



syngo[®] Dynamics

Release Notes - EHR Release Information

VA40

This page is left blank intentionally.

1	Release Information <i>syngo</i> Dynamics VA40	5
2	Product Overview	6
	Integration with Cerner Cardiology Workflow System	6
3	Further information about <i>syngo</i> Dynamics	8
4	Legal information	9
5	VA40B_HF02 Release Information	11
	New Improvements	11
	Image Review	11
6	VA40B_HF01 Release Information	13
	New Improvements	13
	Generic	13
	Image Review	13
	Reporting	13
	Report Designer	14
7	VA40B Release Information	15
	New Enhancements	15
	Generic	15
	System Administration	15
	Image Review	16
	Reporting	16
	Security	16
	Third-party Applications	17
	Modified Features	17
	Limitations	18
	Obsoleted Functionality	18
8	VA40A Release Information	19
	New Enhancements	19
	Generic	19
	Installation and Logging In	19
	System Administration	20
	Image Review	20
	Reporting	20
	Report Designer	21
	Security	22
	Third-party Applications	23
	Modified Features	23
	Limitations	24
	Obsoleted Functionality	24

Table of Contents

9 Software of other vendors25

1 Release Information *syngo* Dynamics VA40

Dear Customer: Welcome to *syngo* Dynamics VA40, the Cardiovascular Imaging and Information System.

The software contains enhancements and improvements to features from the previously released software version. Please read the Release Notes for complete information on these enhancements and improvements. The Release Notes is cumulative, thus containing information pertaining to all releases made for this application version. Note that the Release Notes is a supplement to the delivered *syngo* Dynamics user documentation.

User documentation includes information on required knowledge and experience, hardware and software requirements, installation instructions on preparing the server for product installation, installation instructions of the product, security information on how to protect the privacy and security of your patient data, and operating instructions for safe and proper use of the product.

We would appreciate your feedback regarding this software version. If you have any suggestions for future improvements, please forward them to your local Siemens Healthineers representative.

Thank you for placing your trust in Siemens Healthineers. We wish you success in using *syngo* Dynamics.

Siemens Healthcare GmbH / Siemens Medical Solutions USA Inc. 2020.

2 Product Overview

Siemens Healthineers' Cardiovascular Imaging and Information System, *syngo* Dynamics, is used for the acceptance, transfer, display, storage, archive, and manipulation of digital medical images, as well as, quantification and report generation.

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.

All of this creates a solid basis for your decision making. In addition, you can conveniently access the system from wherever¹ you are.

2.1 Integration with Cerner Cardiology Workflow System

The *syngo* Dynamics Image Review and Common Reporting components are integrated with Cerner Cardiology Workflow System (an Electronic Health Record System - EHR). Typically these components are accessible from the Worklist that Cerner Cardiology Workflow System provides. This allows users to read patient studies, double-check measurements and re-measure images, enter observations on worksheets, and update and verify patient reports, all from within Cerner Cardiology Workflow System.

Just like many EHR, the Cerner Cardiology Workflow System environment is designed for users dispersed across the spectrum of clinical, financial and operational responsibilities and can be typically deployed throughout the medical facility.

syngo Dynamics with integrated Cerner Cardiology Workflow System is a powerful solution that combines patient's electronic medical records and comprehensive cardiovascular image reading and reporting into a single system.

1. Prerequisites include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements and adherence to local data security regulations.

This integrated solution helps to improve communication and user experiences through a single point of access to full breadth reading and reporting functionalities from Cerner Cardiology Workflow System.

3 Further information about syngo Dynamics

3 Further information about *syngo* Dynamics

You will find further information about *syngo* Dynamics in the various Help manuals.

These manuals are provided along with the *syngo* Dynamics package and in *syngo* Information Center - Lifenet. Some of the manuals are also available with the application.

Information on detailed technical data is provided in the *syngo* Dynamics Data Sheet.

Screenshots, if depicted, in this Release Notes are for informational purposes only and do not depict the exact data that you would need to enter.

4 Legal information

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.

The software described herein is CE-compliant in accordance with Directive 93/42/EEC Appendix II of June 14th, 1993.

