

Medical Recorder

User manual

Overview:

An archiving system works as a second station for medical devices that has a standard video out. Suitable for medical procedures that include images & videos (Endoscope, Ultrasound, Microscopic Investigations, etc.)

The Work station is extremely flexible, it can be prepared, and designed to meet all medical procedures





Featured Benefits:

Extremely flexible, can be prepared and designed to meet all medical procedures Archiving case studies, track parameters results, easy searching and retrieving

Video stream receiver (record videos, capture still images) Image processing toolbox (enhancement and filters as contrast, brightness ...)

Image annotation toolbox (drawing shapes and text)

Video processing toolbox (merging, splitting videos and capture still images)

Full customized reporting with preset templates, Report supported by images

DICOM maker module to convert studies to DICOM study Send converted DICOM studies to PACS servers via LAN

CD burning room to make study CD

Copy study to removal device (USB memory)

Upload studies to *medicalplayer.com* community



Installation:

Medical Recorder works under windows 7 or later

The folder contains "windows.7.codec.pack.v4.0.1.setup.exe" this file will install the required video codec for video recording

The folder contains "TeamViewerQS_ar.exe", this file will be used for online supporting

The file "MedicalRecorder.exe" is the software executable file

Connect the video acquisition card to your PC then use a standard video cable to receive the video signal fro the endoscope video out

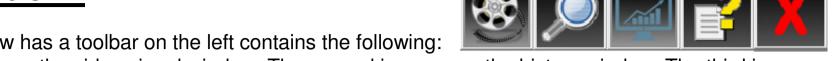
Run "MedicalRecorder.exe",
you will see the login window
Use "1" for user name and
"1" for password
These information can be updated

System Login					
User name	1				
Password	*				
	Ok Exit				

Medical Recorder

Main window:

The main window has a toolbar on the left contains the following:



The first icon opens the video signal window. The second icon opens the history window. The third icon opens the statistics window. The fourth icon opens this file. The fifth icon closes the system

The "System" menu has the following items:

"Video" opens the video signal window. "History" opens the history window.

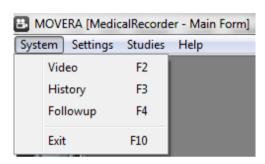
"Followup" opens the statistics window. "Exit" closes the system

The "Settings" menu has the following items:

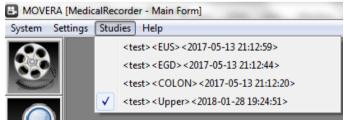
"Meta Data" opens the system preparation window. "Report Templates" enables the user to prepare a preset reports to be used later. "Report Design" enables the user to design a header and a footer for the report. "System Settings" opens the settings window

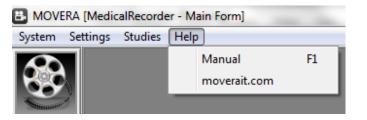
The "Studies" menu lists the opened studies

The "Help" menu has 2 items, "Manual" opens this file, and "moverait.com" opens MOVERA website









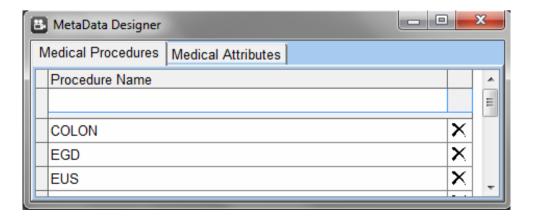


Meta Data window

Meta Data Settings window enables the user to determine the medical procedures to be used as a study ID. Design medical procedure items, and templates to be used as preset values

The first page (Medical Procedures)

Use the first row to add a new medical procedure and press "Enter"
The second column has the delete icon click on it to delete the medical procedure



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Meta Data window

The second page (Medical attributes)

In this page you can set the medical attributes to be used for tracking studies. Use the first row to add new attribute by typing attribute name, default value to be used. The column multi line determines if the attribute value needs multi line. The numeric column determines if the attribute value should be numeric. The min, and max, columns determine

the normal values limits of the attribute. The delete icon for deleting the attribute

MetaData Designer

Attribute Name

INDICATION

CONSENT

PREPERATION

INSTRUMENT

ANESTHESIA

PROCEDURE

IMPRESSION

PLAN

Medical Procedures Medical Attributes

Default Value

Attribute Suffix Multiline

true

true

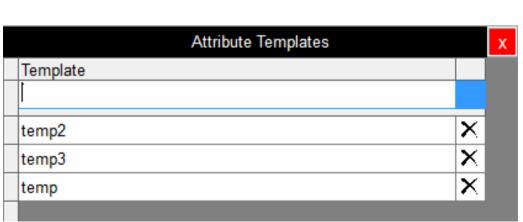
false

true

true

The last column open the attribute template window to set templates of the selected attribute to be used as a drop down list for the parameter in the study data view

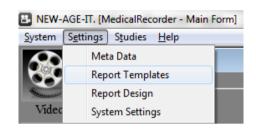
Use the first row to add a template and press "Enter". Use the delete icon to delete the attribute





