

ENDODIGI DIGITAL DATA CAPTURING SYSTEM

INMANUIN193USER'S MANUAL V.22.03.28



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INTRODUCTION

Image diagnosis techniques have become very important tools for the different medical areas.

The ENDODIGI Digital Data Capturing System was designed to capture video, images and sound.

The content of the manual describes the procedures recommended to install and use the ENDODIGI. It has all the necessary information regarding the appropriate care and handling of the equipment.

Should you have any doubt about the content of this manual or the operation or safety of the equipment, please contact your local distributor or the closest ECLERIS office.

If in doubt, contact your service technician or local representative for help



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The ECLERIS ENDODIGI has the CE mark, which shows it meets the 93/42/EC Directive from the European Council, related to medical appliances. The MDD equipment classification is I.

TECHNICAL SPECIFICATIONS

Equipment: Digital Data Capturing System Model: ENDODIGI		
Equipment class	I	
Model	Standard Definition	High Definition 1080p
Video input	Video in base band. Equipment Connector: RCA socket.	HD HDMI Video Input
Video output	None	None
TV System	NTSC y PAL	1080p – 720p
Interface	USB 2.0	USB 3.0
Resolution	24 bits (RGB)	
Definition	Preview 1024-768 Still Image 640H – 480V Video 640H – 480V	Preview – Video and Images up to 1080p 60 fps
Capture formats	JPEG (Images) – WMV9 MPEG4 Encoder (Video) WMA 9.2 (Audio)	JPEG (Images) MP4 – H.264 (Video)
Service conditions	+10 - +40 °C(50 – 104°F) 30-75% (ambient relative humidity) 700-1060 hPa	
Storage and transport conditions	-30 - +45 °C(-22 – 113°F) 10-95% (ambient relative humidity) 500-1060 hPa	
Weight (cabinet)	0.2 Kg.(0.44Lb)	0.2 Kg (0.44 Lb)
Dimensions (cabinet)	9 X 3.6 X 2.2 cm (depth width high)	9 X 3.6 X 2.2 cm (depth width high)

SYMBOLS



Read the related documentation.



Attention!



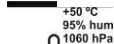
Alternating current



Protect against water



This side up



+50 °C
95% hum
1060 hPa
-30 °C
10% hum
500 hPa

Environmental transport conditions



Fragile



Manufacture identification
(Name, Address)



Type B



Do not discard with the household waste



Serial number

I

On



OFF



Manufacture date
(MM/YYYY)

USAGE RECOMMENDATIONS

This user's manual is a part of the instrument and should be read before the installation. Exact adherence to the instruction manual is a prerequisite for the perfect and intended functioning of the equipment

Only personnel with proper training (skilled personnel) should operate the system ENDODIGI.

If as a consequence of:

- Inadequate use of the equipment
- Poor care and maintenance of the equipment
- Repair and manipulation by unauthorized personnel

Any material or personal damage is caused to third parties, ECLERIS, the manufacturer and the supplier of the equipment, shall not assume any liability for such damages

HARDWARE



For HD Device, see the section HD External Recommendations.



The equipment is not conceived for operation in potentially explosive rooms or flammable atmospheres (anesthetic mixture with air, oxygen or nitrous oxide).



Do not connect the equipment to a HUB USB and/or share the USB BUS with any other active devices. This can cause data loss.



If possible, do not use the front ports of desktop PCs since normally they are not correctly assembled



You cannot use USB.



The ENDODIGI must be used with a medical grade computer. The PC must be connected to an electrical installation correctly protected and equipped with a protective earth.



The equipment should not be installed in the vicinity the electro medical and/ or electrical equipment (X-ray equipment, motors, transformers), since electric or magnetic interferences may affect its performance.

SOFTWARE



Read installation instructions before installing the equipment.



Check in Control Panel/regional configuration/Number that the decimal symbol is a dot “.” and not a coma “,”.



Do not turn off or disconnect the equipment if the software is registering, this will make Windows discharge the drivers whilst they are being used and will produce an error. If this occurs, reset the PC.

To record real-time video or still pictures, the machine requires most resources, therefore follow these advices:



It is recommended close all other applications to starting to record a video. They usually slowing down the machine so that an unexpected timeout somewhere may occur leaving the video interrupted. But if in spite of close all currently running programs, you have trouble. Should be disabling (NOT Uninstall) the following applications temporarily:

- Antivirus
- Disk defragmenters
- Index finders, especially Microsoft Indexing Service (previously Microsoft Office Fast Find Index)
- Task planners
- Screen-state indicators Antivirus



Don't use the CD/DVD-ROM while videos recording



Keep the hard disk clean. Disk write is classified as sequential or random. Hard disks reach their top performance when they write in sequence mode. Random on the other hand, involves large numbers of seeks and rotations, and is usually much slower:

Execute the disk defragmenter and check that free-space is not fragmented. The existing files fragmentation is not important but it is important the free-space fragmentation.

Always have extra free-space in the disk. The fragmentation worsens a lot when there is only 5-10% free on the hard disk.

ENDODIGI 'S OVERVIEW

SOFTWARE FEATURES

ENDODIGI allows you to capture videos in real time, still images (pictures) and store sounds.

The simple installation and operation equipment, the exclusive remote system by foot switch or wireless device and the user-friendly program allows use the ENDODIGI without any help.

The database stores images, videos and sounds together with the patient's clinical file. The capture stored can be edited with image and video internal editor. Moreover, it allows you to import and export images, video for a later edition and analysis on another environment.

The system stores a pathologies list that can be associated to the patients. This can be used to generate a simple statistic (not available in ENDODIGI Client) by pathologies.

The printing options are varied, allowing the selection of images to print, the quantity of images per page, size, etc. ENDODIGI allows the user to prepare elegant reports and to print with any printer.

You can create templates to fill out, that minimize the time when completing a report.

Is possible make web publications to share with patients and colleagues, reports, images and / or videos over the Internet. You can also export reports to PDF and store it in a physical environment.

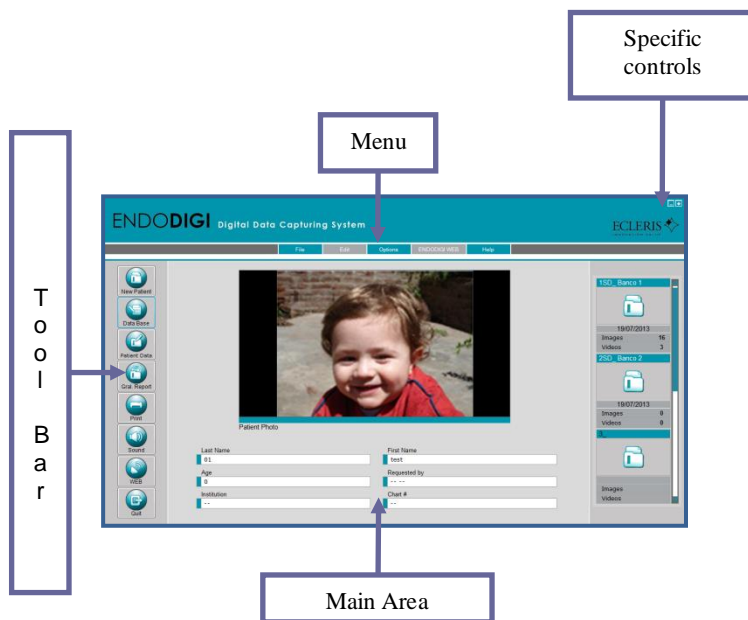
The system also provides tools to do backup and retrieve data, protecting important information on patients and its studies.

Version ENDODIGI- server: This allows to different users (client) accessing, expanding and modify patient data in a single data base (server)

GENERAL DESCRIPTION

The windows of the program were specially designed following an intuitive and easy-to-use format. They are divided as follows:

- A Menu (up)
- A tool bar (left) where the buttons allow performing different functions.
- A main area (center) where you can find buttons, labels, edition controls, graphics, etc., to perform the study itself.
- Specific controls (right) of each window.
- In the client version there is a status bar that describes the server state connection and data transfers

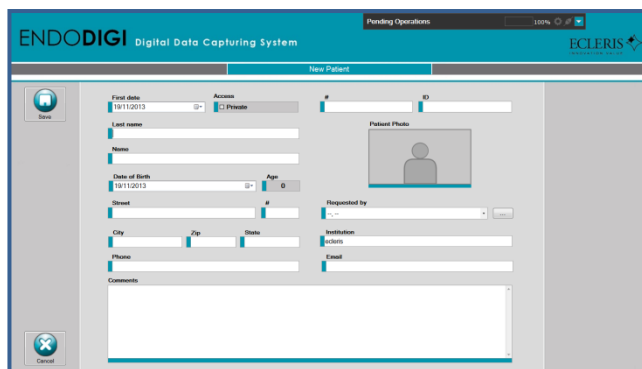


Minimum resolution is 1280 x 720 pixels. True Color (24 or 32 bits).
To change resolution settings, see: Advanced Options: Screen Resolution.

RUNNING THE PROGRAM

Upon program startup, a patient chart is opened. Fill out a new profile and case history of patient and save it.

If you cancel the patient chart, must open a new from to **File→New Patient** menu. It allows creating a new Patient Profile. To find an old Patient Profile must go to database.



The screenshot shows the 'New Patient' form in the ENDODIGI Digital Data Capturing System. The form is titled 'New Patient' and includes the following fields and options:

- First date:** 10/11/2013
- Access:** Private
- #** and **ID:** (empty text boxes)
- Last name:** (empty text box)
- Name:** (empty text box)
- Date of Birth:** 10/11/2013
- Age:** 0
- Street:** (empty text box)
- City:** (empty text box)
- Zip:** (empty text box)
- State:** (empty text box)
- Phone:** (empty text box)
- Comments:** (empty text area)
- Requested by:** (empty dropdown menu)
- Verification:** (empty text box)
- Actions:** (empty text box)
- Email:** (empty text box)

There is a 'Patient Photo' placeholder image on the right side of the form. The interface includes a 'Save' button on the left and a 'Cancel' button at the bottom left. The top of the window shows 'Pending Operations' and '100%' zoom level. The logo 'ECLERIS' is visible in the top right corner.

In the client version has the option to create privately Patient Files, which are not transferred to the server.

MENU

FILE MENU

New Patient: Create a new patient chart. In the new file should be enter the patient's name and other data from study (optional). The date is auto filled out. Once the file is completed, save the data to continue. To return to the main window, select

Patient data: To edit or add patient data.

Sound: Capture sound (See section: Working with Sounds)

Data Base: allows retrieving a file, which is already stored in the database for its analysis, review or printing

Users: Manage the user's data to access the software. (See Uses Management)

Statistical: to generate statistics by pathologies. See section: Performing pathologies statistics. (Not available in ENDODIGI Server)

Print: Access to the Print Window. (See section: Printing Images and Printing a report)

Quit: Closes the program.

EDIT MENU

Templates Builder: This function allows writing standard reports to save it as templates. They will be available to be loaded to the patient's file every time it is desired. This option will allow the standardization of all patients' reports.

Cropping: The Crop Tool is usefully to trimming dark areas. This is often used to remove unwanted areas on your printings. It allows you to save time and ink. (See section: Printing a report).

OPTIONS MENU

Languages: The ENDODIGI interface is available in English, Spanish and Italian. To changes language, click "the selected Language" in the pull-down menu, and reset the program.

Data Base Pathology: This database is an organized collection of Pathologies. The data is typically organized for statistical purpose. See section: Performing pathologies statistics.

Data Base Professional: Adding, edit or delete professionals from a list. See section: Data Base Professional

Image Library: Allow creating an Image Collection (injuries, tests, treatments and surgery procedures and human anatomy). They can be widely used to the patient education and health care professionals or to build enriched reports.

Screen Setup: A "wizard" allow you to customize your window settings to fit the screen desktop or use full screen setting.

Digital Setup: The digital setup allows selecting the ENDODIGI functioning mode. See section: Digital setup.

Security options: options for managing user access and activities monitoring. (See User Management session)

User management: add users individually or create work groups

Activity tracking: allows tracking the actions of users within the software.

Clear list of recent user: deletes the list of recent users.

Unknown user: Default general user is set, without key and global access. Disable means that the software starts without a user default (unknown) and should login a user to use it

Associate with window s user: Associate the Windows user (operating system) to the current user Endodigi. WMI and net are two technologies to search the Windows user.

ENDODIGIWEB MENU

ENDODIGIWeb: opens a wizard to publish their reports, videos or images. To use it, you need to have a connection to the Internet and you must create an account. See: Advanced Options: ENDODIGIWeb Publication.

HELP MENU

About ENDODIGI: Software version Information.

Remote support: User-friendly assistance for individuals having technical problems with ENDODIGI. The technical support team is able to troubleshoot most problems that a user experiences. Technical support may be provided, through email, or with remote interface

HD USB 3.0 - Activation

Start

Email

Important: Complete with a valid email. We will communicate with you to this email.

Serial number (is the number on the pendrive label)

Important: Complete. We use in case of activation problem.

Automatical

Using remote support.

Manual. It involves 3 steps, requires access to a PC with internet and request for remote support from that PC.

Select an option and press the Start button

Back

TOOLBAR



New Patient: Load a new patient's data file.



Data Base: Allows search, retrieve and delete patient files stored, and backup each one of them (See Data base – Patient Data)



Patient Data: Allows filling data gaps or changing and adjusting this data (See Data base – Patient Data).



Main Report: (See Performing a Report) Allows create a main patient report accessing to all banks. See section: Advanced Options: Templates builder.



Print: Access to print screen the reports and pictures, saved on different visit. See: Printing a report.



Sound: Sound recorder windows and working with sound. See section: Working with sounds.



WEB: Access the exporter ENDODIGIWeb assistant.(See: Advanced Options: ENDODIGIWeb Publication)

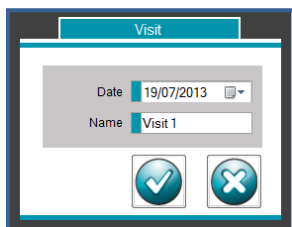
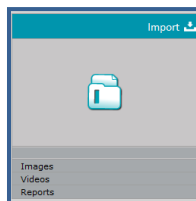


Quit: Exit the program

STORING IMAGES AND VIDEOS

FOLDERS VISITS

The folders at right on main window allow storing image and videos. From the functional point of view the users can to work more efficiently and orderly.



Open a folder, to capture video and / or images, clicking on it (visit). Then a dialog-box will appear to identify folders with name and date. (I.e. Name: Vocal cords)

This facilitates the storage of images taken at different times, thus enabling the assessment of treatment outcome.

Press **√** to accept or **X** to exit without saving.

After create a folder, you can add images or videos on it. The images and videos quantities can be seen on the each folder bottom

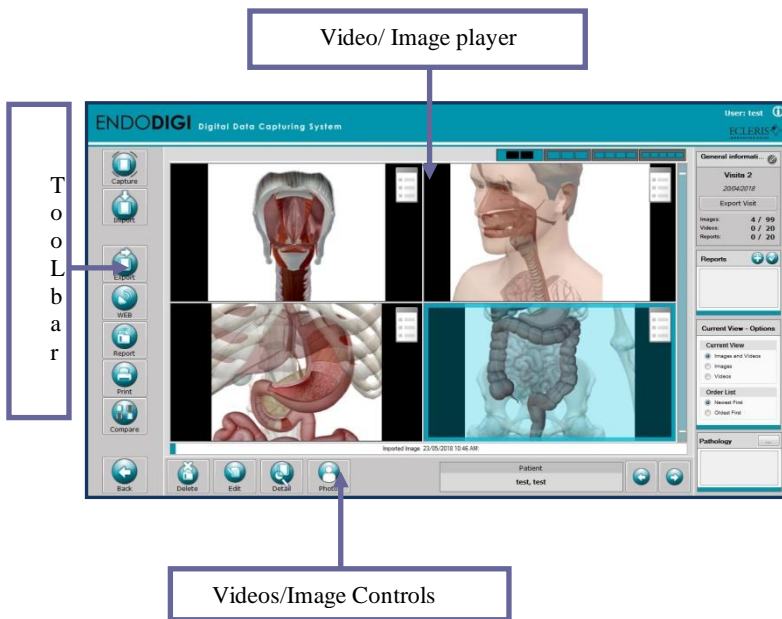


To modify or rectify the Folder name and date, enter to the visit and select general information.

Visit Delete: Deletes the visit with all its contents. The option appears when the folder has been created. (Not available in Endodigi Server)

Import: If the folder has not created yet, the import option will be enabled. It lets you add a visit that was previously exported from ENDODIGI by Export Visit option.

Once you select a visit folder, a window to capture (image or video) is opens. The session always starts in the Video Mode, to change it clicking on the Image tab. The central viewer offers a preview of still image or video recorded.



Note: you can enter to capture in:

Image Mode: The footswitch is set up to capture images.

Video Mode: The footswitch is set up to start/end the video records

Video and image Mode: The footswitch is setup to record either video or images according a time fixed

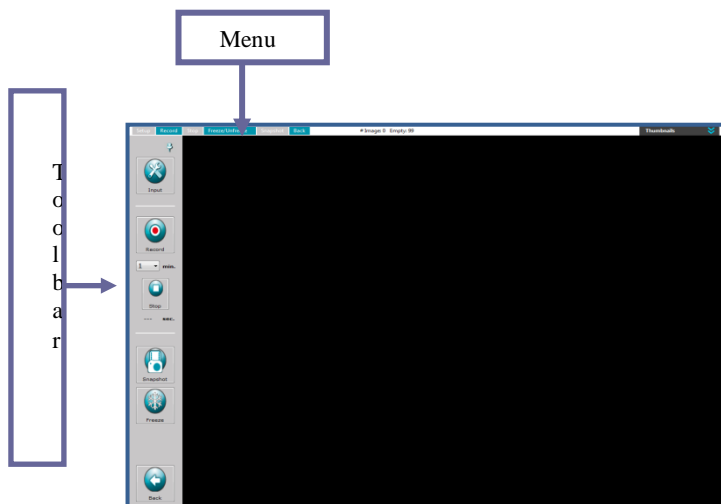


The ENDODIGI is installed by default with the "Capture sound" option disabled because this option needs to be set. You can turn on this option from "Options/ Digital Setup". See Digital Setup

CAPTURING STILL IMAGE AND VIDEO



Pressing the button Capture (Video or images mode) will enter the window that displays video signal in real time. This window has a menu and a toolbar wherever allow you to set up acquisition, and you can get both pictures as full motion records and storing them on the visit's folder.



TOOLBAR



Show: The screen shows the toolbar always visible.



Hide: You can hide the toolbar to create more space. The toolbar is hidden from view. You can see it again by pointing to upper right



Input: Show a window that allows select the input.



Record: Starts the full motion recording or the image capture. From below dropdown menu, you must set the recording time, to each video clips.

When the Record button has been activated, it will flash until recording time is reached, or until you press the Stop recording button.



When ENDODIGI starts recording, the record button and the toolbar, blink to denote that recording is in progress and the timer is start ticking.



This popup menu lets you select the limit time (in minutes) for the recording a video. The selected time will be the default for the next record



Stop: This button allows you to end the video recording in anytime, even before the ending timed.



Snapshot: Save the freeze picture on the current file.
Images #: Amount to saved images



The blinks button to denote that a new picture was captured and the superscript number is a frame counter.



Hot key:
Spacebar: Analogous to Snapshot button.



Freeze/Unfreeze: Stop the video signal, so you can get a preview before take a snapshot. To unfreeze the image video press the Unfreeze button.



However, you can later turn videos into photos by using Snapshot function (See: Working with videos: Snapshot)



Target: add a grid, over the picture, whose aim is to plot areas over it. (See Targets)



Back: returns to the Videos and Image window.



Overlay (HD *External USB devices only*): Displays full screen real time video of the selected camera.



3D 2D (HD and 3D USB devices only): switch between both views.

MENU

SETUP

- **Setup→Configure Input:** See: Video setup: Input.
- **Setup→Select Input Active:** Select the video source to show.
- **Setup→Preview Resolution:** Allow setup the screen display mode. See: Configuration of visualization.
- **Setup→Footswitch:**

Automatic mode: The footswitch will be on to videos or images record, according tab (video/Image) input selected.

Video mode: The footswitch will be on to videos record:

1° Click = turn-on

2° Click= turn-off

Image mode: The footswitch will be on to image record. It is allows to take snapshot, directly (each click) or by freezing/unfreezing the video signal.(See: Freeze image before capture)

Video and Image Mode: In this mode the pedal is activated to work with both routines capture, i.e. to record video and images as long as you stay down. →Setup: Set a time limit for trigger the footswitch in both capture routines.

Mode Chapters: In this mode the pedal is activated to record video and capture chapters, depending on how long it is pressed. To do this, you must set the time to work with both Routines →Configure: Set the time limits for the pedal to capture chapters or video according to the set time (See Using the Footswitch).

Freeze Image before capture: When this option is on, the footswitch is ready to take pictures. Pressing the footswitch once, the image is frozen while remains pressed. When it is released, if you press the footswitch quickly without delay, the image is captured. But if two seconds elapse without depression, the image will be unfrozen without save it. If this option is disabled the images are saved each time you press the footswitch.

Enable Sound: When this option is on, you hearing a Beep every time the Footswitch emits a signal, for both to start or stop the video capture, as to freeze-unfreeze an image

- **Setup→Visit mode**

Entering: Sets the display mode visit to join it.

- **Image:** Sign in Picture mode alone.
- **Video:** Sign in Video mode alone.
- **Image and video:** sign in both picture and video mode
- **Preserve active:** Enters in last mode used.

Exit Capture: Sets the Visit screen mode to return of capture screen.

- **Image:** Sets the picture mode to exit.
- **Video:** Set the Video Mode to exit.
- **Image and video:** Set the both picture and video mode to exit
- **Footswitch:** According footswitch settings. If it is set to capture images then return to mode Picture. Analogous for the footswitch is set in Video mode. If the footswitch is set to Auto or Video-Image mode then last mode used.
- **Preserve Active:** the last mode that was selected before entering the Capture screen is preserved

RECORD

- **Record→Start:** Idem Record Button
- **Record → Loop:** If loop recording is activated, implies the recording cycle is repeats itself as configured. For example each 1 minute goes start a new video clip, without you needs press start/stop again and again
- **Record → Repeat Activate → Configure:** Sets the cycle amount by a preset time. This way, users will be able to take short time videos. For example: 3 Videos/ 1 min each

STOP: Idem Stop Button

FREEZE/ UNFREEZE: Idem freeze /unfreeze Button

SNAPSHOT: Idem Snapshot Button.

