



PHILIPS

SIM

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Extended MR Workspace R2.6.3.1 (EWS R2.6.3.1)

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Dell T5500/T7400/690/670

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Table 1 Steps to repair/upgrade to an EWS R2.6.3.1

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
Steps 1 up to 10 are preparation steps before you go to the Hospital.								
1.	<input type="radio"/>					Schedule a meeting with the Customer to discuss Remote Service Network (RSN) support via Philips Service Agent. For background information see: http://pww.healthcare.philips.com/service/prs/pages/service	-	-
2.				<input type="radio"/> ¹	<input type="radio"/>	Get from: http://pww.wiskey.ms.philips.com/Wiskey/techNetLicenseFilesSearch.do VF License file and put on USB-stick. (Use MAC-address Hospital LAN NIC as fingerprint, ask for value on Reference sheets). MR software key(s) (Use System Reference Number (SRN) as fingerprint).	-	-
3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Check http://incenter.medical.philips.com/ : <ul style="list-style-type: none"> • Service Packs for EWS R2.6.3.1 and R2.6.3.x MR-Host. • Security Fixes for EWS R2.6.3.1 and R2.6.3.x MR-Host. (Service → Products & Solutions → Magnetic Resolution → Magnetic Resonance → MR Download Area → Service Packs/Security Fixes)	-	-
4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Check http://incenter.medical.philips.com/ : Latest FCO's, Newsletters with respect to EWS.	-	-

¹ When Customer purchased new options.

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
5.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Check Knova: http://pww.eureka.aai.ms.philips.com/KanisaSupportCenter/php/home.do <ul style="list-style-type: none"> Product: Magnetic Resonance Document Types: Factory Tips Search string: R2.6.3.1	-	-
6.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ask Hospital to archive all Patientdata from EWS or ViewForum to PACS.	-	-
7.	<input type="radio"/>					Print Reference sheets	6	163
8.	<input type="radio"/>					Ask the Hospital Network Administrator: <ul style="list-style-type: none"> To register the new EWS on all applicable Remote Dicom nodes. For DICOM Local System settings of EWS and register them on the Reference sheets. For a Computer name and register them on the Reference sheets. For fixed IP-address and networkmask setting "Hospital Connection" or for availability DHCP-server and DNS-server(s). Register them on the Reference sheets. IP-address(es) Gateway(s) to other subnets and register them on the Reference sheets. If applicable IP-address + portnumber Hospital Proxy Server to access NetForum and McAfee update site and register them on the Reference sheets. If DNS suffix is in use by the Hospital, register them on the Reference sheets. Is Enhanced MR image storage on other PACS and Viewing Stations supported? Availability Network connection with Hospital Network. 	-	-

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
9.	<input type="radio"/>					Administer the EWS for Remote Support (RSN) (step 9) (see step 1 for values)	5.1.13	126
10.	<input type="radio"/>				<input type="radio"/>	Ask the Hospital Network Administrator: <ul style="list-style-type: none"> For presence network printer (XP64), connected to EWS. Be aware that you need 64 bits driver for this printer. Obtain driver from printer Manufacturer (e.g. download via Internet). Availability Direct-Link Network connection with MR-Host. 	-	-
Steps 11 up to 75 take place at the Hospital.								
11.	<input type="radio"/>				<input type="radio"/>	Ask for passwords XP-users and Application-users and register them on the Reference sheets .	-	-
12.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Ask for passwords XP-users and Application-users when they are not registered on the Reference sheets .	-	-
13.	<input type="radio"/>				<input type="radio"/>	Identify Dell Service Tag & Express Service Code (step 13)	5.2	127
14.	<input type="radio"/>				<input type="radio"/>	Perform Dell Service transfer to country of destination (step 14) .	5.3	127
15.					<input type="radio"/>	Create a back-up of the VF Configuration: Start → All Programs -> ViewForum → Maintenance -> Backup Application Configuration.	Release Bulletin VF	-
16.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Export EWS Configuration settings (steps 16, 75) .	4.2.1	69
17.				<input type="radio"/>	¹	Export EWS License file (step 17, 75) .	4.2.2	70
18.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If Patientdata is not saved (see step 6): Archive Patientdata from EWS or ViewForum on a PACS, or	-	-
						Back-up Patient Database (step 18) .	4.2.8	74

¹ EWS License file is not saved during R2.5.3 EWS Export Configuration.

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
19.					<input type="radio"/>	On R2.6.3.x MR-Host: remove ViewForum Workstation from Remote DICOM node database.	Host-SIM	-
20.					<input type="radio"/>	Check / upgrade Bios software (step 20)	3.1.1	33
21.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Verify/Register Reference sheets data: Identify Computername Identify networksettings and MAC-address: Open command window. (Start → Run... → enter CMD → OK) Enter: ipconfig /all	3.3.4	46
						Update/Register on printed Reference sheets .	-	-
22.	<input type="radio"/>				<input type="radio"/>	On R2.6.3.x MR-Host: Add EWS as Remote DICOM node via Direct Link (use EWS-template, see SIM MR-Host R2.6.3.1 and WinMRI DICOM Section 13, both available via http://incenter.medical.philips.com/) See also step 8 for value.	Host-SIM	Host-SIM
23.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fulfill Prerequisites OS-Image Installation EWS R2.6.3.1 (step 23)	3.2.1	34
24.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Perform Image-Installation EWS (step 24)	3.2.2	35
25.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Post Image-Installation steps (step 25)	3.3	38
26.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Adjust Display settings (step 26)	3.3.1	38
27.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If local country keyboard is used: ----- Adjust Local country keyboard settings (step 27) .	3.3.3	43
28.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Check System's date and time settings (step 28)	3.3.5	47
29.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If Internet Time Server is used: ----- Configure Internet Time Server (step 29)	3.3.6	47

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
30.		○	○	○	○	If VP1000 option: Update drivers on EWS (step 30)	3.3.7	48
31.	○	○	○	○	○	Change Volume name of C: (step 31)	3.3.8	49
32.	○				○	Identify DVD driveletters (step 32) and register them on the Reference sheets.	3.3.9	49
33.			○	○	○	Initialize 2-nd Disk (step 33)	3.3.10	50
34.		○				Initialize partitions on 2-nd Disk (step 34)	3.3.11	52
35.	○	○	○	○	○	Check Power settings adapter connected with Hospital Network (step 35)	3.3.13	55
36.	○	○	○	○	○	Change IP address adapter connected with Hospital Network (step 36) according the Reference sheets	3.3.14	56
37.	○	○	○	○	○	Check Power settings Direct Link adapter (step 37)	3.3.15	57
38.	○	○	○	○	○	Change IP address Direct-link with MR-Host adapter (step 38) according the Reference sheets	3.3.16	57
39.	○	○	○	○	○	Disable Spare network link (step 39)	3.3.17	58
40.		○	○	○	○	Change Computer name (step 40) according the Reference sheets (see also step 8 or 21 for values).	3.3.4	46
41.	○					Change Hostname (Step 41)	5.4.3.1	134
42.		○	○	○	○	Perform Installation VF Application Software (step 42)	3.4.1	63
43.		○	○	○	○	Perform Installation MR Application Software (step 43)	3.4.2	64
44.	○	○	○	○	○	If EWS has reporting functionality: ----- MS WORD Installation (step 44)	3.6	65

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.x/6.x/7.x TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
45.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>If Security fixes or Service Packs are available (see step 3)</p> <p>Install: Security Patch on EWS R2.6.3.1 (4522 170 12841) Service Pack(s) on EWS R2.6.3.1 and MR-Host</p> <p>For troubleshooting, see section 3.3.12 Re-initialize Backup partition (Step 45) p. 54</p>	-	-
46.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<p>If additional languages are used:</p> <p>Perform Installation of Additional Languages (step 46)</p>	3.3.2	41
47.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Perform CBT installation (step 47)	3.5	65
48.				<input type="radio"/>	<input type="radio"/>	Import VF License file (step 48)	4.2.4	71
49.					<input type="radio"/>	Import ViewForum Configuration settings (step 49)		
50.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Import EWS Configuration settings (step 50)	4.2.6	73
51.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Start EWS Configuration (VF) (step 51) (see section 4.3.1.2 p. 77 for explanations)	4.3.1.1	76
52.	<input type="radio"/>					ViewForum configuration settings on EWS (step 52)	4.3.1.3	78
53.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Adjust Image Database Location and Allocation (step 53) size from 100 GB to 80 GB	4.3.1.3.8	85
54.	<input type="radio"/>				<input type="radio"/>	Add R2.6.3.x MR-Host as Remote DICOM node via Direct Link or Hospital LAN. See 3.3.18 Configuration Remote DICOM Node(s) (step 55) p. 59.	4.3.2	87
55.	<input type="radio"/>					Configuration Remote DICOM Node(s) (step 55) .	4.3.2	87
56.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Execute EWS Configuration (VF) (step 56)	4.3.3	90
57.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Start MR Configuration (step 57) .	4.3.4	90

¹ EWS License file is not saved during R2.5.3 EWS Export Configuration.

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
58.	<input type="radio"/>				<input type="radio"/>	MR System Reference Number (step 58)	4.3.4.1	91
59.	<input type="radio"/>				<input type="radio"/>	MR Institution Details (step 59)	4.3.4.2	91
60.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	MR Philips Service Agent – PSA (step 60)	4.3.4.3	92
61.	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	MR Permanent Key (step 61)	4.3.4.4	93
62.	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	MR Temporary Keys (step 62)	4.3.4.5	93	
63.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Disable Windows CD Recording (step 63)	4.5.2	96
64.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If <MR User> UI language must be changed: ----- Language setup <EWS User> (step 64), see also Installation of Additional Languages (step 46)	4.5.1 3.3.2	94 41
65.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Optional: Set Files and Folders view (step 65).	4.5.3	97
66.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If requested: ----- Remove password expiry for (XP64) MRUser (step 66)	4.5.4	98
67.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Set password user Remote (XP64) (step 67).	4.5.6	99
68.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Adjust password XP-users and Application Users according the information on the Reference sheets	-	-
69.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		If application user MRUser is not used: Hide/unhide example application users (step 69).	4.5.7	99
70.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Adjust Check OpenGL support settings (step 70).	4.6.1	103

¹ When Customer has purchased new options.

² Most likely for a clinical site

STEP	R2.6.3.1 FACTORY PREINSTALLED EWS	R2.6.3.1 TO R2.6.3.1 RE-INSTALLATION	R2.6.3.0/R2.6.1 TO R2.6.3.1 RETROFIT	R2.5.3 TO R2.6.3.1 UPGRADE	VIEWFORUM 5.X/6.X/7.X TO R2.6.3.1 UPGRADE	DESCRIPTION	SECTION	PAGE
71.	<input type="radio"/>					If Auto-push to PACS: Auto-push to PACS settings (step 71).	4.6.2	104
72.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Barco Monitor Calibration (step 72).	4.7.2	105
73.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	If R2.6.3.x MR-Host has Service Pack level > 3		
						Map Offlineshare for Examcard Offline Editor (ECOLE) (step 73).	4.7.3	108
						Transfer of R2.6.3.4 MR-Host Configuration to EWS R2.6.3.1 (step 73).	4.7.4	109
						Transfer of R2.6.3.x MR-Host Examcard Database to EWS R2.6.3.1 (step 73).	4.7.5	110
74.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		If Patientdatabase is saved on USB-device during step 18: Restore Patient Database (step 74)	4.2.9	75
75.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<ul style="list-style-type: none"> Export EWS Configuration settings (steps 16, 75). Export EWS License file (step 17, 75) Create an Acronis Image (step 75) from Disk-0 Save results in a safe location. 	4.2.1 4.2.2 5.7.3	69 70 141

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Section 1

Introduction

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1 INTRODUCTION

1.1.1 About this Document

This SIM contains technical information about the Extended MR Workspace R2.6.3.1 (EWS) System & Application Software.

NOTE

This SIM is available on InCenter. Always check InCenter for updates.

The information in this **SIM** can be used for:

- Configuration of R2.6.3.1 Factory Preinstalled EWS
- R2.6.3.1 to R2.6.3.1 Re-installation
- R2.6.3.0/R2.6.1 to R2.6.3.1 Retrofit
- R2.5.3 to R2.6.3.1 Upgrade
- ViewForum 5.x/6.x/7.x to R2.6.3.1 Upgrade
- SW re-installation on an upgraded EWS:
 - Restore backup Acronis Image.
 - Restore OS+3-rd party SW Acronis Image or install OS and 3-rd party SW from scratch → Install ViewForum SW → Install MR Software.
- Configuring and Customizing Extended MR Workspace R2.6.3.1

The intended reader is the Field Service Engineer.

A brief outline of the sections is given below:

Section 1	Introduction	Describes the new features of this release, compatibility regarding modalities and peripherals and the software license procedure.
Section 2	Getting Started	Describes the procedure for on-site HW installation of an initial factory delivered system.
Section 3	Software Installation	Describes the procedure to install Dell T5500/T7400/690/670 Image and Application SW.
Section 4	Configuration and Customization	Describes the procedure to configure and customize EWS and DICOM nodes.
Section 5	Service and Maintenance	

Describes the Service and Maintenance activities.
Reference Sheets

1.1.2 IMPORTANT: Filing instructions

For future reference, the Reference Sheet ([Section 6](#)) should be completed with the hospitals' specific settings, printed and stored in a secure place.

This Reference Sheets contains secure information, like passwords, which gives people full control over the system. That is why it is of great importance that this document is stored in a secure place e.g. closet that can be locked or even a safe.

1.1.3 Abbreviations

ASW	Application Software
CT	Computed Tomography
DCI	Digital Cardio Imaging
DICOM	Digital Imaging and Communications in Medicine
DOR	Digital Optical Recordable
DSI	Digital Spot Imaging
DSL	Direct SCSI Link
EV	EasyVision
EV-Classic	EasyVision Classic: Release <= 5.X
EVIM	EasyVision Information Model, i.e. the internal model for EasyVision R5.1
EVIIM	EasyVision Imaging Information Model, i.e. the internal model for ViewForum
EWS	Extended MR Workspace R2.6.3.1
GCOM	Gyroscan Communications (protocol), also called "Gyrocom"
HCU	HardCopy Unit (Printer)
HSDII	High Speed DICOM Image Interface
IP	Internet Protocol
IVE	Integrated Viewing Environment
MIT	Medical IT
MIP	Medical Imaging Platform
MR	Magnetic Resonance
OD(R)	Optical Disk (Recordable)
OS	Operating System
PACS	Picture Archiving and Communication System
PMSNet	Philips Medical Systems Network protocol
PPP	Point-to-Point Protocol
RIS	Radiology Information System
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair
SSD	Sales & Service District
TCP/IP	Transmission Control Protocol / Internet Protocol
VF	ViewForum
VISUB	Viewing Sub-system (for Integris V3000 or H3000 systems)
WORM	Write Many Read Many
WW/WL	Window Width / Window Level

1.2 RELEASE INFORMATION

CAUTION

The EWS provides temporary storage for images. The system does not provide backup mechanisms and will periodically clean up its database by removing images. Therefore the EWS should not be used as a system to back up patient data. For this purpose a PACS should be used.

- Examcard offline editor is made compatible with R2.6.3 MR-configuration. R2.6.1. examcards can be read
- An improved MR viewing environment, identical to R2.6.3. MR-console.
- Russian MR viewing environment.

1.2.1 The FPR's that are solved in this release

MR ID	Headline
MR00067893	FPR Save avi on breast dynamic images doesn't work
MR00067896	FPR Reference line in review folder
MR00069781	FPR in T1, T2, bold analysis, morphologic sequences
MR00070251	FPR MR BRIGHT REALISTIC 2" LOOKS VERY DIFFERENT FROM
MR00070252	FPR CAN ONLY CHANGE CONTRAST (WINDOWING LEVEL) ON
MR00071843	FPR Merge View shows up, but not buyed by the
MR00072095	FPR Zoom not given over even when apply to all is
MR00073810	FPR STIR Sequenz not be shown correct in Q- Flow
MR00074282	FPR MPR with Multistack sequence failed
MR00075422	FPR LACK OF BUTTON
MR00075426	FPR I can't turn curve MPR
MR00075428	FPR Export PNG into removable disk (G
MR00075493	FPR Status "completed "not correct in Background
MR00075523	FPR English - German translation wrong
MR00075554	FPR Norton Ghost Service Partition required or DB
MR00076074	FPR Save as "original"
MR00076412	FPR Shutdown of the EWS during Spectro using
MR00076943	FPR no procedure to clear passwords from users
MR00076998	FPR Could not start server processes
MR00077192	FPR DISTORSION OF VRT IN PRINTING
MR00077394	FPR Boston Childrens, VR of multi dynamic dataset
MR00077395	FPR Boston Childrens, Zoom and rotation in images
MR00077396	FPR Boston Childrens, update of Worklist is not
MR00077874	FPR Cannot import from shared data folder (e.g. USB)
MR00078393	MIP51:FPR DICOM Image transfer from CT Brilliance 40 to
MR00078702	FPR Missing Institution Name
MR00079050	FPR Strange windo level&wjtdh
MR00079924	FPR STIR Sequences aren't shown correctly in Quantitative Analysis
MR00080264	FPR Patient Database corrupted
MR00080805	FPR Problem of EWS: Database cleanup
MR00081374	FPR Series order of capture images are different since upgrading from VF

MR00081387	FPR EWS button greyed out
MR00081389	FPR DICOM Modality tag is filled with Other on EWS
MR00082277	FPR CD-/DVD-Burning Problems under ASW Error Mssg "There's no media inside"
MR00083265	FPR EVServer Memory Leakage Problem still exists
MR00083370	FPR Study Instance UID was changed to the oldest data's

1.3 COMPATIBILITY AND INTEROPERABILITY

1.3.1 DICOM Conformance Statement

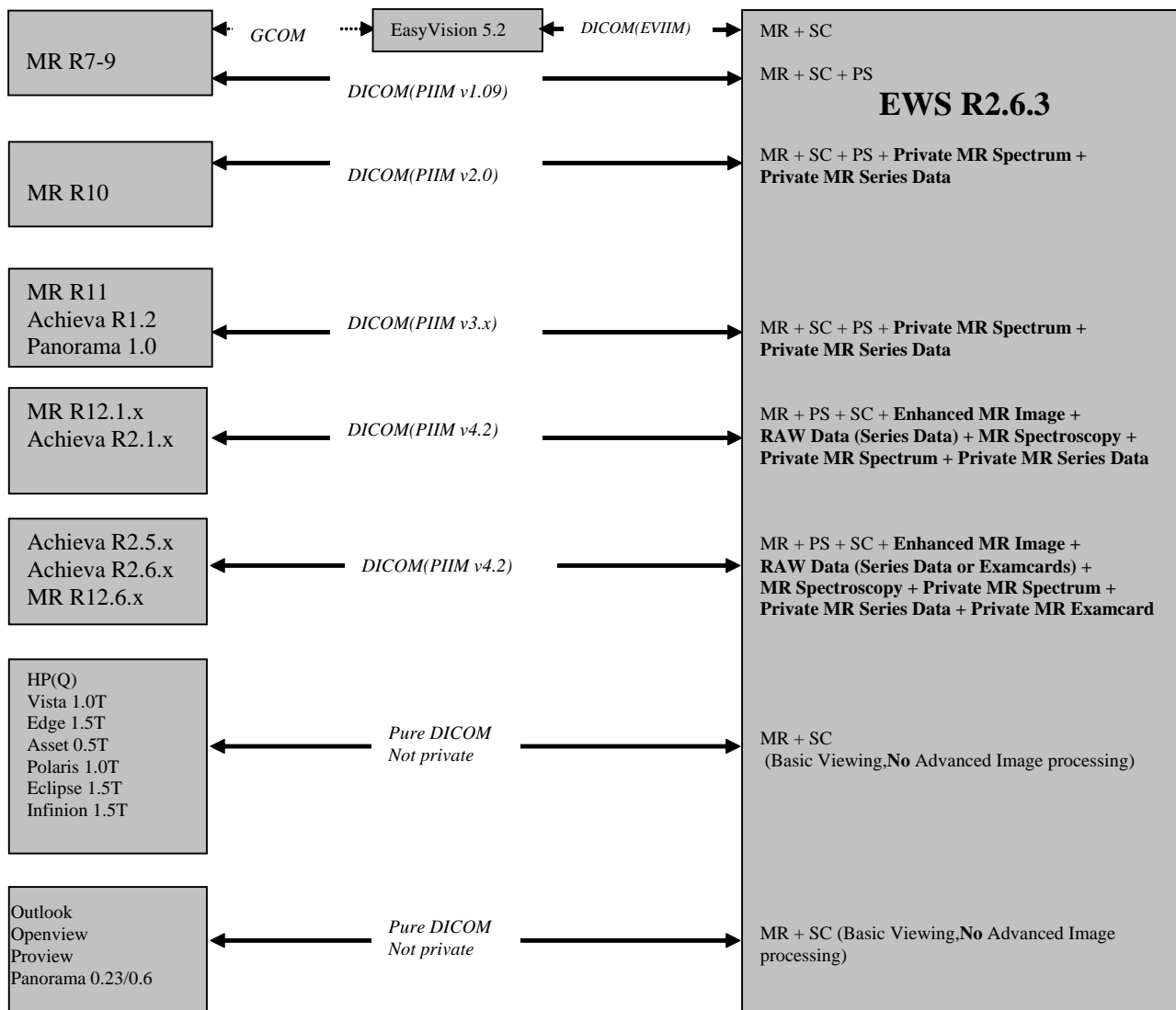
The DICOM Conformance Statement can be found at:

<http://www.medical.philips.com/main/company/connectivity/mri/> (MR acquisition modalities)

1.3.2 Interoperability with Extended MR Workspace R2.6.3.1

1.3.2.1 DICOM Connectivity with different Philips MR Systems.

Next figure shows the DICOM connectivity between different Philips MR scanners and Extended MR Workspace R2.6.3.1.



1.3.2.2 DICOM connectivity with different modalities

System release	DICOM/DICOM (direct, poor info model)	DICOM/EVIM (direct)	DICOM/PIIM (direct, rich info model)	DICOM/EVIM (via EV- classic)
MR2.6.x Achieva/Panorama			√	
Achieva MR2.5.x Intera/ Achieva/Panorama			√	
MR R12.1.x Intera/ Achieva MR2.1.x Intera/ Achieva/Panorama			√	
MR R11.1.x Intera/ Achieva R1.x Intera/ Achieva/Panorama			√	
MR R10			√	
MR R9			√	√
MR R8			√	√
MR R7			√	√
DI 1.0 IPANEMA			√	
DI R1			√	
DSI Pro 2.0		√		
DSI Pro 1.0		√		
DSI R5.2	√			√
DSI R5.1	√			√
DSI R4.4	√			√
Brilliance CT 40 slice	√			
Brilliance Workspace	√			
MX8000-IDT	√			
CT-Vision		√		
MX 8000	√			
MX View	√			
HMC-AV/SR				√
M/EG	√			√
PQ-series	√			
DCI	√			√
ViSUB	√			√
ViSUB + VF interface			√	
3DRA	√			
IBIS			√	
Allura Xper FD10			√	
Allura Xper FD10/10			√	
Allura Xper FD20			√	
Allura Xper FD20/10			√	
ThoraVision	√			
Digital Diagnost	√			
EV-RAD		√		
PCR Eleva		√		

System release	DICOM/DICOM (direct, poor info model)	DICOM/EVIM (direct)	DICOM/PIIM (direct, rich info model)	DICOM/EVIM (via EV- classic)
HDI 3500	√			
HDI 4000	√			
HDI 5000	√			
HDI 5000 CV	√			
HDI 5000 Sono CT	√			
iU22	√			
Envisor	√			
SONOS	√			
HD 3	√			
HD 11	√			
Odyssey	√			
Pegasus	√			
JETStream	√			
MDC	√*			
iSite	√*			
Xcelera			√*	
Easy Access			√*	

Table 2 Overview of the modalities supported via a network connection (via a direct connection or via EV-classic).

* Can contain images from all scanners, also from unknown scanners.

Notes:

- Extended MR Workspace R2.6.3.1 supports MR R9/8/7 via a direct DICOM connection with the PIIM information model; hence a connection via an EV-classic is not needed. However, these systems have been used in combination with an EV-classic, and this EV-classic may have written MR images with ACR-NEMA attributes to a PACS. Hence Extended MR Workspace R2.6.3.1 shall also support these modalities via EV-classic (see the shaded rows).
- DSI Pro R1.0/2.0 and CT-Vision contain an embedded EV-classic. Although these systems may have been used in combination with another (stand-alone) EV-classic, it is not useful to include this in the table since for Extended MR Workspace R2.6.3.1 this does not make a difference.
- Any DICOM modality may have been used in combination with an EV-classic. However, these combinations are not included in the table because they do not require special measures (Extended MR Workspace R2.6.3.1 uses the standard DICOM attributes of these modalities).
- The transport mechanism between EV-classic and Extended MR Workspace R2.6.3.1 will normally be a DICOM network connection but may also be a DICOM CD.

In addition to a network connection to the modality, the modality may also have written data to medium. The system shall be able to read from the media as listed in Table "Overview of systems supported via media" (Table 3). Note that the EDI R1 contains an embedded ViewForum, and therefore offers DICOM CD.

system release	medium type	information model
EV-classic	DICOM CD	evim
CT-Vision	DICOM CD	evim
MX View R4	DICOM CD	dicom
DSI Pro 1.0/2.0	DICOM CD	evim (processed images)
EDI R1	DICOM CD	eviim
EV-RAD	DICOM CD	dicom (or evim?)
ViewForum	DICOM CD	eviim
MR 10.x	DICOM DVD	PIIM
MR R11.x / R1.x	DICOM DVD	PIIM
MR R12.1.x / R2.1.x	DICOM DVD	PIIM
MR R2.5.x	DICOM DVD	PIIM
MR R2.6.x	DICOM DVD	PIIM

Table 3 Overview of systems supported via media.

1.3.3 Hardcopy Compatibility

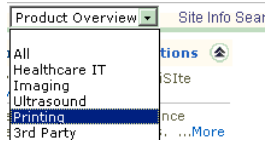
Extended MR Workspace R2.6.3.1 supports printing via DICOM protocol.

The following DICOM printers are supported:

Printer	Printer
3M-HQ969	Kodak-DryView-8100
Agfa-DryStar2000	Kodak-DryView-8150
Agfa-DryStar3000	Kodak-DryView-8200
Agfa-DryStar3000logo	Kodak-DryView-8300-Portrait
Agfa-DryStar4500	Kodak-DryView-8500
Agfa-DryStar4500-Mammo	Kodak-DryView-8610
Agfa-DryStar5300	Kodak-DryView-8700
Agfa-DryStar5500	Kodak-DryView-8900-HiRes
Agfa-LR3300	Kodak-DryView-8900-STD
Agfa-LR5200	Kodak-KELI-160
Codonics-Horizon	Kodak-KELP1120
Codonics-NP1660MD	Kodak-KELP2180
Fuji-DryPix-DPL	Kodak-MLP-190
Fuji-DryPix1000	Konica-DryPro-722-752
Fuji-DryPix3000	Konica-DryPro-771
Fuji-DryPix4000	Konica-DryPro-793
Fuji-DryPix5000	Sony-FilmStation-UP-DF500
Fuji-DryPix7000	Sterling-SIJ400

The latest validated property files of supported printers can be found on via Interoperability Knowledge Base:
<http://iotool.ms.philips.com/>

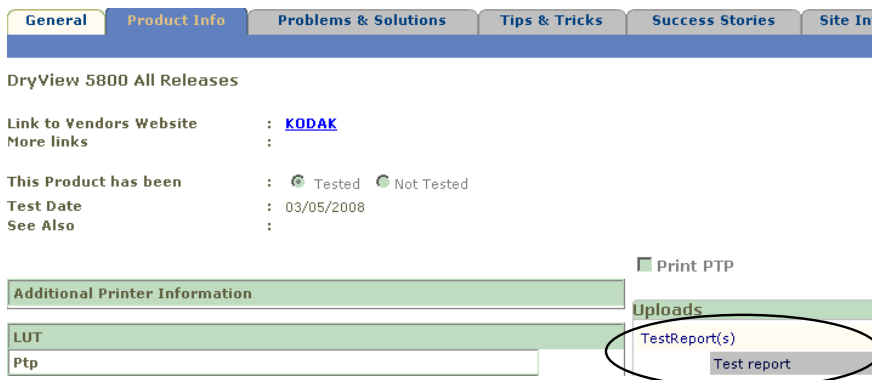
Select Product Overview → Printing:



Select Printertype → All Releases:



Select Tab "Product Info" → TestReport(s) → Test report:



Download TestReport

1.3.4 CD/DVD Compatibility

A standard CD/DVD R/W drive will be delivered with the DELL system.

The DVD writer in the EWS can write on different media (DVD, CD, writable, rewritable). However, *Philips MR only supports Philips DVD +RW media.*

1.3.5 File Export

Extended MR Workspace R2.6.3.1 supports export of images to hard disk or CD/DVD-Recordable in PNG format.

WARNING

File export is intended for presentation purposes only. These images are not intended for diagnostic viewing or further processing. Image quality may be limited due to reductions in image size or pixel range, or due to the use of compression techniques.

The lossless transfer syntax is not supported in Extended MR Workspace R2.6.3.1. (Internet access can be done via EasyWeb, which does support lossy compression).

1.3.6 Movie export

Extended MR Workspace R2.6.3.1 supports the export of movies to hard disk, removable media and network locations where Windows has read/write access. A movie file can be saved as an AVI or WMV file. With movie export it is possible to save series from one View to an AVI or WMV format.

Section 2**Getting Started**

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2 GETTING STARTED

When following the workflow, you will be guided through all steps in chronological order from unpacking until handing over to the customer.

This manual assumes the good working of the hardware (the system was factory assembled and tested). Contact your local DELL service centre in case hardware support is needed.

NOTE

If problems are encountered during installation you may refer to the Extended MR Workspace R2.6.3.1 Knowledge Database. This Database also contains a list of known issues in the product. The Extended MR Workspace R2.6.3.1 Knowledge Database is available the intranet site.

Please write down the results of your actions for further reference on the Reference sheet supplied in [Section 6](#) of this manual.

For an **initial** Extended MR Workspace R2.6.3.1, delivered from the factory, this is the section to start with. If you are not installing an initial factory system, proceed with [2.7: How to Proceed](#).

2.1 INSTALLATION TIME

The total installation of a stand-alone Extended MR Workspace R2.6.3.1 system can be done within 4 hours. The installation of a small network (more systems close to each other) can be completed within 8 hours.

2.2 WHAT IS DELIVERED

<u>Base System</u>	Dell PC Workstation Keyboard + mouse DVD-Drive & DVD-Recordable drive 23 inch LCD colour monitor Floppy drive Power Distribution Unit Cabling	
	Application Software	On DVD's
	Security Patches	On DVD
	License files	On CD
	System Image	On DVD
	Dell reinstallation software	On CD
	Dell drivers and utilities	On CD
	Acronis	Backup / Restore SW
	Nero	CD/DVD burning SW
	Service documentation	Via InCenter
	Instructions for Use	On DVD
	Quick Reference card & guide	On paper
<u>Optional</u>	Local Country keyboard MS Word	When reporting functionality is ordered

2.3 QUICK ROOM CHECK

Before starting an Extended MR Workspace R2.6.3.1 installation verify items below (if relevant):

- Physical location for Extended MR Workspace R2.6.3.1 o.k. (hospital furniture)
- Power outlets present
- Network connection(s) present
 - Hospital Network connection
 - Direct Link cable present from MR-Host.
- Distance Extended MR Workspace R2.6.3.1 to network connection and power outlets within limits
- Network configuration parameters of all systems to be configured known
- Printer(s) to be connected known / present including cabling (64bit printer driver/support)
- Light conditions o.k.
- Air condition needed / present
- UPS needed / present
- RSN Router

Remote Service Network (RSN) connection is needed to use the Extended MR Workspace R2.6.3.1 Remote Service Agent. For more information on RSN, see <http://incenter.medical.philips.com/> → RSN (under Tools and Recourses).

2.4 TRANSPORTATION

There are **NO** transport locks for disk-, CD-REC, DVD-REC, DVD and CD-ROM drive(s).

2.5 UNPACKING

Unpack the DELL computer, monitor(s), cables, etc.
Don't overlook small stuff like UTP terminators, etc.!

2.6 HARDWARE INSTALLATION

The factory installs the Extended MR Workspace R2.6.3.1 software, burning tooling, remote service tooling, calibration tooling and Acronis True Image. For re-installation this software is supplied with the system

NOTE

Please take care that before connecting external cables and switching power-on all internal Dell PC connectors and PCBs are properly seated!

CAUTION

To avoid dust problems place computers and peripheral cabinets on a table or trolley, but not on the floor!

Monitor and Video Cables

Connect the video cable(s) from the monitor(s) to the DELL Workstation video connector(s).

Keyboard and Mouse Cabling

Connect the keyboard cable to the keyboard connector. In case of a USB connector, connect the cable to the USB connector at the back of the system.

NOTE

In case a Local country keyboard is delivered with the system, the local keyboard must be installed!

NOTE

Do not throw away the standard keyboard, because this must be used to do an initial installation in the future. During the initial installation the local country keyboard layout is not recognized, which results in a mismatch between the keys and the actual characters on screen!

Connect the mouse cable to the PC mouse connector. In case of a USB connector, connect the cable to the USB connector at the back of the system.

Network Connections

Per Ethernet connection on Extended MR Workspace R2.6.3.1 a 5m Twisted Pair cable is delivered.

Connect the twisted pair cable between the on-board Ethernet controller and the twisted pair hub or wall connection of the 'Modality network'.

With the MR-Host a 25 meter Direct-Link network cable is delivered.

Printers

Desktop Printer

If a desktop printer is available, connect the desktop printer to the parallel or USB port of the PC System. Configure this printer as the windows **default** printer according to the manufacturers' guidelines.

Power Cables

Connect the monitor(s), the printer(s) and the Dell computer to the Power Distribution Unit with the delivered power cables.

Main Voltage Selection

Verify if mains voltage must be set. If yes, set it to the correct voltage!

Power on

Switch on the Power Distribution Unit.

Switch on all devices:

Monitor(s)

Printer(s)

DELL computer

The system will boot.

Wait until the windows login screen appears.

2.7 HOW TO PROCEED

Factory pre-installed EWS system

Continue with:

[Configuration and Customization](#)

[Service and Maintenance](#)

**UPGRADE VIEWFORUM TO EWS R2.6.3.1 or
UPGRADE EWS R2.5.3 TO EWS R2.6.3.1 or
Re-install EWS Software (in case of release synchronisation with
MR-Host or absence of system backup)**

Continue with:

[SW Installation](#)

[Configuration and Customization](#)

[Service and Maintenance](#)

CONFIGURING AND CUSTOMIZING EWS

Continue with:

[Configuration and Customization](#)

SERVICE AND MAINTENANCE

Continue with:

[Service and Maintenance](#)

Section 3

SW Installation

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3 SW INSTALLATION

This section contains the procedure for:

1. Check/upgrade BIOS software.
2. SW-installation on a ViewForum R5.x/6.x to upgrade to an EWS.
3. SW-installation on an EWS, to synchronise with SW-Level MR-Host.
4. Re-installation of EWS R2.6.3.1 Software.

3.1 BIOS VERSION AND SETTINGS

3.1.1 Check / upgrade Bios software (step 20)

The minimal BIOS software version required
for Dell T7400 is version A04
for Dell 690 this is version A06.
for Dell 670 this is version A07.
The Dell T5500 has the correct BIOS version installed.

Check the correct version of the BIOS software as follows:

Restart your system:

Select: *Start → Shut Down → Restart*

During start-up:

Press: F2 key to enter the BIOS

Check the BIOS version. If the correct version of the BIOS software is installed, continue to check/set the BIOS settings as described in [3.1.2](#).

Upgrade the BIOS by double clicking the .exe file.
Follow the instructions on screen.

Return to step 20

3.1.2 Check/set Bios settings

When hardware has changed e.g. system battery / motherboard has been replaced, check/change the BIOS settings.