Report Templates window

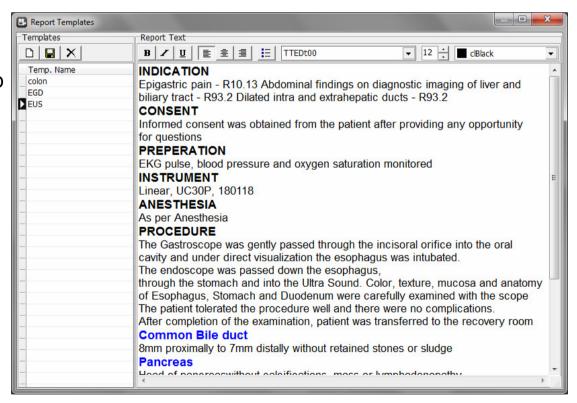
From the "Settings" menu select "Report Templates" to open the "free typing report templates" window



The "free typing report templates" is a word processing window, the left list lists the templates saved, the above 3 buttons "New" to make a new template file, "Save" to save the current formatted text to a template file, and "Delete" to delete the selected template file

The word processing area contains formatting text tool box to control font properties

The saved templates can be used in the study window to load a preset template report to be used

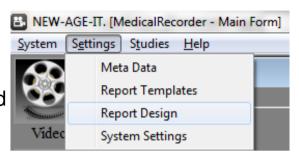




Report Design window

From the "Settings" menu select "Report Design" to open the "report design"

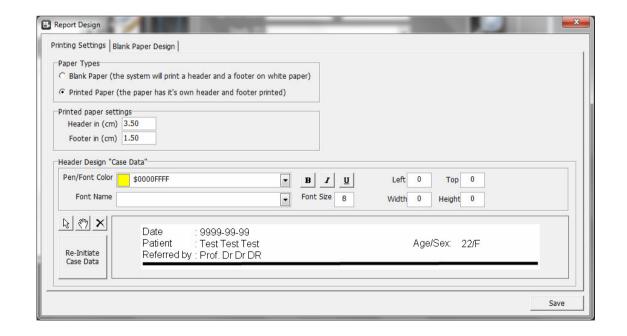
You have 2 options the first is a blank paper means the system will design the header and footer of the paper, the second is a ready header and footer printed



In case of the printed paper you will be asked to determine the header and footer heights, in case of blank paper the system will design the header and the footer of the page

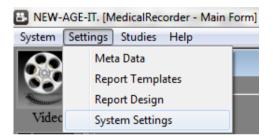
The bottom area shows the case data printed on the paper header, this can be customized to meet your need

You can control the items of the case data by the tool box above the case data area (font, and dimensions)

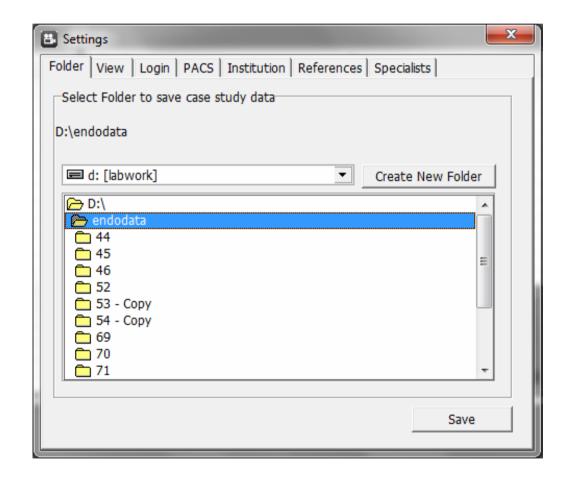




From the "Settings" menu select "System Settings" to open the "System Settings" window which has 7 pages a show



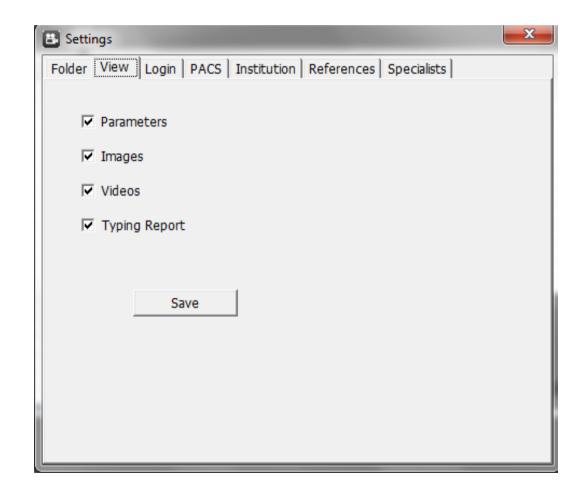
The first page is "Folder" in which the system sets the folder to save study files (Images, Videos, and reports)





The second page is "View" in which the system sets the study window view

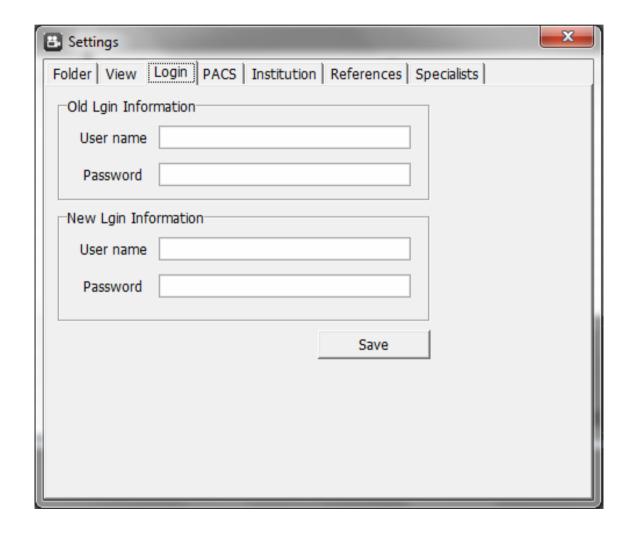
Checking and Un-checking the check boxes will control the visibility of the study window pages





