





FX-PROJECT ® OPEN SOURCE

Version 21

fx-project Open Source - VMware INSTALLATION





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1 General

fx-project version 21, as of June 2021

1.1 Brief Description

This tutorial explains step-by-step how to install and prepare VMware and mount virtual machines to be able to install fx-project.

Unless otherwise described, instructions always refer to the Ultimate version of fx-project, as it includes all functionalities.

1.2 Imprint

FeRox Management Consulting GmbH & Co KG

Adolf Langer Way 11a 94036 Passau Germany

Phone: +49-851-96671-0 Fax: +49-851-96671-10

Email: info@fx-project.de

Web: https://www.fx-project.org

Personally liable shareholder

FeRox Management Consulting Verwaltungs-GmbH Passau Local Court, HRA Passau 13154

Managing Director

Walter Binder

Passau Local Court, HRB Passau 10384

© FeRox Management Consulting GmbH & Co. KG



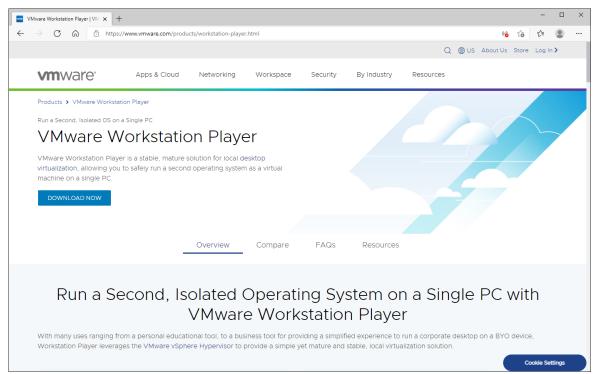


2 VMware Workstation Player

2.1 Download

If you do not have the VMware virtualization software product installed on your system, you can download the free **VMware Workstation Player** from the website https://www.vmware.com/products/workstation-player.html.

This product allows you to safely run a second operating system on your PC as a virtual machine - in this case a virtual fx-project Open Source.



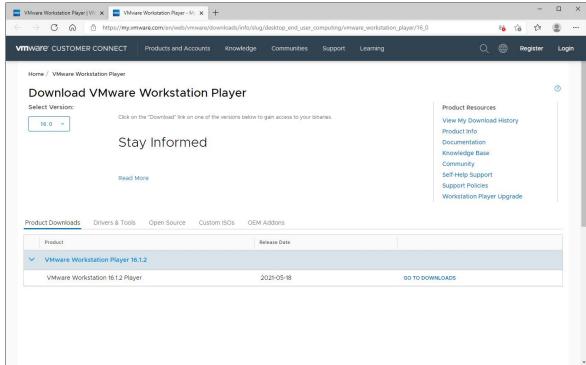
(Figure 1: The screenshot may differ depending on the version)

To do this click the button **DOWNLOAD NOW**.





After the click, a new tab opens in the browser with a listing of the versions to be downloaded. By default, the latest available version is selected - in this case: version 16.0, more precisely version 16.1.2.



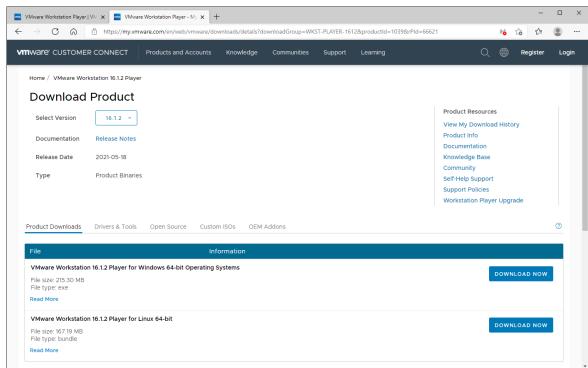
(Figure 2: The screenshot may differ depending on the version)

Now click the button **GO TO DOWNLOADS** next to the selected version.





After the click, you will be offered the actual downloads. Select the download that suits you for your operating system (Windows or Linux) - in our example Windows 10.



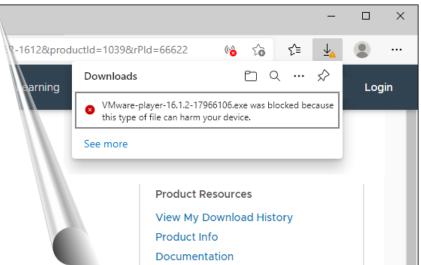
(Figure 3: The screenshot may differ depending on the version)

To download the program click on **DOWNLOAD NOW** .





2.2 Security Alert



(Figure 4: The screenshot may differ depending on the version)

If you receive a security alert and the download is blocked move the mouse over the safety alert and click on $\boxed{\cdots}$ (= 3 dots \rightarrow More actions).

In the pop-up submenu that appears, click **Keep** to keep the downloaded program on your PC.



Notice:

This security alert appears maybe because this is an executable program, i.e. it has the extension **.exe** for executable. Such programs could contain viruses or the like if they are executed on the PC.

Before you start such a program you should absolutely check it by your virus program or similar - usually a click with the right mouse button on the downloaded program and select **Check now** or similar is sufficient for this.

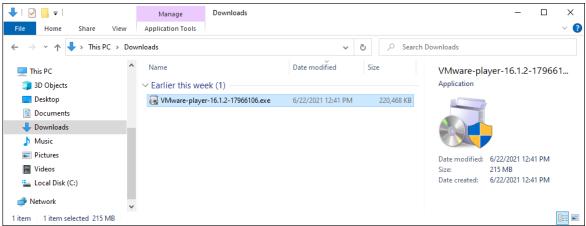
However, VMware is an established manufacturer, which means that the downloads offered here should be safe.





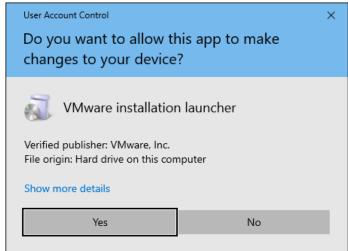
2.3 Installation

To install VMware Workstation Player, double-click the previously downloaded executable file "VMware-player-16.1.2-17966106.exe".



