

SOLIDWORKS PCB 2020 Client-Server Installation Guide

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| TITLE: | SOLIDWORKS PCB 2020 Client-Server Installation Guide | |
| DATE: | September 2019 | |
| SUBJECT: | SOLIDWORKS PCB 2020 Client-Server Installation Configuration | |
| ABSTRACT: | This guide gives instructions for installing SOLIDWORKS PCB 2020. | |



This guide gives instructions for installing SOLIDWORKS PCB 2020. It is written for client-server installations of SOLIDWORKS PCB 2020. In this configuration, SOLIDWORKS PCB Services (or Altium Vault) is installed on a server system, and SOLIDWORKS PCB is installed on client systems. This is a shared configuration where a server computer hosts SOLIDWORKS PCB Services (or Altium Vault) data, while client computers run either SOLIDWORKS PCB, SOLIDWORKS PCB Connector and/or the SOLIDWORKS PCB Add-In. Please contact [Hawk Ridge Systems Technical Support](#) if you are unsure of your SOLIDWORKS PCB configuration type.

SOLIDWORKS PCB 2020 uses the same installation manager as other SOLIDWORKS products, including the 3D CAD software. If upgrading other SOLIDWORKS products, along with SOLIDWORKS PCB 2020, please also refer to their [upgrade guides](#) for further instructions.

This is not a troubleshooting guide. If you have any technical issues with SOLIDWORKS PCB, please contact [Hawk Ridge Systems technical support](#). This document is only to be distributed and used by Hawk Ridge Systems customers. Any other use is prohibited.

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Product Information

SOLIDWORKS PCB is a PCB design tool that integrates with SOLIDWORKS 3D to allow collaboration between electrical and mechanical designers. Changes to a PCB design can be made in either SOLIDWORKS PCB or SOLIDWORKS 3D then synchronized between the two programs.

SOLIDWORKS PCB Connector is also available. This product enables SOLIDWORKS 3D integration with Altium Designer. Here the PCB design tools are provided by Altium Designer, while the 3D collaboration tools are provided by SOLIDWORKS PCB Connector. Note that sales and support for Altium Designer are not provided by Hawk Ridge Systems or SOLIDWORKS.

Refer to www.solidworkspcb.com for more information.

Licensing

SOLIDWORKS PCB 2020 can be used with standalone and network licenses. Note that the license type can differ from the installation configuration type, which can be standalone or client-server. The license type can be standalone or network (this guide is for the client-server configuration). Either license type can be used with either configuration type.

If you have a standalone license, you will need to activate SOLIDWORKS PCB 2020 after installing. You will be automatically prompted to do this when launching the application after an upgrade. Refer to our guide titled 2020 Product Activation for more information on activation methods. If you are moving your SOLIDWORKS PCB 2020 installation to a new computer, you will need to transfer your license activation off the old computer before activating on the new one. Refer to the [Appendix](#) for instructions on transferring your SOLIDWORKS PCB standalone license.

If you have a network license, the SolidNetwork License Manager on the license server computer needs to be of a version at or above the version of SOLIDWORKS PCB 2020 that you are installing. If this is not



already the case, refer to our guide titled 2020 Network Server Installation to install and activate the SolidNetwork License Manager.

Configuration Requirements

If you are installing SOLIDWORKS PCB 2020, and are looking to take advantage of 3D imaging and data transfer, you must either install SOLIDWORKS 3D along with SOLIDWORKS PCB 2020 or have SOLIDWORKS 3D previously installed on a given computer. It is recommended that SOLIDWORKS 3D and SOLIDWORKS PCB be of the same version and service pack, however it is not required. See the compatibility matrix below.

| Altium Designer | SOLIDWORKS PCB Connector | SOLIDWORKS PCB Services | SOLIDWORKS |
|--------------------|---|---|---|
| Altium Designer 17 | SOLIDWORKS PCB Connector 2017 | SOLIDWORKS PCB Services 2017, SOLIDWORKS PCB Service 2018. Recommended to have all on same version | SOLIDWORKS 2017 |
| | SOLIDWORKS PCB Connector 2018 | SOLIDWORKS PCB Services 2017,2018 | SOLIDWORKS 2018 and SOLIDWORKS 2017 SP5 with the hotfix 1041422 – Solution S-074212 |
| Altium Designer 18 | SOLIDWORKS PCB Connector 2018 | Only SOLIDWORKS PCB Services 2018 | SOLIDWORKS 2018 and SOLIDWORKS 2017 SP5 with the hotfix 1041422 – Solution S-074212 |
| | SOLIDWORKS PCB Connector 2019 | SOLIDWORKS PCB Services 2019, SOLIDWORKS PCB Services 2018. Recommended to have all on same version | SOLIDWORKS 2019, SOLIDWORKS 2018 - without copper or decals |
| Altium Nexus | SOLIDWORKS PCB Connector 2018 For Nexus | Altium Vault/Nexus Server | SOLIDWORKS 2018 |
| | SOLIDWORKS PCB Connector 2019 For Nexus | Altium Vault/Nexus Server | SOLIDWORKS 2019, SOLIDWORKS 2018 - without copper or decals |