REPORT: Open a report.

CHAPTER: Save a mark (chapter) at that time during the recording of a video.

BACK: Idem back Button.

USAGE FOOTSWITCH

Footswitch for hands-free image capture, is the best option when you keep busy manipulating others device controls.



If “Enable Sound” is checked, you will hear a beep each time the footswitch is detected

VIDEO CAPTURE

- If you are not yet recording, press the Footswitch once to start recording
- If you are already recording, press the Footswitch once to stop recording

IMAGE CAPTURE

There are two ways to capture an image using the footswitch. Use “FreezeImage before capture” menu to switch or toggle between the two modes.

- **METHOD 1: Freeze Image before capture: checked:** Depress the footswitch to capture the image, release for a “live” image.
- **METHOD 2: Freeze Image before capture: unchecked:** Depress the footswitch for freeze image, release and press again to save the still image.

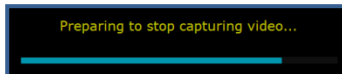
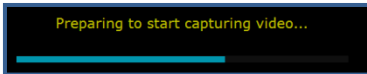
VIDEO and IMAGE CAPTURE

Set a time limit for video recording. (E.g. 4sec) automatically the image time capturing is fixed as video time/ 3(e.g. 4/3 sec)

- **METHOD:**

Image:Depress the footswitch to capture the image, release it before 1.3 sec.

Video: Depress the footswitch at least 4 sec to start video recording and release it, then press the footswitch again for 4 sec to stop recording.



To determine which way is more comfortable for you try them out.

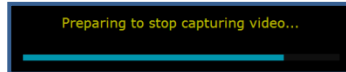
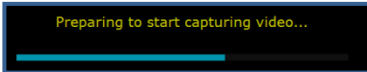
CAPTURE OF CHAPTERS AND VIDEO

Set a time limit to start / stop video recording (Chapter Mode Settings) (For example, 4 sec). The chapter capture time is automatically set to Time / 3 (For example, 4/3 sec = 1.3 sec).

- METHOD:

Chapter: Press the pedal to capture the chapter, release it before 1.3 sec

Video: Press the pedal for at least 4 seconds to start the video recording and release it, press the pedal again for 4 seconds to stop recording

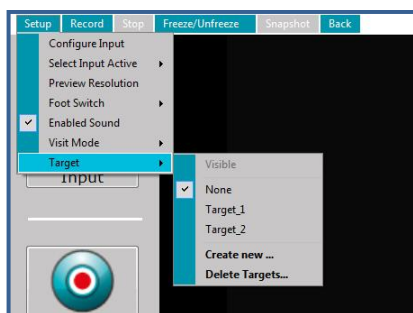


TARGETS

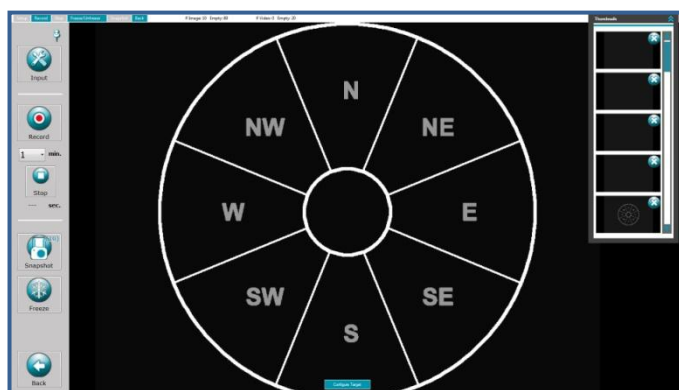
A Target basically is a drawing that mimics a map to fit your screen selection; it may display or hide grid lines and more. The target (map) may be a grid layout as a checkerboard or concentric circles divided into segments, of equal size. Target offers several handy and practical tools to facilitate your image analysis. Just look at the area or quadrant of the target in question.

TARGET ACTIVATION

To activate one of the targets available, you must go to menu *Setup* → *Target* as shown in the following figure:



The target is not shown by default and needs to be enabled in the menu options: **Target_1** or **Target_2**. When you select one, it is drawn in the display as shown in the figure below. Established target is linked with the active video input. When you change the video input, you must set up a new one.

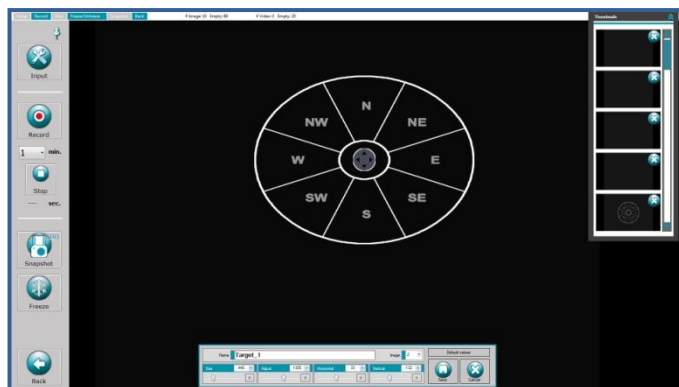


The "**Configure Target**" button at the bottom of the screen allows you to set the current target. (See Configure Target)

The target associated with a video input can be visible or hidden. This property is controlled from the *Configure* → *Target* → *Visible* menu. When the target is visible, each picture recorded includes the target. It is no removed then.

CONFIGURE TARGET

The user can set up the Target properties, using the tools described below:



Name: The name is a tag to identifies the graphic picture (Target)

Image: Selection of the picture appearance (two options)

Size: Text box will resize automatically your image size. Also includes a slider so you can control the size of the image.

Adjust: Enlarges/shrink the aspect ratio of the picture to fit the screen.

Horizontal: Modifies the horizontal position on the screen area. You can specify the shift length to move the Target to the left (negative) or to right (positive). Also includes a slider so you can move the image.

Vertical: Modifies the vertical position on the screen area. You can specify the shift length to move the Target to the up (negative) or to down (positive). Also includes a slider so you can move the image.

Default values: return the target to its original starting point (Size, Fit, and Position).



NOTE: All controls (size, fit, horizontal and vertical) have got an "x" button that lets you reset to default settings

Save: Stores the settings combined of the new or edited Target.

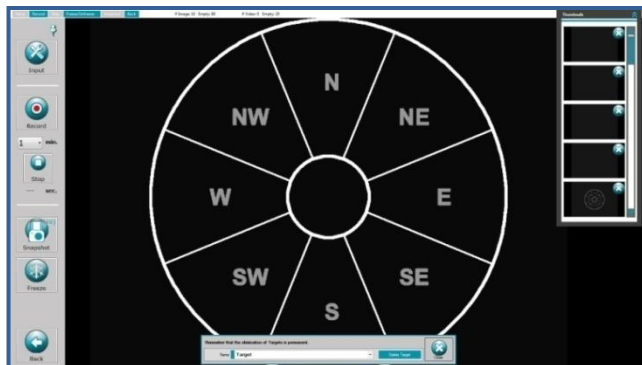
Cancel: This option allows cancel all changes made in the current Target from the last time that save them.

NEW TARGET

To create a new target, you must go to menu *Setup* → *Target* → *Create new...* Then you must assign a name and set others properties (See Configure Target)

DELETE TARGETS

If you want to delete any Target, you must go to menu *Setup* → *Target* → *Delete Targets...* and simply select the target you wish to delete from the dropdown list and click the “Delete Target” button.

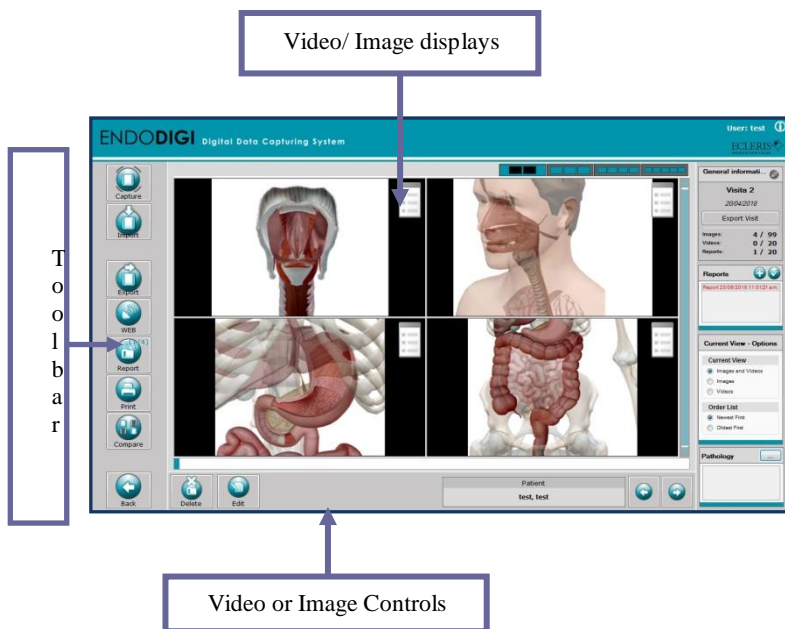


CREATE A CUSTOMIZED TARGET

The software supports up to 10 target images. By default, there are two images (**Target_1.png** and **Target_2.png**). To create your own customized target image, you must follow these steps:

1. Build up a square image (aspect ratio width: height), 32 bit, with transparency and PNG format. (It's recommended you provide a resolution 720x720 pixel so the image retains the best possible quality).
2. Save the picture in PNG format (i.e. the name will end in .png) in the Targets folder. It is the "**TargetGinec**" folder inside the working directory ENDODIGI)
3. The customized image filename must be "**target_X.png**". Where **X** represents the Target index, whose valid character is the sequential numbered 1 to 10.
4. After adding a target-picture, the image will be displayed next to Targets list in the image panel. When you click a tagged picture (i.e. target_3.png) will be available for apply.

WORKING WITH STORED VIDEOS AND/OR IMAGES



The whole set of pictures or videos are displayed in the quick view grid. This can then be helpful when you have multiple shots of the same material, to select the best digital image. It is capable of displaying up to 25 pictures by dividing the display into grids of 5x5 of a fixed size.

There are different layout styles available to suit your specific working needs:



2x2

3x3



4x4



5x5

To enlarge an image or playback a video, simply double-click on it.



To the right corner, there are synthetically information of the bank. All images, videos and reports made.

Export visit: Displays three options:

- All: Allow export images, videos, reports
- Image: Only allow export image contained in the Visit.
- Video: Only allow export video contained in the Visit.

Click on the option you want and select a folder where going to saving the visit.

You can also set the display mode from the option menu and can select view only images or video, or both. And you may also order them (newest or oldest first)

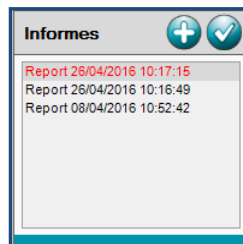


The text box at the bottom shows a comment about the content (image or video) selected. The comment by default is record date of the selected image/video, but may be replaced by a custom text. In the case of images, the comment may be printed together to picture. If you export image (or videos), then these are also stored with the original file, as .txt file

The program allows you to create multiple reports (up to 20 reports) associated with same visit.



To create new report,press the button and the screen report will open. All report(s) created are displayed in the list.





This button activates the selected report in the list (red font). By default, the program selects the last report created as asset. It will be available to print, export or upload to the web.



Export DICOM: Allow Export report to DICOM, contact technical support to allow this feature.

VIDEO / IMAGE TOOLBAR



Capture: Accessing to recording images and Videos (See section: Capturing still image and video).



Import: Allow import Images (only on image mode) (See section: Import Images).



Export Images / Videos: Allow export Images and videos (See section: Export Images / Videos).



Web: Opens a wizard to publish their reports, videos or images. To use it, you need to have an internet connection and you must create an account (See: ENDODIGIWeb Publication).



Report: Allow create a report in active setting (See Performing Report).



Print: Opens the printer preview to print the reports and corresponding images in relation to visit (See: Printing a report).

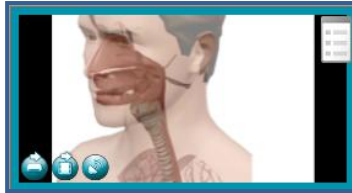


Compare: opens the window “Compare” that allows the image or video comparison from different visits and different patients (See section: Compare Video, Compare Images).

THUMBNAILS

Thumbnails allow you to select the content to which you want to work. Small icons on the thumbnail indicate that the content (Image or Video) has been added to the list corresponding to the icon (Export, Print, etc.).

Image:



Video:



Context Menu: See Working with Videos – Video Toolbar/shortcut menu.
See Working with Image – Image Toolbar/shortcut menu.



For easy handling to images and videos, can be selected and dragged directly from your monitor with touch or mouse (Drag and Drop) to any buttons such as Export, Web, Report, Visit, Delete, Compare, and Edit.



Use the keyboard to improve navigation through thumbnails:

Hot Key:

Arrow keys: Use to move Left, Right, Up or Down through the thumbnails.

Home Key: First thumbnails

End Key: Last thumbnails

Spacebar or enter key: Thumbnail selection

CONTROLS VIDEO/IMAGE



Delete: Erases the image or video selected.



Edit: Opens an Image or Video editor, according to currently selected tab.

Image editor: can be used to add different shapes (marks) in a picture and also add your own text or tags over a picture (See: Internal Image Editor).

Video editor: can be used to trim a video clip (See: Internal Video Editor).



Detail: Enlarge the image and create a new image zooming



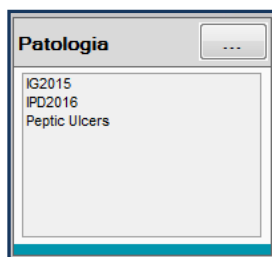
Photo: saves an image as photo's patient, and then may be printed on the report header (Only Image Mode).



Scroll forward/backward on the thumbnails

Pathology:

On the clinical visit can relate the images (videos) of the bank with different pathologies.



To attach a pathological condition, press the button inside the box and if it is available a list is opened.



To add pathologies on the list: See Create lists pathologies.


WORKING WITH VIDEOS

VIDEO TOOLBAR/SHORTCUT MENU

When you click the right mouse button on the selected picture, appears a popup menu. It offers a limited set of functions whose actions are related to the selected object:




Use this icon to access to the contextual menu in touch-screens

To Export: The selected video can be exported by pressing “To Export”. In the thumbnail appears a respective icon (), indicating that it has been added to the list of exported. To remove it from the list, you must reselect it and press “To Export” menu again. No icon indicated that the video has been removed from the list. . (See Section: Working with stored Video and/or Images: Export images/videos)



The videos sending “to export” may belong to different visits. For instance, you can send one video from visit #1 captured in 05/01/2007 and two videos from visit #2 captured in 10/12/2007

To ENDODIGIWeb: The selected video will be adding to ENDODIGIWeb list. At bottom of image appears the respective icon (). To delete from ENDODIGIWeb list, press again TO ENDODIGIWeb (See ENDODIGIWeb publication).

To compare: send a video to “Compare” window(See: Compare videos).

Export: Idem Export button. (See exporting Video/image)

Edit: Idem Edit button. (See Internal/external Video Editor)

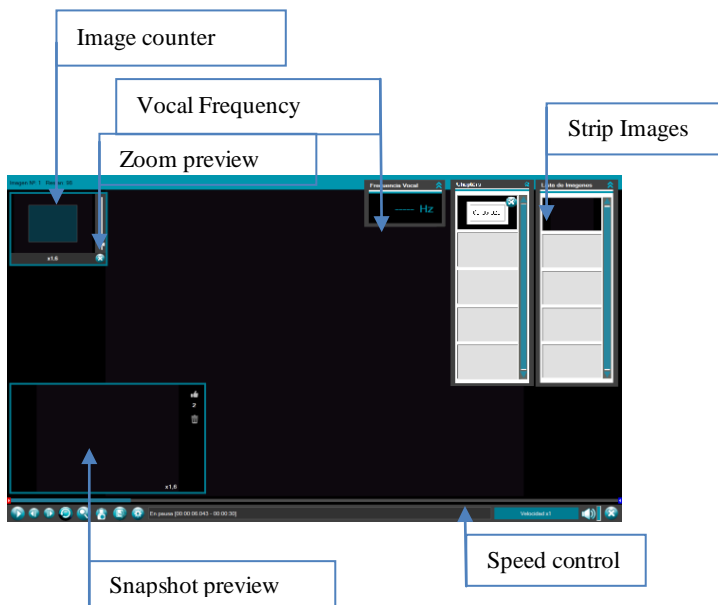
Delete: Idem Delete button. (See Controls Video/Image)



Use drag-and-drop to move videos to new windows, such as Compare, Edit, and Export. It makes operation simpler than using the short cut menu

VIDEO PLAYER

Double click over the video thumbnail, on the visit screen, it will playback the selected video.



The chapters captured in the video clip are shown in the chapter strip and can be deleted. Thumbnails view can be hidden.

THE SNAPSHOTS TAKEN IN THAT VIDEO CLIP ARE SHOWN ON THE RIGHT SIDE OF THE SCREEN. THE THUMBNAI LS CAN BE HIDDEN OR MOVED, OVER THE PLAYBACK SCREEN.



When playback a video recorded with audio the vocal frequency is shown. (See: Digital Setup → Capture Sound.)

Vocal frequency is not available on video captured with HD Device

PLAYBACK CONTROLS



Play/Pause: It reproduces the selected video / temporarily stops the video playback until you press Play again.



Forward Frame: It allows to move frame by frame to get a clear snapshot.



Backward Frame: It allows rewind the video frame by frame to select the best snapshot.



Loop: when the video reaches its end, it will immediately start playing again from the beginning.



Zoom: Increases sector video and displays a window to control the location and increased sector.



Snapshot: You can take a snapshot with a click of button. To enable it, pause the movie and scroll the video frame by frame (Forward/Backward) to get a more accurate shot. The new snapshot is displayed on the preview capture windows. The trash basket allows deleting and the hand confirm it before reaching the configured time, and then the frame will be saved.



Edit: opens the video editor to trim the start and end of it. (See Section: Internal Video Editor).



Sets display: (See Section: Configuration of Visualization)



Audio: Used to raise, lower or mute the background sound. Place the cursor inside the box to increase or decrease sound or click on the loudspeaker to mute.



Close: Closes the enhance playback mode, come back window.



Use the keyboard for easy playback

- Esc key: exit
- Space Bar key: take a Snapshot: Analogous to **Snapshot** button.


COMPARE VIDEOS



Compare: You can send only two videos to compare (use shortcut menu or drag and drop function) that may belong to different visits and different patients. Once you select the videos, click on “Compare” button to open the clips simultaneously.

To compare them maximize the window. The videos can be played simultaneously (play button toolbar) or independently (video play button).

To move them within your screen, click on the top border (title) with the left mouse button and, keeping it pressed, move the windows to the desired position.

Remove the video, by closing the video player or by clicking in  button.

TOOLBAR



Compare: Maximizes the displays to compare one clip to another and catch the differences or coincidences.



Sort: sorts the displays on full screen mode (half and half).



Play: Playback two video clip simultaneously.



Pause: stops the both videos playback.



Snapshot: Gets two pictures, one for each video clip the superscript number is a frame counter.



Back: exits the window.

VIDEO EDIT



Edit Video: Clicking on Edit button, the current video will open on the video editor

INTERNAL VIDEO EDITOR

It is a simple video editor, used to trim the beginning and/or ending of the video.

Trim clips allows you to modify the start and end points (and therefore the size) of any video. When trimming, you can set the cut points start and end. The first determines when to begin playing the clip, while the second determines when to end playing the clip.

When you trim a clip, the frames are removed, so that the unwanted parts are lost forever.



Trimming a video clip:

Click Play button and then pause the video at the point you want to cut it. Then fix trim point (red), by pressing the button.



-Or-

On the screen, move the trim slider to the point where you want to remove.

To remove the trim brand, press  button



Repeat these actions to trim the video end (blue buttons).





When you fix the trim points (red, blue or both), press Trim button.

A Trim summary is shown. It includes record times of the original and edited video. You can accept or cancel.

WORKING WITH IMAGES

Zoom / Detail: Double-clicking on an image (or pressing button Detail) a new window is opened. From this window you can change smoothly from a long shot to a close-up or vice versa and take a new screenshot of the selected image area, which will be stored in the bank.



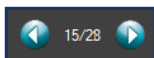
Controls Bar



Zoom



Take an snapshot



Pictures/ total pictures

IMAGE TOOLBAR/SHORTCUT MENU

When you click the right mouse button on the selected picture, appears a popup menu. It offers a set of functions whose actions are related to the selected object:



Use this icon to access to the contextual menu in touch-screens

To print: Adds the selected picture to the image list to be printed. Print: the selected (active) image, you can be send to the printing section pressing “To Print” button or using the contextual menu (right mouse button).



On the thumbnail is displayed a printer icon indicating that the image has been added to the list of images to be printed. To remove it, you must select image again and press "To Print" button again; when the printer icon disappears means that the image has been removed from the report be printed.



To Export: The selected image can be exported by pressing “To Export”. In the thumbnail appears a respective icon, indicating that it has been added to the list of exported. To remove it from the list, you must reselect it and press “To Export” menu again. No icon indicated that the image has been removed from the list.. (See section: Working with Stored Video and/or images: Export image/videos)



The images sending “to print” and/ or “to export” may belong to different visits. For instance, you can send two images from visit #1 captured in 05/01/2007 and three images from visit #2 captured in 10/12/2007



To ENDODIGIWeb: The image will be sending to ENDODIGIWeb wizard to publish. Add images, clicking on the right mouse button over the image selecting. For more information see ENDODIGIWEB Publication. The image gets queued on the ENDODIGIWeb, until final post is published

To compare: load image on the “Compare” window. (See: Compare Images)

Export: Idem Export button (See Export Image)

Export ENDODIGIWeb: Idem web button. (See Controls Video/Image)

Edit: Idem Edit button. (See Internal/external Image Editor.)

