QuantorView User Manual

DICOM workstation software

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Warnings and used symbols

To ensure the safety of patients, staff and other persons, any changes to software and hardware delivered by *Digiray Corp.* may only be made with prior written permission from *Digiray Corp.*

Please read the respective manuals of the connected devices, such as of the X-ray generator, sensor, or reader, before starting to use the system.

The following symbols will be used throughout this manual:



DANGER

General prohibition indication. The functionality of the system can be destroyed in the case of incorrect use. If unauthorized changes have been made to delivered software and hardware components, the warranty by *Digiray Corp.* becomes void. *Digiray Corp.* will not accept any responsibility

or liability for the proper functioning oh the product in such a case.



DANGER

General mandatory action manual.

The functionality of the system can be destroyed in the case of incorrect use.

If unauthorized changes have been made to delivered system and accessories, the warranty by *Digiray Corp.* becomes void. *Digiray Corp.* will not accept any responsibility or liability for the improper functioning of the product in such a case.



WARNING

The functionality of the system can be limited in the case of incorrect use. Hints that require special attention.



NOTE

Notes represent information that is important to know but which do not affect the functionality of the system.

Medical Device Security

Users must take steps to secure their networks and protect their Medical Information Systems which includes a risk assessment strategy, network defense in depth strategy, business continuity planning, etc.

✓ User Authentication

Only authorized users should log on to computers on which medical information systems are installed.

✓ Password Security

In today's world, passwords can be compromised in literally seconds by using a wide variety of tools and techniques. To lower the possibility of a compromised password, it is vital to adhere to a set of protocols.

- Choose a password between 7 ~ 10 characters using both alpha and numeric characters.
- Do not share the password.
- Do not base the password on a pet's name, a relative's name or any dictionary word.
- Do not write down the password.
- Do not leave the account logged on.
- ✓ User Access Control

Configure the workstation to prompt for logon after coming out of stand-by mode.

✓ Internet Usage

Accessing to the Internet exposes the computer to a plethora of vulnerabilities such as:

- Viruses
- Spyware
- Trojans
- Hostile Codes

It is not recommended to install any unauthorized software on the computer. Peer-topeer software can expose your entire hard drive to any individual running the same type of software.

✓ Antivirus Products

Use of antivirus software can increase CPU and memory usage, which can cause a slight degradation in the performance of the system. However, functionality should not be affected.

✓ Physical Security

It is recommended that the user employs some method of physical security when dealing with the system to ensure that only authorized personnel have access to the product.

There are several vulnerabilities a malicious user could exploit locally. Some examples are:

- Theft of equipment
- Local password cracking
- Installation of hardware key loggers

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Chapter 1. Introduction

QuantorView is an image viewing software dedicated DICOM images produced by imaging equipment (CR, DR, CT, MRI, Ultrasound and etc). **QuantorView** is a high quality viewing software responsible for displaying PACS image data. It enables physicians to provide medical services by accessing image data and patient information from remote locations. It also enables the images to be stored to the local database of your personal computer allowing database management to operate efficiently. Physicians can utilize the software tools for researching, teaching, teleconferencing and online collaboration.

This user manual provides detailed information about the operation of *QuantorView* and the use of the range of facilities included in the software to make the processing and administration of your medical X-ray images as efficient as possible.

Safety Instruction

To ensure the safety of patients, staff and other persons, any changes to software and hardware delivered by *Digiray Corp.* may only be made with prior written permission from *Digiray Corp.*

<u>Liability</u>

If unauthorized changes have been made to delivered software and hardware components, the warranty by *Digiray Corp.* becomes void. *Digiray Corp.* will not accept any responsibility or liability for the proper functioning of the product in such a case.

QuantorMed is not approved for the acquisition of mammographic image data.

1.1. Main Features

DICOM File Support

- Read and display all DICOM files (mono-frame, multi-frame)
- Read and display non-DICOM file
- JPEG Lossy, JPEG Lossless, JPEG2000, RLE
- Read and write DICOM CD/DVD (DICOMDIR support)
- Export DICOM files to BMP, TIFF, JPEG
- Convert Non-DICOM images to DICOM
- Convert multi-frame image to AVI file.

DICOM Network Support

- DICOM Storage SCU/SCP
- DICOM Query/Retrieve SCU/ SCP
- DICOM Print SCU with 8, 12 bit support

Viewer Functions

- Customizable toolbars
- NN, linear, cubic, super sampling interpolation
- ROIs: polygons, circles, rectangles and etc.
- Custom LUT and curve
- CT/MR scout line view
- Thumbnail images support
- Support 1 ~ 4 monitor
- User defined hanging protocol, tool bar, overlay
- Local database support
- Local backup support

1.2. Shortcut Key

Shortcut Key	Name	Description
Ctrl+A	Select All Images	Select all images in selected series
Ctrl+C	Copy to Clipboard	Copy selected images to clipboard
Ctrl+E	Deselect	Deselect all selected images
Ctrl+F	Full Screen	Change to full screen mode
Ctrl+N	Next Exam	Open next exam
Ctrl+P	DICOM Print	Open DICOM print window
Ctrl+S	Save	Save all images in selected series
Ctrl+W	Work List	Open Work List window
Ctrl+0 ~ Ctrl+9	Window Preset	Apply window preset
Ctrl+F4	Close Series Window	Close selected series window
Alt+0 ~ Alt+9	Window Preset	Apply window preset
Alt+F4	Close QuantorView	Close QuantorView
М	Magnify	Set mouse mode to magnify glass
Р	Pan	Set mouse mode to pan
R	Report	Open report window
W	Window Level	Set mouse mode to window level
Z	Zoon	Set mouse mode to zoom
Esc	Select	Set mouse mode to select
←	Previous Series	Display previous series
Ţ	Previous Page	Display previous page
\rightarrow	Next Series	Display next series
\downarrow	Next Page	Display next page

Chapter 2. Installation & Start

2.1. Environment

2.1.1. Recommended Computer Requirement

Operation System	Microsoft Windows 7, 8
CPU	Intel CORE i5
Memory	RAM 4GB or more
Hard Disk	300GB Free Hard Disk Space
Network	1Gbps Ethernet
Video	32 bit Color Display
Video Resolution	1600 x 1200

2.1.2. Minimum Computer Requirement

Operation System	Microsoft Windows 7
CPU	Intel Processor
Memory	RAM 2GB or more
Hard Disk	80GB Free Hard Disk Space
Network	1Gbps Ethernet
Video	32 bit Color Display
Video Resolution	1280 x 1024

2.2. Installation

2.2.1. Software Installation

- Logon PC with administrator account.
- Connect USB Dongle to USB port.
- Insert Installation CD. Install program will automatically launched.
- If install program is not being launched automatically, find and execute "*QuantorView_x.x.x.x_installer.exe*" file in CD.
- Click "Next" button



- Choose destination folder and click "Install" button
- Installation status will be displayed, and finished within 1 minute which depends on systems

🕫 QuantorView 1.1.170.391 Setup				
	Choose Install Location Choose the folder in which to install QuantorView 1.1.170.391.			
Setup will install QuantorView 1.1.170.391 in the following folder. To install in a different folder, dick Browse and select another folder. Click Install to start the installation.				
Destination Folder	Browse			
Space required: 51.7MB Space available: 49.9GB				
Nullsoft Install System v2,46 –	< Back Install Cancel			

- If installation is successful, Following window will show up.
- Click "Finish" to finish installation.



2.3. Start

2.3.1. Monitor Assign Manager

💻 Monitor Assign Manager	×
Preview	
)Ø/ork/Liet	
WORKLISL	
1	2
	Viewer
Display-	Monitor Type
Monitor 1: 1600 x 1200 pixel	Work List 1M 💌
Set As Viewer Set As Work List	Viewer 1M 💌
	OK Cancel

- Monitor Assign Manager pops up at first execution of **QuantorView** or when monitor display resolution is changed.
- Monitor Assign Manager shows all monitors connected to PC,
- User can set the monitor with the mouse click or using Display combo box.
- In order to set the monitor as an Image Viewer, select monitor and click Set As Viewer button, then selected monitor displays Viewer.
- In order to set monitor as Work List Viewer, select monitor and click Set As Work List button, then selected monitor displays Work List.
- User can set Work List and Viewer monitor using Display combo box. *QuantorView* supports 1M, 3M and 5M resolution monitors.
- User must assign the Work List monitor, and only one monitor can be set as a Work List monitor.
- User must assign the Viewer monitor, and more than 2 monitors can be set as Viewer monitors. For setting of multiple Viewer monitors, their monitor resolutions must identical.

2.3.2. Logon Dialog Box



- After assigning of monitors, logon window pops up.
- In case the PC is not connected to PACS server, select None in Server combo box, and input user ID and password to start the *QuantorView*.
- In case the PC is connected to PACS server, select corresponding server in Server combo box, and input registered user ID and password to start the *QuantorView*.
- Default ID is **QuantorView** and default password is **QuantorView**.
- Click Exit button to close *QuantorView*.
- In the Setting, user can configure server information, ID, password and etc.



CAUTION

Default user ID and password are case sensitive.