Program Components

If you have purchased SOLIDWORKS PCB, you will need to install:

- SOLIDWORKS PCB
- SOLIDWORKS PCB Services (or Altium Vault)

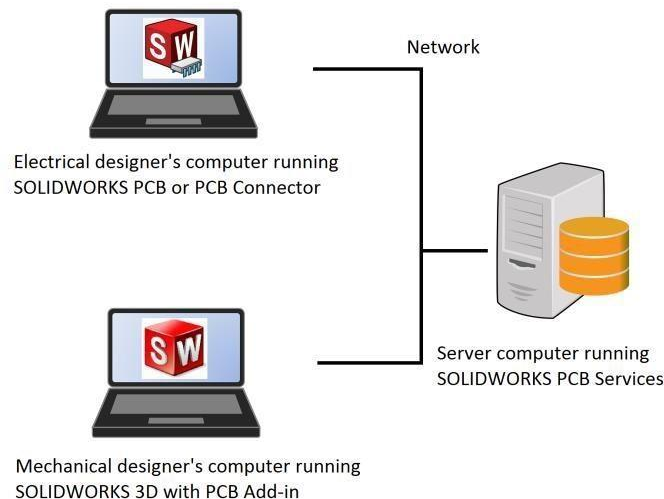
If you have purchased SOLIDWORKS PCB Connector, you will need to install:

- SOLIDWORKS PCB Connector

- SOLIDWORKS PCB Services (or Altium Vault)

Refer to the table below for more information on the four primary program components.

| Program Component | Description | Typical Installation Location |
|--------------------------|---|--|
| SOLIDWORKS PCB Services | Service that enables communication and collaboration between the SOLIDWORKS PCB and SOLIDWORKS 3D programs | Server computer accessible to all user computers |
| SOLIDWORKS PCB | Standalone PCB design program typically used by an electrical designer | ECAD user computer |
| SOLIDWORKS PCB Connector | Extension for Altium Designer to allow it to connect to SOLIDWORKS PCB Services (or Altium Vault), enabling 3D integration | ECAD user computer running Altium Designer |
| SOLIDWORKS PCB Add-In | Add-in for SOLIDWORKS 3D (typically used by a mechanical designer), allowing it to connect to SOLIDWORKS PCB Services (or Altium Vault) and push changes back to SOLIDWORKS PCB | MCAD user computer running SOLIDWORKS 3D |



Installation Type

SOLIDWORKS PCB can be installed in a shared or local configuration.

In a shared configuration, SOLIDWORKS PCB Services (or Altium Vault) is installed on a server computer or another computer that is accessible over the network to all the user computers. The user computers run either SOLIDWORKS PCB, PCB Connector or the SOLIDWORKS PCB Add-In. These components all connect to SOLIDWORKS PCB Services (or Altium Vault) over the network. This is illustrated in the image above.

Before Installation

Hawk Ridge Systems highly recommends taking a moment before installing SOLIDWORKS and ensuring you are ready to load your new software. First, check the following links to ensure [minimum system requirements](#) and the [video card compatibility](#) is met. Also, confirm that the hard drive has enough space to have at least 15% free space, after the full installation. Back-up data such as any shared Toolbox library, Design Library, Template files, or a data management vault. As always, verify workmates, customers, or vendors are all on the same version of SOLIDWORKS. SOLIDWORKS cannot open files from newer versions.

