

WebODM Manager

Installation Manual

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Welcome

First of all, thank you for choosing and supporting WebODM! In this guide we'll explain how to install WebODM Manager, a Windows application that allows users to install, update, start and stop the WebODM web application.

Please [follow the installation steps](#) and [check the troubleshooting section](#) if something goes wrong.

System Requirements

Your computer needs at a minimum:

- Windows 7 or newer (Windows 8 and Windows 10 are supported)
- 64bit CPU with MMX, SSE, SSE2, SSE3 and SSSE3 instruction set support or higher (was your CPU manufactured in the last 8 years?)
- VT-X support (most computers do, but cloud providers such as Azure do not)
- 20 GB free disk space
- 4 GB RAM *

* Is the really bare minimum. You will not be able to process more than 100 images with 4 GB of RAM. If you need to process larger datasets, 16 GB is much better. You can also consider using our [lightning network](#) to process larger datasets in the cloud. See <https://webodm.net>

You can check your computer requirements by pressing Window Key, type “System” then press Enter.

Install WebODM Manager

1. Double-click **WebODM_Setup_x64.exe**.
2. Read the license agreement, choose the destination directory and shortcut options.
3. If the installer fails to download its files and errors out with the message *Sorry the files couldn't not be downloaded*, you probably have some firewall / network restrictions. See the troubleshooting step #4 from the **Troubleshooting** section of this manual.
4. You might be asked to install some **oracle drivers** during the installation. If you see this window, you must **agree to install the drivers**.



5. After the installation is completed, check your Desktop. You will find one of two icons:



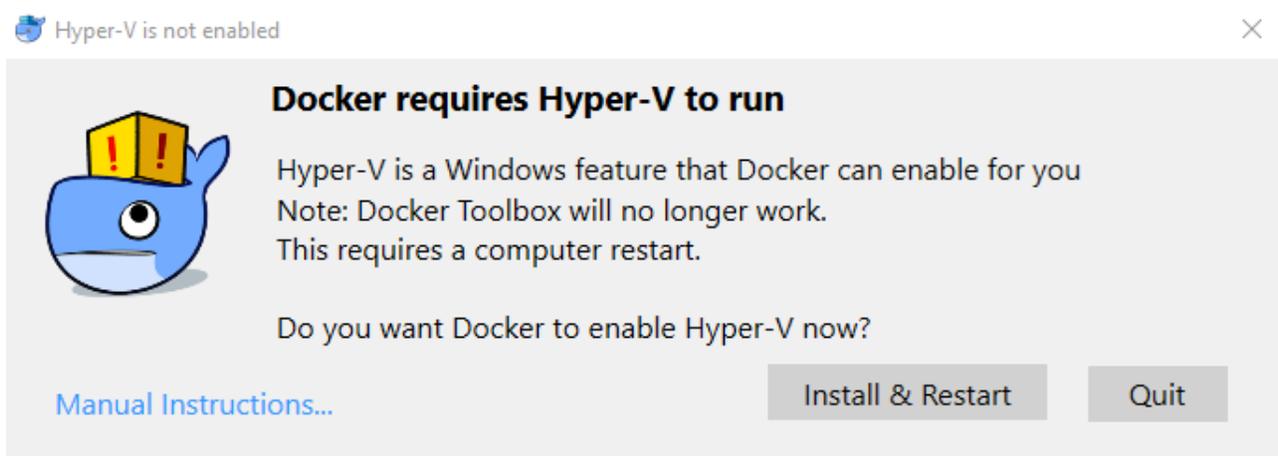
Docker Desktop? **Double click it.**



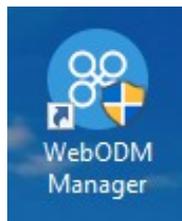
Docker Quickstart Terminal? **Go to step 7.**

If you see a *Docker Desktop* icon, double click it. If there's a *Docker Quickstart Terminal* icon, skip step 6 and go to step 7.

