information will not be saved.



## Treating and Analyzing Acquired Images

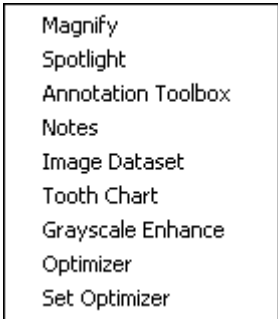
**NOTE:** You can always undo the automatic and manually applied treatments by using the **Edit > Undo treatments** function. This functionality restores the original appearance of the image. The **Undo** function removes the last applied treatment only.



You can easily treat and analyze images to enhance views. However, an accurate image rendition is best for analysis.

To treat and analyze new X-ray images in **Windows Layout** or **Full Mouth** view:

- Using the right mouse button, right-click the image to access functions such as the Magnify, Spotlight, Annotation Toolbox, Notes, Image Dataset, Tooth Chart, Grayscale Enhance, Optimizer, and Set Optimizer. The Full Mouth version includes an additional command, Fit to Screen/Return to Mount.



**NOTE:** Refer to [“Assigning Images to Patients”](#) on page 5-12 for Image Dataset and Tooth Chart information.

You can also click one of the following on the main menu:

- Tools** - Selections include Magnify, Zoom, Fit to Screen, Colorize, Isodensity, Gray Section, and Histogram.

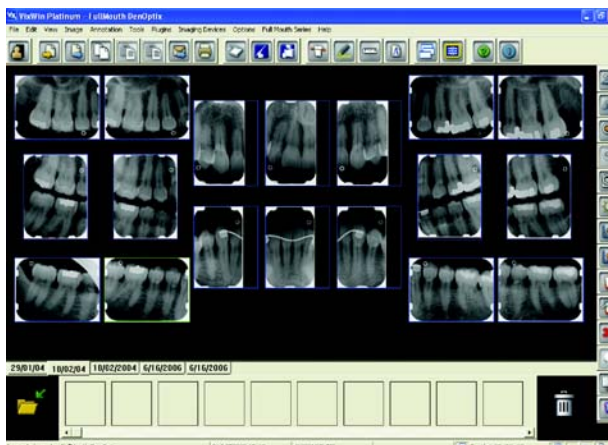
**NOTE:** To retain detail discernment, do not over-zoom images. The detection of diagnostic information is at its best when a moderate magnification factor is used. The magnifier allows you to enlarge a part of an image with enhanced contrast.

- Image** - Selections include Rotate, Flip, Mirror, Reverse, Equalize, Grayscale Enhancement, Soft Tissue Filter, Emboss, Sharpen, Smooth, Despeckle, Optimizer, Set Optimizer, and Spotlight.
- Annotations** - Selections include Annotation Toolbox (the toolbox will display), Show/Hide Marks, Select Mark, Mark Properties, Delete Mark, Notes, Angle Measurement, Length Measurement, and Area Measurement.

**NOTE:** Annotations can also be added on top of the image for easier case presentation. All major functions can be executed from the toolbar and sidebar.

- Complete the appropriate image treatments.

- Save the image. If in **Full Mouth** view, the system will automatically save the image(s).



**NOTE:** In Windows Layout view, images can be cleared from the screen with the **Edit > Close Image** or **Edit > Close All Images** functions.



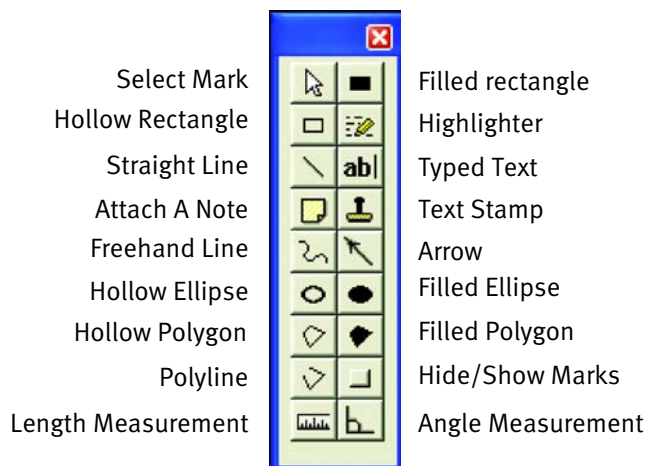
**NOTE:** You can also export and import images from VixWin. The most common file formats are supported, such as BMP, TIFF, JPEG, JFIF, PCX, and TGA. Another way to transfer image files to and from another program is by using the Copy and Paste functions in the Edit menu or using the VixWin Platinum shortcut keys (Ctrl+C for copy, Ctrl+V for paste as X-ray image, Ctrl+P for paste as a color image).

## Annotations

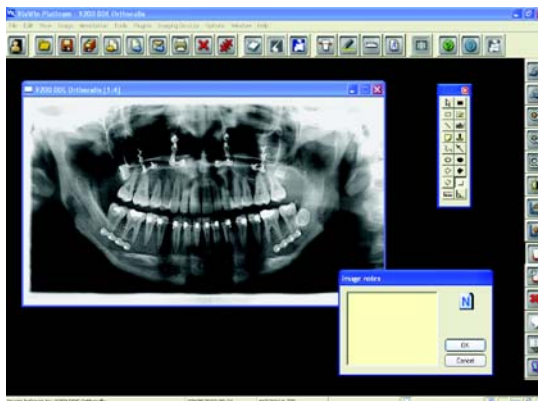
The Annotations menu allows you to place annotations directly onto the image and to hide or show them when needed. Any annotations made will be saved with the image. If you print the image, the annotations will be printed with it. In addition to annotations, you can measure an angle in the image, measure the length of an object in the image, and measure an area of the image.

To use annotations:

1. On the menu bar, click **Annotations** and select **Annotations Toolbox**.
2. Use any of the following tools (a description is shown with the toolbox) to place arrows, text, measurements or outlines around objects directly on the image.



3. If you need to add text notes to store in the image database, but do not need the annotations to display on the image, use the right mouse button to right-click the image. Select **Notes** from the menu.
4. Enter the notes and click **OK** when complete.



## Angle

To determine an angle:

Open or select the image.

1. On the menu bar, click **Annotations** and select **Angle Measurement**.
2. Click the areas on the image to determine the angle. As you move over the image, VixWin automatically calculates and displays the angle of the area selected.

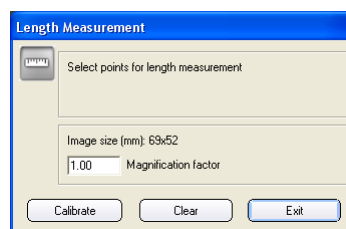
## Length

**NOTE:** For greater precision in measuring, refer to the section titled Length Calibration.

To determine a length:

Open or select the image.

1. On the menu bar, click **Annotations** and select **Length Measurement**.
2. Click two or more points on the image to measure the distance between the points. The **Total length** is displayed.
3. If desired, enter a new **Magnification factor** in the **Length Measurement** window. A new magnification factor will change the **Image Size** (mm). This affects the new length measurement.



**NOTE:** The current **Image size** (mm) is shown on the **Length Measurement** window.

- To measure additional distances, click **Clear** to discard the previous length measurement before starting the next measurement.
4. When finished, click **Exit** to close the window.

## Length Calibration

For higher measurement precision, it is possible to calibrate the image on an object of known dimensions within the image.