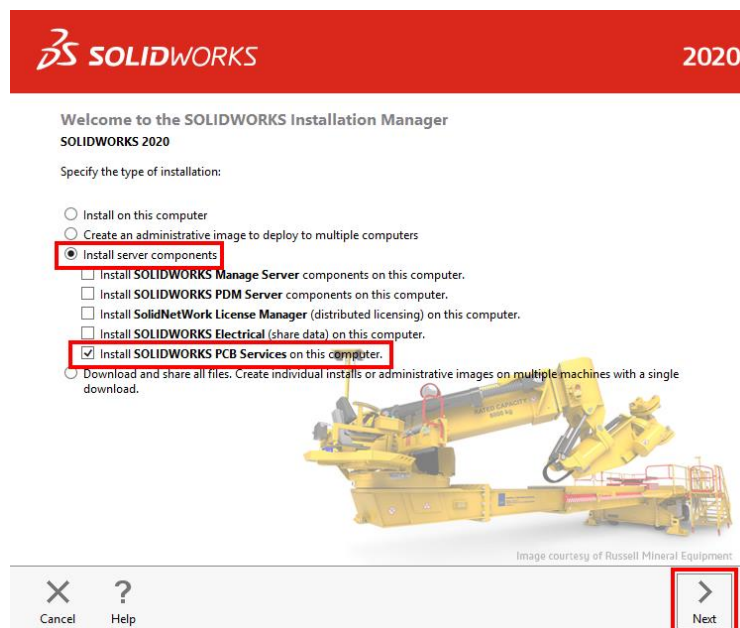
Hawk Ridge Systems also highly recommends ensuring the following TCP ports are open between SOLIDWORKS PCB client systems and the SOLIDWORKS PCB Services (or Altium Vault) server system:

9780 – HTTP port
9785 – HTTPS port
3690 – SVN port
4649 – WebSocket port

Installing SOLIDWORKS PCB Services

This section installs the SOLIDWORKS PCB Services program.

1. Select Server Products on the Welcome screen and navigate to SOLIDWORKS PCB Services
2. Check the box next to SOLIDWORKS PCB Services and click Next.





3. Specify the installation location, database folder, revisions file folder, and port number by selecting CHANGE, next to PCB Options on the Summary Page, for custom settings. Click Back to Summary when finished. We recommend keeping the default values for all options here.

SOLIDWORKS 2020

Summary

▼ SOLIDWORKS PCB Services **Change**

Installation location: C:\Program Files\SOLIDWORKS Corp\SOLIDWORKS PCB Services
Database folder: C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services
Revisions file folder: C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services\Revisions
Http Port number: 9780
Https Port number: 9785

► Download Options **Change**

I accept the terms of the SOLIDWORKS **Estimated installation size: 673 MB**
[License Agreement](#) **Estimated download size: 250 MB**

Cancel Help Back Download and Install

SOLIDWORKS 2020

SOLIDWORKS PCB Services Options

▼ Installation Location **Browse...**

C:\Program Files\SOLIDWORKS Corp\SOLIDWORKS PCB Services

▼ Data Folders

Database folder: **Browse...**

C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services

Revisions folder: **Browse...**

C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services\Revisions

▼ PCB Services Configuration

Http Port Number: 9780
Https Port Number: 9785

Cancel Help **Back to Summary**



- CHANGE or accept the default(s), shown in the screenshots below, then click Download and Install.

SOLIDWORKS 2020

Summary

▼ SOLIDWORKS PCB Services [Change](#)

Installation location: C:\Program Files\SOLIDWORKS Corp\SOLIDWORKS PCB Services
Database folder: C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services
Revisions file folder: C:\ProgramData\SOLIDWORKS\SOLIDWORKS PCB Services\Revisions
Http Port number: 9780
Https Port number: 9785

► Download Options [Change](#)

I accept the terms of the SOLIDWORKS [License Agreement](#) Estimated installation size: 673 MB
Estimated download size: 250 MB

Cancel Help Back **Download and Install**

- Open a browser and go to the URL `http://machinename:9780`, where machinename is the name of the computer running SOLIDWORKS PCB Services and 9780 is the port used at step 3 above (e.g. `http://server01:9780`). Note that machinename can be specified as localhost if you are connecting to SOLIDWORKS PCB Services from the same computer on which it is installed. We suggest bookmarking this page for easy access to the SOLIDWORKS PCB Services interface.
- Log in with the user name admin and password admin.