Make sure the following BIOS settings are set:

BIOS Setting Dell T5500	Value
General -> Boot Sequence	<input type="checkbox"/> Onboard or USB Floppy Drive <input checked="" type="checkbox"/> #8200 ID00 LUN0 Fujitsu MBA3147RC <input checked="" type="checkbox"/> Onboard or USB CD-ROM drive <input type="checkbox"/> Onboard Network Controller <input type="checkbox"/> #8200 ID01 LUN0 Fujitsu MBA3300RC <input type="checkbox"/> USB Device - Onboard or USB CD-ROM Drive - 00 ID00 LUN0 Fujitsu MBA3147R
Drives -> SATA Operation	RAID Autodetect/AHCI

Table 4 Dell T5500

BIOS Setting Dell 690 /T7400	Value
System -> Boot Sequence	Onboard or USB CD-ROM drive Onboard Hard Drive 1 Onboard Hard Drive 2 Onboard or USB Floppy Drive
Drives -> SAS Controller	On
Drives -> SATA Operation	ATA

Table 5 Dell T7400/690

BIOS Setting Dell 670	Value
System -> Boot Sequence	Onboard or USB CD-ROM drive Onboard Hard Drive ID0 Onboard Hard Drive ID1 Onboard or USB Floppy Drive
Drives -> SAS Controller	On
Drives -> SATA Operation	RAID Off

Table 6 Dell 670

3.2 IMAGE DELL T5500/T7400/690/670 INSTALLATION

3.2.1 Prerequisites OS-Image Installation EWS R2.6.3.1 (step 23)

- Hospital connection Ethernet adapter is connected.
- CD: Acronis boot CD (4522 170 12971)
- DVD: EWS Installation Image Dell T7400 (4522 170 12961) or
 DVD: EWS Installation Image Dell 690 (4522 170 12961) or
 DVD: EWS Installation Image Dell 670 (4522 170 12941) or
 DVD: System Image as delivered
- DVD: EWS R2.6.3.1 Application Software (VF7.2V5L1). 4522 170 12821
- DVD: EWS R2.6.3.1 Application Software (MR) 4522 170 12831
- CD: EWS R2.6.3.1 CBT (4522 170 12881)
- DVD: EWS R2.6.3.1 Security Patches 4522 170 12841

- CD: Drivers Dell 670 Dell 690 Dell T7400 (4522 170 12931)
- CD: WIN XP X64 Resource CD (4522 170 10701)
- DVD: EWS R2.6.3.1 User Documentation (4522 170 12861)
- DVD: EWS Clinical Demo Cases (4522 170 12871)
- CD: MS Word Edition 2007 (optionally, only when reporting functionality was purchased)

Return to step 23

3.2.2 Image-Installation EWS (step 24)

WARNING

*This procedure will restore the C:\System partition.
Any changes made on this partition since the latest Acronis System Image was made will be LOST.*

Make sure all applications are closed.

Insert: into DVD-ROM:

Acronis Boot CD (Delivered with system) 4522 170 12971

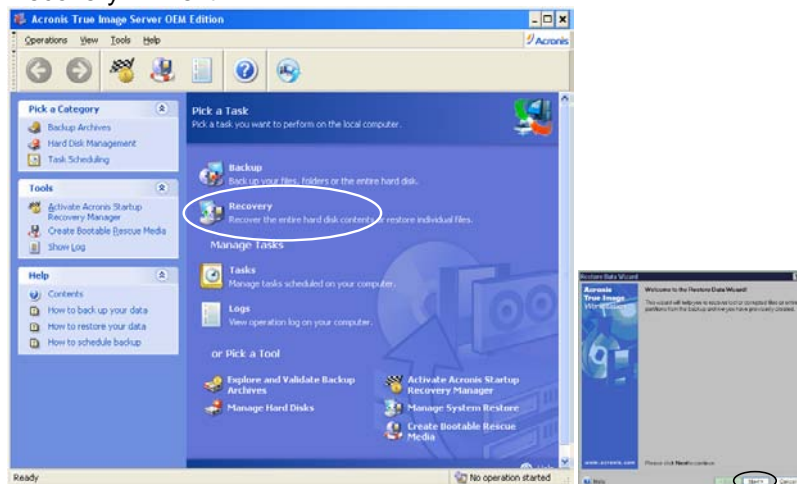
into DVD-writer:

**EWS Installation Image Dell T7400 (4522 170 12961) or
EWS Installation Image Dell 690 (4522 170 12941) or
EWS Installation Image Dell 670 (4522 170 12941) or
System Image as delivered.**

Click Start → Shutdown → Restart

Acronis True Image Server OEM Edition

Select: Recovery → Next >:



Backup Archive Selection Panel

Expand: both CD drives, to see where the system image is located.

Select: File **EWS2009-T5500.tib**, **EWS2009-T7400.tib**, **EWS2009-690.tib**, or **EWS2009-670.tib** →
Next >

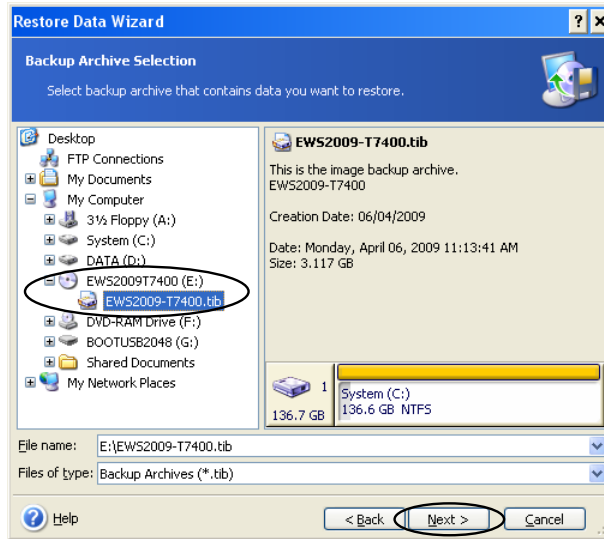


Figure 3-1 Example Backup Archive Selection panel

Restoration Type Selection Panel:

Select: **Restore disks or partitions**
 Click: **Next**

Partitions or Disk to Restore Panel:

Check: **NTFS (C:) or System (C:)**

WARNING

*Do **NOT** select MBR and Track 0*

Click: **Next >**

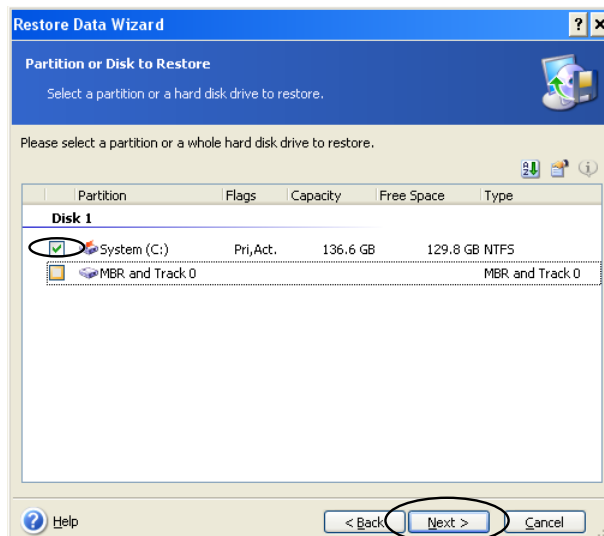


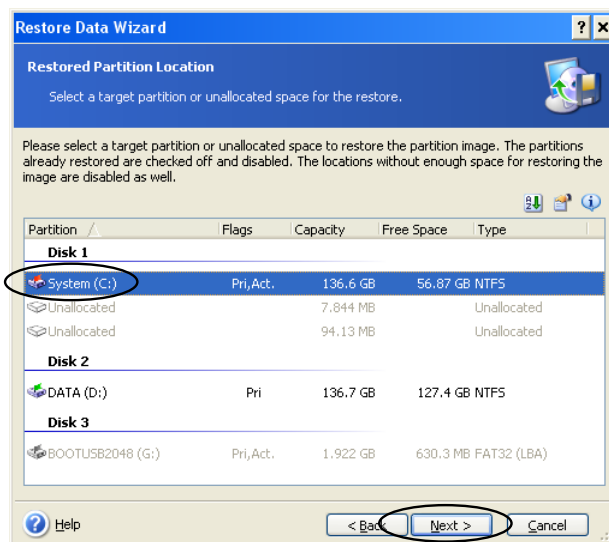
Figure 3-2 Partition or Disk to Restore panel

Restored Partition Resizing Panel:Select: **No, I do not want to resize partitions****NOTE**

System (C:) is only present when a partition is restored. With a clean (new) system disk there will only be Unallocated Space. Use this Unallocated Space.

NOTE

If System (C:) is grayed out, it means that the partition needs to be resized. To do so, click Back. This will return to the Restored Partitions Resizing panel. Select Yes, I want to resize partitions. Then select Next. At this point, System (C:) can be selected.

Click: **Next >****Restored Partition Location Panel:**Select: **System (C:)**Click: **Next >****Figure 3-3 Restored Partition Location panel****Restored Partition Type Panel:**Select: **Active**Click: **Next >****Restored Partition Size Panel:**Click: **Next >****Next Selection Panel:**Select: **No, I do not**Click: **Next >****Choose Restore Options Panel:**Check: **Validate backup archive before restoration**Click: **Next >****Overview Panel:**Click: **Proceed**

The Acronis System Image will be restored, which will take +/-15 minutes

Information Panel ("the data was successfully restored"):

Click **OK**

Remove: CD containing the Acronis boot CD

Remove: DVD containing the Acronis System Image

Acronis True Image Server OEM Edition Panel:

Click **Operations → Exit**

System will restart automatically

NOTE

*When the system stops responding and does NOT restart automatically:
Press Power button until EWS is powered off, wait 10 seconds and press Power button to
switch the system on again*

Return to step 24

3.3 POST IMAGE-INSTALLATION STEPS (STEP 25)

Caution

*when system is up and running wait a couple of minutes for HW identification:
(mouse and keyboard may not respond!)*

Login as: **Administrator** (password is **password** or **Password1**¹)

3.3.1 Adjust Display settings (step 26)

■ If the EWS system has two monitors, then

■ The **NVIDIA Display Setup Wizard** pops up

Click: **Cancel**



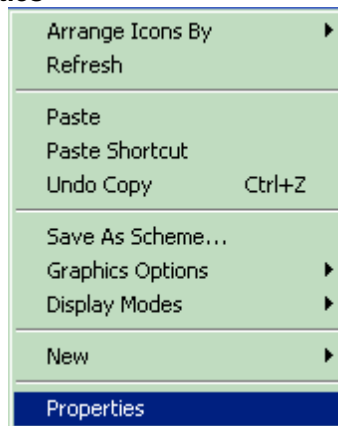
Figure 3-4 NVIDIA Display Setup Wizard panel

■ If the EWS system has one monitor, then

■ Right-click **On Desktop**

¹ Factory Image installed EWS

Select: **Properties**



Select **Settings tab**

Adjust: **Screen Resolution → 1280 by 1024 pixels or 1920 by 1200 pixels**

Click: **Apply → Yes**



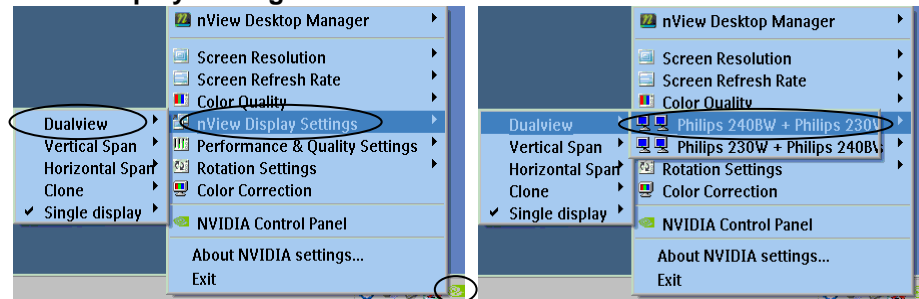
Click **OK**

Return to step 26

- If the EWS system has two monitors and the application must be extended to Monitor 2:

Right-click **On NVIDIA icon in notification area** (see section 3.3.1.1 [Enable nVidia icon in notification area](#) p. 41, when icon is missing).

Select: **nView Display Settings → Dualview → Monitor 1 + Monitor 2**

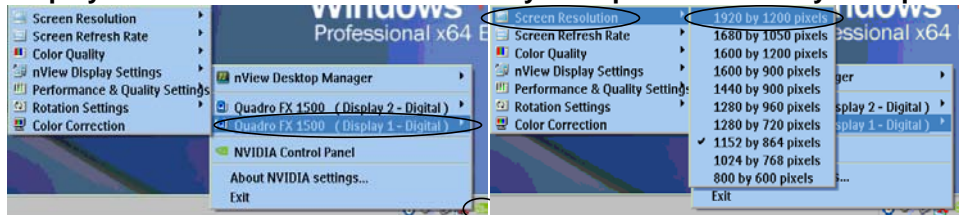


Click: **Yes:**



Right-click **On NVIDIA icon in notification area**

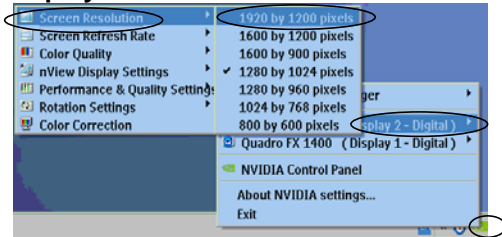
Select: **Display 1 → Screen Resolution → 1920 by 1200 pixels or 1280 by 1024 pixels**



Click: **Yes:**



Right-click **On NVIDIA icon in notification area**
Select: **Display 2 → Screen Resolution → 1920 by 1200 pixels or 1280 by 1024 pixels**



Click: **Yes:**

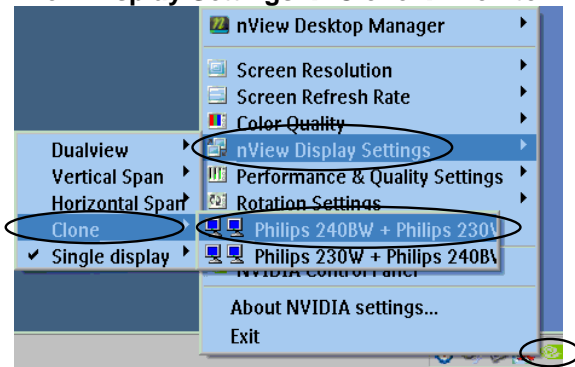


Return to step 26

If the EWS system has two monitors and the second monitor must be an exact copy of the first monitor:

Right-click **On NVIDIA icon in notification area** (see section 3.3.1.1 [Enable nVidia icon in notification area](#) p. 41, when icon is missing)

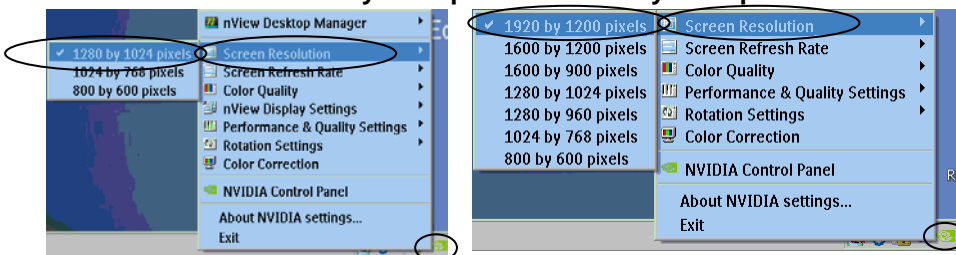
Select: **nView Display Settings → Clone → Monitor 1 + Monitor 2**



Click: **Yes:**



Right-click **On NVIDIA icon in notification area**
Select: **Screen Resolution → 1280 by 1024 pixels or 1920 by 1200 pixels**



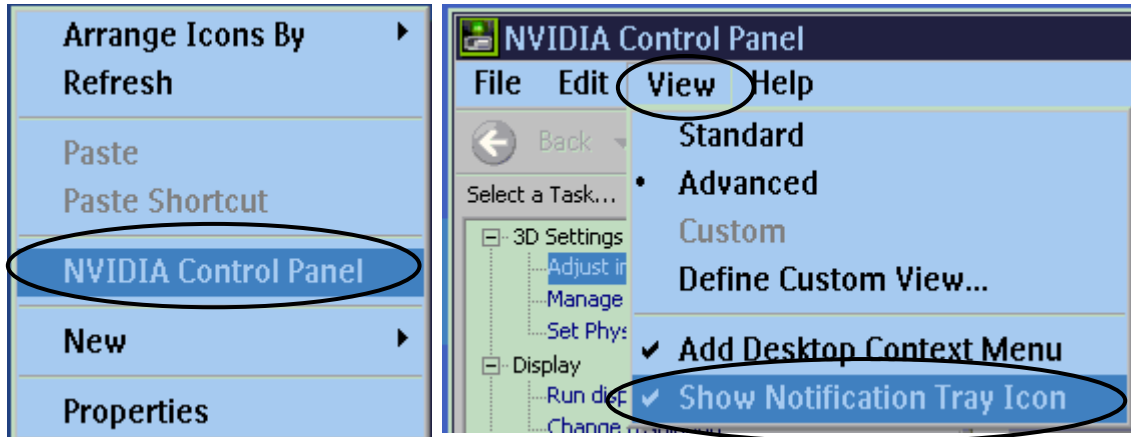
Click: **Yes:**



Return to step 26

3.3.1.1 Enable nVidia icon in notification area

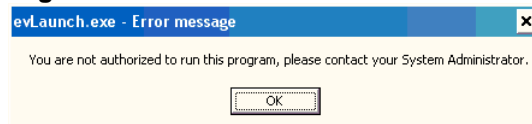
Right-click On desktop
 Select "NVIDIA Control Panel" → "View"
 Enable "Show notification Tray Icon"



Close NVIDIA Control Panel

3.3.2 Installation of Additional Languages (step 46)

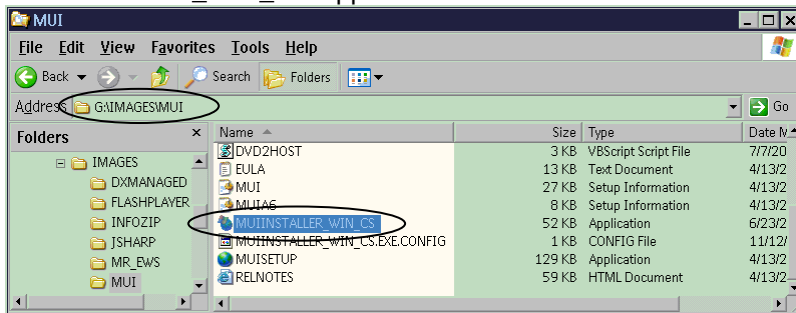
Login as: Administrator
 Please ignore:



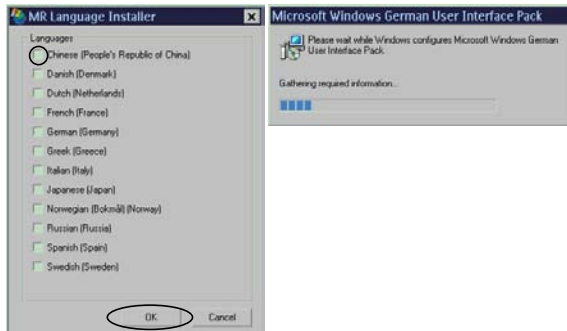
Insert into DVD-ROM drive:
 DVD: EWS R2.6.3.1 Application Software (MR) (4522 170 12831)
If Chinese and/or Japanese will be selected:
 Insert CD: **WIN XP X64 Resource CD (4522 170 10701)** into 2-nd drive
 Click Exit:



Start Explorer
Browse to
Double-Click
\\IMAGES\MUI folder on DVD
MUINSTALLER_WIN_CS Application:

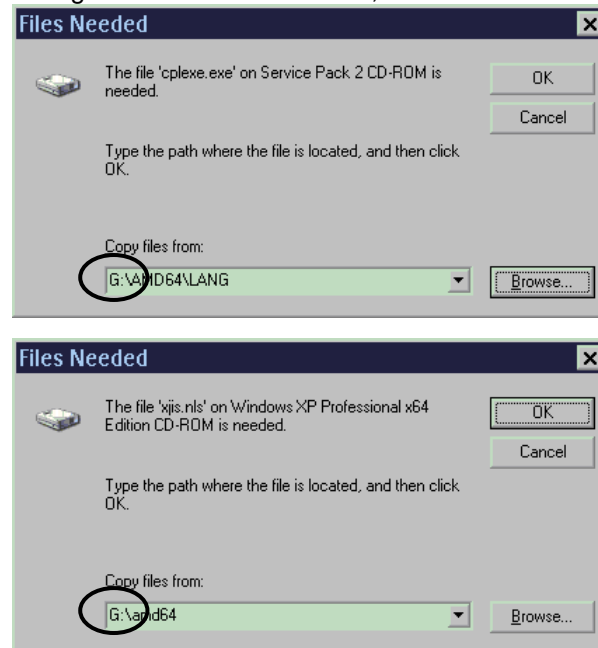


Check
Click
Checkbox(es)
OK:



If Chinese and/or Japanese is selected (here G:):

Change driveletter into the one, Windows XP X64 CD is inserted → OK 2x:



Click **OK (2x)**

Reboot EWS:

Click: **Start → Shutdown → Restart**

Return to step 46

3.3.3 Local country keyboard settings (step 27)

Select: **Windows Start → Control panel**

The Control Panel appears (see [Figure 3-5](#)).

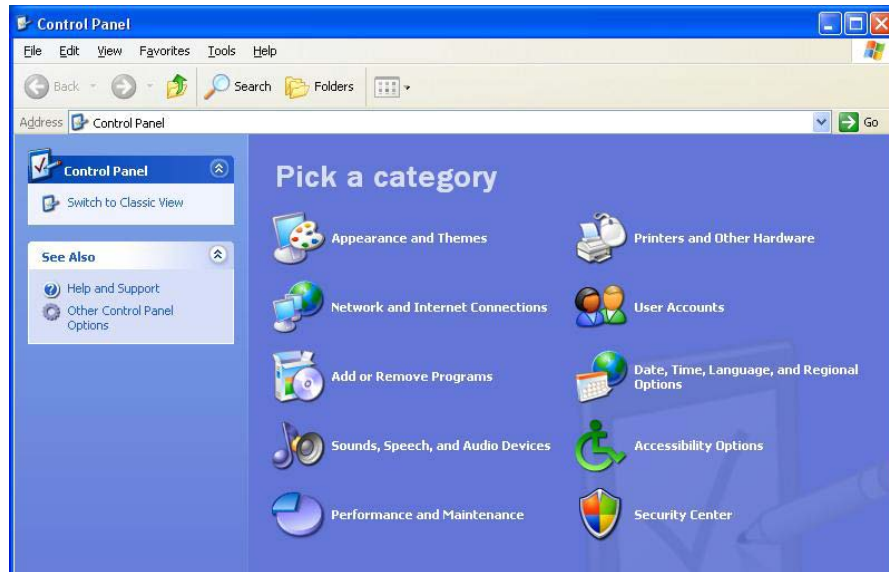


Figure 3-5 Control Panel Category View

Make sure "Category View" is selected.

- Click: **Date, Time, Language, and Regional Options**
- Select: **Regional and Language Options**
- Select: Tab: **Languages**
- Click: **Details** button

The following window appears (see [Figure 3-6](#)):



Figure 3-6 Text Service and Input Languages panel

- Select: **Add** to add the local keyboard
- Select: The appropriate **Input Language** (see [Figure 3-6](#))
- Select: The appropriate **Keyboard layout/IME** (see [Figure 3-7](#))

NOTE

*The keyboard layout is usually the standard US-International QWERTY keyboard.
The Input Language is your local (native) language.*

Click: **OK**

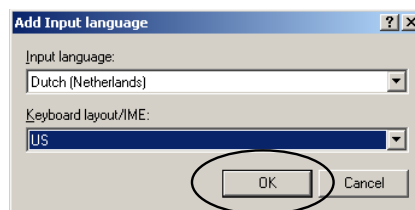


Figure 3-7 Add Input Language panel

Choose: The added language from the **Default input language**

Choose: The created language as the **default input language** from the Text Service and Input Languages panel (see [Figure 3-8](#)).

NOTE

There is no need to remove the other keyboard settings.

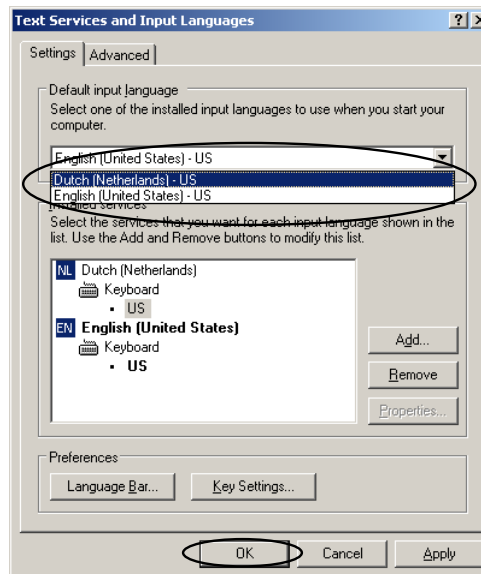


Figure 3-8 Default input language

Click: **OK**

Close: All panels

Return to [step 27](#)

3.3.4 Change Computer name (step 40)

See Reference sheets *for value*.

Start: **Windows Explorer**

Right click: **My Computer**

Select: **Properties**

Select: **Computer Name**

Select: **Change**

The **EWS** Computer Name can now be changed according the [Reference sheets](#). The Computer name must be unique in the Hospital network.

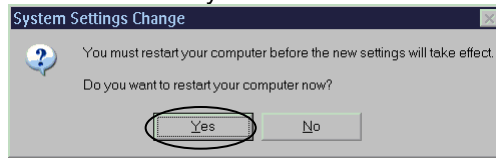
Click **OK** 3x

CAUTION

On MR-Host the EWS Remote Dicom node name must be the same as the EWS computer name¹.

¹ This is essential to map Offlineshare folder used by ExamCard Offline Editor

Click “Yes” to reboot system now:



Return to step 40

3.3.5 Check System's date and time settings (step 28)

NOTE

Enter the same time settings as on associated MR-Host

- Double-click on the time at the notification area, right below
- Enter: Correct settings
- Select: Tab **Time zone**
- Select: correct **Time Zone**
- Check: **Automatically adjust clock for daylight savings is enabled**
- Click: **OK**

Return to step 28

3.3.6 Configure Internet Time Server (step 29)

When Audit Trail is required (see section [4.3.1.3.5 Audit Trail Settings](#) p. 83) and the EWS is connected to the Internet, it is advisable to synchronize the local time with an internet time server. By default this is enabled.

- Login as: Administrator
- Double-click: on the time at the notification area, right below
- Select: tab: **Internet Time**
- Enable/Disable: **Automatically synchronize with an Internet time server:**

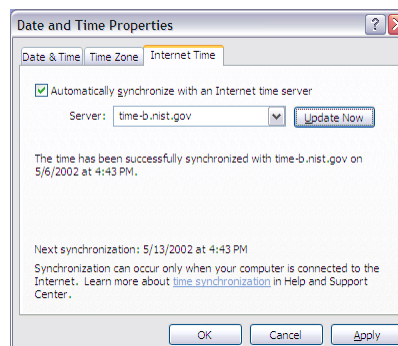


Figure 3-9: Internet Time tab

Return to step 29

3.3.7 Update drivers on EWS (step 30)

NOTE

This paragraph can be skipped, in case of a Factory Image installed EWS

The driver folders are located in the corresponding directories on the CD: **Drivers Dell 670 & Dell 690**

When not logged in already:

Login as: Administrator

If not done already

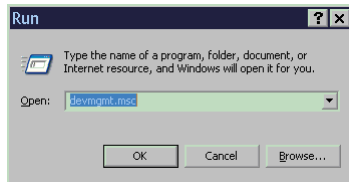
Continue with section 3.3.7.1 p. 48

3.3.7.1 Update VP1000 driver¹

Click: **Start → Run...**

Enter: **Devmgmt.msc <Enter>**

Click **OK:**



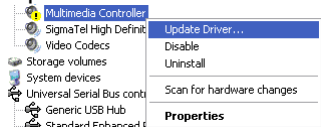
Select: **Sound, Video and Game controller**

If VP1000 (Multimedia Controller) is not present: **return to step 30**

Insert: **CD: Drivers Dell 670, Dell 690 & T7400 (4522 170 12931)**

Right-click **Multimedia Controller →**

Click **Update Driver...:**

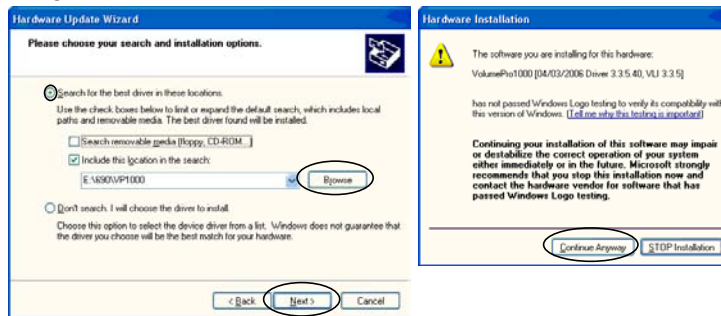


Select **No, not this time**

Click **Next**

¹ This procedure is only applicable when VP1000 video adapter is installed.

- Select: *Install from a list or specific location (Advanced)*
 Click: Next>
 Select: *Search for the best driver in these locations*
 Enable: Include this location in the search
 Browse: to folder \670\VP1000 or \690\VP1000
 Click: Next>
 Click: Continue Anyway¹
 Click: Finish



Return to step 30

3.3.8 Change Volume name of C: (step 31)

- Login as: Administrator
 If not done already
 Start: Windows Explorer
 Right click: C: drive
 Select: Rename
 Change name into: *System*

Return to step 31

3.3.9 Identify DVD driveletters (step 32)

The Driveletters are input for the configuration phase (see section 4.3.1.3.3 DVD Readers and Writers p. 80)

- Click: **Start → Run...**
 Enter: **Diskmgmt.msc <Enter>**

Maximize: 

- Right-Click: One of the CD-ROM drives
 Select: Properties:

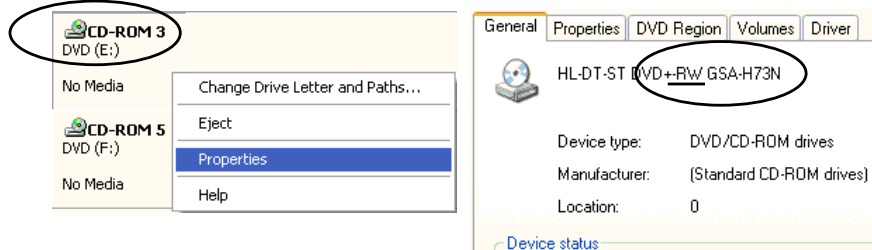


Figure 3-10 DVD-drive type (here E: is DVD-RW)

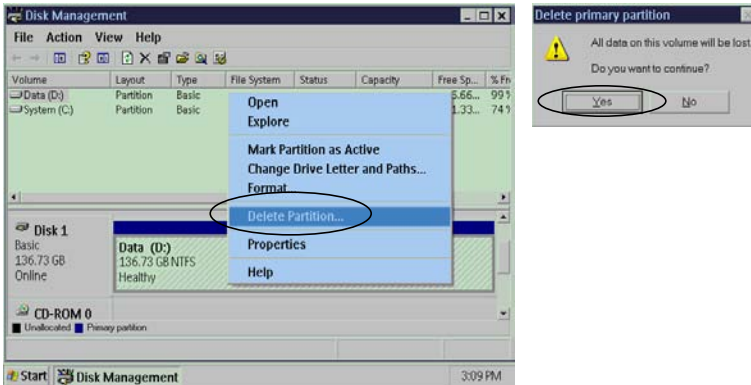
¹ Windows logo checking not passed.

Write down results for both DVD-drives on printed [Reference sheets](#).
 Close: Computer Management panel

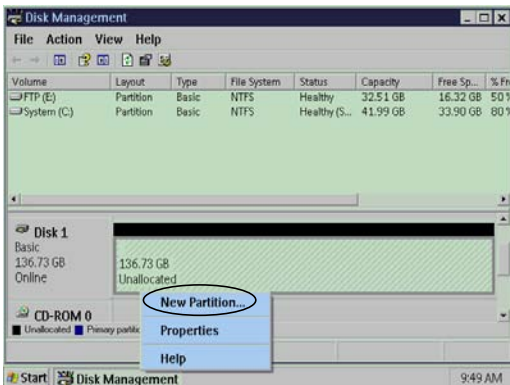
Return to step 32

3.3.10 Initialize 2-nd Disk (step 33)

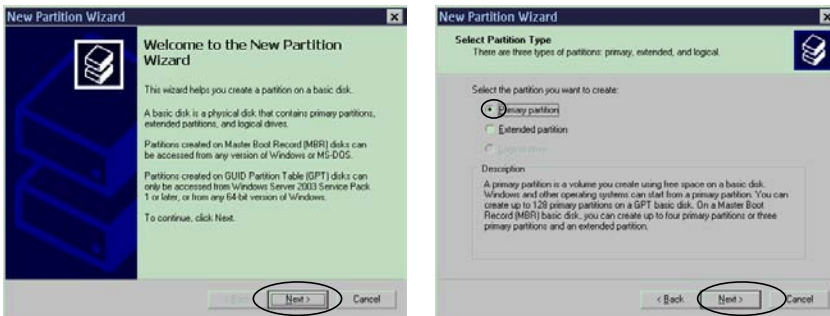
Click: **Start → Run... → type diskmgmt.msc → “OK”**
 Right-click: Data-partition on 2-nd disk
 Click: **“Delete Partition...” → “Yes”**:



Right-click: **“Unallocated” space 2-nd disk**
 Click: **“New Partition...”**:



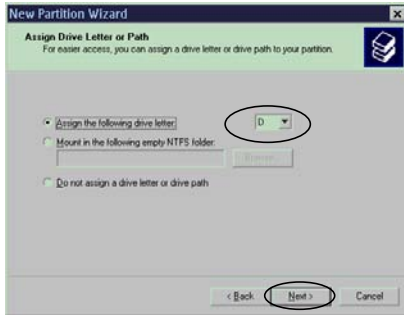
Click: **“Next >”**
 Enable: **“Primary partition”**
 Click: **“Next>”**:



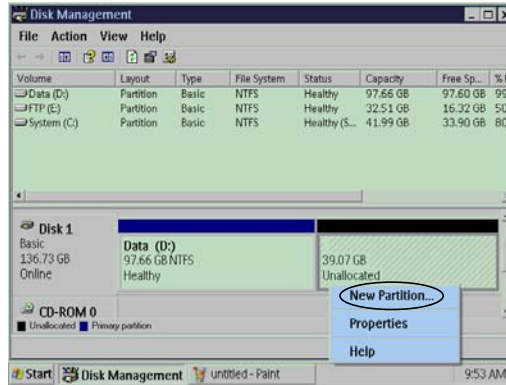
Enter **"100000"** MB for Data partition size (97,6 GB)
 Click **"Next>"**



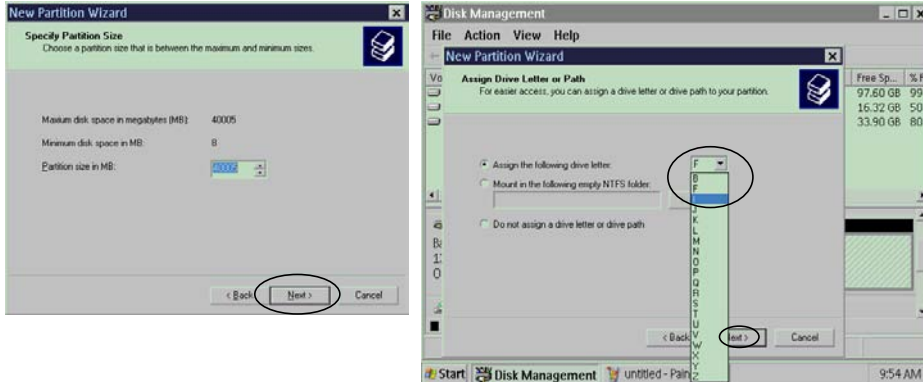
Select: Driveletter D
 Click: **"Next>"**
 Enter **"Data"** for Volume label
 Check **"Perform a quick format"**
 Click **"Next>"**



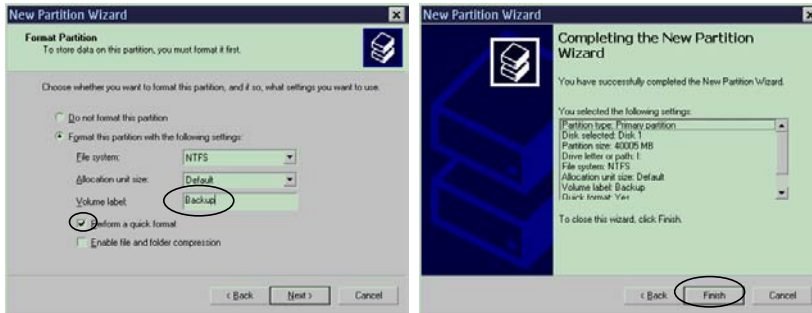
Click **"Finish"**
 Right-click Remaining Unallocated space 2-nd HD
 Select **"New Partition..."**



Click **“Next>”** 3x
 Select driveletter **“I”**
 Click **“Next>”**:



Enter **“Backup”** for Volume label
 Enable **“Perform a quick format”**
 Click **“Next>”** → **“Finish”**



Close **“Window”**

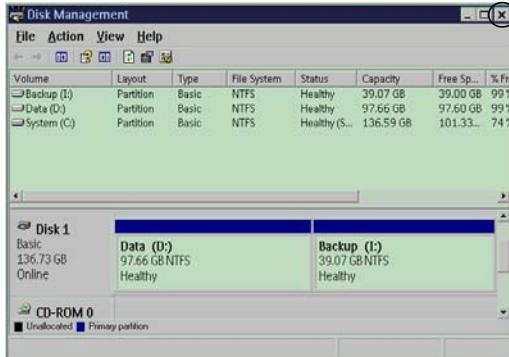


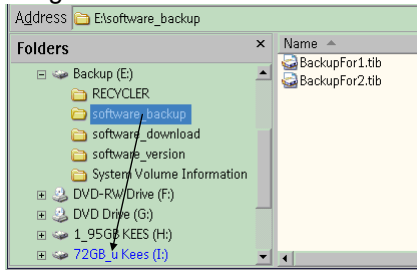
Figure 3-11 2-nd HD partitioning scheme

[Return to step 33](#)