Delete: Idem Delete button. (See Controls Video/Image)

Patient Photo: Idem Photo Button. (See Controls Video/ Image)

To clipboard: It is used for copying the Image to clipboard for further use

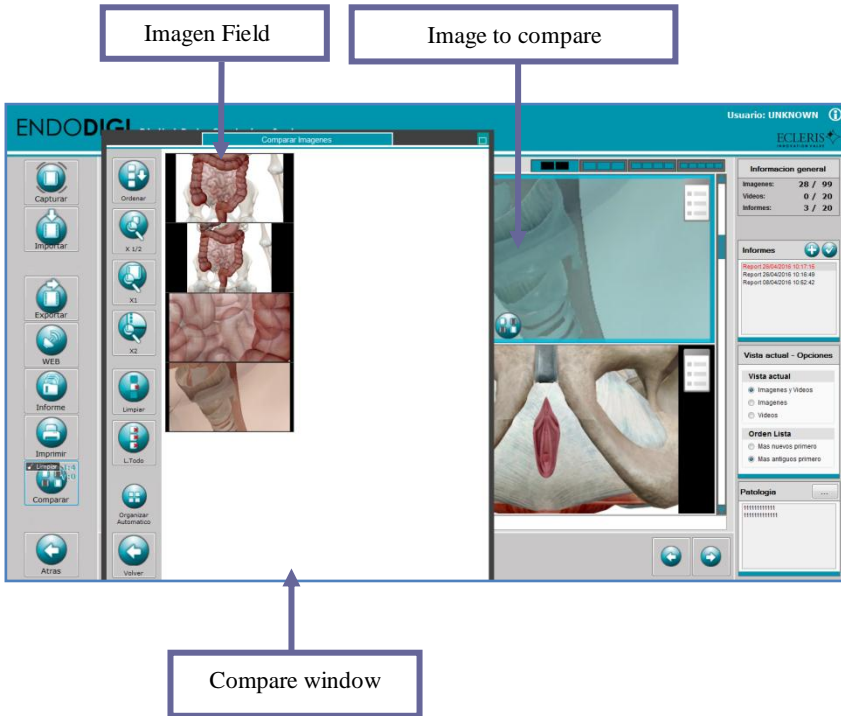
COMPARE IMAGES



Compare: Clicking it opens the window Compare Images. You can compare up to six images that may belong to different visits and different patients.

The images must be dragged and dropped towards the **Compare** button, or using the context menu **“To compare”**

The superscript number is a frame counter.



On the window maximized you can move the images to other positions and change their sizes with the toolbar buttons.

To select an image, just click on the center of the image.

To move the images, drag them by clicking on their center and without releasing the Mouse, drag them to the desired position.

Then, press the toolbar button you wish to be able to change their state (Clean, Enlarge, etc.)

TOOLBAR



Sort: orders the images on the left of the window in the original order.



X1/2: reduces the image to half its size.



X1: resets the sizes.



X2: doubles the image size.



Clean: removes the selected image.



Clean all: remove the images, releasing it to do other comparisons



Auto arrange: Automatically arranges the panels side by side.

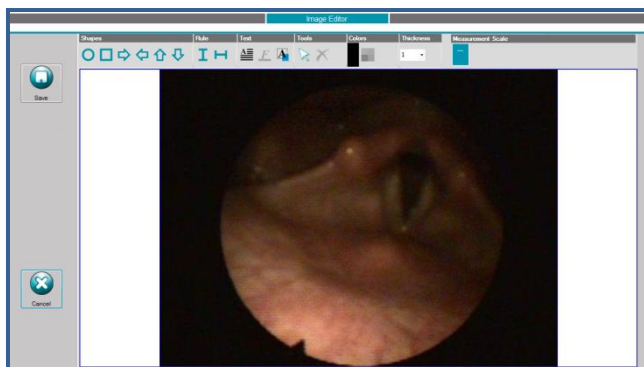


Back: exits the window.

To change image size you can do it, with the toolbar buttons (x1/2, x1, x2) and then drag and drop the image on another screen location. You can also resize the image by dragging the picture corners.

INTERNAL IMAGE EDITOR

It is an easy- friendly and intuitive image editor .You can use it to add different shapes in a picture and also add your own text or measure in your picture



Click on the ready-made shape. Available shapes include arrows, circle, and rectangle. Position the pointer on where you would like to insert shape. Click and drag the pointer to draw the shape to the desired position.

Modify shape's outline by selecting the thickness on the dropdown menu and change the shape's color by selecting the color clicking on the "Colors" box.

Use Text to enter text in the picture. To resize and move the text box, and change the font, font size, and text formatting you must clicking inside the text box within the picture.

Save the edited picture and use it to do report and other things like that.



To change the appearance of some shape or text box, select it and then change its properties.















Save: Save the Image edited in folder of visit



Cancel: Cancels edition and returns to the Image windows

TOOLBAR

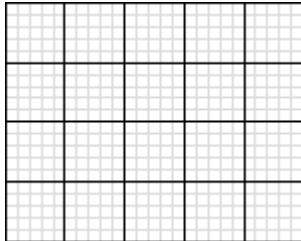
Shape:	
 Circle	Use them to make shapes. To draw a shape, click and drag with the left mouse button. The fore color will be used for the outline.
 Rectangle	
 Right arrow	
 Left arrow	
 Up arrow	
 Down arrow	
 Vertical ruler	Use the rulers to measure an object length in your pictures
 Horizontal Ruler	
 Text	Move the cursor in the drawing area to the location you want to insert text, click and begin typing.
 Font	Open font face, size and style common dialog to adjust the appearance of the text.
 Transparent background	The transparent or coloring background. These options are only available when there is a text box.
 Select (Shapes, Rulers, Text)	Selected items
Delete (Shapes, Rulers, Text)	Erase the selected items
Fore Color	The Color box indicates the current foreground color. To change the color, click an available color square
Background Color	Select the text background color
Thickness size pull down box	The number determines the thickness of the line stroke

MEASUREMENT SCALE

Use this tool to set a measurement scale. To achieve the parameters of image measurement system, the calibration is implemented by acquiring the corresponding relations between the real world coordinates and pixel coordinates of pattern Image (planar gridding) captured by your camera.



You can use a paper grid (Engineering Graph Paper, whose scale is: 10 X 2mm or 1 per inch) or an object of known dimensions, for instance a ruler.



10x2mm



Take a picture a part of known dimensions in the focal distance to work, and then define its dimensions.

Select the Ruler

- Horizontal ruler
- Vertical ruler

Then draw the ruler to set a measurement scale

Logical length

Logical Unit = cm/inch

Then press “Save” your scale button

You must recalibrate each time you change camera or optical arrangement

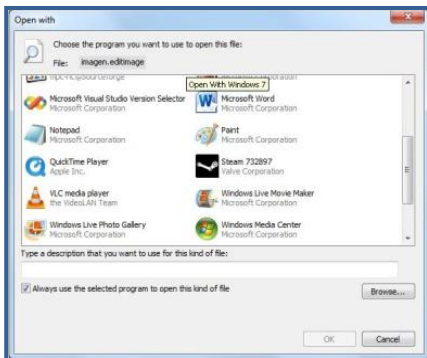
EXTERNAL IMAGE EDITOR



This editor is available if it is installed and has activated it (it is disabled by default). See **Options→Digital Setup →General→Image: Use External Editor**.

When you've made your changes, close the editor. Then the new picture will be updated in the image viewer automatically.

If you are editing an image for the first time, you must choose an Image editor that supports pictures in JPEG formats. The dialog box shows the programs available to select.



The option "Always use the selected program to open this kind of file" must be active, so it will be the predetermined editing program

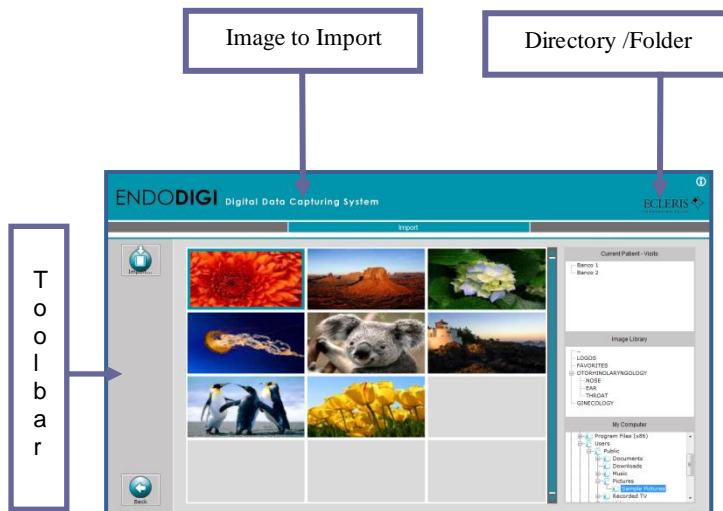


To change the Image Editor, go to **Options→Digital Setup → General → Image** Then press **Reset Link External Editor** button. Then select a new Image Editor as the first time.

IMPORT IMAGES



Import Images: Import customer images (jpg. or bmp. format) from CD/DVD, USB drive, network drives, etc. Press Import button to explore different units and files.



The image gallery shows small previews (thumbnails) of all of the pictures in a folder at once. This makes it easier to quickly browse through large collections of pictures. To show the image gallery, click to directory/folder. If the automatic option is checked, the image gallery is updated every time changes the directory or folder.

Double Click on a picture in the gallery to enlarge it and click again to restore it.

To add images to the visit, select the image by clicking on it and then press the **Import** button

To return to the backward window, press **Back** button

You can insert image saved in "My Computer", in the Image Library or in another visit bank

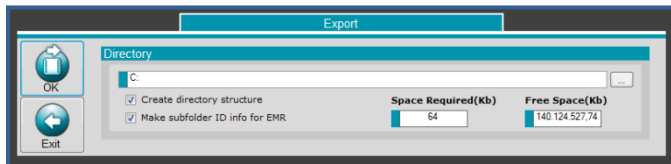
EXPORT IMAGES/VIDEO



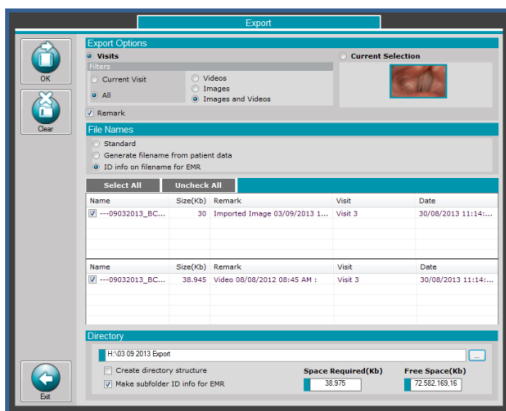
Export: You can export the image and/or video files. The videos are exported in WMV format (Windows Media Video) and the images in jpg format.

Actions:

- ✓ Export one: the current image/video select (click on) is exported to a specific destination pressing export button



- ✓ Export a set (Images and/ or videos): Select a thumbnail and press the button or Shortcut menu **"To Export"**. Once you have finished selecting them, you could export all files pertaining to the instance using the "Export" button at the standard toolbar left.



Once you have selected the destination directory is shown how much free space is available on the device, and how much space is required to export the file selected.



The required space is the maximum estimated value because the final value will depend of the file compression

Export Options:

All Images and videos send "**To Export**" are listed here. You have the option to choose one or all them. By default, all elements are selected for you, unless you want to keep out some of them check the box next to each item to deselect them.

The Export list shows the name that will have the file. Moreover, the size in KB, remark, name and date of the visit to which it belongs.

To make easier to selection, use these options:

Filters:

Current Visit: Selects the items (all images and videos) belonging to the last open visit.

All: Selects all images/videos in full listing.

Videos: only videos

Images: only images

Images and Videos: both images and videos.

- ✓ **Remark:** If this option is enabled allows exporting the comments associated with each image/video in txt format. If this option is enabled allows exporting the comments associated with each image/video in txt format. It is create text files with the same name as the image file in question. For example: a picture called Nose.jpg creates a file called Nose.txt.


File names:

Standard: The file is named as follows:

- -EndoImage+Bco+ # .jpg.
- -EndoVideo+Bco+ # .wmv

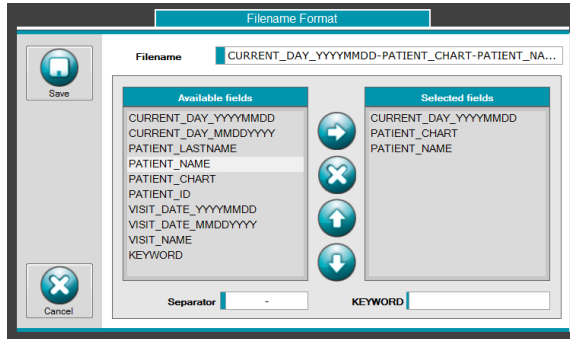
File name: Generates a file name defined by user which is formed from separate preset labels.

The user may create labels using dataset

Pressing 

You can combine different tags to create a file name

(For example: CURRENT_DAY_ (YYYYMMDD)+
PATIENT_CHART+PATIENT_NAME= 20160302_3526_Smith.jpg)



Destinity:

Generate file name from patient data: The Exported file will be renamed with the visit name plus the patient data. Format (e.g. Visit1_Smith_John_BCO2V3.wmv)

ID info on filename for EMR: To all exported files will be assigned the name in EMR format

Create directory structure: It can automatically create a folders structure in destination directory. The folders name is the visit ID and images and videos are kept separately.

Make subfolder ID info for EMR: If this option is activated, all export files (Videos and image) will be assigned the name in EMR format.

Export to Dicom: Allow export to Dicom, contact technical support to allow this feature.

To export only press the Export button and wait for the process to finish. And click Exit to return window back

- ✓ **Select All / Uncheck All:** Select/Deselect all items listed.



Clear: Cleans the Export list.

WORKING WITH SOUNDS

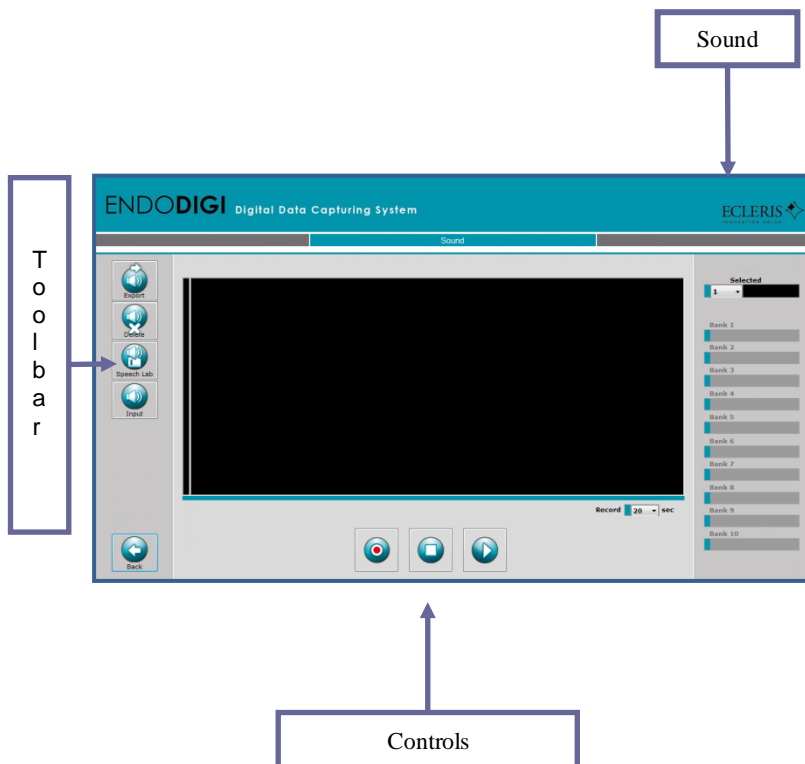


The ENDODIGI is installed by default with the "Capture sound" option disabled because this option needs to be set. You can turn on this option from "Options/ Digital Setup". See Digital Setup



This section is not available for HD Device.

Enter the Sound section from main window. Similarly to the image/video capture window, this one has the toolbar on the left, the sound files (bank) on the right and the sound recorder controls on the center.



SOUND RECORDER CONTROLS



Record: Records the sound for as long time preset



Stop: Stops the sound recording or reproduction before the default time is over.



Play: reproduces the file sound selected.

On central you can see the sound plot. The record is shown in real time.

The sound files are automatically saved on first empty file and it can be identified with a name.



The pull-down menu number on the top right corner corresponds to the selected sound file. You can select them, by clicking on bank or changing the number drop down.

TOOLBAR



Export: To save a sound file to other units (files, CDs, etc.). The sound recorded is exported in AVI format.



Delete: deletes the sound stored in the selected visit



Speech Lab: Contact your local representative to activate the voice laboratory option.



Sound Input: Open a window to select the input source. (See Audio Input)

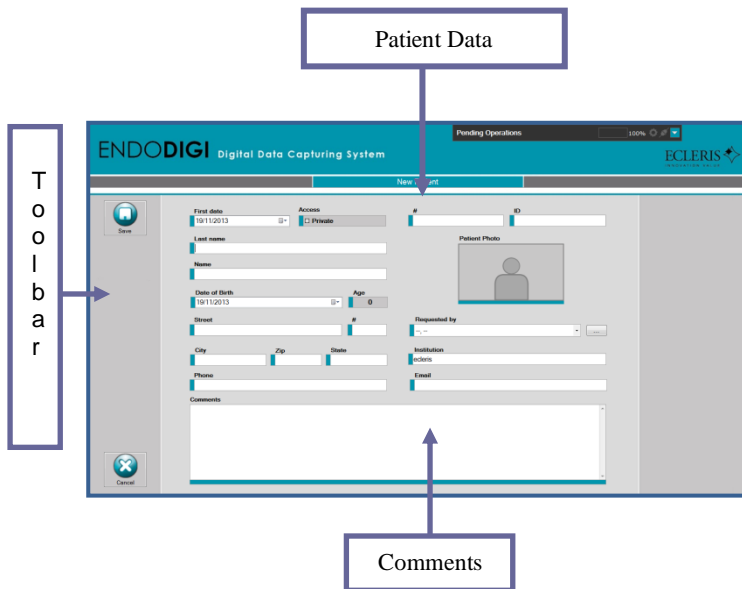


Back: returns to the main window.

PATIENT DATA-DATA BASE

LOADING A PATIENT

The Patient Data button allows accessing the patient's File where you can edit or add data.



The Comments field is a section for free use that allows information storage for a particular patient.

The Request field links a Medical Doctor from List of Professionals. Pressing the button right side, you will see the address book of professionals. To add more contact, see: Database Professional

Clicking on Patient profile picture, you can import a new image from a visit, library or units Pc (See: Import Images) and to delete it click on Clean button

Access: Set the patient access (available in ENDODIGI Server version).

Private: The patient will be available in mode private.



You can configure the required field to enter a new patient. See Digital Setup → General.

TOOLBAR



Save: Saves the patient's data in the database.



Cancel: Ignores any changes in the form.

RETRIEVING A PATIENT FROM THE DATABASE

To recover a Patient-File already stored, just press the **Data Base** button of the main window and you will access the Data Base window.

The screenshot shows the ENDODIGI Digital Data Capturing System interface. The main window is titled "Base Datos" and displays a table of patients. A "Patients List" label points to the table. A "TOOLBAR" label points to the left sidebar with icons for Home, Home, Backup, and Restore. A "Patient Data" label points to the patient profile section at the bottom left. A "Search Controls" label points to the search filters on the right side.

Fecha Ultima Visita	Apellido	Nombre	Nº Historia Clínica	Fecha
	Abraham	Erik	32051	15/04/2016 13:32
	souf	souf	--	05/04/2016
	Bernabaz	Humberto	124579	15/04/2016 13:28
	Carpenter	John	32238	15/04/2016 13:29
05/04/2016 13:08	Diez	Jorgelina	16582	01/04/2016 12:25
	Gonzalez	Rigoberta	23315	15/04/2016 13:31
	Ivan	Esteban	6568	15/04/2016 13:32
	Strocaseneger	Eleanor	25864	15/04/2016 13:26
	Strubiner	Josafat	1254	15/04/2016 13:27
17/11/2015	test	test4	--	26/3/2015
21/01/2015	test	test	01	21/01/2015

Archivo

Paciente	Nombre	Fecha	Estado
Diez, Jorgelina	Visita 2	05/04/2016 13:08	Habilitado
18542	Visita 1	01/04/2016 12:37	Habilitado

The database can be sorted (ascending / descending) by last visit date, Last Name, First Name, or Chart # and Date, clicking on the corresponding field.

The selected file will be highlighted. The lower left section represents the patient data profile and visits stored.

When one of these patients is selected for loading, you must press **OPEN** button or double-click on a grid. Immediately images and videos are loading.

To search a patient, use filtering by First Name, Last Name or Chart #.

Upper side the profile patient, is shown the list of patients which match the current selection criteria.



Historical: Displays a list of prints made, and shows the corresponding printed report preview

TOOLBAR



Open: Opens an selected patient's file



Delete: Removes files from the database (videos, images and other data related to the patient).



Backup: Allows backing up patient data and files (Video, images...) in other folder/disks. See: Making a backup.



Restore: Allows recovery lost or deleted data via an old backup, also helps to import patient data from backups made on another ENDODIGI version. See Making a Restore.

View (*available in ENDODIGI Server version*)

Server Patient: Show the server patients List.

Private Patient: Show the private patient list.

OFFLINE PATIENT

(Available in ENDODIGI Server version)

You have the possibility to work off-line mode on client PC. (Server disconnected).

It can occur for many different reasons: network connection faulty, server downtimes, PC off-line, etc.

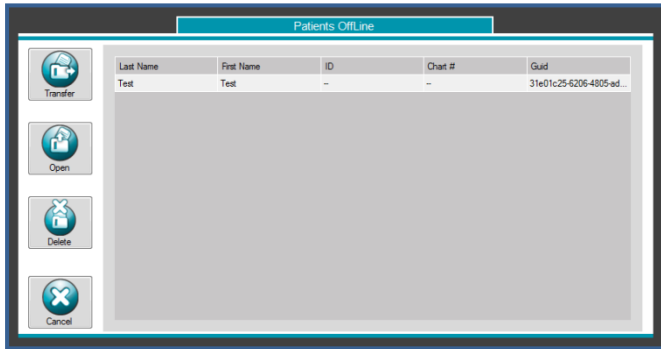
If you are working on-line and lose server connection, the patient will be locked. In these cases you must reset the connection, or add a new patient off-line.

Whenever you create a new patient without connection, a message is shown to save it as **off-line patient**. If you accept, it is saved on off-line database. These files can be transferred to the server once the connection is reset.

When ENDODIGI starts up or you press database button, the off-line database is opened so you can manage files saved on client PC.



You must be connected to a server before you can transfer files.



TOOLBAR



Transfer: Sends data by client to the server



Open: Loads the off-line patient selected.



Delete: Remove the off-line patient selected.