The third page is "login" in which the system changes the login information (user name and password)

You will be asked to type the old information and the new information to make the change that will take effect on the next system login

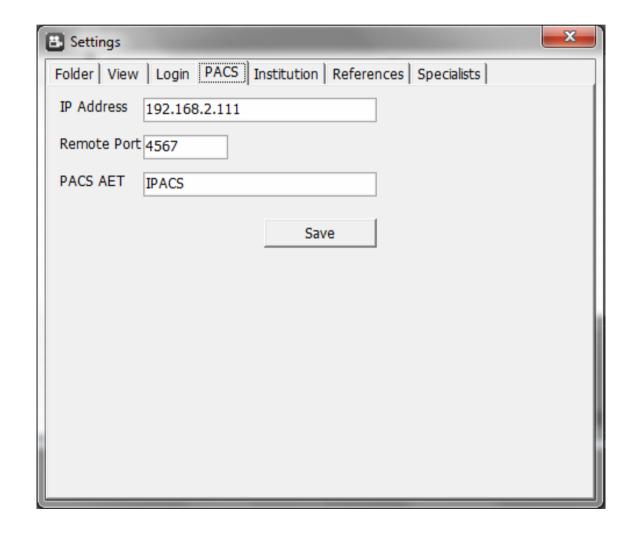




The fourth page is "PACS" in which the system sets the information of the PACS server to be used as a destination of the study after converted to DICOM

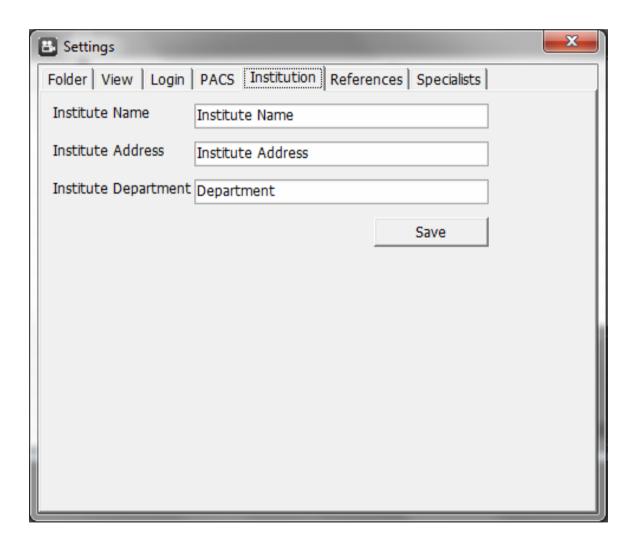
The PACS information includes

IP address of the server machine, the port that the PACS listen to, and the PACS application entity title





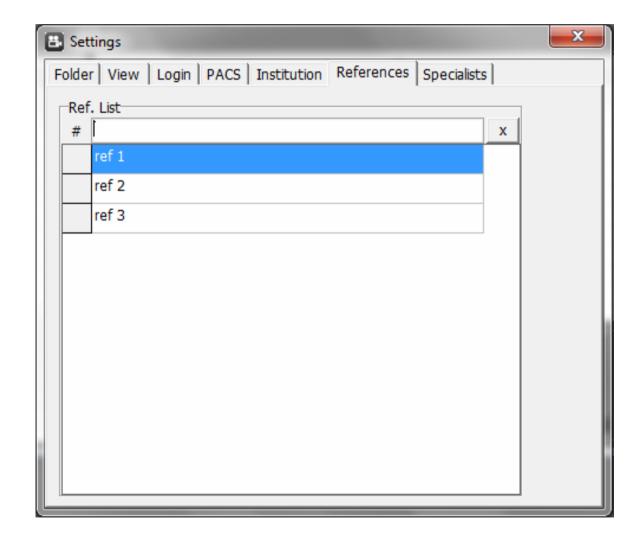
The fifth page is "Institution" in which the system sets the information of the institution to be used in DICOM attributes when converting study to DICOM study





The sixth page is "References" in which the system sets a list of references to be used in study as a "Ref. By" field.

