

## AI Visualizer Installation process

### Windows:

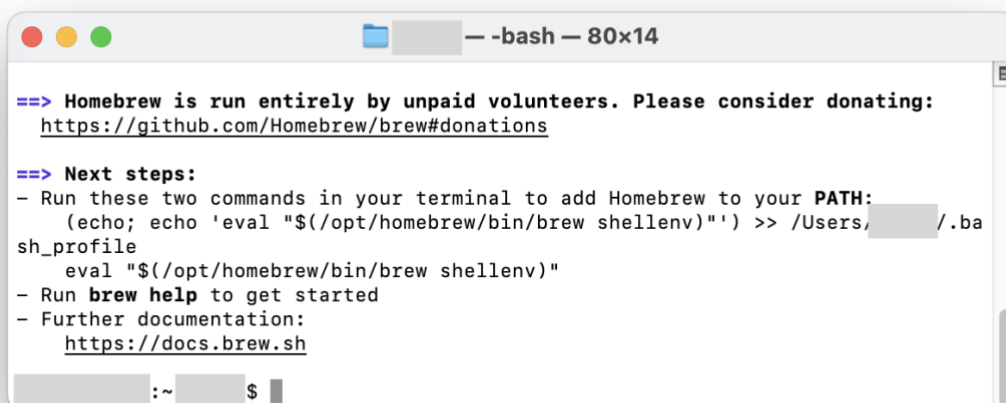
1. **Download the ZIP archive** - [https://graphisoft.com/dl/AI\\_Visualizer/AI\\_Visualizer\\_Add-on-27-INT-install\\_package-WIN.zip](https://graphisoft.com/dl/AI_Visualizer/AI_Visualizer_Add-on-27-INT-install_package-WIN.zip) .
2. **From the ZIP archive, copy the following files to the following locations:**
  - **Copy the sd.webui folder into the C:\ root folder** (the result should be C:\sd.webui).
  - **Copy the Add-ons folder into your Archicad folder** (where Archicad.exe is located).

### Mac Silicon:

1. **Download the dmg archive** - [https://graphisoft.com/dl/AI\\_Visualizer/AI\\_Visualizer\\_Add-on-27-INT-install\\_package-MAC.dmg](https://graphisoft.com/dl/AI_Visualizer/AI_Visualizer_Add-on-27-INT-install_package-MAC.dmg) .
2. **Open Terminal:** Press Command + Space and type Terminal, then hit Enter.
3. **Download and install Homebrew. Please use the following terminal command:**

```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

*Installation may take a while and appear idle during the process; please be patient and wait until you are prompted to type your password. Once you provide your password and hit Enter, installation will continue. When the installation is done, you will see the terminal waiting for input again. See the following example:*



```

-- -bash -- 80x14

==> Homebrew is run entirely by unpaid volunteers. Please consider donating:
    https://github.com/Homebrew/brew#donations

==> Next steps:
- Run these two commands in your terminal to add Homebrew to your PATH:
  (echo; echo 'eval "$(/opt/homebrew/bin/brew shellenv)'"') >> /Users, /ba
sh_profile
  eval "$(/opt/homebrew/bin/brew shellenv)"
- Run brew help to get started
- Further documentation:
  https://docs.brew.sh

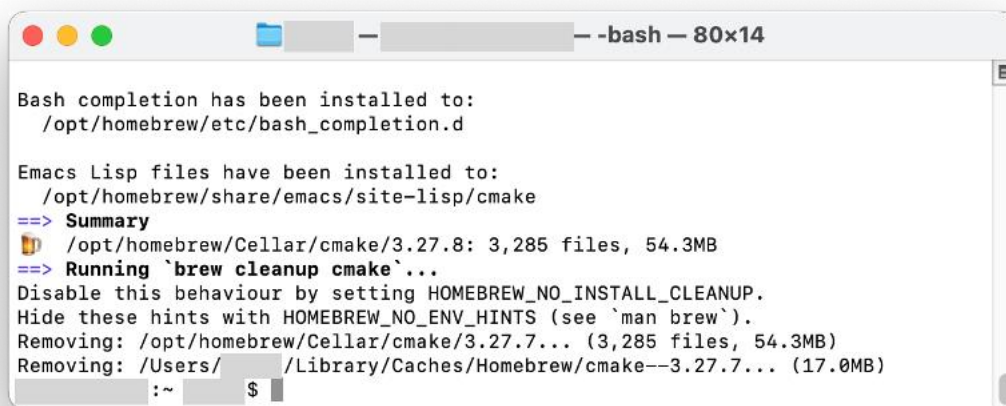
:~ $
  
```

Note: Homebrew is a general package manager, so it might already be installed on the user's computer. The latest terminal commands and packages are available on the [brew.sh](https://docs.brew.sh) webpage.

4. **Install base packages with Homebrew from the system directory. Please use the following terminal command:**

```
/opt/homebrew/bin/brew install cmake protobuf rust python@3.10 git wget
```

*This will download packages and dependencies that to allow the AI Engine to work on your Mac. The process may take a while; please wait until you see the terminal waiting for input again. See the following example:*