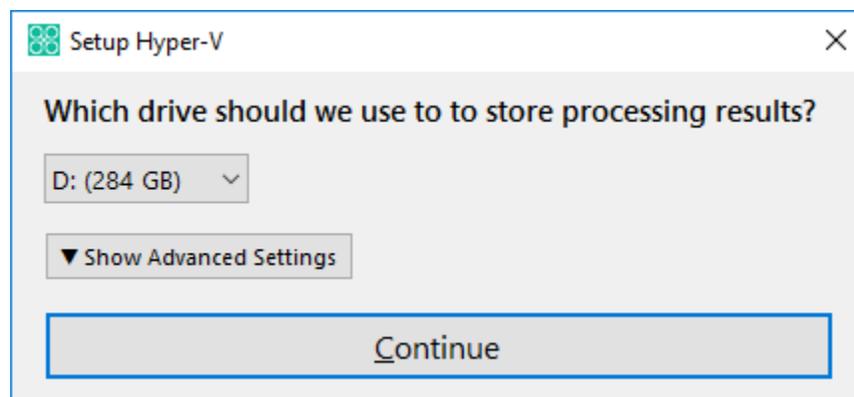
- You might be prompted to **Enable Hyper-V** within one minute. If the window appears, select **Install & Restart**. If the window does not appear, continue with step 7.



- You can now start **WebODM Manager**.



- WebODM Manager could take a few minutes to initialize. If necessary, the program will prompt to choose a storage destination for processing results. If you don't see this window, just skip to step 9.



If you have a solid state drive with lots of free space (more than 100GB), use that one. Please note **not to allocate** all the CPUs and RAM available. Over allocating **will cause your computer to hang-up and you'll need to restart it.**

9. If at this point you get an error, **check the Troubleshooting** section of this manual. Most errors are simple to diagnose.
10. If there are no errors, press the **Start WebODM** button. WebODM Manager should start downloading and installing WebODM. The first time **this process could take a few hours**, depending on internet speed, disk performance and other factors. **It will download about 3 GB of data and fill 9 GB of disk space.** Go for a coffee. Startup will be much faster the second time around. You can use the software entire offline after the installation is completed.

Congratulations!

If things went well, you should be greeted with a welcome screen where you can create an administrator account to log-in into WebODM. You can close the WebODM Manager now, WebODM will continue running in the background. There's no need to stop WebODM before shutting down your computer, but if you want to stop WebODM, just press the **Stop WebODM** button from WebODM Manager.

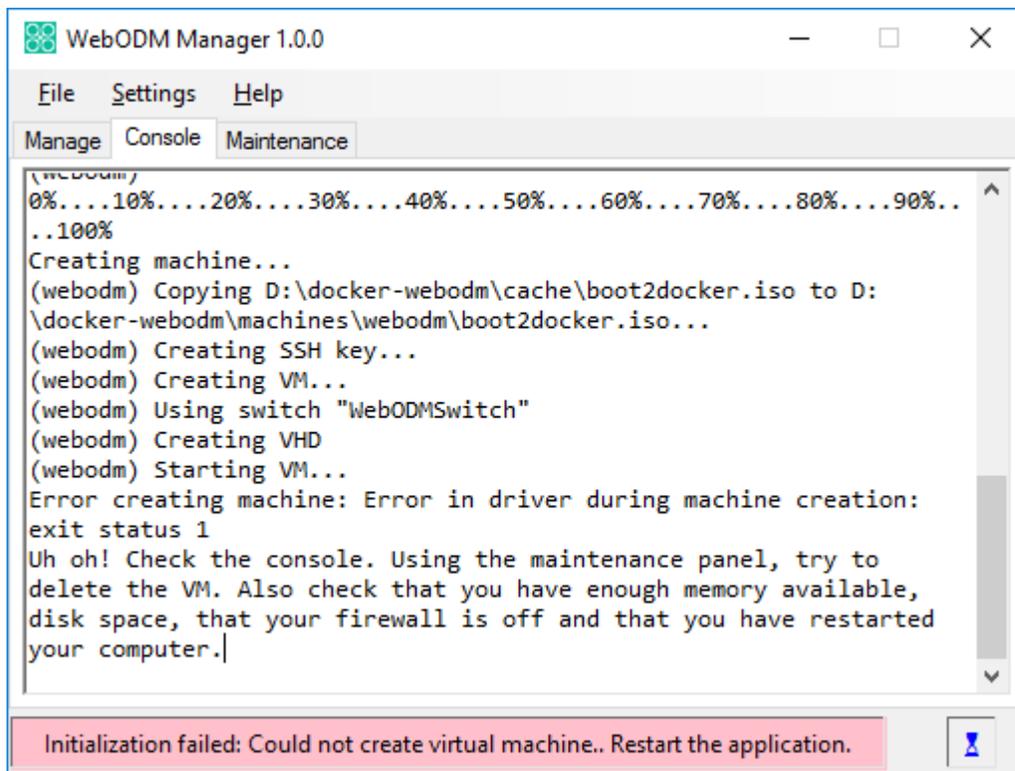
Note: Internet Explorer does not work well with WebODM. We recommend to use Firefox, which you can download from <https://www.mozilla.org/en-US/firefox/new/>.

