Technical Information

syngo® Dynamics Cardiovascular Imaging and Information System (CVIS) is used for the acceptance, transfer, display, storage, archive, and manipulation of digital medical images, as well as, quantification and report generation. syngo Dynamics also provides the ability to manage patient information, order entry, whiteboard scheduling and business analytics.

With syngo Dynamics you can rapidly read multi-modality images and create reports for your cardiovascular patients. Studies from across your enterprise can be accessed quickly, and are available at your fingertips. Customizable templates enable you to tailor evidence-based structured reporting to efficiently meet your needs and workflow. And in conjunction with syngo.via®, you have fast access to advanced visualization functionality.

All of this creates a solid basis for your decision making. In addition, you can conveniently access the system from wherever you are, using a wide variety of internet-enabled devices.

Sustainable Cardiovascular Care

IT Systems to help you deliver quality outcomes efficiently.
Care teams have access to the patient’s clinical information from various sources, while reviewing multi-modality images to provide a more holistic view of the patient.

Administrators gain an understanding of critical metrics needed to improve performance, quality and reimbursement.

IT investment is secured with an integrated, modular and scalable infrastructure.

Key Benefits

Fast Reading
- Access prior studies across the enterprise
- Personalize image layout and workplace
- Leverage advanced visualization with syngo.via®

Efficient Reporting
- Customize templates and layouts
- Rapidly finalize reports with automated steps
- Consolidate multiple reports into one final report

Universal Access
- Remotely complete a report from anywhere
- Review images and reports on mobile devices
- Enable referring physicians to view completed studies

www.siemens.com
Modality Support
- Echocardiography
- Cardiovascular angiography, Electrophysiology
- OB/GYN, general ultrasound imaging
- Vascular imaging
- Nuclear cardiology
- CR, DX, secondary review
- Advanced visualization for CT, MR and MI
- Intravascular Ultrasound
- Optical Coherence Tomography

Evidence-based Reporting
“Clinically relevant report generation”
- Carry forward
- Mandatory fields
- Historical graphs
- Military ID Rank
- Single-click macro diagnosis
- Embedded images in report
- Phrases on worksheet
- Report table filtering of worksheet data
- Radiation Dose display per study through DICOM SR
- Full measurement and calculation package
- Customizable calculations (including gender-based)
- AXIOM Sensis Coronary Tree Illustrator (CTI) synchronization with syngo Dynamics Coronary Tree reporting (CTR)
- Nuclear Cardiology support through INVIA Corridor4DM NM
- Nuclear Cardiology Native-View (in absence of INVIA Corridor4DM NM)
- Specialized pediatric and fetal reporting
- Advanced ultrasound image display
- syngo Ultrasound Workplace
- Philips QLAB
- Advanced cardiovascular angiography quantification and analysis
- PMI CAAS
- Pediatric DICOM SR (to include proprietary measurement import from qualified Philips ultrasound devices)
- Pediatric and Adult
- DICOM SR support from qualified imaging devices
- DICOM 3.0
- IHE profiles support

Siemens Best-Practice Integration and Interfaces
- AXIOM Sensis Coronary Tree Illustrator (CTI) synchronization with syngo Dynamics Coronary Tree reporting (CTR)
- syngo Ultrasound Workplace v3.0 and v3.5
- Patient context sharing with third-party application launch tool
- INVIA Corridor4DM v2010 nuclear cardiology and CT interface
- Philips QLAB v9.0
- PMI CAAS v5.9 and v5.10

Customer Benefits
- Study type and protocol report standardization
- Alignment with accepted clinical standards and guidelines
- Auto-population of measurement and reporting elements
- Enables compliance with national accreditation standards and registry protocols
- Interface with advanced 3rd party applications
- Enhancement of hemodynamic and intra-procedural documentation
- Support for healthcare connectivity initiatives
- Support of quality measures

Web-accessible Reporting
“Remote access extends image review and reporting to in-progress studies and enterprise level.”
- Generic measurement tool package with manual entry of measurements and calculations
- Nuclear Cardiology - Native dataset display
- Apple® iPad and Apple® iPhone support (Image and Report view only)⁶
- Consumption of workplace license only after reporting is launched
- Support Web API Call up across departments on a single server

