

Segment CT Installation Manual



November 8, 2018

Software platform v2.2 R6742


MEDVISO AB
<http://www.medviso.com>
Griffelvägen 3
SE-224 67 Lund
Sweden
Tel: +46-76-183 6442

Contents

1	Conventions and Trademarks	v
1.1	Typographic conventions	v
1.2	Trademarks	v
2	System Requirements	vii
2.1	Operating system	vii
2.2	Hardware requirements	vii
2.3	Safety Instructions	vii
2.4	Installation qualification and User training	viii
3	Installation guide	1
3.1	Installation	1
3.1.1	Installing Matlab Compiler Runtime	1
3.1.2	Installing Segment CT	3
3.1.3	Verify installation of Segment CT	3
3.1.4	Create shortcut	3
3.1.5	Notes for Windows Vista users	3
3.2	Upgrading Segment CT	4
3.3	First time running Segment CT	5
3.3.1	Setting preferences	5
3.3.2	Setting window positions	5
3.3.3	PACS connectivity	6
3.4	Uninstallation	6
3.5	Trouble shooting	6

1 Conventions and Trademarks

1.1 Typographic conventions

A	Key A at the keyboard.
Ctrl-A	Control key. Hold down Ctrl key and A simultaneously.
	Icon in toolbar.
*.mat	Filename extension.
C:/Program	Folder.
File	Menu, e.g. File menu.
File→Save As	Sub menu, e.g. under the File menu the item Save As is found.
<input type="button" value="Close"/>	Push/Toggle button in the graphical user interface.
<input type="radio"/> Endocardium	Radiobutton in the graphical user interface.
<input checked="" type="checkbox"/> Single frame	Checkbox in the graphical user interface.

1.2 Trademarks

Below are some of the trademarks used in this manual.

- Segment CT is a trademark of Medviso AB.
- Segment DICOM Server is a trademark of Medviso AB.
- Sectra PACS is a trademark of Sectra Imtec AB, (<http://www.sectra.se>).
- Matlab is a trademark of the Mathworks Inc, (<http://www.mathworks.com>).

2 System Requirements

In this chapter the hardware requirements for Segment CT are outlined. Possible bottlenecks are (in order of likelihood) lack of RAM memory, CPU speed, and I/O network or disk transfer rates.

2.1 Operating system

Segment CT is available for the following platforms:

- Microsoft Windows 64-bit platform
- For Mac Segment CT can be run on virtual machines such as Parallels or using dual booting

2.2 Hardware requirements

The list below are the recommended hardware requirements for Segment CT.

- Computer with at least 16 GB of memory
- Harddisk with at least 1 GB of available space
- CUDA enabled graphics card with 4GB memory or more
- Internet connection for software license management
- 3-button computer mouse
- Systems with two screens is recommended
- Using SSD disk for reading data is recommended

2.3 Safety Instructions

The computer where Segment CT is installed should have

- anti-virus protection installed to protect against cyber attacks
- login to access Segment CT to ensure that only accredited users use the device
- backup on patient data to ensure no data is lost

In the preferences for Segment CT the user can activate user login to the device and user logging for the usage of the device.

2.4 Installation qualification and User training

The user is responsible for installing Segment CT. Medviso provide online assistance in the installation process if needed. To install Segment CT you need to be Administrator on the computer to install on.

Users are required to participate in an online training session held by Medviso prior to use Segment CT. This is provided by Medviso as a part of the software trial process.

3 Installation guide

For instructions on how to perform a first time installation of Segment CT see section 3.1. For upgrading Segment CT see section 3.2.

3.1 Installation

This section is written for first time installation of Segment CT. For upgrading, see the Section 3.2. The program is written in Matlab, in order to run it you therefore need to install Matlab Compiler Runtime first. **Note** that to be able to perform these steps below you **need** to have administrator privileges on the machine. If you are using Windows Vista, then please also refer to Section 3.1.5.

3.1.1 Installing Matlab Compiler Runtime

If you have Matlab **and** Matlab Compiler Runtime (MCR) installed on your computer this step may not be necessary, provided that you have exactly the same version as used for compiling Segment CT. Currently Matlab Compiler Runtime R2014a is required. Download the file `MCR_R2014a_win64_installer.exe`. Exact name of the file depends on operating system you are installing to. Download the file to a suitable location (i.e your desktop or a temporary folder) and double-click it. Follow the instructions in Figures 1-4.