3.3.11 Initialize partitions on 2-nd Disk (step 34)

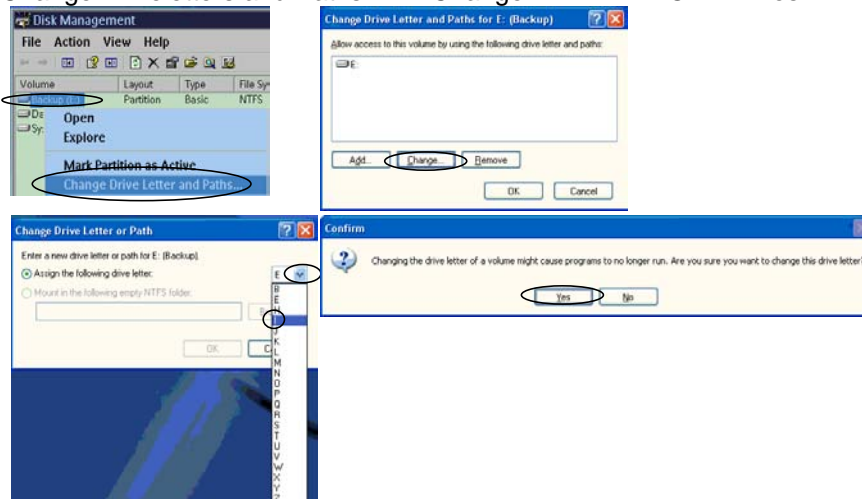
If you have a System backup on the Backup-partition and want to save it:

1. Connect USB-HDD
2. Open Windows Explorer
3. Select on Backup-partition **software_backup** folder
4. Drag folder to USB-HDD:

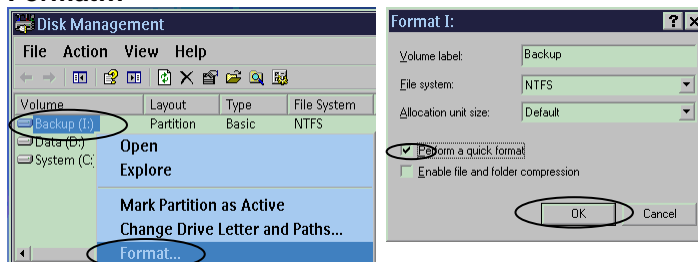


Click: **Start → Run... → type diskmgmt.msc → “OK”**

Right-click Backup-partition on 2-nd disk
Select: **Change Driveletters and Paths... → Change... → “I” → OK → Yes:**

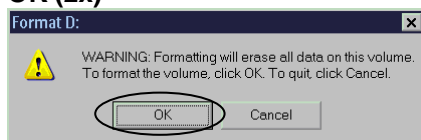


Right-click Backup-partition on 2-nd disk
Select: **Format...**



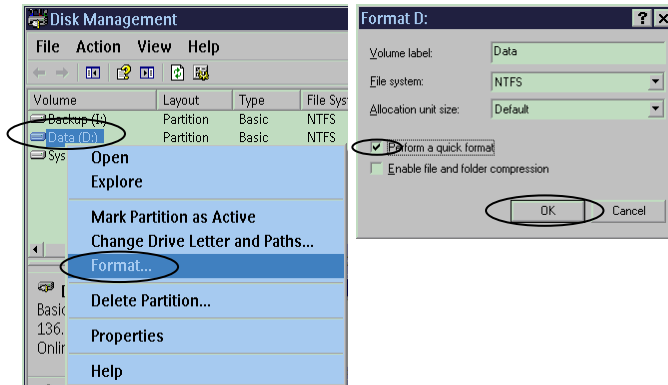
Check: **Perform a quick Format**

Click: **OK (2x)**



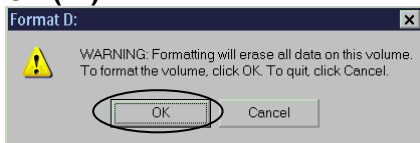
Right-click Data-partition on 2-nd disk

Select: **Format...**



Check: **Perform a quick Format**

Click: **OK (2x)**



Click: **Close Window**

Return to step 34

3.3.12 Re-initialize Backup partition (Step 45)

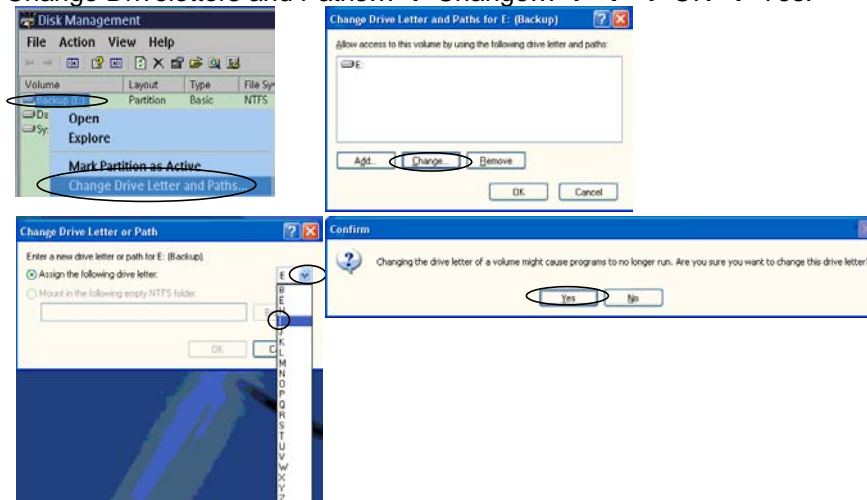
NOTE

In case the Service Pack/Security fix installation fails, this section takes care, when the Backup partition has not got driveletter "I", according section 3.3.11 p. 52

Click: **Start → Run... → type diskmgmt.msc → "OK"**

Right-click Backup-partition on 2-nd disk

Select: **Change Driveletters and Paths... → Change... → "I" → OK → Yes:**



Click: **Start → Service Tools → Re-create backup partitions**

Close **All applications.**

Reboot **EWS**

Return to step [45](#)

3.3.13 Check Power settings adapter connected with Hospital Network (step [35](#))

Start **Windows Explorer** (if not already active)

Right click: **My Network Places**

Select: **Properties**

Right click: **Local Area Connection¹** (Link with Hospital network)

Select: **Properties**

The "Local Area Connection" properties panel appears

Click **Configure**:

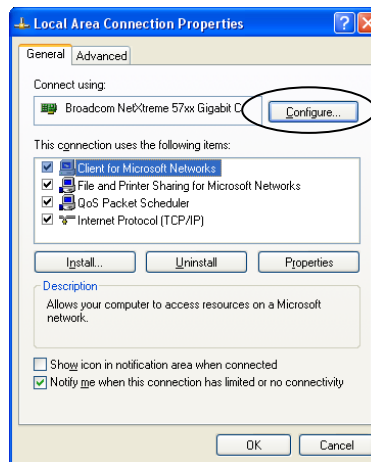


Figure 3-12 Local Area Connection Properties panel

Select: Tab: **Power Management**

Uncheck: all checkboxes:

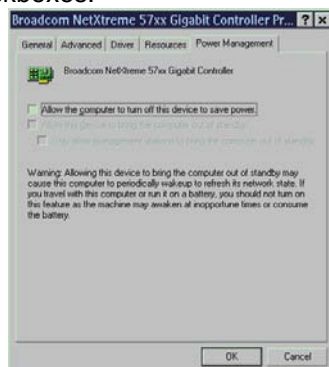


Figure 3-13 Power management NIC disabled (example Dell 690)

Press: **OK**

Return to step [35](#)

¹ If numbered, you have to select the lowest number.

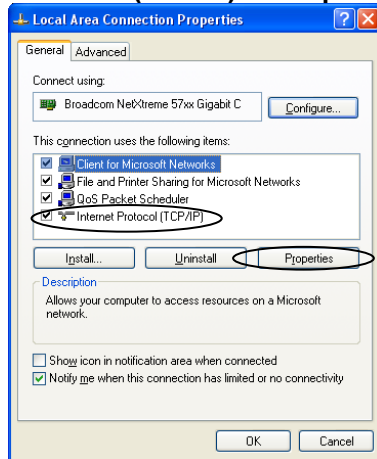
3.3.14 Change IP address adapter connected with Hospital Network (step 36)

Continue from step 35

Right click: **Local Area Connection**¹ (Link with Hospital network)

Select: **Properties**

Select: **Internet Protocol (TCP/IP) → Properties:**



On the next panel (Figure 3-14) the IP address, Netmask and default Gateway can be changed.

Enable Radiobutton **“Use the following IP address”**
Enter **IP address, Subnet mask and Default gateway.**

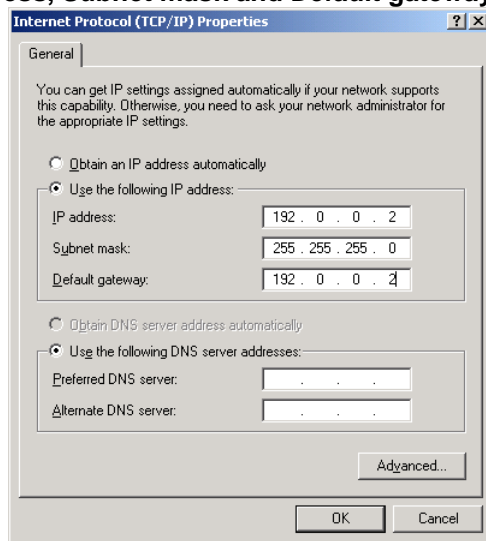


Figure 3-14: Internet Protocol (TCP/IP) Properties panel (Example)

NOTE

The Extended MR Workspace R2.6.3.1 system is standard configured in a Workgroup. Extended MR Workspace R2.6.3.1 in a Domain is not supported.

¹ If numbered, you have to select the lowest number.

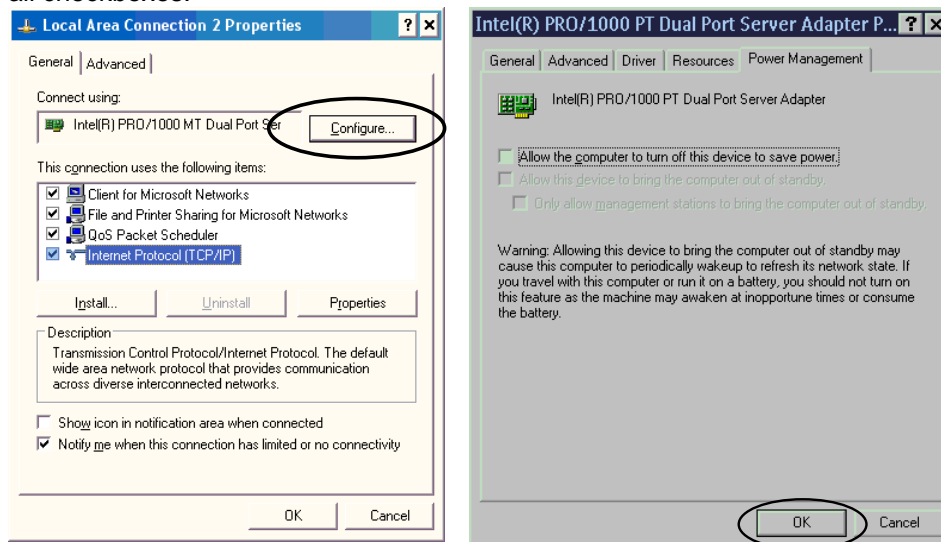
The Extended MR Workspace R2.6.3.1 will only function when fixed IP-address is used, due to the fact that the Extended MR Workspace R2.6.3.1 configuration cannot handle dynamic IP-address.

Click **OK** to confirm the settings
 Click **Close** to close Properties Window.

Return to step 36

3.3.15 Check Power settings Direct Link adapter (step 37)

Continue from step 36
 Right click: Local Area Connection 4¹ (Direct link between EWS and MR-Host, must be connected)
 Select: **Properties**
 Press: **Configure...**
 Select: Tab: *Power Management*
 Uncheck: all checkboxes:



Press: **OK**

Return to step 37

3.3.16 Change IP address Direct-link with MR-Host adapter (step 38)

See Reference sheets *for values*.

Continue from step 37
 Select: **Internet Protocol (TCP/IP)**
 Press: **Properties**
 Enable Radiobutton **“Use the following IP address”**
 Enter/Check IP address **192.168.73.11**
 Press: **TAB**
 Enter/Check **SubnetMask**
 Click **Ok → Close**

Return to step 38

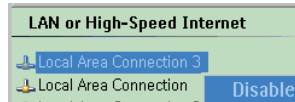
¹ This number varies. You have to select the number in between.

3.3.17 Disable Spare network link (step 39)

Continue from step 38

Right click: **Local Area Connection 5**¹

Select **Disable**:

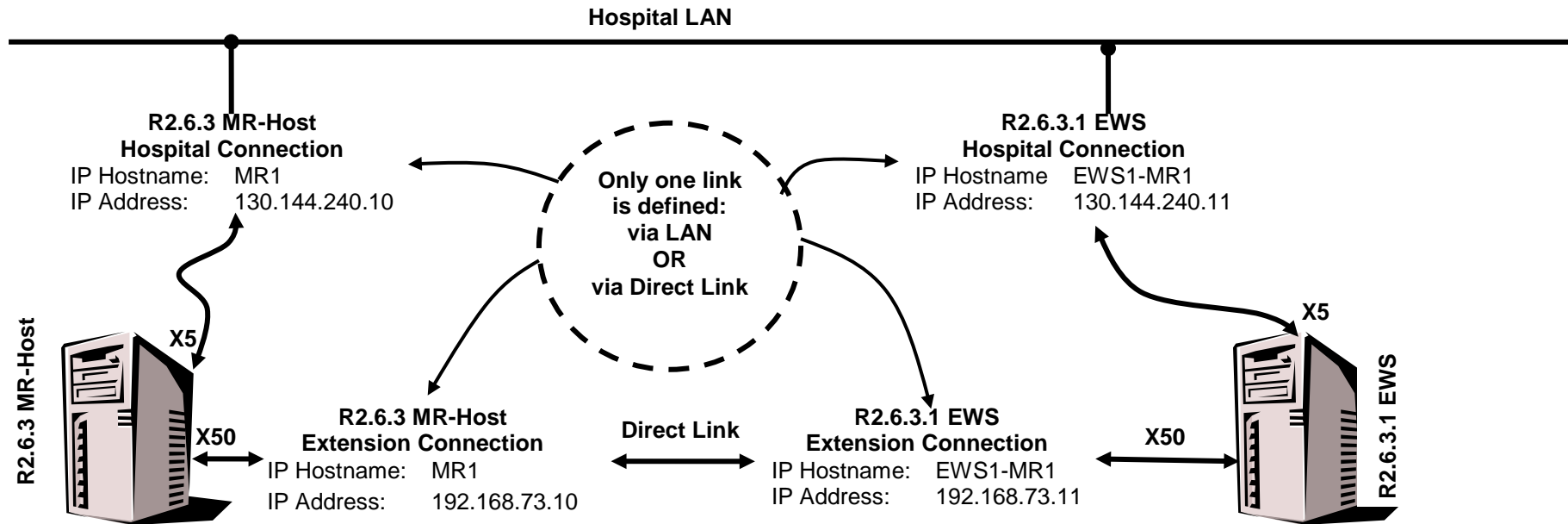


Close Window

[Return to step 39](#)

¹ This number varies. You have to select the highest number

3.3.18 Network Configuration Example

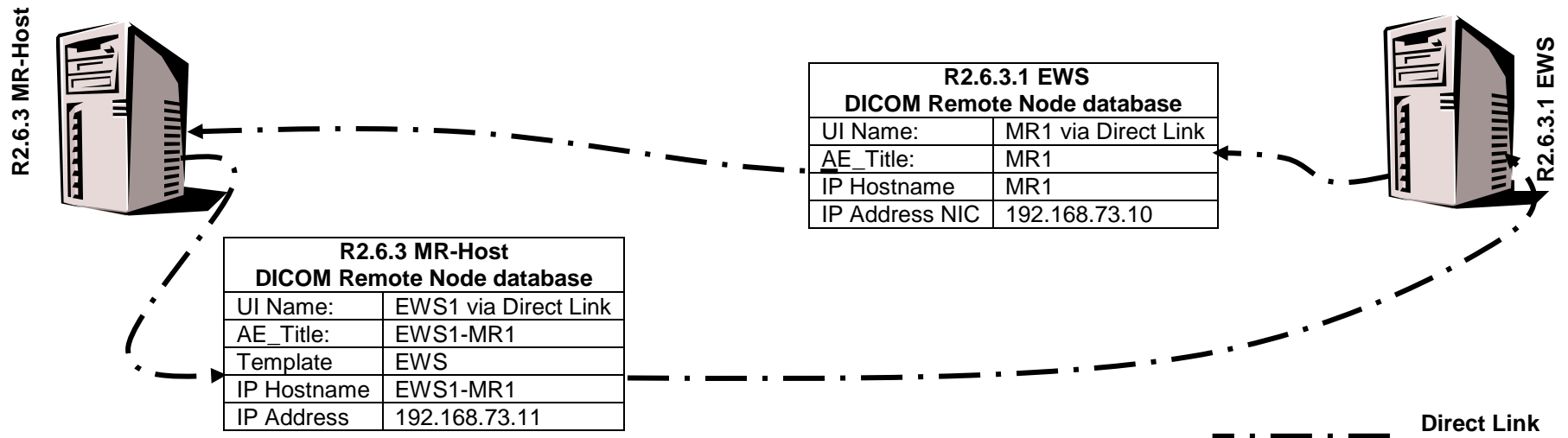
**R2.6.3 MR-Host Windows**

Computer name MR1
 Workgroup PHILIPSMR
DICOM Local System
 AE_Title: MR1
 Port number: 104 or 3010

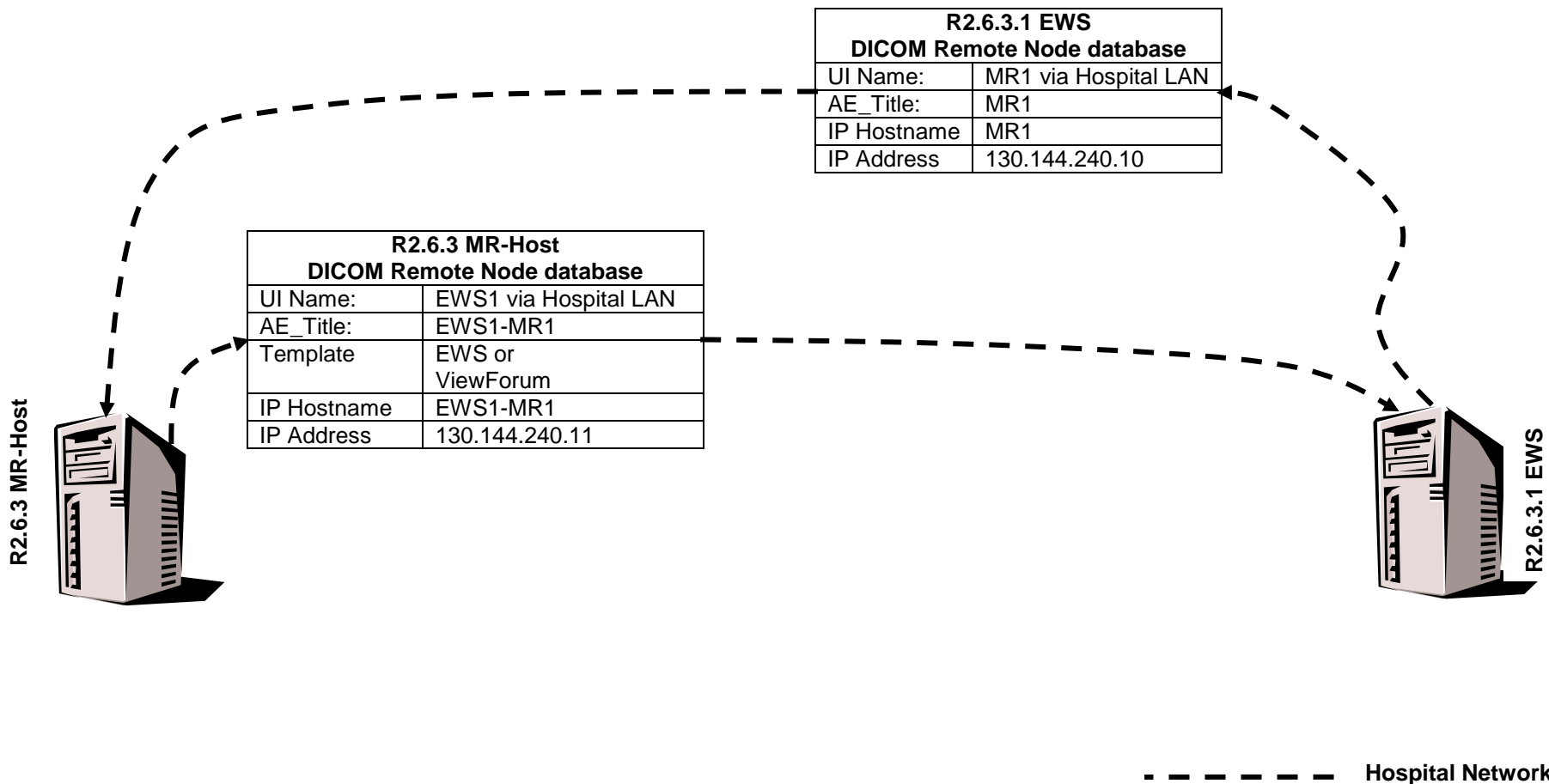
R2.6.3.1 EWS Windows

Computer name EWS1-MR1
 Workgroup PHILIPSMR
DICOM Local System
 AE_Title: EWS1-MR1
 Port number: 3010
 IP Address 127.0.0.1

DICOM Remote Node database settings when MR-Host and EWS communicate via Direct Link.



DICOM Remote Node database settings when MR-Host and EWS communicate via Hospital LAN.
 (This network configuration is an alternative, when Direct Link is not available!)

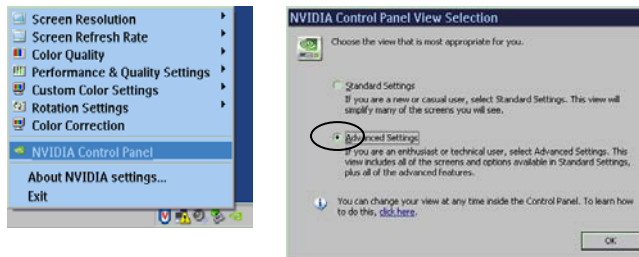


3.3.19 Unified back/depth buffer setting

For the nVidia Quadro FX video cards, the Unified back/depth buffer setting must be turned **off**. When this option is not turned off, the 3D renders will not work with the GPU option activated (Video board settings in ViewForum Application -> System Options), see also section [4.6.1 Check OpenGL support settings](#) p. 103.

nVidia Control Panel:

Right-Click: in the notification area on the nVidia icon (see section [3.3.1.1 Enable nVidia icon in notification area](#) p. 41, when icon is missing) → NVIDIA Control Panel → Advanced settings → OK:

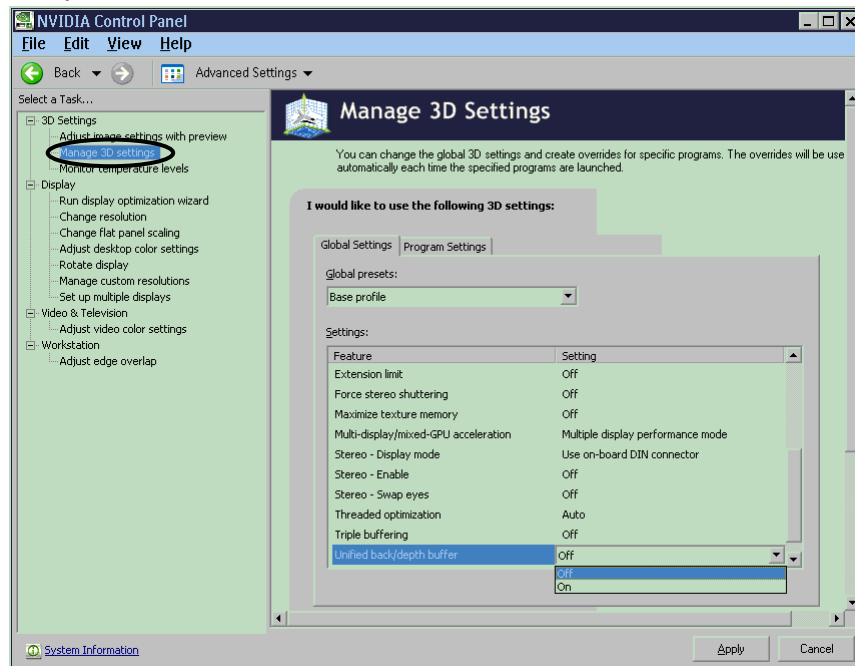


Select: On left panel: *Manage 3D Settings*

Make sure "Base profile" is selected as Global Preset

Select: From settings box:

Unified Back/Depth buffer -> Off¹:



Press: *Apply* to confirm modification(s).

Close panel

¹ Default

3.4 INSTALLATION OF EWS APPLICATION SOFTWARE

Installation of the complete **EWS** consists of installation of the VF Application software part and the MR application software part.

3.4.1 Installation VF Application Software (step 42)

When not logged on already:

Login as: Administrator

Insert: into DVD-ROM drive:

DVD: EWS R2.6.3.1 Application Software (VF7.2V5L1) (4522 170 12821)

The CD will automatically start up.

NOTE

In case the DVD for some reason does not auto start; the installer must be started by hand: Open Windows Explorer open the content of the DVD-ROM → double click the file: "setup.exe".

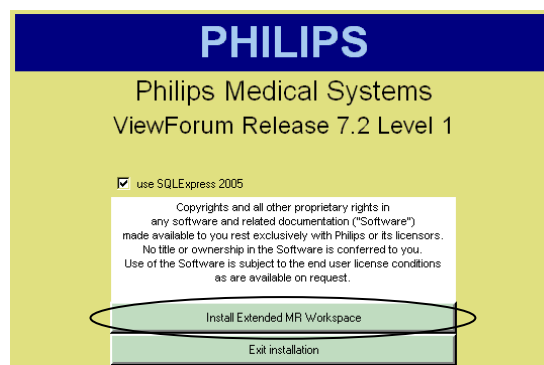


Figure 3-15: Example Product Installation panel

Press: *Install Extended MR Workspace* to start the installation of the Application Software

Follow the on-screen instructions. The installation will take about 20 minutes.

During the installation the following questions will pop-up
Click No

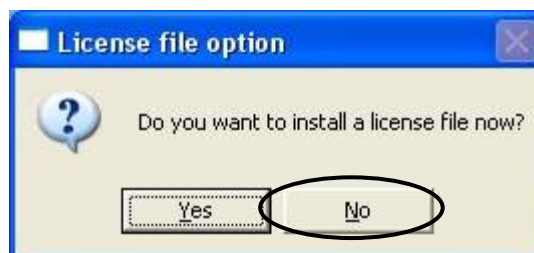


Figure 3-16: License file option panel

The installation has ended when the reboot alert panel appears:

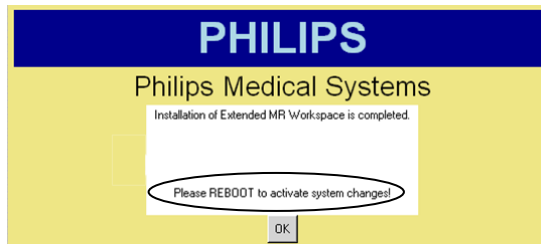


Figure 3-17: Reboot alert panel

Click "OK"

Remove: **DVD: EWS R2.6.3.1 Application Software (VF7.2V5L1) (4522 170 12821)**

The installation of the VF application software has been completed.

Reboot the EWS

Click Start → Shutdown → Restart

[Return to step 42](#)

3.4.2 Installation MR Application Software (step 43)

Login as: Administrator (CTRL-ALT-DEL)

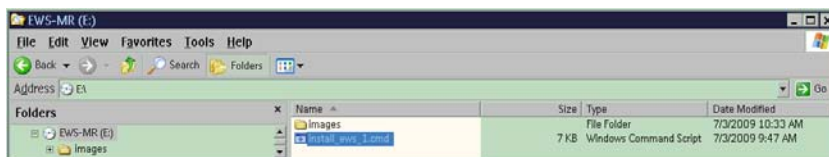
Insert: into DVD-ROM drive:

DVD: EWS R2.6.3.1 MR Application Software (4522 170 12831)

Start Windows Explorer

Browse to DVD-drive with media inserted.

Double-Click INSTALL_EWS_1.CMD



Installing... Will take about **10 minutes**.

```

C:\WINDOWS\system32\cmd.exe
-----
Executing the MR EMS DUD #1 installation
-----
Information about each installation can be found in D:\log.
- 11 :35 : Installing OpenSSH...
  . Do not forget to configure OpenSSH after the installation proces?
  . See OpenSSH documentation for more info.
- 11 :35 : Installing PERL...
- 11 :36 : Installing Windows Media Encoder...
- 11 :37 : Installing DotNet 1.1...
- 11 :37 : Installing JW...
- 11 :38 : Installing DirectX managed DLL's...
- 11 :38 : Installing InfoZIP...
- 11 :38 : Installing Flash Player...
- 11 :38 : Installing UC++ 2005 redistributable...
- 11 :38 : Installing PMS_MR_Extended_Workspace...
  . This can take about 15 min.
- 11 :43 : Installing UserDocs...
- 11 :44 : Installing VirusScanner...
Installation of the EMS DUD #1 is finished, check D:\log\install_ews_sw.log.
and Reboot EMS.
Press any key to continue . . .
  
```

Figure 3-18 Command window during MR-SW installation

As final step McAfee virusscanner is installed.

Press <any key> to continue

When Command window (see [Figure 3-18 Command window during MR-SW installation](#)) is closed:

Remove DVD('s) from the drives

reboot EWS:

Click Start → Shutdown → Restart

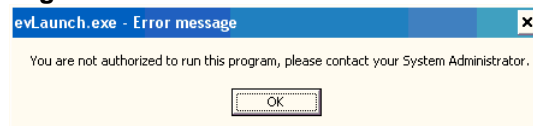
[Return to step 43](#)

3.5 CBT INSTALLATION (STEP 47)

When not logged on already:

Login as: Administrator

Please ignore:



Insert: into CD-ROM drive:

CD: EWS R2.6.3.1 CBT (4522 170 12881)

The CD will automatically start up in the webbrowser. The browser can be closed.

Start: **Windows Explorer**

Open: **CD drive**

Select: **Ctrl-A** to select all content of the CD drive

Select: Copy the content of the CD to **C:\Program Files (x86)\PMS\ViewForum\Training**

When the content has been copied, remove the CD from the drive

3.6 MS WORD INSTALLATION (STEP 44)

The EWS Reporting functionality requires that MS Word is installed. When this EWS option is ordered, MS Word is also delivered.

3.6.1 Prerequisites

- CD-ROM: MS Word Edition 2007 or 2003
- Must be logged on as Administrator (Windows XP)

3.6.2 Installation

Close: all programs

Insert: into DVD-ROM drive:

CD-ROM: MS Word Edition 2007 or 2003 (9896 050 90671)

If not logged on already:

Login as: Administrator

Follow the instructions on screen (use the default settings).

Remove: CD-ROM

[Return to step 44](#)

Section 4 Configuration and Customization

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4 CONFIGURATION AND CUSTOMIZATION

During configuration, some hospital or system specific details must be entered. The exact details must be noted down on the Reference Sheet of [Section 6](#).

For future reference, print this Reference Sheet with the hospital and system specific settings and store it in a safe place.

If the EWS is an initial factory delivery, many configuration items of the EWS itself will be correct. Check it according the following pages.

4.1 WINDOWS XP64 USER ID'S

Windows XP x64 UserID	Initial Password ¹	Role
Administrator	password or Password1 ²	Windows XP x64 administrator User
MRUser	MRUser	EWS Application user
HospitalAdmin	ViewAdmin1	To manage Hosp. Admin, monitor calibration
MRService	ViewForum1	Configuration/Installation EWS
Remote	ViewForum1	Remote Service

The initial passwords must be changed after the first login and noted down on the Reference Sheet of [Section 6](#) (and safely stored).

Table 7 Initial Windows x64 passwords

4.1.1 Password policy

A secret password must be used for user authentication.

A password, which must be non-trivial and kept secret, is the minimum means to uniquely identify a user and to verify whether an attempt to access protected resources is legal. Passwords must be changed regularly, e.g. every 90 days.

Note that a password in fact has the same importance as your passport. It represents your identity and therefore should be selected with care. For the EWS, it is your only way to enter the system securely. It also guarantees that nobody else can change your data, since that person is not authorized to do so.

Any password must satisfy all of the following rules:

Passwords must be changed at least every 90 days.

Password length must be at least 7 characters.

These rules apply to both personal user accounts and functional accounts.

4.2 EX/IMPORT CONFIGURATION & DATABASE

4.2.1 Export EWS Configuration settings (steps [16](#), [75](#))

Login as: MRService

¹ See also section 6 Reference sheets

² Factory Image installed EWS

- Insert USB-flash disk or USB-HD
If applicable: wait until USB-device is ready to use.
- Select: *Start* → *Philips* → *Installation Tools* → *Export EWS Configuration*
- Browse to: Location where the back-up should be saved to (e.g. USB)
It is recommended to keep the backup file separate from the Extended MR Workspace R2.6.3.1 system
- Press: Save
- Confirm: OK
- Remove USB-Key or USB HD via "Safely Remove Hardware" icon:



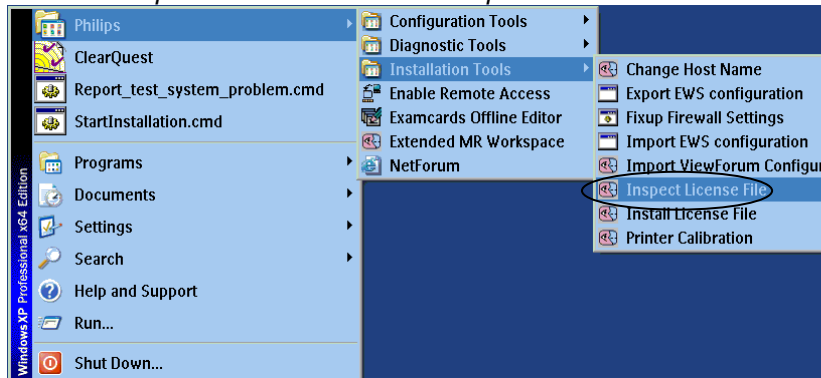
A ZIP-file of the Configuration settings is created and saved on the selected backup location.

Return to step 16 or 75

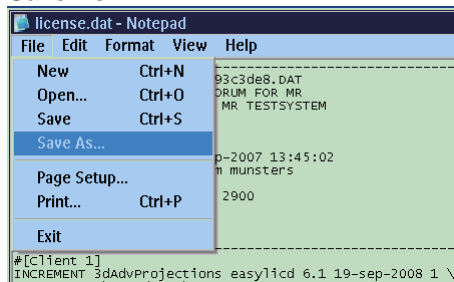
4.2.2 Export EWS License file (step 17, 75)

Login as: MRService

Select: *Start* → *Philips* → *Installation Tools* → *Inspect License File*:

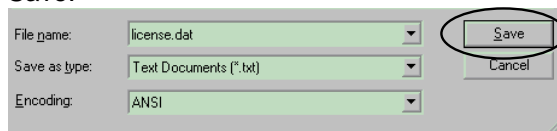


Select Save As...:



Browse to: USB-stick

Select Save:



Close Windows

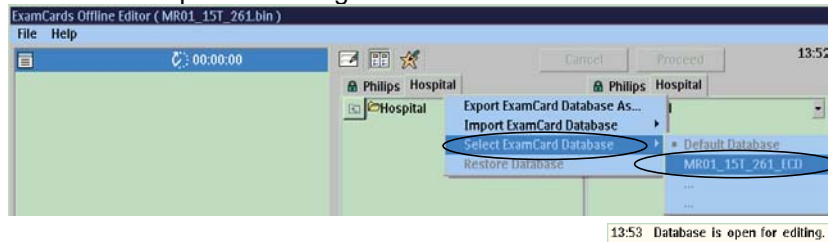
Return to step 17 or 75

4.2.3 Export EWS Examcard Database(s)

Login as: MRService
 Insert USB-Key
 Start Examcards Offline Editor by
 Double-click

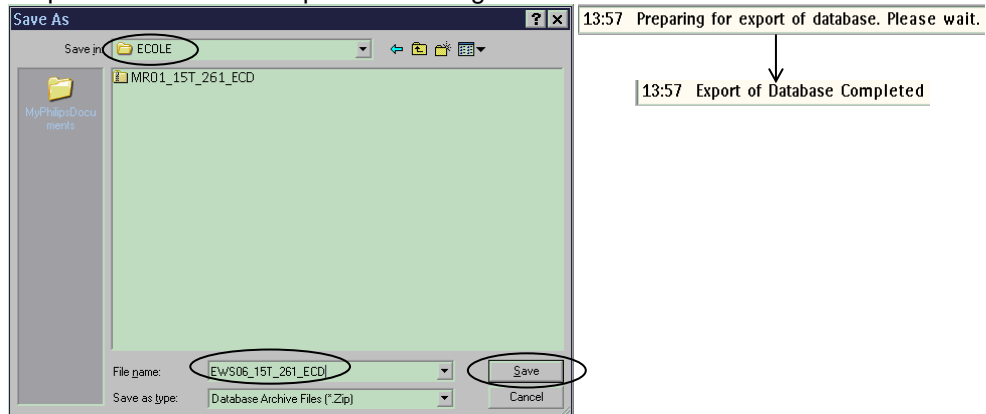


Right-Click: Tab with Hospital Examcards
 Select: Select Examcard Database
 Select: <EC Database>
 Wait until: "Database is open for editing":



Right-Click Tab with Hospital Examcards
 Select Export Examcard Database As...