With the image selected:

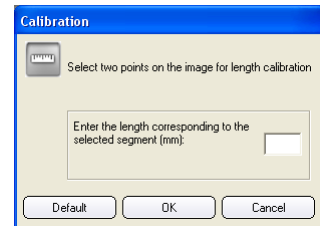
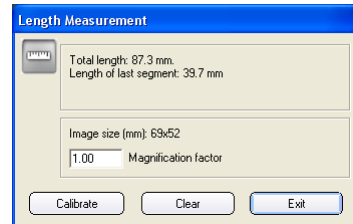
1. Click **Annotations** and select **Length Measurement** (or **Area Measurement**) if the window is not already open.

**NOTE:** The **Calibrate** button is provided in the **Length Measurement** window and in the **Area Measurement** window. The steps provided below are the same regardless of from which window the **Calibrate** button is clicked.

2. Click **Calibrate** to open the **Calibration** window.
3. Select two points on the image of a known distance. Enter the length corresponding to the selected segment (mm) in the text field.
4. Click **OK** to accept the new length calibration. The **Calibration** window will close allowing you to make a new length measurement.

**NOTE:** After calibration, the image dimensions are real and the **Magnification Factor** gets set to 1.0. No Magnification Factor correction is applied to the calibrated image.

5. Click **Exit** to close the **Length Measurement** (or **Area Measurement**) window.

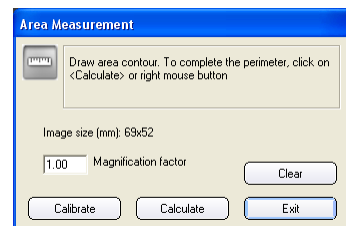


## Area Measurement

**NOTE:** For greater precision in measuring, refer to the section titled Length Calibration.

To determine the area size:

1. Open or select the image.
2. On the menu bar, click **Annotations** and select **Area Measurement**.
3. Select the points to define the area contour to measure on the image.





4. To calculate the perimeter of the area, click **Calculate**. The total area measurement is displayed.
  - If desired, enter a new **Magnification factor** in the **Area Measurement** window. A new magnification factor will change the **Image Size** (mm). This affects the new area measurement and calculations.

**NOTE:** The current **Image size** (mm) is shown on the **Area Measurement** window.

- To measure additional areas, click **Clear** to discard the previous area measurement before starting the next measurement.
5. When finished, click **Exit** to close the window.

## Tools

The **Tools** menu provides selections to magnify and treat images.

The Magnify feature, available on the **Tools** menu, enables you to over-zoom image details and determine if additional image treatment is needed. The size of the magnified area is defined in the size field of the **Magnify** window, either by using the scroll arrows or by manually entering a number.

We recommend that you do not magnify images to gain better detail discernment. The detection of diagnostic information is best when a moderate magnification factor is used.

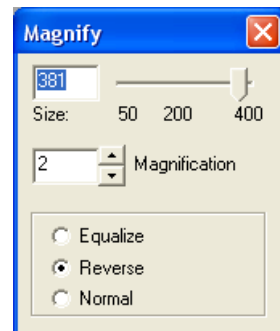
## Magnify

To magnify and view an area of an image:

On the menu bar:

1. Click **Tools** and select **Magnify** or right-click on the selected image and select **Magnify**.
2. Enter the magnification settings:
  - To set the view area size (number of pixels), move the slider control to the left (decrease) or to the right (increase), or enter a number in the **Size** field.
  - To set the magnification power, click the **Magnification** arrows up (increase) or down (decrease).
  - To set the type of view, choose one of the following:
    - **Equalize** - Used to show or to highlight morphological structures in the image.

**NOTE:** If you only want to apply local equalize, you can also use the Spotlight function.



- **Reverse** - Converts negative (black) into positive (white) and vice versa.
  - **Normal** - Magnifies the selected area without enhancing the view.
3. Click on the image and move the mouse to move to the area to be viewed.
  4. Close the **Magnify** window.

## Image

The Image menu provides selections to rotate, enhance, and treat images. Four different orientations can be assigned to each image position.

$\wedge$ 0 degrees	$>$ +90 degrees	$\vee$ +180 degrees	$<$ +270 degrees
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To modify the acquisition sequence or the rotation of a mount, refer to [“Customizing Mounts” on page 5-10](#).

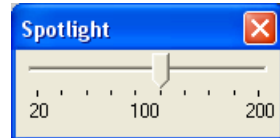
## Spotlight

The Spotlight, available on the **Image** menu, enables light to optimize image viewing capability.

To spotlight images:

On the menu bar:

1. Click **Image** and select **Spotlight** or use the right mouse button, and right-click the image, then select **Spotlight**.
2. Move the **Spotlight** slider control to the left (decrease) or to the right (increase) to define the size of the spotlight area.
3. To use the **Spotlight** feature, click on an image and then move the mouse over the area to spotlight.
4. Close the **Spotlight** window.



## Grayscale Enhance

The Grayscale Enhance, available on the Image menu, enables easier and faster image treatment to optimize image contrast and image quality.

To use the grayscale enhance feature:

On the menu bar:

1. Click **Image** > **Grayscale Enhance**.
2. Enter the enhancement settings.

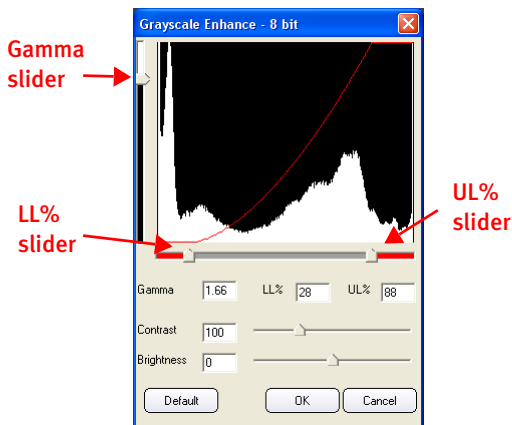
- To set the **Gamma** value, move the slider control up (increase) or down (decrease), or enter a value.

**NOTE:** The gamma value indicates the Gamma red curve (concave for gamma greater than 1 and convex for gamma less than 1). The level of X-ray exposure can be significantly enhanced by adjusting the Gamma value.

- To set the **LL%** (lower level), enter a value.
- To set the **UL%** (upper level), enter a value.

**NOTE:** The LL (lower level) and the UL (upper level) indicate the grayscale value used to improve image quality and contrast.

- To adjust the brightness of the image, move the **Brightness** slider control to the left (decrease) or to the right (increase).
  - To adjust the contrast of the image, move the **Contrast** slider control to the left (decrease) or to the right (increase).
3. To reset the values and start over click the **Default** button.
  4. To accept the enhancement settings, click **OK** or, to close and discard, click **Cancel**.



## Soft Tissue Filter – For Cephalometric Only

The Soft Tissue Filter, available on the Image menu, enhances the quality of cephalometric images and provides detailed bone information. The filter enables you to automatically regulate the gamma filtering across the image by enhancing visibility of the patient's profile while improving the detail recognition in the bone area.



The Soft Tissue Filter works only on cephalometric L/L, and A/P-P/A images. If the image is acquired directly with the Orthoralix DDE, the image will be automatically recognized as cephalometric and the Soft Tissue Filter will be immediately ready for use. If the image is imported, it needs to be saved as cephalometric. Switch to Windows Layout and click **File** > **Save Image** then choose **Cephalometric** from the selections under **Image type** in the **Save Image** window.