(Figure 5: The screenshot may differ depending on the version)

If a security warning appears when you run a program ...



(Figure 6: The screenshot may differ depending on the version)

... confirm it by clicking the button Yes.





While the installation is being prepared you will see this VMware Workstation Player image.



(Figure 7: The screenshot may differ depending on the version)

Once the preparation is complete, the welcome window appears.



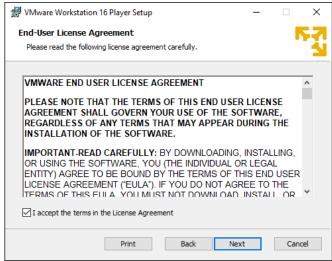
(Figure 8: The screenshot may differ depending on the version)

To continue click the button Next.





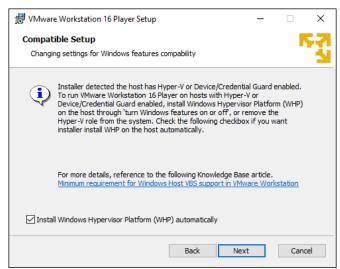
Read through the license agreement and agree to it by marking the corresponding checkbox "I accept the terms in the License Agreement" ...



(Figure 9: The screenshot may differ depending on the version)

... and then click the button Next.

If "Hyper-V" or "Device/Credential Guard" is installed on your system, the following "Compatible Setup" appears, e.g. on Windows 10 Enterprise systems. Check the corresponding checkbox, here "Install Windows Hypervisor Platform (WHP) automatically" and ...



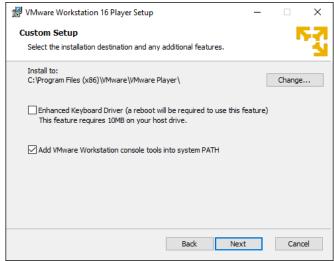
(Figure 10: The screenshot may differ depending on the version)

... click the button Next.





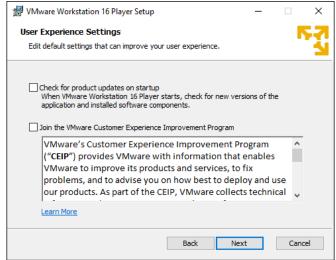
In the "Custom Setup" you can adjust the installation path and/or install an extended keyboard driver - the default settings are sufficient here.



(Figure 11: The screenshot may differ depending on the version)

Click the button Next

In the "User Experience Settings" you can mark if you want to check for "Product Updates" and/or if you want to participate in the "Improvement Program".



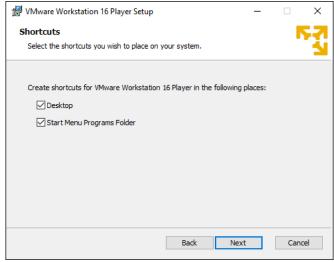
(Figure 12: The screenshot may differ depending on the version)

Click the button Next.





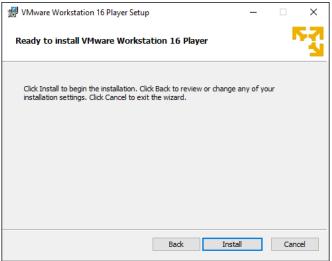
Now define the "**Shortcuts**", i.e. where shortcuts should be created. Select both checkboxes to create shortcuts on the "**Desktop**" as well as in the "**Start Menu**".



(Figure 13: The screenshot may differ depending on the version)

Click the button Next .

This completes the preparations. To install the VMware Workstation Player ...



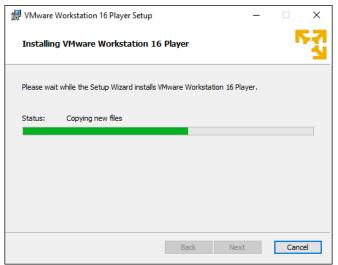
(Figure 14: The screenshot may differ depending on the version)

... click the button Install ...

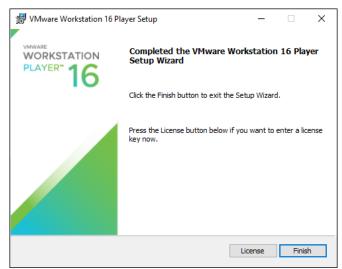




Now wait until the installation is complete ...



(Figure 15: The screenshot may differ depending on the version)



(Figure 16: The screenshot may differ depending on the version)

... and click the button **Finish** after it is done.

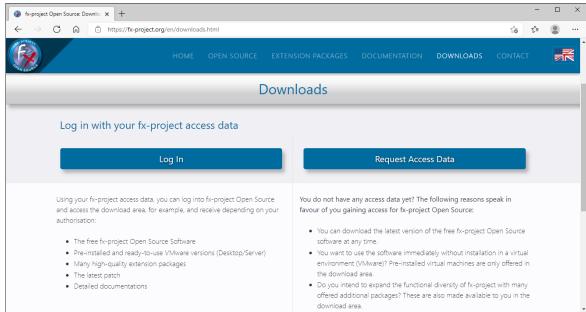




3 fx-project Open Source - VMware (DESKTOP)

3.1 Download fx-project

On our website https://www.fx-project.org you can find the latest version of fx-project Open Source incl. documentation, manuals, patches and/or extension packages in the [Downloads] section.



(Figure 17: The screenshot may differ depending on the version)



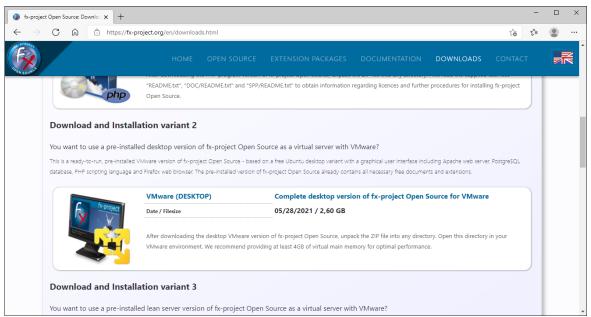
Notice:

To access the download area of fx-project you need valid access data. If you do not have any access data yet, you can request new access data.





After logging in, you will see a list of all available downloads.