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.

Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice.

Some of the specifications described herein may not be currently available in all countries.

Please contact your local Siemens Healthineers Sales representative for the most current information.

US Patent 7,636,899

4 Legal information

This page is left blank intentionally.

5 VA40B_HF02 Release Information

5.1 New Improvements

This topic contains information on the new improvements made in *syngo* Dynamics VA40B_HF02.

5.1.1 Image Review

- The issue of clip player wrapper and color swatch window not being displayed when three prior studies were opened has been resolved.

5 VA40B_HF02 Release Information

This page is left blank intentionally.

6 VA40B_HF01 Release Information

6.1 New Improvements

This topic contains information on the new improvements made in *syngo* Dynamics VA40B_HF01.

6.1.1 Generic

- The issue of Cerner Cardiovascular Imaging Management System crashing when starting the system after installation has been resolved.

6.1.2 Image Review

- The issue of calculations (that involve measurements drawn in image review) not appearing in the Calc Palette after closing and reopening a study has been resolved.

6.1.3 Reporting

- The issue of failing to re-display the report after closing it with the **Report** button in the Thumbnail viewer has been resolved.
- The issue of Report PDF Viewer crashing on resizing the report has been resolved.
- The issue of study failing to close automatically after report verification if the report is also configured to export when verified has been resolved.
- The issue of failure message not being displayed on report upload failure has been resolved.

6 VA40B_HF01 Release Information

6.1.4 Report Designer

- The issue of graphs not displaying properly when their X and Y axes were defined with negative minimum or maximum values has been resolved.

7 VA40B Release Information

7.1 New Enhancements

This topic contains information on the new enhancements made from the last released version in syngo Dynamics VA40B.

7.1.1 Generic

- Introduced support for Windows 2019 Server Standard Edition (64-bit) and SQL Server 2019 Standard or Enterprise Edition (64-bit) in addition to Windows 2016 Server Standard Edition (64 Bit) and SQL Server 2016 Standard and Enterprise edition (64 bit).
- Included support Microsoft .NET Framework version 4.7.2, Java version 1.8.0_241, and OpenLink version 25.0.3.
- During server migrations, the server downtime has reduced from previous versions. This is done by using SQL transaction logshipping to transfer the database from the old to the new server while the new server is still in production.

7.1.2 System Administration

The server naming is decoupled from the **Server Configuration Tool** configuration. When you add a new server name in the **Server Configuration Tool**, the tool will no longer change the Windows server name automatically. The tool will only update the syngo Dynamics related configuration settings (stored in files, windows registry and database tables) to use the new server name. Contact your IT administrators to follow a sequential procedure to rename the computer as per the name and run the SQL commands to update the default instance name.

7 VA40B Release Information

7.1.3 Image Review

- Generic** ■ Display of components in a single monitor setup depends on the required resolution by each component. Report and worksheet, when open, always take precedence over other components. The image display is also determined by the image pixel size.
- Image Review** ■ Calc Palette is displayed in a separate gadget for the following supported study types: Cardiac, General, Vascular. The shortcut to access the palette is **CTRL+L**.
- All image theaters have specific color swatches. The active view port has the border color same as that of the swatch. When you click on the swatch, the thumbnail pertaining to the image is active.
- The following tools are deactivated after the user completes an activity using the tool and clicks outside the box. The tool is activated again upon selection.
 - Annotation tool
 - Blackout tool
- An active tool from the Measurement Bar has a cursor shape that includes the '+' sign in addition to the standard arrow.

7.1.4 Reporting

- Automatic uploaded report contains the “Completed/Verified By/Amended by” user ID (and not the logged-in user ID).
- A manually uploaded report in **Succeeded** status also contains the “Completed/Verified By/Amended by” user ID (and not the logged-in user ID). Manual Report upload may also fail when the report is in Completed/Verified/Amended state, and the first name and the last name of the user who Completed/Verified/Amended the report is not available.