Sign in to SOLIDWORKS PCB Services

Username

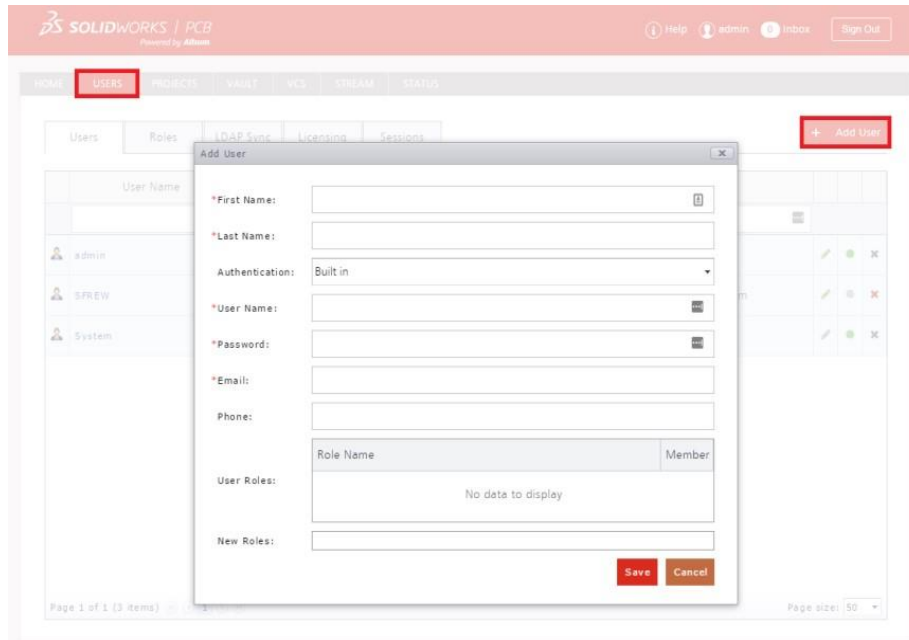
Password

Remember me

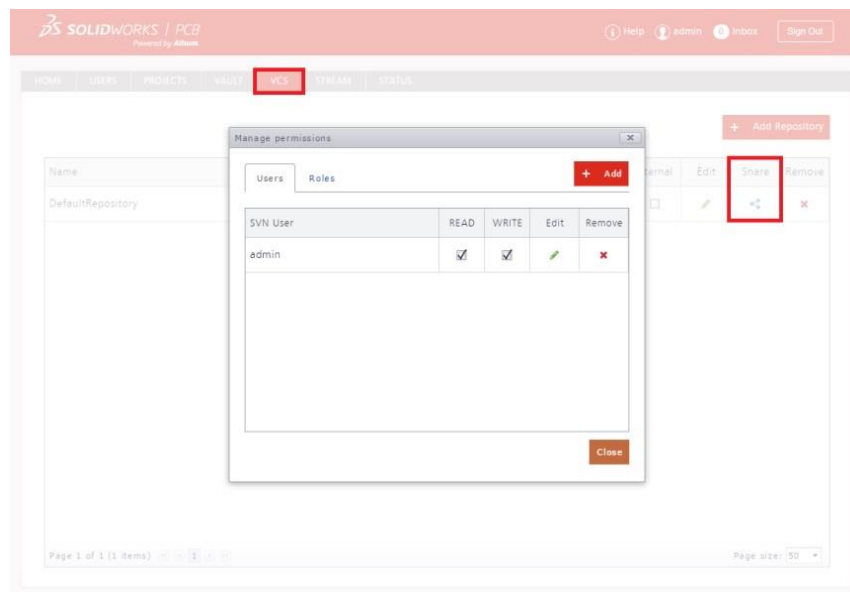
Sign in



7. Click on USERS > Add User, then use the form to enter information for a new user. Repeat this for all the users that will be connecting to SOLIDWORKS PCB Services. Note that users can be added to roles and new roles can be created. Roles can then be used to control user permissions to SOLIDWORKS PCB data.



8. After adding all users, click on the VCS tab to show the DefaultRepository. Click on the Share button to bring up the Manage Permissions dialog. Add users or roles to the repository to give the users added at step 7 access to this repository. Note that you can create multiple repositories with different users having different permissions to each.