(Figure 18: The screenshot may differ depending on the version)

Download the latest desktop version for VMware.

VMware (DESKTOP):

This is a ready-to-run, pre-installed VMware version of fx-project Open Source - based on a free Ubuntu desktop variant with a graphical user interface including Apache web server, PostgreSQL database, PHP scripting language and Firefox web browser. The pre-installed version of fx-project Open Source already contains all necessary free documents and extensions.



Notice:

The desktop version is larger and more resource-hungry, as it includes a complete graphical user interface including mouse control. If you only want to test fx-project Open Source or have no server experience this is the suitable version.





3.2 Unpack fx-project

Unpack the downloaded ZIP file into an appropriate folder.

We recommend e.g. to create a new folder "VMs" directly on your fastest hard disk, preferably on a SSD hard disk. On the hard disk there should be at least 32 GB free, optimal would be 128 GB or more to prevent possible later problems when the amount of data in fx-project grows through daily use.

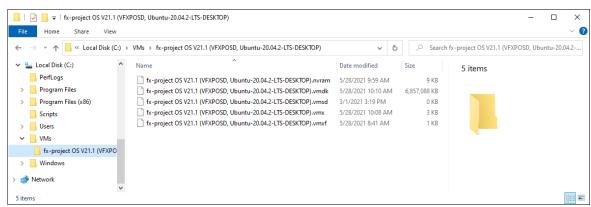
To do this, right-click on the ZIP file, for example, and select "Extract all...". As folder select your destination folder, e.g. here "C:\VMs".

In our example, the folder structure after unpacking the ZIP file is as follows

▶ C:

► VMs

► fx-project OS V21.1 (VFXPOSD, Ubuntu-20.04-2-LTS-DESKTOP)



(Figure 19: The screenshot may differ depending on the version)





3.3 Start VMware

fx-project Open Source VMware (DESKTOP) is a virtual operating system with all required pre-installed components for the virtualization software product VMware.

These components are:

→ Operating System: Ubuntu 20.04.2 LTS 64bit (LTS = Long Term Support)

→ Computer Name: vfxposd

→ Web Server: Apache 2.4.41→ Database: PostgreSQL 12.6

→ Script Language: PHP 7.4.3
→ Browser: Firefox

To use fx-project Open Source you have to start the "VMware Workstation Player" or another supported VMware program.

To do this, open the Windows Start menu, for example, and click on the corresponding

entry ...



(Figure 20: The screenshot may differ depending on the version)



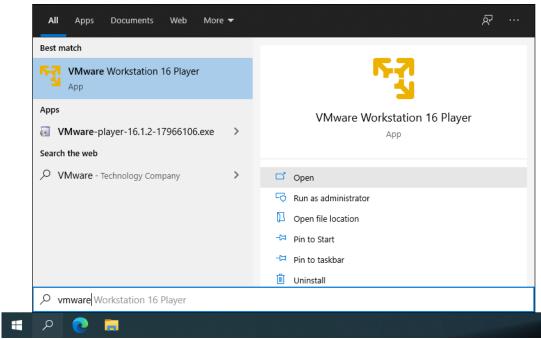


... or click on the corresponding icon on your desktop ...



(Figure 21: The screenshot may differ depending on the version)

... or use the search function.



(Figure 22: The screenshot may differ depending on the version)





When you start VMware Workstation Player for the first time, you will be asked if you want to use the free version for non-commercial use or if you already have a license key. If you have a key you can enter it here.



(Figure 23: The screenshot may differ depending on the version)

Click the button **Continue**

You will see a small "Thank you" window before the actual start.



(Figure 24: The screenshot may differ depending on the version)

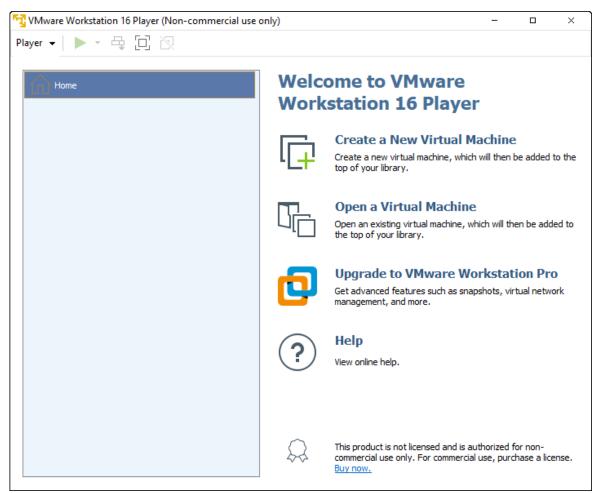
Click the button Finish.





3.4 Mount fx-project

This is now the actual startup screen of VMware Workstation Player, but it does not yet have any virtual machines to run.



(Figure 25: The screenshot may differ depending on the version)

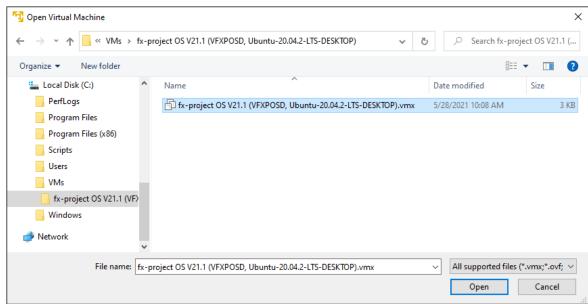
To mount the virtual "fx-project Open Source" machine click on **Open a Virtual Machine**.





Select the following file from the folder into which you have unpacked fx-project (see point 3.2):

► fx-project OS V21.1 (VFXPOSD, Ubuntu-20.04.2-LTS-DESKTOP).vmx



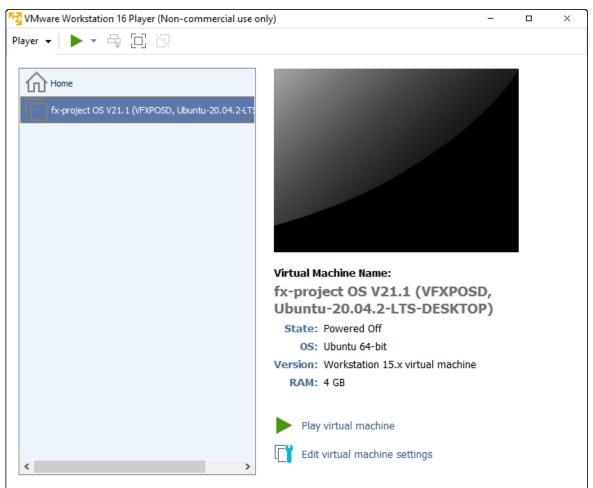
(Figure 26: The screenshot may differ depending on the version)

Click the button **Open**.