```

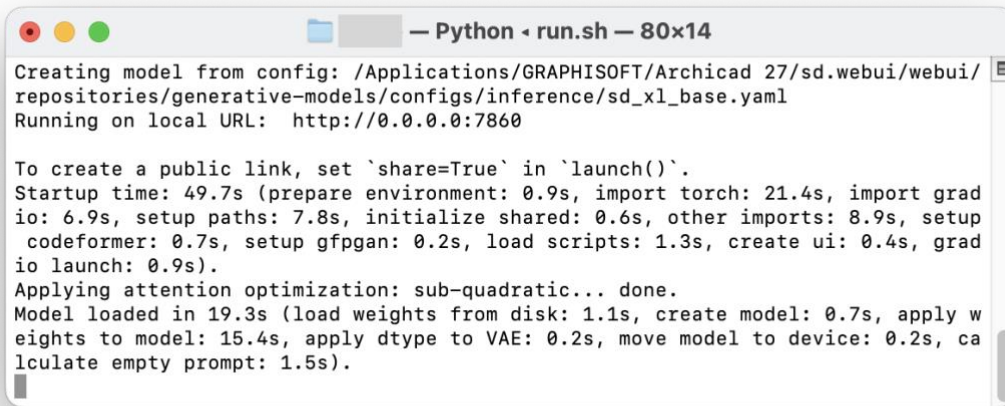
Bash completion has been installed to:
  /opt/homebrew/etc/bash_completion.d

Emacs Lisp files have been installed to:
  /opt/homebrew/share/emacs/site-lisp/cmake
==> Summary
📦 /opt/homebrew/Cellar/cmake/3.27.8: 3,285 files, 54.3MB
==> Running `brew cleanup cmake`...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
Removing: /opt/homebrew/Cellar/cmake/3.27.7... (3,285 files, 54.3MB)
Removing: /Users/[redacted]/Library/Caches/Homebrew/cmake--3.27.7... (17.0MB)
:~ [redacted] $

```

5. **Copy the files from the .dmg archive (20Gb) to the following locations:**
  - **Copy the sd.webui folder into the Archicad folder.**
  - **In the .dmg archive, locate the appropriate folder** depending on your Mac's architecture – AppleSiliconMac for Silicon chips, IntelMac for Intel chips. From that folder, **copy the Add-ons folder into the Archicad folder and make sure you choose Merge when prompted.**
6. **Start run.sh by dragging it to the Terminal window and hit Enter.** run.sh is located in your Archicad folder/sd.webui folder.

*The first startup of the AI engine might take a couple of minutes. Packages and dependencies will be downloaded once the AI engine starts in the Terminal window. If you see an IP address like 127.0.0.1:7860 or 0.0.0.0:7860 in the Terminal, the AI server is fully loaded and running. See the following example:*



```

Python - run.sh - 80x14
Creating model from config: /Applications/GRAPHISOFT/Archicad 27/sd.webui/webui/
repositories/generative-models/configs/inference/sd_xl_base.yaml
Running on local URL: http://0.0.0.0:7860

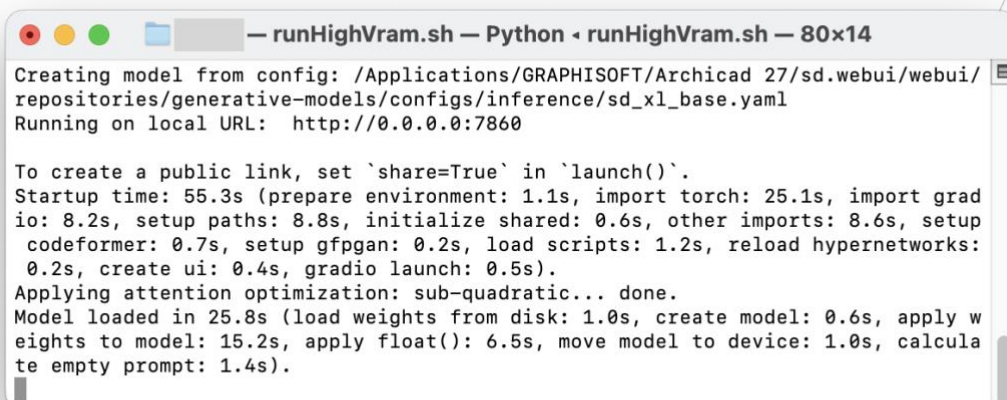
To create a public link, set `share=True` in `launch()`.
Startup time: 49.7s (prepare environment: 0.9s, import torch: 21.4s, import grad
io: 6.9s, setup paths: 7.8s, initialize shared: 0.6s, other imports: 8.9s, setup
codeformer: 0.7s, setup gfpgan: 0.2s, load scripts: 1.3s, create ui: 0.4s, grad
io launch: 0.9s).
Applying attention optimization: sub-quadratic... done.
Model loaded in 19.3s (load weights from disk: 1.1s, create model: 0.7s, apply w
eights to model: 15.4s, apply dtype to VAE: 0.2s, move model to device: 0.2s, ca
lculate empty prompt: 1.5s).
  
```

**7. When finished, please close the Terminal window.**

## Starting the Add-on and generating images (Windows and Mac):

1. **Start Archicad.**
2. **Start AI Visualizer from Window > Palettes > AI Visualizer.**
3. **Click Start AI Engine in the AI Visualizer window.**

*The first startup of the AI engine could take a couple of minutes. A command prompt will open where the AI engine is starting up. If you see an IP address like 127.0.0.1:7860 or 0.0.0.0:7860 in the command prompt, the AI server is fully loaded and running. See the following example:*