Siemens Best-Practice Integration and Interfaces
- syngo Dynamics Mobile⁴
- syngo Dynamics Portal Reporting⁵
- Microsoft® Silverlight™ web-access technology³
- Quick access to full-quality DICOM view option⁵
- GE MacLab® v6.5 and v6.8
- GE Prucka Cardiolab® v6.5 and v6.8
- Philips Witt Series IV v7.96 and v8.1
- Philips Xper

Customer Benefits
- Enable report and image review through smart technologies
- Remote access to review, report, and distribute patient study findings
- Ability to create a report on an in-progress studies
- Efficient remote reporting licensing consumption

Specialty Reporting
OB/GYN and General Ultrasound Imaging
- Fetal biometry measurements; auto-populate worksheet and report
- Historical fetal growth curves
- Extensive library of fetal anatomy (including associated anomalies)
- Support of Boston Z scores regression equations
- Advanced 3D ultrasound image display and post processing integration
- syngo®. fourSight™ Workplace

Cardiovascular Angiography
- Point-of-Care documentation
- Enhanced Coronary Tree Reporting (CTR)
- Capture select data from third-party hemodynamic systems
- Artis zee cockpit
- Support of PMI CAAS with DICOM SR import to include: CAAS QCA, CAAS QVA, CAAS LVA, CAAS RVA

Siemens Best-Practice Integrations and Interfaces
- AXIOM Artis interface
- Artis zee® cockpit interface
- Intravascular Ultrasound (IVUS) support
- Optical Coherence Tomography (OCT) support
- syngo®. fourSight™ Workplace
- GE MacLab® v6.5 and v6.8 hemodynamic system interface
- GE Prucka Cardiolab® v6.5 and v6.8 data import interface
- Philips Witt Series IV v7.96 and v8.1 interface
- PMI CAAS (v5.92 and v5.10)
- Philips Xper
<p><strong>Customer Benefits</strong></p>

- Offers advanced 2D/3D and volume image display support for ultrasound images
- Interface with advanced 3rd party applications
- IVUS and OCT support
- Hemodynamic and Electrophysiology data import from qualified 3rd party systems
- Flexible monitor display support
- Artis zee cockpit

<p><strong>Advanced connectivity with AXIOM Sensis</strong></p>

- Bidirectional database connectivity with AXIOM Sensis hemodynamic system (VC11A, VC11B, VC11C, VC11D and VC12)
- Bidirectional database connectivity with AXIOM Sensis electrophysiology system
- Embedded CARTO map image through AXIOM Sensis
- Fractional Flow Reserve (FFR) support through AXIOM Sensis
- Waveform archive, ablation HPI, CTI
- AXIOM Sensis Coronary Tree Illustrator support

<p><strong>Siemens Best-Practice Integrations and Interfaces</strong></p>

- AXIOM Sensis hemodynamic system integration
- Fractional Flow Reserve (FFR) support through AXIOM Sensis
- Intravascular Ultrasound (IVUS) support through AXIOM Sensis
- Optical Coherence Tomography (OCT) support through AXIOM Sensis

<p><strong>Customer Benefits</strong></p>

- Bidirectional database exchange of Hemodynamic and Electrophysiology data from AXIOM Sensis XP (VC11A, VC11B, VC11C, VC11D and VC12)
- IVUS and OCT support through AXIOM Sensis
- Fractional Flow Reserve (FFR) support

<p><strong>Advanced Visualization and Reporting</strong></p>

- <code>syngo</code> Dynamics and <code>syngo.via</code><sup>2</sup>
- Access to <code>syngo.via</code><sup>2</sup> advanced applications
- Automated case preparation
- Disease-specific case navigation
- Findings management and documentation

<p><strong>Siemens Best-Practice Integration and Interfaces</strong></p>

- <code>syngo</code> Dynamics
- <code>syngo.via</code><sup>2</sup>

<p><strong>Customer Benefits</strong></p>

- Access to multi-modality advanced visualization applications through <code>syngo</code> Dynamics

<p><strong>Data Analysis and Distribution</strong></p>

- Database API
- Data Mining Tool
- Discrete Data Export (DDE)
- <code>syngo</code> Dynamics Analytics<sup>1</sup>