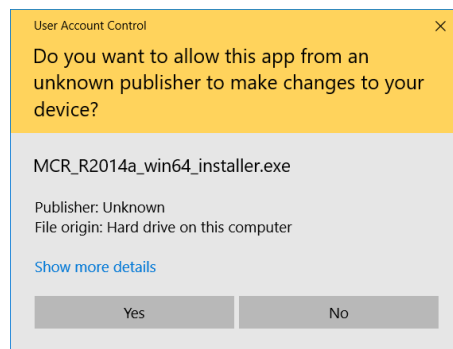


Figure 1: Click on Run or Kör.

CHAPTER 3. INSTALLATION GUIDE

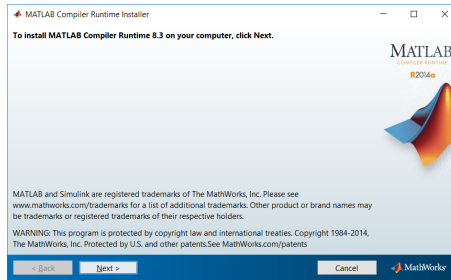


Figure 2: Click on OK.

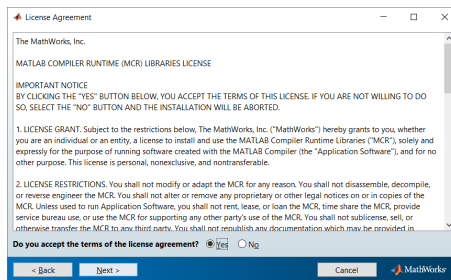


Figure 3: Click on Install.

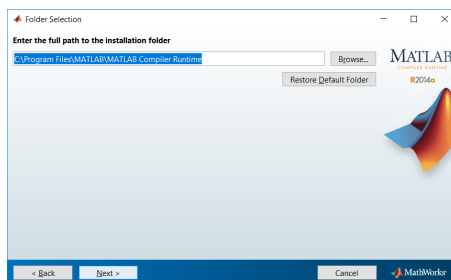


Figure 4: Click on Next.

This step to install MCR Installer does only need to be performed once and should generally not be necessary when upgrading to a later version of the software.

Note: For some operating systems it is required to reboot the computer after installing the MCRInstaller. We therefore, **strongly** advise all users to reboot the computer after installing the MCRInstaller.

3.1.2 Installing Segment CT

Download the file (called something like `install_Segment CT_2px_Ryyyy.exe`, where `2px` is the version number and `Ryyyy` is the revision number). Place the file where you easily can find it (i.e your desktop). When downloaded, double click on the file, and follow the instructions. You will be prompted if you want to install the program to the default location (`C:/Program Files` or `C:/Program` depending on operating system language). One advantage of installing to another location, where you have write access, is that you can thereafter install upgrades without being logged in as local administrator.

3.1.3 Verify installation of Segment CT

To start the program, double click the file `C:/Program Files/Segment CT/Segment CT.exe`, or your shortcut to it. When starting the software, the image in Figure 5 should be displayed. If it is not displayed, then the software is not correctly installed.

3.1.4 Create shortcut

Place a shortcut to the file `C:/Program Files/Segment CT/Segment CT.exe` at your desktop. Note that depending on your system locale, or if you have installed Segment CT to a non-default location this path may be different. Creating this short-cut is done by using the standard Windows file explorer to find the file, then right click on the file and select the option `Create a short-cut`. Move the created shortcut to your desktop.

3.1.5 Notes for Windows Vista users

You will need to run the application in administrator mode the first time you run Segment CT since the first time Segment CT is started some files

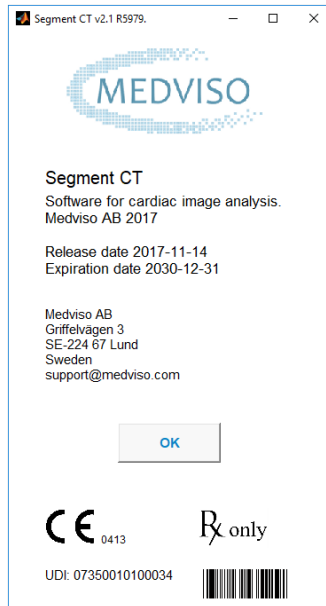


Figure 5: Startup window for Segment CT.

are extracted. This operation is blocked in user mode. The second time you run Segment CT you should be able to run in a user mode.