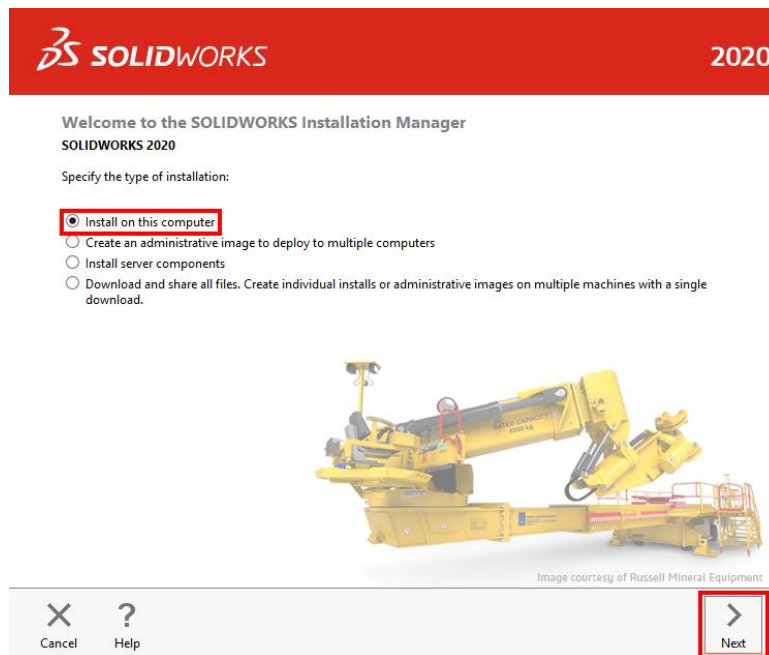


9. Click Sign Out when finished.
10. Note that all user computers will need to be able to communicate with SOLIDWORKS PCB Services over the network on the port specified at step 3. Add exceptions to all firewalls or security programs that might affect this communication.

SOLIDWORKS PCB Client Installation

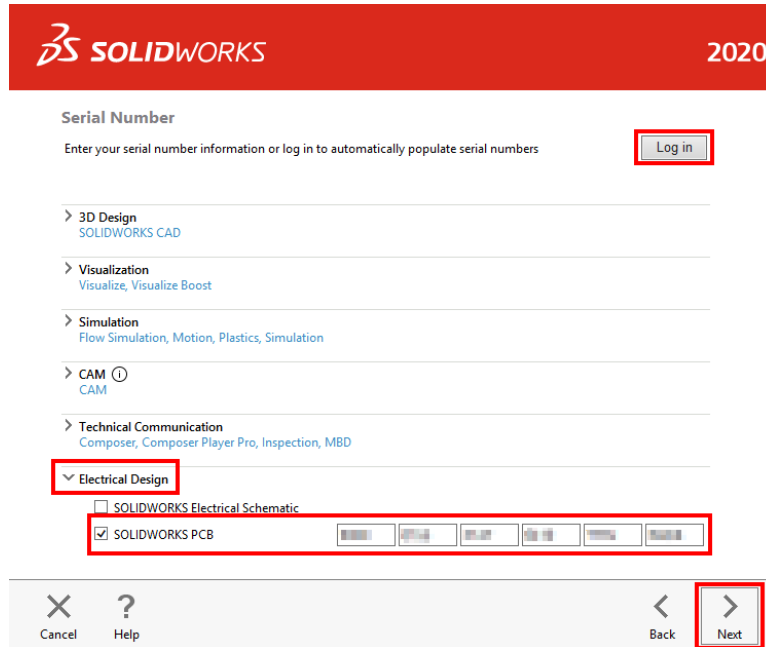
REMINDER: If upgrading from a previous version of SOLIDWORKS PCB, we strongly recommend backing up data before proceeding.

1. Make sure you are logged in as the administrator.
2. Disable all anti-virus and anti-spyware tools and turn off Windows User Account Control.
3. Locate your SOLIDWORKS 2020 installation media (DVD or download) and launch the setup application (setup.exe). You should see the Welcome screen for the SOLIDWORKS Installation Manager. Select Individual (on this computer) and click Next.



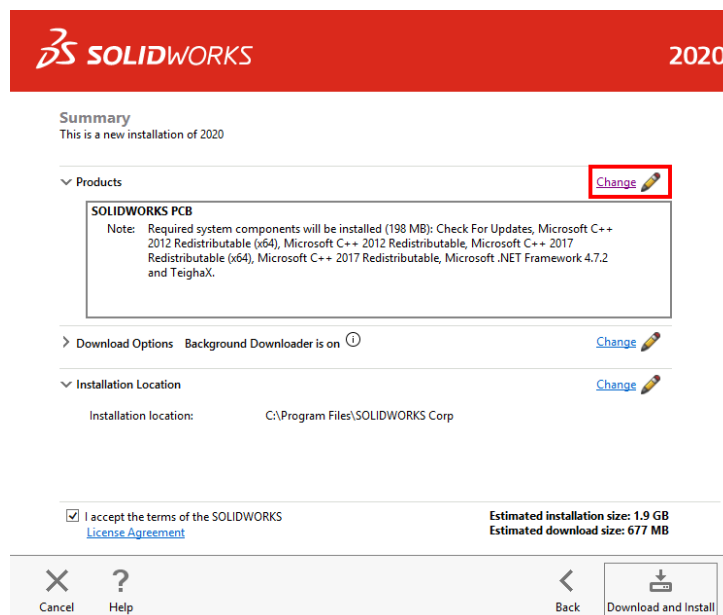


- You will then see the Serial Number screen where you can enter your serial number for your SOLIDWORKS PCB installation. Note that you do not need to enter multiple serial numbers if your SOLIDWORKS serial number is the same as your SOLIDWORKS PCB serial number. Click Next.