Browse to Location where Examcard database must be saved (Offlineshare folder, USB-key)
 Enter <Filename for EC-database>
 Click Save
 Wait for "Export of Database completed" message.



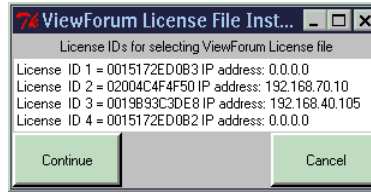
Repeat this procedure for other EC-databases.

Remove USB-key via "Safely Remove Hardware" tray icon
 Click: File → Exit (to close Examcard editor)

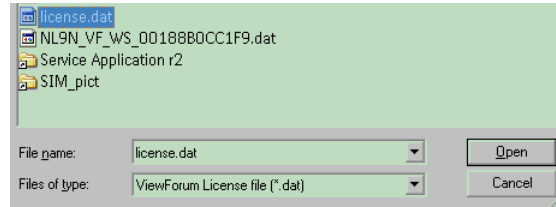
4.2.4 Import VF License file (step 48)

To install a license file do the following:

Login as: MRService
 Insert: License file carrier (CD 4522 170 03451/Floppy/USB stick)
 Select: Start → Philips → Installation Tools → Install License File
 Press: Continue:



Browse to: Location of the license file that must be installed and select file
 Press: Open:



Press Install License File:

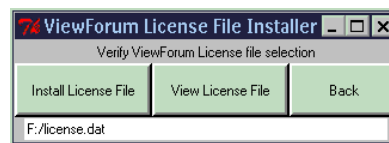
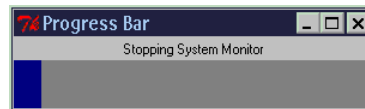


Figure 4-1 EWS R2.6.3.1 License File Installer Panel

The ViewForum License File Installer is started:



Press OK:

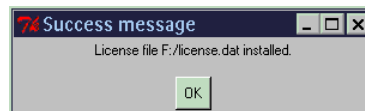


Figure 4-2 Extended MR Workspace R2.6.3.1 Success message panel

NOTE

During installation of the license file, the new file will be copied to the C:/Program Files (x86)/PMS/ViewForum/ License directory and re-named to license.dat. The old license file will be re-named to license.org and saved in the same directory.

WARNING

When a new license file has been installed as described above with changed import/export license options: always check the extended DICOM settings in Extended MR Workspace R2.6.3.1 Configuration and execute Configuration in order to effectuate the changes in the import/export options.

The content of the license file can simply be viewed by selecting:

Select: Start → Philips → Installation Tools → Inspect License file

[Return to step 48](#)

4.2.5 Import ViewForum Configuration settings (step 49)

Logon: MRService user, password = ViewForum1¹ (see [Reference sheets](#))
 Select: Start → Philips → Installation Tools

Select: *Import ViewForum configuration*

Browse to: Location where the back-up file is saved (e.g. USB-stick)

Select: Configuration settings backup file

Click: Open → OK

The backup files are being restored now, a progress information bar appears.

Reboot EWS:

Click: **Start → Shutdown → Restart**

Return to step [49](#)

4.2.6 Import EWS Configuration settings (step 50)

Logon: MRService user, password = ViewForum1¹, or see [Reference sheets](#).
 Select: Start → Philips → Installation Tools

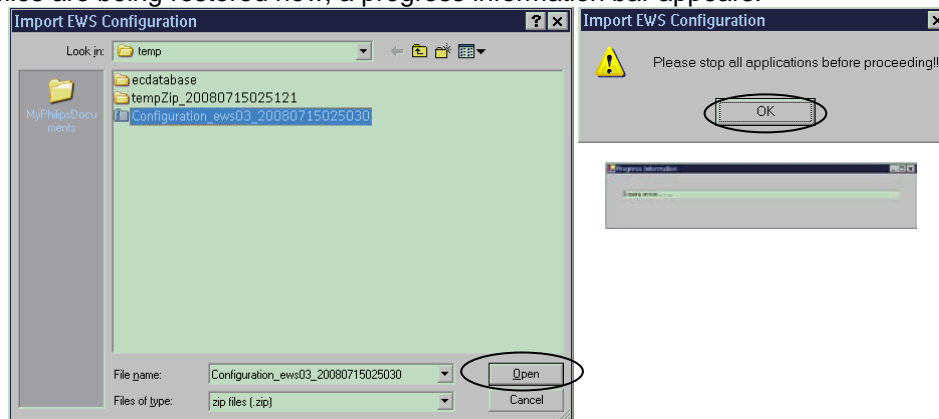
Select: *Import EWS configuration*

Browse to: Location where the back-up file is saved (e.g. USB-stick)

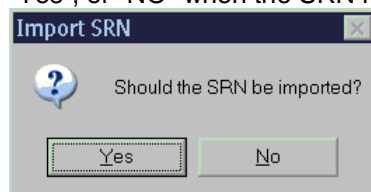
Select: Configuration settings backup file

Click: Open → OK

The backup files are being restored now, a progress information bar appears.



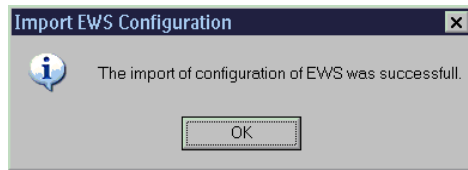
When Import EWS Configuration:
 Click "Yes", or "NO" when the SRN needs to be adapted (Default: Yes):



The restore is complete when success message pops-up.

Confirm: OK:

¹ Change password when this is 1-st logon

**Reboot EWS:**

Click: **Start → Shutdown → Restart**

Return to step 50

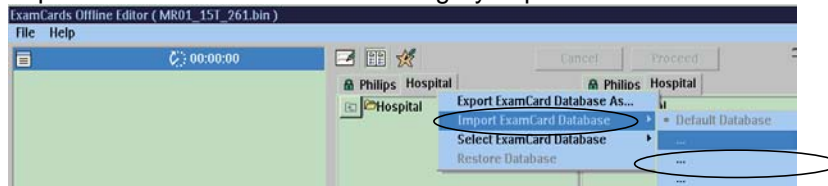
4.2.7 Import EWS Examcard Database(s)

Insert USB-Key
Start Examcards Offline Editor

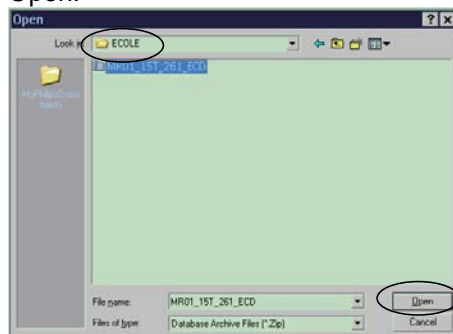
Double-click



Right-Click Tab with Hospital Examcards
Select Import Examcard Database → “non-grayed position”



Browse to Location where Examcard is located (USB-key, or Offlineshare folder)
Click Open:



Wait Until “Importing Database” is ready



Repeat this procedure for other EC-databases.

Remove USB-key via “Safely Remove Hardware” tray icon

4.2.8 Back-up Patient Database (step 18)

The Patientdatabase of Extended MR Workspace R2.6.3.1 can be backed-up to another (network) location (e.g. a PACS system) or to an (external) disk. Creating a backup may take 2 – 3 hours.

If the backup must be stored on a removable storage medium (USB stick, external Hard disc), make sure it is connected.

Login as: MRUser (if not the case)
Start: Extended MR Workspace application
Login as: MRUser or as administrator
Select: Data management
Select: Split View

Select the images to back-up.

In one of the views:

Select: function: Copy to
Select: Location to store the backup of the image data (it will be listed as: "Backup Repository")
Press: Backup Repository to start the backup

Return to step 18

4.2.9 Restore Patient Database (step 74)

Restoring a database may take 2 – 3 hours. A backup of the Patientdatabase of Extended MR Workspace R2.6.3.1 can be restored as follows.

Login as: MRUser
Start: Extended MR Workspace Application
Login as: MRUser or as administrator
Select: Data management
Select: Split View

In one of the views:

Select: function: Copy to
Select: Location of the database back-up (is listed as Backup Repository)
Press: OK to start the restore job

NOTE

It is only possible to perform a complete restore. It is not possible to restore only a part of the backed-up images.

Return to step 74

4.3 VF & MR CONFIGURATION STEPS

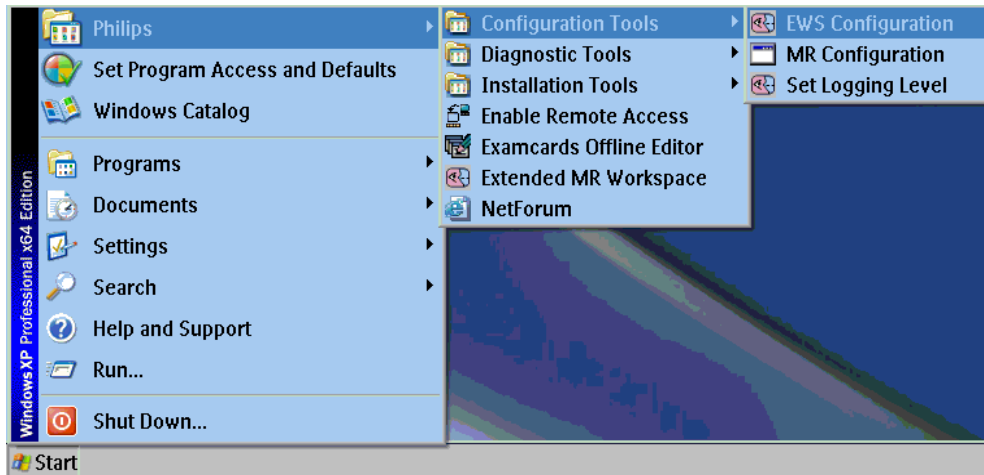
4.3.1 Configure EWS (VF settings)

4.3.1.1 Start EWS Configuration (VF) (step 51)

To start Configuration:

Login as: **MRService**

Click Start → Philips → Configuration Tools → EWS Configuration:



The Configuration main panel appears:

Select: Node Type "VF"

Select: Edit

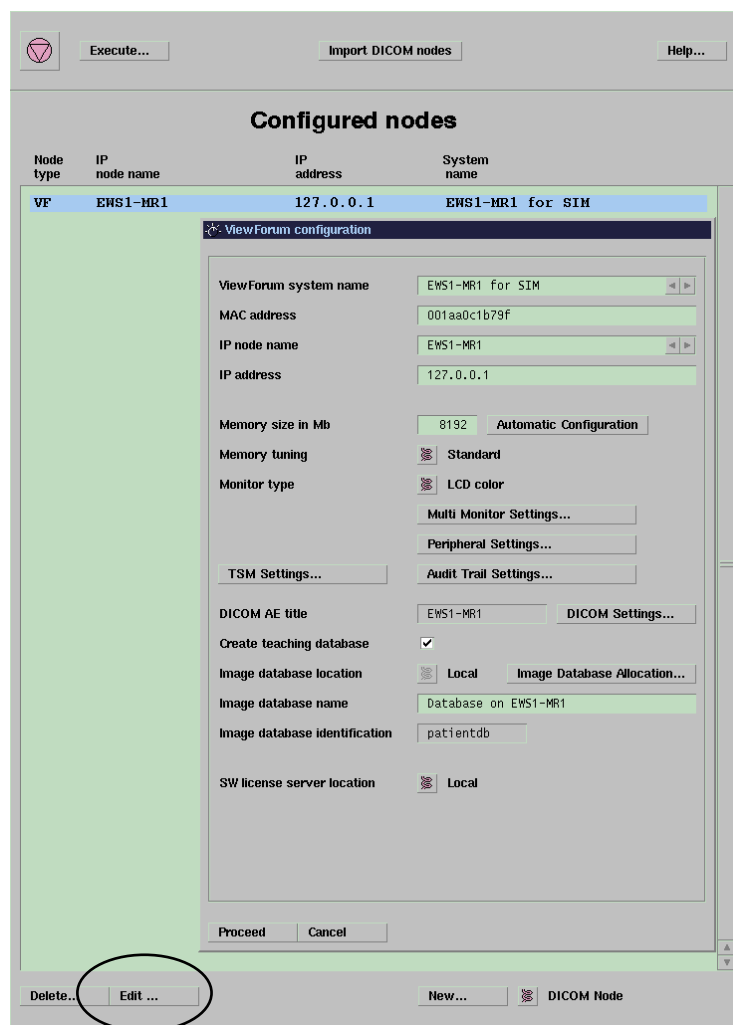


Figure 4-3 EWS Main Config Panel & VF node Config Panel (example)¹

4.3.1.2 EWS Configuration Main panel explained

Execute...

Select this option when configuration is complete. This option saves the configuration file to hard disk. See chapter 4.3.3 of this section for details.

Help...

Tells you this manual is available on InCenter.

New...

With this button the local **EWS** and DICOM nodes (see chapter 4.3.2) can be configured.

Delete...

Select the node that you want to delete and then press the delete button.

Edit...

Select the node that you want to edit and press the edit button. It is also possible to edit the node by selecting it and double click the left mouse button.

¹ IP-address 127.0.0.1 is not an example!

Configured nodes

The EWS main Configuration panel is used to configure the local **node type VF**, as well as remote DICOM nodes if present.

NOTE

The Node type VF must be configured first, before [Configuration Remote DICOM Node p. 87](#) is done.

On the configuration main panel ([Figure 4-3 EWS Main Config Panel & VF node Config Panel \(example\)](#)):

Select: node type: VF

Press: New...

The EWS Configuration panel will be displayed see [Figure 4-3 EWS Main Config Panel & VF node Config Panel \(example\)](#)

4.3.1.3 ViewForum configuration settings on EWS (step 52)

ViewForum system name

Check or enter a human readable name for this Extended MR Workspace R2.6.3.1.

MAC address

Check or enter the MAC address onboard NIC (for value see [Reference sheets](#)).

IP node name

Check or enter IP node name of the system. IP node name must be the same as the Computer Name setting in Windows XP and unique on Hospital network (for value see [Reference sheets](#))

NOTE

If IP node name is not correct:

Change "Computer Name" in Windows XP x64 (see paragraph [3.3.4 Change Computer name p. 46](#)).

IP address

The IP address of the local node must be: **127.0.0.1**

Memory size in Mb

The indicated value must be equal to the actual memory size of the Extended MR Workspace R2.6.3.1. The correct value will be entered automatically when clicking the **Automatic Configuration** button.

Dell T5500: 6GB

Dell T7400: 8GB

Dell 690: 8GB

Dell 670: 6GB

Memory tuning

Selecting "*Huge datasets*" causes EWS memory to be tuned to a great amount of small images that are sent by the MR-scanner ("Functional MR" facility on the MR scanner). In all other cases: *Standard* is fine.

Monitor type

Default the application expects a 75 Hz CRT, this must be changed into:

LCD color

Multi Monitor Settings

Default: disabled

Enable this option when there are multiple monitors connected and one of the monitors must be dedicated to Extended MR Workspace R2.6.3.1, while the other monitor(s) can be used for other applications. Also specify which monitor must be used for the EWS application.

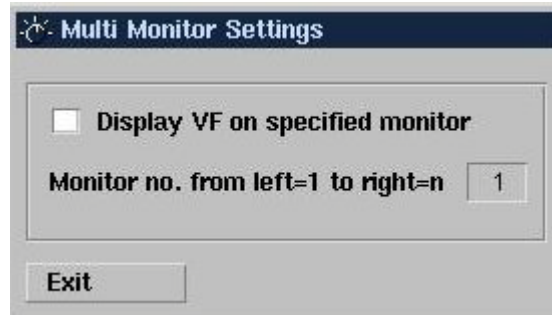


Figure 4-4 Multi Monitor Settings

When there are two monitors connected to the Extended MR Workspace R2.6.3.1, the EWS application can also be extended to the other monitor (Dual Monitor: Extended modus) or both monitors can be set-up as exact copies of each other (Dual Monitor: Clone modus). How to do this is described in Section 2: Windows XP x64 customise settings.

4.3.1.3.1 Touch Screen Module (TSM) Settings

Not applicable for the EWS

4.3.1.3.2 Peripheral Settings

The Peripheral Settings panel [Figure 4-5 Peripheral Settings panel](#) is displayed when selecting the **Peripheral Settings....** button on the EWS node configuration panel ([Figure 4-3](#)). In this panel all peripheral units such as a DVD Recorder and printers can be configured.

See section [3.3 Post Image-Installation steps](#) p. [38](#) for identified DVD-drive letters

Peripheral Settings

Recordable drive **Present**

Name Recordable drive on EWS

Drive letter E

Attribute filtering (store) **Allow all attributes**

Attribute filtering (retrieve) **Allow all attributes**

Don't store Presentation State SOP

Don't store private SOPs

CD/DVD Reader drive **Present**

Name CD/DVD-Rom drive on EWS

Drive letter F

Attribute filtering (retrieve) **Allow all attributes**

Printer name	I/F type	Type	DeviceID	Related AE title
DICOM DryView 8700	DICOM	Kodak-DryView-8700-DICOM	MIM	
DryStar 5300	DICOM	Agfa-DryStar5300-DICOM	DRY53	
DryStar 5302	DICOM	Agfa-DryStar5302-DICOM	DS5302	
DryPix 4000	DICOM	Fuji-DryPix4000-DICOM	DRYPIX4	

Delete **Edit ...** **New ...** **DICOM**

Exit

Figure 4-5 Peripheral Settings panel

4.3.1.3.3 DVD Readers and Writers

On the Peripheral Settings panel ([Figure 4-5 Peripheral Settings panel](#)), enable the corresponding checkboxes when media used for writing: **Recordable drive** and/or media used for reading: **CD/DVD Reader drive** are present.

The name can be changed into a more meaningful name, so that it is recognizable in the EWS application.

Name

Enter a freely chosen name for the selected drive, this name will also be shown in the user interface. It is recommended that when e.g. DVD is selected, this is mentioned in the name. This will help the end-user to recognize the drive in the EWS application.

Drive letter

Enter the correct drive letter for the selected drive (see identified driveletter values on [Reference sheets](#))

Attribute filtering (store)

This configuration option is not available for CD/DVD Reader drive.

Select the attribute settings that must filtered out when writing data to the CD/DVD Recordable drive.

Select one of the following options:

- Allow all attributes (=Default)*
- Allow only ViewForum attributes*
- Allow only PMS attributes*
- Allow only DICOM attributes*

Attribute filtering (retrieve)

Select the attribute settings that must filtered out when reading data from the CD/DVD recordable drive or CD/DVD Reader drive.

Select one of the following options:

- Allow all attributes (=Default)*
- Allow only ViewForum attributes*
- Allow only PMS attributes*
- Allow only DICOM attributes*

Don't store Presentation State SOP

Default: disabled

This option can be enabled when images need to be viewed in an external viewer (e.g. Xcelera viewer R1.x /or EFILM R1.9.3), which doesn't support these Presentation State Sop classes.

Don't store private Sops

Default: disabled

This option can be enabled when images need to be viewed in an external viewer (e.g. Xcelera viewer R1.x /or EFILM R1.9.3), which doesn't support these private Sop classes.

4.3.1.3.4 Printers

Select **New...** on the Peripheral Settings panel ([Figure 4-5](#)) to add a printer connected to this Extended MR Workspace R2.6.3.1. A printer can be defined as either a *DICOM* printer or a *Paper* printer. If one or more printers have already been configured, highlight the printer and click **Edit...** to modify or click **Delete** to remove the highlighted printer.

NOTE

If the SCP doesn't support the DICOM Presentation LUT sop class (e.g. printing only blank papers). Disable the checkbox "presentation LUT" of the SCP Extended settings.

The following panel will become visible when defining a new printer (example):

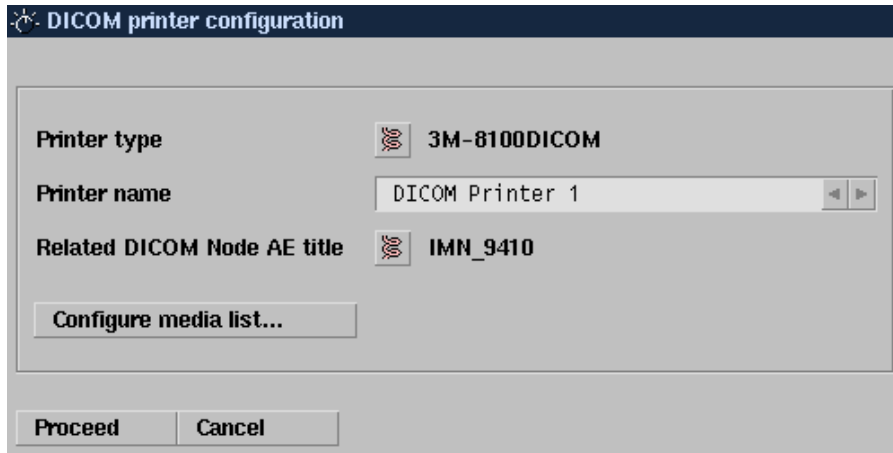


Figure 4-6 Printer configuration editor (example)

Printer type

Select a printer type from the list of supported printers for the selected interface type (*DICOM* or *Paper*).

When paper printer is selected, a list of the printers known in Windows is listed. From this list a printer can be selected. So before a new paper printer can be defined in Config, it has to be defined in Windows first.

Printer name

The name of the printer as it is to be shown in the user interface. This name must be unique in the cluster. Max. 30 characters including spaces, illegal characters: \ "

Related DICOM Node AE Title

This configuration option is only visible when defining a DICOM printer. The DICOM printer should already be defined as a DICOM node.

Select a DICOM Node AE title from the list.

Configured media list...

This button starts the Media list editor. Depending on the selected printer, the film formats that are in actual use at the site can be selected. The disabled formats are not shown and therefore not selectable in the application.

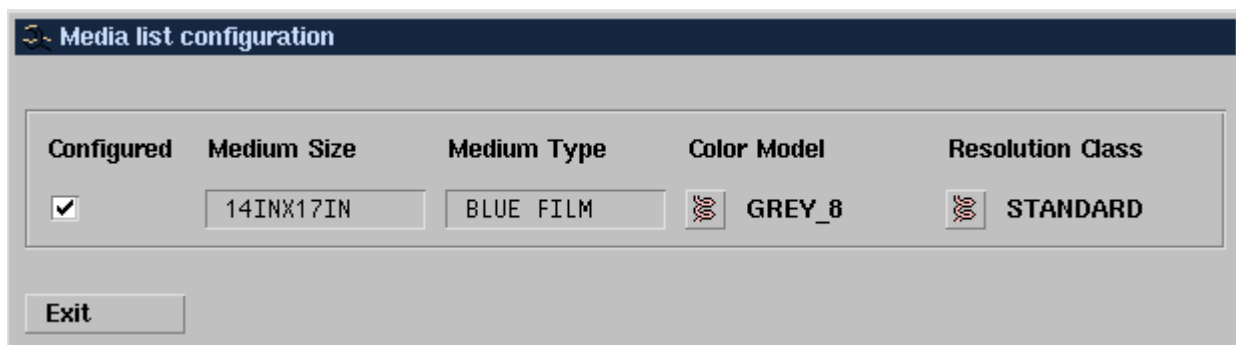


Figure 4-7 Media list configuration panel

NOTE

*The media list should never be empty!
At least one medium must stay selected (checkbox is enabled) otherwise it is not possible to print.*

Exit

Saves the current selection closes panel to return to the printer configuration editor panel (Figure 4-6).

Proceed

Save all changes made after the last activation of the printer configuration editor and return to the Peripheral Settings panel.

Cancel

Cancel all changes made after the last activation of the printer configuration editor.

Click **Exit** on the Peripheral Settings panel when all settings have been entered to return to EWS Configuration main panel.

4.3.1.3.5 Audit Trail Settings

For logging of user and system behaviour (e.g. deletion/creation/modification of exams, login of users, etc) the Audit Trail option is available on Extended MR Workspace R2.6.3.1. Audit Trail data can be logged via a SYSLOG server running on another system or locally on EWS itself. SYSLOG servers are available on the Internet, e.g. <http://www.kiwisyslog.com/downloads.php>. By default the Audit Trail option on EWS is **disabled**.

Before enabling Audit trail Settings make sure that the time is synchronized! E.g. by using an Internet Time Server (see section 3.3.6 [Configure Internet Time Server](#) p. 47)

The Audit Trail Settings panel ([Figure 4-8](#)) is displayed when selecting the **Audit Trail Settings....** button on the EWS node configuration panel ([Figure 4-8](#)).

To enable Audit Trail in combination with an external SYSLOG server:

- Tick mark Audit Trail enabled.
- Enter valid IP node name
- Enter valid IP address
- Port number = 514 (Default UDP port)

To enable Audit Trail logging on EWS itself:

- Tick mark Audit Trail enabled.
- Enter a **non-existing** IP node name
- Enter a **non-existing** IP address
- Port number = 514 (Default UDP port)

On EWS the Audit Trail log files will be written in path:

C:\Documents and Settings\All Users\Application Data\PMS\ViewForum\Temp\AuditTrail\

Note that currently only a "UDP-connection" can be made to the system on which the SYSLOG server is running.

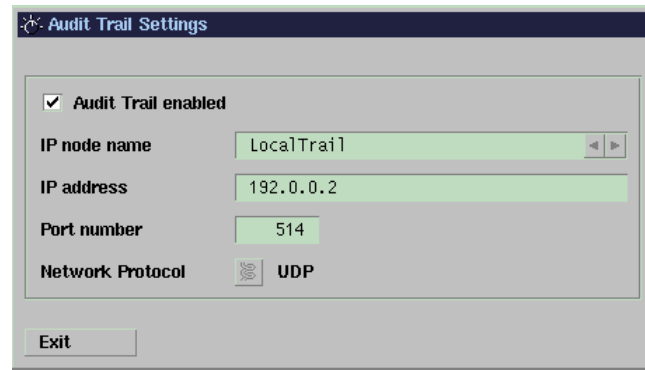


Figure 4-8: Audit Trail settings

4.3.1.3.6 DICOM AE title and DICOM Settings...

The DICOM settings panel for the EWS node as shown in (Figure 4-9) is displayed when selecting **DICOM Settings...** button on the EWS node configuration main panel (Figure 4-3 p. 77)

CAUTION

When EWS Application entity title is modified all other “linked” modilaties need to be modified!

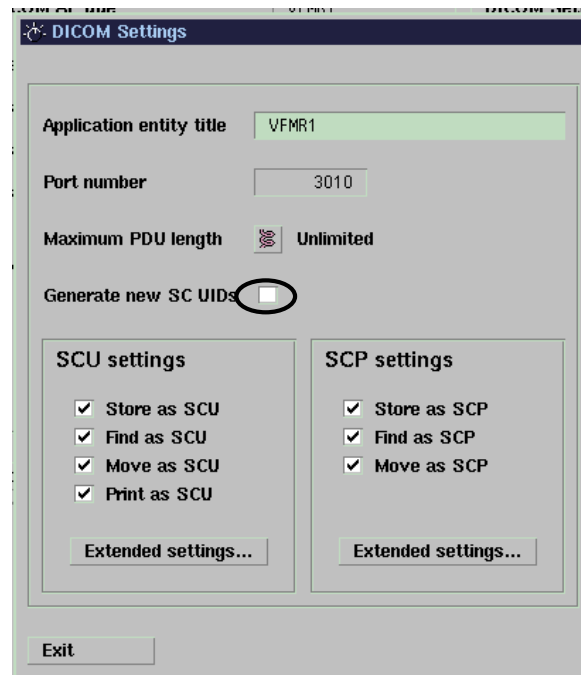


Figure 4-9 DICOM Settings panel

The settings listed in this panel are the DICOM settings of the EWS system itself!

Application entity title

Enter the Application Entity title, (freely selectable, max. of 16 characters, case sensitive). It must be a unique name in the cluster (network). For more general information about the AE title see also 4.8.1.

Port number

Default value for EWS node: 3010 cannot be adjusted.

Maximum PDU length

Select the maximum number of bytes accepted by the system in each data transfer of a **Protocol Data Unit**.
Default: unlimited

Generate new SC UIDs

Default: enabled.

WARNING

*Enabling this checkbox removes the presentation state of the SC images at export.
This is caused by changing all SC images UIDs during import.
Disabling this checkbox will result in a failure at import of series with a SC capture image in it.*

SCU settings and SCP settings

In most cases the default values will be correct. See also [4.8](#).

Extended settings...

In most cases the default values will be correct.

When selecting one of the **Extended settings...** buttons the corresponding "Settings as SCU" or "Settings as SCP" panel is displayed.

For more information see [4.8](#).

Click **Exit** on the DICOM Settings panel after all settings have been entered to return to EWS Configuration main panel.

4.3.1.3.7 Create teaching Database

This checkbox enables the creation of a teaching database. (See also section [4.5.8 Teaching files](#) p. 101)

[Return to step 52](#)**4.3.1.3.8 Image Database Location and Allocation (step [53](#))**

On the EWS node configuration panel ([Figure 4-10](#)), the database settings can be defined:

Image Database Location and Image Database Allocation...

On the EWS system the Image Database Location is set to *local*.

The Image Database Allocation panel shows the partition settings of the system ([Figure 4-10](#)). Select partition D and press **Edit...** to change the settings of the Image Database from 100.000Mb to 80.000 Mb or make sure the size is 80.000 Mb.

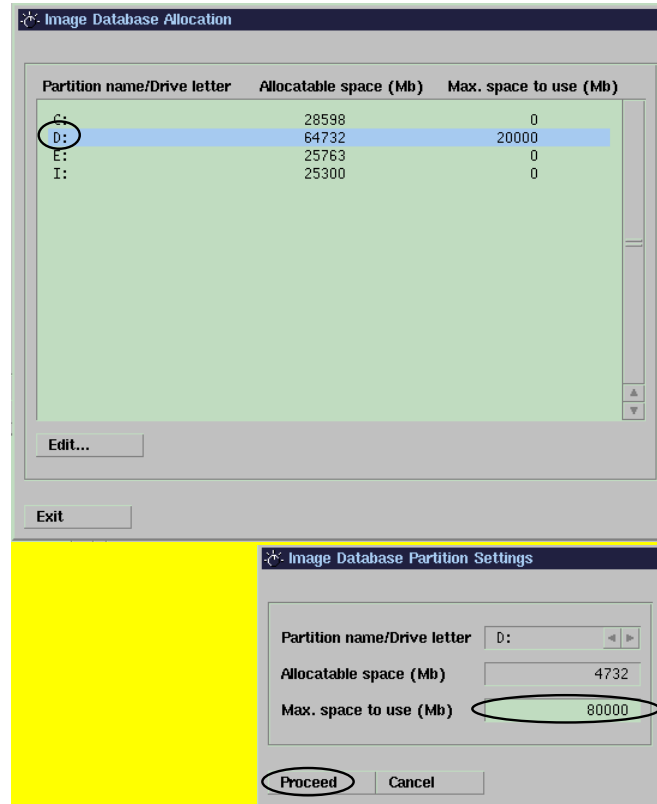


Figure 4-10 Image Database Allocation and Partition settings panels

To prevent Windows XP x64 from automatically clean up the disk space, select 80.000 MB (minimal: 1000 MB)

NOTE

The size of the Image Database may not be larger than 80 GB.

WARNING

Putting the database on another disk partition or creating a database of another size, results in loss of the existing database. So when changing these settings on a configured system, make sure the image database data is correctly backed-up.

Image database name

Enter a unique name for the image database on this workstation; it will be used within the Application program.

Max. 30 characters including spaces, illegal characters: \ " (See [Figure 4-3 p. 77](#))

Image database identification

This is the MAC address of the system where the Image Database was located. On an initial EWS "patientdb" is displayed.

SW license server location

WARNING

On EWS R2.6.3.1 a remote SW license server location is NOT supported!

Proceed

When all configuration details are entered, press **Proceed** to return to the EWS configuration main panel.

[Return to step 53](#)

4.3.2 Configuration Remote DICOM Node(s) (step 55)

Besides the local EWS node and the MR-Host, other DICOM nodes present in the hospitals' network can be configured. Continue with this chapter to configure Remote DICOM nodes.

Check section [4.8 Extended DICOM Settings](#) p. 112 for the correct settings of a PACS node.

CAUTION

Do not use the "Automatic Configuration..." button in case an iSite Pacs is configured (see [Figure 4-11](#) below)

On the configuration main panel ([Figure 4-3](#) p. 77):

Select: node type: *DICOM node*

Press: New...

The DICOM Node Configuration panel ([Figure 4-11](#)) will be displayed:

DICOM node configuration

DICOM node system name: di_client

IP node name: di_client

IP address: 192.0.0.1

Application entity title: di_client

Port number: 3010

Maximum PDU length: Unlimited

Eleva EDI

Patient Administration Host ID:

Image archive

Storage commit system name: di_client

SCU settings

Store as SCU

Find as SCU

Move as SCU

Extended settings...

SCP settings

Automatic configuration...

Store as SCP

Find as SCP

Move as SCP

Print as SCP

Extended settings...

Proceed Cancel

Figure 4-11 DICOM Node configuration panel

DICOM node system name

The name of the remote DICOM node as it is to be shown in the user interface. This name must be unique in the cluster.

Max. 30 characters including spaces, illegal characters: \ "

IP node name

Enter a unique IP node name of the system.

When defining a MR-Host: Enter the MR-Host computer name.

IP address

Enter IP address of the system.

When defining a MR-Host: Enter IP address: 192.168.73.10.

Application entity title

Enter the Application Entity title, (freely selectable, max. of 10 char., case sensitive). It must be a unique name in the cluster (network). For more general information about the AE title see also 4.8.1.

When defining a MR-Host: Enter the AE title as is defined in the Connectivity Configuration\Local system of the MR-Host.

Port number

Many different protocols (FTP, HTTP, Telnet and DICOM) can be using TCP at any time. By using port numbers these applications are identified. The combination of TCP port number and IP number is called the Socket Address.

A TCP connection is defined by the combination of the local Socket Address and the remote Socket Address. By keeping the IP numbers network wide unique and the TCP port number unique inside a system, each TCP connection is uniquely identified by the combination. The TCP port of the partner called during a connection initialisation must be known. This can be either an agreed port number between two applications. Examples: The Extended MR Workspace R2.6.3.1 listens on port number 3010, Siemens has port number 104.

When defining a MR-Host: Enter port number **104** (default setting for initial MR-Hosts, since R2.6.3) or **3010**

Maximum length

Select the maximum number of bytes accepted by the remote DICOM node in each data transfer of a Protocol Data Unit. *Unlimited* is the default value. EWS will not send PDUs of greater size to this DICOM node. For DICOM transfer with GE- systems, **65536 bytes** is recommended. Do not select *Unlimited* if you are not sure.

Eleva EDI

Default: disabled

This checkbox should only be activated if the EWS System is part of a DI configuration.

Patient Administration HostID.

When the checkbox "Eleva EDI" is enabled. The IP address of the patient administration system should be entered.

Image Archive

Default: disabled

This checkbox should only be activated if the remote DICOM node is used as a DICOM archive (e.g. PACS).

To configure a PACS Worklist, the extended DICOM SCP settings have to be changed: the checkboxes of the Patient Root Query must be disabled.

CAUTION

Make sure that only one node is marked as Image Archive (although it is possible to configure more than one DICOM node marked as Image Archive, EWS can only handle one Image Archive).

Storage commit system name

Select a system name of the storage commit system. The system name can only be selected when the node is already configured as a DICOM node and the Image Archive checkbox is activated.

SCU settings and SCP settings

In most cases the default values will be correct. See also [4.8](#).

Automatic configuration...

Press this button to check if the Dicom node is configured correct.

Extended settings...

When selecting one of the **Extended settings...** buttons the corresponding "Settings as SCU" or "Settings as SCP" panel is displayed.

In most cases the default values will be correct, but there are two exceptions:

The default extended settings **MUST** be changed when configuring a PACS Worklist, a DSI as an external DICOM node or when configuring an EasyVision Classic (as a DICOM node). See [4.8](#) for more information.

When finished, select **Proceed** to confirm the settings and return to the configuration main panel. Select **Cancel** to return to the configuration main panel without saving the settings.