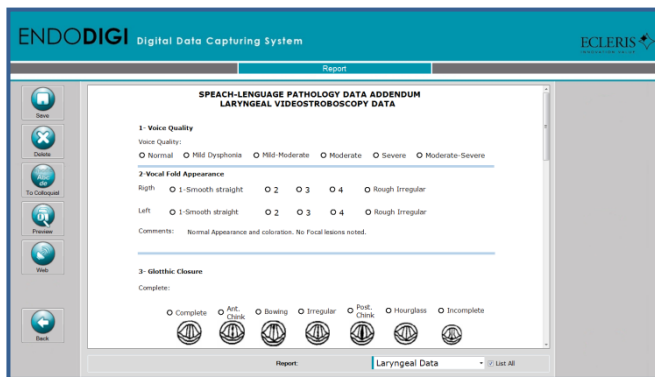
Cancel: Close the screen.

PERFORMING A REPORT

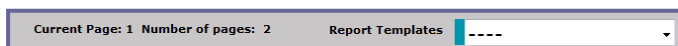
INTERACTIVE REPORTS

The interactive reports allow you to just fill the available options and add text in the blocks allocated for it. The template report is selected from the report dropdown list (See Template builder)

Complete the choice or text and Save it.



Status Bar



The row at the bottom of a window that displays information about the document, as page current, amount to pages and dropdown text to select templates.

It is possible to call different report template to reports each particular visit.

List all: Loads all templates created in all languages.

TOOLBAR:



Save: Saves the patient's report



Delete: Removes report from the visit



To Colloquial-To Standard: Only question blocks are converted to editable text box equal to the block size. The text box contains the selected answers and question. You can edit the text inside the block area.



If you make changes in Colloquial mode and returns to Standard mode, consider that the changes made in this way (within a block) affect colloquial text corresponding to the block (the text can be erased). The questionnaire will be saved in the last chosen mode.



Preview: The preview button displays a preview of the entire document



Web: You need a few clicks to publish and share your reports with patients and colleagues. Just fill the email for every person you'll include. Each person you invite gets an e-mail message with a link.



PDF: Printing on .pdf format

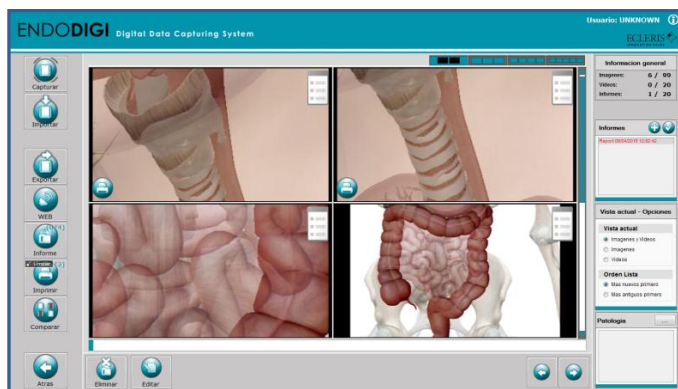


Back: returns to the back window.

PRINTING IMAGENS



To print the selected images of a Visit, you can do it from the To print pop-up menu or by dragging the images with the mouse (Drag and Drop) towards the Print button. Then press the Print button and you will access the print screen where you will find the selected images.



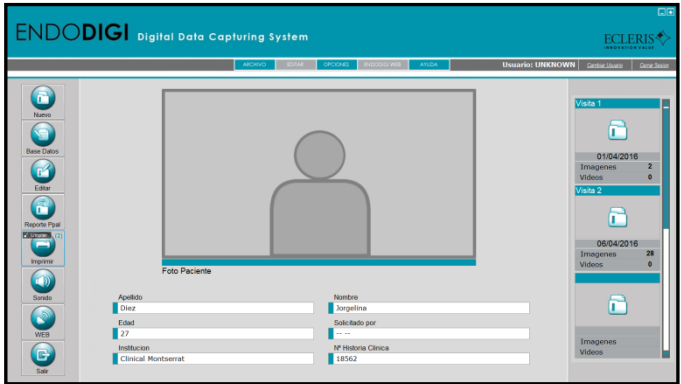
This way, even if it had selected pictures to print from another Visit, will be available only images from the current Visit. The print report date will coincide with the current visit.



To print a Visit Report, from the Visit main screen, press the Report button and a Report Print Preview screen will open with the Report previously selected in the Visit. Then press Print.



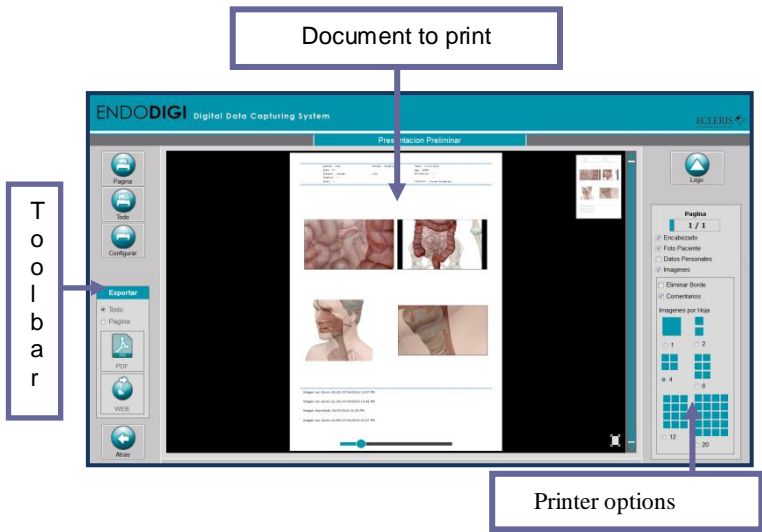
It is also possible to print previously selected images from multiple visits. To do this, use the Printer button that appears on the main screen and you will access the print preview screen.



Print Preview Screen

Here you can select the number of copies you want to print and the printer to use.

The entire layout of the document cannot be changed from here (See Creating Templates).



TOOLBAR



Print Page: send to print current page of the document.



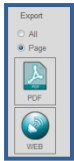
Print All: send the entire document to print (all pages)



Printer Open Printer Setup dialog box to setting page margins, and also select a printer and its properties.



The setting margin does not apply to report Templates and its uses. This setting will be applied to all image report pages.



After you run a report, you can export it to PDF format.

Export a report to do the following:

- Save a copy (all or some pages) of the report as another file type. (All/Page option)
- Print the report in a different format and then print it. (PDF button)
- Work with the report data in another application as ENDODIGIWeb (WEB

Button)

During the data transfer, the display shows a progress bar.



The first time you do any of the two operations will be automatically installed the necessary drivers to convert. A window will be shown that this process is being performed.



At Sharing a report in ENDIGIWeb, be careful not disclose private info. A warning message, alert you to actions that you be taken.



This process may take several minutes to complete if you have a lot of image. ENDODIGIWeb shows a message that the process has been completed successfully.



Back: returns to the previous window.

PRINTING OPTIONS

Header: A report can contain a header that run along the top of the each page, respectively.

Add Pages to Personal Information: Add a page with personal information of a patient. It is address, phone, pathologies, etc.

Report: allows printing the Report of the study performed. If the option is marked, the report previously made in the patient's file will appear on the first page.

Visit Report: This option calls the "Printable Reports" window. The report for each visit goes to a common list, where you can select them to print in paper form, export in PDF format or share electronically on ENDODIGIWeb. To select/deselect a report, activate or deactivate the corresponding box, by clicking on it. Then Quit and the changes will be shown in the preview.

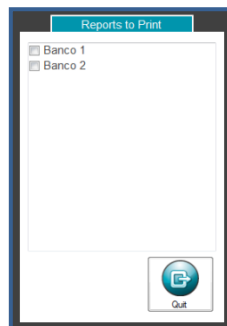


Photo: If you activate this option, the image saved as Photo will be printed on the top right corner of every page.

Images: Prints those images that were not sent to print from the visits. As regards image printing, you have the following options:



The user will be able to print image, previously selected from different Visits using the To Print button

Cropping: Applies the cropping area to removing the dark background (See section: Cropping areas).

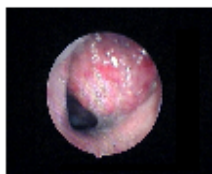


Image with Border



Image without Border

Remark: Attached at the bottom of a page, the image tag or comments, those have been previously created. See the section: Working with Image

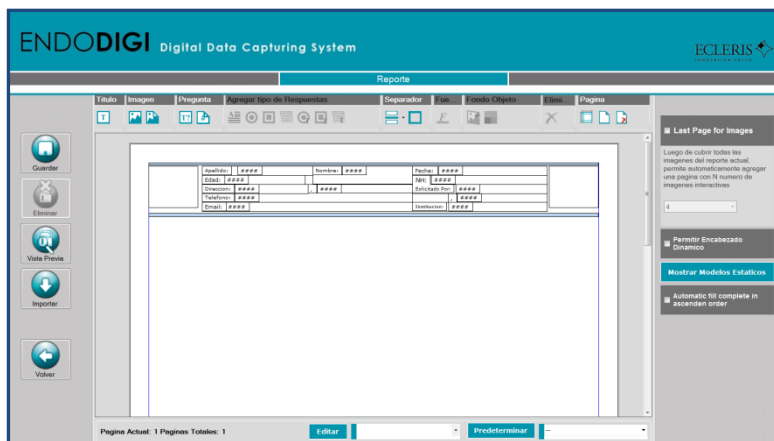
Images/Page: This option allows organizing the images in the page according to the distribution selected in the scheme: 1, 2, 4, 6, 12 or 20 images per page. For instance, if you have 8 images, it is possible to distribute them: 1 image per page bringing the total to 8 pages to print or else 4 images per page bringing the total to 2 pages. The size of the images varies according to the selected scheme.

ADVANCED OPTIONS

TEMPLATES BUILDER

In the main screen, form **Menu→Edit→Templates Builder**. You will access an easy-to-use interface to design the questionnaires and does not require any programming knowledge.

You can fully customize the quiz layout. It includes a variety of answer schemes, as Multiple Choice, Drag and Drop Matching, Fill-in-the-blank, add images and others.



You can design or modify templates.

Reports can be saved by grouping them into categories, either by specialty, pathology, etc. For example you can have the category ENT, Gastro and Surgery. Within each category you can create different templates.

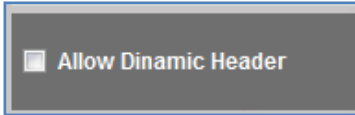
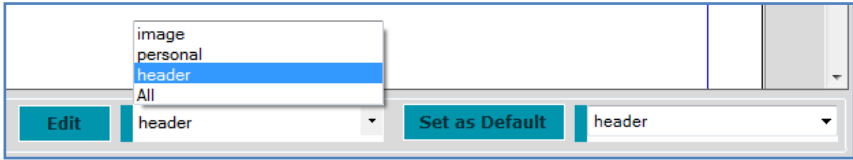
To edit, add or delete categories press **Edit** button.

To set a template as default press **Set as Default** button. So it will always be available to complete the reports from the visit.

To import a template (.rds format), you must select the category where you want to store it and then press the **Import** button. It will display a window where you can search a file to import.

You can also set a header for reports. To do this, press **the Show Static Pattern** button. Then, select from the categories **Edit the Header** option.

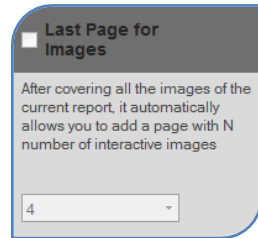
Show Static Pattern



When activates Allow dynamic Header option, the header are added in all page in each report set.

Then, whenever you modify the header template, those changes are automatically made in all report.

On the other hand, if you want to add pictures on the end of report. Insert the images number per additional page defined from the pull down menu.



To design a report template, use the toolbar options to insert questions, titles, pictures, etc.

A Question box only allows inserting answer boxes. To selects a box just click-on it and its outline should highlight in blue. Move the box to the desired place with the mouse pressed down then click to form. To select multiple boxes holds down CTRL key and select them one by one.

You can even stretch or contract it by dragging on the edge of the text box (the mouse pointer changes to indicate the type of change).





















The question box must be a size that allow fit the answers desired, if it contains one or more boxes should be aware that the text entered in design mode will be displayed within the area. When you type in a question or answer box, the size is fitted automatically, if you want to enter another line press Enter.

Reports can be stored by categories, either by specialty, pathology, etc. For example you can categorize by ENT, Gastro and Surgery. Within each category you can create different templates.

If you wish to set as default report click the button “Set as default”. Therefore, this report is loaded whenever you open report to fill out. To edit delete or rename the categories press the Edit button.

Then detailing the tools to design a template of an interactive report

TOOLBAR

	Title	Click the text box to enter the title
	Image	Opens Import Image Windows to insert a picture and resize.
	Interactive Image	Create a Frame to add any image from a visit
	Question	Click the text box to enter the question
	Interactive Text	It links the text displayed with patient or professional data
Answer		
	Text	Enters a text box that can be modified in user mode.
	Option button	That allows the user to choose only one of a predefined set of options
	Check Box	That permits the user to make multiple selections
	Drop down list	Allowing the user choose from a list of existing options
	Option button + text	Idem Option button plus a text box to remarks
	Check Box + text	Idem Check box plus a text box to remarks
	Drop down list + text	Idem Drop down list plus a text box to remarks
	Separator	It is a Line stretchable. Visually helps to separate multiple questions or areas within the leaf
	Font	Modifies the font selected blocks and set the font for future blocks
	Background Image	Insert an Image fixed
	Background Color	Set a Background color
	Remove	Delete the selected object
	Page	Set a paper size and margins
	New	Add a blank page at the end
	Remove	Delete a selected page

CROPPING IMAGE

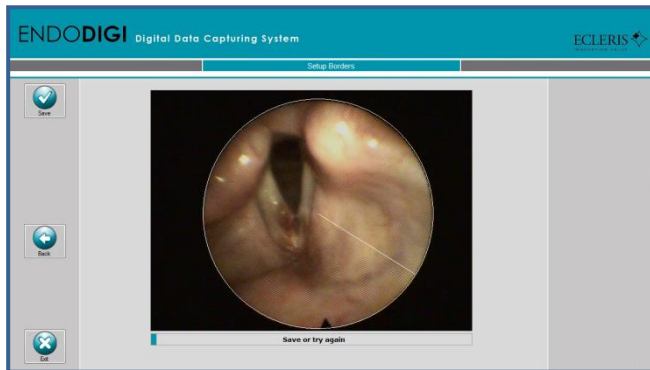
Crop refers to the removal of the image outer parts to improve printing. It allows print the useful area of the image, saving both printing time and ink or toner cartridges

In **Edit**→**Cropping** menu you must select

The **Cropping** wizard allows create multiple cropping areas in images to use it then, and manages crop-area options

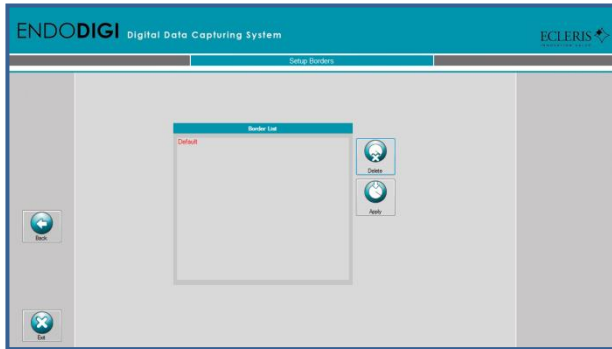
- New Cropping area: The User defines a cropping area-circular, to remove a background portion.
- Enter a Name to identify a crop area, For example: My fiberscope.
- Next the frame-selection screen will appear; select a picture to be cropping it the border and then press next.
- To Mark the Cropping Area, clicking on the image edge and then clicking in the center. The circle indicates which portion of the graphic you want to keep.
- Save or try again

Dark area is a special feature in the optic system layout.



If you use "cropping" option to print image, be sure not to miss details of it

Manage Cropping areas: Activate and Delete a cropping area, choosing it between the different options created.



The Cropping area selected will be applied, when you print images with the cropping option checked.

TOOLBAR



Apply: activates a Cropping area as default to print (Red font)



Delete: erase the selected Cropping Area on the list.

ENDODIGI WEB PUBLICATION

ENDODIGIWEB gives you the ability to upload and share your own cases or reports. The wizard you assist to publish image videos or reports. Use Next, Back or Cancel button



To use ENDODIGIWeb service you will need to be connected to the net, Internet

ENDODIGIWeb

Welcome to EndodigiWeb

Endodigiweb gives you the ability to upload and share their own cases or reports. You decide, whether they will be submit in public or private mode.

To publish, you will need to register first (create a user account). Do you wish create your own user name and password?

If you already have a user created EndodigiWeb, click here to recover it.

First you need register Complete all the required fields to create an account. You must agree to the terms of use before you can publish on the ENDODIGI website

ENDODIGIWeb The web site for you Endodigi Publications

Sign up now and start making your Publications.

Enter your information

Username Password

Name

Last Name

Email

Email Confirmation

I accept the Terms and Conditions of License. [View License](#)

Next Cancel



If you do not agree to and accept these Terms & Conditions, you do not have permission to access of this site and therefore you may not use the web Service.

Select

New: to create a publication to attach images and/ or videos

Search: looking for old publications to attach new files or send additional invitations



New: Here you must select your audience.

Public: anyone who visits EndodigiWeb.

Private: only people that you invite by email



In both cases PUBLIC or PRIVATE, you must provide a title and a brief summary (optional)

ENDODIGIWeb The web site for you Endodigi Publications

Complete the required data. Current User: My name My lastname (Myra...)

The current Publication is PUBLIC and can be seen by any person visiting the website. Remember not include Patient information in Publication data.

Title

Abstract

Back Next Cancel



Make sure not to publish patient's personal and confidential information

Attach in your publications videos, images and reports, previously realized by To ENDODIGIWeb Short cut

ENDODIGIWeb The web site for you Endodigi Publications

Attachments to Current Publication. Current User: namelest lastnamelest (te...)

Name	Information	
Video Video 11/4/2011 10:14 AM	640x480 Duration: 26:08sec	+ Add - Delete Edit

Video Quality: OPTIMAL

Attachments sent earlier: 10

Back Next Cancel

Add: Attach a selected file, i.e. video Nose

Delete: Erase a file selected

Edit: Open

Video quality: Select the video quality (Optimal or Standard) A higher quality will increase the resulting file size

Then, tell someone you know about this publication. Adding contacts from your address book

ENDODIGI CONTACTS



New: Add a new contact email

Import: This enables you to import your address book from mail clients to ENDODIGI.



Now your publication is ready to upload on the website!



The screenshot shows the 'ENDODIGI Web' interface. At the top, it says 'The web site for you: Endodigi Publications'. Below this, there is a confirmation prompt: 'Do you Confirm to send the Publication to EndodigiWeb with following data:'. The current user is identified as 'My name My lastname (Myrna...)'.

The form contains the following fields:

- Title:** AAA
- Abstract:** A large text area with a vertical scrollbar.
- Attachments:** Reports: 0, Images: 1, Videos: 0, Other Files: 0.
- Privacy:** Private Access - The Publication can be accessed only through an invitation by email.
- Invitations:** -- <ecleris@ecleris.com>

At the bottom of the form, there are three buttons: 'Back' (with a left arrow), 'Send' (with a right arrow), and 'Cancel' (with an 'X' icon).

If your publication was uploaded successfully, you'll see an "Upload succeeded" message.



Please note if you attaching many files large, it may result in a long upload times



Visit the Endodigi website at <http://www.endodigi.com> to view your publication

PERFORMING PATHOLOGIES STATISTICS

(It is not available in ENDODIGI Server)

The program provides a simple statistics about the patient pathologies.

To use this tool, follow these steps:

- 1- Create your pathologies list. (Options → Data Base: Pathology)
- 2- Attach pathology/ies in the patient's visit file. If it is not listed, go to step 1.
- 3- Perform statistics. (File → Statistical) (See: Statistics Pathologies).

CREATE PATHOLOGIES LIST

This work should be undertaken in order to generate a database of professional

business, which was then used to attach with the patient data.

Thus, the amount of patients and pathologies constitute a data collection for analysis.

From the main menu: **Options**→**Data Base: Pathology**, you get access to the Pathologies window.

The pathologies can be added from a predetermined list, select the category (ENT; Gynecology or Digestive) and then pressing the add list button. You can also manually add other pathologies completing the pathology field and press the Add button. The new pathology is added in alphabetical order.



TOOLBAR



Add: Enter description in Pathology text box, and press the Add button adds the pathology to the list.



Delete: Erase the selected pathology from the list.



Clear all: Erase all pathologies listed



Sort: Sort quickly and easily the text in alphabetical order ascending or descending.

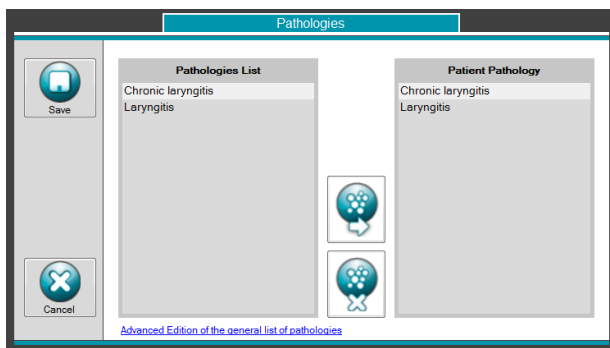


OK: exits and saves changes.

ATTACH PATHOLOGY IN THE VISIT



On the Visit view, press the button in Pathology to access the pathologies list (database).



To attach pathologies, select one from Pathologies List, then press Add button. To delete a pathology into the patient pathologies list, choose it, and then press Delete button.

Advanced edition of the general list of pathologies: see above **CREATE PATHOLOGIES LIST**.

Buttons



Add: Adding the selected pathology to patient pathology.



Delete: remove the selected pathology from current patient.

TOOLBAR



Save: Saves the listed pathologies and exits.



Cancel: Cancel the entire pathologies listing and exits.

STATISTICS PATHOLOGIES

From main menu **File**→**Statistical** you will be able to generate statistics according to the selected Pathologies.

To perform the statistics, you must select the Pathologies from the Pathologies list and click the arrow to send it to the Selected Pathologies list. You can select the search criteria by choosing between “**At least one**” or “**All**”. If you select At least one, patients who have at least one of the pathologies of the Selected Pathologies list were counted in the statistics as pathological. If you select “All” only patients having all the pathologies of the Selected Pathologies list were counted in the statistics as pathological. Having defined the desired options press the Search button. In the list above you can see the names of patients and the date of studies.