<p><strong>Customer Benefits</strong></p>

- Flexible database criteria search tools to enable queries of discrete data elements to assist in clinical research or administrative purposes
- Provides for the export of configurable, structured data to a static directory for distribution to a specific third party registry application
- Reports and graphical display to include model and ad-hoc reporting through <code>syngo</code> Dynamics Analytics

<p><strong>User Workflow Enhancements</strong></p>

- “Multi-modality user interface flexibility”
- Customizable study list and expanded search options
- Take control of a locked study
- Thumbnail viewer
- Automatic return to study list after report verification
- Table filtering of worksheet data
- Collaborative reporting (simultaneous reporting and documentation)
- Pre-procedural documentation at any time
- Multiple report sign off
- Upload multiple reports in one final report
- Modify verified reports
- Stress and non-stress view layout
- Flexible stress grid display (Stress Echo)
- Multimodality compare mode
- Biplane synchronization
- Waveform archive, CARTO, ablation HPI, CTI
- DSA mask selection
- Gamma correction and edge enhancement
- Image annotation tool
- Image review manipulation tool support
- DICOM field and header display
- Master Patient Index (MPI) support
- Personalized workspace (Single to tri-monitor configuration (horizontal and vertical “stackable” monitor display)
- NUANCE™ Dragon Natural Speech: Medical VC11 support

<p><strong>Siemens Best-Practice Integration and Interfaces</strong></p>

- <code>syngo</code> Dynamics Structure Reporting
- AXIOM Sensis bi-directional connectivity

<p><strong>Customer Benefits:</strong></p>

- Highly flexible stress echo image display
- Workflow tools to organize, optimize and anonymize images
- Personalize workspaces with flexible monitor configuration capabilities
- Flexible filtering table data capabilities provides only the use of necessary information
- Expedite critical reporting by taking control of locked studies
- Option to augment free text reporting through the use of voice recognition software
- Enables to begin pre-procedural documentation anytime
- Real time saving of data entered in the worksheet into the database while in collaboration mode
- Allows more than a single user to be concurrently entering data in worksheet
- Flexible multiple report workflows for efficient usability of system

<p><strong>Enterprise View and Deployment</strong></p>

- “Management tools to streamline serviceability and access”
- Hardware independent workstation and server
- Single login across multiple departments and servers
- Microsoft<sup>®</sup> Active Directory integration for user authentication and password
- Enterprise view: multiple database access
- Enterprise search: cross-server/department patient search
- Instant access to enterprise prior studies
• Enterprise compare of prior studies across-departments and servers
• Enterprise User Management
• Critical results flag via HL7
• Demographic reconciliation and order association
• VMware support for software verification in a test environment
• AGFA Vault Vendor Neutral Archive support
• Workplace floating licenses
• LAN-deployable workplace
• HSM archiving (DICOM archive or NAS)
• Native monitor resolution
• Servers scaled to fit your needs
• Server - Windows® SQL Server 2008 R2
• Server - Windows® SQL Server 2012 Std


• Workstations - Windows® XP SP2 or higher (32-64 bit), Vista or Windows® 7 or later
• Server support of 64 bit
• Support Acrobat Reader 10 or later
• Workplace API
• RIS Query/Retrieve

*Siemens strongly recommend the use of Microsoft Windows 7 or Windows 7 SP1 or higher. Microsoft will be ending their support for Windows XP effective April 8, 2014. Please see the link below for more details http://www.microsoft.com/en-us/windows/endofsupport.aspx

Siemens Best-Practice Integration and Interfaces
• syngo Ultrasound Workplace
• Third-party application launch tool
• VMware
• AGFA Vault Vendor Neutral Archive

Customer Benefits
• Single point of control and login across multiple departments and servers
• Enables enterprise-wide management tools to streamline serviceability
• Enables automatic instant search for all priors across the enterprise
• Provides user with the ability to access HIS information and query retrieve RIS information within a cardiovascular reading environment
• Provides flexible license configurations
• Access HL7 management tools
• Microsoft® Active Directory provides time efficient centralized user management
• Advanced data transparency through Vendor Neutral Archive

Patient Management
“Adaptable patient management and flexible workflows” and “Web-accessible solutions”
• Patient search
• Admissions review
• Order entry and review, patient merge/reconciliation
• Emergency patient registration
• Account merge message handling
• Multi-entity enterprise data access