La	gin Setting				
ſ	Server List			And	
	Title	Host	Desc	Add	
	HP	192.168.1.202		Title	
	DEL	192.168.1.203		Uppt	
				HOSE	
				Description	
		Remove Edit	Verify	ОК	Cancel
ſ	Local User				
	User ID	Nam	e		
	LexView				
	Add	Remove Edit			
Ľ					
		ОК			

2.3.3. Login Setting - Server

- Server can be added by clicking Add button.
- Input server name in Title field.
- Input IP address in Host field.
- Input server description in Description field.
- In order to remove server, select server and click Remove button.
- In order to edit server, select server and click Edit button.
- In order to check DICOM communication status, select server and click Verify button.

Login Setting			
Server List		Change Password	1
Title	Host Desc		•
HP	192.168.1.202 192.168.1.203	User ID	
		New Password	
		Password (again)	
Add	Remove Edit Verify	Name	
- Local User		OK Cancel	
User ID LexView	Name		
Add	Remove Edit		
	ОК		

2.3.4. Login Setting – Local User

- User can be added by clicking Add button.
- Input user ID in User ID field.
- Input password in New Password and Password (again) fields.
- Input user name in Name field.

Chapter 3. Work List

3.1. Work List Window

Work List provides functions of managing studies and images.

F	Work	k List			200.000.000						
	⊜Da AB		Query & Heule			Backup					
4	5	~/~ L5				_	_	_	_	_	_
	* Pa	atient ID	* Patien	t Name * Sex	* Modality	 Study D 	All All				
	* 1	Report	* Docto:	r 🖌 * Study ID	* Accession	Nur 2001-11-	02 🔛 🗖 2001-12-23		\$	A1	1
Ī	Bro	cal DB 💊	Backup CD/DVD	≡ testî							
	S	ex Modal	ity Pat ID	Pat Name	De Stud	ly Desc 🛛 🖇 Seri	ies No / #Images	Moda	Body Part	Series D	ate
	ØF	CR	00164370	JEONG EUN AE	CHE	ST 2 1	1	CR	CHEST		
	ØF	CR	00193435	JANG HAN NA	CHE	ST 2					
	ØM	CR	00204392	I BYEONG SEOPH	SPI	NE 2					
	D M	CR CR	00204392	I BYEONG SEOPH	SPI	NE 2					
	O M	CR CR	00204392	LEVEONG SEOPH	PEL	VIS 2					
	0		00201002	Torconto ocontr							
		ov. Modo	[Pat ID	Ret Namo	Deceses Study		Studu Data	Dont	# [#	Papart P	B Rhu Nac
	2 5	ex Moda	00102425	IANG HAN NA	CHES	r	2003-02-26-20-52.0		1 1	nepon P	R NA
		Cn	00130403	Tear Lead lies	ches		200-02-2020370			U 1	
ľ	_			2003-02-26 - 20	003-02-26 70	,212 / 122,103 M	IB ** EXAM#	: [6] SI	ERIES# : [9] IMAGE	# : [9] **

User can move to sub pages by clicking tabs. And sub pages consist of followings.

- Database
- Query & Retrieve
- DICOM CD / DVD
- CD / DVD Export
- Backup

3.2. Database

3.2.1. Overview

- User can search database with various conditions.
- User can edit and delete data.
- User can transfer data.
- User can generate output in different layouts.
- Database window consists of followings.
 - a. Tool Bar
 - b. Search Condition
 - c. Search Result



3.2.2. Toolbar



- a. Merge Patient : Change patient information of selected study to other patient information
- b. Exam Edit : Edit selected exam information
- c. Merge Exam : Change exam information of selected exam to other exam information
- d. Merge to One Series : Change series information of selected exam to other series information
- e. Split Exam : Split the exam which has more than 2 series into 2 exams
- f. Split Series : Split the series which has more than 2 images into 2 series
- g. Delete Exam : Delete selected exams
- h. DICOM Send : Send selected exams to DICOM server
- i. Local Send : Send selected exams to conference folder
- j. Report : Generate the report of selected exam
- k. Setting : Configure layout and list column in search result window

3.2.3. Search Condition



- a. Patient ID : Input patient ID in whole or partial
- b. Patient Name : Input patient name in whole or partial
- c. Sex : Select patient sex. M for male, F for female and O for others
- d. Modality : Select modality / Only modalities in database are registered automatically
- e. Study Desc : Input study description related information
- f. Report : Select report status
- g. Doctor : Select the doctor / Only doctors in database are registered automatically
- h. Study ID : Input Study ID
- i. Accession Number : Input Accession Number
- j. Starting Date : Select starting date of search / Tick the box to use
- k. Ending Date : Select ending date of search / Tick the box to use



- b. Search : Search database with the set condition
- c. Open : Open selected item to review images
- d. Display Period : User can set the period of result to be displayed / 1 day, 1 week, 1 month and all

Merge Patient 3.2.4.

• Change patient information of selected study to other patient information

Merge Patient							
Source Patient — Patient ID Name	99118822 Kodak goro		Sex Birth Date	Ð	M 2007-08-01		
Destination Patient –		Name				Search	
Pat ID	Name	Sex	Birth Date				
00204392	I BYEONG SEOPH	М	1957-12-07				
4443	OHOYA KAZUHIKO	М	1970-11-01				
98-33062	LEE HYE SOON	F	0000-00-00				
102-2058	AN WE CHAN	М	0000-00-00				
129143	KIM JAE SU M/66	М	0000-00-00				
145266	KIM EUNG HWAN .M/73	М	0000-00-00				
					M	erge Patient	Close

- In the search result, select patient information what user wishes to merge to other • patient.
- Click Merge Patient button to open Merge Patient window. •
- Search destination patient to be merged. •
- Select destination patient and click Merge Patient button. •
- Click Close button to close the window. •

3.2.5. Edit Exam

Exam Information Edit				×
-Patient Information				1
* Patient ID	99118822	*Sex	M	
*Name	Kodak^goro	* Birth Date	2007-08-01	
				J
-Study Information				h
Study ID		Accession Number		
Description]		
Physician Name]		
		,		
-Series Information				
Series Number		Body Part Examed		
Description]		
			OK Cancel]

- Select exam in the search result.
- Click Edit Exam button to open the Edit Exam window.
- Edit the information and click OK button.