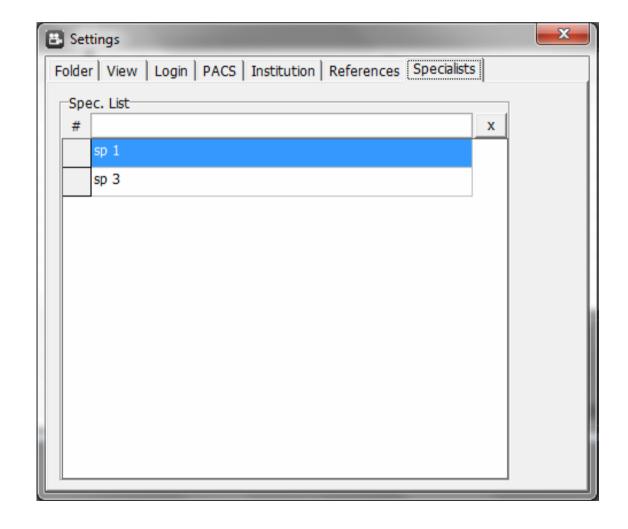
Type the reference on the top edit box and press enter to add it, select a reference and edit it if needed. To delete a reference select and press "x" button





The seventh page is "Specialists" in which the system sets a list of specialists to be used in study as a "Signature" field.

Type the specialist on the top edit box and press enter to add it, select a specialist and edit it if needed. To delete a specialist select and press "x" button



The video signal window connects to the medical device and show the video stream, here you can connect to 2 different video source, the menu on the left controls the functions, and the tool bar on the top enables voice notes recording





The menu on the left has the following

"Menu" show/hide this menu, "Case Studies" to determine case study to record,

"Video Settings" to adjust the video source properties,

"Selection" to determine a selected area to capture,

"Capture Image" or "F3" to capture image,

"Start/Stop Rec." or "F4" to start and stop video recording,

"Freeze/Unfreeze" or "F5" to freeze / unfreeze video signal

"Open/Close V2" to open and close the second video source,

"Video Device" to adjust the second video source properties,

the next 8 icons adjust the locations of the 2 video signals,

"Capture Image" or "F6" to capture image from the second video source,

"Start/Stop Rec." or "F7" to start and stop video recording from the second video source,

"Freeze/Unfreeze" or "F8" to freeze / unfreeze the second video source,

"End Session" to end the case study and prepare for a new one

The top right close icon switch to the system again



The case study button opens a popup window to determine the current session, the popup has 4 possibilities

New Case = patient for the first time,

New Study = a new visit for an existing patient,

Edit Study = adding files to an existing visit,

Import = imports case study through HL7 files



Case Study Data 1-) New Case

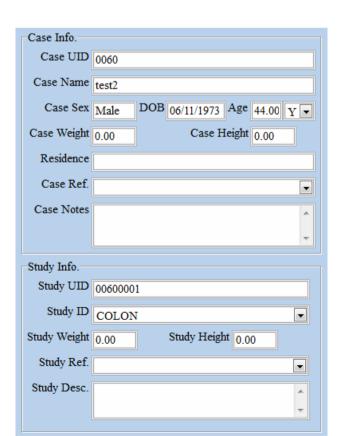
Press "New Case" to start typing a new patient data, fill patient data as shown

For "Sex" field type "M" for male or "F" for female

The "DOB" and "Age" fields calculate each other

Now fill the study data

Select study ID from the drop down list



Case Study Data 2-) New Study

Press "New Study" to make a new study for an existing patient

Search for patient by UID or name and press "enter"

Select a patient from the search result grid

Now fill the study data

Select study ID from the drop down list

Search Case					
Case UID or	Name				à
UID N	Vame	Sex	Age	Date	
	est	Male	33 Y	05/13/201	
0053 a		Male	33 Y	06/06/201	
Study Info.					
Study UID	00010004				
Study ID	EUS				
	LCS				
Study Weight	0.00	Stu	idy Heig	ght 0.00	
Study Ref.					•
Study Desc.					
					_

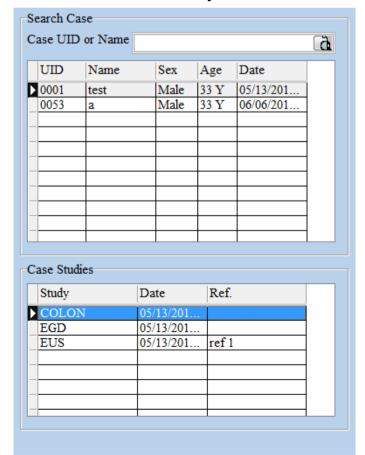
Case Study Data 3-) Edit Study

Press "Edit Study" to add files to an existing study

Search for patient by UID or name and press "enter"

Select a patient from the search result grid will fill the bottom list with the selected patient studies

Now select a study to add files



Case Study Data 4-) Import

Press "Import" to open the window shown to get case from HL7 file for integration purposes

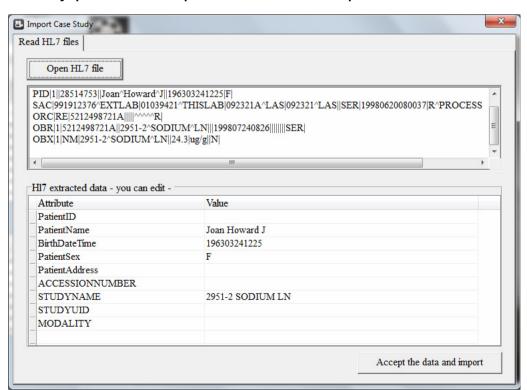
Pressing "Open HL7 file" will open a dialog box to select an HL7 file