Select the now existing virtual "fx-project OS" machine on the left side ...



(Figure 27: The screenshot may differ depending on the version)

... and click **Edit virtual machine settings** in the lower right corner to adjust certain settings to your system environment.



Notice:

These settings can be changed at any time if the virtual machine is too slow, does not have an Internet connection or similar. Feel free to experiment with them to find the best values for your system.

Important! Some values can be changed only when the virtual machine is shut down.

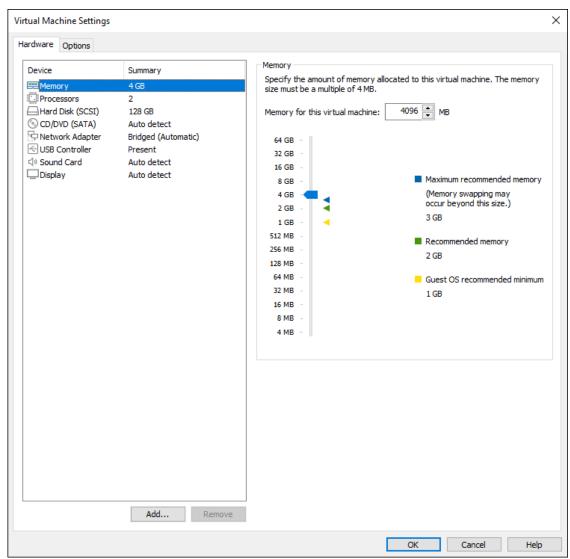




On the left side you can see the simulated hardware components of this virtual machine. Enclosed is a list of the three most important ones.

In the setting for the virtual main "Memory" you can define the size provided.

At least 2 GB (= 2048 MB) should be provided here - 4 GB (= 4096 MB) or more are optimal, if your system has enough free main memory.



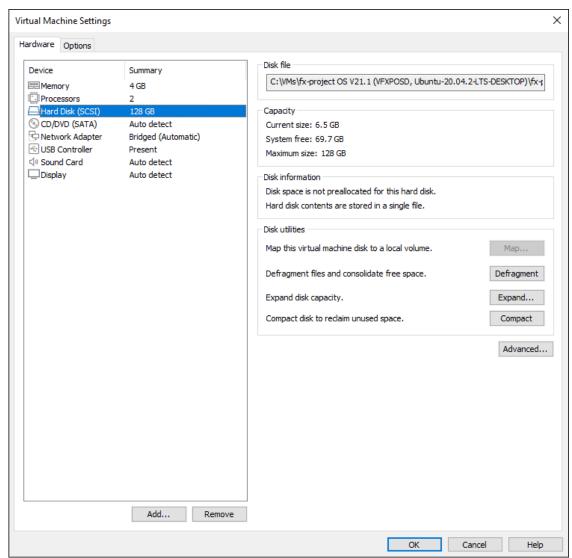
(Figure 28: The screenshot may differ depending on the version)





In the virtual "Hard Disk" setting you can "Expand" the maximum size and run various hard disk tools, such as "Defragment" hard disk or "Compact" file size.

For speed reasons, you should perform a "**Defragment**" and "**Compact**" approximately every two weeks. Also, of course, it is recommended to perform these actions before backing up the virtual machine.



(Figure 29: The screenshot may differ depending on the version)

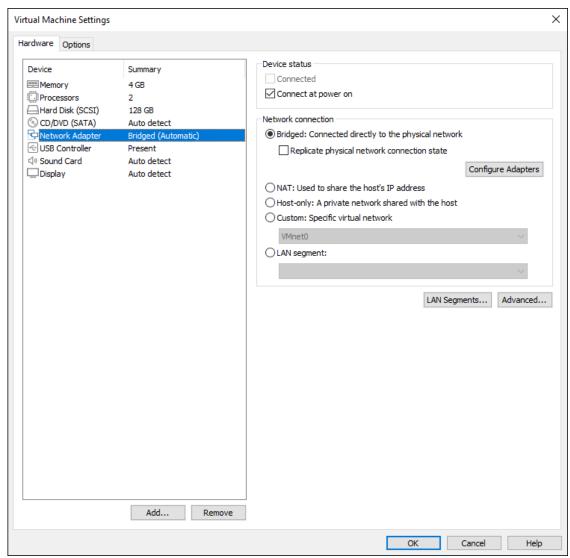




The setting that can cause the most problems is the one for the virtual "**Network Adapter**", as this is used differently on each system.

Unfortunately, only trial and error helps here.

In our experience, "**Bridged**" is the most promising variant. If you have several network adapters in your system, you can select the one you want the virtual machine to use with "**Configure Adapters**".



(Figure 30: The screenshot may differ depending on the version)

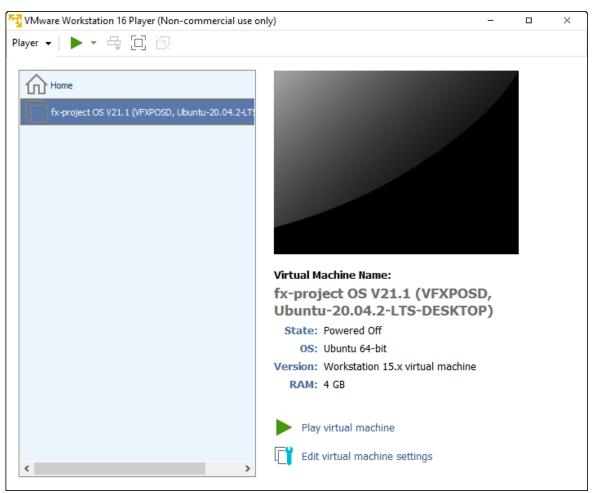
Once all the settings are complete, click **OK** at the bottom right.