3.2.6. Merge Exam

• Change exam information of selected exam to other exam information

Patient ID 99118822 Name Kodak goro Study Date 2007-08-01 Modality CR Description	rge Exam									
Patient ID 99118822 Name Kodak goro Study Date 2007-08-01 Modality CR Description	Source Exam									
Study Date 2007-08-01 Modality CR Description	Patient ID	991	18822			Name		Kodak	qoro	
Description	Study Date	200	7-08-01			Modality		CB		
Description Series # 1 Images # 1 Dept. Series # 1 Images # 1 Destination Exam Search Search Search Patient ID Name Search Search 145266 KIM EUNG H CT 2001-08-0410:59 5 117 129143 KIM JAE SU CT 2001-08-0315:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110:52 2 36 4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 IBYEONG S CR SPINE 2003-02-26 09:09 2 2	Decemietice	200] modeliny				
Dept. Series # 1 Images # 1 Destination Exam Patient ID Name Search Patient ID Name Search 145266 KIM EUNG H CT 2001-08-0410:59 5 117 129143 KIM JAE SU CT 2001-08-0410:59 5 117 102-2058 AN WE CHAN CT 2002-01-31 11:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-31 10:52 2 36 4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 IBYEONG S CR SPINE 2003-02-26 09:09 2 2	Description					1				
Destination Exam Patient ID Search 145266 KIM EUNG H CT 2001-08-0410:59 5 117 129143 KIM JAE SU CT 2001-08-0315:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110:52 2 36 4443 OHOYA KAZ CR 2007-11-1910:17 1 1 4443 OHOYA KAZ CR 2007-11-1913:36 2 2 04204392 IBYEONG S CR SPINE 2003-02-26 09.09 2 2	Dept.] Series #	1		lmages #	1
Patient ID Name Search Patient ID Pat Name Mdl Study Date Dept #S #L 145266 KIM EUNG H CT 2001-08-0410.59 5 117 129143 KIM JAE SU CT 2001-08-0410.59 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110:52 2 36 4443 OHOYA KAZ CR 2007-11-1910:17 1 1 4443 OHOYA KAZ CR 2007-11-1911:51 2 2 00204392 IBYEONG S CR SPINE 2003-02-26 09.09 2 2										
Patient ID Name Search Pet ID Pat Name Mdl Study Desc Study Date Dept #S #L 145266 KIM EUNG H CT 2001-08-0410.59 5 117 129143 KIM JAE SU CT 2001-08-0315.57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110.52 2 36 4443 OHOYA KAZ CR 2007-11-1910.17 1 1 4443 OHOYA KAZ CR 2007-11-1911.51 2 2 4443 OHOYA KAZ CR 2007-11-1911.51 2 2 0404392 IBYEONG S CR SPINE 2003-02-26 09.09 2 2	Destination Ex	kam ———								
Pat ID Pat Name Mdl Study Desc Study Date Dept #S #L 145266 KIM EUNG H CT 2001-08-0410:59 5 117 129143 KIM JAE SU CT 2001-08-0315:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110:52 2 36 4443 OHOYA KAZ CR 2007-11-1910:17 1 1 4443 OHOYA KAZ CR 2007-11-1911:51 2 2 4443 OHOYA KAZ CR 2007-11-1911:51 2 2 04443 OHOYA KAZ CR 2007-11-1911:51 2 2 00204392 IBYEONG S CR SPINE 2003-02-26 09:09 2 2	Patient ID				Name			Sea	arch	
Pat ID Pat Name Mdl Study Desc Study Date Dept #S #L 145266 KIM EUNG H CT 2001-08-0410:59 5 117 129143 KIM JAE SU CT 2001-08-0315:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-3111:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-3110:52 2 36 4443 OHOYA KAZ CR 2007-11-1910:17 1 1 4443 OHOYA KAZ CR 2007-11-1911:51 2 2 4443 OHOYA KAZ CR 2007-11-1911:51 2 2 04443 OHOYA KAZ CR 2007-11-1911:51 2 2 00204392 IBYEONG S CR SPINE 2003-02-26 09.09 2 2										
145266 KIM EUNG H CT 2001-08-04 10:59 5 117 129143 KIM JAE SU CT 2001-08-03 15:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-31 11:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-31 10:52 2 36 4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 02024392 I BYEONG S CR SPINE 2003-02-26 09.09 2 2	PatID	PatName	Mdl	Study Desc		Study Date De	pt #S	#1		â
129143 KIM JAE SU CT 2001-08-03 15:57 2 20 102-2058 AN WE CHAN CT FACIAL 2002-01-31 11:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-31 10:52 2 36 4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 040392 I BYEONG S CR SPINE 2003-02-26 09.09 2 2	145266	KIM EUNG H.	CT		20	01-08-04 10:59	5	117		
102-2058 AN WE CHAN CT FACIAL 2002-01-31 11:45 2 2 98-33062 LEE HYE SO CT C-SPINE 2002-01-31 10:52 2 36 4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 I BYEONG S CR SPINE 2003-02-26 09:09 2 2	129143	KIM JAE SU	. CT		20	01-08-03 15:57	2	20		
99-33062 LEE HYE SO CT C-SPINE 2002-01-31 10.52 2 36 4443 OHOYA KAZ CR 2007-11-19 10.17 1 1 4443 OHOYA KAZ CR 2007-11-19 11.51 2 2 4443 OHOYA KAZ CR 2007-11-19 11.51 2 2 4443 OHOYA KAZ CR 2007-11-19 13.36 2 2 00204392 I BYEONG S CR SPINE 2003-02-26 09.09 2 2	102-2058	AN WE CHAN	1 CT	FACIAL	20	02-01-31 11:45	2	2		
4443 OHOYA KAZ CR 2007-11-19 10:17 1 1 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 I BYEONG S CR SPINE 2003-02-26 09:09 2 2	98-33062	LEE HYE SO.	CT	C-SPINE	20	02-01-31 10:52	2	36		
4443 OHOYA KAZ CR 2007-11-19 11:51 2 2 4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 I BYEONG S CR SPINE 2003-02-26 09:09 2 2	4443	OHOYA KAZ	CR		20	07-11-19 10:17	1	1		
4443 OHOYA KAZ CR 2007-11-19 13:36 2 2 00204392 I BYEONG S CR SPINE 2003-02-26 09:09 2 2	4443	OHOYA KAZ.	CR		20	07-11-19 11:51	2	2		
00204392 I BYEONG S CR SPINE 2003-02-26 09:09 2 2	4443	OHOYA KAZ.	CR		20	07-11-19 13:36	2	2		
	00204392	I BYEONG S.,	. CR	SPINE	20	03-02-26 09:09	2	2		

- Select exam in the search result.
- Click Merge Exam button to open Merge Exam window.

- Search destination exam to be merged.
- Select destination exam and click Merge Exam button.
- Click Close button to close the window.

3.2.7. Merge to One Series

• Change series information of selected exam to other series information.

Merge Series		
Exam Information Patient ID Study Date Description Dept.	129143 0000-00-00	Name KIM JAE SU M/66 Modality CT
Series Series	Desc BodyPart #Ima BRAIN 19 HEAD L 1	Key Series Seri Series Merge Series Seri Series Series
		Merge Series Close

- In the search result, select the series (B) what user wished to merge to other series (A).
- Click Merge to One Series button to open Merge to One Series window.
- Information of a selected series is displayed in Exam Information.
- Series List displays all series which belong to the same exam.
- Select series (B) in the Series List and add to Merge Series list.
- Select series (A) in the Series List and add to Key Series list.
- Click Merge Series button to merge.

3.2.8. Split Exam

it Exam			
Patient ID Study Date	129143	Name Modality	KIM JAE SU M/66 CT
Description Dept.		Series #	2 images # 20
Series List — Series of Curre Seri Serie 2	ntExam ⊪sDesc BodyPart #lma HEAD L 1	Series of New Ex	xam :Desc BodyPart #Ima
3	BRAIN 19	> < >>	

• Split the exam which has more than 2 series into 2 exams

- Select exam user wishes to split.
- Click Split Exam button to open Split Exam window.
- Exam Information displays exam information which selected series belongs to.
- Series of Current Exam List displays all series which belong to selected exam.
- Select series which user wishes to split in Series of Current Exam and move to Series of New Exam.
- Click Split Exam button to split.

3.2.9. Split Series

• Split the series which has more than 2 images into 2 series

Split Series						
Exam Information Patient ID Study Date Description Dept.	129143 0000-00-00		Name Modality Series#	KIM JAE SU CT 2	J M/66 Images#	20
Series List Seri Series Desu 2 3	c BodyPart ∦Ima HEAD L 1 BRAIN 19					
Image List Images of Current Ser 2 C:\Ensembl 3 C:\Ensembl 4 C:\Ensembl 5 C:\Ensembl 6 C:\Ensembl 7 C:\Ensembl 8 C:\Ensembl	e\Database\2001-08-03\129143 e\Database\2001-08-03\129143 e\Database\2001-08-03\129143 e\Database\2001-08-03\129143 e\Database\2001-08-03\129143 e\Database\2001-08-03\129143 e\Database\2001-08-03\129143	A(CT	Images of Ne	w Series Ige Path		
					Split Series	Close

- Select exam or series user wishes to split.
- Click Split Series button to open Split Series window.
- Exam information displays exam information which selected series belong to.
- Series List displays all series which belong to selected exam. Select series.
- Select images which user wishes to split in Image of Current Series and move to Images of New Series.
- Click Split Series button to split.

3.2.10. DICOM Send

• Send selected exams to DICOM server.

DICOM Send				
Setting Local IP Address 192.16 Compress Keep Origina	8.1.101 💌 I 💌 Quality A AE	Auto y Mid	Start	☑ Send Origial ☑ Selected Images Only
AE Title PIVIEW BUNNY TEST	Host 192.168.1.111 192.168.1.101 192.168.1.100		Port 104 3000 1004	Desc
StaticStatusPat. Name		Pat	. ID 🗌	
Send	Stop		Verify	Close

- Select local IP using Local IP Address combo box.
- Select compress codec using Compress combo box. In case JPEG is selected, Quality combo box is activated, and compression quality can be selected.
- Auto Start enables to send image simultaneously with clicking of DICOM Send button in tool bar.
- Send Original enables to send original image. Otherwise, image is sent as it is being displayed on the window.
- Select server to be sent in Destination Remote DICOM AE list.
- Send button sends image.
- Verify button checks the DICOM communication status with the server.
- Stop button stops sending of image.
- Status shows sending status in progress bar, and in a form of "number of sent image / number of total image".

3.2.11. Local Send

- Send selected exams to conference folder.
- Conference folder can be added to Database tab in Work List window.
- Place mouse next to Backup CD / DVD space, and click right mouse button, and select Add Conference Folder.

8	Local	DB 💩 Ba	ckup CD/DVD	Add Conference Fo	older
	Sex	Modal	Pat ID	Pat Name	Desease

• By selecting Add Conference Folder, following window pops up. Input Title and designate path, and clock OK button.

Add Confere	nce Folder		
Title	Test]	ОК
Path	C:/test		Cancel

• Below shows the successful creation of conference folder.



• Following dialog box pops up after selecting exams and clicking Local Send button. Select a local folder, and click OK then selected image with database are copied to selected folder.



3.2.12. Report

• Generate the report of selected exam. Refer to Chapter 5. Tool – Report.

3.2.13. Setting

- Configure layout and list column in search result window.
- Click Layout tab, and select layout format.

1 + Series + Old Exam		○ Exam + Series + Old	d Series	
1 + Series + Old Exam		⊖Exam + Series + Old	d Series	
n + Series + Old Exam		⊖Exam + Series + Old	d Series	
n + Series + Old Exam) Exam + Series + Old	d Series	
n + Series + Old Exam		○ Exam + Series + Old	d Series	
_				
			_	
n + Old Exam		○Exam + Old Exam +	Report	
	n + Old Exam	1 + Old Exam	n + Old Exam + Old Exam +	n + Old Exam + Old Exam + Report

- Click List Columns tab, and select sub tab user wishes to edit.
- Hidden Column shows the list which are not displayed, and Visible Column shows the list which are displayed.
- Select item and click < or > to move it to Hidden Column or Visible Column.
- Click << or >> to move all items to Hidden Column or Visible Column.
- Click Move Down or Move Up button to move items up or down.