Uninstall WebODM

- From the **Maintenance** panel of WebODM Manager, press **Delete VM**. If the button is missing, simply proceed to the next step.
- Uninstall **WebODM Manager**, **Docker** (if in the list) and **Docker Toolbox** (if in the list).

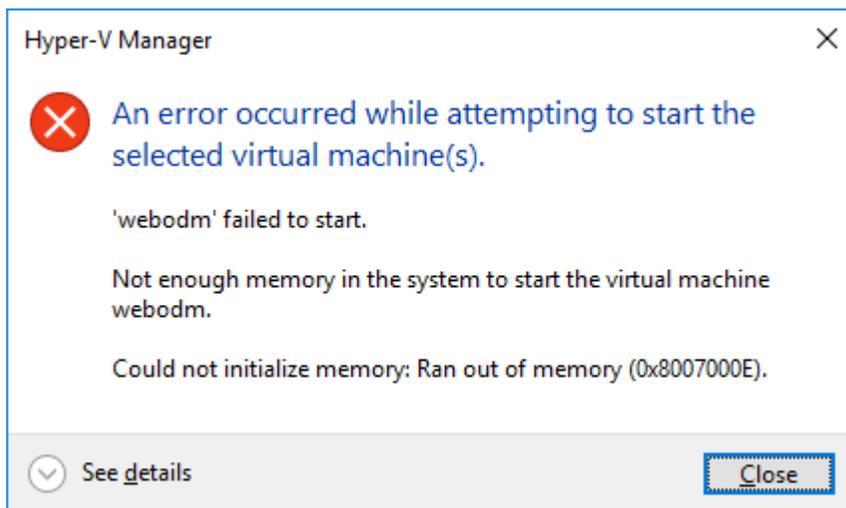
Troubleshooting

There are many possible system configurations and third party software that could interfere with the functioning of WebODM Manager. While we've taken a lot of steps to try to detect and work around common error scenarios, sometimes manual troubleshooting will be needed. The most common issue you might encounter will be that WebODM Manager is not able to successfully initialize:



1. Always check the **Console** tab for clues on what could have gone wrong during initialization.
2. If this is a fresh installation, from the **Maintenance** tab, press the **Delete VM** button, then restart your computer and re-open WebODM Manager.
3. If the application hangs or never finishes initialization try restarting your computer.
4. If the installer could not download the files it needs and errors out with Sorry the files couldn't not be downloaded, try to manually download and install:
 - <http://webodm.org/installs/InstallDocker.msi> (if you are on Windows 10 Professional or Higher)
 - <http://webodm.org/installs/DockerToolbox.exe> (if you are on Windows 10 Home or Windows 8, 7 or lower)

- <http://webodm.org/installs/GitInstaller.exe> (always install this one)
5. If WebODM Manager says that **WebODM has started**, but the URL for WebODM (<http://x.x.x.x:8000>) never turns green, try pressing the **Update** button. Note that it could take a minute or two for the box to turn green.
 1. To find additional clues as to what the problem might be, try to start the *webodm* virtual machine manually: open the **Hyper-V Manager** application (Windows 10 Pro or Higher users can press the Windows Key, type “*hyper-v*”, then press Enter) or **VirtualBox Manager** (Windows 10 Home or lower users can press the Windows Key, type “*virtualbox*”, then press Enter). From the list of virtual machines, try to start the *webodm* machine manually. You might get additional information about the cause of the error.