```

Python - runHighVram.sh - 80x14
Creating model from config: /Applications/GRAPHISOFT/Archicad 27/sd.webui/webui/
repositories/generative-models/configs/inference/sd_xl_base.yaml
Running on local URL: http://0.0.0.0:7860

To create a public link, set `share=True` in `launch()`.
Startup time: 55.3s (prepare environment: 1.1s, import torch: 25.1s, import grad
io: 8.2s, setup paths: 8.8s, initialize shared: 0.6s, other imports: 8.6s, setup
codeformer: 0.7s, setup gfpgan: 0.2s, load scripts: 1.2s, reload hypernetworks:
0.2s, create ui: 0.4s, gradio launch: 0.5s).
Applying attention optimization: sub-quadratic... done.
Model loaded in 25.8s (load weights from disk: 1.0s, create model: 0.6s, apply w
eights to model: 15.2s, apply float(): 6.5s, move model to device: 1.0s, calcula
te empty prompt: 1.4s).
  
```

Note: You can also start the AI Engine manually with `runHighVram.bat` or `run.bat` (Archicad folder/`sd.webui`) on Windows, and with `runHighVram.sh` or `run.sh` (Archicad folder/`sd.webui`) on Mac.

4. **Click on Generate** to create an image, based on your 3D view, prompt and settings. Image generation will start, and you will see the result when the process is finished.

Note: Make sure you keep the Terminal / Command Prompt open while using the Add-on and the connecting server. Closing the Terminal / Command Prompt will result in server shutdown, and you won't be able to generate images.

## Mac Intel as a client:

Mac Intel machines can run only the AI Visualizer add-on; the server must be installed on a different Mac Silicon or Windows machine that meets the system requirements. In this setup, the Mac Intel computer runs as a client which can connect to a local area network server, if that the server has been already started manually.

Follow these steps to run AI Visualizer on a Mac Intel client + Mac Silicon / Windows server configuration:

1. **Download the dmg archive** - [https://graphisoft.com/dl/AI\\_Visualizer/AI\\_Visualizer\\_Add-on-27-INT-install\\_package-MAC.dmg](https://graphisoft.com/dl/AI_Visualizer/AI_Visualizer_Add-on-27-INT-install_package-MAC.dmg).
2. **Copy the files from the .dmg archive (20Gb)** to the following location on your Mac Intel computer:
  - **In the .dmg archive, locate the appropriate folder** depending on your Mac's architecture – IntelMac for Intel chips. From that folder, **copy the Add-ons folder into the Archicad folder and make sure you choose Merge when prompted.**
3. **Install the server:** Based on your server architecture (Silicon or Windows), follow these steps to install the server on the server machine.
  - **Mac Silicon:**
    - **Follow the steps described above, at the [Mac Silicon](#) installation section. (At step 5, only the `sd.webui` folder needs to be copied to the server machine.)**
    - **Start the server:** Open Terminal and drag `run.sh` if your server computer meets the minimum system requirements or drag `runHighVram.sh` if your server meets the recommended system requirements.
    - **Check your server's port.** When the server is successfully started you can see the server's port in the command prompt. (The default is 7860).
    - **Check your server's name.** You can find the Name of your server under System settings / General / About.
  - **Windows:**
    - **Follow the steps described in the [Windows](#) installation section. (At step 2, only the `sd.webui` folder needs to be copied to the server machine.)**
    - **Start the server:** Start `run.bat` if your server computer meets the minimum system requirements or drag `runHighVram.bat` if your server meets the recommended system requirements.
    - **Check your server's port.** When the server has started successfully, you can see the server's port in the command prompt. (The default is 7860).
    - **Check your server's name.** Find the server's name under "Device name" in Start menu / Settings / System / About.

4. **Start AI Visualizer on the Mac Intel client machine and type the AI Engine Address.** The AI Engine Address is the server's name and port in the following format:

**ServerName:0000**

Note: When the server is running on another machine, you need to start it manually - hence the Start Server button is disabled; but you will be able to stop and restart it from the client interface when needed.

5. **Click on Generate** to create an image, based on your 3D view, prompt and settings. Image generation will start, and you will see the result when the process is finished.

Note: Make sure you keep the Terminal / Command Prompt open while using the Add-on and the connecting server. Closing the Terminal / Command Prompt will result in server shutdown, and you won't be able to generate images.