To enhance images with the Soft Tissue Filter:

1. On the menu bar, click **Image** and select **Soft Tissue Filter** or click the **Soft Tissue Filter** on the Sidebar. The **Soft Tissue Filter** window will display and the **Soft Tissue Filter** will be applied to the image with the default values.
2. Make the **Soft Tissue Filter** adjustments:



- To adjust the Gamma level of the hard tissues zone (minimum of 0.1, maximum of 0.7), move the **Bone** slider control to the left (decrease) or to the right (increase).
  - To adjust the Gamma level of the tissues zone (minimum of 0.8, maximum of 3.0), move the **Soft Tissue** slider control to the left (decrease) or to the right (increase).
  - To adjust the transition level between hard and soft tissues (minimum of 0.1, maximum of 0.5), move the **Transition** slider control to the left (decrease) or to the right (increase).
  - To adjust the Gamma level of the overall image (minimum of 0.20, maximum of 2.00) move the **Gamma** slider control to the left (decrease) or to the right (increase).
3. Click **OK** or click any of the default buttons:

- **Factory default** – Sets to the Gendex default parameters (bone = 0.25; soft tissue = 1.50; transition = 0.20).
- **Default** – Sets to the default parameters set by the user (the Gendex default if no change in the default values has been made by the user).
- **Save as Default** – Saves the current settings as the default for the Soft Tissue Filter.

**NOTE:** When the cephalometric image has been displayed on the screen, it can be filtered with the Soft Tissue Filter by clicking Soft Tissue Filter on the sidebar and/or in the toolbar.

If not already present in the sidebar or toolbar, the Soft Tissue Filter button can be added by selecting **Options > User Interface** on the menu bar.

## Optimizer



The Optimizer, available on the Image menu, is an advanced imaging filter. The Optimizer enhances the image quality of an X-ray image by highlighting morphological details and providing sharpness to the image.

You can easily apply the **Optimizer** filter: Select the image and click the **Optimizer** button on the Sidebar.

To revert to the non-filtered image, click the **Optimizer** button again.

To make changes to the Optimizer filter settings:

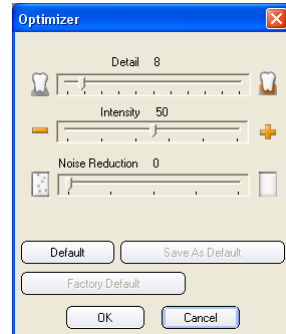
1. Using the right mouse button, right-click the image and select **Set Optimizer** or, with the image selected, press the space bar on the keyboard.
2. Refer to the following section to change **Optimizer** filter settings.

## Set Optimizer

The Set Optimizer, available on the Image menu, is an advanced imaging filter that allows you to adjust image parameters. The image parameters are Detail, Intensity and Noise Reduction.

To set the Optimizer:

1. Using the right mouse button, right-click the image and select **Set Optimizer** to open the Optimizer filter settings toolbox or click **Image > Set Optimizer**.
2. Make the Optimizer adjustments:
  - To adjust the sharpness of the image, move the **Detail** slider control to the left (decrease) or to the right (increase).
  - To adjust the intensity of the image, move the **Intensity** slider control to the left (decrease) or to the right (increase).
  - To adjust the level of reduction in noise (the amount of graininess in the image), move the **Noise Reduction** slider control to the left (decreases) or to the right (increase).



**NOTE:** After pressing the **Enter** key (or clicking **OK**), the only way to cancel the new settings is to right-click on the image and select **Optimizer**.

3. Click **OK** or press **Enter** on your keyboard to see the filters applied on the image. To reject the new settings, click **Cancel** in the Optimizer filter settings toolbox.

**NOTE:** You can also change the default values of Detail, Intensity, and Noise Reduction by setting your new preferred values and clicking **Save as Default**. You can always go back to the original default values by clicking **Gendex Default**.

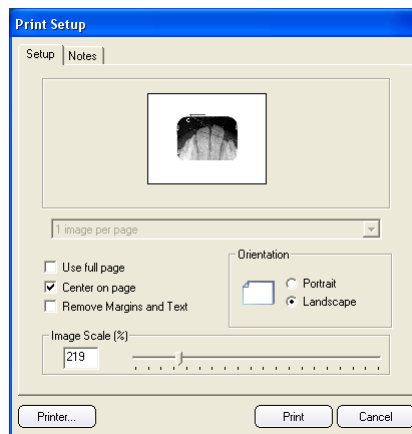
The Optimizer has different default settings depending on the image source (Orthoralix, DenOptix, or Visualix).

# Printing Images

## Windows Layout View

To print images:

1. In Windows Layout (**View > Windows Layout**), click **File** and then select one of the following:
  - **Load Images** – provides printing for more than one image.
    - Select **Status** or Browser mode.
    - Select the images to be printed (a green check mark is displayed on each selected image).
    - Click **Print**.
  - **Print** – allows printing of the currently displayed image.
2. Click the **Setup** tab.
3. If more than one image is displayed, select the number of images you want to print per page from the arrow selection box.
4. Select the checkbox for **Use full page** or **Center on page**:
  - **Use full page** - Resizes the image in order to cover the whole page.
  - **Center on page** - Centers the image on the page.

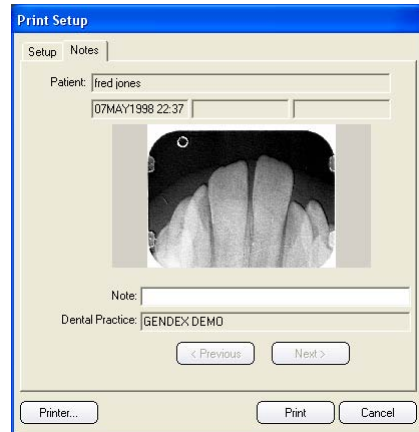


- NOTE:** The patient name, date, time of capture, notes and an indication of that an image is an original will be printed (unless **Remove Margins and Text** is selected).
5. If desired, select the checkbox to remove margins and text: the selection **Remove Margins and Text** removes all margins and text and prints only the image.
  6. Select the print orientation: **Portrait** or **Landscape**.
  7. When printing a single image, if you did not select **Use full page**, select the **Image Scale %** to adjust the image size.
- NOTE:** If the entire image cannot be printed (due to the paper size), the image is cropped around the paper center. A warning message will be displayed.
8. To select a different printer, click **Printer** and select the appropriate printer.
  9. Click **Print**. If you need to cancel the print operation, click **Cancel**.

## Notes

To add a note to be printed only with the current printout:

1. Click the **Notes** tab and enter the note.
2. When more than one image is being printed, use the **Next** and **Previous** buttons to switch or scroll between images.



To add a note that will be printed each time the image is printed:

- Right-click the image and select **Notes**, or select the image and click the Notes button on the status bar.



## Full Mouth View

Windows Layout and Full Mouth view have the same print window. The image shown in the print window will correspond to the image on the screen.

To print images in Full Mouth:

On the menu bar:

1. Click **File > Print**.
2. Select the print mode:
  - **Screen** - Prints a screen-capture image (the mounted image as seen on the screen).
  - **Mount** - Prints the full mount in high resolution by creating a single high resolution image.
  - **Selected images** - Prints the images you select and allows you to choose the number of images printed per page.
3. Click the **Setup** and **Notes** tab, make the appropriate selections, and then click **Print**.



## Loading Patient Images – For Windows Layout View

You can load patient images when you have patient images for an existing patient.

You must be in Windows Layout (**View > Windows Layout**) view to load patient images. The Load images window is not available in Full Mouth view as images are automatically displayed.

**NOTE:** You can also click the **Load Images** button to access the **Load Images** window.



To load patient images:

1. On the menu bar:
2. Click **File > Load images** to view the thumbnails of any images saved to the patient.
3. In the **Load images** window, make sure you are in the appropriate Status or Browser window. If the Browser button is displayed, then you are in the Status window. You can click **Browser/Status** to toggle between the Status and Browser window.

