

TRAUMACAD 2.5 PREREQUISITES

This document is aimed to specify the system requirements for the various TraumaCad 2.5 software configurations, including TraumaCad Server, TraumaCad Web, TraumaCad Standalone and TraumaCad Touch.

For relevant system requirements, please select the desired TraumaCad configuration:

- <u>TraumaCad Web</u>
- <u>TraumaCad Standalone/Touch</u>
- <u>TraumaCad Server</u>

Please note, to install TraumaCad, you must be logged-on as a user with administrative privileges.

For TraumaCad Server installation use the TraumaCad <u>Admin guide</u> for installation instructions or contact <u>support</u> with a request for remote installation.

For any further assistance, please contact TraumaCad Support at:

United States, Canada, Central and South America: +1 (800) 597-5911 Europe, Africa, Asia and Australia: +49 89 991568-44 <u>TraumaCad.Support@brainlab.com</u> <u>www.traumacad.com/chat</u> (Mon-Fri, 7am-7pm US-ET)



TRAUMACAD 2.5 - WEB

TraumaCad Web is part of Quentry, Brainlab's Cloud service for healthcare professionals. Quentry is a HIPAA and GDPR compliant platform for a number of medical web applications. Quentry also provides fast access and data management for medical images to thousands of users around the world.

All the users, including the administrator, are required to <u>register</u> independently to the service in order to generate access credentials - the registration is free of charge.

HARDWARE REQUIREMENTS

- 1 GHz or faster processor (2 GHz is recommended)
- Available memory 2 GB RAM (4 GB RAM is recommended)
- DirectX graphics device with 1280 x 1024 true color 128 MB resolution
- Minimum 1280 × 1024 screen resolution
- Available disk space up to 200 MB (app + logs)
- For higher screen resolution (2048 × 1080 and up), modify display settings to scale magnification to between 100%-150% & set the screen resolution to 1920 × 1200 (then reboot, before attempting to install\use TraumaCad)

SOFTWARE REQUIREMENTS – WINDOWS OS

- Windows Operating System Windows 10 / 11
- MS Windows Update (all security patches & hot fixes available from Microsoft Windows Update)
- Microsoft .NET Framework version 4.7.1 (or higher)
- Open internet access to *.Quentry.com/* for application installation, software updates, licensing, templates usage and image availability (Mandatory)
- PDF Reader
- For remote assistance LogMeIn / TeamViewer / WebEx / MS Teams
- Supported web browsers:
 - Microsoft Edge (with ClickOnce enabled)
 - Google Chrome requires a special extension deployment: <u>ClickOnce for</u> <u>Google Chrome™</u>
 - Firefox and later requires the following add-on FxClickOnce

SOFTWARE REQUIREMENTS - MAC OS

• Mac OS X 10.6 and above



 Parallels Desktop for Mac or VMware with a Windows Operating system to run TraumaCad Web

TRAUMACAD 2.5 - STANDALONE / TOUCH



Before beginning the software installation, please verify all prerequisites are installed and minimum requirements are met, as described below.

HARDWARE REQUIREMENTS

- 1 GHz or faster processor (2 GHz at 64 bit is recommended)
- 4 GB RAM (8 GB is recommended)
- Hard drive:
 - o 80 GB for the Windows OS, and application files
 - \circ $\,$ Up to 2 GB for digital templates
- DirectX graphics device 1280 × 1024 true color 128 MB with WDDM 1.0, or higher driver (recommended)
- DirectX 9.0 (for 3D only available in 32bit)
- For higher screen resolution (2048 × 1080 and up), modify display settings to scale magnification to between 100%-150% & set the screen resolution to 1920 × 1200 (then reboot, before attempting to install/use TraumaCad)

TRAUMACAD TOUCH – ADDITIONAL HARDWARE REQUIREMENTS

- 1 (GHz) processor or faster with support for PAE, NX, and SSE2
- 1 GB of discrete graphics
- A screen resolution of at least 1366 × 768
- USB and serial ports enable easy device connectivity with a variety of peripherals

SOFTWARE REQUIREMENTS

- Windows Operating System Windows 10 / 11
- Microsoft Edge (version 99.X or above. Using Microsoft Edge, navigate to edge://flags and enable "ClickOnce Support" which is disabled by default)
- MS Windows Update (all patches & hot fixes available at Microsoft Windows Update)
- Open internet access (according to <u>Table 1 IT Network characteristics</u>)
- Open internet access to *.Quentry.com/* for application installation, software updates, licensing, templates usage and image availability (recommended)*



- PDF Reader
- LogMeIn / VPN / TeamViewer / MS Teams recommended for installation and ongoing support

TRAUMACAD 2.5 - SERVER



Before beginning the TraumaCad Server software installation, please verify all prerequisites are installed and minimum hardware and software requirements are met, as described below.