3.5 Start fx-project

Back on the start window, select the customized virtual "fx-project OS" machine on the left hand side ...



(Figure 31: The screenshot may differ depending on the version)

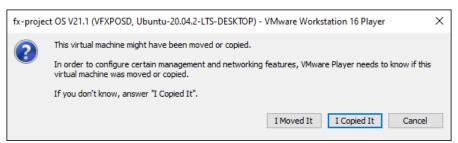
... and click Play virtual machine in the lower right corner to start the virtual machine.





When you start it for the first time, the following information window will appear, since your hardware is, of course, different from the virtual machine creator's hardware.

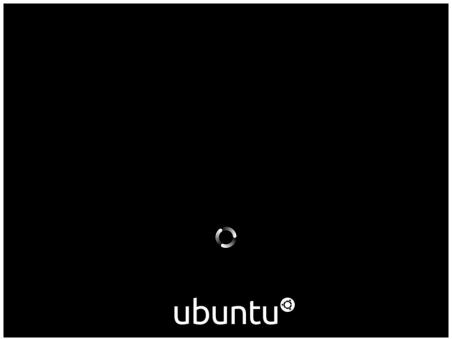
This window also appears when you copy or move the virtual machine to another folder.



(Figure 32: The screenshot may differ depending on the version)

Click the button I Copied It .

While the virtual "fx-project Open Source" machine is now starting you will see the loading screen of the Ubuntu operating system.



(Figure 33: The screenshot may differ depending on the version)

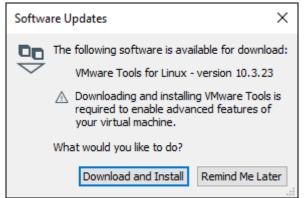




During the first loading process you will also see the following update hint window for downloading and installing the "VMware Tools".

These tools are useful functions to make the virtualization more user-friendly, i.e. the screen size is automatically adapted to the window size, the mouse positions are calculated accordingly, cut & paste between the systems is made possible etc.

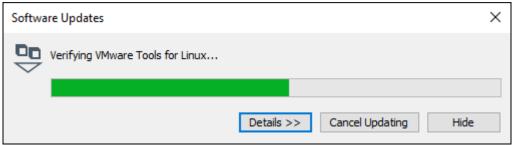
If the virtual machine behaves "strangely", this is usually due to uninstalled or outdated VMware tools. An update of these tools usually helps.



(Figure 34: The screenshot may differ depending on the version)

Click the button **Download and Install** .

While these tools are being downloaded and installed you will see the following progress window.



(Figure 35: The screenshot may differ depending on the version)





Once the virtual Ubuntu operating system has finished loading, you will finally see the Ubuntu desktop, i.e. the start screen.

By default, you have been logged in as user "fxp" with password "fx-project".



(Figure 36: The screenshot may differ depending on the version)

To start fx-project Open Source, click on the fx-project Open Source icon in the upper left corner.







This opens the default browser "Firefox" on the virtual system and calls the fx-project open source HTML start page.

If the page is not displayed, you can simply enter the corresponding URL of the computer name in the address bar.

http://vfxposd

By default, the English "Homepage" is displayed. You can however switch between English and German by simply clicking on the "flag" in the upper right corner.



(Figure 37: The screenshot may differ depending on the version)

To view the delivery access data click on the button **Delivery access data for fx-project Open Source**.

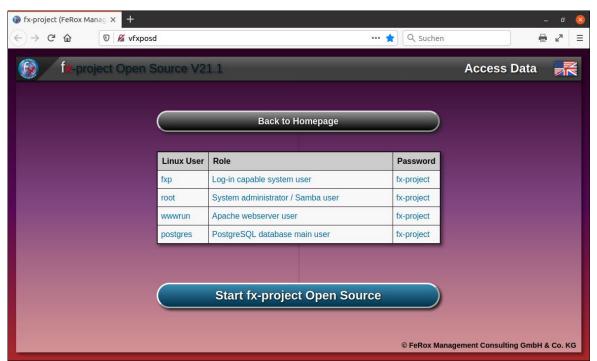
To start fx-project or the installation click on the button **Start fx-project Open Source**.





The delivery access data for all created users on this Ubuntu operating system are listed here.

The password of all created users is "fx-project" by default.



(Figure 38: The screenshot may differ depending on the version)



Notice:

For security reasons, you should change the passwords now before you start fx-project - especially the password of the "root" system administrator!

However, the passwords can also be changed at any time later.

To start fx-project or the installation click on the button **Start fx-project Open Source**.





3.6 Install fx-project

The installation of fx-project Open Source in the virtual machine is similar to the installation of fx-project on a server and is described in detail in the document:

> DOC/ENGLISH/fx-project 04.2 Software - New Installation.pdf

3.7 Shut Down Virtual Machine

You can shut down the virtual machine by clicking in the title bar in the upper right corner and selecting from the pop-up submenu:

- > Ausschalten / Abmelden (Shut dow / Sign out)
 - Ausschalten (Shut down)



(Figure 39: The screenshot may differ depending on the version)



Notice:

This is by default in German, because -- well, we are a German company. @

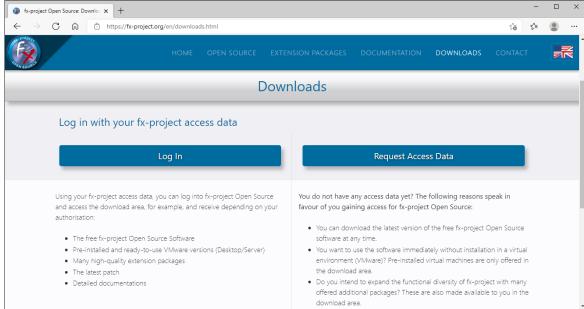




4 fx-project Open Source - VMware (SERVER)

4.1 Download fx-project

On our website https://www.fx-project.org you can find the latest version of fx-project Open Source incl. documentation, manuals, patches and/or extension packages in the [Downloads] section.