## Load Images – Status Mode

**NOTE:** You must be in Status mode to Modify, Export, Print, Email, or Delete images. The default load page will appear when you access **Load images**. To change the default load page (Status Mode), click **Options > Preferences > Settings > Image folder layout**.

To view, move, and modify image thumbnails in Status view:

1. In the **Load images** window, preview thumbnails of saved images that are arranged anatomically according to the tooth association. The thumbnails of images without tooth associations are displayed in the lower part of the window. The most recent image will appear to the far left corner of the **Load images** window.
2. To change the position of a thumbnail on the mount, drag the thumbnail to the desired position.
3. To browse through all images, use the scrollbar and select one or more images by clicking on the image. A green ✓ indicates the selected image(s).



4. Using the right mouse button, right-click a thumbnail to open and modify the notes associated with the image.
5. Click any of the following buttons to:
  - **Delete** – Deletes the last selected image (image with the eye symbol) from the VixWin database.
  - **Modify** – Allows changes and additions to the notes and tooth number associated to the image.
  - **Print** – Prints all selected images (images with the green check mark). This will open the print dialog box.
  - **Email** – Emails all selected images (images with the green check mark).
  - **Browser** – Switches from one modality to another.
  - **Export** – Exports the selected images.

**NOTE:** To enable the child teeth list, click **Options > Preferences > Teeth**.

6. Click **OK**. The load page will be closed and all selected images will be opened.

## Load Images – Browser Mode

**NOTE:** You must be in Browser mode to Modify, Export, Print, Email, and Delete. The default load page will appear when the Load images window displays. To change the default load page, click **Options > Preferences > Settings > Image folder layout**.

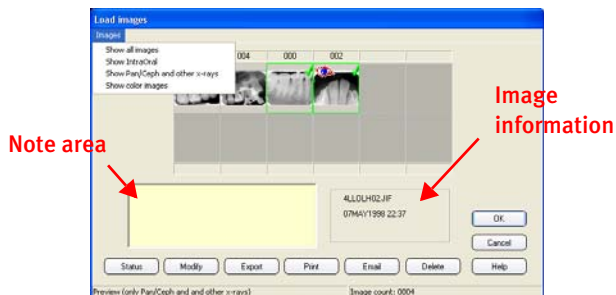
To view and modify image thumbnails in Browser view:

1. In the **Load images** window, preview thumbnails of saved images (up to 12 images will be displayed) that are arranged sequentially. The most recent image will appear in the upper left corner of the **Load images** window.
2. To browse through all images, use the scrollbar and select one or more images by clicking on the image. A green ✓ indicates the selected image.

**NOTE:** An eye-shaped mark indicates the last selected image.

Associated information - image information and notes - is displayed. (The notes may have

been added earlier. New notes can be added while the window is open and will be associated with the image the next time it is viewed.)



3. Click any of the following buttons to:
  - **Delete** – Deletes the last selected image (image with the eye symbol) from the VixWin database.
  - **Modify** – Allows changes and additions to the notes and tooth number associated to the image.
  - **Print** – Prints all selected images (images with the green check mark). This will open the print dialog box.
  - **Email** – Emails all selected images (images with the green check mark).
  - **Status** – Switches from one modality to another.
  - **Export** – Exports the selected images.
4. Click **OK**. The load page will be closed and all selected images will be opened.

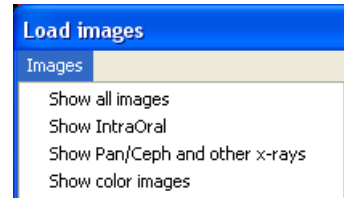
## Images

Additional functionality exists to display different types of images for viewing in the **Load images** window.

To show image type:

From the **Browser Load images** window:

1. On the menu bar, click **Images**.
2. Select one of the following:
  - **Show All Images** – Displays all patient images.
  - **Show IntraOral** – Displays only intraoral images.
  - **Show Pan/Ceph and other X-rays** – Displays only panoramic and cephalometric images.
  - **Show color images** – Displays only color images from a dental camera.
3. Click **OK**.



## Moving Images to and from a Different Patient

Occasionally, you may need to move images from one patient to another.

To move images from one patient to another:

1. In the Full Mouth view, drag the images into the Unassigned Image Bin. The images will be stacked and you will see the last image in the Unassigned Image Bin.
2. Select a new patient in VixWin or within your Practice Management software. Move all the images from the Unassigned Image Bin by dragging the images into the new image bin.



## Emailing Images

In Windows Layout view, email allows a user to email an image or all patient images by selecting **File > Send Email**. Multiple images can also be selected and emailed in the Status or Browser load pages.

In the Full Mouth view, you can also email the entire mount or the selected images by selecting **File > Send Email** or click the Email button.



VixWin uses the available PC email application to create a new electronic message with the selected image(s) attached to it in the preselected file format. The image(s) is emailed in the form seen on the screen, with all enhancements and annotations that the user has added.

To define the email application that you want VixWin to use, click **Start > Control Panel > Internet Options**. In the Programs tab, set the email application such as Outlook or Lotus Notes.

**NOTE:** The email function can only be used if your email software (Outlook or Lotus Notes) is properly configured on your computer. The email function does not operate with Outlook Express, web-based email accounts such as Hotmail, Yahoo, or any other web-based account.



# CHAPTER 6 Icons and Buttons

In VixWin icons are used on buttons to identify the purpose of the button and in windows to provide a visual reference regarding the purpose of the window. A standard set of icons and buttons appear on the Image Status bar.

## Image Status Bar

The Image Status bar is located in the lower part of the main VixWin window.










Patient Name	Date & time of capture	Image file name & file type	Image captured from	Tooth number
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The right section of the Image Status bar contains icons that serve as a quick reference for information specific to the image selected and buttons for commonly used functions such as notes, measurements, annotations, and the image dataset.



The icons and buttons found on the Image Status bar are described here:

Icon	Button	Description	Notes
		Indicates the image is an original and saved without compression.	
		Indicates the image was saved using a compressed format.	
		Double-click to open the tooth chart. The chart is used to assign or reassign tooth numbers.	A red X in the lower left corner of the icon indicates that a tooth number has not been assigned to the image.
		Double-click to open the notes window for viewing, modifying, or adding information to the selected image.	A red X in the lower left corner of the icon indicates that no notes are associated with the image.

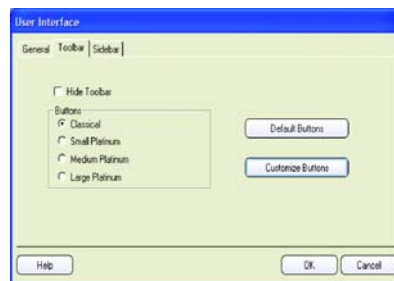
Icon	Button	Description	Notes
		Double-click to open the measurement tool to measure the length of a segment or set of segments.	Calibration using an object of a known size is available.
		Double-click to open the annotations toolbox.	A red X in the lower left corner of the icon indicates that no annotations are associated with the image.
		Double-click to open the Image Dataset window to view or modify the X-ray dose settings used to acquire the image (used in the Logbook module) and DICOM dataset.	