The screenshot shows a software window titled "Statistical". At the top, there is a table with columns: Last Name, Name, ID, Chat#, and DOB. The first row contains: 02, TEST, -, -, 19/07/2013. Below this table are two panels: "Pathologies" and "Selected Pathologies". The "Pathologies" panel contains a list with "Pat01" and "Pat02", where "Pat02" is selected. The "Selected Pathologies" panel contains "Pat01". Between these panels are two circular buttons: a right-pointing arrow and a left-pointing arrow with an 'X'. Below the panels is a summary table:

Total	2
Pathological	1
%	50,00

At the bottom left of the window is a "Back" button with a left-pointing arrow icon. To the right of the summary table are two radio buttons: "At least one" (which is selected) and "All".



Back: returns to the main

DATA BASE: PROFESSIONAL

From main window menu, **Options**→**Data Base: Professionals**. You get access the address book, is a database used for storing entries called professional contacts (colleagues). Each contact entry usually consists of a few standard fields (first name, last name, address, phone number, e-mail address, fax number). It is allow add, remove and edit contacts



TOOLBAR



Show: view contact information from the address book.



New: allows you to add a new contact to your Contact List.



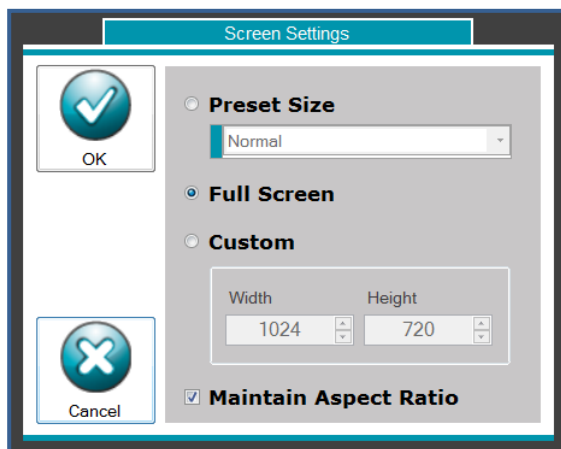
Edit: update the contact information and click save.



Delete: remove the selected contact from the list

SCREEN SETUP

Select the Size option from the panel in order to specify the dimensions of ENDODIGI screen:



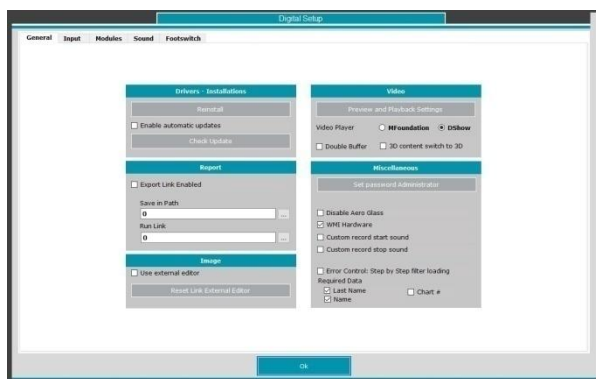
- Preset Size : Legacy - Small- Medium -Large
- Full screen
- Custom: Width x Height. Click the arrow button and choose the custom dimensions(1024X720 is the minimum resolution)
- Maintain aspect ratio: (Available to Full Screen and Custom). Set the relation between Width-Height of screen.

DIGITAL SETUP

The digital configuration allows selecting the functioning mode of the equipment. To access the Digital Configuration Menu, press **Options**→**Digital Setup** on the main window of the program.

The Setup dialogue box will appear. The configuration options are the following

GENERAL TAB



Drivers – Installations: Reinstall: Reinstall or update drivers



It is for advanced users or if the automatic drivers' installation has failed. Before proceeding, please contact the technical support, otherwise it can cause a malfunction in the system.

Enable Automatic update: Allows the Windows System drivers automatic updates. If you have automatic updates disabled (unchecked) you can download the update manually.

Checks Updates: Checks and allow you to download software updates.

-Report:

- Password protecting: allows you to protect the reports edition module. Thus, access to modify the templates is restricted to authorized personnel. If a password has been issued, you will be asked for this password every time you

want to create or modify a report template, but anyone could use templates without restriction

- Export link enabled: Custom option.
- Save in Path: stores the default reports in the path indicated
- Link:

- Image:

- **Use External Editor:** If you need to perform more advanced image operations, you can set an external image editor to be called for ENDODIGI.
- **Reset link external editor:** Click to reset a new external image editor

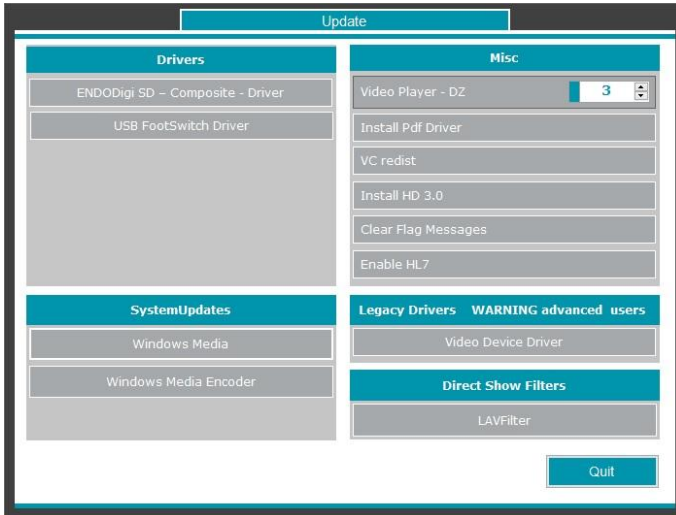
- Video:

- **Preview and Playback Settings:** Changes settings the screen mode to advanced and standard playback, and the capture screen. (See Section: Configuration of Visualization)
- **Video player:** *Mfoundation Dshow*, improve synchronization of audio and video on the player
- **Double Buffer:** Enable Double Buffer in the Capture screen.
- **3D content switch to 3D:** when the content is 3D, it will be visualized in 3D

- Miscellaneous:

- **Set password administrator:** Establishes a key as administrator to give users permissions. (See: User Management)
- **Disable Aero Glass:** Disabled Aero Glass, it is available in some Operative Systems.
- **Pause transfer to enter the video player:** Stops transfers, not to affect the time-to player. (*available in ENDODIGI Client version*)
- **Custom record start sound:** Allow select a sound to play when recoding starts.
- **Custom record stop sound:** Allow select a sound to play when recoding stops.
- **Required Data:** Allow check the obligatory fields to enter a patient.

Reinstall: Reinstall or update drivers



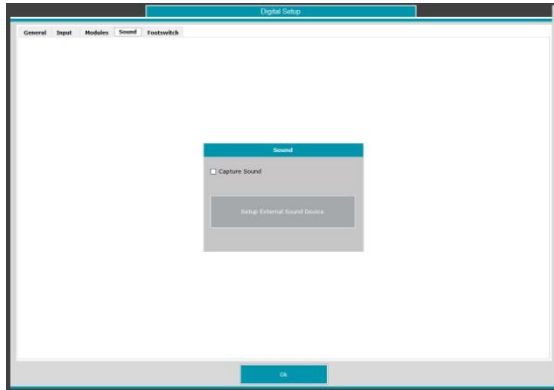
- **System Updates:** Updates some system drivers.
 - Window Media
 - Window Media encoder
- **Drivers:** Device drivers are a computer programs that allow the operating system to communicate with a device. They are therefore an essential part without which would not operate hardware.
- **USB Footswitch Driver:** Reinstall the new driver footswitch. Reads “FS compatibility Driver” to know if you have a new o earlier version footswitch.
- **ENDODIGI-SD –Driver:** Install the software controller to Endodigi SD versions.
- **Direct Show Filters:** Allow install Filter to capture and playback video.
 - LAV Filter
- **Misc:**
 - **Video Player – DZ:** Sets the factor of compatibility the Video Player.
 - **VC Redist:** Install C++ components
 - **Clear flag messages:** Allow see again the warning messages

about 3D.

- **Enable HL7:** Contact remote support to enable this option.
- **Install PDF Driver:** Install the driver to enable export to PDF format.

SOUND TAB

To capture sound joined with video, you must check <Capture Sound> and configure the device from the audio will be taken.



INPUT TAB

All new video capture hardware must be configured from the Input tab before it can be used. See the section of this manual **INSTALLATION: CONFIGURATION AND ACTIVATION**

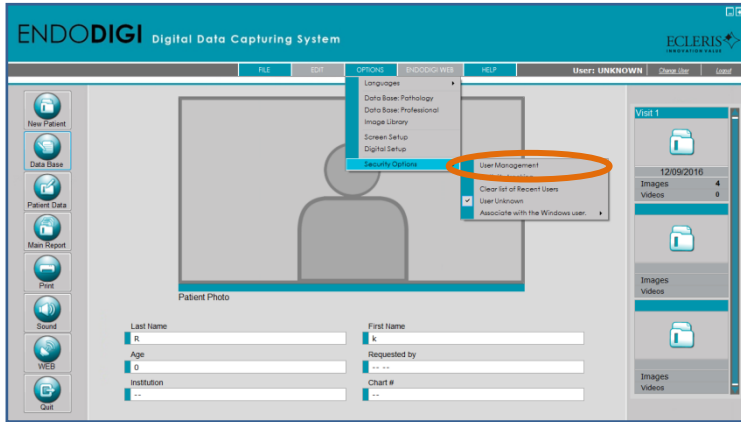
FOOTSWITCH TAB

See the section, **INSTALLATION: ACCESSORIES**.

SECURITY OPTIONS

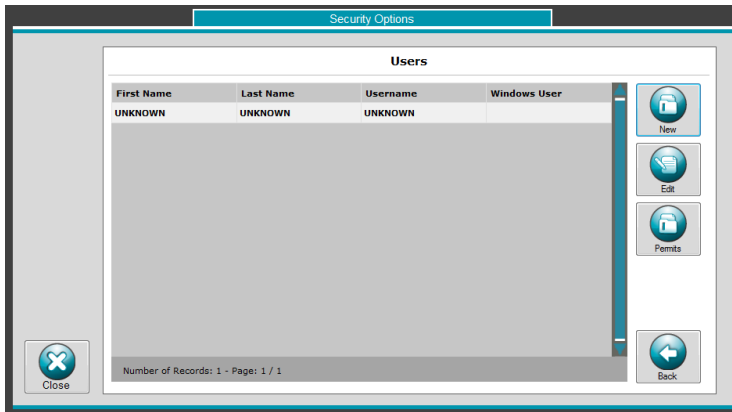
From the **Option menu: Security option** Access to User management

Here you can manage multiple users Endodigi to work, store, review files with different levels of security and privacy.

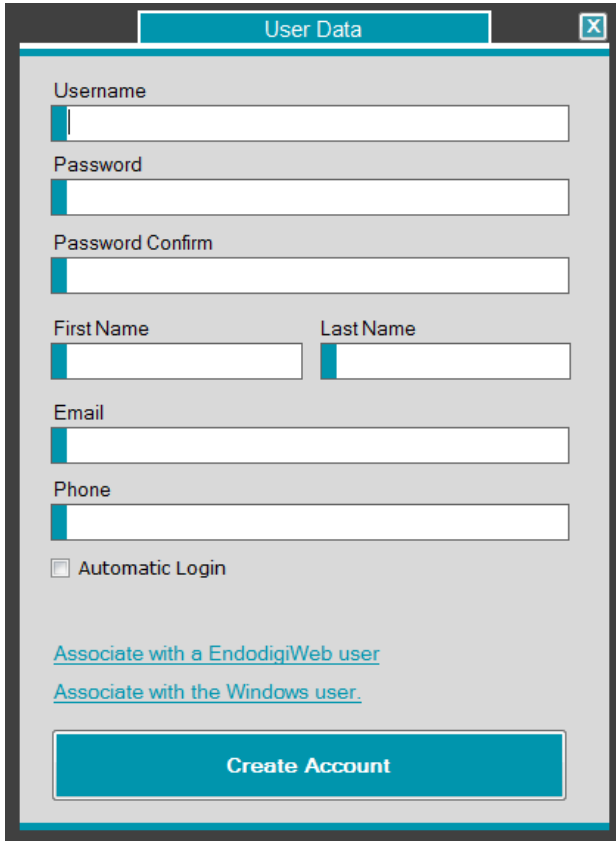


User management

Users:



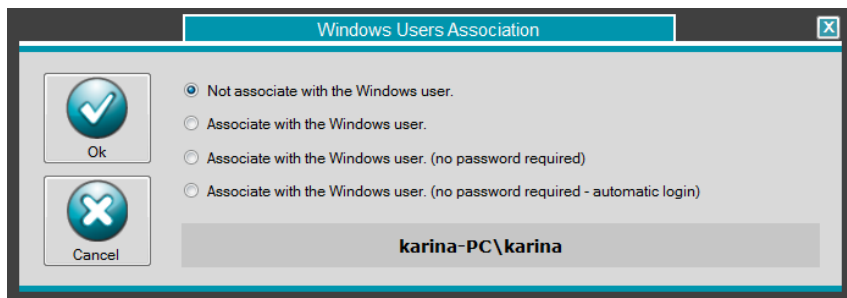
New: allow signing up a new user filling out a user data.

A screenshot of a web form titled "User Data" with a close button in the top right corner. The form contains several input fields: "Username", "Password", "Password Confirm", "First Name", "Last Name", "Email", and "Phone". Each field has a blue vertical bar on the left side. Below the input fields is a checkbox labeled "Automatic Login". At the bottom of the form, there are two blue hyperlinks: "Associate with a EndodiqiWeb user" and "Associate with the Windows user.". A large blue button labeled "Create Account" is positioned at the very bottom of the form area.

In the User Data tab you must complete the data required to create an user account (username and password), personal data (name, surname, email, phone) are optional.

Automatic Login: When this box is checked, the user's password will not be verified to log into the system.

Associate with a Windows user:



- Not associate with the Windows user: Endodigi user is not linked to Windows user. When you log in Endodigi you must enter the username and password User Endodigi.
- Associate with Windows User. When the Windows user associated be logged (eg User-PC \ User), screen log-in Endodigi start with the user Endodigi to which it is linked and you only need to enter the user's password of Endodigi for enter the system.
- Associate with Windows User (no password required): When the associated Windows user be logged (eg PC-User \ User), the log-in screen of Endodigi start with the user Endodigi to which it is linked. No password required, press OK to enter.
- Associate with Windows User (no password required – automatic login): When the associated Windows user be logged (eg PC-User \ User), the log-in screen will not be submitted to enter the Endodigi, it will start automatically with the user corresponding Endodigi.

Associate with a ENDODIGIWeb user:

Sets the ENDODIGIWeb user that will be used when the associated Endodigi user is logged..

If you want you can associate the user with a web user Endodigi (see creating a web user Endodigi).

It does not create a web account with the same data, but it does linking the two accounts.

Edit

It allows you to modify user data.

Permissions

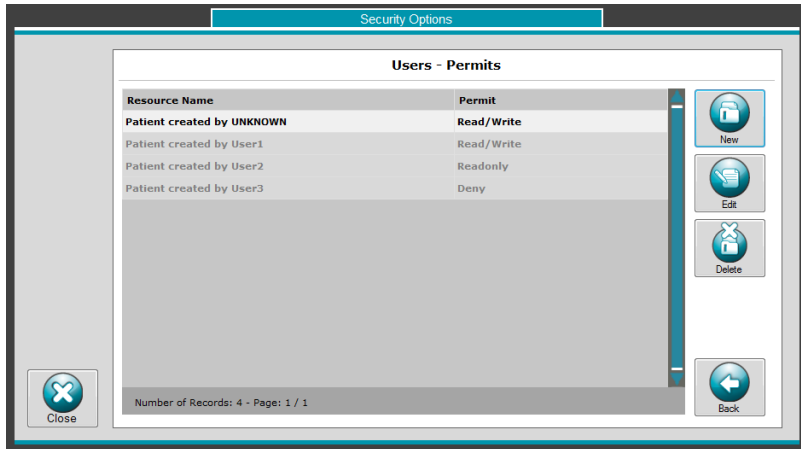
Each user can be assigned a specific permission to a resource.

A resource is a data type of software for example "Patients created by User1".

Permission sets the type of access to the resource, the permit may be:

- Deny: You cannot access the resource.
- Read Only: Allows the user to view resources.
- Read / Write: Allows the user to view, add, modify or delete resources.

For example: the permissions assigned to User1 shown in the following image.



User1 can modify the patients that have been created by the user Unknown and the created by himself. (Patient created by Unknown - Read / Write, Patient created by User1 - Read / Write).

User1 has only read access to patients created by User2 (Patient created by User2 - Read Only). These patients may not be modified by User1 but you can see them in the database screen and can open them for reading.

User1 does not have access to users created by User3 (Patient created by User3 - Deny). These patients may not be modified by User1 and cannot see them in the database screen.

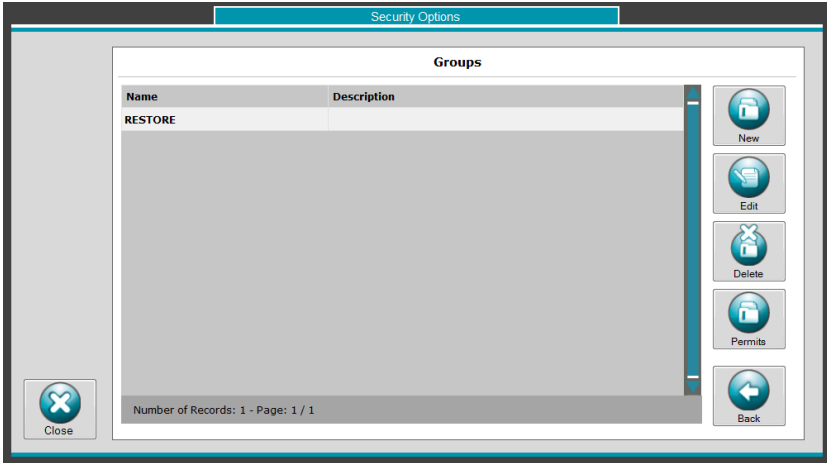
New: Assign new user permission.

Edit: You can modify permissions on the resource.

Delete: Delete permission from the list.

Groups

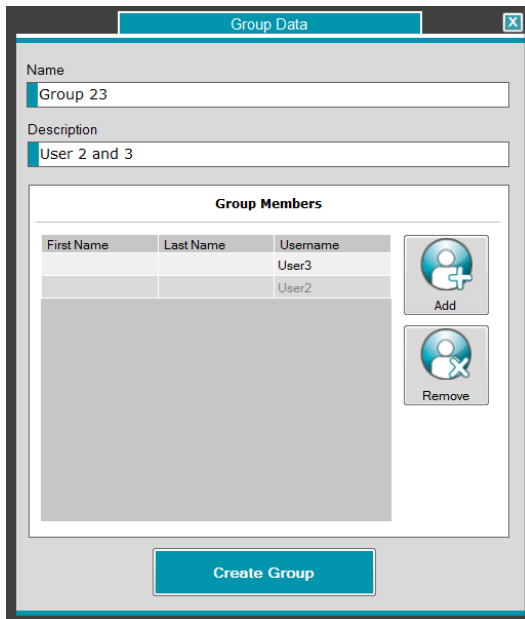
Users can be organized into groups and permissions can be assigned to the group instead of the user individually.



New

Allows create a group of users by using the Add and Remove buttons.

When adding a user to a group, the group obtains default permissions Read / Write for patients created by the user. That is, if the User3 is added to Grupo23, all group members can modify patient data that are created by User3. Later it explains how to change these permissions.

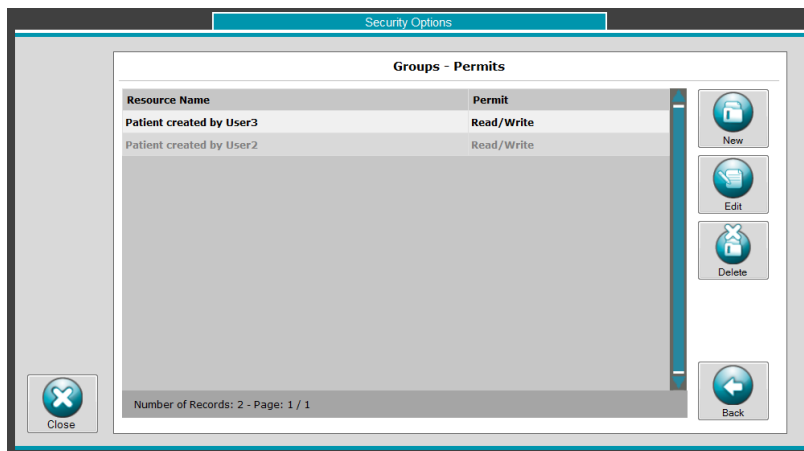


Edit: You can edit the fields of the Group Data tab.

Delete: Delete a group.

Permissions: Set security options of the group, adding, editing or deleting permissions from the list.

In the image below we see that the members belonging to the selected group will have access to Read / Write on patients created by User2 and User 3.



Permission priorities

Each user can have individually permissions and user group permissions. User permissions take precedence over Group permissions. If a user belongs to more than one group, it is the most restrictive access which takes precedence.

For example for the following system configuration:

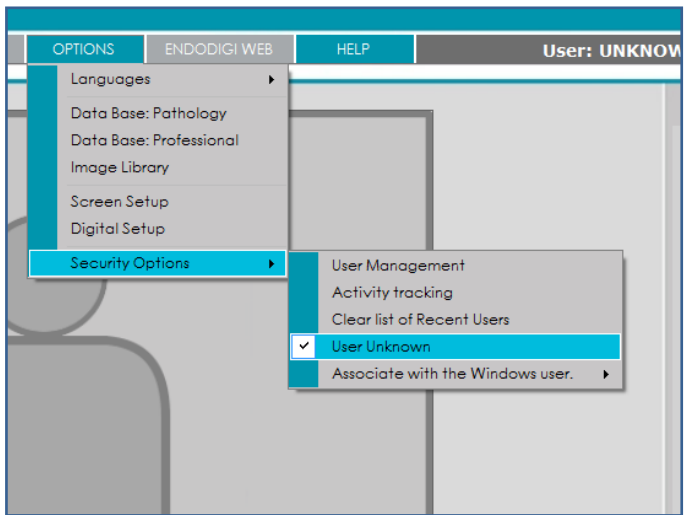
User Name	User Permission
User1	Patient created by User1 - Read/Write
User2	Patient created by User2 - Read/Write
User3	Patient created by User3 - Read/Write

Group Name	Members	Group Permission
Group A	User3	Patient created by User1 - Read/Write Patient created by User2 - Read/Write
Group B	User3	Patient created by User2 - Read Patient created by User3 - Read

The User3 has the right to:

- Read / Write on patients created by User1 because it belongs to GroupA.
- Reading on patients created by User2 because it belongs to Group B. Although also belongs to Group A that has permissions on these patients, the priority is the most restrictive access. If you want the User 3 has write permissions on patients created by User2 without removing Group B then you should add as permit user because user permissions take precedence over group permissions.
- Read / Write on patients created by User3, because user permissions take precedence over group permissions.