The contents of the file will be shown in the top edit box

The extracted data will be listed as item valued list

You can edit any field

Finally press "Accept the data and import" to finish

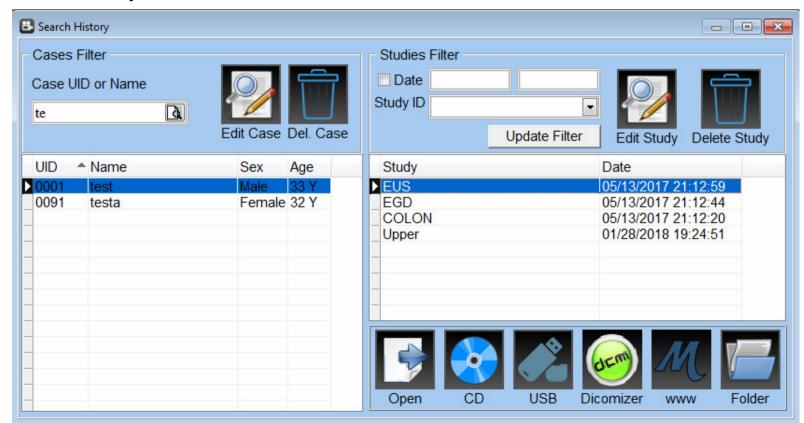


History Window

The left part deals with case (patient) search, type patient code, name, or part of them then press enter to search for patients, the search results will be listed on the grid. Selecting a patient from the grid will list the studies in the right grid, the button "Edit Case" opens the edit case window to edit patient data, and the button "Del. Case" will delete the selected patient.

The right part deals with the studies, you can narrow the search by study and/or date interval. The buttons on the bottom are:

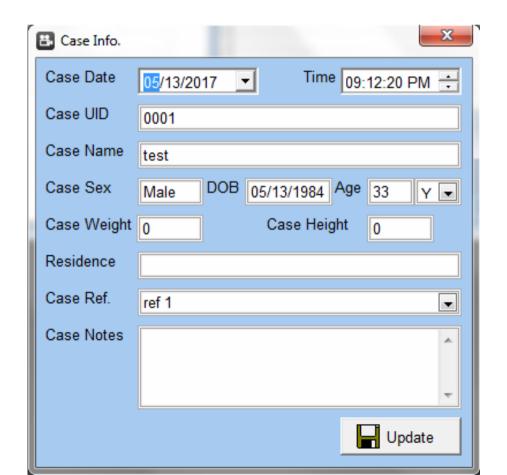
- "Edit study" opens the edit study window. "Delete study" deletes the selected study.
- "Open" opens the selected study. "CD" opens the CD burn room. "USB" sends the study to USB.
- "Dicomizer" opens the DICOM convert window. "WWW" opens the medicalplayer.com up loader. "Folder" opens the folder that contains the study files





Edit Case Window

From history window press "Edit Case" will open this window to edit the patient data, after finishing press "Update" to save your work

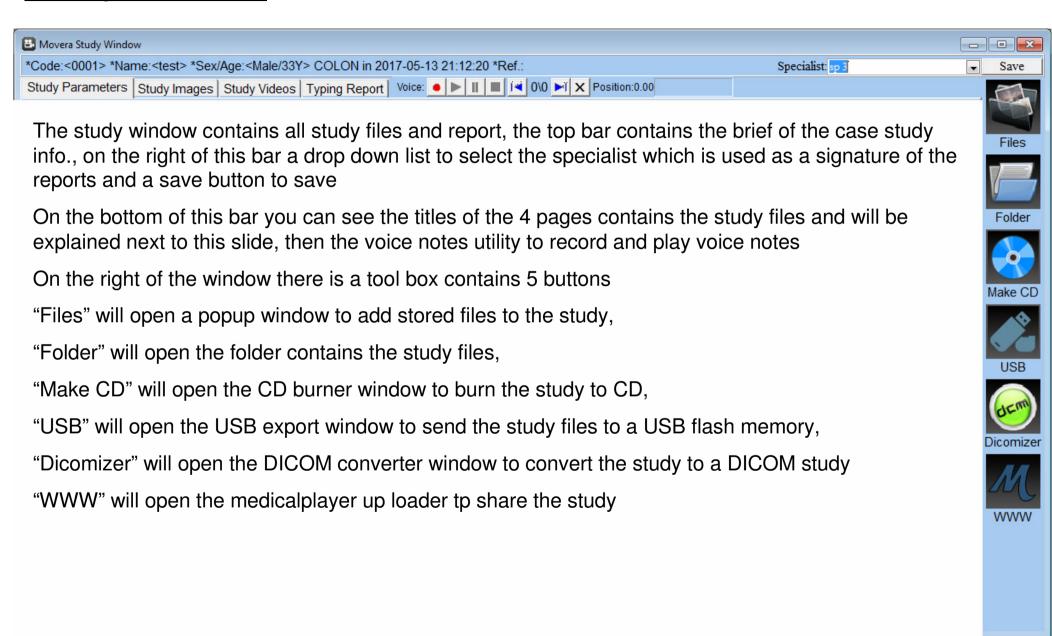


Edit Study Window

From history window press "Edit Study" will open this window to edit the study data, after finishing press "Update" to save your work

	🔠 Study Info.	X		
	Study Date	05/13/2017 ▼ Time 09:12:20 PM ▲		
	Study UID	00010001		
	Study ID	COLON		
	Study Weight	88 Study Height 0		
١	Study Ref.			
	Specialist			
	Study Desc.	Colon Endoscope Procedure		
		Update		