Hidden Column Sex Sex Modality Pat Name Desease Study Desc Study Desc Study Date Dept Series #Series #Series #Series #Series #Series #Series #Series #Name Pat Age Pat Age Report Pat Age Report Move Down Move Up	Worklist Configuration Layout List Columns Exam List Old Exam List Series List Old Ser	ries List		
	Hidden Column	>>	Visible Column Sex Modalty Pat D Pat D Pat Name Desease Study Desc Study Desc	

3.2.14. Popup Menu

• Following popup menu is displayed by clicking right mouse button on search result window.



Figure 3.19. Popup Menu

- Open Exam : Open selected exam
- Report : Refer to Chapter 3.2.12.
- DICOM Send : Refer to Chapter 3.2.10.
- Local Send : Refer to Chapter 3.2.11.
- Merge Patient : Refer to Chapter 3.2.4.
- Merge Exam : Refer to Chapter 3.2.6.
- Merge Series : Refer to Chapter 3.2.7.
- Split Exam : Refer to Chapter 3.2.8.
- Split Series : Refer to Chapter 3.2.9.
- Edit Exam : Refer to Chapter 3.2.5.
- Delete Exam : Delete selected exam
- Save as CSV : Save all results in save window in CSV file format

3.3. Query & Retrieve

3.3.1. Overview

- User can access DICOM server to query patient / exam / series / image or move them to other position or retrieve to QuantorView.
- DICOM server should support one of the below services, at least.
- Patient Root Query : Query in sequence of patient exam series image.
- Patient Root Move : Move query result in sequence of patient exam series image.
- Patient Root Get : Retrieve query result in sequence of patient exam series image.
- Study Root Query : Query in sequence of exam series image.
- Study Root Move : Move query result in sequence of exam series image.
- Study Root Get : Retrieve query result in sequence of exam series image.
- Patient Study Only Query : Query by patient and exam information.
- Patient Study Move : Move result queried by patient and exam.
- Patient Study Get : Retrieve result queried by patient and exam.

UW0rk List							
🔳 Database	🚯 Query & Re	etrieve 🛛 🔯 DICOM CD/DVI	🖉 🔷 CD/DVD Export 📃 Backup				
Server 🖪	unny - 192.168.1.1	11:3000	Connect -> Move To Se	lect Move AE	×	Patient Root	~
_					_	_	_
* Patient ID	* Patier	nt Name * Sex	Modality V				
* Study ID	* Acces	ssion Number * Study Des	cription 2008-03-27 🔮 2008-0	J3-27 V - V			
Sex Moda	ility Pat ID	Pat Name	Desease Study Desc	Study Date	Dept #	. #I Report	Pa R Phy
м	102-2058	AN WE CHAN			2	19	
м	102-2058	AN WE CHAN	FACIAL	2002-01-31	2	19	
м	4443	OHOYA KAZUHIKO			1	1	
м	4443	OHOYA KAZUHIKO		2007-11-19			
F	98-33062	LEE HYE SOON			2	36	
F	98-33062	LEE HYE SOON	C-SPINE	2002-01-31	2	36	
₹		,	1				×
Se #I	Modality Body	Part Series Date	Series Desc				
1							

3.3.2. Tools



- Select sever in Server combo box. Server can be added in Network in Preference menu.
- Connecting status can be tested by clicking Connect button.



- Move To combo box becomes activated when the arrow button is clicked.
- Select the destination in the combo box where selected item moves to.
- In case that Move To combo box is not activated or destination is not selected, *QuantorView* becomes the destination.

Patient Root]	
--------------	---	--

- Select query and move method.
- Patient Root : Query and move in sequence of patient exam series image.
- Study Root : Query and move in sequence of exam series image.
- Patient Study Only Root : Query and move by patient and exam information.

3.4. DICOM CD / DVD

3.4.1. Overview

• Information in DICOM CD / DVD can be searched, and it supports DICOM CD / DVD which has DICOMDIR file.

Pat		Query a R	scheve [S] Dic		CD/DVD		Kup						
	. [_		_			_	_	_	_	_	_	_
* Pa * St	udy ID	* Pat	ient Name cession Number	* Sex * Study De	scription		F						
								1					
Sex	: Modality	Pat ID	Pat Name		Desease	Study Desc		Study Date	Dept	#	#I Report	Pa R	Phy Name
M	-	145266	KIM EUNG H	WAN .M/73 M/66	-	-	-	2001-08-04	_	2	2	-	_
	1				6								2
Se.	#I Mo	dality Body	Part Serie	s Date	Series	Desc			_		_	_	

3.4.2. Tools



• Select the media path. All other usage is the same as Database tab.

3.5. CD / DVD Export

3.5.1. Overview

• Burn selected images to DICOM CD / DVD or save them in selected folder.

Work List					
🔳 Database 🛞 Quen	/ & Retrieve 🔝 DICOM CD/DVD	CD/DVD Export D Back	up		
* Patient ID	* Patient Name * Sex	🖌 * Modality 🖌 *	Study Desc		
* Report 🔛	* Doctor 🖌 * Study I	> * Accession Nur	2010-06-28 🔛 🔲 2010-	06-28 💌 🛛 🗳 🔍	A11 🖌
E Local DB 💩 Back	up CD/DVD 🔳 test1				
Sex	Modality Pat ID	Pat Name De	rsease Study Desc	Study Date	Dept # #l
Page 1					
Export Path	D:\555		Compress	Keep Original	Quality High
Export Option	OLocal Disk @CD/DVD	Copy Simple Viewer	Include Report 🗹 Inc	lude DICOMDIR 🗹 Overla	y
Export Status					
Disk Used					
					Export
			** E	XAM# : [0] SERIES#	: [0] IMAGE# : [0] **

- Query and select exam same method as Database tab.
- Select the path in Export Path.
- Select compression method in Compress. Quality combo box becomes activated if lossy compression is selected. Select compression quality.
- Select Export Option
- Local : Save in local drive
- CD / DVD : Record in CD / DVD
- Copy Simple Viewer : Copy simple image viewer
- Include Report : Include report
- Include DICOMDIR : Include DICOMDIR file
- Overlay : Burn overlay on the image when it is saved in JPEG
- Disk Used shows the usable space of the media
- Process starts by clicking of Export button
3.5.2. CD / DVD Recording Window

• Below CD / DVD recording window pops up when CD / DVD is selected.

Burning CD/DVD		
Available Device Choose Recoder F: Optiarc DVI Speed Write Speed 16.0 x V	CD Label CD Label Volumn Label Media Type Media Type DVD+R Free Capacity: 0.00MB, Data Selected: 1	510
Log Messages	Message Data Image Size: 174,44 MB	
2011-03-31 15:10:33	Files: 001, Directories: 3	
Progress		
	Burn Abort Erase	Close

- Available Device : All available devices are listed, select the recorder.
- DC Label : Record media label. Default values are today's date and serial number.
- Speed : Available recording speeds are listed. Select the speed.
- Media Type : Current media type is displayed.
- Media Space : Available space in the current media and size of selected images are displayed.
- Log Message : Media recording information is displayed.
- Progress : Recording progress is displayed.
- Burn : Start recording to the media.
- Abort : Abort recording to the media.
- Erase : It is enabled when the media is RW, and erased the contents of the media. Following box pops up when the Erase button is clicked. Quick Erase erases tables only. Clicking of Erase button erases the contents, and erasing information and status are displayed.

Erase	X
✓ Quick Erase(Delete Table Only)	Erase

• Close : Close the window.

3.6. Backup

3.6.1. Overview

• It provides auto and manual backup functions.

	<mark>∛ork Li</mark> Datab	ist ase (& (Query & Retriev		avaya)	💩 CD/DVD E	roort DBar	kup					
E	* Pati * Rep	ent ID	* Patier	nt Name *	Sex Study ID	* Mo	dality 💌	* Study Desc	2010-06-28	, 6		All Y	
	F F M M M	Moda CR CR CR CR CR CR CR	Pat ID 00154370 00193435 00204392 00204392 00204392 00204392	Pat Name JEONG EUN JANG HAN N I BYEONG SI I BYEONG SI I BYEONG SI	AE IA EOPH EOPH EOPH EOPH	Desease	Study Desc CHEST CHEST SPINE SPINE PELVIS SPINE		Study Date 2003-02-26 22 47.24 2003-02-26 2057.05 2003-02-26 17.29 34 2003-02-26 17.29 34 2003-02-26 03 10 10 2003-02-26 03 03 30	Dept AGFA AGFA AGFA AGFA AGFA AGFA	#Series 1 1 1 1 1 2 3	#mages 1 1 2 3 3 4 4 4 4 4 4 4 4 4 4 4	
	Backu	p Path	D:\55	5					Compress Keep Or	iginal		Quality Hig	h ¥
	Backu Backu Disk	p Schedu p Status Used		Letting 2003-4	02-26 - 2	003-02-26	Reset Bac	ukup Status) Set As No Ba ** EXAM\$: [ackup] [Start Backup 9] IMAGE# :	[9] **

- Backup Path : Select the backup path.
- Select compression method in Compress. Quality combo box becomes activated if lossy compression is selected. Select compression quality.
- Backup Schedule : Set backup schedule.
- Backup Status : Display backup status.
- Disk Used : Display available disk space.
- Reset Backup Status : Restore selected exams to un-backup status.
- Set As No Backup : Set selected exams not to backup.
- Backup Now : Start backup now.