- The SOLIDWORKS Installation Manager will verify your serial number and perform an automatic system check for any existing versions of SOLIDWORKS or SOLIDWORKS PCB. Take note of any messages or warnings during this step.

- At the Summary screen, you can change the settings and options defined for the installation. To do so, click CHANGE on the right side of each option.





7. Click CHANGE next to Products to go to the Product Selection screen. Scroll down and ensure that SOLIDWORKS PCB is checked ON. Nested here are the individual SOLIDWORKS products. Click Back to Summary when finished.

SOLIDWORKS 2020

Product Selection

Select products to install.

SOLIDWORKS Products [Select different packages or products](#)

- SOLIDWORKS Languages
 - eDrawings (655 MB)
 - SOLIDWORKS File Utilities (31 MB)
 - PV360 Network Client (319 MB)
 - SOLIDWORKS Simulation Worker Agent (17 MB)
 - SOLIDWORKS Composer Player (445 MB)
 - SOLIDWORKS PCB (1.6 GB)**
 - SOLIDWORKS Manage Client (475 MB)
 - SOLIDWORKS PDM Client (945 MB)
- API Tools

Required system components will be installed (198 MB): Check For Updates, Microsoft C++ 2012 Redistributable (x64), Microsoft C++ 2012 Redistributable, Microsoft C++ 2017 Redistributable (x64), Microsoft C++ 2017 Redistributable, Microsoft .NET Framework 4.7.2 and TeighaX.

Install SOLIDWORKS PCB 2020
SOLIDWORKS PCB is a standalone electronics design product for creation of printed circuit boards (PCB) which provides a bi-directional link between MCAD and ECAD designs. SOLIDWORKS PCB allows your

Estimated space required for installation: 1.9 GB
Does not include the size of any downloads.

Cancel Help **Back to Summary**

8. In the Download Options, we recommend disabling the Background Downloader, as it is known to cause issues with upgrades. Click CHANGE next to Download Options, then deselect Use the background downloader. Click Back to Summary when finished.
9. Confirm that all the information on the Summary screen is correct. Accept the license agreement then click Download and Install to begin the installation.

SOLIDWORKS 2020

Summary
This is a new installation of 2020

Products [Change](#)

SOLIDWORKS PCB
Note: Required system components will be installed (198 MB): Check For Updates, Microsoft C++ 2012 Redistributable (x64), Microsoft C++ 2012 Redistributable, Microsoft C++ 2017 Redistributable (x64), Microsoft C++ 2017 Redistributable, Microsoft .NET Framework 4.7.2 and TeighaX.

Download Options Background Downloader is on [Change](#)

Installation Location [Change](#)
Installation location: C:\Program Files\SOLIDWORKS Corp

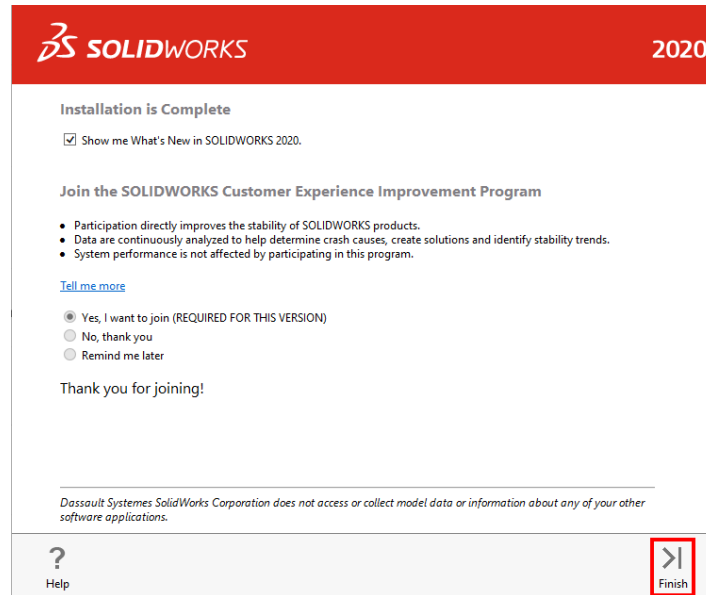
I accept the terms of the SOLIDWORKS License Agreement [License Agreement](#) **Estimated installation size: 1.9 GB**
Estimated download size: 677 MB