7.1.5 Security

- All inbound HL7 communication is now supported on TLS 1.2.
- Prober log maintains details about startup and shutdown of applications and services.
- The following STIGs are supported.
 - Microsoft Dot Net STIG - Ver 1, Rel 9
 - Microsoft Internet Explorer 11 STIG - Ver 1, Rel 18
 - Microsoft Windows Server 2016 STIG - Ver 1, Rel 9

- Microsoft Windows Server 2019 STIG - Ver 1, Rel 3
- Microsoft SQL Server 2016 Database STIG - Ver 1, Rel 5
- Microsoft SQL Server 2016 Instance STIG - Ver 1, Rel 8

7.1.6 Third-party Applications

- Newly supported third-party applications are as follows:
 - TomTec 2.31.0
 - Sensis VIBE VD12A

7.2 Modified Features

This topic contains information on the features that have been modified in *syngo* Dynamics from the last released version.

- Deletion of measurements does not leave empty placeholders. The deleted measurement is removed from the image, Calc Palette, and worksheet.
- Different layouts are supported when **Split** option is selected in non-stress echo images. The display options are as follows:
 - Images only for current study and/or up to 2 prior studies
 - Report, worksheet, and images for current study and/or 1 prior studyNo small images are displayed when a prior study is selected in this configuration.
Report, worksheet, images, and Calc Palette for current study

7 VA40B Release Information

7.3 Limitations

This topic contains information on the limitations in the present version of *syngo* Dynamics.

- The following measurement groups are not displayed on the Calc Palette for any supported calc types even if they are configured in Sys Admin.
 - ACC V5
 - Misc
 - Patient Demographics
 - Patient Exam info

7.4 Obsolete Functionality

This topic contains information on the features and third-party applications that are no longer supported in *syngo* Dynamics from the last released version.

- SQL Server 2014 Standard or Enterprise Edition (64-bit) Service Pack 3 is not supported.
- The following STIGs are not supported.
 - Microsoft Dot Net STIG - Ver 1, Rel 8
 - Microsoft Windows 10 STIG - Ver 1, Rel 18
 - Microsoft SQL Server 2014 Database STIG - Ver 1, Rel 6
 - Microsoft SQL Server 2014 Instance STIG - Ver 1, Rel 9
 - STIG numbers: V-67365, V-67367, V-67369

8 VA40A Release Information

8.1 New Enhancements

This topic contains information on the new enhancements made from the last released version in *syngo* Dynamics VA40A integrated with an Electronic Health Record System (EHR).

8.1.1 Generic

- Introduced support for 64-bit Windows client.
- In general, the scaling value for both the primary and secondary monitors should be same. When the scaling is greater than 100%, the number of non-stress echo images displayed as per the selected layout (4:1, 16:1, etc.,) are also scaled accordingly and render in similar sizes across the primary and secondary monitors. The variation between the scaled image sizes in primary and secondary monitors is not greater than 10%. The only limitation is that an image is never smaller than 250 by 200 pixels in size.

8.1.2 Installation and Logging In

- Adding of roles and features to a new installation of Windows Server 2016 has been automated using a script.
- SQL Server configuration has been automated using a script.

8 VA40A Release Information

8.1.3 System Administration

- Users of the SysAdmin application will be automatically locked out if they have exceeded the configured “account threshold” for login attempts within the configured span of “reset account lockout counter”. To log back into the respective application, locked-out users must contact the System Administrator. This is a security enhancement.
- System administrators can configure the Server Configuration tool to map additional HL7 fields to be displayed on the report and worksheet.
- It must be ensured that TCP/IP port 4520 is configured for communication between *syngo* Dynamics Server and Sensis Notification Server.
- To enhance security, ensure that the server host name is used when configuring other servers and the Sensis Notification Server in Sys Admin.

8.1.4 Image Review

- Users can also view read-only images that are not present in the *syngo* Dynamics database.
- When users have the **Print Image** privilege, *syngo* Dynamics enables users to print to configured paper printers.
- If the images are displayed in the Image Review component with the following message - **Study is read-only because the patient demographics cannot be verified** - it indicates that either the study and the order is not present in *syngo* Dynamics or the study is not marked as EHR-owned study in the *syngo* Dynamics database. Users need to click **OK** to continue viewing the images.
- When users confirm storing of studies while saving images as DICOM, the PHI data in the DICOM tags of the images is updated or cleared depending on the type of tags.