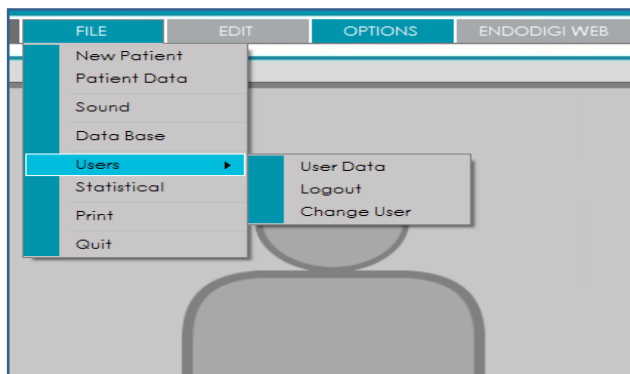
Security options



Clear list of recent users: The first time a user log in, can decide if he wants his name to appear on the user list that appears in the login screen.

Unknown User: If this option is enabled when a user log out, automatically log in the Unknown user.

Associating with the Windows user: NET / WMI / Disable. Select the technology used to poll users Windows. Consult technical support



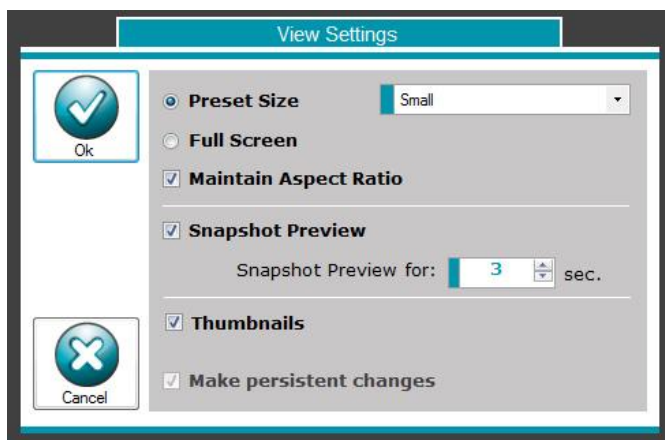
User Data: Allows access to user data.

Log out: Logs off the current user.

Change User: log off the current user and displays the login screen to change user.

DISPLAY SETUP

Changes settings the screen mode to advanced and standard playback, and the capture screen



Adjust the display setting:

Preset Size: Small- Medium –Large

Full Screen

Maintain Aspect Ratio



Note: Please understand that there are differences between “screen resizing” and the above option. This option attempts to stretch the movie to comply with the dimensions specified, while also maintaining the video clip aspect ratio.

Snapshot Preview: This sets whether or not to display the captured snapshot on the screen immediately after the image is captured. It allows delete or confirm the snapshot before the timeout is reached. This timeout (second) is programmable.

Thumbnails: It deploys the thumbnail viewer.

Make persistent changes: The selected screen size is always on, both in the recording and playback of movies

TECHNICAL SUPPORT

To request technical assistance, click on **Help** → **Support** menu. Access the following screen.

The screenshot shows a web form titled "Technical Support". At the top, there is a dropdown menu set to "Remote Support". To the right of this menu is a small text box that reads: "Request Remote Assistance. Enables to Technical Support of Ecleris to solve the problem through remote access." Below this is a section titled "Contact Data" which contains several input fields: "Country" and "City" (each with a small blue icon to its left), "Distributor", "Name and Surname", "Phone" (with a "+" icon to its left and a small blue icon to its right), "Email", and "Serial Number". A small text box below the phone field provides the format: "Format: +[Country Code] [Area Code] [Phone Number]". At the bottom of the form is a section titled "Defining the Problem" with a large text area. At the very bottom are two buttons: "Send" and "Cancel".

KIND OF TECHNICAL SUPPORT

-Email Support: the field required must be completed and is send the query. The technical support will receive an email with that data, after that it will answer through the configured email address.

-Remote Support: This mode allow that technical support establish a remote connection to try solving the problem.

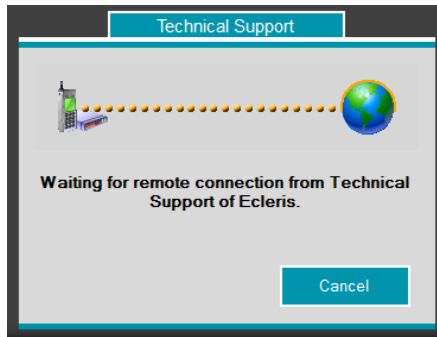


It's possible that technical support is not available at the moment of realize the query. If so, you be informed how time the service will be available, to decide wait or realize the query when the service is available. See Technical support is not available.

THE SUPPORT ENGINEERS CAN COMMUNICATE IN ENGLISH AND SPANISH. HOWEVER, SUPPORT ISSUES WILL ALWAYS BE ANSWERED IN ENGLISH, UNLESS WE KNOW FOR CERTAIN THAT YOU'RE PRIMARY LANGUAGE IN SPANISH, IN WHICH CASE, WE WILL USE SPANISH. SUPPORT TEAM DOES NOT ANSWER E-MAILS IN ANY OTHER LANGUAGE.

WAITING A REMOTE CONNECTION

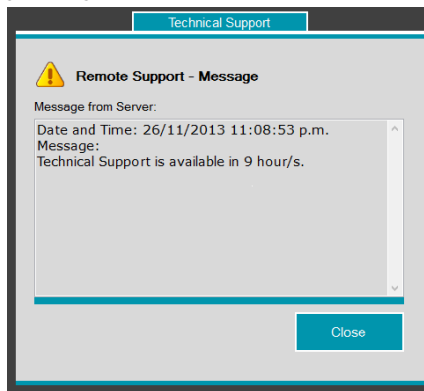
After that technical support receive the application to Remote Access and until in fact is established or canceled the connection you will see the following screen.



If you cancel process, technical support will not able to establish the remote connection.

TECHNICAL SUPPORT NOT AVAILABLE

When the technical support request is not available to attend a remote connection, is shown the following message.



It is seen that Technical support will establish the connection within 9 hours. You can close the message and wait until establish the connection or cancel the technical support application and try later.

BACKUP AND RESTORE DATABASE

The backup and restore provides an essential safeguard to help protect your data stored in database. The topics in this section explain how to use to backup and restore the database, transaction logs, and file and file group backups.



Have any doubts consult the technical service



If you wish to make a backup of the ENDODIGI folder, all its contents and the software configuration (often is in C\ Program Files\ENDODIGI) just copy it to a safe place or external hard drive.

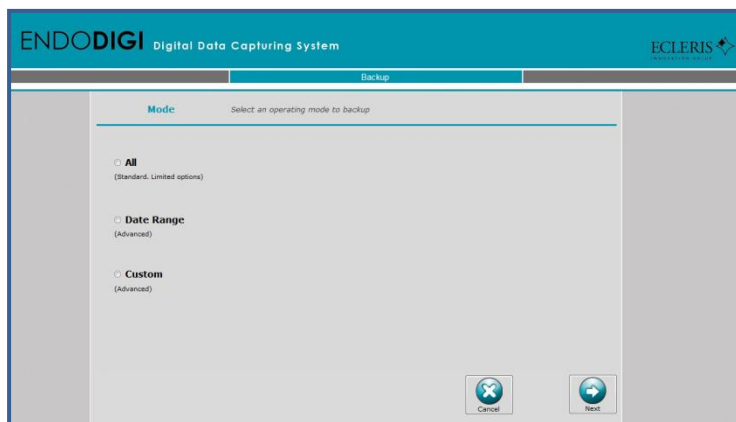


In Client version can only make backup of private files.

MAKING A BACKUP

You can make a backup with a simple touch on Backup button on the database. It helps you to protect your patient records (videos, picture, sound, reports) from accidental damage or to reduce the number files on your hard disk, freeing up space. They could be restored later if it is necessary.

Select the backup mode.



- **All:** It is most easy to do. Simply select a folder or drive and the entire

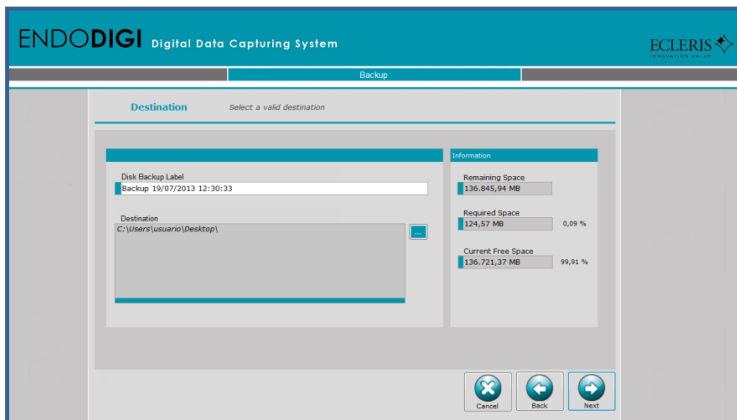
patient Files will be backed up.

- **Date range:** Limit your backup of files to a specific date range by selecting a complete month, day and year combination
- **Custom:** Select the items you want to include in the back up one by one.

And follow the backup wizard instructions, using the **Next**, **Back** and **Cancel** buttons



To carry out a backup copy of the patient files and visits (banks). You will need to select a folder or an external storage device (SD, or USB Disc). (e.g. “C:\New Folder”).



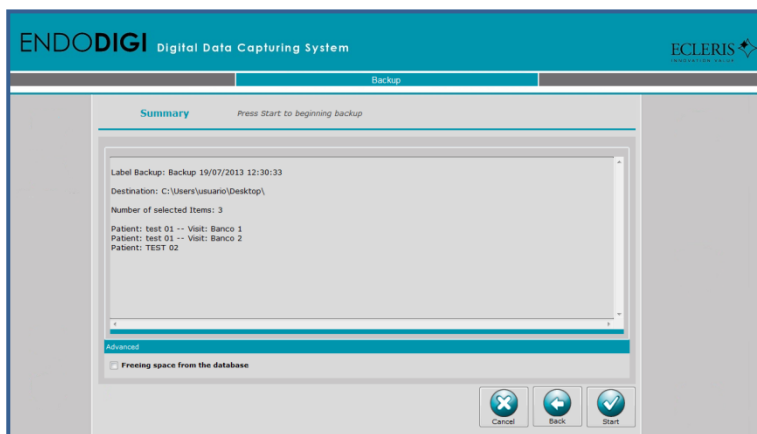
So then determines the unit Information
The disk size available (free + used)

The amount of disk space that a copy consuming. (Required space)

The disk size free (free)

Type a disk Label (optional) and Next, shows a Backup summary before to Start to copy.

The Backup progress will be indicated by a progress bar (%).This may take several minutes. When the backup is completed, a confirmation message appears.



If the box “**Free up space**” is checked, the Files selected will be copied and removed, however if it is unchecked the files will be copied only.



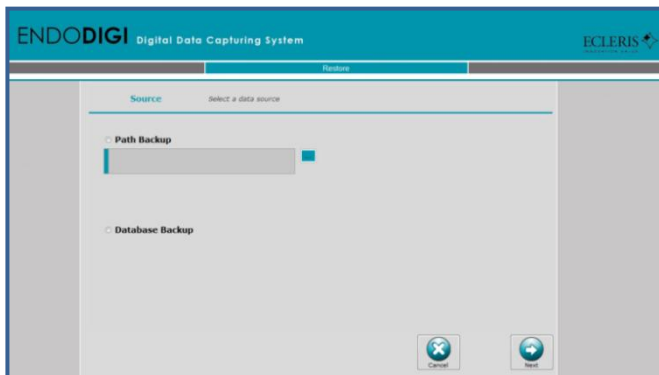
All copies made from this form will be recorded in the database Backup. Note that the visit folders whose data were eliminated remain "Locked". Thus in the future, if necessary, you might restore them.



By default, throughout the backup process, the error log file is created. It contains all the errors detected since the backup was started.

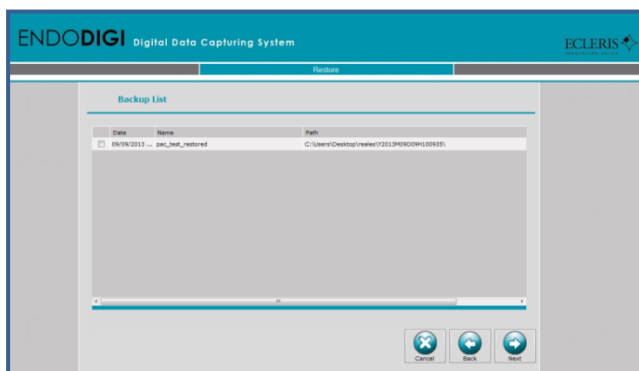
MAKING A RESTORE

Restore a database is very simple, it is only consider the location of the backup. Pressing Restore button in the database screen the wizard will start. Here you can select:



Path Backup: Enter the path to the directory where the backup is located. (e.g. “C:\New Folder”).

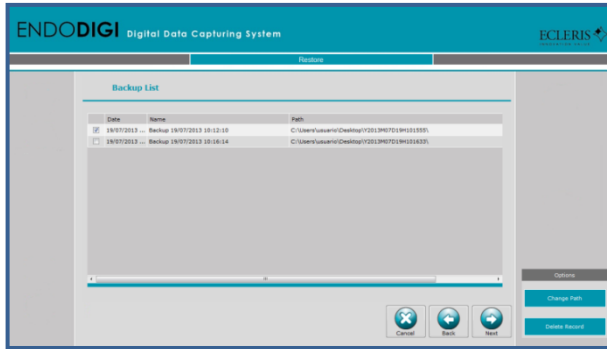
Backup Database: Every successful backup operation is saved to a list. It is a sort of summary of everything backups. On the list you can search copies by their descriptions and the access path to restore them.



Delete: Erase a selected backup item to list

Change path: Modifies the suggested backup location.

And follow the backup wizard instructions, using the Next, Back and Cancel buttons
 Once you select the items to restore and press Next button, restore summary appears



The restoration Options must be established by:

Access Option (Only available in ENDODIGI Server version)

- **Keep Access:** maintains the previous access
- **Private:** The patients will be restored as Private
- **Server:** The patients will be restored to the database server (This requires client-server connections)

In the case a bank is not empty you may:

- **Overwrite:** The restored the data replaces the existing file.
- **Not Overwrite:** A new bank is created to copy and restore the data, keeping the existing banks intact. In these cases you may bank duplicates
- **Skip:** the Item restoration is canceled and skips to the next step.







The Start button begins the restore process.

INSTALLATION

COMPONENTS

The ENDODIGI Digital Data Capturing System includes the following parts necessary for its installation and functioning.

Main unit	
Microphone	
Footswitch	
USB Cable	
User's Manual	
CD Installation (2)	
Optional:	
Wireless footswitch (battery AA required-Not included)	



Note: The actual product may vary from the illustration Ecleris reserves the right to change the delivered components of the equipment according to availability.

REQUIREMENTS

Windows 10

- Updated Windows 10
- Intel I5 2.5 Ghz
- 16 GB RAM
- Dedicated Video board with compatible with Intel Quick Sync
- Screen Resolution: 1024x720 24 o 32 bits
- USB 3.0 port (with drivers correctly installed)
- Windows Media Encoder
- Microsoft .NET Framework 3.5
- Network Interface Card 1GB (For Endodigi client)
- Disk space: 500 GB of free disk space

INSTALATION

To allow to use the device it necessary complete all steps

INSTALATION: SOFTWARE

INSTALATION: VIDEO CAPTURE DEVICE

INSTALATION: DRIVERS

INSTALATION: CONFIGURATION AND ACTIVATION

INSTALLATION: SOFTWARE

Follow the advice below for safe and appropriate installation:



It is recommended that installation will perform by a skilled technician.



Before starting the installation of ENDODIGI, close all applications that are running on the computer you are going to install the device.



Please verify that your PC meets the system requirements to install ENDODIGI.

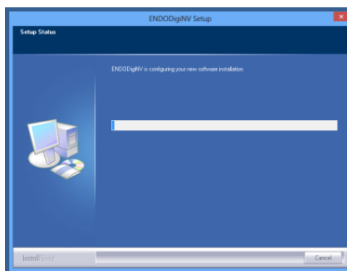
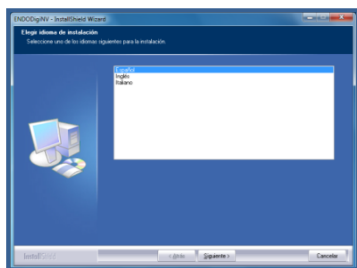


You make sure ENDODIGI is disconnected from the PC before proceed installing the software.

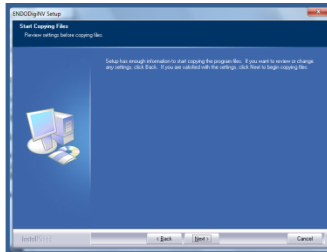
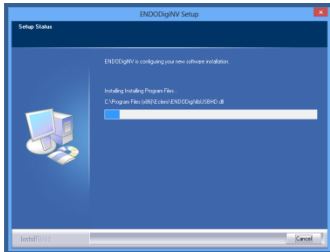
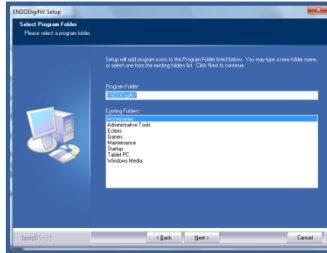
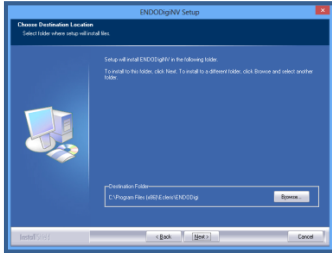
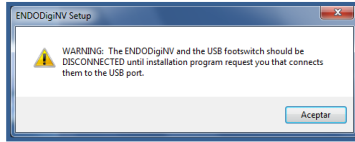
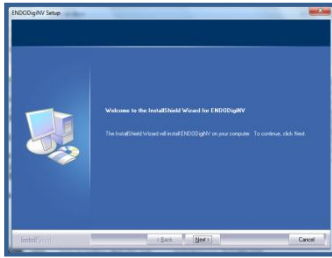
Insert the disc into the computer and follow the onscreen instructions.

CD automatically attempts to start the installation wizard. In this case, appears auto play dialog box, where you can run the wizard. If the installation program does not start, going to *start* → *run* and select *CD: \Setup.exe*

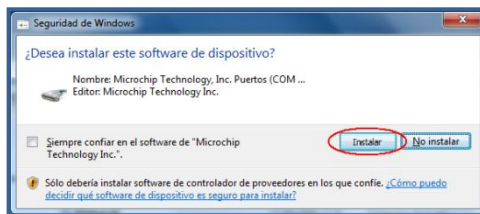
Select the installation language and press Next to start installation process.

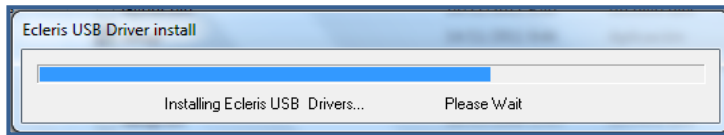


It is recommended to follow the options that appear by default, by pressing Next button in each of the screens, unless indicated otherwise.



The installation program will automatically begin the installation of the drivers. Press Install to continue





DO NOT Restart the PC until installation is finished completely.



Put the windows taskbar into auto-hide mode.



If you experience problems during installation please do not hesitate to contact the technical Service

INSTALLATION: VIDEO CAPTURE DEVICE

Wait until Windows has booted completely, then connect the device.

Connect the video source (Endoscope, Video Camera, etc.) into the video connector.

Connect the USB cable to a free USB 2.0 port on your computer.

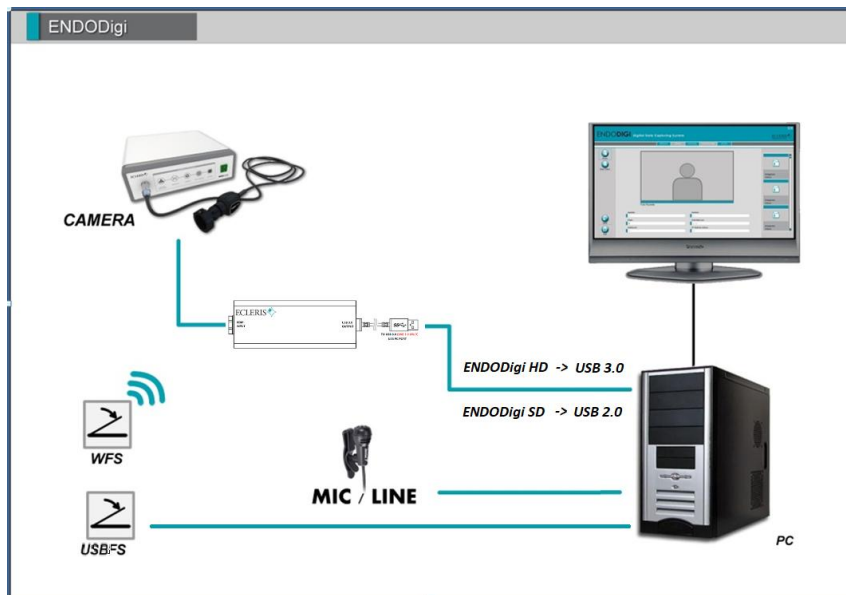
Connect the Footswitch to USB port.



Note that the ENDODigi HD exclusively uses a USB3.0 port, whereas the ENDODigi SD can be connected to both a USB2.0 port and a USB 3.0 port.



Do not use the front ports of desktop PCs since normally they are not correctly assembled. This can cause communication errors.



Conexions

INSTALLATION: DRIVERS

The PC recognizes a new hardware device and automatically installs the corresponding driver:

Video Driver:



You must logon with administrator privileges to install the device

Once Windows is fully booted up, it will display a message bubble in the taskbar to indicate "Found New Hardware". The required system drivers will be automatically installed.