## Buttons on the Toolbars

The horizontal toolbar (located across the top of the screen), and the vertical sidebar (appears at the right side of the screen when an image(s) is displayed) contain buttons for most of the tools accessible from the top menu. Buttons are not available for the following tools:

- **Sharpen:** Select from the Image menu to enhance the edges of the selected image. Enhancing the edges results in an increase in the graininess of the image. (The filter is a high pass spatial filter.)
- **Smooth:** Select from the Image menu to apply a soft blurring filter to the selected image. (The filter is a low pass spatial filter.)
- **Area measurement:** Refer to the explanation found under the selections available from the Annotations menu.











You may hide or customize the toolbars separately. The customized toolbars are mode-specific: Changes made to either toolbar in Windows Layout view will not affect the toolbars in Full Mouth view and vice versa. Use the menu **Options > User Interface** to hide or show the various tools and to choose which toolbar the buttons will appear on.





















**NOTE:** Choosing the Classic set of buttons allows you to add buttons that do not match the look of the buttons described in the chart below.
















The current set of buttons is described here:











Button	Button Name	Description	Notes
	Help Contents	Click to access the Help information.	
	Windows Layout	Click to switch to the Windows Layout view.	
	New Mount	Click to access the Quick Mount Selector.	
	Full Mouth	Click to switch to the Full Mouth view.	
	Patient Folder	Click to open an existing patient folder or add a new patient folder.	
	Load Images	Click to load images.	This button is only available in Windows Layout view.
	Save Image	Click to save the selected image or treatments applied to an image.	This button is only available in Windows Layout view.
	Save All Images	For newly captured images that have not yet been saved, click to save all the images.	This button is only available in Windows Layout view.
	Close Image	Click to close the selected image.	This button is only available in Windows Layout view.
	Close All Images	Click to close all images.	This button is only available in Windows Layout view.










Button	Button Name	Description	Notes
	Exit	Click to exit the VixWin application.	
	Rotate Left	Click to rotate the image 90° to the left	Use to properly view an image according to the real orientation in the mouth (maxillary or mandibular).
	Rotate Right	Click to rotate the image 90° to the right.	
	Rotate 180°	Click to rotate the image 180°.	Use to properly view an image according to the real orientation in the mouth (Maxillary or Mandibular).
	Flip	Click to flip the image across the horizontal axis.	Use to correct an image that has been scanned incorrectly. Mirror/flip functionality is disabled for images from a CCD sensor.
	Mirror	Click to flip the image across the vertical axis.	
	Reverse	Enables the conversion of negative (black) into positive (white) and vice versa.	
	Grayscale Enhance	Click to control the entire grayscale of the image.	For brightness, contrast, and gamma.
	Equalize	Click to enhance the image contrast by maximizing the use of the available grayscale.	






Button	Button Name	Description	Notes
	Darker	Click to decrease the gamma effect in order to darken the image.	Gamma enhancements make the radiographic objects in a grayscale image more readily perceived than in an image using a linear scale.
	Lighter	Click to increase the gamma effect in order to lighten the image.	
	Annotation Toolbox	Click to open the annotations toolbox.	
	Emboss	Click to enable a spatial filter to simulate a 3D image.	
	Despeckle	Click to reduce the typical grainy or speckled appearance of X-ray images.	Reducing the speckled appearance results in a small loss in resolution.
	Optimizer	Click to apply the optimizer filter.	Default values for detail, intensity, and noise reduction depend on the type of image to which the filter is applied.
	Undo	Click to undo the last applied treatment.	Previously applied treatments remain.
	Undo treatments	Click to undo all treatments.	
	Colorize	Click to assign a color to each unique shade of gray to produce a pseudo color image of the selected image.	This function may enhance the detection of subtle differences in radiographic density.

Button	Button Name	Description	Notes
	Isodensity	Click to replace a range of gray shades in the selected image with a color.	The range of gray shades is selectable. This may be used to better visualize areas of uniform radiographic density.
	Histogram	Click to create a histogram showing the grayscale range of a user-defined rectangular area.	The rectangular area can be the entire image or a user-defined area within an image
	Gray Section	Click to create a diagram that shows the distribution of gray levels along a user-defined line.	
	Angle Measurement	Click to measure the angle between a pair of user-defined segments.	The accuracy of the angle calculation is limited due to image projection, magnification, and manual point selection.
	Length Measurement	Click to measure the total length of a segment or set of segments.	This tool can be calibrated using an object with a known length. The accuracy of the length calculation is limited due to image projection, magnification, and manual point selection.
	Magnify	Click to magnify areas within the selected image.	The user can change the size of the area that is magnified.
	Spotlight	Click to apply the equalizer filter to a user-defined area within the image.	The user can change the size of the area that is equalized.

Button	Button Name	Description	Notes
	Zoom +	Windows Layout view: Click to increase the zoom factor for the selected image.  Full Mouth view: For the selected image, click to toggle between viewing the image as part of the mount view and viewing only the image fit to the screen.	
	Zoom X1	Click to set the zoom factor to 1:1.	Only enabled when the selected image is viewed at a magnification level other than 1:1. Available in Windows Layout view only.
	Zoom -	Windows Layout view: Click to decrease the zoom factor for the selected image.  Full Mouth view: For the selected image, click to toggle between viewing the image as part of the mount view and viewing only the image fit to the screen.	
	Fit to screen	Windows Layout view: Click to fit the selected image to the screen.  Full Mouth view: For the selected image, click to toggle between viewing the image as part of the mount view and viewing only the image fit to the screen.	
	Soft Tissue Filter	Click to apply the soft tissue filter to the selected image.	For cephalometric images only.
	Show/Hide Marks	Click to show/hide marks on the selected image.	

Button	Button Name	Description	Notes
	Copy	Click to copy the selected image.	Copies the image to the Windows clipboard.
	Paste as X-ray image	Click to paste the image as an X-ray image.	Both color and grayscale images are pasted as grayscale images.
	Paste as color image	Click to paste a color image as a color image.	
	Export	Click to export the selected image(s).	
	Import	Click to import an image(s).	
	Send Email	Click to send the selected image(s) in an email.	
	Print	Click to print the selected image on the default Windows printer.	The Print dialog box does not open.
	Camera	Click to open the camera window.	Window opens only when camera driver is set to Video for Windows or Direct Show.
	Optical Scanner Acquire	Click to start the scan operation for the selected TWAIN driver.	Select File > Optical Scanner Select to select the driver.
	DenOptix Scanner	With the driver for the DenOptix Scanner installed, click to start the scan operation.	Refer to the DenOptix Scanner user manual for more information.

Button	Button Name	Description	Notes
	DenOptix QuadSpeed	With the driver for the DenOptix QuadSpeed (scanner) installed, click to start the scan operation.	Refer to the DenOptix QuadSpeed user manual for more information.
	Calculator	Click to display the Windows calculator.	
	Keyboard	Click to display the VixWin keyboard icon in the top left corner of the screen.	To display the keyboard, click the icon.
	Logbook	Click to display the Logbook.	Installed as a separate module, the Logbook is a radiation dosage reporting tool for VixWin Platinum.
	CCD Sensor	Click to enable or disable the electronics for the Visualix Frame Grabber sensor.	This button is enabled only when the Frame Grabber card for the sensor is detected. Always disable the sensor electronics before moving the sensor from one computer to another.
	SmartCeph	Click to launch the SmartCeph program (program must be installed).	The SmartCeph program is not available in the United States or Canada.
	Word Bridge	Click to launch the Microsoft Word program.	Microsoft Word must be installed.
	(User-specified program bridge)	Click to launch a user-specified program (program must be installed).	
	(User-specified program bridge)	Click to launch a user-specified program (program must be installed).	