Cancel Help Back **Download and Install**

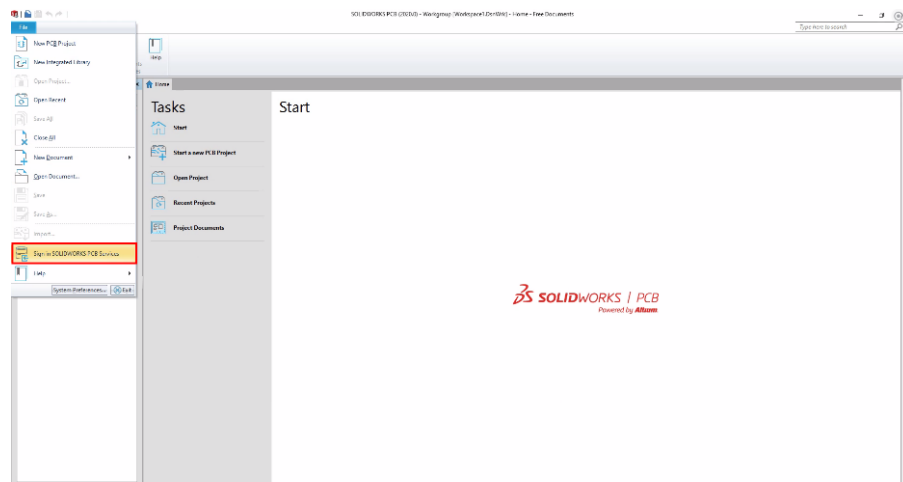


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When the installation is complete, you will be asked to join the [SOLIDWORKS Customer Experience Improvement Program](#). We recommend joining this, as it provides software performance information to SOLIDWORKS and enables the use of the CAD Admin Dashboard through the Customer Portal. The information this sends to SOLIDWORKS is treated confidentially and does not result in the transfer of any file information. After making the selection, click the Finish button to complete the installation.



10. When the software is launched for the first time after installation, you may need to activate the license (if using standalone licensing). Follow the prompts to complete this. You will also be prompted to accept the license agreement.
11. When running SOLIDWORKS PCB for the first time, you may be prompted to allow SOLIDWORKS PCB through the firewall. Allow it, if so.
12. At the SOLIDWORKS PCB Start screen, click File > Sign in SOLIDWORKS PCB Services (or Altium Vault), or click Start a New PCB Project.





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In the sign in dialog, for Server Address, enter the name of the computer running SOLIDWORKS PCB Services (or Altium Vault) and the port number in the format machinename:9780. Note that machinename can be specified as localhost if SOLIDWORKS PCB Services (or Altium Vault) is installed on the same computer as SOLIDWORKS PCB (i.e. when using a local configuration). Also enter your Username and Password, as specified at step 6 of the SOLIDWORKS PCB Services (or Altium Vault) installation ([section 2](#)). Click Login to start using SOLIDWORKS PCB.

Connecting to SOLIDWORKS PCB Services... X

Please, sign in to SOLIDWORKS PCB Services

Server address: machinename:9780

Username: admin

Password: *****

Remember the credentials

Sign me in when I start SOLIDWORKS PCB

Login Cancel

Appendix: License Transfer

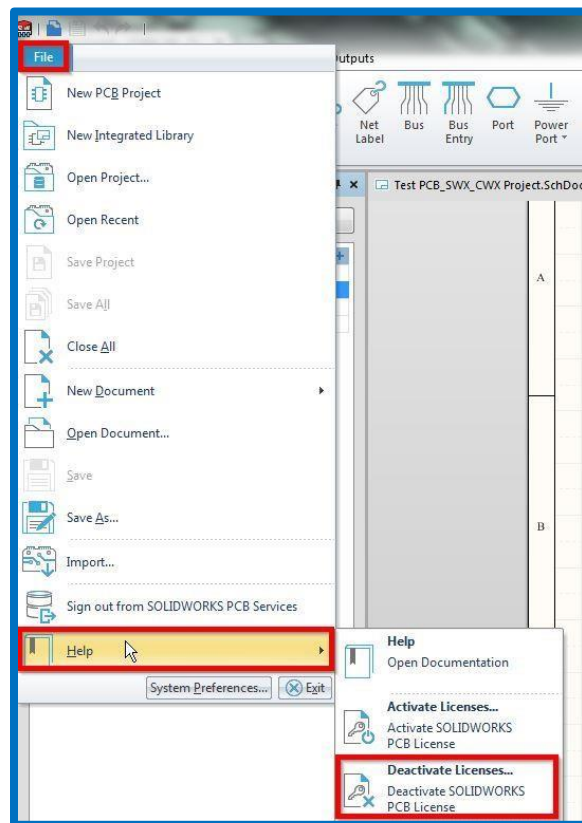
You are allowed one activation per standalone license, for your business computer and for your home computer. As part of the license agreement, you may not use both simultaneously.