Chapter 4. Viewing Window

4.1. Overview



- Viewing window provides functions related to image viewing, and it consists of following main menus.
- a : Menu
- b : Toolbar
- c : Exam list
- d : Image display window

4.2. Toolbar

lcon	Name	Hotkey	Description	
11 M	Work List	Ctrl+W	Open Work List window	
	Close Exam		Close selected exam in the exam list	
	Open next exam	Ctrl+N	Open next exam	
	Mouse Mode	Esc	Change to mouse mode	
	1 Series		Change to 1 series display mode	
	2 Series (2 x 1)		Change to 2 series display mode (2 x 1)	
	2 Series (1 x 2)		Change to 2 series display mode (1 x 2)	
	4 Series (2 x 2)		Change to 4 series display mode (2 x 2)	
	Series Layout		Change series mode using layout tool	
	Same Image Comparison		Compare the same image	
2	Exam Comparison		Compare exams	
	Stack/Tile View		View selected series images as movie	
Ì	Pixel Information		Display pixel information	
	DICOM Information		Display DICOM information of selected image	

	Report	R	Make report for current exam	
	Comment		Record comment for current exam	
	DICOM Print	Ctrl+P	Open DICOM Print window	
SCOUT LINE	Scout Line		Toggle button which shows / hide scout line in image	
AUTO CLOSE	Auto Close		Toggle button which closes current image when the next image opens	
	Fresh		Fresh current exam	
£	CTR		Measure CTR in the image	
	Distance Measurement		Measure the distance in the image	
	Compare Distance		Compare two distances in the image	
	Angle Measurement		Measure the angle in the image	
H	Text		Add text in the image	
	Rectangle		Add rectangular ROI in the image	
٩	Circle		Add circular ROI in the image	
ł	Polygon		Add polygonal ROI in the image	
1	Freehand Draw		Add freehand draw ROI in the image	
K	Arrow		Add arrow mark in the image	

User Manual QuantorView

	All Image Reset		Reset all images
Ç	Selected Image Reset		Reset selected image
	All Image Window Level		Apply window level to all images
-•	Selected Image Window Level	W	Apply window level to selected image
	Vertical Flip		Vertical flip the image
	Horizontal Flip		Horizontal flip the image
°	Rotate to Clockwise		Rotate the image to clockwise by 90 degree
*	Rotate to Counterclockwise		Rotate the image to counterclockwise
Đ ′	Zoom	Z	Change mouse to zoom mode
\$	Magnify Glass	G	Change mouse to magnifier mode
	Pan	Р	Change mouse to pan mode
ţ	Inverse		Inverse the image
R.	Send		Save and transfer the current image

Chapter 5. Menu

5.1. File

5.1.1. Open

- Work List [Ctrl + W] : Convert to Work List window.
- DICOM File : Open and display DICOM file.
- Image File : Open and display JPEG, BITMAP and TIFF files.

5.1.2. Save [Ctrl + S]

- Save selected exams. Following parameters are saved together.
- LUT
- Window Center / Width
- Annotation
- Rotation / Flip information

5.1.3. Close

• Close selected exam in the exam list. Close selected image if the image is open.

5.1.4. Close All

• Close all exams in the exam list. Close all images if images are open.

5.1.5. Next Exam [Ctrl + N]

• Add the next exam which is latter than the current exam to the exam list and display on the window.

5.1.6. Export – File...

• Save images more than one.

다른 이름으로 저	장					? 🔀
저장 위치([):	🚞 Temp		~	두 🔁	-111 *	
[] 내 최근 문서						
() 바탕 화면						
🎾 내 문서						
및 내 컴퓨터						
내 네트워크 환경						
	파일 이름(<u>N</u>):	JEONG^EUN AE_CR_2003	-02-26		~	저장(<u>S</u>)
	파일 형식(<u>T</u>):	DICOM File(*,dcm)				 취소
	Transfer Syntanx:	JPEG Baseline 💌	Quality:	Mid		

- Input file name in File Name combo box.
- Click File Type combo box, and select one of below types.
- DICOM File : Save in DICOM file format.
- JPEG File : Save in JPEG file format.
- BITMAP File : Save in BITMAP file format.
- TIFF File : Save in TIFF file format.
- AVI File : Save in AVI file format. To save in movie form, select more than two images in the same series, and select AVI file format.
- Transfer Syntax becomes activated when DICOM file format is selected, and select one of below types.
- Keep Original : Save as original transfer syntax.
- Uncompressed : Save without compression. If the selected image is compressed, it is uncompressed and saved.
- JPEG Baseline : Save using JPEG 8 bit lossy codec.
- JPEG 12 bit Lossy : Save using JPEG 12 bit lossy codec.
- JPEG 16 bit Lossless : Save using JPEG 16 bit lossless codec.
- Quality Combo box becomes activated when lossy JPEG codec is selected, and select one of below types.
- Low : JPEG Q Value = 10
- Low Mid : JPEG Q Value = 25
- Mid : JPEG Q Value = 50
- Mid High : JPEG Q Value = 75
- High : JPEG Q Value = 90

5.1.7. Export – DICOM Server

• Send more than one selected images to DICOM server.

DICOM Send
Setting
Local IP Address 192.168.1.103 🖌 🗆 Auto Start 🕑 Send Origial
Compress Keep Original Quality Mid Selected Images Only
Destination Remote DICOM AE
AE Title Host Port Desc
_ Static
Status
Pat. Name Pat. ID
Send Stop Verify Close

- Local IP Address : Select local IP address
- Auto Start : Automatically send the image when DICOM send window opens if it is ticked.
- Send Original : Send original file if it is ticked.
- Compress : Select compression codec.
- Quality : Select compression quality. It is activated when JPEG is selected in compress.
- Selected Images Only : Send selected images only if it is ticked. Send all images if it is not ticked.
- Destination Remote DICOM AE : Select the DICOM server.
- Static : Display sending status in progress bar and in a form of "number of sent images / number of total images"
- Pat. Name : Display patient name of the sending image.
- Pat. ID : Display patient ID of the sending image.

- Send : Send image
- Stop : Stop sending image
- Verify : Test communication status between DICOM server.
- Close : Close the window

5.1.8. Export – E-Mail

• Attach more than one selected images to e-mail and send.

🚔 쓰기: (제목 없음)	
파일(F) 편집(E) 보기(V) 삽입(!) 서식(O) 설정(P) 도구(T) 도움말(H) 🔇
····································	र सरु
보내는 사람 (<u>B</u>): Dongsun Kim <joshua@··· td="" 😽<=""><td>· 첨부(<u>C</u>):</td></joshua@···>	· 첨부(<u>C</u>):
♥ 받는 사람: ▶	 Tmp0000,jpg Tmp0001,jpg Tmp0002,jpg Tmp0002,jpg Tmp0003,jpg
제목 (<u>S</u>):	
본문 글자 👽 가변폭 💌	$- A^* A^* B I \underline{U} \vdots \underline{1}_{\underline{-}} \cdot \overline{\cdot} \cdot \overline{\cdot}$

- User's default e-mail client is launching automatically when Export E-mail is selected.
- Selected DICOM files are automatically converted to image file and attached to the email.
- File format of converted image file can be set in Preference.

5.1.9. Export - Folder

• Add more than one selected images to conference folder.

5.1.10. Export – EMR Folder

• Save more than one selected images to EMR folder. EMR folder can be set in Preference.

5.1.11. Import – DICOM File

• Import DICOM files to DB.

Import Folder D\lmage Archive\CR\AGFA ADC 5146 Start ✓ Include Sub Folder Total Files 11 Stop ✓ Extension *.dcm Files Only Imported Files 7 Close Status File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success						mport DICOM Files
Import Folder D:\Image Archive\CR\AGFA ADC 5146 Start ✓ Include Sub Folder Total Files 11 Stop ✓ Extension *.dcm Files Only Imported Files 7 Close Status File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success						
✓ Include Sub Folder Total Files 11 Stop ✓ Extension *.dcm Files Only Imported Files 7 Qlose Status Imported Files 7 Qlose File Name File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		<u>S</u> tart		AGFA ADC 5146	D:\Image Archive\C	Import Folder
Include Sub Polder Fide Name File Size Creation Date Import Result File Name File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		Stop	11	Total Files	lder	Minaluda Sub Es
Imported Files 7 ⊆lose Status Imported Files 7 ⊆lose File Name File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		-2-1-		rotarries	Juer	
Status File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success	9	<u>C</u> lose	7	Imported Files	m Files Only	Extension *.dc
Status File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success	000/	100				_
File Name File Size Creation Date Import Result 00164370_20030226 12.5MB 2007/04/24 Rejected 00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success	00%					Status
00164370_20030226 12.5MB 2007/04/24 Rejected 00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		Import Result	ıte	Creation Da	File Size	File Name
00193435_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		Rejected	4	2007/04/24	12.5MB	00164370_20030226
00204392_20030226 28.1MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		Rejected	4	2007/04/24	12.5MB	00193435_20030226
00204392_20030226 12.5MB 2007/04/24 Rejected 00204392_20030226 12.5MB 2007/04/24 Success		Rejected	4	2007/04/24	28.1MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success		Rejected	4	2007/04/24	12.5MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success		Success	4	2007/04/24	12.5MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success 00204392_20030226 12.5MB 2007/04/24 Success		Success	4	2007/04/24	12.5MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success		Success	4	2007/04/24	12.5MB	00204392_20030226
		Success	4	2007/04/24	12.5MB	00204392_20030226
00204392_20030226 28.1MB 2007/04/24 Success		Success	4	2007/04/24	28.1MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success		Success	4	2007/04/24	12.5MB	00204392_20030226
00204392_20030226 12.5MB 2007/04/24 Success		Success	4	2007/04/24	12.5MB	00204392_20030226

- Click Import Folder button, and select the folder.
- Click Start button to start importing.
- Include Sub Folder enables to search all sub folders.
- Extension *.dcm Files Only enables to search dcm file format only.
- Total Files displays the total number of files to be imported.
- Imported Files displays the number of files imported.
- Status displays importing status in progress bar.
- Click Stop button to stop importing.