Button	Button Name	Description	Notes
	(User-specified program bridge)	Click to launch a user-specified program (program must be installed).	
	Send to PACS	Sends the selected image to a DICOM storage PACS.	Only available if the VxDICOM module is installed.
	Send All to PACS	Sends all displayed images to a DICOM storage PACS.	Only available if the VxDICOM module is installed.
	PACS Query/ Retrieve	Opens a window from which to query and retrieve patients and images from a DICOM storage PACS.	Only available if the VxDICOM module is installed.
	Print to DICOM	Prints images to a DICOM printer.	Only available if the VxDICOM module is installed.



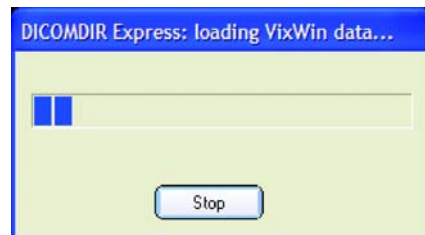
# CHAPTER 7 DICOM DIR

Your VixWin Platinum imaging software is a DICOM 3.0 standard compliant application. VixWin Platinum features DICOM DIR (directory), a function that allows you to import and export images in a DICOM format and to exchange images and patient information according to the DICOM 3.0 standard.

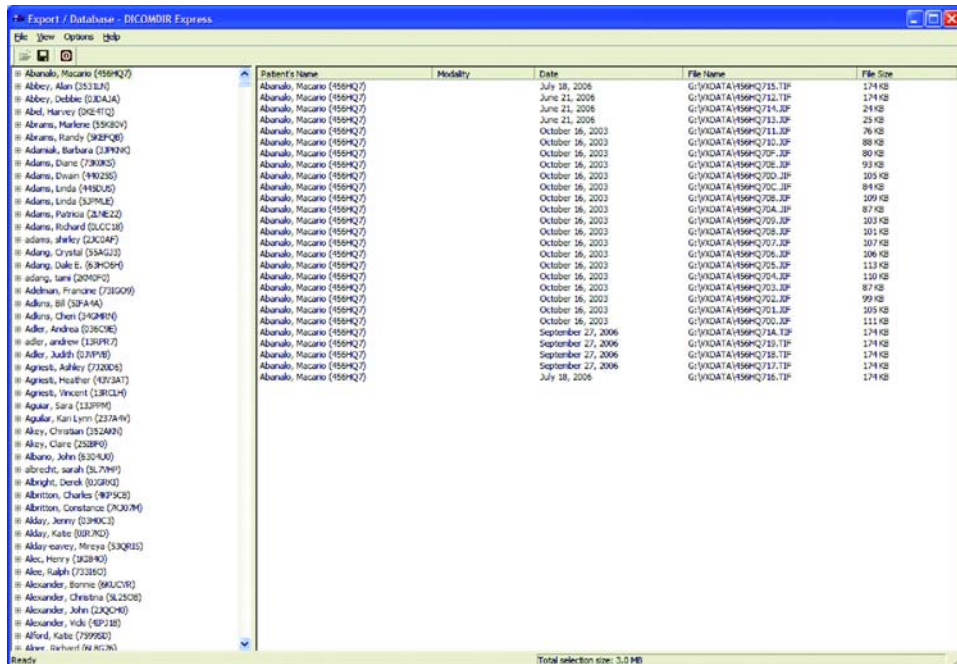
## DICOM DIR Export

To export all studies, a patient study, or an image for a selected patient in a format compliant to the DICOM 3.0 protocol:

1. Select **File > DICOM Export**. As the VixWin data is being loaded, the progress of the loading process is reported in a window similar to the one shown here:



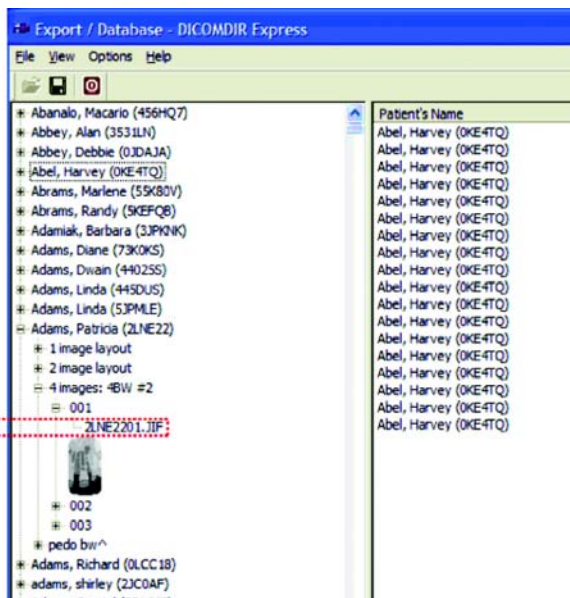
When completed, the window that appears displays the patients' names.



2. Select the patient name, the study name, or the image name:



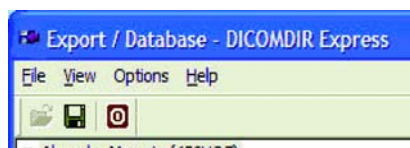
To export an image, expand the study directory to see the list of images. Select the name of the image:



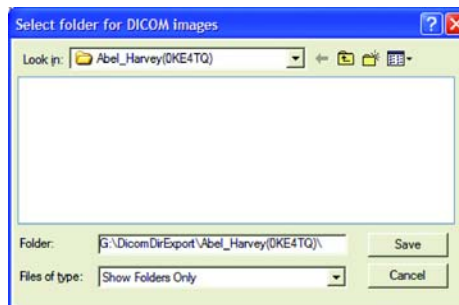
**NOTE:** To see the thumbnail images, click on **Options** on the menu bar and select the checkbox **Show Thumbnails**.



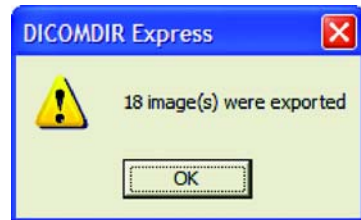
3. Click on the **Save** button.



4. In the window that opens, browse to find the location of the folder to which the image(s) should be exported:



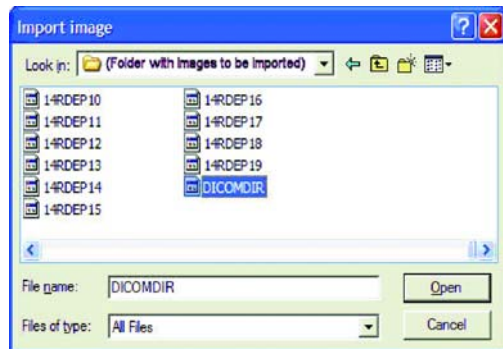
5. Click **Save**. A window reports the number of images exported.
6. Click **OK**.



## DICOM DIR Import

When DICOM images are imported, they can be stored in the VixWin Platinum image database. To import DICOM databases, studies, series and images compliant to the DICOM 3.0 protocol:

1. Select **File > DICOM Import**.
2. From the folder that contains the images to be imported, scroll to locate and select **DICOMDIR**.
3. Click **Open**.



# CHAPTER 8 VixWin Mount Editor

The VixWin Mount Editor is separate from VixWin Platinum. It is used to create, edit, and delete mounts. To access the Mount Editor you must have selected a patient and be in Full Mouth view. The following topics are discussed:

- Customizing Mounts with the Mount Editor
- Imaging Plates
- Additional Mount Information.