[Return to step 55](#)

4.3.3 Execute EWS Configuration (VF) (step 56)

To avoid problems, close the EWS Application (when started) before executing Configuration. On board network adapter is connected with Hospital LAN.

Click **Execute....** on the configuration main panel (Figure 4-3 p. 77) to perform the actual configuration of this Extended MR Workspace R2.6.3.1. A panel appears with the following text:

Keep existing local image database

Keep existing teaching database

These checkboxes can only be enabled if a correct and compatible (teaching) database exists.

WARNING

The image/teaching database will be deleted if this option is not activated!

Click the **Proceed** button to execute the configuration. This might take 5-15 minutes depending on the database size.

When finished, click **Exit** (and **Confirm**) to exit the configuration application.

When executing the Configuration:

- the Config.cfg file is saved to directory:
C:\Documents and Settings\All Users\Application Data\PMS\ViewForum\ConfigRepository and saved to dbadmin (Backup, mostly found on D:\ drive).
- the Winhostfile will be updated
- the Config Repository will be filled
- the new image database and teaching database are created (initial install only)
- the license file will be updated and saved in dbadmin folder.
- the Configuration.pf file will be created and saved in dbadmin folder

WARNING

Directory /dbadmin is NOT overwritten when you re-install the software.

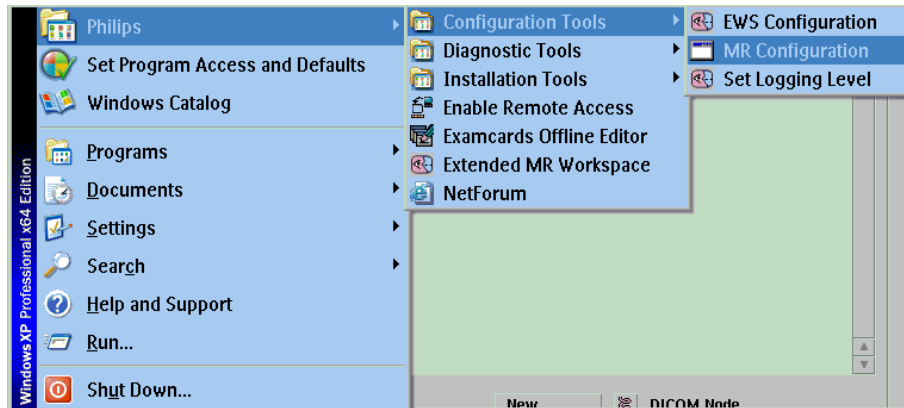
[Return to step 56](#)

4.3.4 Start MR Configuration (step 57)

To start MR Configuration:

Login as: **MRService**

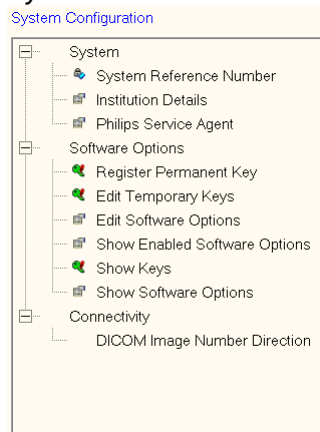
Select: *Start* → *Philips* → *Configuration Tools* → *MR Configuration*:



[Return to step 57](#)

4.3.4.1 MR System Reference Number (step 58)

Select *System Reference Number*



Enter **System Reference Number:**

 A screenshot of the 'System Reference Number' dialog box. It shows the current 'System Reference Number' as 00000. Below it, there is a field labeled 'Set System Reference Number To:' with a text input box containing the value 00000.

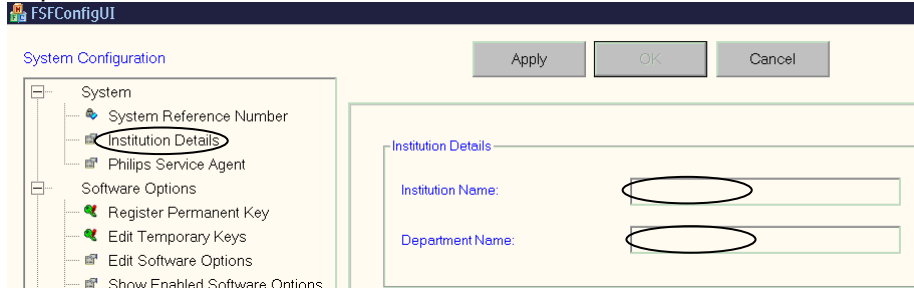
Click *Apply* → *Ok*

[Return to step 58](#)

4.3.4.2 MR Institution Details (step 59)

Select *Institution Details*

Enter *Institution Name*
Department Name:

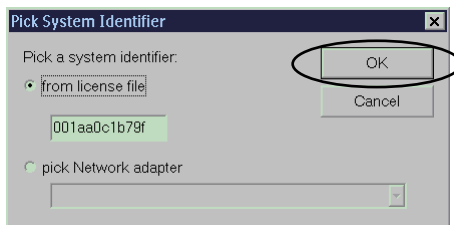
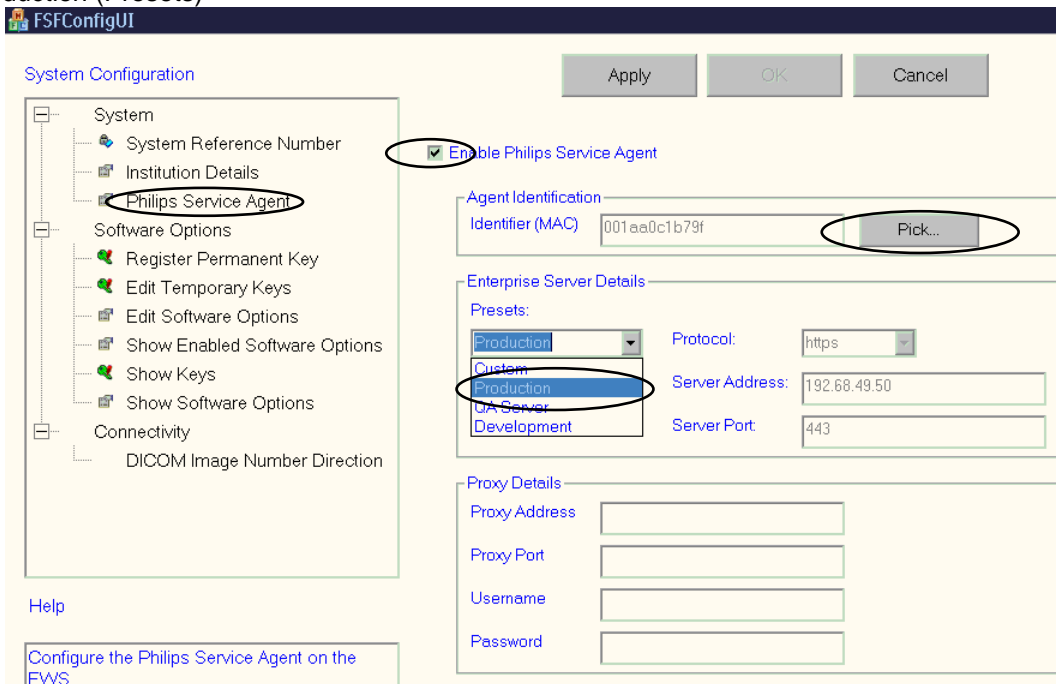


Click *Apply* → *Ok*

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4.3.4.3 MR Philips Service Agent – PSA (step 60)

- Select *Philips Service Agent*
- Check:
- Click: *Pick...*
- Click: *OK*
- Select: *Production (Presets)*



Note

A Proxy Server / Nat-Routing at the Hospital may give cause for filling in 'Custom' settings (see below)

Click: *Apply* → *Ok*¹

Proxy settings

The Philips Service Agent needs to be able to communicate with the Enterprise Server. Depending on the hospital network infrastructure a proxy server could be required to enable this communication. In this case the following details are required also:

- * Proxy address,
- * Proxy port (e.g. 8080),
- * Proxy Username (optional),
- * Proxy Password (optional).

Testing the connection:

Testing whether a connection between the Philips Service Agent and the Enterprise Server could be made over the network is done in the following way:

- * Open a command prompt (Start -> Run... in the textbox enter 'cmd')
- * In the commandbox enter '**PortQry.exe -n ServerAddress -e 443 -nr**', where ServerAddress is the ip address you entered in 'Enterprise Server Details'
- * The response should look like this, all other responses point to a network problem:

Querying target system called:

ServerAddress

TCP port 443 (https service): LISTENING

[Return to step 60](#)

4.3.4.4 MR Permanent Key (step 61)

Select *Register Permanent Key*
 Enter Permanent Key, same as R2.6.3.x MR-Host:

[Permanent Key](#)

System Reference Number: 00000

Lock Type: 12101

Permanent Key:	<input type="text" value="####-####-####-####"/>
Comment:	<input type="text"/>

Click *Apply* → *Ok*

[Return to step 61](#)

4.3.4.5 MR Temporary Keys (step 62)

If applicable

Select *Edit Temporary Keys*
 Enter Temporary Key(s), same as R2.6.3.x MR-Host
 Click Activated Checkmarks

¹ The changes are immediately activated

Temporary Keys

System Reference Number: 00000
Lock Type: 12101

Temporary Key	Activated	Comment	Status
79rz3-ymhwx-pwu2p-dkenk	<input checked="" type="checkbox"/>		Expires 12-DEC-2007
bp6w3-puf3x-ywx2p-cz89k	<input checked="" type="checkbox"/>		Expires 12-DEC-2007

Click *Apply* → *Ok*
Close Window via click on

Return to step 62

4.3.4.6 MR Show Enabled Software Options

Select *Show Enabled Software Options* to check settings:

System Configuration

Apply OK Cancel

System Reference Number	Lock Type	Software Option	Expires
00000	12101	Basic SW	12-DEC-2007
		SMART-Scan spine	12-DEC-2007
		IHE Workflow	12-DEC-2007

4.4 APPLICATION USER ID'S

Application UserID	Initial Password ¹	Menu / Action
Administrator	password	Application administrator to manage application user settings.
MRUser	MRUser	Application user based upon "MR User" profile.

Table 8 Passwords pre-installed application users

4.5 USER CUSTOMIZATION

4.5.1 Language setup <EWS User> (step 64)

NOTES

See section 3.3.2 *Installation of Additional Languages (step 46) p. 41*, when required language is not installed during step 43 *Installation MR Application Software p. 64*

This procedure will change both Windows UI as MR application UI for <EWS User> ViewForum language settings for application users are described in user documentation.

login as MRUser or MRService

¹ See also section 6 Reference sheets

Select: *Windows Start* → *Settings* → *Control panel*
The Control Panel appears (see [Figure 3-5](#)).

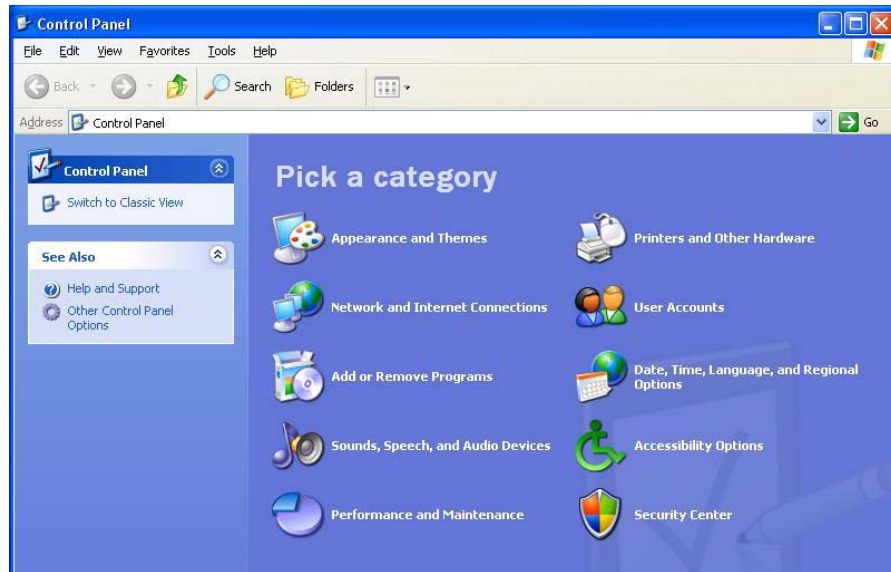
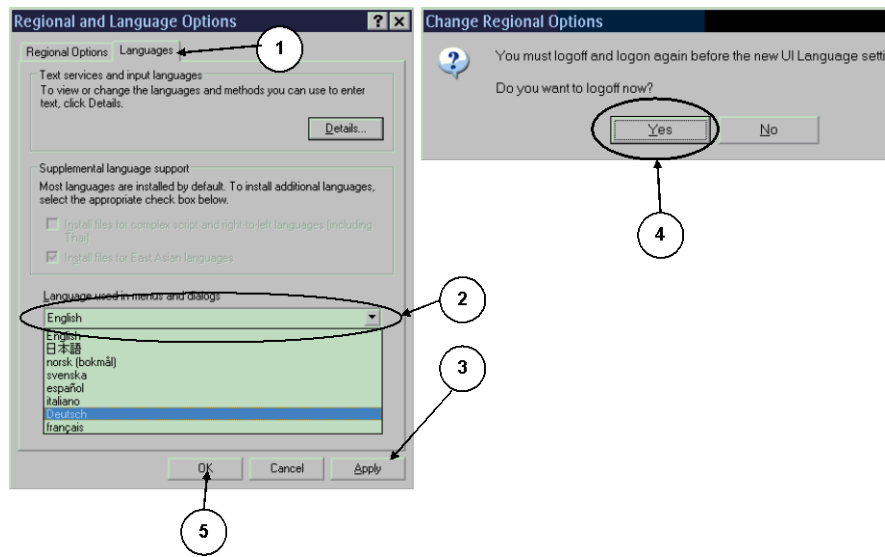


Figure 4-12 Control Panel Category View

Make sure "Category View" is selected.

Click: *Date, Time, Language, and Regional Options*
Select: *Regional and Language Options*



1. "Languages" tab
 2. Select Language used in menus and dialogs
 3. Click "Apply"
 4. Click "Yes" (Do you want to logoff now?) → "OK"
- Close Window

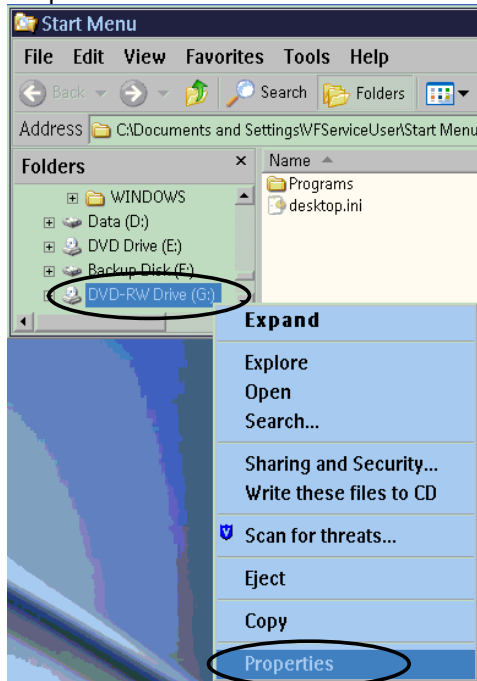
Repeat procedure for other users

[Return to step 64](#)

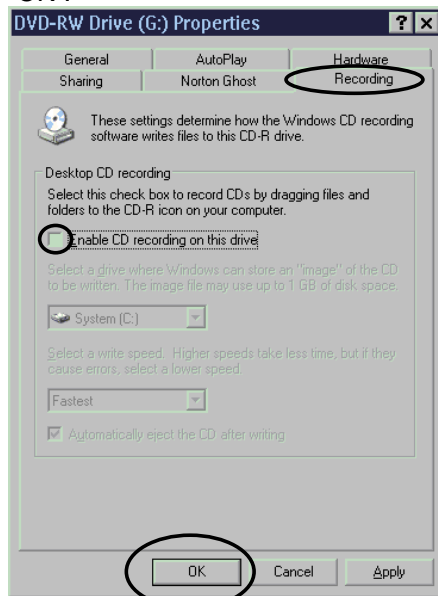
4.5.2 Disable Windows CD Recording (step 63)

Login as MRService
 Start Windows Explorer
 Right-Click on the DVD-RW drive (see Reference sheets)

Select Properties:



Select Tab "Recording"
 Disable Checkbox "Enable CD recording on the drive"
 Click "OK":



Close Window

[Return to step 63](#)

4.5.3 Set Files and Folders view (step 65)

The files and Folders view settings have been adapted for the Administrator user already. For the MRUser, MRService and Remote user these settings must be changed as well.

Perform the following steps for MRUser, MRService and Remote user

Logon as: MRUser
(for initial and final password: see [Reference sheets](#))

Set Files and folders view

Select: *View* from Windows Explorer menu bar
Enable: *Details*

Select: *View* from menu bar
Enable: *Status bar*

Select: *Tools* from menu bar
Select: *Folder Options*

"Folder Options"

Select: tab: *View*
Enable: *Show hidden files and folders*
Disable: *Hide extensions for known file types*
Press: Button: *Apply to all folders*
Press: Yes to confirm
Press: OK to close folder options panel
Close: Windows Explorer

Logoff: MRUser
Logon as: MRService or Remote user
(for initial and final password: see [Reference sheets](#))

Repeat the above steps.

Synchronize passwords on EWS and MR-Host

Users on MR-Host with an identical username as on EWS, need to have an identical password, to get access to the OfflineShare Folder (see section 4.7.3 p. 108).

Default EWS and MR-Host already have the same user "MRUser".

[Return to step 65](#)

4.5.4 Remove password expiry for (XP64) MRUser (step 66)

For security reasons, the XP64 password of the EWS users will expire after 90 days. This may not be desired or user friendly for some customers and therefore it can be changed.

WARNING

Changing the password policy may impair security of the EWS system, therefore this should be done with consent of the customer, making clear that any security risks are the responsibility of the customer.

Login as **MRService** (XP64)

Go to Start Menu → *Settings* → Control Panel → Administrative Tools → Computer Management

On the left panel select 'Local Users and groups'

On the right panel double-click 'Users'

Double-click '**MRUser**'

Select the checkbox 'password never expires'

Click 'Ok' to confirm and log out.

[Return to step 66](#)

4.5.5 Adjust Password Policies (XP64)

Logon as: MRService
 Click Start → Run...
 Enter secpol.msc
 Click + Account Policies → Password Policy
 Double-click Minimum password length
 Change to 0

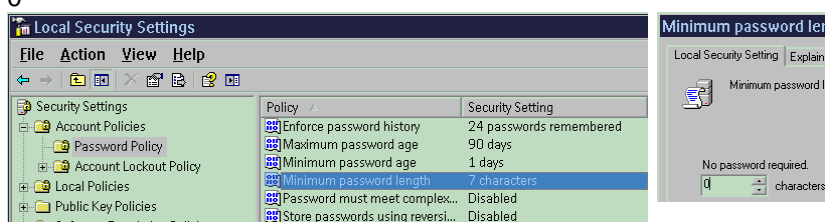


Figure 4-13 No password required

Double-click Maximum password age
 Change to 0

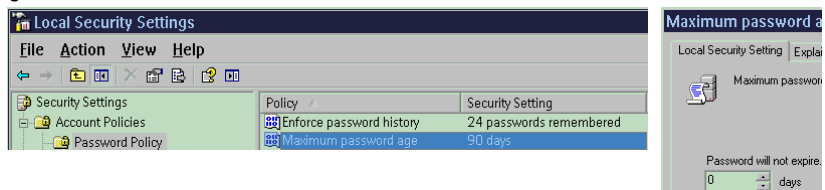


Figure 4-14 Password expiration disabled

Close Window

4.5.6 Set password user Remote (XP64) (step 67)

The password for user Remote needs to be set, before it can be used for remote support

Logon as: Remote, password ViewForum1
 Enter New password 2x
 Register new password on [Reference sheets](#).
 Communicate new password with your service organisation

Return to step [67](#)

4.5.7 Hide/unhide example application users (step 69)

In the EWS application software, there is one dedicated user defined for a typical EWS environment:

- MRuser (role MRUser)

Beside this user, there are typical example users:

- **CT/MR user (role Physician)**
- **CV user**
- **Surgery user**

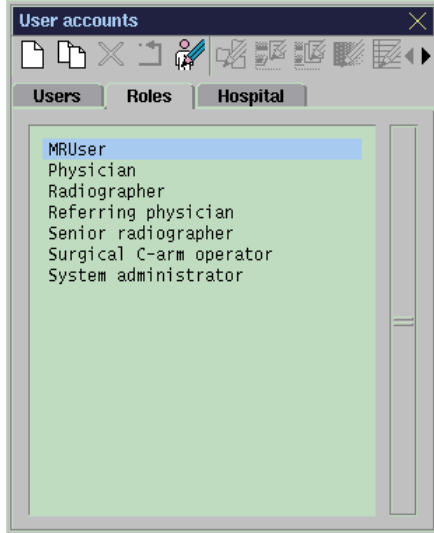


Figure 4-15 User roles

Login as MRService

Any, or all off these users can be enabled/disabled via the following procedure:

To enable (unhide) example users:

- Start: Extended MR Workspace
- Login as: administrator (password: password or Password1¹)
- Select: *Options* → *Edit user accounts* from the menubar

On the user accounts panel:

Double click: on desired user (e.g.: RF user):

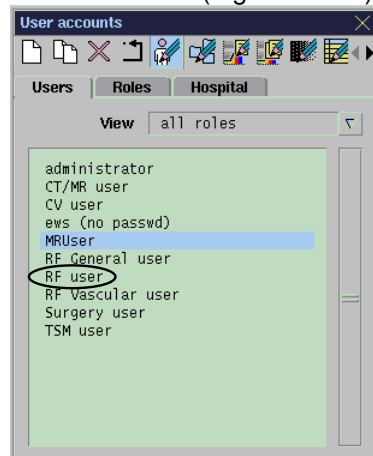


Figure 4-16 Example users

On the user profiles panel:

Remove: password (empty password field)

¹ Factory Image installed EWS

Select: a Log-on action (e.g. View default Worklist)
 Press: OK and close panels
 Close: Extended MR Workspace application
 It is now possible to logon with the example user
 To unhide more example users, the above steps must be repeated.

To disable (hide) users:

NOTE

*After the SW (re)installation, the example user MRUser is default enabled.
 This might be undesirable and can be corrected by following steps*

Start: Extended MR Workspace
 Login as: administrator
 Select: *Options* → *Edit user accounts* from the menubar

On the user profiles panel of the selected user:

Select: *Disabled (user hidden)* as Log-on action:

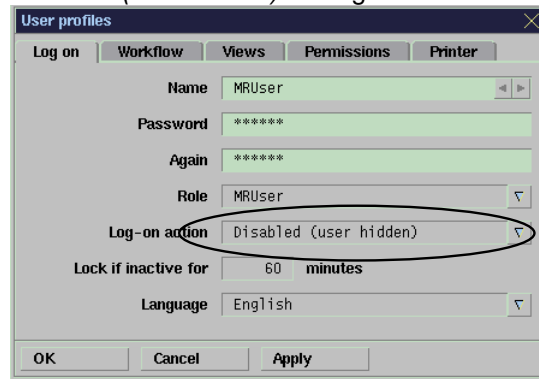


Figure 4-17 Disable example user MRUser (example)

Press: OK and close panels
 Close: Extended MR Workspace application

[Return to step 69](#)

4.5.8 Teaching files (Optional)

4.5.8.1 Introduction

In addition to the set of clinical demo DVDs that are delivered with the software, the EWS software contains a small selection of clinical teaching cases (see section [4.3.1.2 EWS Configuration Main panel explained p. 77](#) where “Create teaching Database” checkbox needs to be enabled). These are available in the “test repository” and need to be copied to the database to allow all viewing facilities. Also the Customer Service test images can be found here. The teaching cases allow immediate viewing exercises even without a modality being connected. In this way a user can quickly familiarize with the basic concepts and workflow characteristics of Extended MR Workspace R2.6.3.1.

4.5.8.2 Copy teaching Files to Image Database

Login as: **MRUser** (initial password: see [Reference sheets](#))

Application main menu:

Select: Data management ([Figure 4-18](#))

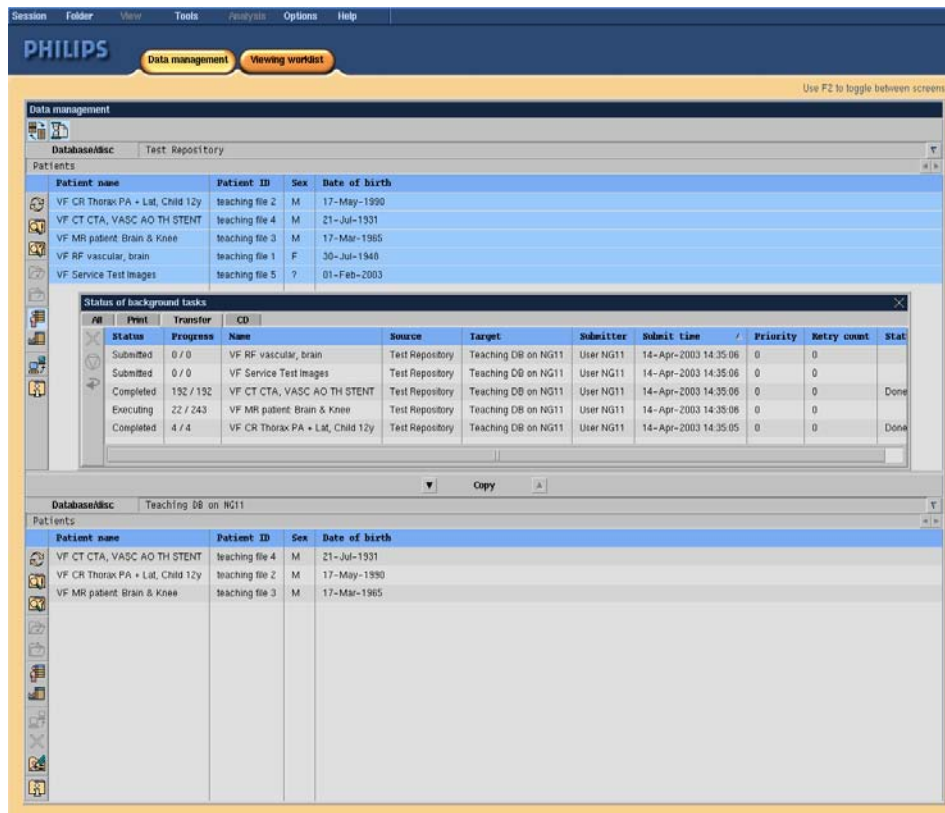


Figure 4-18 EWS data management panel

Select: Split View

Open Test Repository in one of the split views:

Select: *Test Repository* in the Database selection bar

Select: All files in Test Repository

Open the Teaching Database in the other split view:

Select: *Teaching Database* in the Database selection bar

Copy all files from Test Repository to the Teaching Database:

Press: "Copy to" arrow (See [Figure 4-18](#))

The files are copied to the EWS teaching database and are ready for use.

4.6 EWS CUSTOMIZATION SETTINGS

The "EWS Customization" can be found in the Viewing environment under "Options". The settings that can be adjusted depend on how you are logged in into the EWS (as a User or as an Administrator):

Login as: MRService (if needed)

Start: Extended MR Workspace

Login as: MRUser or as administrator

Select: *Options* from menu bar

Now you can customize for example auto-push and auto-delete settings, print and display protocols, window presets, toolbars and work lists here.

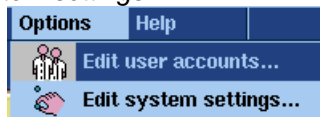
Some more specific information about some of the Customization settings can be found below. Also see Extended MR Workspace R2.6.3.1 Instructions for Use.

4.6.1 Check OpenGL support settings (step 70)

Check “Use for computation of 3D Images” checkbox is set.

Login as: MRService (if needed)
Start: Extended MR Workspace

Login as: MRUser or as administrator
Select: *Options* from menu bar
Select: *edit system settings*:



Select: Tab: *Video Board Settings*

Check/

Select: Video Board from the supported Boards list¹

Check: “Use for computation of 3D images”:

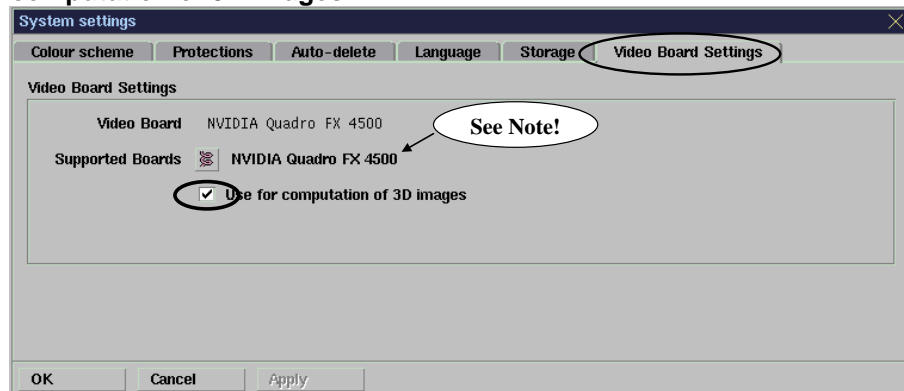


Figure 4-19 Computation for 3D Images setting

Select: Apply → OK

NOTE

Make sure that:

The Supported Boards displays a video board.

The Unified back/depth buffer option is turned off (default), as described in 3.3.19 p. 62

[Return to step 70](#)

¹ Extended MR Workspace R2.6.3.1 is delivered with a Video card which supports OpenGL. Upgraded ViewForums might not support OpenGL.

4.6.2 Auto-push to PACS settings (step 71)

The auto-push function sends the delta information of a case to the destination node on the moment the case is closed (e.g. when closing EWS or when switching to a new case). Although almost all nodes can be configured as an auto-push node, it only makes sense to do so for an archive.

Workflow example when a PACS is configured as auto-push node:

case is retrieved from the PACS
 case is diagnosed and captures are added
 case is closed.

On this moment the newly added captures are sent to the PACS.

Customization of the auto-push setting can be done as follows:

Login as MRService (if needed)
 Start: Extended MR Workspace
 Login as: MRUser or as administrator
 Select: *Options* from menu bar
 Select: *edit system settings*
 Select: Tab: *Storage*



Figure 4-20 Auto push

[Return to step 71](#)

4.7 FINAL CUSTOMIZATIONS

4.7.1 McAfee Virus scanner setup

Login **MRService User** + <Password> on EWS

Right-Click McAfee icon in System tray:



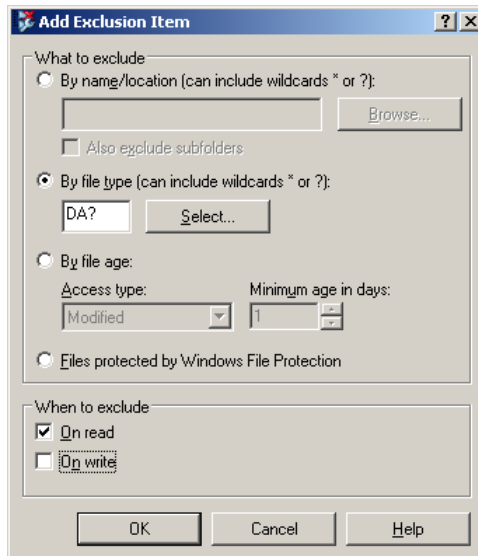
Click **On-Access Scan Properties** → **All Processes** → **Detection Tab** → **Exclusions...** → **Add...**

Select **By file type**

Enter **DA?**

Disable checkbox **"On write"**

Leave checkbox "On read":



Click "Ok" → "Ok"

4.7.2 Barco Monitor Calibration (step 72)

The Operator console calibration needs to be repeated every 6 month's.

Login **MRService** + <Password> on EWS

Connect Barco Calibration Device on front USB-port.

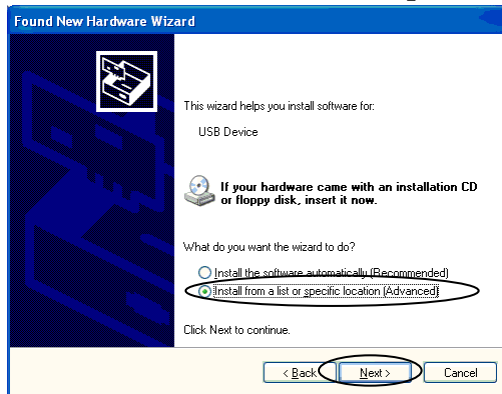
Note

First-time connected, the Barco sensor is identified as New Hardware:

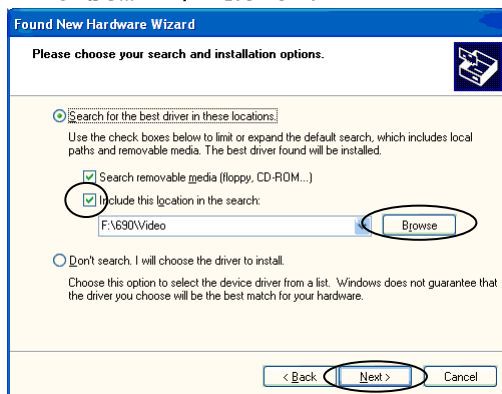
Click "No not this time" → "Next"



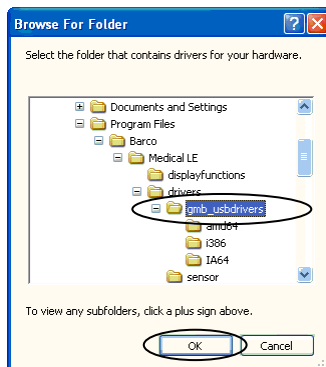
Click "Install from a list or specific location (Advanced)" → "Next":



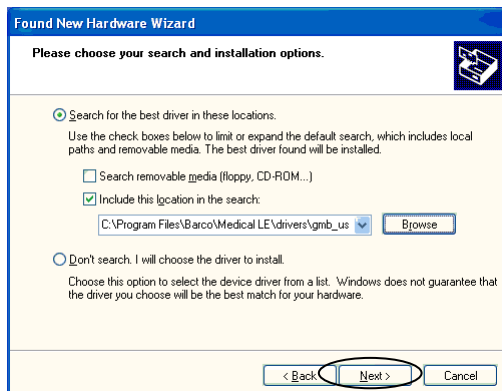
Click "Browse..." → "Next":



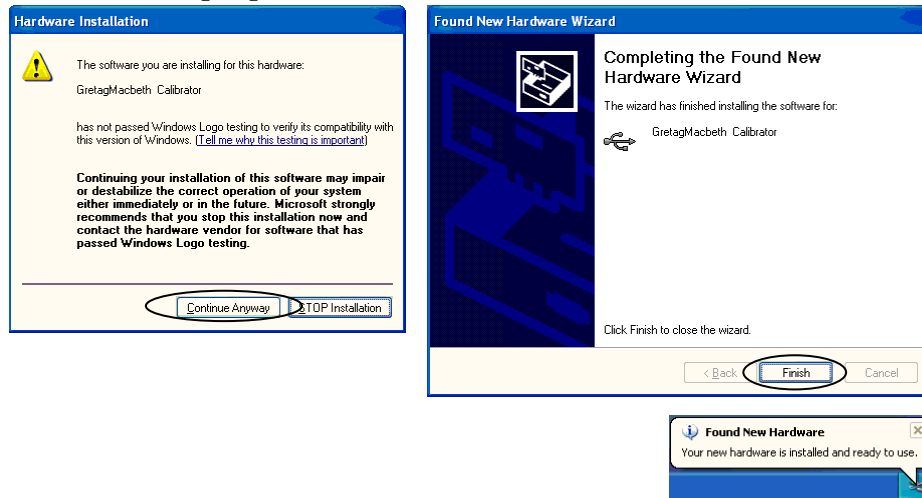
Select "C:\Program Files\Barco\Medical LE\Drivers\gmb_usbdrivers"
Click "OK":



Click "Next":



Click **"Continue Anyway" → "Finish"**:

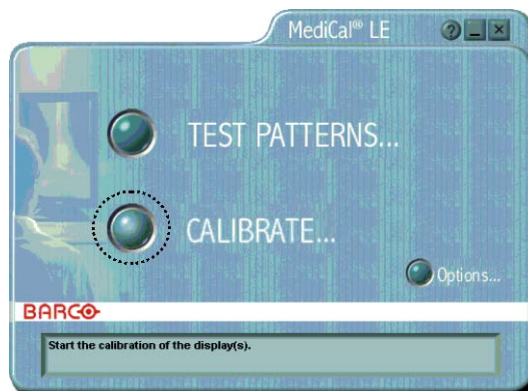


Continue with the actual calibration.