• Multi-modality patient image and report access from syngo Dynamics
• Concatenated copy of finalized report sent from syngo Dynamics following completion of exams
• Dynamic enterprise-wide patient scheduling to include an anonymized public view
• Configurable default procedures for generic orders—a manual add on for additional procedures
• Sensis triggers of patient status change on Whiteboard (ongoing and complete)
• Customizable Model Key Performance Indicators (KPIs) and Ad-Hoc reporting
• Workplace API, Workplace DICOM Query/Retrieve
• RIS Query/Retrieve
• New Category EP support on Whiteboard

Siemens Best-Practice Integration and Interfaces
• syngo Dynamics Patient Jacket
• syngo Dynamics Whiteboard
• syngo Dynamics Analytics

Customer Benefits
• Support clinical decisions with powerful easy-to-use outcomes analysis tools.
• Reporting Services “SSRS”.
• Consolidated enterprise-wide data from syngo Dynamics that allows graphical and summary reporting including drill down reports.
• Allows enterprise-wide access to patient relevant details of a current admission and review historical patient encounters.
• Access to multi-modality reports and images, relevant medical histories and lab data.
• Enables a common electronic real-time view of scheduled exams across the enterprise including an anonymized public view.
• Provides a multi-procedural, color-coded, enterprise view of scheduled exams to track a patient’s status from point of scheduling through study completion.
• Enables configurable and convenient procedure scheduling by allowing flexibility of choosing Sensis triggers for Whiteboard status changes (ongoing and complete).
• Enables view and modify add-on procedures associated with a generic order in the Patient Jacket or Whiteboard.
syngo Dynamics Technical Requirement Specifications

syngo® Dynamics Workplace Requirements

Hardware requirements for syngo Dynamics Workplace:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>One multi-core processor 2.4-2.8GHz</td>
</tr>
<tr>
<td></td>
<td>Or Two single-core processors 3.0-3.5GHz</td>
</tr>
<tr>
<td>Memory</td>
<td>3-4 GB</td>
</tr>
<tr>
<td>Data &amp; Address Bus Speeds of the CPU</td>
<td>1000 MHz or better</td>
</tr>
<tr>
<td>Video Adapter</td>
<td>PCI express graphic card with 256MB Video Memory with dual DVI ports (3D/4D offline review - nVidia chipset)</td>
</tr>
<tr>
<td>Hard Disk Drive</td>
<td>100GB-300GB (minimum 1GB free space)</td>
</tr>
<tr>
<td>CD device</td>
<td>At least 1 required</td>
</tr>
<tr>
<td>Ethernet</td>
<td>1Gbps Ethernet controller</td>
</tr>
<tr>
<td>Display</td>
<td>Two 20”-24” LCD Monitors (S-PVA TFT, S-IPC TFT or Medical Grade LCD)</td>
</tr>
<tr>
<td></td>
<td>Resolution: 1280x1024 - 1920x1200</td>
</tr>
<tr>
<td>Mouse, Keyboard</td>
<td></td>
</tr>
</tbody>
</table>

Software requirements for syngo Dynamics Workplace:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows XP*</td>
<td>SP2 or higher</td>
</tr>
<tr>
<td>Microsoft Windows 7</td>
<td>or Windows 7 SP1 or higher</td>
</tr>
<tr>
<td></td>
<td>- Ultimate, Professional, Enterprise, Ultimate N, Professional N, or Enterprise N</td>
</tr>
<tr>
<td>Windows Components SNMP</td>
<td></td>
</tr>
<tr>
<td>Microsoft Internet Explorer</td>
<td>7.0 or greater</td>
</tr>
<tr>
<td>Adobe Acrobat Reader</td>
<td>7.0 or greater</td>
</tr>
</tbody>
</table>

*Siemens strongly recommend the use of Microsoft Windows 7 or Windows 7 SP1 or higher. Microsoft will be ending their support for Windows XP effective April 8, 2014. Please see the link below for more details