## Customizing Mounts with the Mount Editor

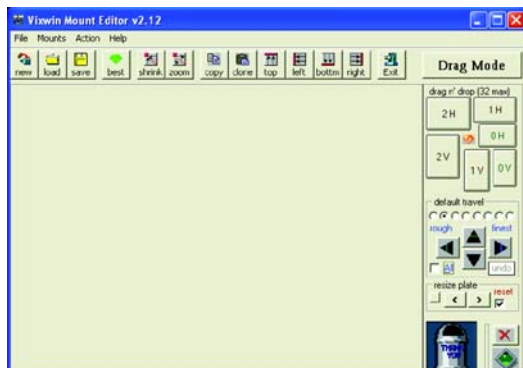
VixWin Platinum comes with many mounts already defined for you. You can also design your own mounts, or modify the existing mounts, by using the custom mount feature.

To customize mounts:

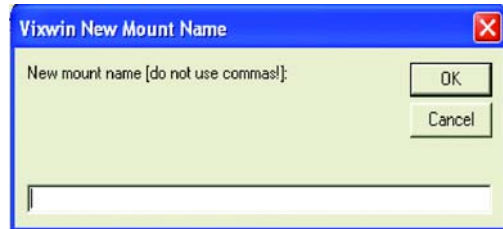
1. Click **Full Mouth Series > Customize Mount**.



2. After the Mount Editor launches, click **New**.



3. Enter the New mount name (use a unique name) and click **OK**. This name will be displayed in the mount list.
4. Design your new custom-mount while in Drag Mode by dragging the imaging plates from the right side of the editor. From the action menu you can:
  - Resize the plates (optional).
  - Rotate the plates (optional).
  - Move the plates as close as possible.
  - Move the entire template to upper left corner.
  - Enlarge the template to fit the screen.
  - Assign the load sequence (optional).
  - Assign the rotation (optional).
  - Assign the tooth numbers (optional).
5. Save the new mount when finished.



## Imaging Plates

Imaging Plates are an important aspect of the mount mode.

### Resizing Imaging Plates

To resize an imaging plate(s):

1. Click **Drag Mode** to toggle to the **Select Mode**.
2. To enlarge only one plate, select an existing imaging plate and click **Action > Image Plate > Conversion**.
3. Click on the needed conversion.
4. To create a custom sized plate, click **Action > Image Plate**.
5. Select **Action > Larger (+5%)** or **Action > Smaller (-%5)** or use the resize plate arrows on the right side of the Mount Editor.
6. To copy the imaging plate attributes, right-click the imaging plate that has been resized. Select **Copy Attributes** or click **Action > Image Plate > Copy Attributes**. To resize an additional plate with the same attributes, right-click

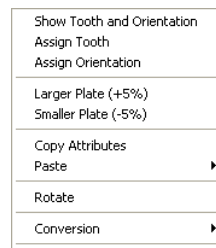
the imaging plate. Select **Paste > Height-Width (Clone)** or **Action > Image Plate > Paste > Height-Width (Clone)**.

7. If you want to resize the mount, click the small command button under the word **resize** to toggle between **resize mount** and **resize plate**. Use the **resize plate** arrows on the right side of the Mount Editor.

## Rotating Imaging Plates

To rotate an imaging plate:

1. Click **Drag Mode** to toggle to the **Select Mode**.
2. Right-click on the plate and select **Rotate** or click the plate and click **Action > Image Plate > Rotate**.



## Moving the Imaging Plates

To move the plates:

1. Select and drag the plate.
2. In the select mode, click the plate to move. Use the 4 directional buttons on the right side. Set the precision from roughest to finest. To move all the plates at the same time, select **All** and use the 4 directional buttons.
3. To toggle modes (**Drag/Select**), use the menu toggle.
4. Make sure the mount aligns to the top left corner, as compact as possible, with reduced gaps between plates to avoid losing space on the screen, and consequently shrinking the images. The **Drag/Select** toggle is the second most important menu item within the Mount Editor.



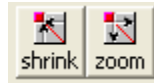
## Deleting an Imaging Plate

Drag any unwanted imaging plate onto the recycle bin. A brief, animated bloating will confirm the operation's success.



## Additional Mount Information

### Enlarging the New Template



Use the shrink/zoom buttons to enlarge (or reduce) the new mount in order to fit the available space.

Make sure the new mount is large enough to fit the entire space available for larger images and better viewing.

### Assign Tooth Number



To maintain compatibility with the Windows Layout view and especially with the Load Image dialog, a tooth number can be assigned to a mount position. For new mounts, assign the tooth number(s) after creating the mount. For mounts created previously, assign or reassign the tooth number(s) after opening the mount from **Mounts > Modify**.

To assign the tooth number:

On the Toggle menu:

1. Select the **Select Mode**.
2. Using the right mouse button, right-click the imaging plate.
3. Select **Assign ToothID**.
4. Select the tooth number.
5. Toggle, if needed, the upper or lower arch with the 2 radio buttons on the right side.

**NOTE:** You can assign multiple tooth numbers to the same imaging plate (up to 8 IDs). When completed, click **OK** to confirm.

6. Repeat for each imaging plate.

### Assign Acquisition Sequence

When capturing images directly into the mount, VixWin loads the images into the mount based on the sequence (**Options > Preferences > Full Mouth/Direct Capture scan**). The sequence number is displayed in the empty template in VixWin. The next sequence number is highlighted in the mount.

To assign or edit the sequence:



1. Click **Action > Show-Set > Set Load Sequence** or click the green diamond next to the Recycle bin.



2. A large number 1 will overlay the recycle bin, indicating the sequence number that needs to be assigned.
3. Click the imaging plate that will be first in the sequence.
4. A large number 2 will then appear. Click the imaging plate that is to be next in the sequence.
5. Repeat until all the imaging plates are assigned a sequence number. Click the large number to stop the sequence assignment.
6. Click **Save** to save the mount.

**NOTE:** When creating a new mount, the sequence is initially defined by the order in which the new plates are dragged.

#### Examples with DenOptix scanner:

With the DenOptix carousel, the sequence is defined by the imaging plate position on the carousel.

To scan 4 bitewings, we recommend loading the 4 imaging plates in the right order in the positions 1, 2, 3, and 4 of the carousel.

## Assigning Load Sequence

By default, images are loaded into the mount positions starting with the lowest numbered carousel position, followed by the next lowest numbered carousel position, and so on until all the carousel positions have been loaded into mount positions.

For example, with image plates in four carousel positions, the default mount positions are as shown at right:

From Carousel Positions			
Lowest numbered	Second lowest numbered	Second highest numbered	Highest numbered
Mount Position 1	Mount Position 2	Mount Position 3	Mount Position 4

To change the load sequence to the one shown in the sample mount shown below, using the VixWin Mount Editor, select **Action > Set Load Sequence**. Click on each mount position to set the new sequence.

1. Click on mount position 1 to load the image plate from the lowest numbered carousel position.
2. Click on mount position 4 to load the image plate from the second lowest numbered carousel position.
3. Click on mount position 2 to load the image plate from the second highest numbered carousel position.
4. Click on mount position 3 to load the image plate from the highest numbered carousel position.

From Carousel Positions			
Lowest numbered	Second highest numbered	Highest numbered	Second lowest numbered
Mount Position 1	Mount Position 2	Mount Position 3	Mount Position 4

## Assigning Automatic Rotation

Assigning automatic rotation ensures that all images acquired in a mount will be automatically rotated so that you do not need to orientate the image after the acquisition.

To assign automatic rotation:

1. Using the right mouse button, right-click the plate and select **Assign Orientation**.
2. Select one of the following options according to the image rotation.
  - 0%
  - 90%
  - 180%
  - 270%
3. Click **OK**.