(Figure 40: The screenshot may differ depending on the version)



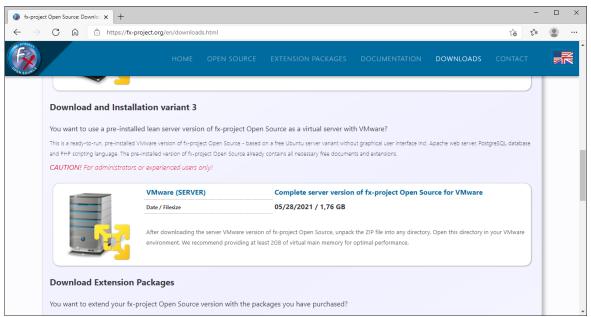
Notice:

To access the download area of fx-project you need valid access data. If you do not have any access data yet, you can request new access data.





After logging in, you will see a list of all available downloads.



(Figure 41: The screenshot may differ depending on the version)

Download the latest server version for VMware.

VMware (SERVER):

This is a ready-to-run, pre-installed VMware version of fx-project Open Source - based on a free Ubuntu server variant without graphical user interface incl. Apache web server, PostgreSQL database and PHP scripting language. The pre-installed version of fx-project Open Source already contains all necessary free documents and extensions.



Notice:

The server version is smaller, slimmer and more resource efficient - but has no graphical user interface and no mouse control, i.e. commands have to be entered in a so-called command line tool or shell.





4.2 Unpack fx-project

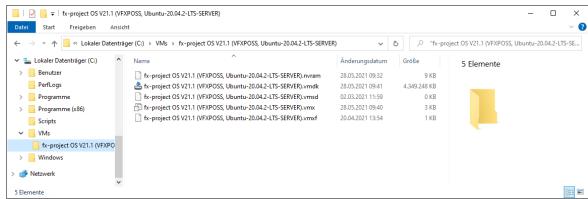
Unpack the downloaded ZIP file into an appropriate folder.

We recommend e.g. to create a new folder "VMs" directly on your fastest hard disk, preferably on a SSD hard disk. On the hard disk there should be at least 32 GB free, optimal would be 128 GB or more to prevent possible later problems when the amount of data in fx-project grows through daily use.

To do this, right-click on the ZIP file, for example, and select "Extract all...". As folder select your destination folder, e.g. here "C:\VMs".

In our example, the folder structure after unpacking the ZIP file is as follows

- **▶** C:
 - ► VMs
 - ► fx-project OS V21.1 (VFXPOSS, Ubuntu-20.04-2-LTS-SERVER)



(Figure 42: The screenshot may differ depending on the version)





4.3 Start VMware

fx-project Open Source VMware (SERVER) is a virtual operating system with all required pre-installed components for the virtualization software product VMware.

These components are:

→ Operating System: Ubuntu 20.04.2 LTS 64bit (LTS = Long Term Support)

→ Computer Name: vfxposs

→ Web Server: Apache 2.4.41→ Database: PostgreSQL 12.6

→ Script Language: PHP 7.4.3

To use fx-project Open Source you have to start the "VMware Workstation Player" or another supported VMware program.

To do this, open the Windows Start menu, for example, and click on the corresponding

entry ...



(Figure 43: The screenshot may differ depending on the version)



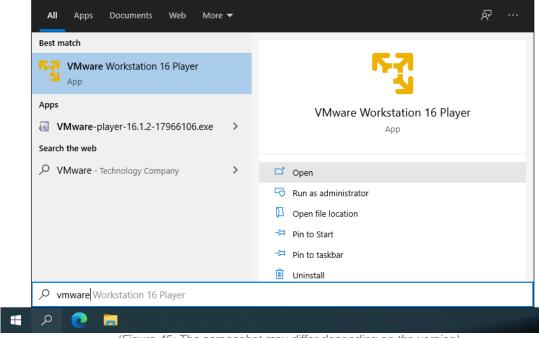


... or click on the corresponding icon on your desktop ...



(Figure 44: The screenshot may differ depending on the version)

... or use the search function.



(Figure 45: The screenshot may differ depending on the version)





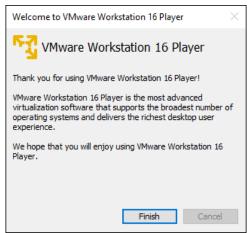
When you start VMware Workstation Player for the first time, you will be asked if you want to use the free version for non-commercial use or if you already have a license key. If you have a key you can enter it here.



(Figure 46: The screenshot may differ depending on the version)

Click the button **Continue**

You will see a small "Thank you" window before the actual start.



(Figure 47: The screenshot may differ depending on the version)

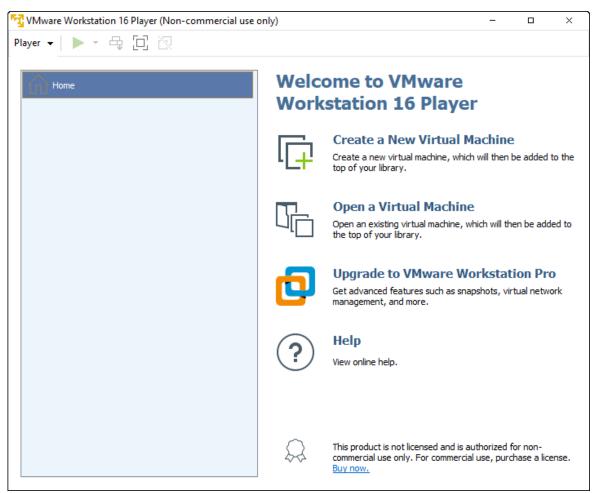
Click the button **Finish**.





4.4 Mount fx-project

This is now the actual startup screen of VMware Workstation Player, but it does not yet have any virtual machines to run.



(Figure 48: The screenshot may differ depending on the version)

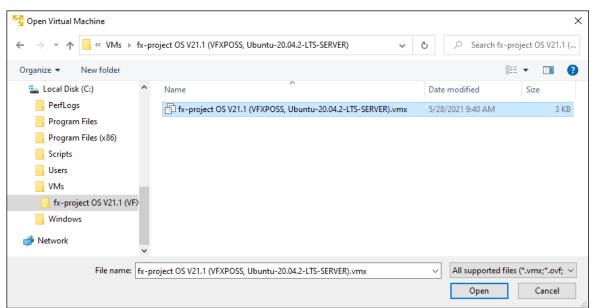
To mount the virtual "fx-project Open Source" machine click on **Open a Virtual Machine**.