Each activation transaction is coded to the hardware of your computer. If you are moving your **SOLIDWORKS PCB** installation to a new computer, you will need to transfer your license activation before activating on the new computer. You should also do this before reformatting or replacing your hard drive or operating system. If your **SOLIDWORKS PCB** license is tied to your main **SOLIDWORKS** license (i.e. they are the same number), please see our guide titled **2020 Product Activation** for the transfer process.

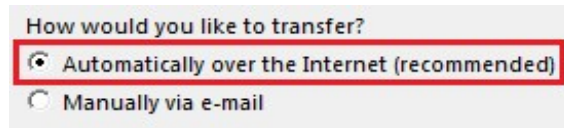
This process is not required for a new installation. If your computer does not have internet access, refer to the [E-mail Transfer](#) section of this document.

Online Transfer

1. Go to Start > All Programs > **SOLIDWORKS 2020** > **SOLIDWORKS PCB**.
2. Once **SOLIDWORKS PCB** launches, click on the **File** tab and choose **Help>Deactivate Licenses...**



3. Choose to transfer **Automatically over the Internet** and click **Next**.



4. The software will connect to the **SOLIDWORKS** activation servers and you will be informed when the license has been successfully transferred.

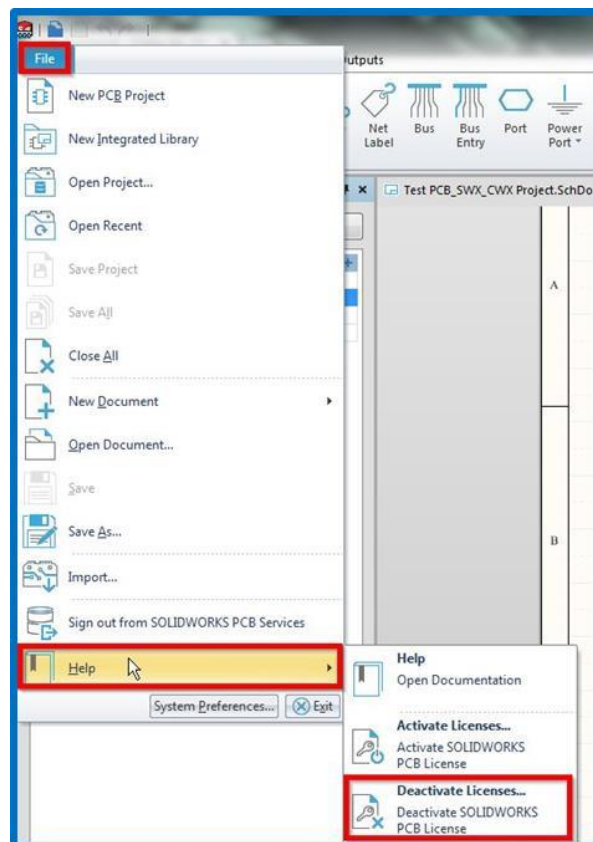


5. Press the **Finish** button to complete the process.

Note: SOLIDWORKS PCB will no longer run on this machine unless it is re-activated.

E-mail Transfer

1. Go to Start > All Programs > **SOLIDWORKS 2020** > **SOLIDWORKS PCB**.
2. Once **SOLIDWORKS PCB** launches, click on the **File** tab and choose **Help>Deactivate Licenses...**



3. Choose to activate **Manually via e-mail** and click **Next**.
4. On the next page, press the **Save** button to create an activation request file.

Note: Once you have saved this file, your activation is disabled. Do not exit the activation window until you have read in the response file from SOLIDWORKS and completed the process or you will not be able to run SOLIDWORKS PCB to complete the transfer.

5. Browse to a location on your computer to store this .txt file and press the **Save** button. Copy this .txt file onto a removable storage device and move it to a machine with internet access.
6. E-mail this file as an attachment to activation@solidworks.com.
7. **SOLIDWORKS** will send a return e-mail with a different .txt file attached. Save this file to a removable storage device and move it to the machine awaiting the activation transfer.
8. In the activation wizard, press the **Open** button on the e-mail activation page.
9. Browse to the response file and press the **Open** button.
10. The next page will show you that your transfer is complete.
11. Press the **Finish** button to complete the process.

Note: SOLIDWORKS PCB will no longer run on this machine unless it is re-activated.