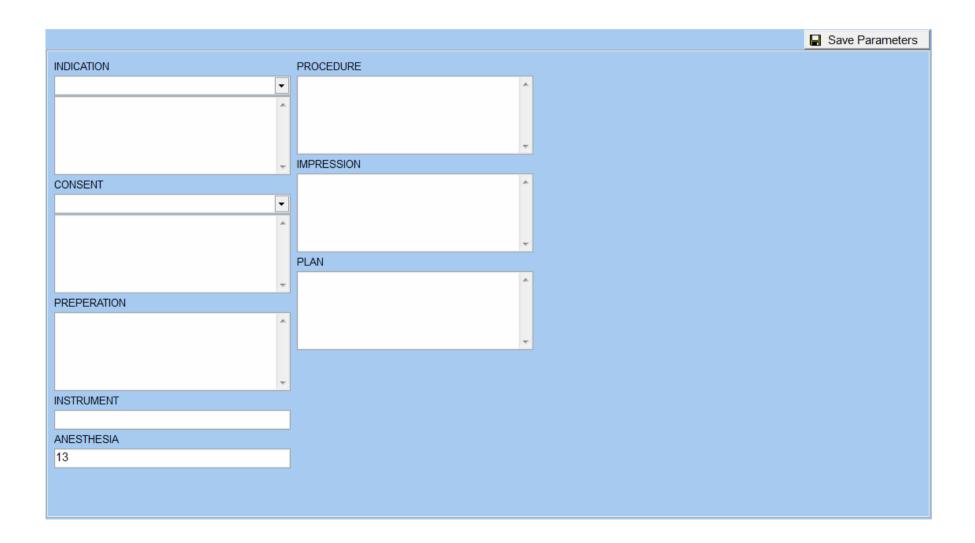
Study Window



Study Window (Parameters page)

The first page of the study window is "Study Parameters" in which list the study parameters that has been built in meta data settings.

On the top there is a "Save" button to save parameters



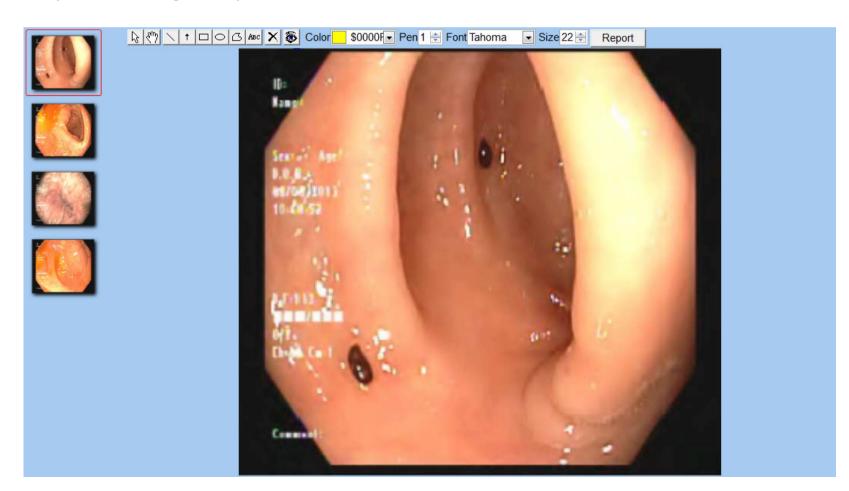
Study Window (Images page)

The second page of the study window is the "Images" page, the available images listed on the left, selecting an image will show it in the working area

The tool button on the top contains the annotations functions (line, text, ..)

The "Eye" button opens the image processing window in which you can apply image processing functions and filters

The button "Report" will open the "Images Report" window



Study Window (Print Images)

The "Images Report" window enables you to prepare a page of images to be printed as a grid view

The available images listed on the right, first set columns and rows on the top to prepare the grid view, select an area from the grid view then double click an image on the right to add it, the button "X" delete the selected image, the button "save" will save your work the button print will print the report to the default printer If you check "Print Dialog" the system will show the print dialog box before print

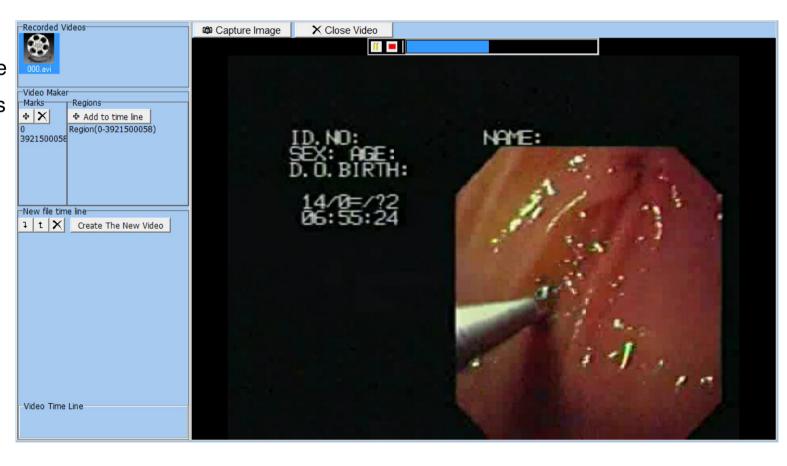


Study Window (Videos page)