Select the following file from the folder into which you have unpacked fx-project (see point 4.2):

► fx-project OS V21.1 (VFXPOSS, Ubuntu-20.04.2-LTS-SERVER).vmx



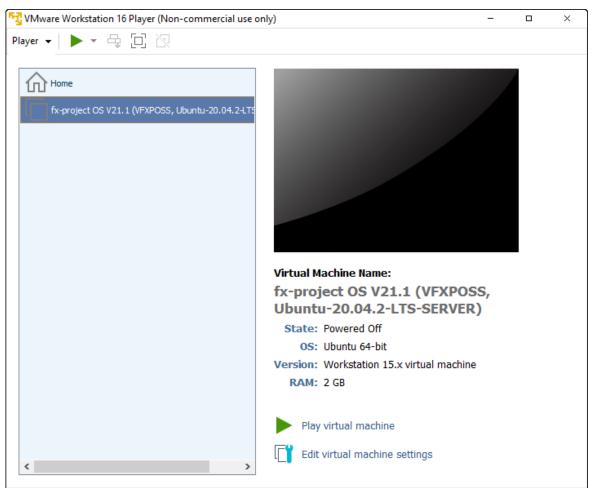
(Figure 49: The screenshot may differ depending on the version)

Click the button **Open**.





Select the now existing virtual "fx-project OS" machine on the left side ...



(Figure 50: The screenshot may differ depending on the version)

... and click **Edit virtual machine settings** in the lower right corner to adjust certain settings to your system environment.



Notice:

These settings can be changed at any time if the virtual machine is too slow, does not have an Internet connection or similar. Feel free to experiment with them to find the best values for your system.

Important! Some values can be changed only when the virtual machine is shut down.

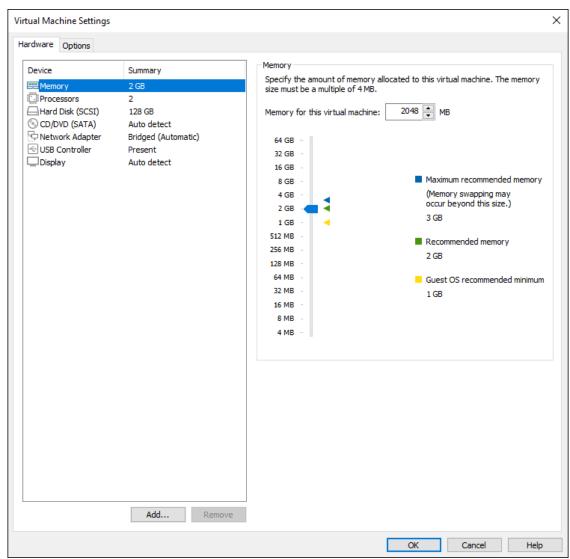




On the left side you can see the simulated hardware components of this virtual machine. Enclosed is a list of the three most important ones.

In the setting for the virtual main "Memory" you can define the size provided.

At least 1 GB (= 1024 MB) should be provided here - 2 GB (= 2048 MB) or more are optimal, if your system has enough free main memory.



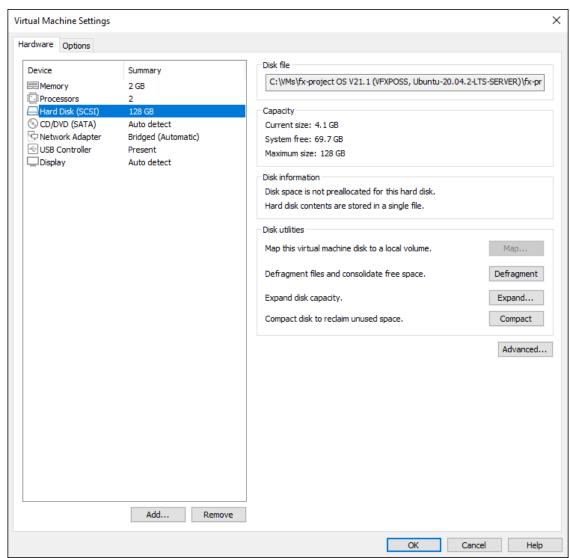
(Figure 51: The screenshot may differ depending on the version)





In the virtual "Hard Disk" setting you can "Expand" the maximum size and run various hard disk tools, such as "Defragment" hard disk or "Compact" file size.

For speed reasons, you should perform a "**Defragment**" and "**Compact**" approximately every two weeks. Also, of course, it is recommended to perform these actions before backing up the virtual machine.



(Figure 52: The screenshot may differ depending on the version)

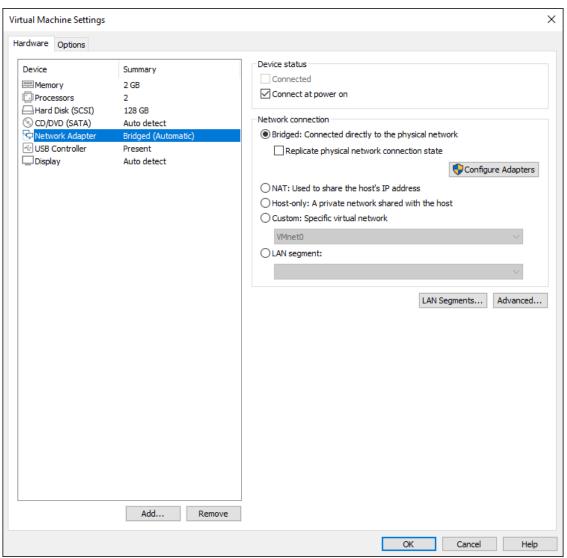




The setting that can cause the most problems is the one for the virtual "**Network Adapter**", as this is used differently on each system.

Unfortunately, only trial and error helps here.

In our experience, "**Bridged**" is the most promising variant. If you have several network adapters in your system, you can select the one you want the virtual machine to use with "**Configure Adapters**".