8.1.5 Reporting

- Users can open only 2 prior reports and worksheets besides the primary study.
- Study will be closed when a report is verified, completed, or addendum added. When *syngo* Dynamics is integrated with EHR and any report in the study is verified, appended with an addendum, or marked as complete, then the study is closed automatically by EHR.

- When a study has multiple reports, users can mark one of the reports as final report that results in automatic removal the remaining unverified reports from the study. On report verification, when user marks one of the reports as final report, an event is sent to EHR to complete the procedure so that EHR marks the procedure as signed.
- If the Report or worksheet is displayed in the Reporting component with the following message - **Study is read-only because the patient demographics cannot be verified** – it indicates that the study is not marked as EHR-owned study in the syngo Dynamics database.
- If Workplace licenses are revoked by the System Administrator, then a message indicating the same is displayed in the reporting component. The worksheet and/or report appear in read-only mode with requisite watermark messages.
- Users can now use the shortcut keyboard key F4 to open the Calcs Palette. Additionally, a Close (X) button has been added to the Calcs Palette. Users can click this button to close the Calcs Palette at any point in time. The Calcs Palette has been enhanced to include the measurement tools in the palette. Users can select the measurement tools (as supported by an image) from the palette and perform the measurement in the image. Users can also locate measurement on an image from the Calcs Palette.
Two toggle buttons have been added to the Calcs Palette - one to display all the measurement tools at one go and the other to display only the measurements that have been recorded (taken measurements).
In the Calcs Palette, the button to close the Calc Palette (X) is now displayed always. Users do not need to hover over the Calc Palette to get the close button (X). This is in addition to the F4 key allowing the user to close the Calc Palette.

8.1.6 Report Designer

- The new **Parent/Child Editor** enables syngo Dynamics users to configure worksheet conditional field display settings. This gives the user the ability to design a worksheet template that hides the display of a 'child' field on the worksheet until a value for the 'parent' field is specified. Configurations made in the **Parent/Child Editor** apply across the entire template bundle. When creating worksheets, users must configure the template to enable conditional field displayed settings configured in the **Parent/Child Editor**.

8 VA40A Release Information

8.1.7 Security

- Users of the following applications will be automatically locked out if they have exceeded the configured “account threshold” for login attempts within the configured span of “reset account lockout counter”. For example, if the account threshold is set to three and the counter is set to 15 minutes, the user will be locked out after three consecutive unsuccessful login attempts within a span of 15 minutes. To log back into the respective application, locked-out users must contact the System Administrator.
 - Data Mining Application (DMA)
 - SysAdmin
 - Server Configuration Tool
 - Database API
 - HL7 Reconciliation Tool
 - Password entry during verifying a report, marking a study as read, or marking a study as unread
 - Service tools
- The server host name should be included when installing Data Mining Application and HL7 Reconciliation Tool. The server host name must also be used when configuring other servers and the Sensis Notification Server in Sys Admin.
- Audit logs are maintained for the following:
 - Data Mining Application
 - Database API
 - Server Configuration Tool
- Communication port 9876 (sDx Healthcheck) must be configured for communication from Siemens Healthineers Remote Server to syngo Dynamics Server.
- Siemens Healthineers provides measures to ensure that the authenticity and integrity of the syngo Dynamics executables and Powershell scripts are retained, and that the files have not been maliciously altered or corrupted. This is done by having the files digitally signed with FIPS compliant SHA-256 cryptographic hash algorithm.
- The following list contains information on the supported STIGs.
 - Application Security and Development STIG - Ver 4, Rel 9
 - Microsoft Dot Net STIG - Ver 1, Rel 8
 - Google Chrome STIG - Ver 1, Rel 16
 - Microsoft Internet Explorer 11 STIG - Ver 1, Rel 17
 - Microsoft IIS 8.5 Server STIG - Ver 1R6
 - Microsoft IIS 8.5 Site STIG - Ver 1, Rel 8