The third page of the study window is "Videos" page which contains the recorded videos of the study, the available videos listed on the top left list selecting a video file will load it in the working area. the top bar contains the button "Capture Image" to capture a still image and add it to the study images, and the button "Close Video" will close the current playing video. the video player tool bar contains the play/pause button, the full screen button, and the progress time line

The left area on the bottom of the videos list is a video editor tool box

You can make marks on the video time line, these marks creates regions the regions can be cut and/or merged to make a new file

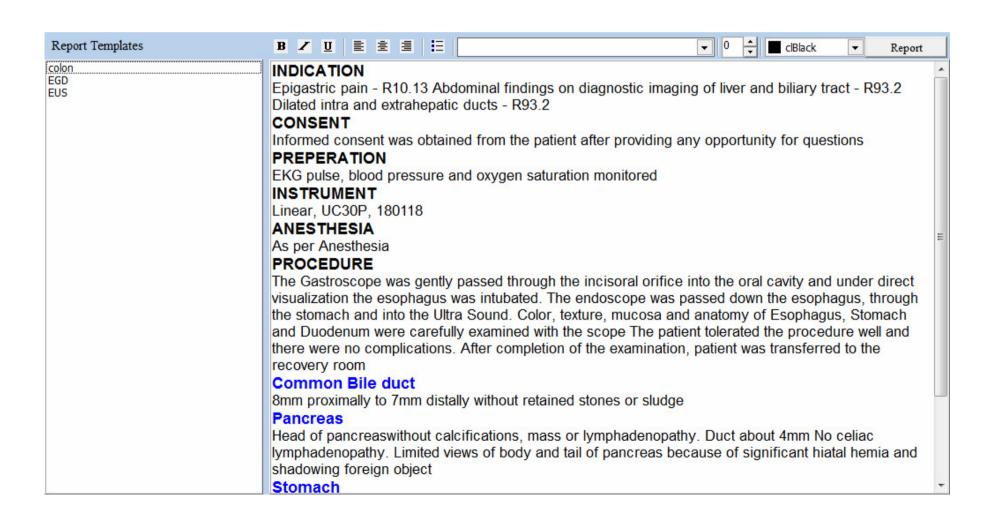


Study Window (Typing Report page)

The fourth page of the study window is "Typing Report" page in which you can write the study report

The list on the left contains the pre saved templates in "Report Templates" settings, double click the template will load it. The top tool box contains the word processing functions. After finishing the report press

"Report" to open the preview and start add images to the report if needed

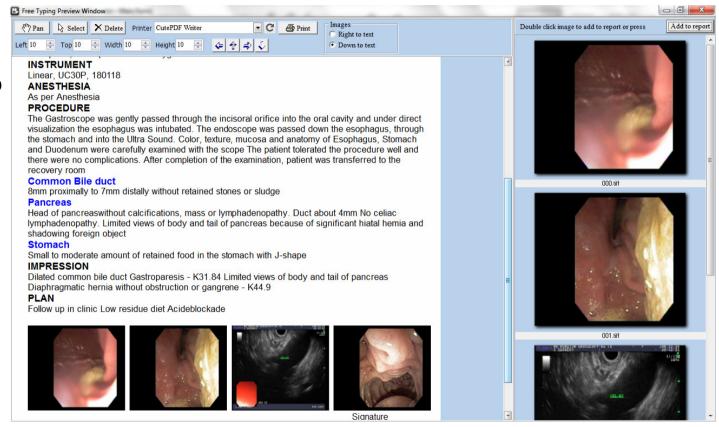


Study Window (Typing Report Preview)

The "Free Typing Report Preview" window contains the report and the list on the right contains the available images, double click an image will add it to the report. If the images radio group index is "Right to text" the images will be added on a column right to the text, other index "Down to text" the images will be added as a row down to the text.

The tool box on the top contains
The control of the objects, you
can select images to delete, also
control the dimensions of the
images

Press the button print to print the report to the selected printer



Study Window (Adding files to the study)

From the right tool bar of the study window press the button "Files" to open this popup in which you can add stored files to the study

"Open" button will open the browse file dialog to select file(s)

The selected file(s) will be arranged on the grid view

"Delete" will remove the selected file

"Delete All" will remove all images

"Add" will add the selected file to the study

"Add All" will add all images to the study





Study Window (Make CD)

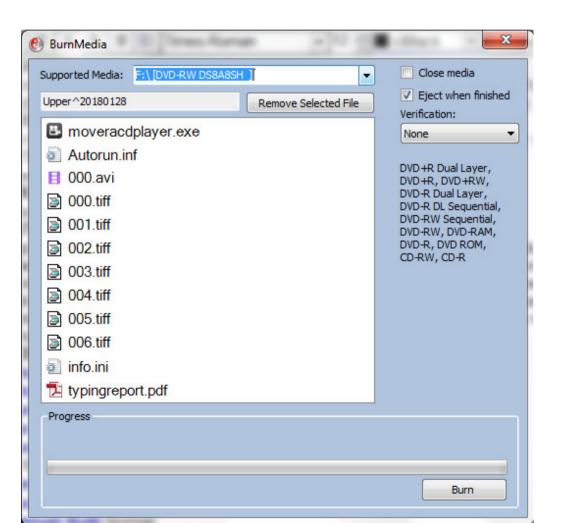
From the right tool bar of the study window press the button "Make CD" to open this popup in which you can make a CD contains the study files and a viewer