3.2 Upgrading Segment CT

If your previous version used another MCR then you need to **first** replace your old Matlab Compiler Runtime. To see which version of Matlab Compiler Runtime is required, please see the table below.

Segment CT version	MCRInstaller
1.9	Matlab Compiler Runtime 7.15
2.0	Matlab Compiler Runtime 2014a
2.1	Matlab Compiler Runtime 2014a

If you need to upgrade MCR, follow the installation instructions in Section 3.1. It is **important** to uninstall the old MCR before installing a new one. When having problems installing or uninstalling the MCRInstaller,

please consult Mathworks support pages, and search for `MCRInstaller`.

If you, as in most cases, do not need to upgrade MCR, simply download the Segment CT installation file and double click on it to install it, as described in Section 3.1.2. If you are running services for the Segment Server solution, then you need to stop and delete them prior to upgrading, please see Patient Database and PACS Communication Manual for details.

3.3 First time running Segment CT

Doubleclick the file `C:/Program Files/Segment CT/Segment CT.exe`, or your shortcut to it, to start the program. The first time it is started, it runs a setup process which can take a while, so be patient. To complete setup, set preferences and window positions as described in Sections 3.3.1 and 3.3.2.

3.3.1 Setting preferences

The preferences are saved as a file `.segment_preferences.mat` in a folder that can be accessed by selecting `Open Folder with Log Files` from the `Help` menu. This preferences are specific for all users, however it is possible to set default preferences for all users starting to use the software by in the `Advanced System and DICOM preferences` click on `Save to all`. This preferences file will then be copied to the preferences path of every user that does not already have preferences saved. It will also override any PACS or Segment Server settings for all users on the machine. Please note that these operations may require that you run the software as Administrator (not only being logged in as Administrator). This is done by right clicking on the icon of the software and then select "Run as administrator".

3.3.2 Setting window positions

The position of the main window for Segment CT can be set by dragging the window to an optional position and size. The size and position will be saved so that next time Segment CT is launched the same position will be used.

In case where one have switched to another monitor Segment CT may move outside the screen. In this case you could press `Shift-Ctrl-R` to reset GUI positions. This is also available under the `File` menu.

3.3.3 PACS connectivity

Setting up PACS connection and Segment Server usually requires help from your local PACS support, and we recommend that contact us to setup a telephone / web-based video conference to make this process as smooth as possible. The Patient Database and PACS Communication manual, and the Sectra PACS plugin manual is found at Medviso AB homepage (<http://medviso.com/products/cmr/>). The Sectra PACS plugin may require additional Microsoft Visual C++ components that can be downloaded from Medviso AB homepage (<http://medviso.com/download2/>).

3.4 Uninstallation

There is currently no uninstallation software available. Remove all files in the folder `C:/Program/Segment CT` or `C:/Program Files/Segment CT`. User preferences are stored in the `Application Data` and the subfolder `Segment CT` under each user account (Windows). To uninstall the Matlab Compiler Runtime, use the Windows functionality `Install or Remove Programs` in the control panel menu. Please note that if you are running services for the Segment Server solution, then you need to first stop and delete these services before uninstalling the software, as they otherwise will lock files that needs to be deleted. See Patient Database and PACS Communication Manual for details.

3.5 Trouble shooting

The absolutely most common problem is the failure to not login as a local administrator of the computer. The second most common mistake is not to read the installation instruction provided in this user manual or on the homepage.

To trouble shoot the installation you can see if the Segment CT installation program actually was successfully started by checking for the existence of `.log` files. Segment CT creates a log file during installation, this file is stored in the user folder (i.e `Documents and Settings/Username and Application Data` and the subfolder `Segment CT`). Note that this folder by default is hidden. If you have problems installing Segment CT, please send this log-file to together with a description on what problems where encountered.