2. If you see the following message in the console: *Error checking TLS connection: Error checking and/or regenerating the certs: There was an error validating certificates for host*, try to press the **Regenerate Certs** button from the **Maintenance** tab of WebODM Manager.
3. Disable your anti-virus if you have one installed.
4. Search on Google for the specific error message coming from either

Hyper-V Manager or VirtualBox Manager.

5. If while starting the *Docker Desktop* application you get a *you must be in the docker-users group* error:



Go to **Computer Management** (press Window Key, type “*Computer Management*”, press Enter, from the window select **Local Users and Groups** and then click on **Users**. Right click your username → Properties, navigate to the **Member Of** tab and add the **docker-users** group to it. Then restart your computer before launching *Docker Desktop*.

6. If while starting docker you get an *Windows could not start the Hyper-V Host Compute Service on Local Computer. Error 0x80070005: Access is denied* error, make sure that Control flow guard (CFG) is enabled by default within Windows Defender (see instructions here: <https://serverfault.com/questions/886357/error-0x80070005-access-denied-when-first-start-hyper-v-in-windows-10-pro/887190>)
7. If you get a *This computer doesn't have vt-x/amd-v enabled. enabling it in the bios is mandatory* message, lookup on Google how to access to BIOS for your computer model and from there enable VT-X support.
8. If WebODM started (the URL to access WebODM has turned green), but you get a *ERR_CONNECTION_REFUSED* error when trying to open it, make sure you are using Firefox instead of Internet Explorer. <https://www.mozilla.org/en-US/firefox/new/>
9. If you are on Windows 7, 8 or Windows 10 Home and you get the

following error message in the console: *VBoxManage.exe: error: The virtual machine 'webodm' has terminated unexpectedly during startup with exit code 1 (0x1). More details may be available in 'C:\docker-webodm\machines\webodm\webodm\Logs\VBoxHardening.log'*