The top dropdown determine the CD device to be used

The files listed below (images, videos, and report)

Select a file and use "Remove selected file" to delete

At last use "Burn" to start burning process

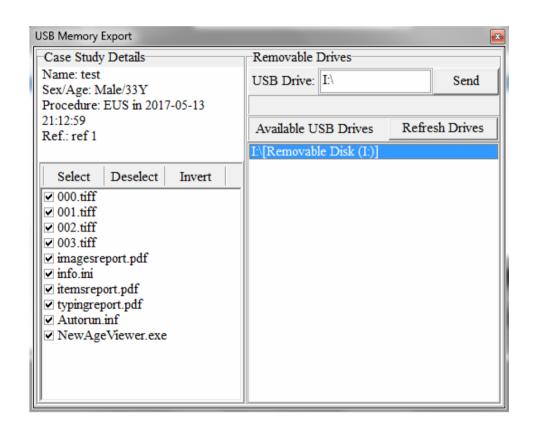


Study Window (Export to Flash Memory)

From the right tool bar of the study window press the button "USB" will open this window to export the study files to a USB flash memory. The right part shows the available USB flash memories plugged to the PC, select the target will fill the top text box with the drive letter

The left part shows the available study files, you can select and/or deselect files for burning process

Finally press "Send" to start the exporting process



Study Window (Dicomizer)

From the right tool bar of the study window press the button "Dicomizer" will open this window

to dicomize the study

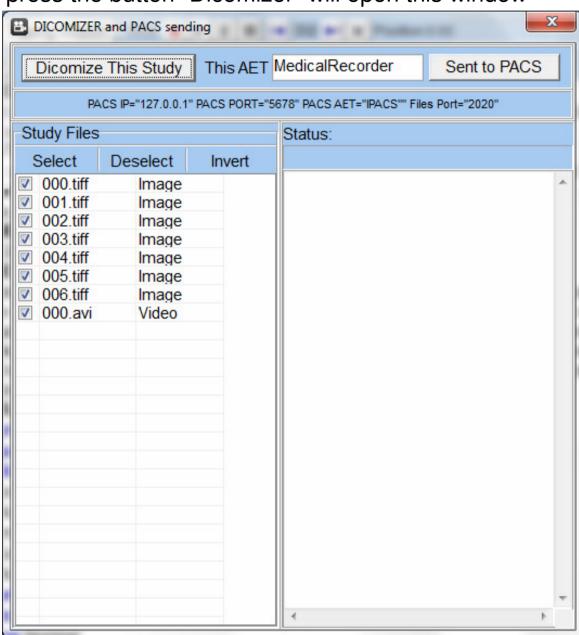
The left part shows the available study files, you can check/uncheck to adjust what to convert

The "Dicomize This Study" button will start the dicomization process

Next to the button the AET of this system this information is used by PACS

Below the button the PACS information, you can change these info from settings window

After dicomization process you can use the top right button to send the dicomized study to the pre-defined PACS

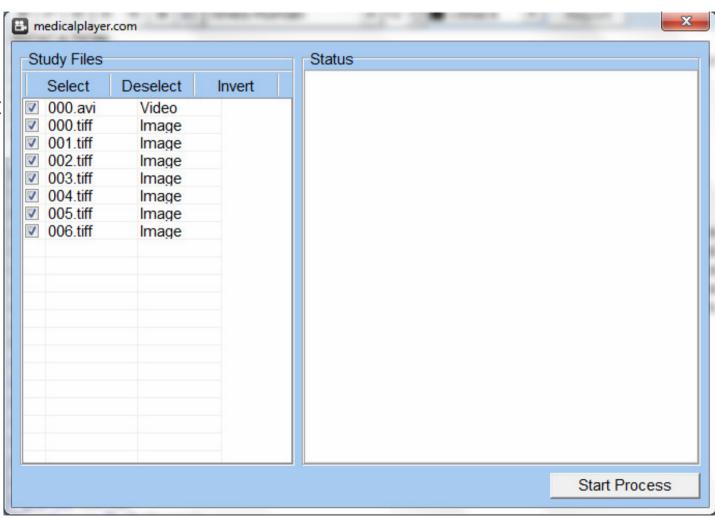


Study Window (www.medicalplayer.com)

From the right tool bar of the study window press the button "WWW" will open this window to share the study through our web service medicalplayer.com

The left part shows the available study files, you can check/uncheck to adjust what to upload

Press "Start Process" to start the uploading process



Followup Window

From the left tool bar of the main window press the statistics icon or from the "System menu" select "Followup" to open this window

In the "Follow up" window you can track parameters result with chart help
On the top left search for patients by UID or name the result will be listed, selecting a patient
will list the studies in the top right grid, you narrow the search by dates or study ID, on the
bottom right you select a parameter to draw a chart of it's results along the studies
You can print the results, also you can print the chart