## Saving the New Mounts

**NOTE:** Saving the new mount is mandatory. There is no autosave and no prompt to save.

To save the new mount, click **Save**.

## Using the New Mount in VixWin

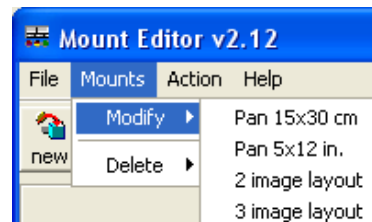
To create a new mount:

1. Click **Exit** to exit the VixWin Mount Editor.
2. Run VixWin and create a new mount. The new template will be at the top of the Other mounts list.

**NOTE:** If still in VixWin, refresh the mount list by exiting Full Mouth. Click **View > Windows Layout**, then return to **View > Full Mouth**.

## Modifying a Mount

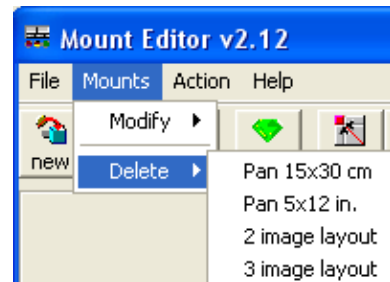
1. Click **Full Mouth Series > Customize Mount**.
2. After the Mount Editor launches, click **Load** or click **Mounts > Modify** and select an existing mount from the list.
3. Add, delete, move and resize any of the imaging plates.
4. When completed, click **Save** to save the modified mount with a new name.



## Deleting an Existing Mount

To delete a mount:

1. Click **Mounts > Delete**.
2. Select a mount from the list. Click **Yes** to confirm the deletion.



## Advanced Functions

You can align and resize image plates using the Copy and Paste functions:

When creating custom sized imaging plates, the plate attributes can be copied and pasted to another plate.

To use create custom image plates:

1. Select the **Select Mode** (Important!)
2. Using the right mouse button, right-click the imaging plate, and select **Copy Attributes**. Right-click the imaging plates to modify and select **Paste**:
  - **Height-Width** to assign the same size
  - **Top Align** to align both imaging plates with the top of the first one

- **Left Align** to align both imaging plates with the left side of the first one
- **Swap Positions** to swap the plates
- Tip 1: Use the **Copy** and **Paste** buttons to quickly copy and paste the height and width.
- Tip 2: Use the **Copy** and **Top** or **Left** buttons to quickly align imaging plates.



# CHAPTER 9 VixWin Logbook

Installed as a separate module, VixWin Logbook is a radiation dosage reporting tool for VixWin Platinum. It can be used to display and print reports of x-ray parameters (kV, mA, msec, and dose) for selected patients' images.

## Open the Logbook

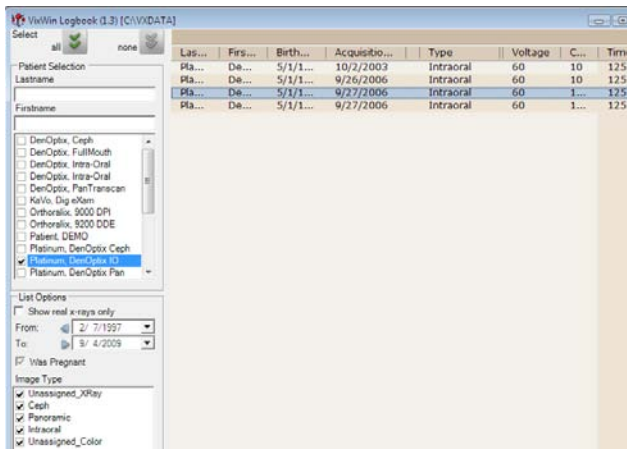
To open the Logbook:

Click the Logbook button or choose **Tools > Logbook**.



VixWin Logbook opens in its own window.

An alphabetical list of patients is displayed on the left-hand side of the Logbook window. The patient currently active in VixWin Platinum is selected by default.



A list of images belonging to the selected patient(s) is displayed on the right-hand side of the Logbook window.

## Using the Logbook

Search for patients by entering the start of their last or first name in the text boxes provided. It is possible to select more than one patient by checking multiple patients in the list. Click **all** to see the complete list of images for all patients.

The list includes only those images that meet the criteria defined under **List Options**. Images can be filtered by date ranges and image type.

- If **Show real x-rays only** is checked then only x-ray images acquired from known Genex devices are displayed.

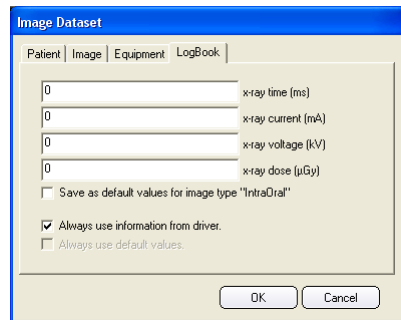
- Successively clicking **Was Pregnant** filters images for pregnant/non-pregnant/all patients.

A report of the images of interest can be printed to a standard Windows printer by clicking the Print button. The print will take a long time if many images are displayed.

## Configure X-ray Parameters

X-ray parameters are saved by VixWin together with the images. To configure or set x-ray parameters from within VixWin, right click an image, choose Image Dataset from the pop-up menu, then select the Logbook tab.

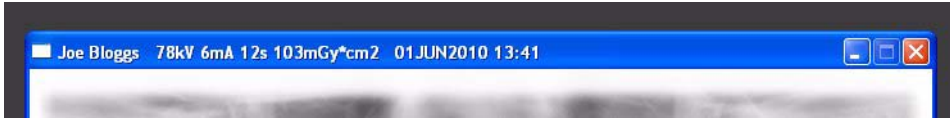
- Some GxPicture products can pass x-ray parameters to VixWin through GxPicture. Select **Always use information from driver** on the Logbook tab to enable this functionality.
- The kV, mA, msec, and dose can be set for the selected image in the Image Dataset dialog box. To save the entered parameters as default values for the image type (i.e. intraoral, panoramic, cephalometric, etc) select **Save as default values for image type '...'** on the Logbook tab.
- To associate the default values to new images, select **Always use default values** on the Logbook tab.





# CHAPTER 10 DAP (Dose Area Product)

VixWin stores and displays DAP (Dose Area Product) values from DAP-enabled Orthoralix 8500 and 9200 machines. The DAP value, with units  $\text{mGy}\cdot\text{cm}^2$ , is displayed in the image title bar (Windows Layout), or at the bottom of the image (Full Mouth Layout).



To toggle the display of DAP values, choose **Imaging Devices > Orthoralix DDE > DAP Settings**. The default is ON (checked).

**NOTE:** Display of Dose Area Product is required by some countries. Although the display of DAP can be disabled, users are required to ensure that local regulations do not prohibit this operation.



# CHAPTER 11 Database



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**CAUTION**

It is very important that you regularly back up the entire VixWin database (image and patient database files) on a backup volume (LAN, removable hard disk, or tape drive) in order to be able to restore the information in case of a computer crash or fault.

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When VixWin is configured with a stand alone database, the database files are saved in the [User selected drive]:\VXDATA directory. The directory contains the complete database of image and patient data.

When VixWin is configured in bridge mode, the database directory is configured by the Patient Administration software. The default directory is [Drive]:\VXIMAGES but it is often named differently and it often contains sub directories, each containing image and patient data files.



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**CAUTION**

Be sure to backup the complete database, including all the patient and image data files.

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## Restoring a Database

In case of the loss of a database, you can restore it by copying back the whole set of files to the database directory.





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