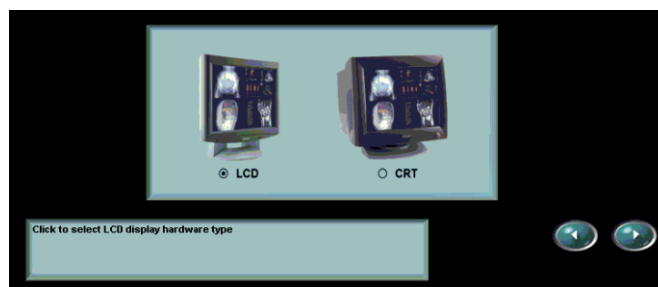
Double-Click **"Medical Le" Icon on Taskbar:**



Click **Calibrate...**:



Click **"LCD"**



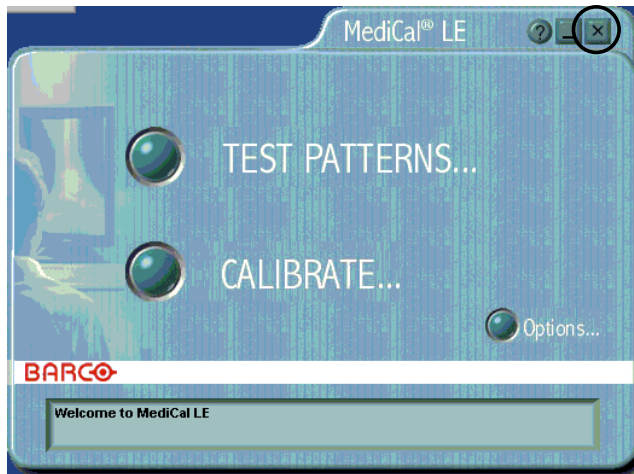
Click **"NEXT"**

Follow instructions on screen to perform calibration.

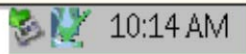
Click



To Close Barco tool (Note: calibration is lost when Barco Tool is not closed before you logoff)



MediCal LE: calibration is enabled



After calibration:

[Return to step 72](#)

4.7.3 Map Offlineshare for Examcard Offline Editor (ECOLE) (step 73)

CAUTION

On MR-Host the EWS IP-name must be identical with the EWS computer name and vice versa (see also section 3.3.18 Network Configuration Example p. 59)

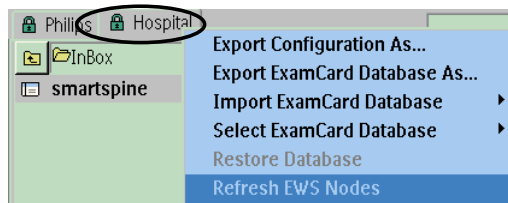
On R2.6.3.x MR-Host:

For every <MR User> on MR-Host, configure ECOLE:

Go to Acquisition context

Right-click Examcard Hospital folder tab

Select Refresh EWS Nodes:



[Return to step 73](#)

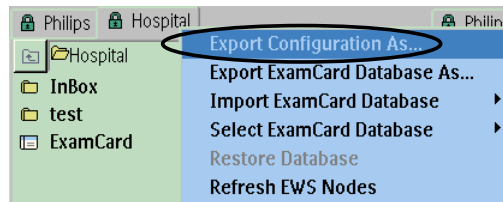
4.7.4 Transfer of R2.6.3.4 MR-Host Configuration to EWS R2.6.3.1 (step 73)

CAUTION

Transfer Configurations are restricted to:
 R2.5.3.x MR-Host → R2.5.3.1 EWS only
 R2.6.1.x MR-Host → R2.6.1.0 EWS only
 R2.6.3 SP1, SP2, SP3 MR-Host → EWS R2.6.3.0 only
 R2.6.3.4 MR-Host → EWS R2.6.3.1 only

On R2.6.3.x MR-Host (Acquisition context):

Right-click Examcard folder tab
 Select Export Configuration As...



Browse to Offlineshare drive on EWS:

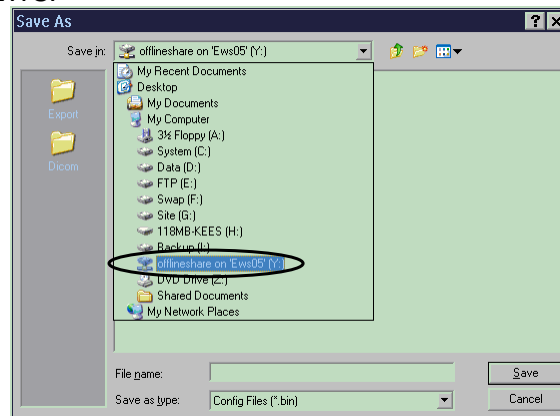


Figure 4-21 Mapped offlineshare drive on EWS

Enter File name: **MWS09_r261** (example)

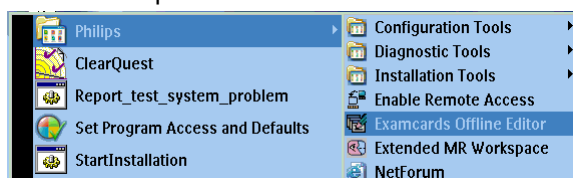
Select Save

On EWS R2.6.3.1:

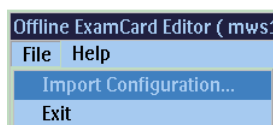
Login as MRService

Start ECOLE

Click Start → Philips → Examcards Offline Editor:

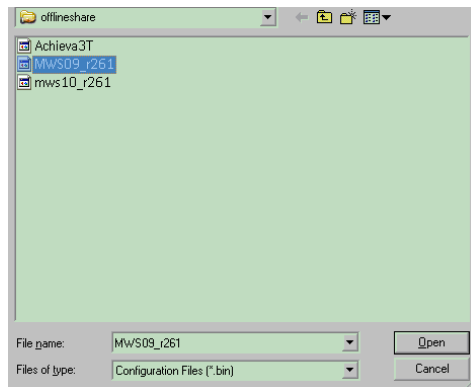


Click File → Import Configuration...:



Browse to "offlineshare"

Select Configuration file → Open



Return to step 73

4.7.5 Transfer of R2.6.3.x MR-Host Examcard Database to EWS R2.6.3.1 (step 73)

CAUTION

Transfer Examcards (Database):

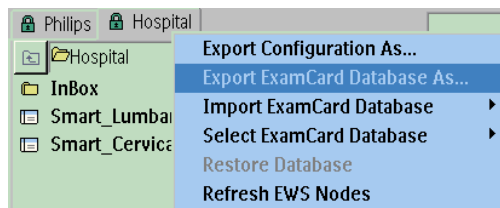
R2.5.3 → R2.6.3.1

*R2.6.3.1 **not** → R2.5.3*

On R2.6.3.x MR-Host (Acquisition context):

Right-click "Hospital" Tab

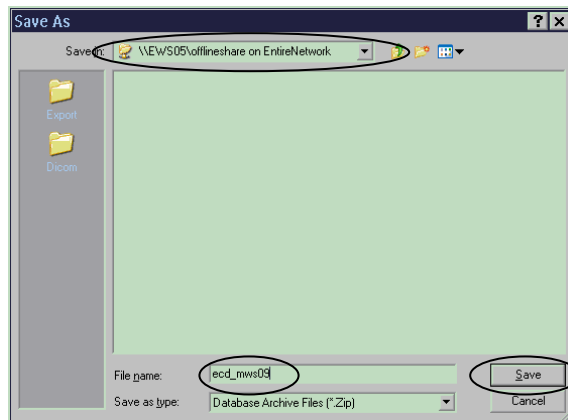
Select "Export Examcard Database As...":



Browse to Offlineshare folder on EWS R2.6.3.1

Enter File name

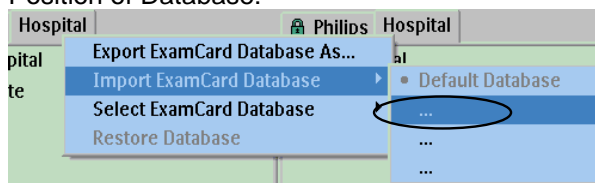
Click Save:



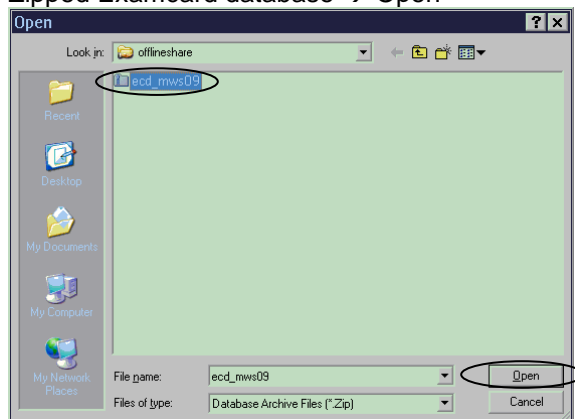
13:39 Export of Database Completed

On EWS R2.6.3.1:

Right-Click "Hospital" Tab
Select "Import Examcard Database"
Select Position of Database:



Select Zipped Examcard database → Open



13:48 Importing Database. Please wait.

Return to step 73

4.7.6 Word Templates (Optional)

Some EWS applications such as Radiology Reporting and Cardiac Reporting make use of the Word templates installed on the system. These templates can be modified with hospital specific information.

These templates are located in the corresponding subdirectories of:
D:\MyPhilipsDocuments\Templates

The Extended MR Workspace R2.6.3.1 uses the templates listed in these sub-directories for creating reports.

In case the factory defaults must be restored, these templates can be copied to the corresponding subdirectories of:

C:\Program Files (x86)\PMS\ViewForum\Templates

4.8 EXTENDED DICOM SETTINGS (INFORMATIONAL)

The EWS DICOM capabilities are specified by The "DICOM Conformance statement" bulletin. There is also a document available "How to read a DICOM Conformance Statement".

SCU (Service Class User) = Client

SCP (Service Class Provider) = Server



4.8.1 Application Entity

A major issue in networked distributed applications is how applications can contact each other. Arrangements and agreements have to be made to address the counterpart about various topics before SOP instances can be exchanged. In DICOM Network partners recognize each other via Application Entities. An Application Entity is that part of a process that deals with the communication. It contains the Service User of the process, containing functions to set-up connections and to transfer the information. An Application Entity has a name (Application Title) that has to be used when setting up the communication.

Example

The EWS will use this "AE title" to address the remote DICOM node. Refer to the DICOM Conformance statement of the remote node for this name.

4.8.2 Transfer Syntax's

Transfer Syntax is an attribute of a Presentation Context (e.g. byte ordering, compression), one or more of which are negotiated at the establishment of an Association between DICOM Application Entities.

Little Endian

Little Endian byte ordering is defined as follows:

In a binary number consisting of multiple bytes (e.g. a 32-bit unsigned integer value, the Group Number, the Element Number, etc.), the least significant byte shall be encoded first; with the remaining bytes encoded in increasing order of significance.

In a character string consisting of multiple 8-bit single byte codes, the characters will be encoded in the order of occurrence in the string (left to right).

Implicit:

DICOM defines default Transfer Syntax, the DICOM Implicit VR Little Endian Transfer Syntax that shall be supported by every conformant DICOM Implementation.

Explicit:

This Transfer Syntax applies to the encoding of the entire DICOM Data Set. This implies that when a DICOM Data Set is being encoded with the DICOM Little Endian Transfer Syntax some requirements (according the DICOM standard) shall be met.

NOTE

When Configuring a DSI as a DICOM node, the extended DICOM settings for this external DICOM node must be changed:

For both SCU and SCP settings (see panels of [Figure 4-22](#) and [Figure 4-23](#)) all Endian checkboxes must be activated, except the "Explicit little Endian", this one must be disabled.

Big Endian

Big Endian byte ordering is defined as follows:

In a binary number consisting of multiple bytes, the most significant byte shall be encoded first; with the remaining bytes encoded in decreasing order of significance.

In a character string consisting of multiple 8-bit single byte codes, the characters will be encoded in the order of occurrence in the string (left to right).

JPEG

DICOM provides a mechanism for supporting the use of JPEG Image Compression through the Encapsulated Format

NOTE

The context where the usage of lossy compression of medical images is clinically acceptable is beyond the scope of the DICOM Standard. The policies associated with the selection of appropriate compression parameters (e.g. compression ratio) for JPEG lossy compression is also beyond the scope of this standard.

4.8.3 Transfer Settings

These settings are applicable to all transfers, import or export, which are initiated by this DICOM node as SCU. If the DICOM node is unknown, then keep the default settings unchanged with 1 exception: Do not allow the Private attributes; these must be switched off.

Check Level: Two checks may be enabled:

There are 4 options:

Allow all attributes

Allow only *ViewForum* Attributes

Allow only PMS attributes

Allow only DICOM attributes

There are 3 options:

No syntax checking

Check mandatoriness and type

Full syntax checking

Define the level of checking against the DICOM specification.

As a result of these checks the following actions and / or logging can be selected:

Check Actions: the response on a failed check can be chosen:

Repair invalid attributes: try to repair any missing or superfluous attributes or syntax errors (e.g., construct DICOM attributes from PIIM/EVIIM attributes).

Stop after invalid image or Skip invalid images: Defines what to do when invalid images (with missing or superfluous DICOM attributes or syntax errors) are encountered. Possibilities are to stop the transfer or to skip the invalid image and proceed with the next

These actions can be combined, which means that if the modification fails the image will be rejected.

Additional Logging

Logging of errors is always done. When setting up communication with a DICOM node for the first time, set the following two logging options to "on"; after communication is established you may switch them to "off":

Log invalid attributes: log all missing or superfluous DICOM attributes or syntax errors to the log file: D:\Log\Logging\evserver.log (en/of ViewForumEMR.log)

Log all DICOM messages: all DICOM command and data objects are logged into text files in directory: D:\Log\Logging\DicomRetrieve (or DicomStore).

Examples of DICOM settings and the results

Allow private attributes	Repair invalid images	invalid images	Result
Allow all attributes	On	Stop after invalid image	Stop transfer from this node at an image with an invalid attribute, which cannot be repaired.
Allow only ViewForum attributes	On	Stop after invalid image	Stop transfer from this node at an image with an invalid attribute which cannot be repaired and filter non-ViewForum (EVIIM/PIIM/DICOM) attributes.
Allow only PMS attributes	Off	Skip invalid images	Skip images with an invalid attribute and filter non-PMS (PIIM/DICOM) attributes.
Allow only DICOM attributes	On	Skip invalid images	Skip images with an invalid attribute which cannot be repaired and filter non-DICOM attributes.

Settings as SCU

SCU Store SOP Classes

- CR Image
- CT Image
- CT Synthetic Image
- US Multi Frame Image
- MR Image
- MR Synthetic Image
- NM Image
- US Single Frame Image
- SC Image
- XA Image
- RF Image
- X-ray Specialised
- Volume
- 3D Volume Object
- Surface
- Cardio
- MRCardio Analysis
- CX Image
- CX Synthetic Image
- DX Image
- Presentation State
- Perfusion
- Perfusion Analysis
- Enhanced MR
- Spectroscopy
- Raw Data
- MG Image Presentation
- MG Image Processing

SCU Move SOP Classes

- Patient Root Move
- Study Root Move

SCU Transfer Syntaxes

- Explicit Little Endian
- Explicit Big Endian
- Implicit Little Endian
- US JPEG Lossy Baseline

Transfer Settings

Check Level:

- Allow all attributes
- No syntax checking

Check Actions:

- Skip invalid images
- Repair invalid images

Additional Logging:

- Log invalid attributes
- Log all DICOM messages

Additional settings:

- MR Image 8bit allowed
- Add group length attributes

SCU Find SOP Classes

- Patient Root Query
- Study Root Query

Exit

Figure 4-22 Extended DICOM SCU settings for External DICOM nodes

When configuring a Classic EasyVision as an external DICOM node:

Make sure that the presentation state of the SCU Store SOP classes is disabled.

When Configuring a DSI as an external DICOM node:

Make sure that all Endian checkboxes are activated, except the “Explicit little Endian”, this one must be disabled.

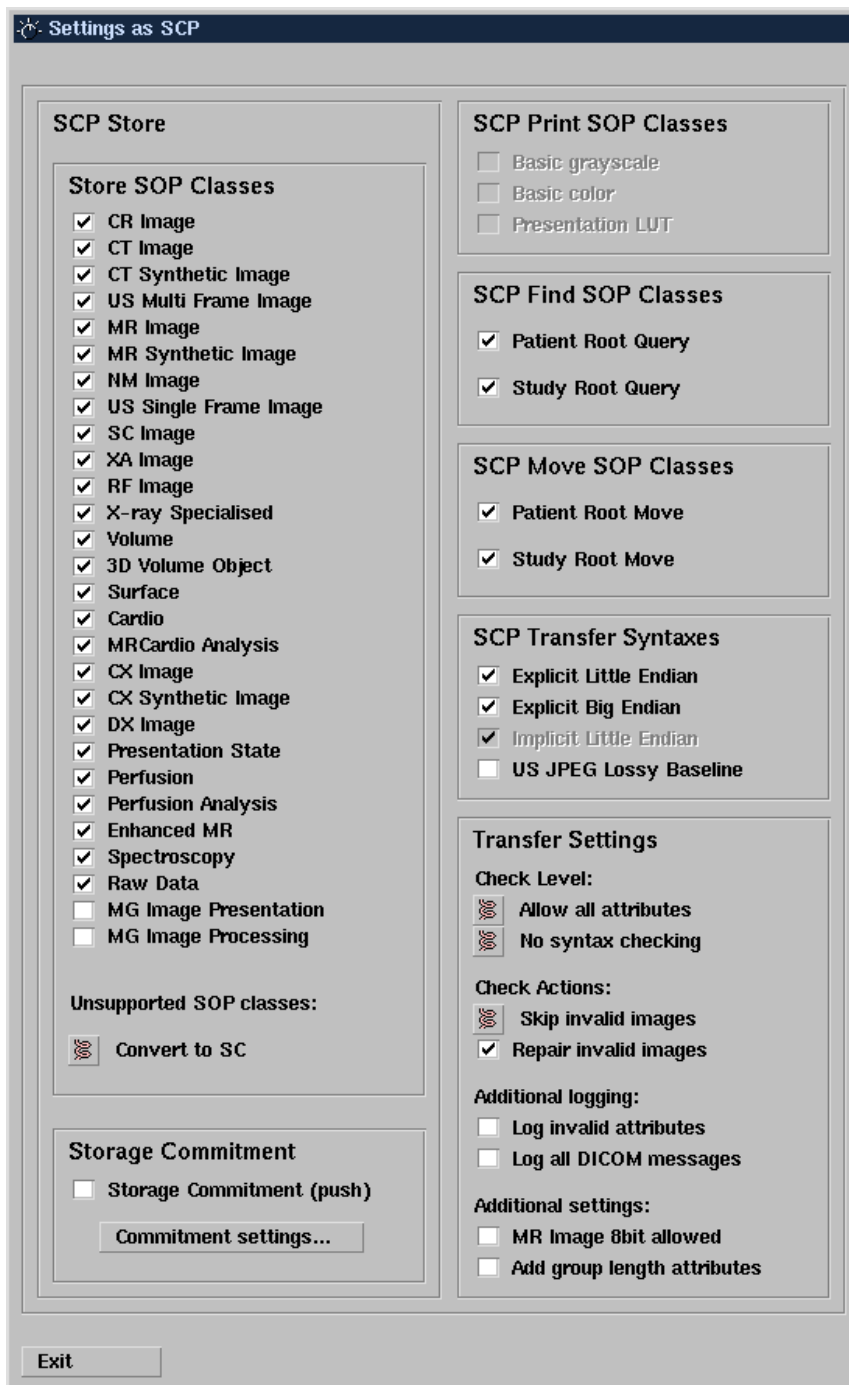


Figure 4-23 Extended DICOM SCP settings for External DICOM nodes

When configuring a work list on a remote node (PACS):

Make sure that the SCP Find SOP Classes: Patient Root Query is disabled.

When configuring a Classic EasyVision as an external DICOM node:

Make sure that the presentation state of the SCP Store is disabled.

When Configuring a DSI as an external DICOM node:

Make sure that all Endian checkboxes are activated, except the "Explicit little Endian", this one must be disabled.

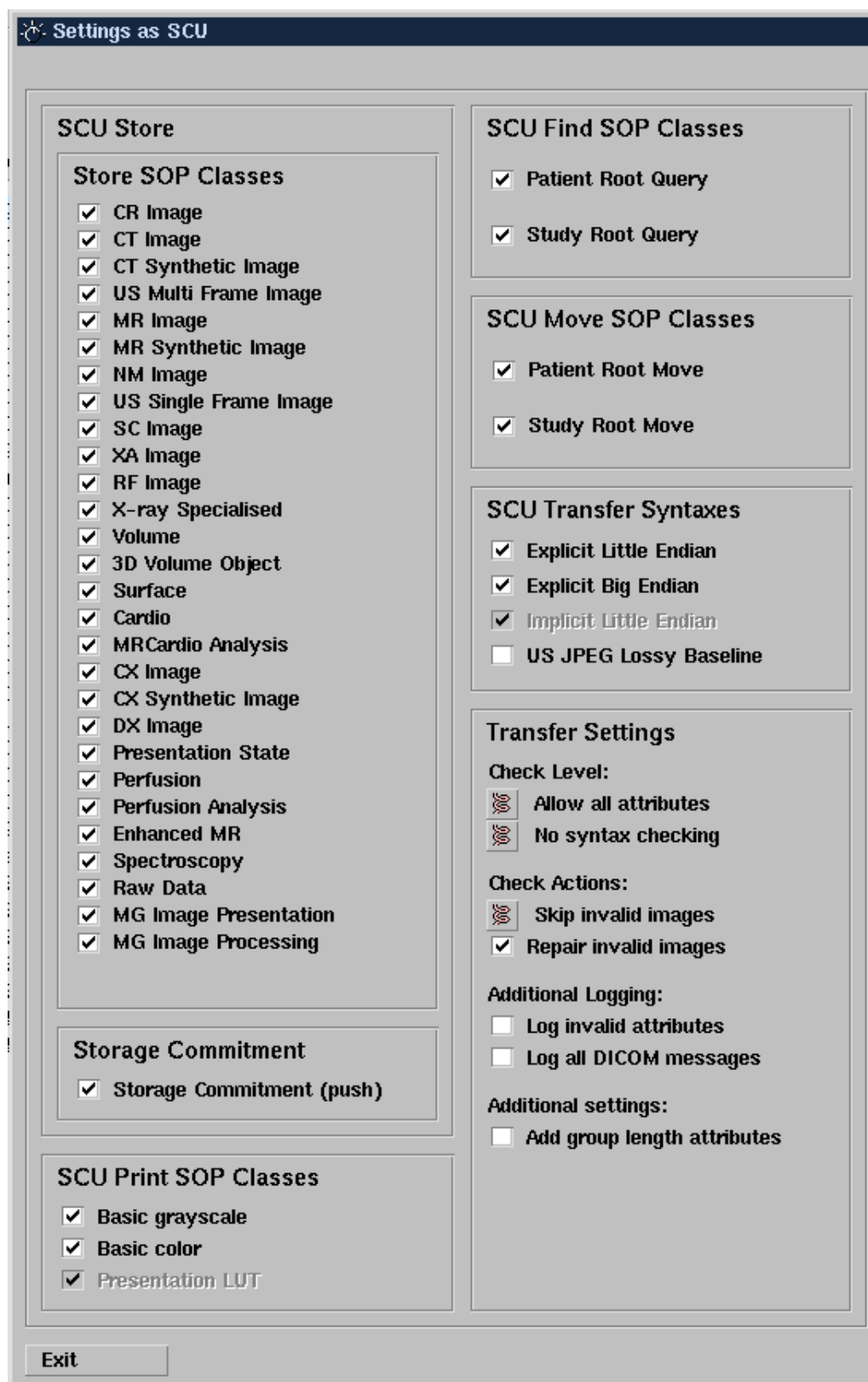


Figure 4-24 Extended DICOM SCU settings for the Extended MR Workspace R2.6.3.1 node



Figure 4-25 Extended DICOM SCP settings for the Extended MR Workspace R2.6.3.1 node

4.8.4 Store SOP Classes

Select the SOP classes as described by the DICOM Conformance document of the concerned DICOM node. If this document is not available then switch off all image types, which do not belong to the involved modality.

The "Unsupported SOP classes" setting determines what to do with images of a not supported SOP class. This setting is only available in the SCP settings panel of the DICOM node and possible options are "Convert to SC" and "Do not export".

4.8.5 Find & Move SOP Classes

Three standard Query/Retrieve Information Models are defined for Extended MR Workspace R2.6.3.1. Each Query/Retrieve Information Model is associated with a number of SOP Classes. The following two hierarchical Query/Retrieve Information Models are defined:

Patient Root
Study Root

Patient Root

The Patient Root Query/Retrieve Information Model is based upon a four level hierarchy:

Patient
Study
Series
Image

The **Patient** level contains the identification and demographic information about the patient to which a study belongs. Because more than one study of a patient can exist, the patient level is the highest level (when all the information collected for a single patient is taken in account).

A **Study** is the result of a request for a certain type of examination. All the activities in a radiology department centre on the correct handling of the study. At study level identification information is kept and it can also contain references to information related to the same study in an administration system.

Below the study level all the **Series** of images are collected. The Series level identifies the modality type creating the images; the date/time when the series was made, and details about the examination type and equipment used.

The lowest level is the **Image** level. Each image contains acquisition and positioning information as well as the image data itself. Depending on the type of modality, the image level contains data for one image (single), two images (biplane system) or a collection of images taken in a single gathering of image data in a relative short period of time (multi-frame images).

The use of multi-frame images saves duplication of information at the higher levels, but is only possible when the relationship between the frames can be described in a simple manner. For example, the increments in the movements of the system and time are equal for all the single frames.

Study Root

The Study Root Query/Retrieve model is identical to the Patient Root Query/Retrieve Model except the top level is the study level. Attributes of patients are considered to be Attributes of studies.

4.8.6 Storage Commitment

Storage commitment is a DICOM mechanism to check if sent images are correctly stored in an archive. The Extended MR Workspace R2.6.3.1 supports Storage commitment as SCU what means that Extended MR Workspace R2.6.3.1 can ask a DICOM archive whether the sent images were correctly received. The Storage commitment option has also been added to the SCP panel of the DICOM node. The conditions under which the archive will send the storage commitment result are described in the DICOM Conformance of the DICOM archive. The time between sending the storage commitment request and receiving the storage commitment result can be several hours. To keep control over the system resources it is possible to configure the expiration time of a commitment request in seconds. A value of -1 means infinite waiting time.

4.9 LAST CHECKS/CUSTOMIZATION

When the software has been installed and customized:
Reconfigure the XP64 printer an the routing address

If the virusscanner is not connected to the internet: disable the auto-update function

Section 5

Service and Maintenance

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5 SERVICE AND MAINTENANCE

5.1 HAND-OVER PREPARATION

5.1.1 Introduction

This section describes the activities that can be performed to verify correct operation of Extended MR Workspace R2.6.3.1 when the installation is completed. The actions described are meant to show the customer (and yourself) that Extended MR Workspace R2.6.3.1 itself works fine and that the communication with systems connected also is o.k.

Please report the results of these actions on the Hand-over checklist supplied in [Section 6](#) of this manual.

5.1.2 User Documentation / Information

- Hand over to the customer the User Documentation on CD-ROM, DVD-ROMs with Demo cases, Quick Reference card and Quick Reference guide and explain what is what.

5.1.3 Completeness of delivery

- Show that what is delivered is complete and conform the customer order / delivery papers. E.g. Type of Extended MR Workspace R2.6.3.1, Software packages, Hardware options, Demo packages, etc.

5.1.4 Extended MR Workspace R2.6.3.1 Functionality

- Show proper operation of basic Extended MR Workspace R2.6.3.1 functionality and customer settings.

5.1.5 Power On/Off

- Show how to start and shut down Extended MR Workspace R2.6.3.1.
- Show how to login to Windows XP x64
- Show how to login to the Extended MR Workspace R2.6.3.1 application

NOTE

It is recommended to restart once every day.

5.1.6 Data Management

- Show how to use Data Management (query, copy, delete, split view)
- Load (test) images into the database.

- Copy Images from / to CD-Recordable or DVD-recordable

NOTE

In some cases it is NOT possible to read DVDs (incl. burned DVDs) in the DVD Recorder. In this case place the DVD in the DVD reader!

- Explain database protection mechanism.

NOTE

For making use of the Extended MR Workspace R2.6.3.1 AutoDelete function the power saving settings must be disabled. For instructions how to disable the power saving settings see [3.3.13 Check Power settings adapter connected with Hospital Network p. 55](#)

5.1.7 Customization Environment

- Show Customization environment.
- Explain how to add and change user settings
- Explain how to change hospital settings
- Explain how to customize the toolbars

5.1.8 Applications

- Show how to switch between the Viewing environment and Data Management / Worklist
- Show how to start analysis packages

5.1.9 Network Communication

5.1.9.1 Communication with configured nodes

- Get/Send data sets from/to all systems connected to Extended MR Workspace R2.6.3.1.
- In the Extended MR Workspace R2.6.3.1 Data Management → background tasks see if the job is executed.
- Check in Data Management facility if all images have arrived.

5.1.10 Printing

- Print to all printers connected and check if the printout is correct.

5.1.11 EWS R2.6.3.1 Maintenance Menu

- Explain relevant functions of the EWS R2.6.3.1 Maintenance Menu to hospital engineer/customer.

5.1.12 Application Training / Support

- Inform the customer about Application training and support possibilities.

5.1.13 Administer the EWS for Remote Support (RSN) (step 9)

The following RSN applications are supported:

- Ping system,
- Port test,
- Telnet SSH2,
- SecureFTP,
- Remote Desktop Sharing (lots/to)

To get this functionality it is needed to administer the EWS via the RSN website.

Create a new Site Survey for a new EWS via the Remote Service Network - Data Administrator Website. Important is that for the EWS you have to configure Modality to **MR** and System Type to **781400-Extended MR WorkSpace**.

1. Login to the RSN Data Admin Website and select Site Survey → Start New Site Survey:



2. In the Site Survey Form:

1. Click on “Create New Site Survey”
2. Fill in the questions until you reach the Site Survey Form.
3. Fill in all the fields on the form.
4. Modify
 - the Modality to **MR**
 - the System Type to **781400-Extended MR WorkSpace**.
 - if required, the other fiels like Reference number, System Description, System Configuration, Host name, SAP site number, etc.
5. Click on the ‘Generate Label’ button.
6. Click on the ‘Update System’ button.
7. Click on the ‘Send for Approval’ button.

3. Fill in the preferred System Label on the RSN with format Modality_SSSSSS_RRRRRR_HostID, where Modality is like MR, SSSSSS is the serial number of SAP ID (preference for SAP ID). RRRRRR is the System Reference Number for MRs
4. HostID is a custom string that can be attached to the end preferably something like MR30T_EWS, where MR30T is the direct linked MR system, in this example an Achieva 3 T system. E.g. MR_SAP number_17001_MR30T_EWS1.

Return to step 9

5.2 DELL SERVICE TAG & EXPRESS SERVICE CODE (STEP 13)

When system is up and running:

Reboot: *Start* → *Shut Down* → *Restart*

Press: **F2** during initialising of the system to enter the system BIOS

Select: System → System Info

Note

write down the Service Tag and the Express Service Code on the Reference sheet of [Section 6](#).

Return to step 13

5.3 DELL SERVICE TRANSFER TO COUNTRY OF DESTINATION (STEP 14)

PMS ships DELL products including a service agreement (Up sell services)

For warranty transfers from one region or country to another, up sell services shall be transferred.

Process:

5.3.1 Service transfer to a 'Direct DELL Support' Country

In case your country is serviced by a local DELL support organization, you need to complete the following internet form for the service tags to be transferred:

http://www.dell.com/us/en/dhs/topics/sbtopic_016_ccare.htm

5.3.2 Service transfer to an 'Indirect DELL Support' Country

In case your country is serviced by a 3rd party agent, licensed by DELL, you need to complete the following internet form for the service tags to be transferred:

http://www.dell.com/downloads/global/support/emea_indirect_tag_transfer_request_form_v1.0.doc

This form has to be sent by e-mail to: EDB_DELL_Tag_Transfer@Dell.com

The following countries need to transfer the service tags via this form:

Afghanistan, Albania, Algeria, Angola, Armenia, Azerbaijan, Bangladesh, Bahrain, Belarus, Benin, Bhutan, Bosnia, Botswana, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Christmas Island, Comores, Congo, Cote D'ivoire, Croatia, Cyprus, Djibouti, DRC, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, French Guyenne, Gabon, Gambia, Georgia, Ghana, Guadeloupe, Guam, Guinea, Guinea-Bissau, Hungary, Iceland, Indonesia, Israel, Jordan, Kazakhstan, Kenya, Kiribati, Kosovo, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Macedonia, Madagascar, Malawi, Mali, Malta, Maldives, Martinique, Marianas North, Mauritania, Mauritius, Mayotte, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Niger, Nigeria, Nouvelle Calédonie, Oman, Pakistan, Palau, Papua New Guinea, Philippines, Polynésie Française, Qatar, Réunion, Romania, Russia, Rwanda, Samoa, Solomon Islands, Sao Tome, Saudi Arabia, Senegal, Serbia, Sri Lanka, Montenegro, Seychelles, Sierra Leone, Slovenia, St Martin, Swaziland, Tajikistan, Tanzania, Tonga, Togo, Tunisia, Turkey, Turkmenistan, Tuvalu, UAE, Uganda, Ukraine, Uzbekistan, Vanuatu, Vietnam, Yemen, Zambia, Zimbabwe

5.3.3 Identifying the DELL Service tag of the system

The DELL service tag number is attached to the systems' case. An example is shown below:



Figure 5-1 Example of a DELL Service Tag

5.3.4 Filling out the transfer form

Fill out the original customer information as shown below. Of course you should enter the service tag applicable for your system. Next, fill in the hospital information below the “**Transfer To Location Information**”

Original Customer Information

Email Address: mr.helpdesk@philips.com
Original Owner: **Philips Healthcare Nederland B.V.**
Service Tag: **<Service Tag of the system>**
Country of Original Purchase: **Netherlands**

Transfer To Location Information

Enter the Customer's data (including physical address of the equipment) into the corresponding fields in the Transfer To location Information and Trade Compliance Information section.

For multiple service tags, click the appropriate link below:

- [→ Click here to enter a single service tag.](#)
- [→ Click here to enter up to 10 service tags.](#)
- [→ Click here to enter up to 50 service tags.](#)

* Indicates a required field.

Original Customer Information

* Email Address:

* Original Owner:

* Service Tag: System Type:
 - Select one -

* Country of Original Purchase:
 - Select one -

Please do not mix service tags that originate in multiple countries. Requests originating from multiple 'Country of Original Purchase' not allowed and will be returned to you for re-submission.

Service Level:
 - Select one -

Order or Invoice Number:

[Lookup #](#)

Transfer To Location Information

* Email Address:

* First Name:

* Last Name:

* Company:

Or individual's name if company does not apply.

* Address:

Figure 5-2 Example of transfer form

Return to step [14](#)

5.3.5 How to request maintenance support from DELL

In case of maintenance support needed from DELL you must provide besides the Dell Service Tag number (see Figure 5-1) the Dell Sales-Order number of those components that were added to the system by the PMG Medical IT. This Dell Sales Order number can be found at the bottom of the Dell system (see Figure 5-3 Example of DELL Ordernumber).

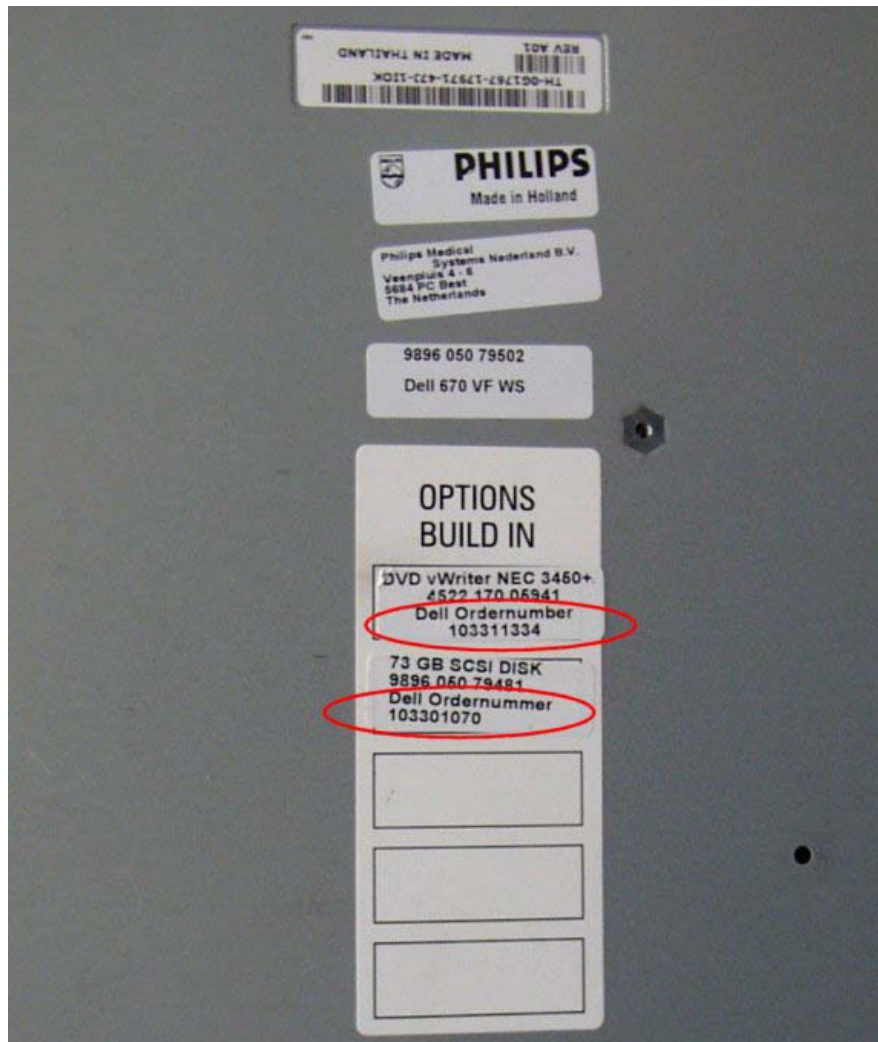


Figure 5-3 Example of DELL Ordernumber

5.3.5.1 Special phone number for selected EMEA countries

Per January 1st, 2009, Dell has installed a so-called “OEM queue” for Philips Healthcare. This team is providing assistance on all Dell Precision workstations (3x0 series, 6x0 series, T3x00 series and T7x00 series) installed in selected EMEA countries.