Wait until Windows displays another message bubble indicating that the new hardware was installed successfully.



Driver installation may vary depending on the operating system.

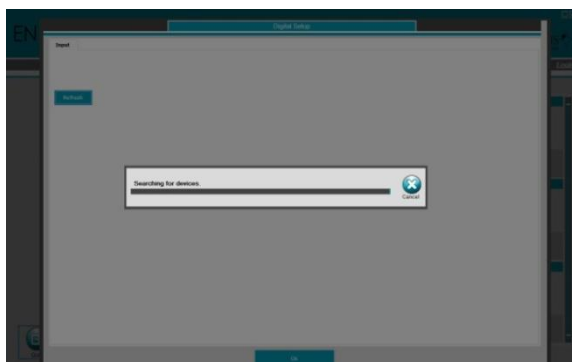
INSTALLATION: CONFIGURATION AND ACTIVATION

In order to use the ENDODigi, at least one video input must be configured. To do this, go to the main screen menu Options ->Digital Configuration - Input Tab

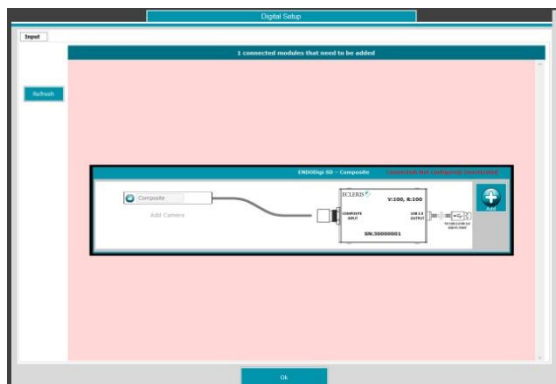


IMPORTANT: the device you want to add must be connected to a USB 3.0 (HD version) or USB2.0 / 3.0 (SD version) port.

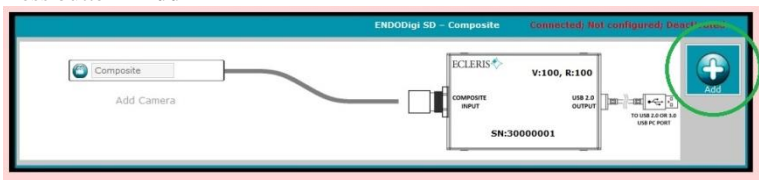
Selecting the tab will automatically start the search for ENDODigi devices



Showing the devices that can be added-configured in a red background and those configured in a green background. Each device will be displayed as **Connected**; **Not configured**; **Disabled**.

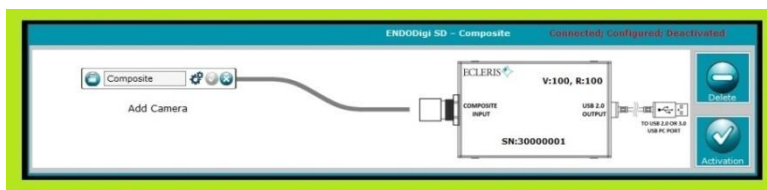


Press button **+Add**

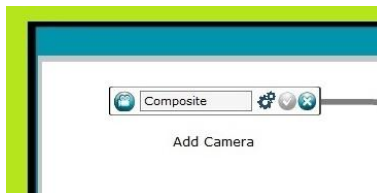


You will be asked if you want to add the device, press the Yes button

The new device will be added showing version and serial number. Changing its status to **Connected**; **Configured**; **Disable** on green background.



A default camera name will be created associated with the device. It is important if you have more than one camera to change it, pressing on it and entering a descriptive name.



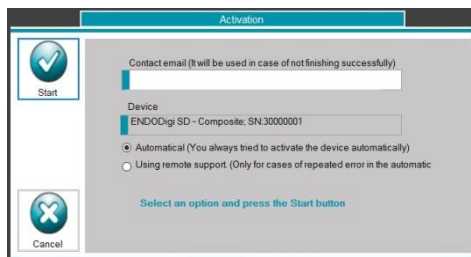
It is possible to configure up to 3 cameras with different names and video settings in the same input. Use the Add Camera button. Multiple cameras in one input means that to change cameras you must disconnect the current one, connect the one you want to select and then choose the camera, based on the name, on the capture screen.

If you want to connect up to 3 cameras to separate inputs (you will not have to disconnect and connect when you want to change cameras) request an Ecleris video input selector from your Ecleris dealer or ask for more information at support@endodigi.com

Finally you must activate the device by pressing the **Activation** button

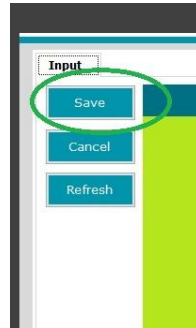


Fill in the form with your email and press Start in the Activation dialog





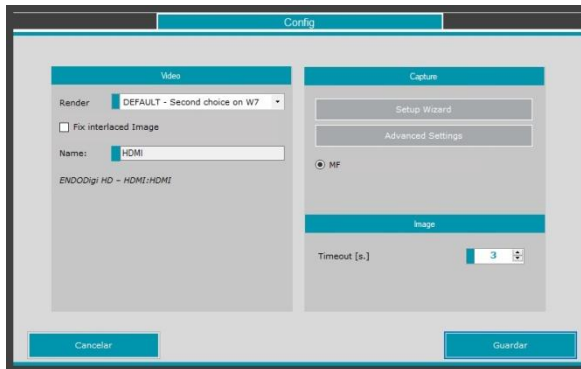
IMPORTANT: Press the Save button to finish the setup.



CONFIGURE CAPTURE DEVICE



Will be show a windows with the options to configure the video input



Render: Select the active video render.

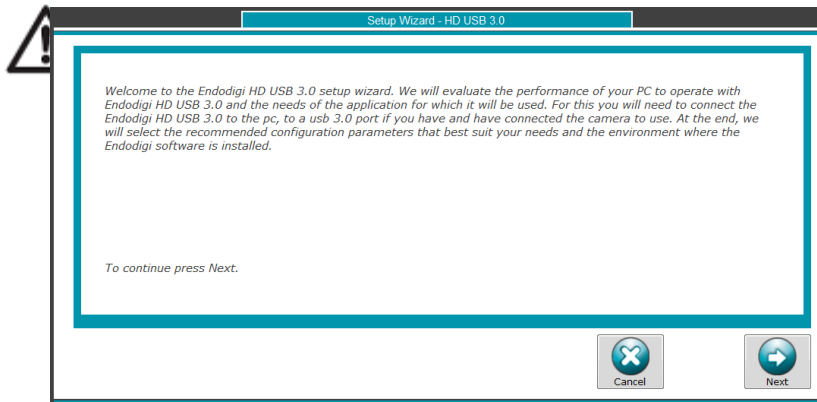
- **Default:** Second option for W7.
- **VMR7:** Preferred option for W7 and W8.
- **VMR9:** Second option for W7.
- **EVR:** Render of Compatibility.

DEVICE SD

Fix Interlaced Image: Reduce the video resolution on captured image. Remove the interlaced and allow the use of device on old computer or with codec issue.

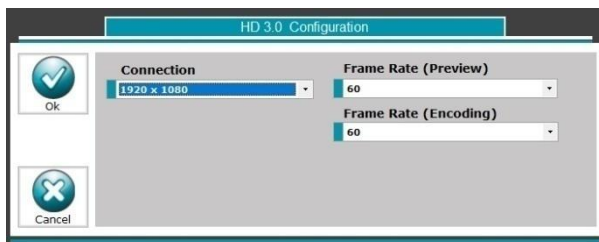
DEVICE HD

Setup Wizard: Starts the wizard to optimize the HD hardware configuration. The assistant performs a functional test and use questions to select the recommended hardware configuration.



Advanced Configuration: This option is only for advanced users. Before proceeding, consult your technical service, otherwise it could cause your system to malfunction.

Image - TimeOut: Advanced users. Allow to set the timeout to wait the image file.



INSTALLATION OF ACCESSORIES: CONFIGURATION AND ACTIVATION WIRELESS FOOTSWITCH

Connect the USB receiver, directly on available USB port of computer. disponible de su computadora.



Install the batterie 9V format 6F22 on the internal box of footswitch. To insert the batterie only pick up the cover from hole located on left side of box. See the images like example.

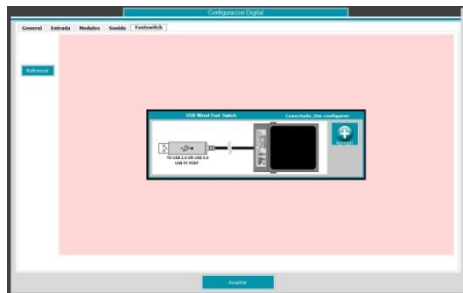


INSTALLATION OF ACCESSORIES: CONFIGURATION AND ACTIVATION WIRED USB FOOTSWITCH

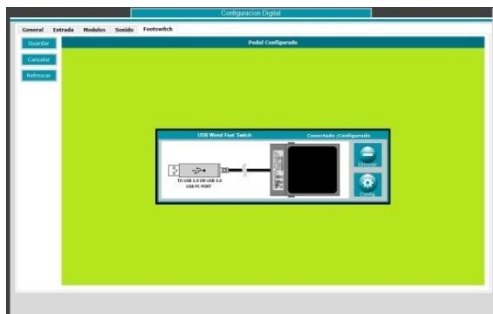
Connected the USB cord directly on USB of computer, the drivers will be automatically loaded.



Connect the footswitch on USB port computer, when enter of Footswitch Tab, the software automatically start the search the footswitch connected.



Refresh: Search again the USB footswitch connected on USB port computer.
Add: Enable the footswitch to allow is used.



Save: Save the changed realized.

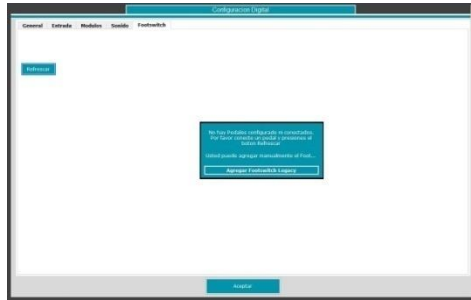
Configure: Open a windows that show the option to use footswitch. (see section Use of Footswitch).

Cancel: Cancel the changes realized.

Delete: Delete the footswitch configured.



If you have an USB wireless footswitch that is not recognized automatically, you can add on manual way, press the button “Add Footswitch Legacy”.



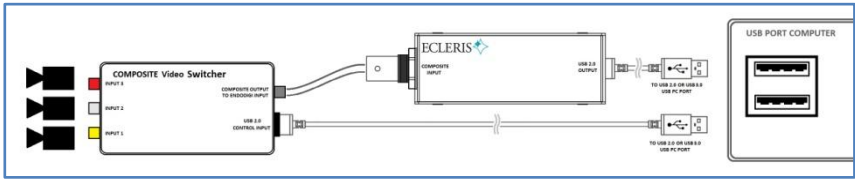
If your capture device just has included the wired footswitch. The footswitch will be added automatically when is added the capture device.

INSTALLATION ACCESSORIES: COMPOSITE VIDEO SELECTOR

Connect the accessory on USB port of computer. With this accessory you can change until 3 video input without disconnect any other camera connected on inputs.



See the following conection schematic.

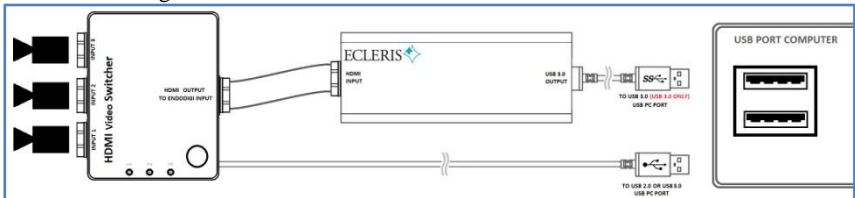


INSTALLATION ACCESSORIES: HDMI VIDEO SELECTOR

Connect the accessory on USB port of computer. With this accessory you can change until 3 video input without disconnect any other camera connected on inputs.



See the following conection schematic.



CLIENT CONFIGURATION – Only Server version

The configuration is necessary to connect to server through a local TCP network. Client Configuration is found into options of principal menu, **Options→Client Configuration**.

On top-center of screen there are three tabs to choose.

It's not necessary to be connected to realize changes in Client Configuration.

CONFIGURE A CLIENT

Choose configuration tab.

Click on icon Edit to realize changes in parameters.

Client Name: User or client name to ENDODIGI.

Server IP: Name or IP Address of equipment that act as server

Server TCP Port: TCP Port address of equipment that act as server



Complete the parameter configuration with valid values, if you have troubles then consult the ENDODIGI SERVER administrator.

Save your current configuration and accept the reconnection message, after that automatically the connection will start.

Test the connection. Press the icon Test, if the connection was successful then you will see a “Test OK” message.

Configuration

Client Data

Information

Client Name Client1

Server IP 127.0.0.1

Server TCP Port 10000

Connection

Asynchronous Enable

Timeout [sec.] 30

Log Events Communication Enable

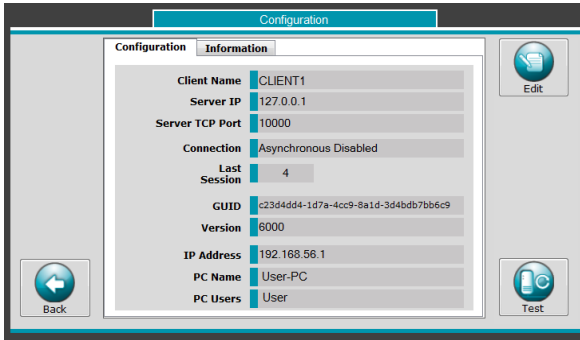
Save

Cancel

Back

CONFIGURATION

Parameters:



The screenshot shows a 'Configuration' window with a 'Configuration' tab and an 'Information' sub-tab. The parameters are as follows:

Parameter	Value
Client Name	CLIENT1
Server IP	127.0.0.1
Server TCP Port	10000
Connection	Asynchronous Disabled
Last Session	4
GUID	c23d4dd4-1d7a-4cc9-8a1d-3d4bdb7bb6c9
Version	6000
IP Address	192.168.56.1
PC Name	User-PC
PC Users	User

Buttons: Back (left), Edit (top right), Test (bottom right).

Client Name: User or client name to ENDODIGI.

Server IP: Name or IP Address of equipment that act as server

Server TCP Port: TCP Port address of equipment that act as server

Connection: Type of connection enabled.

Last Session: Show the n times that it was connect successful to server.

GUID: Unique identification to client.

Version: Client Version number.

IP Address: IP Address of local PC.

PC Name: Name of local PC.

PC User: User name of local PC.



Test: Allows testing the connection to ENDODIGI server



Edit: Allows edit parameters

CONNECTING TO ENDODIGI SERVER

Once the client is configured is ready for use. The client-server connection is established automatically whenever Endodigi starts in the client PC, except that the server is not available or there is a problem in the local network. A message that cannot connect appears in which case.

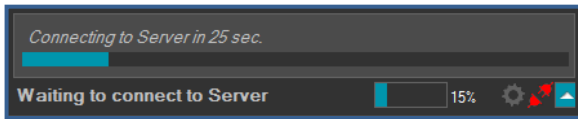


Data transfer Client↔Server, is automatically set (provided there is client-server connection)

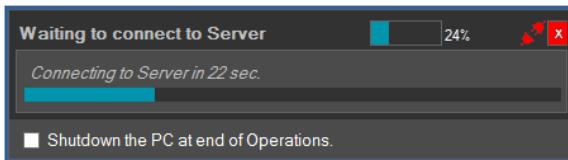


The rate of every transfer depends of local network bandwidth and the ENDODIGI server configuration.

PROGRESS BAR: During the file transfer a progress bar appears which indicates the process name and the execution percent.



PENDING OPERATIONS: The software determines the priority operations and automatically pause the data transfer from the client to the server, thus optimizing resources. Similarly pending data transfer automatically resumes upon release resource.



Shutdown the PC at end of Operations: Turn off the pc after finishing the pending operations

APENDIX FIREWALL CONFIGURATION

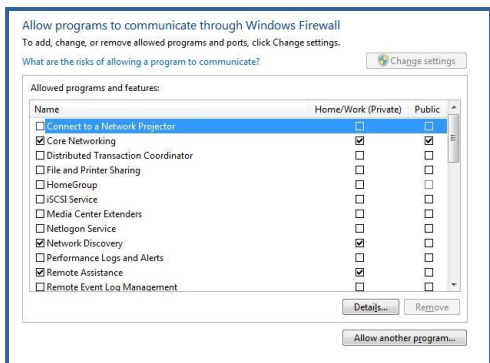
(Only it is available in ENDODIGI Server)

By default ENDODIGI client search the server into Local host. Before change the firewall configuration, you must configure the ENDODIGI client.

There are four typical firewall settings, if your firewall is not on the list, configure it as indicated in the manual for your firewall.

WINDOWS FIREWALL

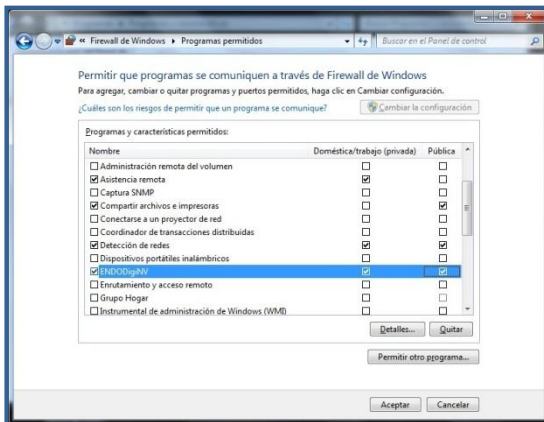
Go to **Start→Control Panel→System and Security→Windows Firewall** press Allow programs to communicate through Windows Firewall.



Click on Change setting, after that click on Allow another program
Select ENDODIGINV.exe from program list or click on Browse.



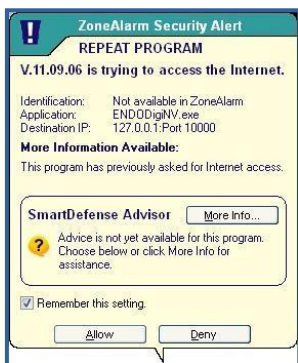
Check Home/work (Private) and Public



Finally you must accept the changes.

ZONE ALARM SECURITY

There is an attention message when you try to connect a remote application. Check “Remember this setting” and press Allow. You must repeat this procedure when you realize change setting in Client Configuration.



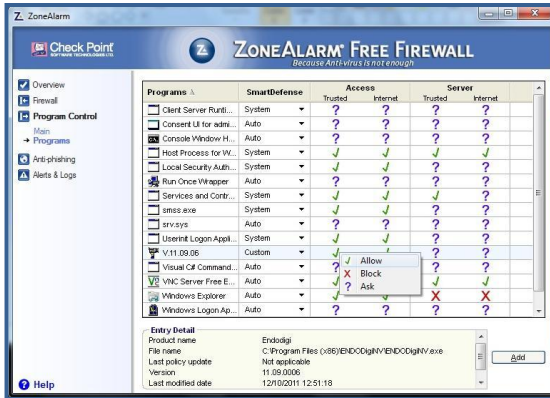
MANUAL CONFIGURATION

Enter main window of Zone Alarm Security, through task bar or direct access of program

-Go to Program Control→Programs. If the program not appears in program list then press Add and select the correct program.ENDODIGINV.exe



You must press over the signs to allow the access, you choose Allow item in Trusted and Internet columns.



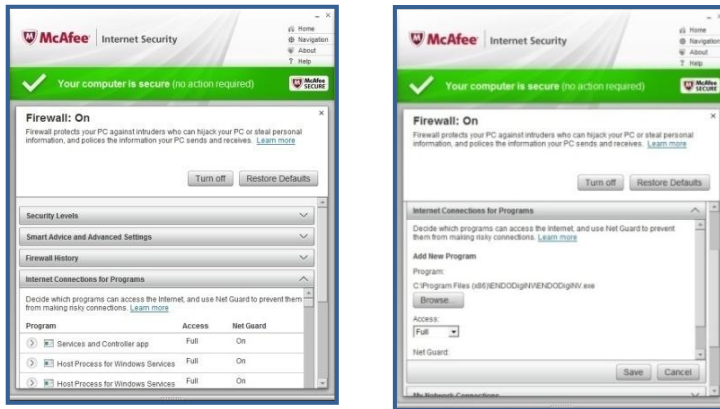
-To accept the changes you must close the screen configuration.

MCAFFEE INTERNET SECURITY

Enter main window of McAfee Internet Security, through task bar or direct access
Go to Navigation Center → Firewall.



Click on Internet Connections for Programs. After that you press Add and you choose a program from program list or search through button Browse.



You must put Access as Full.



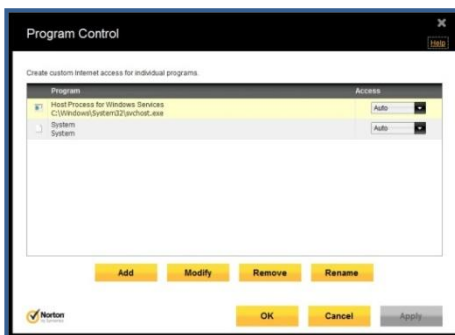
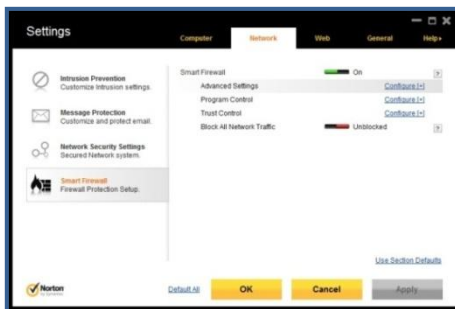
-Save the configuration and exit the application.

NORTON INTERNET SECURITY

You must enter to main window of Norton Internet Security through task bar or direct access.



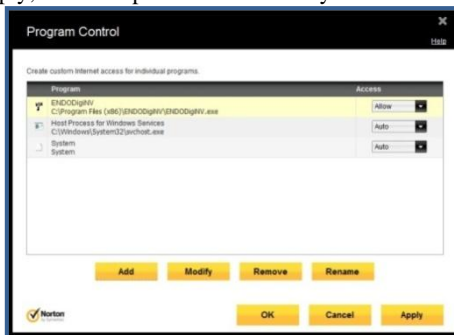
Go to **Settings**→**Networks**→**Smart Firewall**, in Program Control press **Configure**



Click on **Add** to search the ENDODIGI Client and then you chose Allow from access column



Press Apply, after that press OK and finally exit the configuration.