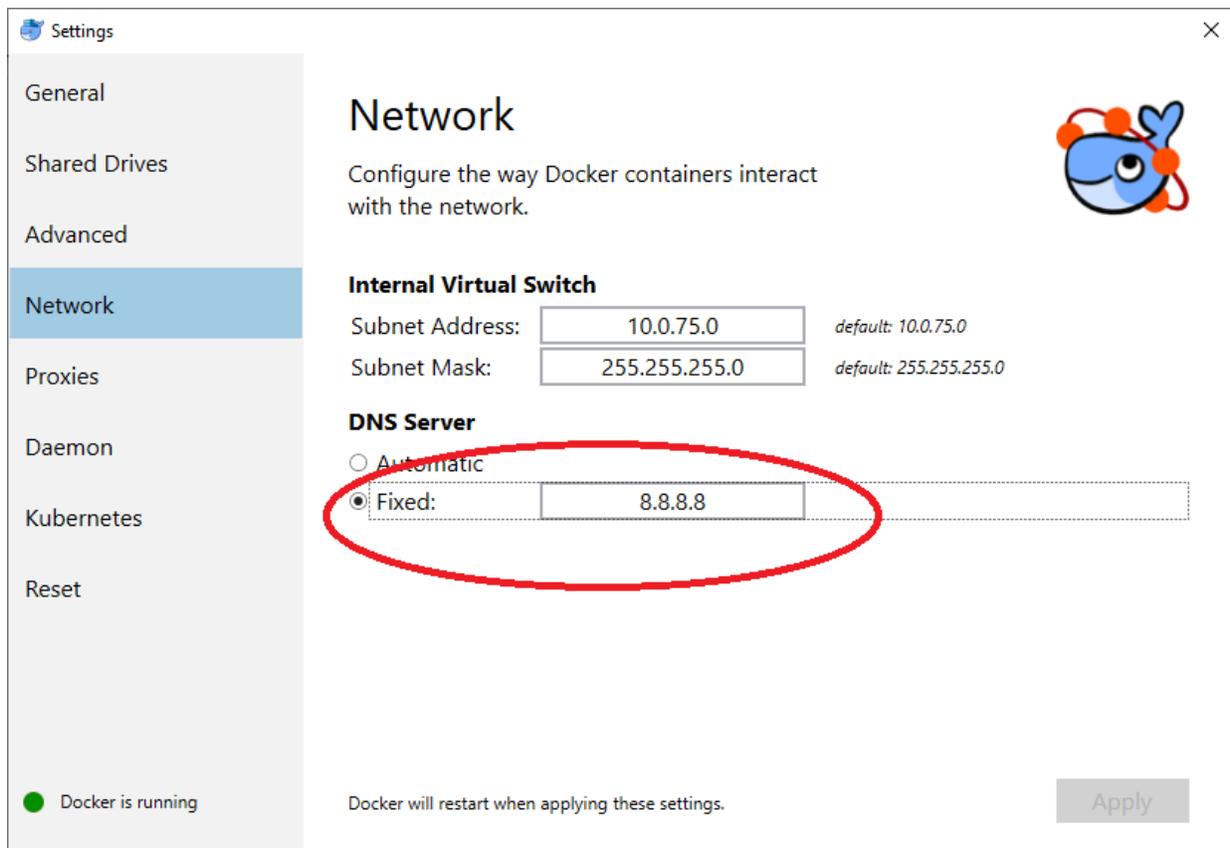
VBoxManage.exe: error: Details: code E_FAIL (0x80004005), component MachineWrap, interface Imachine you might be experiencing a hardening issue. Try one of the following:

- From an elevated command prompt (press Window Key, type "cmd", from the list of applications right click **Command Prompt** and select **Run as Administrator**). Then type **sfc /scannow** and press enter. Reboot the system afterwards.
- Check this VirtualBox thread on possible suggestions on how to fix the problem: <https://forums.virtualbox.org/viewtopic.php?f=25&t=82106>

10. If you get the following error message: *Error with pre-create check: This computer is running Hyper-V. VirtualBox won't boot a 64bits VM when Hyper-V is activated. Either use Hyper-V as a driver, or disable the Hyper-V hypervisor*, disable Hyper-V by following these steps:

<http://www.poweronplatforms.com/enable-disable-hyper-v-windows-10-8/>

11. If you get a *Get https://registry-1.docker.io/v2/: net/http: request canceled while waiting for connection (Client.Timeout exceeded while awaiting headers)* error, it means something on your network is preventing docker from downloading the WebODM files. Sometimes this can be fixed by changing your DNS settings. If have **Docker Desktop** installed, right click the **docker icon** (looks like a *white whale*) from the task tray, click **Settings...** and from the **Network** tab set the DNS to **fixed** with a value of **8.8.8.8**. Then press **Apply**.



If everything fails you can contact support by visiting the **Help → Contact Support** menu from within WebODM Manager.

Please note that support is included only for the functions related to **WebODM Manager**, not **WebODM** itself. For questions about WebODM, including problems you might encounter while processing your images, you can ask for help to the community on <https://community.opendronemap.org/c/webodm>.

Enable MicMac Support (Experimental)

WebODM can process images using MicMac via NodeMICMAC:

<https://github.com/dronemapper-io/NodeMICMAC>

Once WebODM is running, to Enable MicMac, simply go to the **Settings** menu and check **Enable MicMac Support (Experimental)**. Once WebODM has restarted, you should find a **node-micmac-1** node in the list of processing nodes that uses the MicMac engine for processing.

NodeMICMAC is still in heavy development. If you find issues please report them at <https://github.com/dronemapper-io/NodeMICMAC/issues>.