The phone number to dial is: +44 (0) 844 444 3354

All team members are trained on the Philips Healthcare-specific agreements and as such will be able to provide more efficient and effective support when called upon for assistance.

NOTE

The team takes all questions in English only.

The applicable EMEA countries are:

Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Monaco, The Netherlands, Norway, Poland, Portugal, Slovakia, South Africa, Spain, Sweden, Switzerland, Vatican City, Italy and the United Kingdom.

NOTE

*For the countries NOT listed above, this new procedure does NOT apply.
Your local Dell organization needs to be contacted in case of problems
with a Precision workstation.*

5.4 SERVICE MENU ITEMS

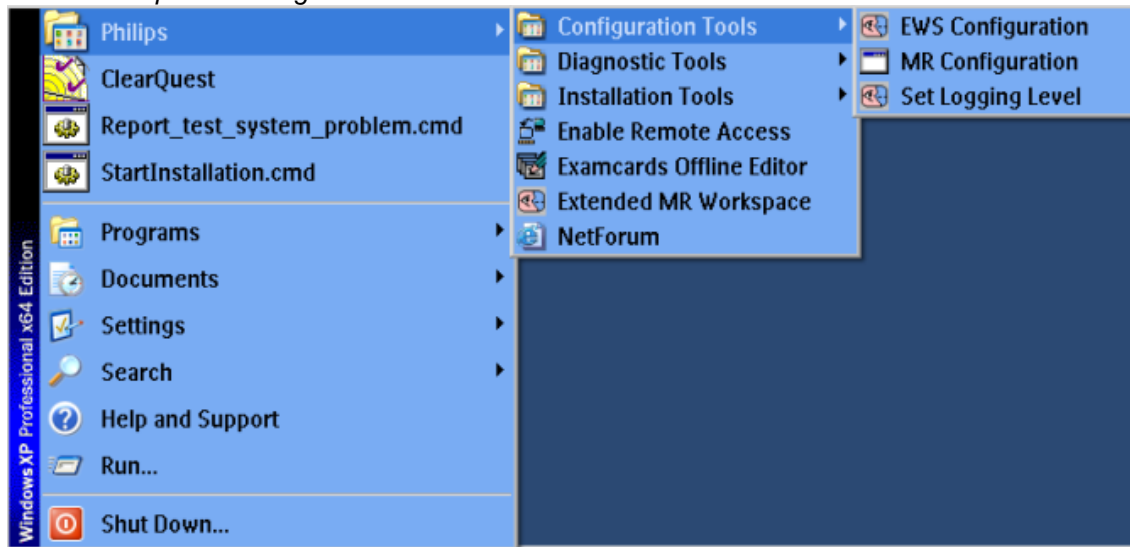
Several service tools are available.

Login as: MRService
Select: Start → Philips

In the following paragraphs the Configuration, Diagnostic and Installation tools will be discussed.

5.4.1 Configuration Tools

Login as: MRService
Select: Start → Philips → Configuration Tools



Start EWS Configuration:

This starts the EWS Configuration tool. For more information about Configuration, see section [4.3.1.1 Start EWS Configuration \(VF\)](#) p. [76](#)

Press: Configuration

Start MR Configuration:

This starts the MR Configuration tool. For more information about Configuration, see [4.3.4 Start MR Configuration](#) p. [90](#)

Press: Configuration

Set Logging Level:

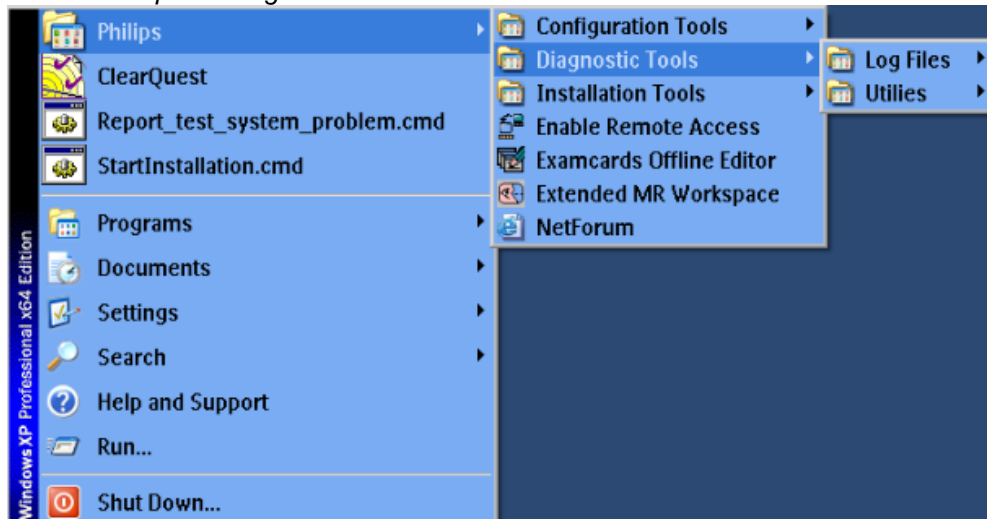
Press: Set Logging Level

To select whether or not the INFO log messages and/or the performance log messages must be logged.

For more information about logfiles, see [5.5 Logging](#) p. [136](#).

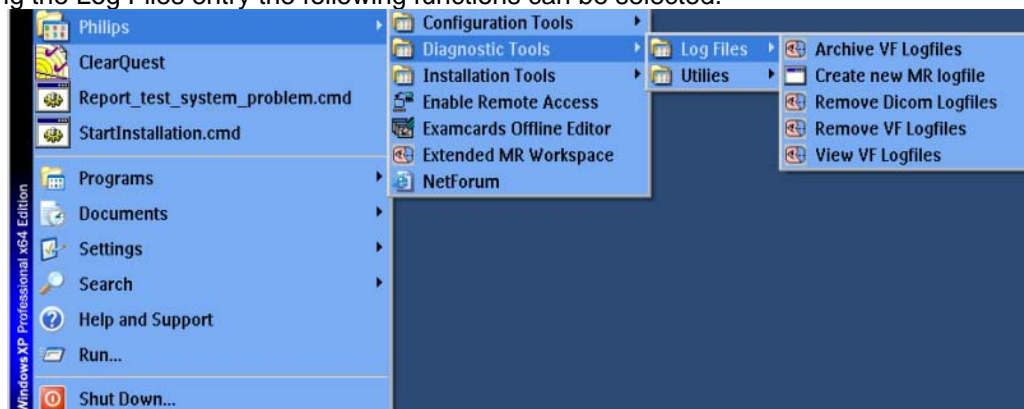
5.4.2 Diagnostic Tools

Login as: MRService
Select: Start → Philips → Diagnostic Tools



Log Files

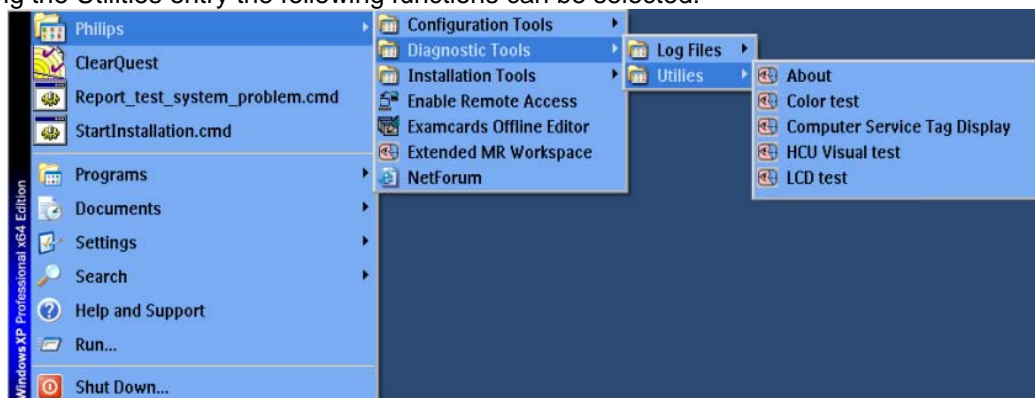
When selecting the Log Files entry the following functions can be selected.



For more information about logfiles, see [Logging](#).

Utilities

When selecting the Utilities entry the following functions can be selected:



Start About:

This is a tool to display relevant version information of installed software of the EWS system. This information is reported as a html file.

Press: About

Start Color test:

This is a tool to manually display different patterns to test correct functioning of the LCD or CRT monitor.

Press: Color test

Computer Service Tag display:

This functionality does not work (yet). Check the BIOS to obtain the Service Tag as described in 5.2.

Start HCU Visual test:

Tool to test the correct working of the Hard Copy Unit (HCU) card. For this, the printer test tool is needed!

Press: HCU Visual test

Start LCD test:

To test the correct geometry settings of the LCD monitor.

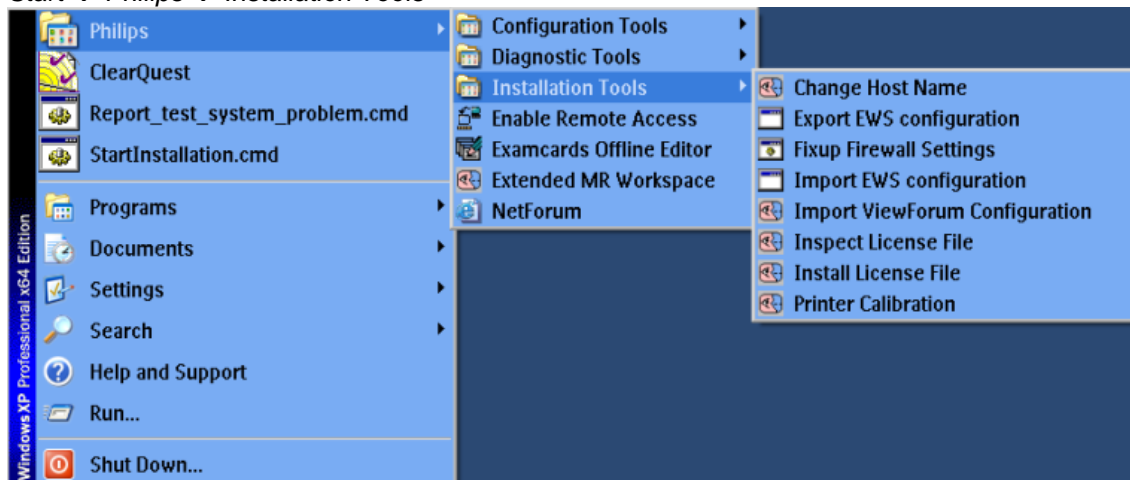
Press: LCD test

5.4.3 Installation Tools

5.4.3.1 Change Hostname (Step 41)

Login as: MRService

Select: Start → Philips → Installation Tools

**Change Host Name:**

This tool changes the hostname on 3 different locations:

- Computer name in XP
- License file
- EWS node in configuration

WARNING

EWS hostname should be identical with the name used on the MR-Host.

Press: Change Host Name

Fill in: The Host Name of the system
Press: OK

NOTE

A reboot is needed!

5.4.3.2 Export EWS configuration

This tool exports all configuration settings to a .zip file. Use this tool to create a back-up of the configuration settings and to store it on a safe place.

For more information about Backup/Restore Application Configuration, see [Ex/Import Configuration & Database](#).

Press: Backup Application Configuration

5.4.3.3 To Fix up Firewall settings

This program sets-up the Windows XP x64 firewall.

Press: To Fixup Firewall settings

5.4.3.4 Import EWS configuration

Via this tool a previously saved back-up of the EWS configuration can be restored.

For more information about Backup/Restore Application Configuration, see [Ex/Import Configuration & Database](#).

Press: Import EWS configuration

5.4.3.5 Import ViewForum Configuration

Via this tool a previously saved back-up of a ViewForum configuration can be restored.

For more information about Backup/Restore Application Configuration, see [Ex/Import Configuration & Database](#).

Press: Import ViewForum configuration

5.4.3.6 Inspect License file

For more information about Inspect License file, see [Software License Procedure](#).

Press: Inspect License file

5.4.3.7 Install License file

For more information about Install License file, see [Software License Procedure](#).

Press: Install License file

5.4.3.8 Printer calibration

For more information about Printer Calibration, see [Printer Calibration](#).

Press: Printer Calibration

5.5 LOGGING

5.5.1 Archive VF Logfiles

Select: *Start* → *Philips* → *Diagnostic Tools* → *Log Files* → *Archive VF Log Files*

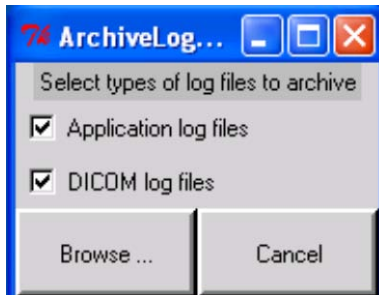


Figure 5-4 Archive Log panel

Check: Types of log files to archive (deactivate if necessary)

Press: Browse...

Browse to: Location where the log files should be saved to (e.g. USB-stick)

Press: Save

The log files are being saved, when completed a success message pops-up. The log files are saved as a zip file, named: logs_ "system name".zip.

The log files are archived now.

5.5.2 Other Logfile options

Other actions to manipulate log files:

Select: *Start* → *Philips* → *Diagnostic Tools* → *Log Files* → *Archive VF Log Files*

Select: Create new MR logfile
To create a new MR logfile

or

Select: Remove DICOM Logfiles
To delete the current DICOM related log files.

or

Select: Remove VF Logfiles
To delete all current log files.

or

Select: *View VF Log Files*
To select and view a log file.

5.6 SOFTWARE LICENSE PROCEDURE

5.6.1 Introduction

Extended MR Workspace R2.6.3.1 licenses cannot run on the former EasyVision system or on ViewForum R4 or R5 systems, neither vice versa. As a consequence, a new license file is required.

NOTE

Every option is licensed for use on a specific machine and will therefore only run on that specific machine.

5.6.2 License File

We distinguish so-called *permanent license keys* and *try & buy license keys* that are distributed in an electronic way: the *license file*.

There is one license file per Extended MR Workspace R2.6.3.1.

The license file contains:

- MAC address of the onboard NIC EWS node
- Name and Release identification of the option(s)
- Expiration date per option
- Encrypted string, being the actual license key, for each option

In case the customer orders an additional option, the new license file will contain all current license keys + the new license key(s).

This is an example showing how the contents of a license file ("00065bdcd745.DAT ") may look like:

```
#-----
# Filename      : 00065bdcd745.DAT
# Product       : Extended MR Workspace R2.6.3.1
# Hospital      : DEMO Hospital
# City          : NETHERLANDS
# Country       : NL
# Funlocknbr    : 678234
# Generation_date : 29-Aug-2006 09:02:23
# Generated_by   : Operations
#
SERVER ServerName 00065bdcd745 2900
VENDOR easylicd
USE_SERVER
#-----
INCREMENT 3dAdvProjections easylicd 6.1 21-jul-2007 1 \
  HOSTID=00065bdcd745 ck=171 SIGN=E5CECBCCA8FC
INCREMENT 3dAdvSegmentation easylicd 6.1 21-jul-2007 1 \
  HOSTID=00065bdcd745 ck=179 SIGN=36B79420F762
INCREMENT 3dAutoPath easylicd 6.1 21-jul-2007 1 HOSTID=00065bdcd745 \
  ck=153 SIGN=42AB7CFA4C76
INCREMENT 3dBasicSurface easylicd 6.1 21-jul-2007 1 \
  HOSTID=00065bdcd745 ck=172 SIGN=551CDFEA2E52
INCREMENT 3dCoro easylicd 6.1 21-jul-2007 1 HOSTID=00065bdcd745 \
  ck=154 SIGN=A1AAA4067F52
INCREMENT 3dEndoView easylicd 6.1 21-jul-2007 1 HOSTID=00065bdcd745 \
  ck=174 SIGN=E983F92EC812
INCREMENT 3dVesselAnalysis easylicd 6.1 21-jul-2007 1 \
  HOSTID=00065bdcd745 ck=162 SIGN=598DBB14A3E8
INCREMENT 3dVolume easylicd 6.1 21-jul-2007 1 HOSTID=00065bdcd745 \
  ck=224 SIGN=FE3E0256898E
INCREMENT 3dVolumeInspection easylicd 6.1 21-jul-2007 1 \
  HOSTID=00065bdcd745 ck=142 SIGN=BE2FD05CBAEA
INCREMENT Basic easylicd 6.1 21-jul-2007 1 HOSTID=00065bdcd745 ck=161 \
  SIGN=D645C38CEDC2
```

5.6.3 License Key Types

Two types of license keys can be distinguished:

Permanent License Keys:

- provide an indefinite time period for using an option.
- are initially factory installed on the Extended MR Workspace R2.6.3.1 and are delivered on a usb-stick or back-up floppy

Try & Buy License Keys:

- provide the use of an Extended MR Workspace R2.6.3.1 application package for a limited period (4 months) and can only be activated once
- are active from the day of key-generation until they expire automatically after 4 months
- are not initially factory installed on Extended MR Workspace R2.6.3.1 (they would be (partly) expired at the time of installation at customer site)
- all Try & Buy packages are default added to an initial order
- Contact the HI Logistics & Manufacturing department to get (a) Try & Buy option(s) activated.

5.6.4 License File and License Form distribution

License files (permanent keys only) for a new Extended MR Workspace R2.6.3.1 are already installed and delivered with the system on a CD-ROM.

The latest version of a license file is always available on the InCenter site, from where it can be downloaded.

When an option has been ordered, the License file is sent to the SSD / SSR. In case hardware

is involved, the License file + the License form will be sent together with that hardware.

5.6.5 How to get the right License File

In this software license procedure the role of the SSD / SSR is crucial because the SSD / SSR knows which systems were ordered and when, where and by whom systems will be installed.

When required the SSD / SSR can inform the MR Operations department at PMSN-Best to activate a Demo key. Then a new License file is send to the SSD / SSR and can also be downloaded from the PMS InCenter site.

The SSD / SSR is responsible to get this License file in time to the Service Engineer who will install this file on the specified Extended MR Workspace R2.6.3.1 system.

5.6.6 Location of License files on Intranet

The license files can be obtained from

<http://pww.wiskey.ms.philips.com/Wiskey/techNetLicenseFilesSearch.do>

or via MRIncenter:

Select: tab: *Service*

Click: *Service* → *Products and Solutions* → *Magnetic Resonance*

Select: *MR License Keys* link in the MR Links section of the web page

Select: *MR Best* link in any of the Product groups

Search for Download License files

At least one search parameter is mandatory

- Use % wild card
- A query with a lot of parameters will give less to zero hits
- The query on InCenter is limited to the first 100 hits

Product data:	
Finger Print	<input type="text" value="12345"/>
SSD REF	<input type="text"/>
SSD Order Acquisition number	<input type="text"/>
PMG	<input type="text"/>
Product Family	<input type="text"/>
SubSystem Type	<input type="text"/>
Location:	
Hospital Name	<input type="text"/>
City	<input type="text"/>
Country	<input type="text"/>
Logitics data:	
Production order number	<input type="text"/>
Fun Loc	<input type="text"/>
Zmat Nr	<input type="text"/>
Zmat Description	<input type="text"/>
Time Zone	<input type="text"/>
Asus Region	<input type="text"/>
<input type="button" value="search now"/> <input type="button" value="clear form"/>	

SRN for MR License
 MAC for VF License

Fill in: One or more search criteria
Press: Search Now

5.7 ACRONIS SYSTEM BACKUP AND RECOVERY

This section only contains some basic information. See the Acronis guide for more information.

CAUTION

*This Backup & Restore procedure is for the system-partition only.
Restoring a system will result in ALL current data on the system disk being permanently lost
Do not restore a system unless all required data has been safely backed-up and is available for later use*

5.7.1 Prerequisites

Acronis boot CD 4522 170 12971
DVD media, depending on the size of the data one or more CDs/DVDs may be required.
Must be logged in as **MRService** user or Administrator
Make sure the system is rebooted before creating a Acronis Image

5.7.2 Acronis Image on DVD

Acronis Images should be created on DVD media (DVD +R, DVD +RW).

Media Support

A standard CD/DVD R/W drive will be supplied with the Dell system. Refer to the website the CD/DVD R/W supplier for supported media. Make sure the latest firmware is downloaded.

Firmware for DELL systems can be downloaded via: <http://support.dell.com/support/downloads>

NOTE

*It is strongly recommended that high quality media be used to ensure data integrity and longevity
Rewritable media) must be erased prior to creating an Image (new media is immediately usable)
It is recommended that only new, dedicated media is used*

Once the Image has been created, each DVD should be clearly labelled as per the following example:

EWSx_nn¹Backup Disk 2 of 3 Created: 01 July 2009
--

¹Where "x" is the current EWS version (e.g. R2.6.3.1) and
"nn" is the backup number (e.g. 01).

To create an Image, proceed with 5.7.3. To restore an Image, proceed with: 5.7.4.

5.7.3 Create an Acronis Image (step 75)

Step 1:

Backup configuration data from Data-partition on System-partition

Login as: MRService

When not already done: reboot the system; when the system is up and running again login as MRService

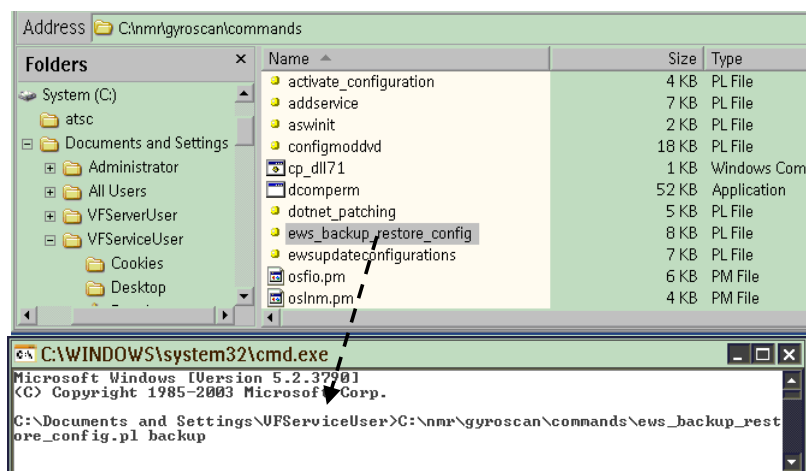
Start: Windows Explorer

Browse to: C:\nmr\gyroscan\commands

Start Command Window (Start → Run... → type cmd → OK):

Drag- and -Drop: ews_backup_restore_config.pl into Command-window

Enter: **backup** to the command window input script



Wait: until script is ready

Step 2:

Start the Acronis program via Windows:

Select: Start → Programs → Acronis → Acronis True Image Server OEM → Acronis True Image Server OEM

Check: Do not show this message again

Select: No, Thanks

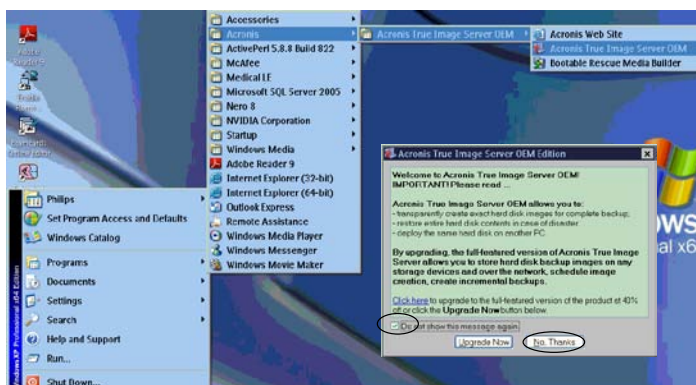
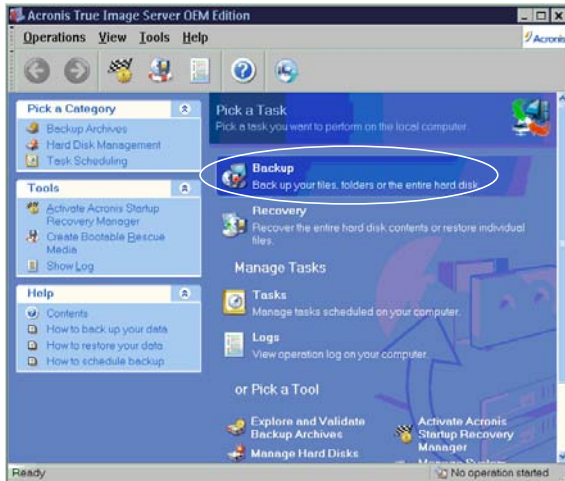


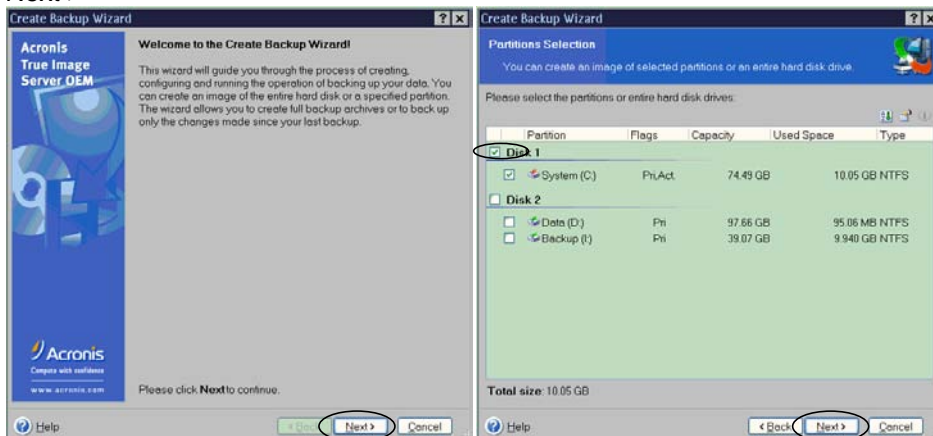
Figure 5-5 Acronis (1-st) startup

When the Acronis program is started:

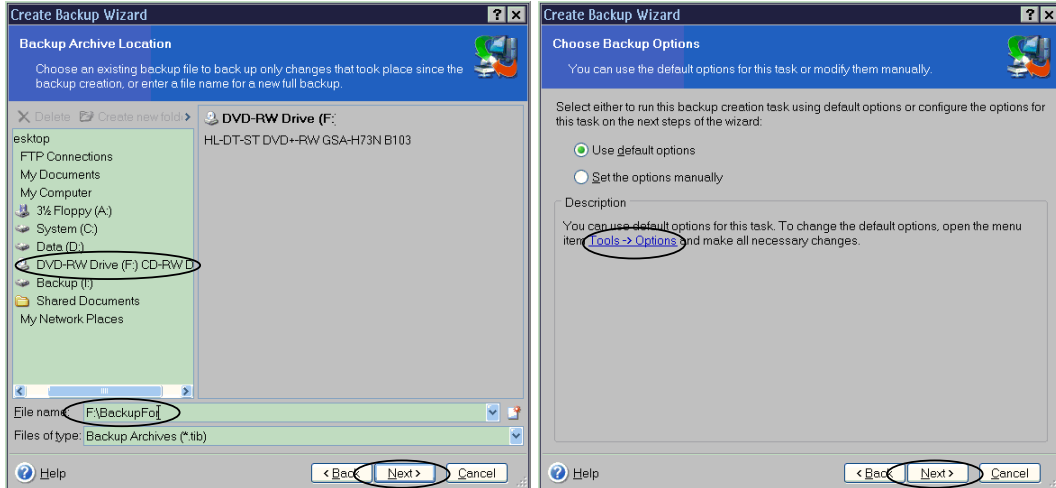
Click: Backup



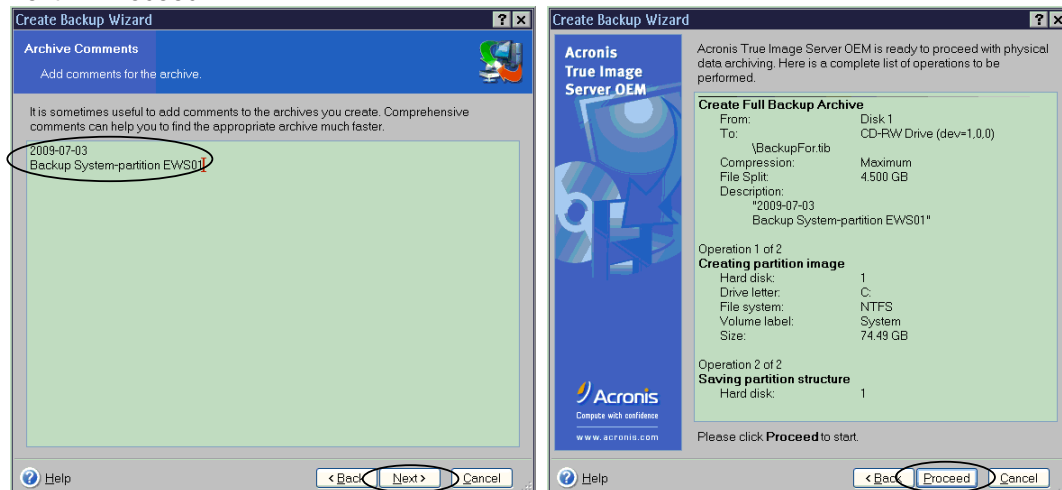
Click: Next >
 Check:: Disk 1
 Click: Next >



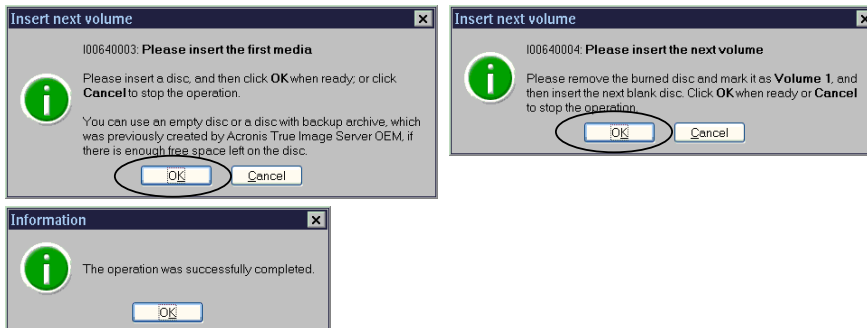
Browse to: DVD+RW Drive
 Enter: BackupFor
 Click: Next >
 Click: Tools → Options
 Click: Compression level
 Enable: Maximum
 Click: Archive splitting → Fixed Size
 Enter: 4.5 GB
 Click: OK → Next >



Enter: Comments
 Click: Next → Proceed



Follow instructions to insert DVD's into DVD-RW drive.



Click Operations → Exit

Return to step 75

5.7.4 Restore an Acronis Image

WARNING

*This procedure WILL restore the entire System disk of the computer
Any changes made on the computer since the original Acronis Image was made will be LOST*

An Acronis Image can be restored (recovered) as follows:

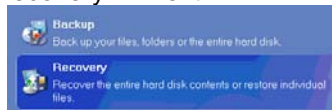
- Insert into DVD-ROM drive:
Acronis boot CD 4522 170 12971 (Delivered with the system)
- Insert into DVD+RW drive:
The DVD containing Acronis Image, file with **highest** Volume number
or if the image is stored on a USB device or external hard disk:
attach the device now.

Restart computer and boot from Acronis CD.

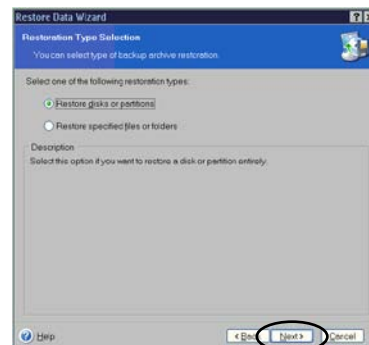
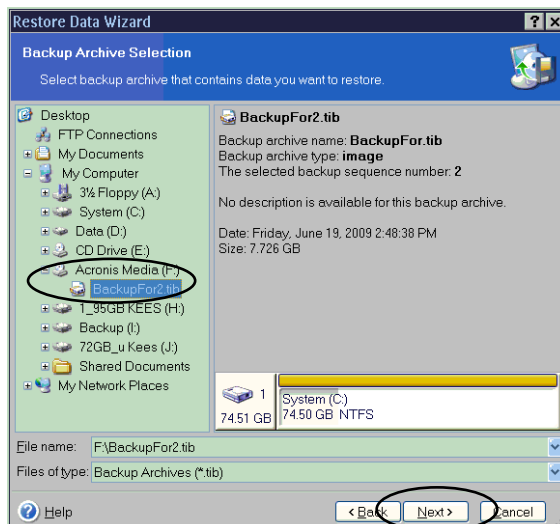
Wait while the Acronis program loads.

The Acronis wizard pops-up:

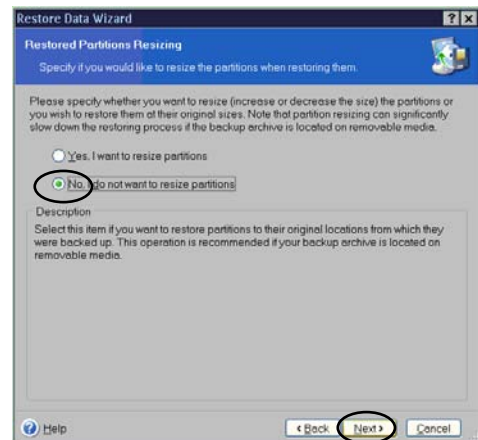
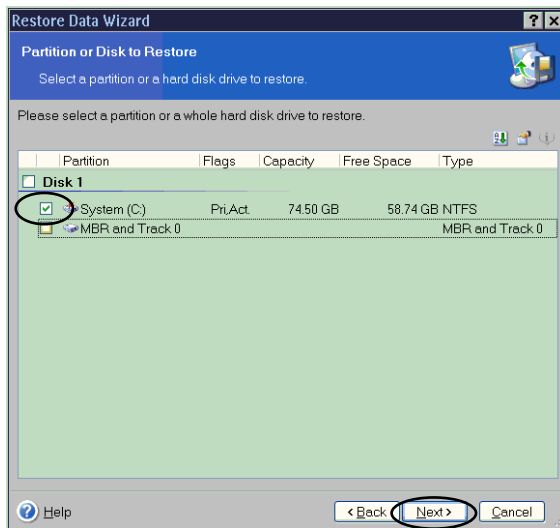
Select: Recovery → Next >



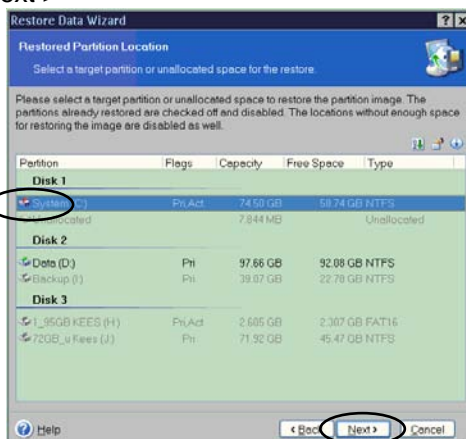
Browse to Acronis Image file
Select Next > (2x) :



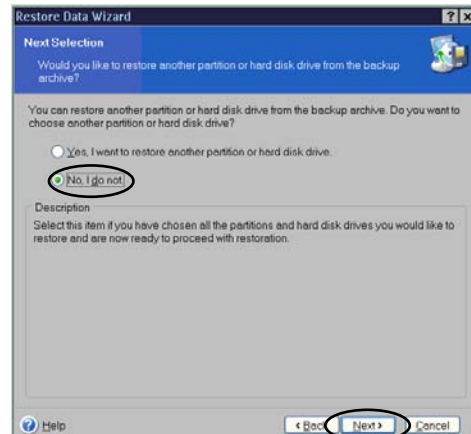
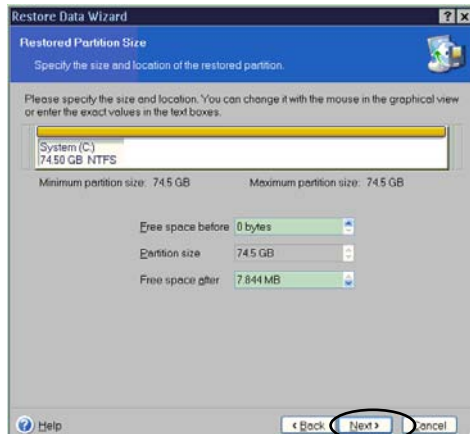
Check: System (C) partition
 Select: Next >
 Check: "No I do not want to resize partitions"
 Select: Next >



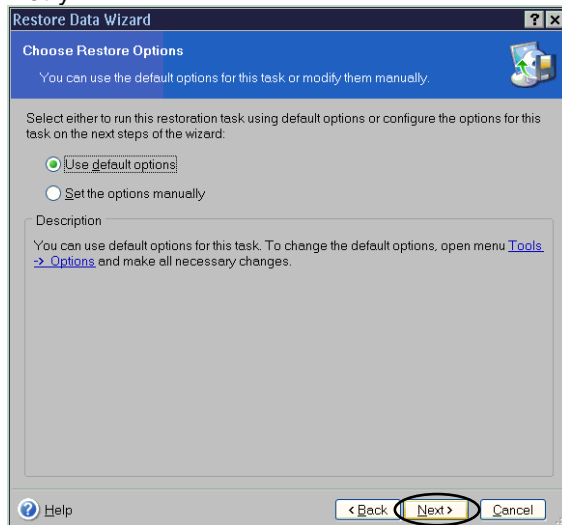
Select: System (C) → Next >
 Enable: Active
 Select: Next >



Select: Next >
 Enable: "No I do not"
 Select: Next >



- Select: Next > → Proceed
 Remove: DVD Volume n from DVD+RW drive
 Insert: DVD Volume 1 into DVD+RW drive
 Select: Retry



When System asks for

- Remove: DVD Volume 1 into DVD+RW drive
 Insert: DVD Volume 2 into DVD+RW drive
 Select: Retry

Repeat these steps when required.