Hardware/Software Requirements for the syngo® Dynamics SL Server

Hardware requirements for SL Server:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>One Intel® Xeon® Multi-core Processor</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB</td>
</tr>
<tr>
<td>Video</td>
<td>Super VGA supporting 1024x768 or higher resolution</td>
</tr>
<tr>
<td>RAID controller</td>
<td>RAID controller supporting RAID 1 and RAID 5 with software monitoring feature</td>
</tr>
<tr>
<td>RAID Write Cache Enabled</td>
<td></td>
</tr>
<tr>
<td>Hard Disk Space</td>
<td></td>
</tr>
<tr>
<td>C: System Disk</td>
<td>90 GB partition (4 KB cluster size)</td>
</tr>
<tr>
<td>F: Database</td>
<td>30GB (64 KB cluster size)</td>
</tr>
<tr>
<td>G: Cache</td>
<td>300GB (64 KB cluster size)</td>
</tr>
<tr>
<td>T: ThumbnailCache</td>
<td>20GB (64 KB cluster size)</td>
</tr>
<tr>
<td>W: WebImageCache</td>
<td>1/6th of available cache space (64 KB cluster size)</td>
</tr>
<tr>
<td>DVD device</td>
<td>At least 1 required</td>
</tr>
<tr>
<td>Ethernet Controller</td>
<td>One 1000 Mbps (1Gbps) NIC controller, or two NIC controllers with redundant fail-over</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Power Supply</td>
</tr>
<tr>
<td>USB Ports</td>
<td>(n)USB ports for dongles</td>
</tr>
</tbody>
</table>

Software requirements for SL Server:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Microsoft Windows 2008 Server Standard Edition R2 SP1 or SP2 (64-bit)</td>
</tr>
<tr>
<td>Database Server</td>
<td>Microsoft SQL Server 2008 R2 SP1 or SP2 Standard Edition or Microsoft SQL Server 2012 Standard Edition~</td>
</tr>
<tr>
<td>Web Server</td>
<td>Microsoft Internet Information Services 7.5</td>
</tr>
<tr>
<td>Software Framework</td>
<td>Microsoft .NET version 4.0</td>
</tr>
<tr>
<td>Extensions</td>
<td>Install Silverlight 5 Runtime</td>
</tr>
<tr>
<td></td>
<td>Install Reactive Extension RX runtime for dot net</td>
</tr>
<tr>
<td></td>
<td>Install Reactive Extension RX runtime for Silverlight</td>
</tr>
<tr>
<td></td>
<td>Install MSMQ (Enable MSMQ)</td>
</tr>
</tbody>
</table>

~Microsoft SQL Server 2012 standard can be licensed as server/CAL or core based
Hardware/Software Requirements for the syngo® Dynamics DL Server

Hardware requirements for DL Server:

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU</strong></td>
<td>Two Intel® Xeon® Multi-core Processors</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>16 GB</td>
</tr>
<tr>
<td><strong>Video</strong></td>
<td>Super VGA supporting 1024x768 or higher resolution</td>
</tr>
<tr>
<td><strong>RAID controller</strong></td>
<td>RAID controller supporting RAID 1 and RAID 5 with software monitoring feature</td>
</tr>
<tr>
<td><strong>Hard Disk Space</strong></td>
<td>C: System Disk 90 GB partition (4 KB cluster size).</td>
</tr>
<tr>
<td></td>
<td>F: Database 100 GB (64 KB cluster size)</td>
</tr>
<tr>
<td></td>
<td>G: Cache 1TB (64 KB cluster size)</td>
</tr>
<tr>
<td></td>
<td>T: ThumbnailCache 80 GB (64 KB cluster size)</td>
</tr>
<tr>
<td></td>
<td>W: WebImageCache 1/6th of available cache space (64 KB cluster size)</td>
</tr>
<tr>
<td><strong>DVD device</strong></td>
<td>At least 1 required</td>
</tr>
<tr>
<td><strong>Ethernet Controller</strong></td>
<td>One 1000 Mbps (1Gbps) NIC controller, or two NIC controllers with redundant fail-over</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Redundant Power Supplies</td>
</tr>
<tr>
<td><strong>USB Ports</strong></td>
<td>(n)USB ports for dongles</td>
</tr>
</tbody>
</table>

Software requirements for DL Server:

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating System</strong></td>
<td>Microsoft Windows 2008 Server Standard Edition R2 SP1 or SP2 (64-bit)</td>
</tr>
<tr>
<td><strong>Database Server</strong></td>
<td>Microsoft SQL Server 2008 R2 SP1 or SP2 Standard Edition or Microsoft SQL Server 2012 Standard Edition~</td>
</tr>
<tr>
<td><strong>Web Server</strong></td>
<td>Microsoft Internet Information Services 7.5</td>
</tr>
<tr>
<td><strong>Software Framework</strong></td>
<td>Microsoft .NET version 4.0</td>
</tr>
<tr>
<td><strong>Extensions</strong></td>
<td>Install Silverlight 5 Runtime</td>
</tr>
<tr>
<td></td>
<td>Install Reactive Extension RX runtime for dot net</td>
</tr>
<tr>
<td></td>
<td>Install Reactive Extension RX runtime for Silverlight</td>
</tr>
<tr>
<td></td>
<td>Install MSMQ (Enable MSMQ)</td>
</tr>
</tbody>
</table>

~Microsoft SQL Server 2012 standard can be licensed as server/CAL or core based
Hardware/Software Requirements for the syngo® Dynamics EL Server

Hardware requirements for EL server:

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU</strong></td>
<td>Four Intel® Xeon® Multi-core Processors</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>32 GB</td>
</tr>
<tr>
<td><strong>Video</strong></td>
<td>Super VGA supporting 1024x768 or higher resolution</td>
</tr>
<tr>
<td><strong>RAID controller</strong></td>
<td>RAID controller supporting RAID 1 and RAID 5 with software monitoring feature</td>
</tr>
<tr>
<td></td>
<td>RAID Write Cache enabled</td>
</tr>
<tr>
<td><strong>2nd RAID controller</strong></td>
<td>in case External RAID integrated</td>
</tr>
<tr>
<td><strong>Hard Disk Space</strong></td>
<td></td>
</tr>
<tr>
<td>C: System Disk</td>
<td>90 GB partition (4 KB cluster size)</td>
</tr>
<tr>
<td>F: Database</td>
<td>400GB (64 KB cluster size)</td>
</tr>
<tr>
<td>G: Cache</td>
<td>5TB (may be stored on External RAID with additional N:Cache2 if necessary)</td>
</tr>
<tr>
<td></td>
<td>(64 KB cluster size)</td>
</tr>
<tr>
<td>T: ThumbnailCache</td>
<td>300GB (64 KB cluster size)</td>
</tr>
<tr>
<td>W: WebImageCache</td>
<td>1/6th of available cache space (64 KB cluster size)</td>
</tr>
<tr>
<td>DVD device</td>
<td>At least 1 required</td>
</tr>
<tr>
<td><strong>Ethernet Controller</strong></td>
<td>One 1000 Mbps (1Gbps) NIC controller, or two NIC controllers with redundant fail-over</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Redundant Power Supplies</td>
</tr>
<tr>
<td><strong>Fan</strong></td>
<td>Redundant Fans</td>
</tr>
<tr>
<td><strong>USB ports</strong></td>
<td>(n) USB ports for dongles</td>
</tr>
</tbody>
</table>

Software requirements for EL Server:

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating System</strong></td>
<td>Windows 2008 Server Standard Edition R2 SP1 or SP2 (64-bit)</td>
</tr>
<tr>
<td><strong>Database Server</strong></td>
<td>Microsoft SQL Server 2008 R2 SP1 or SP2 Standard Edition</td>
</tr>
<tr>
<td></td>
<td>or Microsoft SQL Server 2012 Standard Edition~</td>
</tr>
<tr>
<td><strong>Web Server</strong></td>
<td>Microsoft Internet Information Services 7.5</td>
</tr>
<tr>
<td><strong>Software Framework</strong></td>
<td>Microsoft .NET version 4.0</td>
</tr>
<tr>
<td><strong>Extensions</strong></td>
<td>Install Silverlight 5 Runtime</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Install MSMQ (Enable MSMQ)</td>
</tr>
</tbody>
</table>