APENDIX CLIENT HL7

SPECIFYING IDENTIFIERS

Patient

A patient identifier (patient ID) uniquely identifies a patient within the hospital or Endodigi System. The patient ID is Medical Record Number (MRN).

Visit

The visit is identify with a unique identifier Id the Patient Account number ID.

Reports

To export in PDF format to EMR the filename format is formed by the following fields:

Application ID: Required 30 characters. Fill with spaces to the right. 22 custom 8 reserved for control version

Visit Name - FA#: Required 12 characters. Fill spaces to the right if necessary.

Chart - FP#: Optional 10 characters. Fill spaces to the right if necessary.

Form ID: Required 15 characters. Fill spaces to the right if necessary.

Delete Flag: Optional 1 character.

Number of pages: Optional 5 integers. Fill with zeros to the left.

Date of Birth (yyyymmdd): Optional 8 integers. Fill with zeros to the left if necessary.

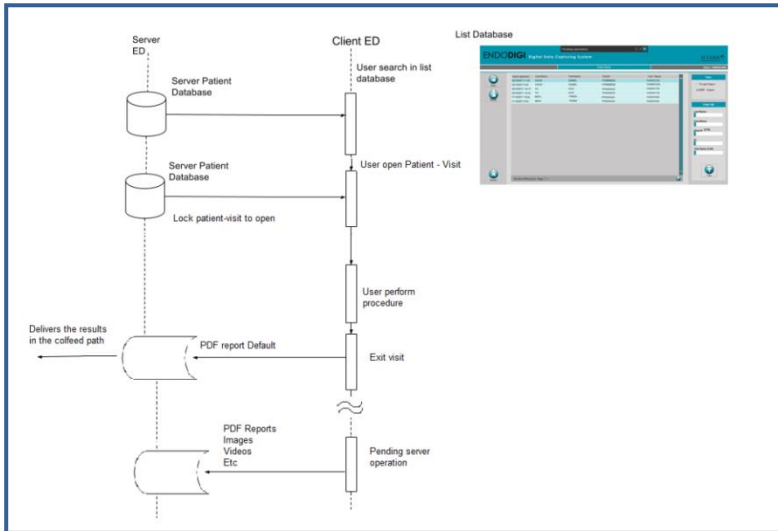
Sex (M,F,U): Optional 1 character. Space fill if necessary.

The Form ID, Flag delete and Version control are configurable.

If flag delete is activate the previous copy exported to EMR is sending with the flag set “Y” before to send the new one with the flag set “N”.

If version control is activated a number of eight digits is added to the Application ID field.

CLIENT ED WORKFLOW



The active pdf report is sent to the Server ED automatically when user in client ED terminal leaving the visit. Next, the server sends the report to the EMR. Once the Server ED finalizes the sending of the active pdf report to the EMR (coldfeed path), it is possible to leave the visit. If the delivery process to the EMR is not completed and user left the visit, the report will not be sent until the next user open/ close this visit.

REPORT EDITING

Once the report is generating, user can edit it in the client terminal. The fields linked to the demographic data will be completed with the actual database data at the first time created. Then the user can edit or manual refresh.

LIST DATABASE - CLIENT SIDE

ENDODIGI Digital Data Capturing System

ECLEJES UNIVERSITY

Pending operations

Data Base

User: UNKNOWN

Admit datetime	Last Name	First Name	Chart #	Visit Name
02/10/2017 11:26	HUGO	DANIEL	FP0000038	FA0001250
02/10/2017 9:45	HUGO	DANIEL	FP0000038	FA0001250
02/10/2017 06:15	PO	KATE	FP0000038	FA0001154
02/10/2017 06:39	PO	KATE	FP0000038	FA0001122
01/10/2017 10:56	SMITH	FRANK	FP0000020	FA0001154
01/10/2017 9:45	SMITH	FRANK	FP0000020	FA0001955

Number of Records: 6 - Page: 1/1

Filter

View

Private Patient

Server Patient Database

Filter CB

Last Name

First Name

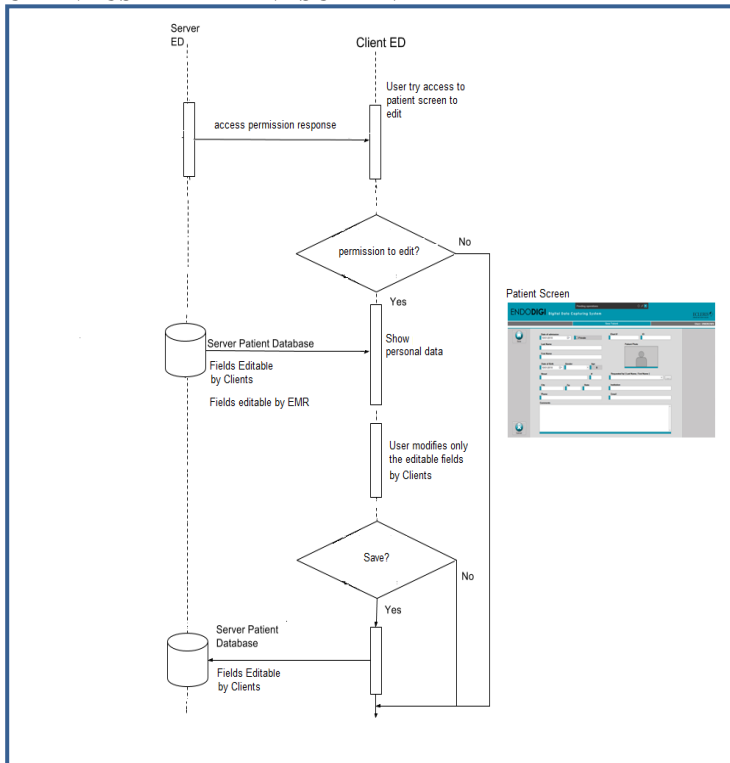
Chart # (FP#)

ID

Visit Name (FAR)

Cancel

CLIENT USER - PATIENT SCREEN - EDIT

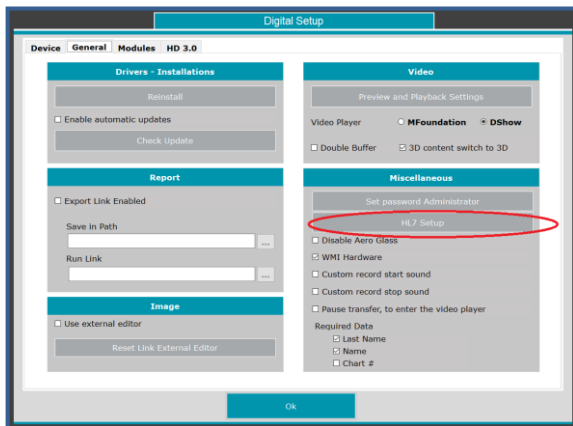


OFFLINE MODE

When network is unavailable, the client has the possibility of create private patient. On this mode all fields are available to edit. The user, from client terminal can complete the demographic data of the private patient and generate a report to send to EMR colfeed path. To open private patients previously created, user can select database private in Database screen

CLIENT HL7 SETTINGS

In each hl7 client it is necessary to set the following parameters by entering Digital Setup -> HL7 Setup.

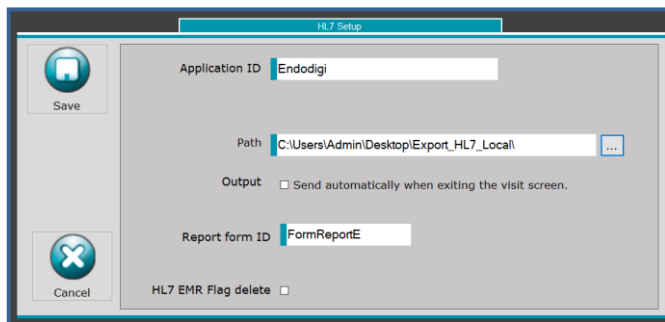


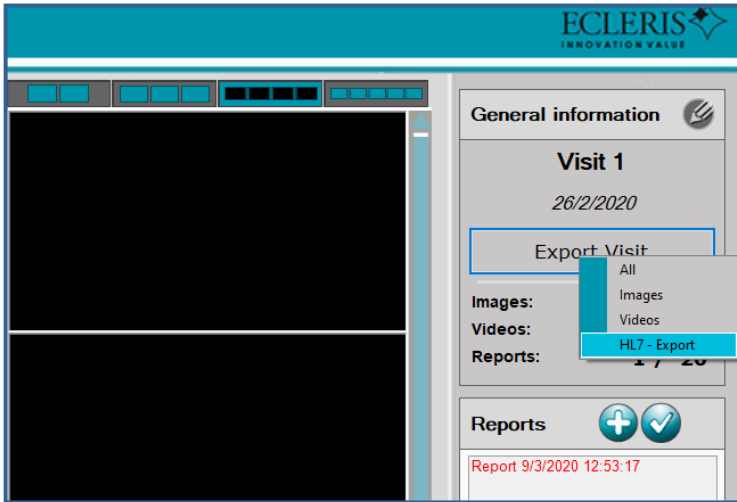
Application ID: Name of application.

Path: Colfeed Path to private patients.

Output: Send automatically when exiting the visit screen.

If you not select the automatically mode, you can sen HL7 reports manually from Export Visit menu in Visit screen.





Report form ID: This custom field is added to the format filename of report.
 HL7 EMR Flag Delete: When is checked, previous report with flag delete Y is sending before send the actual report.

ADT MESSAGES

The Server ED receives a HL7 message from the EMR system:

Action to follow according to the message:

A01 Admit/Visit notification(Register Inpatient). A04 Register a patient(Register Outpatient).A08 Update patient information. A31 Update person information. When messages arrives check FP# and FA# in server patient database, if not exist is created or updated if exist.

Any other messages are unimplemented and ignored by Server ED.

The Endodigi shall obtain the Patient Demographic information from the ADT messages, specifically the PID and PV1 segments.

ADT	General Order Message	Chapter in HL7 V2.4
MSH	Message Header	2
EVN	Event Type	3
PID	Patient Identification	3
PV1	Patient Visit	3
AL1	Patient Allergy Information	3

SEGMENTS MESSAGE

MSH Segment

This segment is common to all messages Profile (or at least only vary slightly). The message header (MSH) contains information about the sending and receiving applications of messages, version and the unique identifier of the message required for error control itself.

SEQ	LEN	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI USE
1	1	ST	R	Field Separator	" "
2	4	ST	R	Encoding Characters 1. Component 2. Repeat 3. Escape 4. Subcomponent	^ ~ \ & ^ ~ \ &
3	180	HD	R	Sending Application	Name of the sending application.
4	180	HD	R	Sending Facility	Name of the sending facility.
5	180	HD	O	Receiving Application	Name of receiving application

6	180	HD	O	Receiving Facility	Name of receiving facility
7	26	TS	R	Date/Time Of Message	Date and time the message was created. YYYYMMDDHHMM[SS][+/-ZZZZ] 20110602161633+1100
9	13	CM	R	Message Type 1.Message type 2.Trigger event	ADT^A01/02/03/04/08/12/31
10	20	ST	R	Message Control ID	This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgment segment The sending system must assign an identifier for the message that is unique within the namespace of the sending facility. eg.815200312322600
11	3	PT	R	Processing ID	P
12	60	VID	R	Version ID	2.4

Event Type Segment

SEQ	LEN	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI USE
-----	-----	----	-----	--------------	--------------------------

1	3	ID	R	Event Type Code	A01/02/03/04/08/12/31
2	26	TS	R	Recorded Date and Time	YYYYMMDDHHMM[SS][+/-ZZZZ]

PID Segment

This segment is common to others messages Profile (or at least only vary slightly).

SEQ	LEN	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI USE
2	20	CX	B	Patient ID	
3	20	CX	R	Patient Identifier List	Medical Record Number (#FP) The unique medical record number of the patient's chart within the system. Eg. 123456
5	48	XPN	R	Patient Name 1. Last Name 2. First Name 3. Middle Initial	Last name and first name are required. FirstName: XPN.2(<given name (ST)>) XPN.3 (<second and further given names or initials thereof (ST)>) LastName: XPN.1.1(<surname (ST)>) Eg. Smith^John^D
7	26	TS	R	Date/Time of Birth	DOB: YYYYMMDDhhmmss Give the year, month, and day of birth (YYYYMMDD). Endodigi ignore any time

					component in the birth date. Eg. 19730704000000
8	1	IS	R	Sex	Gender: A Ambiguous F Female M Male N Not applicable O Other U Unknown
11	106	XAD	O	Patient Address 1. Address Line 1 2. Address Line 2 3. City 4. State 5. Postal Code	Street: XAD.1.1 (<street or mailing address (ST)>) XAD.1.2 (<street name (ST)>) XAD.2 (<other designation (ST)>Field for additional information: block, staircase, floor door.) Street Num: XAD.1.3 (DwellingNumber) City: XAD.3 (<city (ST)>) State:XAD.4 (<state or province (ST)>) Postal Code: XAD.5 (<zip or postal code (ST)>)
13	250	XTN	O	Phone Number - Home	Telephone:XTN.1 ([NNN] [(999)]999-9999 [X99999] [B99999] [C any text]) Email:XTN.4(<email address (ST)>)
18	30	CX	R	Patient Account Number	Visit Name (#FA)

PV1 Segment

This segment is common to others messages Profile (or at least only vary slightly).

SEQ	LEN	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI USE
7	60	XCN	O	Attending doctor 1. Last Name 2. First Name 3. Middle Initial	Eg. Smith^John^D This information could be autopopulate in Visit Report
8	60	XCN	O	Referring doctor 1. Last Name 2. First Name 3. Middle Initial	Eg. Smith^John^D This information could be autopopulate in Visit Report
17	250	XCN	O	Admitting Doctor 1. Last Name 2. First Name 3. Middle Initial	Eg. Smith^John^D This information could be autopopulate in Visit Report
44	26	TS	O	Admit Date/Time	YYYYMMDDHHMM[SS][+/-ZZZZ] 20160602161633+1100 Visit Date

AL1 Segment

The AL1 segment contains patient allergy information. This information is displayed on Endodigi Client patient form (read only) and will be available in Visit Report only for future review.

All segments from all valid messages updates the Server Patient Database (editable fields by EMR). If arrives a messages with null values of 'AL1' segment, so the information in Server Patient Database (editable fields by EMR) is replaced with NULL, no allergies. Check client ED Workflow

SE	LE	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI
----	----	----	-----	--------------	----------------------

Q	N				USE																		
1	250	CE	R	Set ID- AL1	1,2,...																		
2	250	CE	O	Allergen Type Code	Table 0127 <table border="1" data-bbox="632 279 974 965"> <thead> <tr> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>DA</td> <td>Drug allergy</td> </tr> <tr> <td>FA</td> <td>Food allergy</td> </tr> <tr> <td>MA</td> <td>Miscellaneous allergy</td> </tr> <tr> <td>MC</td> <td>Miscellaneous contraindication</td> </tr> <tr> <td>EA</td> <td>Environmental Allergy</td> </tr> <tr> <td>AA</td> <td>Animal Allergy</td> </tr> <tr> <td>PA</td> <td>Plant Allergy</td> </tr> <tr> <td>LA</td> <td>Pollen Allergy</td> </tr> </tbody> </table>	Value	Description	DA	Drug allergy	FA	Food allergy	MA	Miscellaneous allergy	MC	Miscellaneous contraindication	EA	Environmental Allergy	AA	Animal Allergy	PA	Plant Allergy	LA	Pollen Allergy
Value	Description																						
DA	Drug allergy																						
FA	Food allergy																						
MA	Miscellaneous allergy																						
MC	Miscellaneous contraindication																						
EA	Environmental Allergy																						
AA	Animal Allergy																						
PA	Plant Allergy																						
LA	Pollen Allergy																						
3	250	CE	R	Allergen Code/ Mnemonic/ Description 1.Identifier 2.Text	Eg. <identifier (ST)> ^ <text (ST)> <00000741^OXYCODONE>																		

Acknowledgments message details

ACK	Acknowledgments	Chapter in HL7 V2.4
-----	-----------------	---------------------

MSH	Message Header	2
MSA	Message Acknowledgment	2

MSH

This segment is described in “ADT message Details-MSH Segment” and only vary slightly in ACK message.

MSA Segment

SEQ	LEN	DT	OPT	ELEMENT NAME	OBSERVATION/ENDODIGI USE
1	2	ID	R	Acknowledgement Code	AA = Success AE = Error
2	20	ST	R	Message Control ID	eg.815200312322600
3	80	ST	O	Text Message	Success, or Failure
6	100	CE	O	Error Condition	

Update of fields composed of more than one HL7 component

Ej. Endodigi Patient Name = PID 5.1 (Name) + PID 5.2 (Middle Name)

Endodigi composed fields	HL7 Components
Patient Name	PID 5.1 Firstname +PID 5.2 Second Name
Attending Doctor	PV1.7.2 Last Name +PV1.7.3Firstname +PV1.7.4 MiddleName
Referring Doctor	PV1.8.2 Last Name +PV1.8.3Firstname +PV1.8.4 MiddleName
Admitting Doctor	PV1.17.2 Last Name +PV1.17.3Firstname +PV1.17.4

	MiddleName
Alergies	All.1 + All.2 + all allergy segments

No partial editions are made. If either of the components presents content, then the Endodigi field is completely replaced by the data sent in all the components.

MAINTENANCE

To keep ENDODIGI in optimum working conditions, it is recommended to perform a minor annual check.

This procedure shall include:

- Cleanup.
- Electrical connections inspection.

At the user's request, the manufacturer will provide circuit schemes, component list, technical descriptions and other documents related to those parts of the equipment that can be repaired by duly qualified technical personnel.

All revision or maintenance works, repairs or modifications shall be written down on the Maintenance Card of this manual, indicating the work performed, date, name and signature of the responsible person that performed it

CLEANING THE CABINET

Use a soft dry cloth.

If the surfaces are very dirty, use a soft cloth slightly wet with alcohol. Avoid the entrance of liquid to the unit

CD CARE

Clean it with a soft cloth that does not leave lint to clean the stains, dust or digital imprints. Always clean from the center outwards.

Then put it away and remember that the software is part of the device. Do not leave the disk in wet places or with hot temperatures and do not expose it directly to sunlight

ELECTRICAL CONNECTIONS

Constantly check the condition of all components and their aging process. Verify that the following does not exist:

- Cables in bad condition, broken or cut.
- Faulty connections between the cable and the plug.
- Oxide corrosion in connecting pins.

TROUBLESHOOTING

GENERAL CONSIDERATIONS

Verify that the ENDODIGI is turned on. When you starting the video or image records, checking if the light shine.

If you are using USB extensions or your equipment is connected through a HUBs USB, probably this is causing the inconveniencies. Try connecting the equipment directly to the original ports on the PC mother.

Also, the PC front ports may cause trouble due to the internal lay up to the mother, which generally does not meet the specifications for USB Hi-Speed devices. Therefore, it is emphatically recommended to connect the equipment on the rear ports of the PC.



Any problems first try disabling the firewall and then check if the problem persists.

PROBLEM	PROBABLECAUSE	ACTION
No video appears on the screen or video is defective	ENDODIGI is not properly connected to the PC or it is connected to a front port.	Simply plug the USB cable into a free USB 2.0porton your system. Don't use HUBs or extension cords.
	The USB cord or plug in is damaged.	Contact the technical service
	The video standard is not the correct one.	Change it by pressing the Control button from the video/image capture screen.
	The image quality is poor.	Change the Brightness, Color (saturation) etc. by pressing the Control button from the image capture screen.
	The video input is wrong.	Select the input being used (Composite or S-Video) by pressing the Input button from the image capture screen.
A message related to video driver appears before completing the installation.	The driver is already installed in your PC	Uninstall prior drivers from the Windows Control Panel, then run ENDODIGI software, go to Option menu Digital Setup and reinstall it.

ENDODIGIServer version

PROBLEM	CAUSE	ACTION
The device is not detected by your PC.	ENDODIGI is not properly connected to the PC or is connected to a front port.	Simply plug the USB cable into a free USB 2.0port on your system. Do not use HUBs or extension cords
	The USB cord or plug in is damaged.	Contact the technical service
	The drivers are not correctly installed	Check that the equipment drivers are correctly installed. See Drivers Installation.
It is not possible to connect with the server.	The Ethernet network is disconnected	Make sure the network Ethernet cable is plugged into the PC client.
	There isn't server or server is off	Verify if ENDODIGI is running on the server you are connected.
	Wrong server settings	Check the settings in the ENDODIGI server
The file transfer process is too slow	Files are very large	Reduce file sizes.
	The local network is overloaded	The network is very busy, wait a moment or ask with your network administrator about local network status.
	The bandwidth was reduced	Consult with your network administrator about local traffic network rate.

TECHNICAL SERVICE

ENDODIGI must be repaired and/or maintained exclusively in those facilities authorized by ECLERIS. It recommends using the following procedures for a quicker repair service and replacement of guarantee products.

1. Contact the technical department of your local distributor or the nearest ECLERIS office.
2. Give detailed information of the problem.
3. If the problem cannot be solved by troubleshooting, the product must be sent for its repair or replacement.

The following product information must be attached:

- Owner's name.
 - Owner's address.
 - Contact name and phone number.
 - Product's serial number.
 - Problem's description.
4. Send the ENDODIGI for repair or replacement. It must be sent in its original packaging to avoid damages during transportation. ECLERIS shall not be liable for those damages or defects that may occur during transportation, caused by deficient packaging.

WARRANTY

ECLERIS states that ENDODIGI has complied with the required Quality Control verification and has no manufacturing defects, thus it guarantees the appropriate functioning under adequate use in agreement with the indications stated in this manual. The warranty period is one (1) year as from the date of purchase.

ECLERIS is not liable for any damage caused to/by ENDODIGI due to incorrect use, negligence, incorrect cleaning or storage. Any repairs made by personnel not authorized by ECLERIS will void the warranty. The described warranty is exclusively valid for the original buyer

The following parts are excluded from the warranty:

- Parts and components manufactured by third parties.
- Cables and plugs.
- Damages resulting from connections to inadequate power supplies.

Disregarding the warranty situation, all shipment from and to the authorized technical services of ECLERIS is the sole responsibility of the customer.

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