5.1.12. Import – Non-DICOM File

• Import image files to DB.

Import Selected Images				X
-Patient Information				
Patient ID		Patient Name		
	2009.02.25	1 0.0000000000		
Birth Date	2000-02-23	Sex	OM OF ⊙0	
-Study Information				
Study ID	[]	Study Data	2008-02-25	
Siddy ID		Siddy Dale		
Accession Number		Study Time	오후 4:14:48	
Description				
-Series Information				
Series Number		Modality	ОТ	
Description				
Select Folder				
Import Folder	D:\lmag	e Archive\CR\AGFA A[DC 5146	
	Include Sub Folder	🗹 JPEG	BMP TIFF	
-Status		lucus entre el Eile e		
		imponed Files		
File Name		Fi	ile Size Import Result	
		Chard		
		<u>s</u> tart	sjop <u>C</u> lose	

- Input all patient information.
- Input all study information.
- Input all series information.
- Click Import Folder button, and select the folder.
- Include Sub Folder enables to search all sub folders.
- JPEG, BMP and TIFF enable to search selected file format only.
- Total Files displays the total number of files to be imported.
- Imported Files displays the number of files imported.
- Click Start button to start importing.
- Click Stop button to stop importing.

5.1.13. DICOM Print

• Print images by DICOM printer.

DICOM Print
Range Current Exam Current Exam Current Series Selected Images Left Top Top Image Image <tr< td=""></tr<>
✓ Information ✓ Annotation Font Size(5-50) 16 ✓ Ruler □ Long Bone Anno Line Size(1-10) 10
AE Title Host Port Desc BUNNY 192.168.1.101 3000
Add Delete Edit Network Test Zoom Zoom Method Do Not Use Zoom Ratio(10-300) 120
Status Print Preview Stop Close

- Range : Select the range of images to be printed.
- Current Exam : Selected exam
- Current Series : Selected series

- Selected Images : Selected images
- Layout : Set print layout of the image. Click the layout button and select the layout by mouse.
- Number of Copies : Select the number of print copies.
- Overlay : Select the overlay information to be included in print.
- Information : Image information
- Annotation : Annotation on image
- Ruler : Ruler on image
- Long Bone : Adjustment of text overlay position for the image which has long length in vertical direction, eg> Long bone image
- Font Size : Set font size
- Anno Line Size : Set thickness of annotation line
- Printer : Select the printer.
- Add : Add printer
- Delete : Delete printer
- Edit : Edit printer information
- Network Test : Test communication status between DICOM printer.
- Zoom
- Zoom Method : Select zoom method
- Zoom Ratio : Set zoom ratio
- Status : Display zoom status.
- Preview : Show preview of print
- Print : Start printing
- Stop : Stops printing
- Close : Close print window.

5.1.14. DICOM Printer Setting

Printer Setting			X					
_Network Info]					
AE Title	IP Addresss	Port	Description					
BUNNY	192 . 168 . 1 . 101	3000						
]					
- Film Session								
Print Priority:	MED	Film Desination:	PROCESSOR					
Medium Type:	CLEAR FILM	Label:						
Film Box								
Orientation:	PORTRAIT	Trim:	NO					
Size:	14INX17IN	Polarity:	NORMAL					
Magnification:	BILINEAR	Annotation:						
Configuration:	CS TABLE=0#PERCEPTION LUT=KANAMORI							
coningeration.								
Min:	0	Border:	BLACK V					
Max:	65535	Empty:	BLACK					
-Imaga Bay								
Image box								
Bits Used	12							
_ Real Size								
Top Margin(mn	n) 0 Bottom	Fill(mm) 0	Center Vertically					
Printer DRYVIEW6800 Width(mm) 427.03 Height(mm) 350.75								
]					
	ОК	Cancel						

- Network Info : Input printer network information.
- AE Title : Input printer AE title.
- IP Address : Input printer IP address.
- Port : Input printer port.
- Description : Input description of printer.
- Film Session : Input film session information which is supported by DICOM printer. If the selected functions are not supported by DICOM printer, printing may not be done.

- Film Box : Input film box information which is supported by DICOM printer. If the selected functions are not supported by DICOM printer, printing may not be done.
- Image Box : Input image box information which is supported by DICOM printer. If the selected function is not supported by DICOM printer, printing may not be done.
- Real Size : Print the image in real size.
- Top Margin : Set margin on top of the film. If the image is aligned center vertically, this function becomes disabled.
- Bottom Fill : Set black filled are on bottom of the film.
- Center Vertically : Align the image center vertically.
- Printer : Select the printer model.
- Width : Input film width.
- Height : Input film height.

5.1.15. Windows Print

• Print images by Windows printer.

Paper Print	X
Range O Current Exam Current Series O Selected Images 	
Layout Number of Copies 3 🗘	
-Image Overlay ✓ Information Annotation ✓ Ruler Font Size 8	
_ Document	ר
Header ABC Hospital	
Footer KODAK	
Preivew Print Setup Close]

- Range : Select the range of images to be printed.
- Current Exam : Selected exam
- Current Series : Selected series
- Selected Images : Selected images
- Layout : Set print layout of the image. Click the layout button and select the layout by mouse.
- Number of Copies : Select the number of print copies.
- Overlay : Select the overlay information to be included in print.
- Information : Image information
- Annotation : Annotation on image

- Ruler : Ruler on image
- Font Size : Set font size
- Documentation
- Header : Input letters to be printed in header.
- Footer : Input letters to be printed in footer.

5.1.16. Preference

• Refer to Chapter 6. Preference.

5.1.17. DICOM Overlay

• Refer to Chapter 6. Preference.

5.1.18. Conference Folder

• Add conference folder.

5.1.19. Log Off

• Quit current job and open log on window.

5.1.20. Exit

• Exit **QuantorView**.

5.2. Edit

5.2.1. Selecting Image by Mouse

- To select images it has to be turned to mouse mode by selecting [Image Process Pointer] or pressing Esc key.
- In the mouse mode, image can be selected by clicking left mouse button. Yellow border line is seen for selected image.
- Select multiple images, press CTRL key and select multi image by mouse.
- Select multiple images at once, select the first image and press SHIFT key and select the last image by mouse.

5.2.2. Delete Selected Images

• Delete selected images.

5.2.3. Delete Unselected Images

• Delete unselected images.

5.2.4. Hide Selected Images

• Hide selected images.

5.2.5. Show Hidden Images

• Show hidden images.

5.2.6. Copy to Clipboard [Ctrl + C]

• Copy selected image to Windows clipboard, and all overlays are included. For the multi frame image copy, only current image is copied.

5.2.7. Overlay Delete All

• Delete all overlays

5.2.8. Select All [Ctrl + A]

• Select all images in current series.

5.2.9. Deselect All [Ctrl + E]

• Deselect all images in current series.

5.2.10. DICOM Dataset

• Display DICOM dataset of selected image.

5.3. View

5.3.1. Auto Close

• Close previous exam automatically when the new exam opens. Only one exam is displayed when auto close function is activated.

5.3.2. Refresh

• Refresh the exam to initial status.

5.3.3. Same Image Compare

• Display the same image on window to compare.

5.3.4. Stack / Tile View

• Observe CT or MR series images as a movie.



- a. Movement : Drag the slide by mouse to move
- b. Move to first image
- c. Move to previous image
- d. Play
- e. Play backward direction
- f. Stop
- g. Move to next image
- h. Move to last image
- i. Repeat
- j. Play forward and backward
- k. Play speed : Default is 15 FPS, minimum speed is 0 FPS and maximum speed is 30 FPS.

5.3.5. DICOM Overlay Show / Hide

• Show or hide DICOM information on the image.

5.3.6. ROI / Annotation Show / Hide

• Show or hide ROI and annotation on the image.

5.3.7. Ruler Show / Hide

• Show or hide ruler on the image.

5.3.8. Shutter Show / Hide

• Show or hide the shutter.

5.3.9. Set Scout Image

• Set selected image as a scout image, and display scout lines.



- Corresponding image is displayed when the scout line is selected in scout image.
- Corresponding scout line color is changed when the image in series is selected.

5.3.10. Add Scout Image

• Add scout image to selected series.