- Oracle JRE 8 STIG - Ver 1, Rel 5
- Microsoft SQL Server 2014 Database STIG - Ver 1, Rel 6
- Microsoft SQL Server 2014 Instance STIG - Ver 1, Rel 9
- Microsoft SQL Server 2016 Database STIG - Ver 1, Rel 4
- Microsoft SQL Server 2016 Instance STIG - Ver 1, Rel 6
- Microsoft Windows 10 STIG - Ver 1, Rel 18
- Microsoft Windows Server 2016 STIG - Ver 1, Rel 9

8.1.8 Third-party Applications

Siemens Healthineers applications installed on the client can be launched using the context menu in Image Review without having the encrypted option for the Third Party Application Launcher (3PAL). The application must be configured for launch without 3PAL license (on the server) and should be compatible with supported modalities.

The following versions of the third-party applications are subject to external vendor requirements and are subject to change. The newly supported third-party applications (but not limited to) are as follows:

- Corridor4DM 2018
- GE EchoPAC 203.49
- Pie Medical CAAS 8.2
- Philips QLAB 13.0

The current supported third-party applications are as follows:

- Philips QLAB 11.0 & 12.0
- GE EchoPAC 202.30
- TomTec 2.30

8.2 Modified Features

This topic contains information on the features that have been modified in *syngo* Dynamics from the last released version.

- The minimum video resolution for any client machine is modified to 1600x1200.
- To select an image, users need to press **CTRL** and click the left mouse button.

8 VA40A Release Information

- In addition to the keyboard space bar, users may use the mouse left click to stop or start a clip.
- The source data table for embedded CATH measurements for Sensis study has been modified from LP1 to PV. The modified source fields include the following:
 - Syst/A(PV)
 - Diast/V(PV)
 - ED/Mean(PV)
 - Site(PV)
 - Cond. No(PV)
- Java 1.8 is now supported.

8.3 Limitations

This topic contains information on the limitations in the present version of *syngo* Dynamics.

- Microsoft RLE codec is not supported when saving selected clips as AVI or selecting the clips to compress them with CODEC and save as AVI.

8.4 Obsoleted Functionality

This topic contains information on the features that are no longer supported in *syngo* Dynamics from the last released version.

- Microsoft Windows 7 x64 SP1 or higher
- Dragon Medical Practice Edition 2 (Version 12)

This is no longer tested or validated with *syngo* Dynamics. The assumption is that the software supported by Windows will work via the 3PAL launch in *syngo* Dynamics.
- Third-party applications: EchoPAC version 201.84, QLAB version 10.8.5, *syngo* US Application Suite VA16A
- Support for Tape
- Java 1.6
- Silent installation of Data Mining application is not supported.
- DICOM Query Retrieve Tool is not supported.

9 Software of other vendors

We recommend installing only software according to the intended use of *syngo* Dynamics. Other software products must be tested for each site.

For a complete list of software compatible with the *syngo* Dynamics system, refer to the Compatibility Matrix manual or the Datasheet. For a list of open source software installed on your *syngo* Dynamics system, refer the OSS and Acknowledgments manual.

9 Software of other vendors

This page is left blank intentionally.

This page is left blank intentionally.



0123



2020

Manufacturer's note:

All product designations and company names are trademarks or registered trademarks of the corresponding companies.

Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice.

Some of the specifications described herein may not be currently available in all countries. Please contact your local Siemens Healthineers Sales representative for the most current information.

Caution: US federal law restricts the herein described devices to sale by or on the order of a physician.

The software described herein is CE compliant in accordance with Directive MDD 93/42/EEC Annex II.

The original language of this document is English.

Origin US

.....

Local Contact Information in the USA

Siemens Medical Solutions USA, Inc.

40 Liberty Boulevard
Malvern, PA, 19355-9998
U.S.A

Telephone:
+1-610-448-4500
1-888-826-9702

Siemens Healthineers Headquarters

Siemens Healthcare GmbH

Henkestr. 127
91052 Erlangen
Germany

Phone: +49 9131 84-0
siemens-healthineers.com

Legal Manufacturer

Siemens Healthcare GmbH

Henkestr. 127
91052 Erlangen
Germany