~Microsoft SQL Server 2012 standard can be licensed as server/CAL or core based

Monitors:
The quality of displayed images is highly dependent on the quality and settings of the monitors, graphics cards, and graphics drivers that are used. It is the customer’s responsibility to ensure that client monitors are compatible with graphic cards and graphic drivers. It is also his/her responsibility to use suitable monitors for diagnostic purposes. (Country-specific regulations/laws may apply)
Web Access and Administrative Features
The syngo Dynamics Cardiovascular imaging and information system (CVIS) provides tools for department or enterprise-wide management and web distribution of images and reports. Supporting your need to manage and access patient data. Providing you with a logical, comprehensive and flexible system fulfilling the requirements set by your department and healthcare organization objectives.

syngo Dynamics Portal Reporting\(^5\) and syngo Dynamics Mobile\(^4\) are based on the intuitive syngo Dynamics user interface and offer fast, effective, and user-friendly access to all images and reports.

Security Features
syngo Dynamics security features can help your site develop policies to comply with privacy and security regulations for controlling access to Protected Health Information (PHI).

The syngo Dynamics privacy and security package activates the following features:
- HIPAA-compliant audit trail logging
- Emergency user access
- Single logon from Windows high security directly to syngo Dynamics
- Auto logoff in high-security mode
- HIPAA-compliant administrator defined levels of study access

Simplifying Your Operations through Siemens Value-Added Services
Siemens value-added services will help you significantly increase your workflow and improve your performance in cardiovascular care. Siemens Life Program assists you in getting the most from your investment. Our wide array of clinical education and customer support enables the continuous development of your skills, productivity, and technology.

syngo. It’s all about you.
Siemens Consulting and IT services offer optimized processes and methods that can help you optimize your organizational structures and adapt swiftly to evolving market demands.

Information Availability
syngo Dynamics has been designed to ensure data integrity and rapid results distribution throughout your facility. Interface engines for a variety of HIS and departmental information systems are available, and especially robust data and image management capabilities are available for integration to Siemens Soarian\(^8\) systems. Information security is of particular concern, and syngo Dynamics supports regulatory and legal compliance to HIPAA and PHI standards. To build confidence in the reliability of your system, Siemens can provide high availability configurations, including failover and cold-server options and VMware support for software verification in a test environment.

Building on Experience
syngo Dynamics continues a long tradition of departmental IT excellence by adding the global knowledge reach of Siemens Healthcare. Siemens brings together expertise in all aspects of cardiology and information and image management - syngo has grown into a true multimodality, multifunctional system.

Siemens Cardiovascular IT: At the heart of Imaging and Information
With a single platform for image review and data management, syngo Dynamics combines technical capability and clinical expertise toward the best cross-departmental system possible.

It’s more than just information or technology. It’s about efficiently enabling the best patient care.
syngo is the most widely installed clinical imaging IT in the world. Why? Because syngo
- helps you to examine more patients in less time
- helps you to make more precise diagnoses
- supports you to work more effectively with referring physicians.

In a nutshell: It helps you to use your imaging systems more efficiently over the long term.
syngo. It’s all about you.

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1. This feature is currently only available for sale in the United States and Canada.
2. syngo.via can be used as a stand-alone device or together with a variety of syngo.via-based software options, which are medical devices in their own right.
3. Prerequisites include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements and adherence to local data security regulations.
4. syngo Dynamics mobile is not for diagnostic use. syngo Dynamics Mobile is designed for optimal performance on the iPad and iPhone. It may or may not function on other devices, such as an Android.
5. Diagnostic reading of images with a web browser requires a medical grade monitor using the original quality viewer.
6. The iPhone\(^6\) and the iPad\(^7\) are registered trademarks of Apple Inc., registered in the U.S. and other countries.
The product is provided with a CE mark in accordance with the regulations stated in Council Directive 93/42/EEC of June 14th, 1993, concerning Medical Devices.

The CE marking applies only to Medical Devices which have been put on the market according to the above-mentioned EC Directive. Unauthorized changes to this product are not covered by the CE mark and the related Declaration of Conformity.

Whenever the hardware is necessary to start the supplied software, the CE Mark Is provided in accordance with, if applicable, Electro Magnetic Compatibility Directive 2004/108/EC and/or Low-Voltage Directive 2006/95/EC

Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.

The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications, and options described herein without prior notice. Please contact your local Siemens sales representative for the most current information.

Caution: Federal Law restricts this device to sale by or on the order of a physician

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