- a. Select the series which contains the image to be added.
- b. Display scout lines in all images in the series if it is ticked.
- c. Move to the first image.
- d. Move to the previous image.
- e. Move to the next image,
- f. Move to the last image.
- Click OK to add scout image to current series
- Corresponding image in current series is selected when scout line in the image is selected.

5.3.11. Display Scout Line On / Off

• Show or hide scout line on the image.

5.3.12. Popup Scout Image

• Display scout image in popup window.

5.3.13. DICOM Header

• Display DICOM image of the active image

DICOM Information	
Text Search	DICOM Element Search
-DICOM Element Information	
Tag VR Length (0002:0000) UL 0x00000004 [62]	Name 🔶 🤷
(0002:0002) UI 0x0000001A [1.2.840.10008.5.1.4.1.1.1]	Media Storage SOP Class UID
(0002:0010) UI 0x00000014 [1.2.840.10008.1.2.1]	Transfer Syntax UID
(0008:0005) CS 0x0000001E [ISO 2022 IR 13]\ [ISO 20	Specific Character Set (22 IR 87]
(0008:0016) UI 0x0000001A [1.2.840.10008.5.1.4.1.1.1]	SOP Class UID
(0008:0018) UI 0x0000003A [1.2.840.114062.2.172.31.1.250.2	SOP Instance UID 007.11.19.13.36.32.13472015]
(0008:0020) DA 0x0000008 [2007/11/19]	Study Date
(0008:0030) TM 0x0000006 [13:36:19.0000]	Study Time
(0008:0050) SH 0x0000000	Accession Number
(0008:0060) CS 0x0000002 [CR]	Modality
(0008:0070) LO 0x0000006 [Kodak]	Manufacturer
(0008:0080) LO 0x0000006 [Kodak]	Institution Name
(0008:0090) PN 0x0000000	Referring Physician's Name
	Save As Close

- DICOM Element Information : All DICOM Element information are displayed
- Text Search : Insert text string and click "search" button will find matched string at DICOM Element Information.
- DICOM Element Search : Selecting DICOM Element Tag will find matched tag at DICOM Element Information.
- Save As : Saves DICOM Element Information as text file.

5.3.14. Toolbar

• Show or hide toolbar.

5.3.15. Caption

• Show or hide caption bar.

5.3.16. Study List

• Show or hide study list.

5.3.17. Old Study

• Show or hide old study.

5.3.18. Full Screen [Ctrl + F]

• Convert to full screen mode.

5.3.19. Reset Window Position

• Restore window layout to default mode.

5.4. Image Process

5.4.1. Pointer [Esc]

• Set as mouse mode. Image or annotation can be selected in mouse mode.

5.4.2. Zoom [Z]

• Set as zoom mode. Press Ctrl key to accelerate zooming speed.

5.4.3. Pan [P]

• Set as pan mode.

5.4.4. Magnify Glass [M]

• Set as magnify glass mode. Press Ctrl key to adjust zooming ratio, and SHIFT key to adjust magnify glass size.

5.4.5. Window Level

• Click right mouse button and drag to change window level. Press Ctrl key to accelerate window leveling speed.

5.4.6. All Window Level

• Apply widow level change to all images in series.

5.4.7. Rotate CW

• Rotate selected image to clockwise by 90 degree.

5.4.8. Rotate CCW

• Rotate selected image to counterclockwise by 90 degree.

5.4.9. Flip Horizontal

• Flip selected image to horizontal direction.

5.4.10. Flip Vertical

• Flip selected image to vertical direction.

5.4.11. Inverse

• Inverse selected image.

5.4.12. Real Size

• Adjust image to real size. Real size has to be set in Preference.

5.4.13. Real Size Mode

• Display image in real size when it is opened.

5.4.14. Display Original

• Restore selected image to original status.

5.4.15. Display All Original

• Restore all images in selected series to original status.

5.5. Annotation

5.5.1. ROI - Rectangle



- Click mouse left button and drag.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.

5.5.2. ROI - Circle



- Click mouse left button and drag.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.

5.5.3. ROI - Polygon



- Whenever you clicking the mouse left button, new point is added.
- Double click mouse left button to finish drawing.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.

5.5.4. ROI – Freehand Draw



- Click mouse left button and drag.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.

5.5.5. ROI Property

• Following shortcut menu is displayed if mouse right button is clicked on ROI.

Delete	
Property	
CopyToClipboard	
RotateLeft	
RotateRight	
	_

- Delete : Delete ROI
- Property : Display ROI property window.
- Copy to Clipboard : Copy ROI region only
- Rotate Left : Rotate ROI to counterclockwise by 90 degree
- Rotate Right : Rotate ROI to clockwise by 90 degree

F	OI Propety							X
	Position —		Size		Statisti	cs ——		
	Left	331	Height	81 pixel		Min	-214	
	Тор	272	Width	109 pixel		Max	256	
	Right	440	Area	9020 pixel		Mean	-32.554	
	Bottom	353	Unit	pixel 💌		SD	48.934	
			OK	Cancel				

- Position : Display rectangular coordinate of the ROI.
- Size : Display height, width and area of the ROI.
- Statistics : Display minimum, maximum, mean and standard deviation values.

5.5.6. Measure



- Click mouse left button and drag.
- You can modify the position and length of the object by clicking and dragging the object.
- If there is pixel spacing information on image, distance is displayed in cm, otherwise in pixel.

5.5.7. Compare Measures



- Click mouse left button and drag.
- You can modify the position and length of the object by clicking and dragging the object.
- If there is pixel spacing information on image, distance is displayed in cm, otherwise in pixel.

5.5.8. Angle



- Click mouse left button three times at center, left, right of the angle.
- Inner angle and outer angle are displayed.
- You can modify the position of the object by clicking and dragging the object
- You can modify the angle of the object by clicking and dragging control point.

5.5.9. Annotation



- Click mouse left button or draw rectangle by click and drag.
- Edit box will come up. Add your text.
- Click mouse left button at outside of the edit box.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.

5.5.10. Arrow Line



- Click mouse left button and drag.
- You can modify the position of the object by clicking and dragging the object
- You can modify the length of the object by clicking and dragging control point.

5.5.11. Profile

- Click mouse left button and drag.
- Release mouse left button will show profile dialog box.
- If you click and drag left mouse button on the profile graph, red point will be displayed on the image which indicates current position on the graph.
- You can modify the position of the object by clicking and dragging the object
- You can modify the shape of the object by clicking and dragging control point.
- Click right mouse button on the line will show up short cut menu which enables you to show profile dialog box.





Figure 5.7. Profile

- Profile dialog displays followings.
 - > Distance : distance between two points
 - Start Point : start point coordinate
 - > End Point : end point coordinate
 - > Min : minimum value
 - > Max : maximum value
 - Mean : mean value
 - > Pixel Value : value of mouse clicked point

5.5.12. Pixel View

- Click mouse left button.
- Small white box will show pixel coordinate and value.



5.5.13. Measure - CTR

- Click mouse left button at the left end of the chest. (a)
- Drag mouse to the right end of the chest. (b)
- Release mouse button.
- Click control point (c) and move to the left end of the heart
- Click control point (d) and move to the right end of the heart
- Width of the heart will be displayed at (d)
- Width of the chest will be displayed at (b)
- CTR will be displayed as %.
- You can modify the position of each line by clicking and dragging the line.
- You can modify the shape of the object by clicking and dragging control point.



5.5.14. Masking

• Mask improper marking by black color.

5.6. Tool

5.6.1. Report

• Make report for current exam.

Report							X
Patie	nt Info	Exam Info					
	ID 4443	Date	Modality	C	Description	Reading Date	
Na	me OHOYA^KAZUHIKO	2007-11-19	CR			Not Read	
Bi	rth 1970-11-01	2007-11-19	CR			Not Read	
s	Sex M	2007-11-19	CR	_	_	Not Read	
			_				
Bead	ing				Code List		
Rep Rep Rep Rep Rep Rep Rep	ont Code Test 1 Report Code Test 1 Repo ont Code Test 1 Report Code Test 1 Repo ont Code Test 1 Report Code Test 1 Repo ont Code Test 1 Report Code Test 1 Repo for Code Test 1 Report Code Test 1 Repo ont Code Test 1 Report Code Test 1 Repo	ort Code Test 1 int Code Test 1			Code R001	Title Hotk Code Test 1 F1	ey
	P	int Print Pr	review	Save	Save & Close	Edit Code Clos	ie -

- Patient Info displays patient information.
- Exam Info displays exams of selected patient.
- Select the exam in Exam Info, and add comments in Reading.
- Select and double click the item in Code List to add to Reading.
- Click Print button to print the report.
- Click Print Preview to preview the report.
- Click Save button to save the report.
- Click Save & Close to save and close the report.
- Click Edit Code button to edit the report.

5.6.1.1. Edit Reading Code

Edit Reading Code			l	×
-Reading Code]
Code	HotKey	Title	ACR Code	
R001	F1	Code Test 1	ACR1	
Contents			Add]
Report Code Test 1			Modify)
			Close)

- Selected item in Reading Code is displayed in Contents.
- To add Reading Code, click Add button, then below window pops up.
- To modify, select the code and click Modify button.
- To delete, select the code and click Delete button.