SERVER HARDWARE REQUIREMENTS

- One or more processors with a recommended minimum speed 2.4 GHz and 8 MB cache
- Available memory- 4 GB RAM (8 GB RAM is recommended)
- Hard Drive 100 GB (2 virtual drives recommended to separate OS and application files):
 - Up to 80 GB for operating system, TraumaCad software and logs
 - Up to 20 GB for digital templates

TraumaCad Server installation is supported inside a virtualized environment as long as the virtual machine meets the above requirements

SERVER SOFTWARE REQUIREMENTS

- Microsoft Windows Server 2016 / 2019 / 2022
- English should be the default OS language; additional languages can co-exist
- Server naming convention: server name must NOT contain an _ (underscore) symbol (<u>http://support.microsoft.com/kb/909264</u>)
- MS Internet Information Services (IIS)
- Microsoft ASP.NET
- Microsoft .NET Framework versions 3.5 & 4.5 available under features inside Server manager
- Microsoft .NET Framework version 4.7.1 (or higher)
- MS Windows Update (all patches & hot fixes available at Microsoft Windows Update)



- Internet connection details are specified below (according to <u>Table 1 IT Network</u> <u>characteristics</u>) and are required for the installation, user documentation download and ongoing server updates
- RDP / LogMeIn / Customer provided VPN recommended for installation and ongoing support
- Operating system installation media (source location of the files needed to install Windows features)
- UAC (User Account Control) should be disabled
- Microsoft Edge (version 99.X or above. Using Microsoft Edge, navigate to edge://flags and enable "ClickOnce Support" which is disabled by default)
- "localhost" to be added to Microsoft Edge under Compatibility View settings

CLIENT HARDWARE REQUIREMENTS

- 1 GHz or faster 32-bit (x86) or 64-bit (x64) processor (recommended 2 GHz 64 bit)
- Available memory 2 GB RAM (32-bit) / 4 GB RAM (64-bit)
- Hard Drive: Up to 500 MB for the software
- Networking access to TraumaCad server for software updates, licensing and templates usage
- DirectX graphics device 1280 × 1024 true color 128 MB with WDDM 1.0, or higher driver
- Open internet access (recommended)
- Open internet access to *.Quentry.com/* for application installation, software updates, licensing, templates usage and image availability (recommended)
- Minimum 1280 × 1024 screen resolution
- For higher screen resolution (2048 × 1080 and up), modify display settings to scale magnification to between 100%-150% & set the screen resolution to 1920 × 1200 (then reboot, before attempting to install/use TraumaCad)

CLIENT SOFTWARE REQUIREMENTS

- Windows Operating System Windows 10 / 11
- Microsoft .NET framework version 4.7.1 (or higher)
- Microsoft Edge (version 99.X or above. Using Microsoft Edge, navigate to edge://flags and enable "ClickOnce Support" which is disabled by default)
- MS Windows Update (all patches & hot fixes available at Microsoft Windows Update)
- PDF Reader
- LogMeIn / VPN / TeamViewer / MS Teams recommended for installation and ongoing support



- Supported web browsers:
 - Microsoft Edge (with ClickOnce enabled)
 - Google Chrome requires a special extension deployment: <u>ClickOnce for</u> <u>Google Chrome™</u>
 - Firefox and later requires the following add-on FxClickOnce

	TraumaCad Activation	TraumaCad Templates Download	TraumaCad User's documentation
Source	TraumaCad server	TraumaCad server	TraumaCad server
Destination	http://license.traumacad .com/LicenselssueWs/Is sueService.asmx	https://www.templates.tra umacad.com/GlobalTempl atesWS/TWS.asmx	http://update.traumac ad.com/Guides
IP address	TraumaCad IP address <-> 13.74.178.179	TraumaCad IP address <- > 107.22.221.57	TraumaCad IP address <-> 107.22.221.57
Port	HTTP and HTTPS 80 & 443	HTTP and HTTPS 80 & 443	HTTP and HTTPS 80 & 443
Remarks	TraumaCad performs a POST of activation data on SecureLM website, SecureLM performs the activation and sends back to TraumaCad a small license file	TraumaCad requests the latest index file from the templates server and downloads the templates upon selection in TraumaCad	TraumaCad requests the PDF file from the server and downloads the guide file upon click on link in TraumaCad Help

TABLE 1 – IT NETWORK CHARACTERISTICS:

SECURITY RECOMMENDATIONS

- Quentry platform security statement, including Key security features, Data storage, User access rights and more can be found in <u>here</u>.
- TraumaCad Web and Quentry Gateway both require bi-directional communication with the Quentry platform, therefore the hospital firewall should include sufficient configuration to allow communication from/to *.Quentry.com/* on ports 80 and 443. In case local IT requires specific IP addresses for the firewall (please note – these addresses change as



Quentry uses an AWS load-balancer and we do not control the machines AWS runs the service on), these can be obtained in the Amazon's AWS SES IP addresses article in <u>here</u>.