(Figure 53: The screenshot may differ depending on the version)

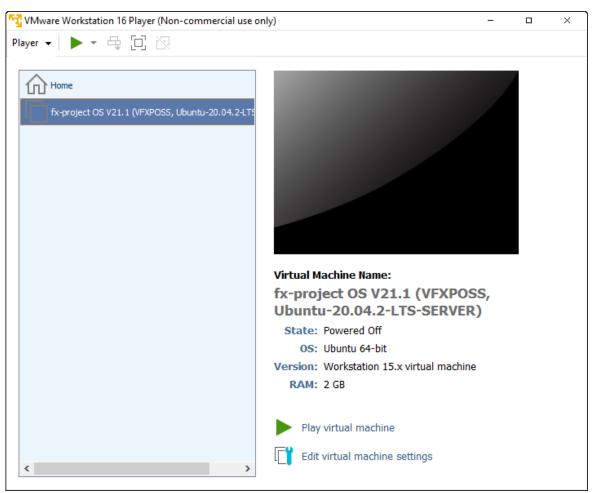
Once all the settings are complete, click **OK** at the bottom right.





4.5 Start fx-project

Back on the start window, select the customized virtual "fx-project OS" machine on the left hand side ...



(Figure 54: The screenshot may differ depending on the version)

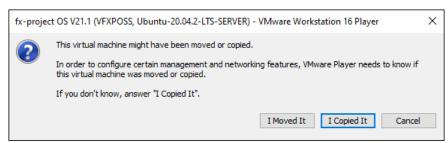
... and click Play virtual machine in the lower right corner to start the virtual machine.





When you start it for the first time, the following information window will appear, since your hardware is, of course, different from the virtual machine creator's hardware.

This window also appears when you copy or move the virtual machine to another folder.



(Figure 55: The screenshot may differ depending on the version)

Click the button I Copied It .

While the virtual "fx-project Open Source" machine is now starting you will see the loading screen of the Ubuntu server operating system.

(Figure 56: The screenshot may differ depending on the version)

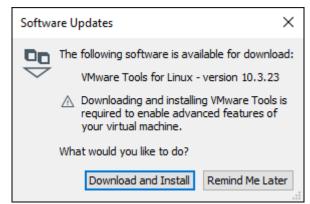
During the first loading process you will also see the following update hint window for downloading and installing the "VMware Tools".





These tools are useful functions to make the virtualization more user-friendly, i.e. the screen size is automatically adapted to the window size, the mouse positions are calculated accordingly, cut & paste between the systems is made possible etc.

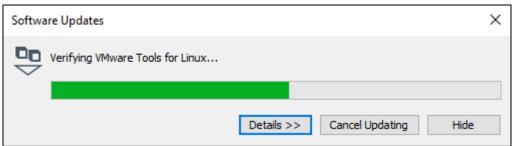
If the virtual machine behaves "strangely", this is usually due to uninstalled or outdated VMware tools. An update of these tools usually helps.



(Figure 57: The screenshot may differ depending on the version)

Click the button **Download and Install**.

While these tools are being downloaded and installed you will see the following progress window.



(Figure 58: The screenshot may differ depending on the version)





Once the virtual Ubuntu server operating system has finished loading, you will finally see the Ubuntu shell, i.e. the command line application for administering the server.

Log in as user "root" with the password "fx-project".

```
Jbuntu 20.04.2 LTS vfxposs tty1
vfxposs login: root
Nelcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0–73–generic x86_64)
 * Documentation: https://help.ubuntu.com
                      https://landscape.canonical.com
https://ubuntu.com/advantage
 * Management:
 * Support:
  System information as of Mi 23. Jun 14:25:44 CEST 2021
  System load: 0.08 Processes:
Usage of /: 8.3% of 62.25GB Users logged in:
Memory usage: 18% IPv4 address for
                                         IPv4 address for ens33: మాట్టిలేక నిళ్ళి గ్రామం
  Swap usage: 0%
 * Super-optimized for small spaces – read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.
   https://ubuntu.com/blog/microk8s-memory-optimisation
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
 oot@vfxposs:~#
```

(Figure 59: The screenshot may differ depending on the version)



Notice:

For security reasons, you should change the passwords now before you start fx-project - especially the password of the "root" system administrator!

However, the passwords can also be changed at any time later.





The following users have been created on this Ubuntu server:

Linux User	Role	Password
fxp	Log-in capable system user	fx-project
root	System administrator / Samba user	fx-project
wwwrun	Apache webserver user	fx-project
postgres	PostgreSQL database main user	fx-project

With this you have a fully functional server and can now call fx-project Open Source directly in your browser. Just enter the corresponding URL of this computer name in the address bar.

http://vfxposs



Notice:

This computer name is normally recognized correctly by your router and forwarded to the corresponding computer in your network environment.

If this is not the case for you, you can also call fx-project by entering the IP address of the server, e.g. http://127.0.0.1. You will see this in the shell directly after logging in - here as "IPv4 address" (made unrecognizable in the screenshot above).





By default, the English "Homepage" is displayed. You can however switch between English and German by simply clicking on the "flag" in the upper right corner.



(Figure 60: The screenshot may differ depending on the version)

To view the delivery access data click on the button

Delivery access data for fx-project Open Source.

To start fx-project or the installation click on the button **Start fx-project Open Source**.





The delivery access data for all created users on this Ubuntu operating system are listed here.

The password of all created users is "fx-project" by default.



(Figure 61: The screenshot may differ depending on the version)

To start fx-project or the installation click on the button **Start fx-project Open Source**.





4.6 Install fx-project

The installation of fx-project Open Source in the virtual machine is similar to the installation of fx-project on a server and is described in detail in the document:

> DOC/ENGLISH/fx-project 04.2 Software - New Installation.pdf

4.7 Reboot / Shut Down Virtual Machine

You can reboot or shut down the virtual server by entering the following command lines as the "root" user in the shell:

Reboot server:

> reboot

Shut down server:

> shutdown -h now





5 Acknowledgement



Thank you for choosing fx-project Open. By purchasing extension packages you support us and ensure the continuity of this software.

We wish you

Good Luck!





6 Third-Party Software Notice

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