Modify Code	X
Code Title	Hot Key NONE
Contents	
	OK Cancel

- Code : Input code number.
- HotKey : Assign hot key, F1 ~ F12
- Title : Input title.
- ACR Code : Input ACR code.
- Contents : Input contents.

5.6.2. Comments

• Make comments for the current exam.

С	omments	K
	This is sample String	
	OK Cancel	

5.6.3. Merge Patient

• Refer to Chapter 3.4. Merge Patient.

5.6.4. Merge Exam

• Refer to Chapter 3.6. Merge Exam.

5.6.5. Merge to One Series

• Refer to Chapter 3.7. Merge to One Series.
5.6.6. Rearrange Image

Re-Arrange Image Position				
_Arrange By				
Acquisition Date/Time (0008:0023, 0008:0032)				
O Image Date/Time (0008:0023, 0008:0033)				
O Image Number (0020:0013)				
-Sort By				
Ascending O Descending				
OK Cancel				

- Select arrange condition in Arrange By.
- Select sorting method in Sort By.

5.6.7. Rearrange Image (Manual)

- Rearrange image manually.
- Select the first image user wishes to change order. Green border is seen in selected image.
- Red border is seen in the image where mouse is placed on.
- Click second image to change the order with the first image.
- Deselect Rearrange Image button to release the function.



5.7. Window Width / Level Preset

5.7.1. Menu

• Modify : Display Window Level Preset window. Up to 20 presets can be configured per each modality.

Modelity	eset Madit		
HotKey	litie	VVidth	Center
CTRL+1	Abdomen	400	20
CTRL + 2	Head	100	35
CTRL + 3	Lung	1000	-700
CTRL + 4	Mediastinum	350	40
CTRL + 5	Spine	300	35
CTRL + 6	Vertebrae	2000	350
CTRL + 7			
CTRL + 8			
CTRL + 9			
CTRL + 0			
ALT + 1			
ALT + 2			
ALT + 3			
ALT + 4			
ALT + 5			
ALT + 6			
ALT + 7			
ALT + 8			
ALT + 9			
ALT + 0			

- Select modality in Modality combo box.
- Select Hot Key and click Modify button to open Modify Window Center/Width window.
- Input Title, Width and Center in Modify Window Center/Width window.
- Select and click Delete button to delete the item.

Modify Window Center/Widt	h 🔀
Hot Key	CTRL+1
Title	Abdomen
Window Width	400
Window Center	20
ОК	Cancel

5.8. LUT Preset

5.8.1. Menu

• Modify : Display LUT Editor window. This function is available for the image which has more than 9 bit grayscale.

LUT Editor	<
Out	
In Reset Apply to All	
-LUT Preset	
Name Desc	
Chest PA	
Chest Lat	
Add Update Delete	
Histogram	
Min Pixel Value Max	
OK Cancel	

- LUT Curve shows the curve for selected image.
- User can adjust curve in real time.
- Add Control Point : Click the curve by mouse.
- Adjust Control Point : Click control point and drag it by mouse.
- Delete Control Point : Click control point and move it by mouse to out of graph area.
- Reset : Delete all control points, and make curve flat in diagonal direction.
- Apply to All : Apply the curve to all selected images.
- To save the curve, click Add button and input name and information.
- Select preset in LUT Preset and click Update button to apply the preset to image.
- Select preset in LUT Preset and click Delete button to delete the preset.
- Histogram shows histogram and window width of selected image.

5.9. Hanging Protocol

5.9.1. Menu

• 1 Series : Display 1 series on 1 image window.



• 2 Series : Display 2 series on 2 image windows.



• 4 Series : Display 4 series on 4 image windows.



• 2 Exam : Display 2 exams on 2 image windows.



6. Preference

6.1. Preference

6.1.1. General

Preference	
General Image Network Toolbar Hanging Protocol Marking	Export File Format Screen Layout E-Mai JPEG EMR C:WEMRIMAGE Font Assign Monitor Viewer Courier New Viewer IM Vork List Courier New IM 10 Work List Courier New IM 10 Replace By New Image Folder Image C:#LexView#Database#
	OK Cancel

- Export File Format
- E-Mail : Set image file format attached to e-mail.
- EMR : Set image file format saved in EMR folder.
- EMR Folder : Select EMR folder position.
- Screen Layout
- Tool Box : Set tool box position.
- Assign Monitor : Display monitor assign window.
- Font
- Viewer : Set font name and size using in viewer for each monitor type.
- Work List : Set font name and size using in work list for each monitor type.
- Next Exam : Set order for calling next exam.
- Log : Set log file saving method.
- Folder : Set folder which images are saving.

6.1.2. Image

Preference		×
General Image Network Toolbar Hanging Protocol Marking	Display Show Index Number Show Zoom Ratio Show Window Value Show Image Size Show Thumbnail Thumbnail Image Linear Zoom Display Real Size Set Real Size	Image Color Text Back Rectangle Arrow Circle Measure Polygon Angle Free Draw Profile Scout Line CTR Scout Select Annotation LUT Preset VAuto Save Load
		OK Cancel

- Display
- Show Index Number : Display image serial number on top right side.
- Show Zoom Ratio : Display zoom ration on bottom right side.
- Show Window Value : Display window value on bottom right side.
- Show Image Size : Display image size on bottom right side.
- Show Thumbnail : Use thumbnail.
- Thumbnail : Set height of thumbnail.
- Image : Set image compensation method when it is displayed.
- Zoom Display : Set zooming method
- Units : Set unit of distance measurement.
- Set Real Size : Open real size calibration window.
- Image Color : Set colors for overlays.
- LUT Preset
- Auto : Apply LUT automatically when the image is opened.
- Save : Save current LUT.
- Load : Load LUT.

6.1.2.1. Calibration Real Size

• Real size calibration has to be performed to use Real Size function.



- Prepare the ruler which can measure the real length.
- Measure the length of horizontal and vertical line on monitor and input them.

6.1.3. Network

• Configure setting for DICOM network.

Preference	
Preference General Image Network Toolbar Hanging Protocol Marking	Local AE Title QuantorView IP Address 192.168.1.103 Port 1004 Remote AE Title Host Port Desc Defa AE Title Host Port Desc Defa Add Delete Edit Network Test Timeout 60 sec
	OK Cancel

- Local
- Input AE Title, IP Address and Port.
- Remote : All DICOM servers are listed.
- Click Add to open add window.
- Input AE Title, Host IP address, Port and Description to add the server.
- Set As Default Server : Tick it to set the server as a default.

Add	\mathbf{X}
AE Title	
Host	· · ·
Port	
Description	
	Set As Default Server
ОК	Cancel

- Select the server and click Delete button to delete the server in the list.
- Select the server and click Edit button to edit the server in the list.

- Click Network Test button to test communication between server.
- Time Out : Set the network timeouts as seconds.

6.1.4. Toolbar

Preference			X
General Image Network Toolbar Hanging Protocol Marking	Work List Close Exam Open Next Exam Pointer 1 Series 2 Series (Horizontal) 2 Series (Vertical) 3 Stack/Tile View 3 DICOM Information 3 Report 2 Series (Vertical) 3 Stack/Tile View 3 Stack/Tile View 3 Stack/Tile View 4 Stack/Tile View	 Comments DICOM Print Show Scout Line Auto Close Refresh Exam CTR Distance Compare Distance Compare Distance Angle Annotation Rectangle Circle Polygon Free Draw Arrow 	All Original Image Goriginal Image All Window All Window Goriginal Image All Window Goriginal Image Window Goriginal Image Window Goriginal Image Window Goriginal Image Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontal Horizontally Goriginal Image Horizontally Goriginal Image Horizontally Horizontally Horizontally Horizontally Goriginal Image Horizontally
			OK Cancel

• Only ticked tools are shown in toolbar.

6.1.5. Hanging Protocol

• Set series and image layout per each modality when the exam is opened.

Preference				
General	Hanging Protocol	I		
Image Network	Modality	Exam Layout	Image Layout	All Series 🚔
Toolbar	CR	1 Series	2 x 2	YES
Hanging Protocol	СТ	2 Series	3 x 3	NO
Marking	MR	2 Series	3 x 3	NO
	NM	1 Series	1 x 1	NO
	US	1 Series	1 x 1	NO
	ОТ	1 Series	1 × 1	NO
	BI	1 Series	1 x 1	NO
	< <u> </u>			
				Modify
	Show All Series a	t One Window (2 Exam M v □ Right Window	ode)	
			ОК	Cancel

• Select modality in Hanging Protocol and click Modify button to open modify window.

Hanging Protocol		×		
Modality	СТ			
Exam Layout	2 Series			
Image Layout	3 x 3			
Show All Series At One Window				
ОК	Cancel			

- Select exam layout format in Exam Layout combo box.
- Click Image Layout button to select image layout format by dragging mouse.
- Show All Series At One Window : It displays all series in one series window.

6.1.6. Marking

Preference				
General Image Network Toolbar Hanging Protocol Marking	User Marking	Add Remove Edit Move Upper Move Lower	Font Face Size Default Position Position Image Width's	Arial
			ОК	Cancel

- User Marking : Marking can be added, removed and edited.
- Font : Font type and size can be set.
- Default Position
- Position : Marking position can be set.
- Image Width's : Marking size is the % of the image width.