When ready, press OK → Remove media from both DVD-drives → Close Acronis Application, to restart EWS.

NOTE

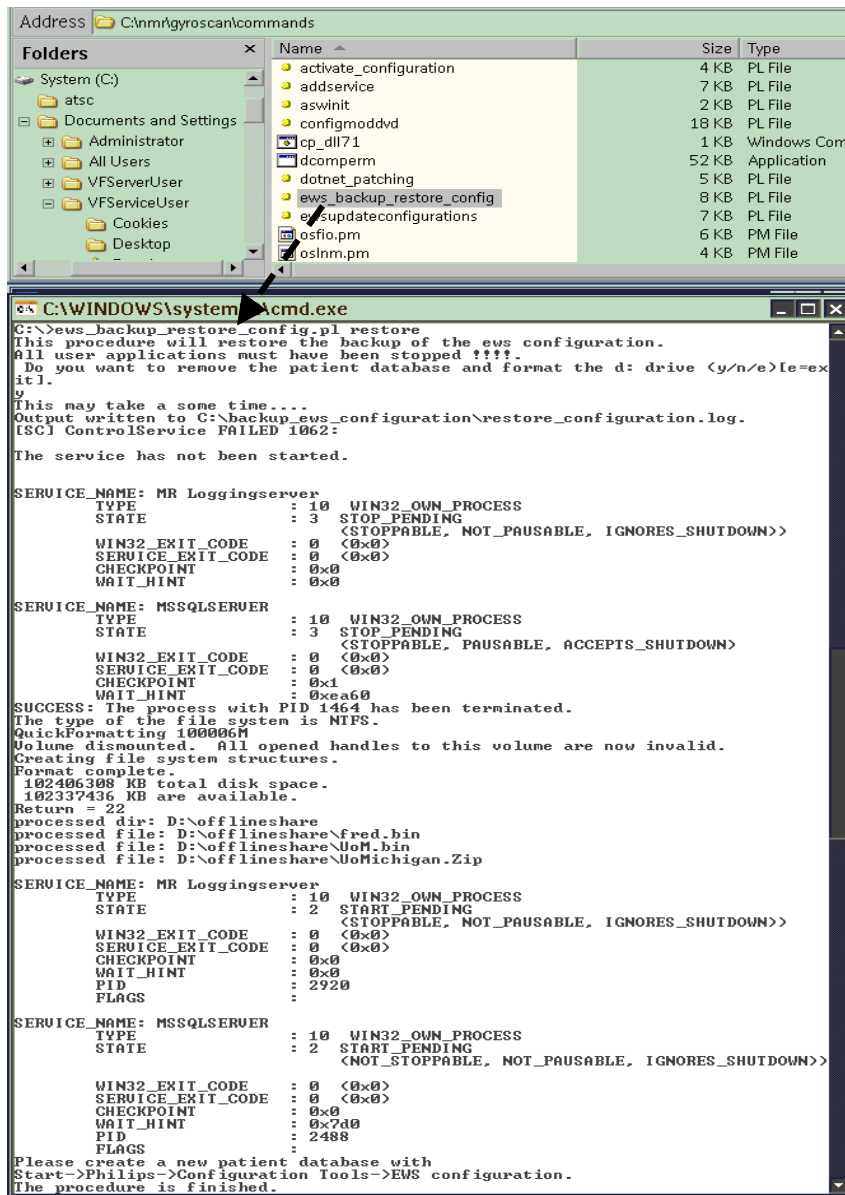
*When the system stops responding and does NOT restart automatically:
 Press Power button until EWS is powered off, wait 10 seconds and press Power button to
 switch the system on again*

Continue with section 5.7.4.1 p. 146

5.7.4.1 Restore configuration data from System-partition to Data-Partition

- Login as MRService
 Start Windows Explorer
 Browse to C:\nmr\gyroscan\commands
 Start Command Window (Start → Run... → type cmd → OK):
 Drag
 - and -
 Drop ews_backup_restore_config.pl into Command-window

Enter in command window input parameter for script **restore** <Enter>
 Enter **Y** on the question to remove the patient database and format the d: drive



```

Address  C:\nmr\gyroscan\commands
Folders  x
System (C:)
  atsc
  Documents and Settings
    Administrator
    All Users
    VFSerUser
    VFSerUser
    Cookies
    Desktop
  Folders
  Name
  Size
  Type
  activate_configuration 4 KB PL File
  addservice 7 KB PL File
  aswinit 2 KB PL File
  configmoddvd 18 KB PL File
  cp_dll71 1 KB Windows Comm
  dcomperm 52 KB Application
  dotnet_patching 5 KB PL File
  lews_backup_restore_config 8 KB PL File
  updateconfigurations 7 KB PL File
  osfio.pm 6 KB PM File
  oslnm.pm 4 KB PM File

C:\WINDOWS\system32\cmd.exe
C:\nmr\gyroscan\commands\lews_backup_restore_config.pl restore
This procedure will restore the backup of the ewe configuration.
All user applications must have been stopped !!!!!.
Do you want to remove the patient database and format the d: drive <y/n/e>[e=exit].
y
This may take a some time....
Output written to C:\nmr\gyroscan\commands\restore_configuration.log.
[SC] ControlService FAILED 1062:
The service has not been started.

SERVICE_NAME: MR Loggingserver
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 3  STOP_PENDING
                        (STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE       : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0

SERVICE_NAME: MSSQLSERVER
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 3  STOP_PENDING
                        (STOPPABLE, PAUSABLE, ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE       : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT           : 0x1
        WAIT_HINT            : 0xea60
SUCCESS: The process with PID 1464 has been terminated.
The type of the file system is NTFS.
QuickFormatting 100006M
Volume dismounted. All opened handles to this volume are now invalid.
Creating file system structures.
Format complete.
102406308 KB total disk space.
102337436 KB are available.
Return = 22
processed dir: D:\offlineshare
processed file: D:\offlineshare\fred.bin
processed file: D:\offlineshare\UoM.bin
processed file: D:\offlineshare\UoMichigan.Zip

SERVICE_NAME: MR Loggingserver
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 2  START_PENDING
                        (STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE       : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x0
        PID                 : 2920
        FLAGS                 :

SERVICE_NAME: MSSQLSERVER
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 2  START_PENDING
                        (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE       : 0  (0x0)
        SERVICE_EXIT_CODE   : 0  (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x7d0
        PID                 : 2488
        FLAGS                 :

Please create a new patient database with
Start->Philips->Configuration Tools->EWS configuration.
The procedure is finished.
  
```

Wait until script is ready

Execute EWS configuration:

Click: Start → Philips → Configuration Tools → EWS Configuration:

On the configuration main panel:

Click: Execute...

Click: Proceed

NOTE

When an error occurs, a second Execute... is required.

When finished, click **Exit** (and **Confirm**) to exit the configuration application.

5.8 PRINTER CALIBRATION

5.8.1 Introduction

After the EWS printers are configured (Only after initial installation EWS), density calibration has to be done for each printer.

Prerequisites:

All required printers and media should be configured in the Extended MR Workspace R2.6.3.1 configuration. DICOM Printer is setup properly with respect to its configuration and calibration (this must be done by the Printer engineer e.g. Kodak engineer).

Chemical composition of the developer must be correct.

Calibrated densitometer, which is operating correctly.

Light meter (Cd/m^2) for ambient light measurement.

NOTE

Color printers can NOT be (color 'density') calibrated within Extended MR Workspace R2.6.3.1.

5.8.1.1 Start Calibration Tool

Close Extended MR Workspace R2.6.3.1 application before starting the calibration

make sure the printer is switched on and is able to print

Go to the *Start* → *Philips* → *Installation Tools* → *Printer Calibration*.

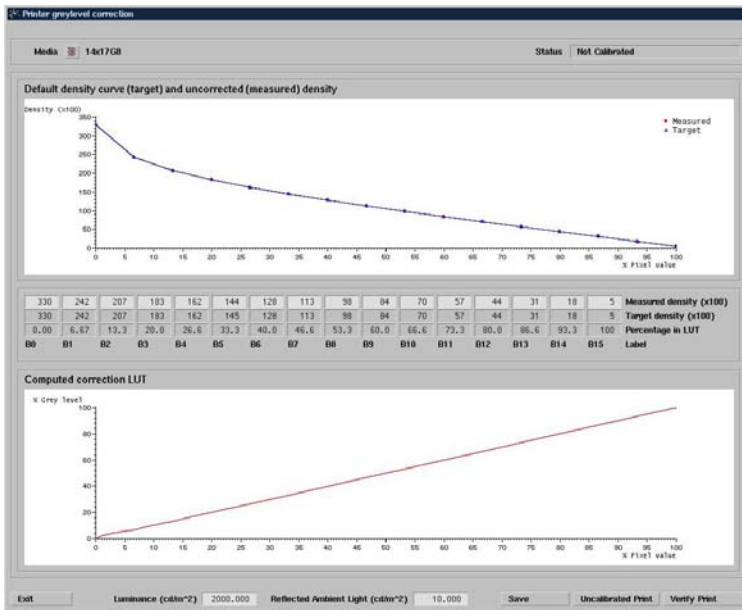
The Printer calibration application is started.

5.8.2 Density Calibration procedure

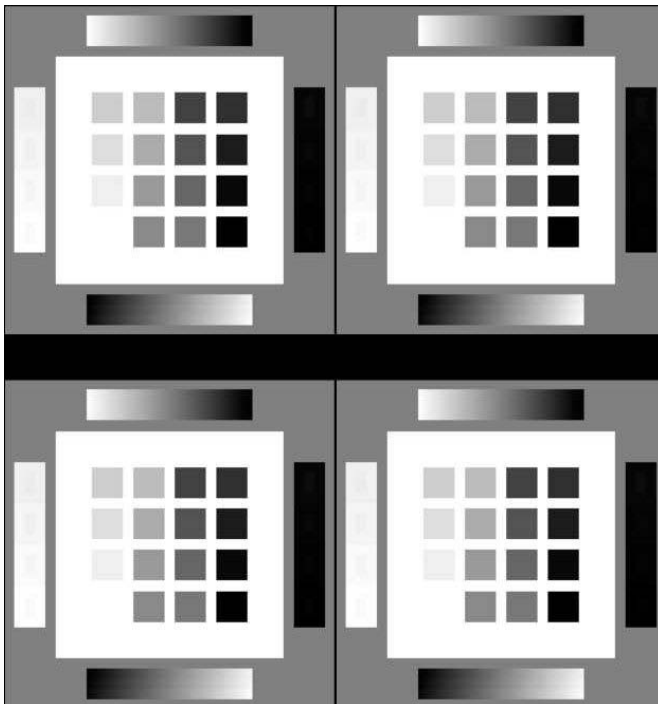
- Click with the right mouse button on 'printer' and select the printer that you want to calibrate.
- Click on the 'Printer Gamma Correction' icon in the icon bar:



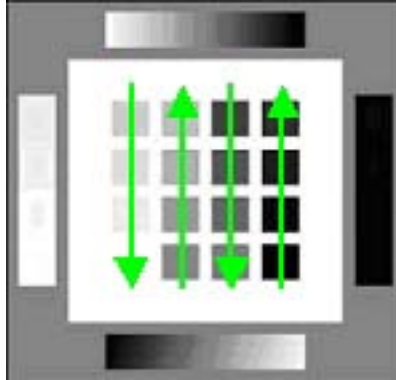
The Calibration window appears:



- At the bottom of the screen the light box Luminance and Reflected Ambient light values are displayed. Usually the defaults can be used when the light box is installed in a room with hardly no sunlight = normal conditions. When the light conditions differ from the normal conditions (e.g. when the light box is installed in a room with a lot of sunlight) the light box Luminance and Reflected Ambient light measurements have to be performed and entered at the bottom of the Printer Calibration screen.
- Click with the right mouse button on 'media' and select the media that you want to calibrate.
- Click on the 'Uncalibrated Print' button. A calibration sheet will be printed with four identical images, as shown below.



- Choose one of the four images (e.g. left bottom image) and use a densitometer to measure the 16 densities from that image.
- Enter the 16 values in the row 'Measured densities', starting with the most 'darkest' value =B0. See image below.



- Click on 'Save' to store the calibration.
- Select 'Specific media' or 'All media'

NOTE

Receiving an error message after selecting 'All media' means that this calibration cannot be applied for all media. In this case 'Specific media' must be chosen and the above steps must be repeated for all other media types.

- Click on 'Save' to store and exit the panel.

5.8.2.1 Verification of the Density Calibration

You may verify the Printer Calibration results as follows:

- If not already done:
 - Click with the right mouse button on 'printer' and select the printer that you want to calibrate.
 - Start Printer Gamma Correction. See figure below:



- Click on 'Verify Print'. Print Verify will print a verification print in 2x2 exactly as that printed by the application.
- Measure the 16 densities from the same image on the film as used in the calibration procedure in paragraph 1.2 (Do NOT enter any values!).

NOTE

The measured values should be within 5% of the values of "target density" in the Printer Calibration tool. If values are not within the limits, perform the calibration procedure again (be sure that the densitometer is operating correctly and assure the chemical composition of the developer is correct).

- Click exit to close density calibration.
- Continue with paragraph 5.8.3.

5.8.3 Pixel size Calibration procedure

Prerequisites:

Calibrated metal ruler.

- Click with the right mouse button on 'printer' and select the printer that you want to calibrate.
- Click on the 'Printer Pixel Size' icon in the icon bar:



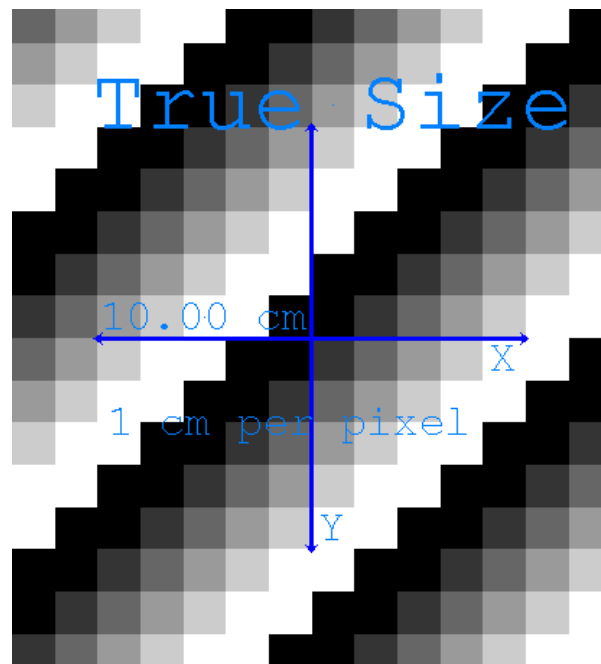
The 'Printer Pixel Size Calibration' panel will appear:

The dialog box titled "Printer pixel size calibration" contains the following fields and options:

- Media:** 14x17B_G8, with a "Calibrated" checkbox.
- Units:** mm.
- Measured [Uncalibrated] vs Target [Calibrated] table:**

	Measured [Uncalibrated]	Target [Calibrated]
Length X (horizontal)	100.00	100.00
Length Y (vertical)	100.00	100.00
Resolution (dots/unit)	12.82	
- Save Media options:**
 - Specific (this medium only)
 - All media with matching sizes and resolution
 - All media with matching resolution
- Buttons:** Save, Uncalibrated Print, Verify Print, Exit.

- Click with the right mouse button on 'Media' and select the media that you want to calibrate.
- Click with the right mouse button on 'Units' and select the desired type.
- Click on 'Uncalibrated Print'. A calibration sheet will be printed, which looks like:



- Measure the horizontal length (**=X**) and vertical length (**=Y**) on the film as accurately as possible with a ruler. Enter the lengths in mm or inches in their respective fields. The field resolution displays the number of pixels per mm or per inches.
- Select either 'Specific' or 'Matching Sizes' in the Save Media dialog box:
- **Specific** in which only the selected media will be calibrated;
- All Media with matching sizes and resolution
- All Media with matching resolution
- Click on 'Save'.

5.8.4 Verification of the Pixel Size Calibration

- Click on 'Verify Print'. Print Verify will print a verification print in "true size"
- Measure the horizontal length (**=X**) and vertical length (**=Y**) on the film as accurately as possible with a ruler.
- If the lengths meet the target values:
- Click on 'Exit' to leave the 'Printer Pixel Size' panel
- Click on the 'Exit' icon to leave the 'Printer' calibration
- Click OK
- If lengths do NOT meet the target values:
- Repeat the procedure as described in chapter 1.3 until the pixel size calibration is correct
- If 'Specific' media was selected and / or another printer has to be calibrated: repeat the procedure from chapter 1.2 and onwards for all other media.
- Exit Printer Calibration.

5.9 DISASTER RECOVERY

5.9.1 Disaster scenario's

Crash Of System-disk (C:\ drive). Refer to paragraph: [5.9.2 p. 153](#).

Crash Of Data-disk (D:\ drive). Refer to paragraph: [5.9.3 p. 153](#).

5.9.2 Recovery Scenario 1: Crash of system disk

In this case it is possible to restore the system with all settings (configuration and customization), and keep the image database that was available.

Procedure:

- Replace or repair the System disk on the system.
- Re-install the system by restoring a Acronis Image (see section [5.7.4 Restore an Acronis Image p. 144](#))

When that is not feasible:

- Follow instructions [Table 1](#), column "R2.6.3.1 to R2.6.3.1 Re-installation", starting step 24.

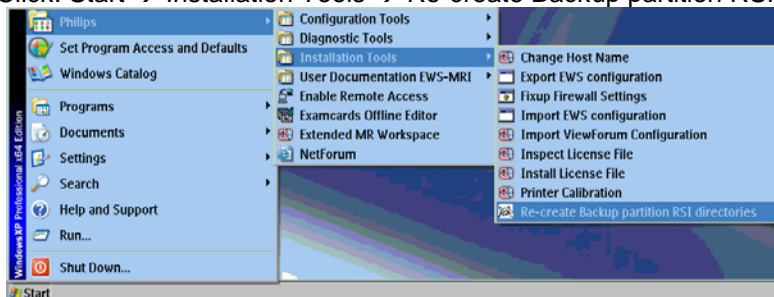
5.9.3 Recovery Scenario 2: Crash of Data disk

In this case it is possible to restore the system with all settings (configuration and customization), but the database with patient images is lost.

Procedure:

- Replace or repair the Data disk on the system.
- Log in as **MRService** User
- Initialize and format new 2nd disk as described in section [3.3.10 p. 50 Initialize 2-nd Disk \(step 33\)](#), starting "Right-click Unallocated space"
- Run script, to (re) create Folders on the Data-partion:

Click: Start → Installation Tools → Re-create Backup partition RSI directories:



- Continue with section [5.7.4.1 p. 146](#), "Restore configuration data from System-partition to Data-Partition", to restore configuration data, saved during backup procedure [5.7.3 Create an Acronis Image p. 141](#):
- Perform [4.3.1.1 Start EWS Configuration \(VF\) p. 76](#).
- [Execute EWS Configuration \(VF\) p. 90](#) → failure, again
- [Execute EWS Configuration \(VF\) p. 90](#).

5.10 WINDOWS FAULTFINDING AND REPAIR

This chapter will mention some basic Windows Faultfinding and Repair tasks. For more administration knowledge a Windows XP x64 course is preferred. For more information see also the windows help.

NOTE

For performing most actions in this chapter you have to be logged in with administrator privileges, like MRService.

5.10.1 File System Error-Checking (Scandisk)

If you suspect damage to the file system or Harddisk (For instance after a crash of the Operating System), using scandisk to detect and repair a faulty file system may be necessary. To invoke scandisk on a Disk Partition:

- Go to windows Explorer
- Right click the partition to be checked, select "properties"
- Select the 'tools' tab
- Click 'Check now...'
- Select 'Automatically repair file system errors'
- Click 'Start'
- If the selected drive is in still in use by the operating system, you may be asked to schedule the scan for the next restart of the system. If this is asked, restart the system for the scan to execute.
- Wait for the scan to finish
- Exit Scan Disk

5.10.2 Disk Defragmentation

Degradation of system performance may be caused by disk fragmentation. Therefore it is advised to defragment the file system (may be a 'quick fix') when performance problems are encountered.

- Start → Programs → Accessories → System Tools → Disk Defragmenter
- Select a disk.

NOTE

Only defragment the disk with the windows installation and program files on it, defragmenting the image database disk is not necessary.

- Press Defragment
- Close Computer Management window

5.10.3 Windows Event logging

If you suspect damage to hardware (for instance when the CD/DVD drive is giving read errors when trying to install software), use the Windows Event Viewer to detect what is the cause of the hardware failure. To start the Windows Event Viewer:

- Go to start
- Right click on My Computer
- Select 'Manage'
- Click 'Event Viewer'
- Select 'Application'
- Scan the list for 'Error' messages that appear frequently. Especially hardware and Extended MR Workspace R2.6.3.1 software related error messages.
- Select 'Security'
- Scan the list for strange Audit messages that might point to security vulnerability.
- Select 'System'
- Scan the list for 'Error' messages that appear frequently. Especially Extended MR Workspace R2.6.3.1 services related error messages.
- Exit Computer Management.

5.10.4 Driver Rollback

If a new hardware driver is installed which results in a malfunctioning of the system, the 'Driver Rollback' functionality may be used to restore the previous (working) hardware driver.

- Click Start, right-click My Computer, and then click Properties.
- In the Systems Properties sheet, click the Hardware tab and then click Device Manager.
- In the Device Manager expand the device of which a Driver needs to be restored and press ENTER.

NOTE

If a yellow circle with a black exclamation point icon appears next to the device name, this means that the device driver is not compatible with the actual device installed!

- In the Property sheet click the Driver tab and then click the Roll Back Driver button.
- A message displays, asking if you are sure you would like to roll back the previous driver.
- Click Yes.
- You will notice that the name of the display adapter will change back to the previous driver.
- Click Close.
- If you are prompted to restart the computer, click Yes.
- If you are not prompted to restart the computer, close all open windows and log off.

5.10.5 Windows XP x64 restore Points

The Windows XP x64 operating system will by default monitor your hard drives, and create so-called 'Restore Points'. These restore points will enable you to restore a previous system configuration. In the case of a malfunctioning system, going 'back' to a restore point may quickly and easily solve your problem.

As a default, Windows XP x64 will automatically create a restore point every 24 hours. It will keep restore points available for 90 days after they are created.

WARNING

Please be careful using system restore on the Image database disk. It may cause a loss of images in the database.

5.10.5.1 Create a Restore Point

Windows XP x64 automatically creates system restore points, but you can create your own before making major changes to the system as installing device drivers, windows updates or new programs. To create a restore point:

- Click Start → Programs → Accessories → System Tools, and then click System Restore.
- In the System Restore dialog box, click Create a restore point, and then click Next.
- Type a description for your restore point, such as "Before Office XP", and then click Create.

5.10.5.2 Restoring a Restore point

If you encounter a system problem, you can restore a previous system state:

- Click Start → Programs → Accessories → System Tools, and then click System Restore.
- In the System Restore dialog box, click 'Restore my computer to an earlier time', and then click Next.
- The system will try to restore to an earlier point in time. After this action the system needs a reboot.

5.11 VP1000 DIAGNOSTIC TOOLS (OPTIONAL)

Installation:

Go to: The Unsupported directory of the ViewForum Application software DVD
Select: The file: VolumePro1000_Diagnostics.exe
Open: The file by double clicking
Go to: C:\Program Files\VolumePro1000\diagnostics
Check: If the file VpDiag.exe is present
Open: The Command tool (Run → type: cmd)
Run: VpDiag.exe

NOTE

With the VpDiag.exe the HW function of the VP1000 card are tested

NOTE

During the installation also an entry is made: Start → VolumePro1000 → cvRReli. This Entry does NOT work!

Available commands

The following is a list of available commands with a brief description of the command. Type "Help command" for usage information for a given command:

ErrorMsg: Display the specified message and set the global error flag.
 StatusMsg: Display the specified message.
 RunTest: Run selected test.
 RunAllTests: Run all test cases on all boards.
 ListTests: Print a list of all tests.
 RunScript: Run selected script.
 MemoryTest: Specify the condor memory test to be performed.
 SelectDevice: Select device.
 ?: Print this message.
 Help: Print this message.
 Quit: Quit program.
 Exit: Exit program.
 History: Command history controls.
 SoftReset: Perform soft reset.
 HardReset: Perform hard reset.
 ScriptEcho: Set/reset script echo flag.
 DisplayTime: Display the current data/time

5.12 COMMUNICATION WITH PHILIPS HEALTHCARE**5.12.1 Ordering procedure**

For communication about orders and software licenses, please contact:

Dept.: MR Logistics
USA:
 Marie Luce de Kuijer +31 40 27 65843
 Tamara Chikovani
APAC:
 Jan-Willem van de Mond +31 40 27 64323
EMEA:
 Marianne Bronkhorst (DACH, France, +31 40 27 62514
 Adria and UK&I)
 Kees Brugge (Iberia, Benelux) +31 40 27 62141
LATAM:
 Kees Brugge +31 40 27 62141

Address: P.O. 10.000
 5680 DA Best
 The Netherlands

Building: QA-III

E-mail: mr-orderdesk-usa@philips.com

mr-orderdesk-apac@philips.com
mr-orderdesk-emea@philips.com
mr-orderdesk-mcr-latam@philips.com

In case of questions or problems, please contact the MR HELPDESK:

Address: Philips Healthcare
MR Helpdesk, Building QY1-1
P.O. Box 10000
5680 DA Best, The Netherlands

Telephone: +31-402764777
Fax: +31-402762745
E-mail: mr.helpdesk@philips.com

5.12.2 FAQ Database and FPR view

Via Knova it is possible to search for more information about Known Bugs and/or details of Field Problem Reports.

URL: <http://pww.eureka.aai.ms.philips.com/KanisaSupportCenter/php/home.do>
Select: *Product: Magnetic Resonance*
Document Types: Factory Tips
Search string: EWS

5.12.3 Problem Reporting

If a structural problem with the system arises which can be attributed to an error in the system, this problem should be reported to the MR Helpdesk via:

- The “Customer Feedback Management System”, **for North America ONLY** (Philips Global Sales and Service), using link <https://cfwebportal.healthcare.philips.com>
- A Field Problem Report via E-mail, **for OTHER than Philips Global Sales and Service North America**
 - Use PRForm-2 available on the Intranet.
 - URL: <https://incenter.medical.philips.com/>
 - Click on “Field problem Reporting, FPR view”
 - Fill in PRForm-2 including:
 - Complete and detailed description of the problem.
 - Relevant configuration information (computer type (Dell T5500/T7400/690/670).
SW-Release R2.6.3.1, presence of non-standard hardware e.g. Video board, System reference number, SSD reference number, Hospital, Sender, City etc.)

To facilitate rapid processing of the Field Problem Report, the following items may be included:

- If an EWS performance problem needs to be analysed:
Enable the performance logging:
 - Select: Start -> Philips -> Configuration Tools -> Set logging level
 - Check: Performance log messages:

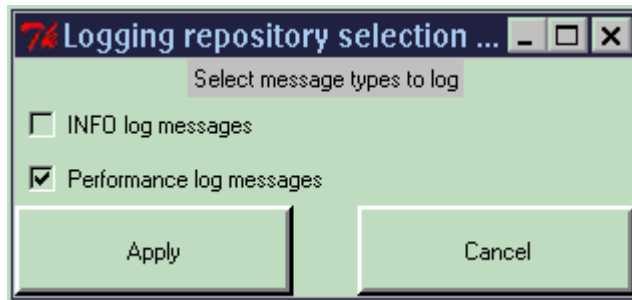


Figure 5-6 Performance log messages

- Select: Apply
- Restart the VF system monitor:**
- Run: services.msc
 - Select: ViewForum system monitor
 - Select: Restart

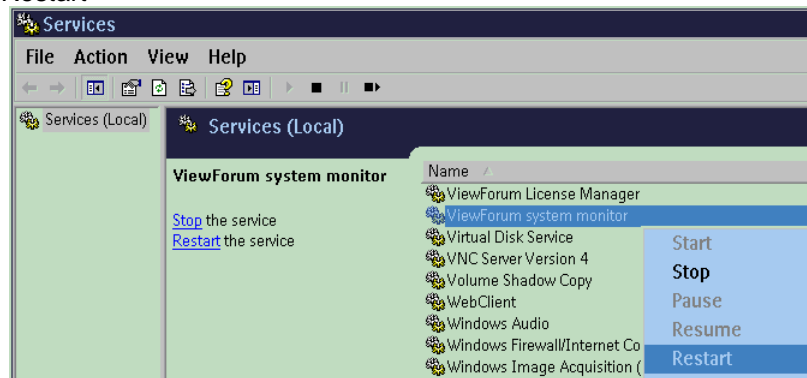


Figure 5-7 Restart VF System Monitor service

Try to reproduce the performance issues and describe in detail what the actions are and when the problem occurs, e.g. use screenshots to make clear where the problem occurs. Write down the exact date and time the problem is visible so that it can be traced in the logfiles.

- Zipped (MR and VF) log files:

Preparation:

 - Exit from the EWS application software and MRUser account
 - Login: MRService + password

VF logfiles:

 - Select: Start → Diagnostic Tools → Logfiles → Archive VF logfiles
 - Select: Browse and select the location to store the zipped log file (e.g. memory stick)

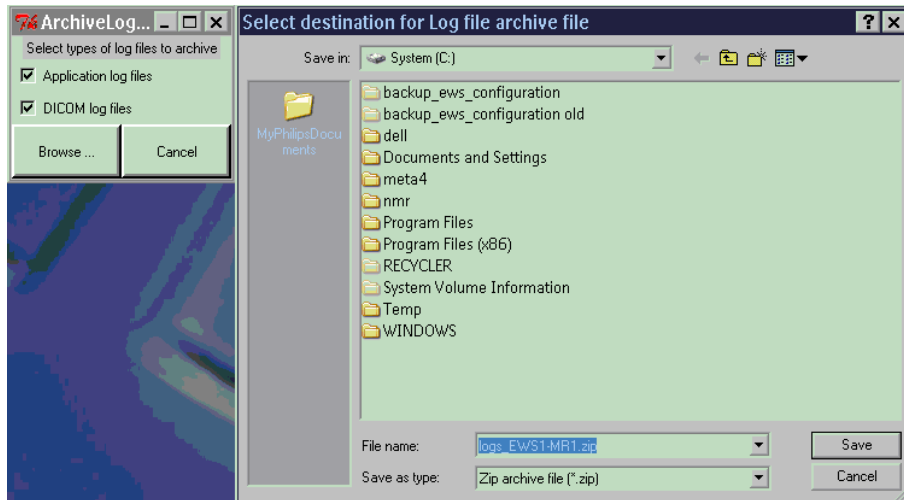
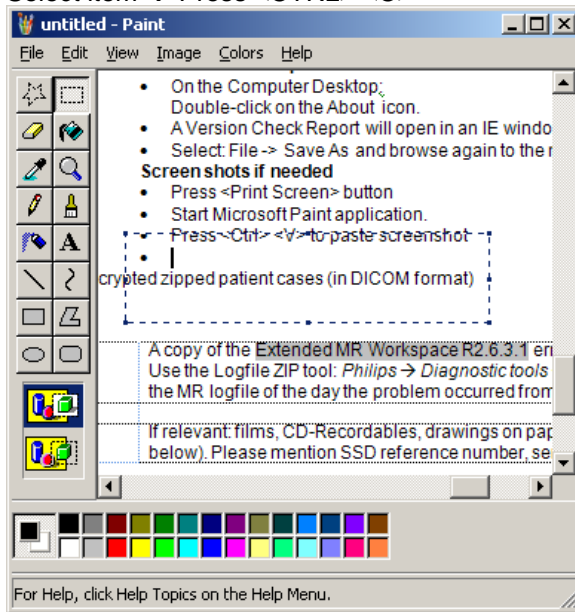


Figure 5-8 Archive VF-logfiles

MR Logfiles:

- Start WXP Explorer
- Browse to: D:\log folder
- Select the MR logfiles you want to compress
- R-mouse click and select: Send To -> Compressed (zipped) Folder
- Rename the zipped file to: MR_logs.zip
- Copy the zipped file onto memory stick
- Version Check Report:
 - On the Computer Desktop: Double-click on the About icon.
 - A Version Check Report will open in an IE window
 - Select: File -> Save As and browse again to the memory stick to save this report
- Screen shots if needed:
 - Press <Print Screen> button
 - Start Microsoft Paint application.
 - Press <Ctrl> <V> to paste screenshot

- Select item → Press <CTRL> <C>



- Click Edit → Copy to... → Browse to USB memory stick
- Enter filename
- Select Save as type: 256 Color Bitmap (*.bmp;*.dib)
- Click: Save
- Encrypted zipped patient cases (in DICOM format)
- A copy of the configuration files (see section 4.2.1 p. 69)
- If relevant: films, CD-Recordables, drawings on paper, etc.
- If an EWS performance problem was analysed:
 - Restore the Performance logging setting to the unchecked setting:



- Startup the EWS Application software.

6 REFERENCE SHEETS

	DEFAULT		✓	ON SITE VALUES	REMARKS
Hospital Network					
Proxy Server, IP-address and portnumber	-				
DNS-suffix	-				
XP64 UserIDs & Passwords					
Administrator	password or Password1 ¹				
MRSservice	ViewForum1				
Remote	ViewForum1				
MRUser	MRUser				
HospitalAdmin	ViewAdmin1				
EWS UserIDs & Passwords					
administrator	password				Can be used to create customized users
MRUser	MRUser				Make password equal to MRUser on MR-Host
Windows XP settings					
Computer name	phewsxxx				
Speed/Duplex, onboard NIC	Auto				
IP Address, onboard NIC	Automatically obtained				
Subnet, onboard NIC	255.255.255.0				
Default Gateway, onboard NIC	Automatically obtained				
DNS-server 1, onboard NIC	Automatically obtained				
DNS-server 2, onboard NIC	Automatically obtained				
IP Address, 2 nd NIC (Direct Link)	Automatically obtained			192.168.73.11	
Country/Region	-				
Time zone	-				
VF Config EWS R2.6.3.1 node					
EWS R2.6.3.1 system name	EWS1				
MAC address	-				
IP node name	EWS1				
IP address	127.0.0.1			127.0.0.1	
Application entity title	EWS1				
Monitor type	-				
Image Database					
Image database name	Database on EWS1				
Free space	1000 MB				
Space to use	-				
Peripheral settings					
DVD Recordable drive	DVD Recordable on EWS1				
DVD Reader drive	CD/DVD Rom on EWS1				
DICOM Printer	-				
Paper printer					
Try and Buy licenses activated / expire date					
✓ Try&Buy license	Expire date				
	Radiology Reporting				
	MR Cardio Specialist				
	Coro 3D				
	Merge View				
	Premium perf. option				

¹ Factory Image installed EWS

<<Important>> For Security and Intellectual Property reasons, file this sheet in a secure place. <<Important>>

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Hand-Over Checklist

		OK ? (✓)	Remarks
	Introduction		
	Complete Delivery ?		
	DELL Service Transfer		
	Installation		
	Hardware Installation OK		
	Voltage adapted to local?		
	System start-up normal?		
	Refer to Reference Sheet from SIM		
	Setting to work		
	• Monitor Calibration		
	• Printer Calibration		
	Printer 1:		
	Printer 2:		
	Printer 3:		
	Printer 4:		
	Printer 5:		
	• IDCC Calibration		
	• Remote Support		
	• Backup		
	• Network Topology		
	Handover Procedure		
	• Completeness		
	• Power On/Off		
	• Data Management		
	• Customization		
	• Applications		
	• Network Communication		
	• Printing		
	• Maintenance Menu		
	• Training/Support		
	• Remote Support		