# SOLIDWORKS PCB Connector 2020
# Installation Guide

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



This guide gives instructions for installing SOLIDWORKS PCB Connector 2020. SOLIDWORKS PCB Connector works alongside Altium Designer to facilitate the ECAD-to-MCAD collaboration process. SOLIDWORKS PCB Connector can be used in either a standalone or client-server installation configuration.  Please contact Hawk Ridge Systems Technical Support if you are unsure of your SOLIDWORKS PCB configuration type.

This is not a troubleshooting guide. If you have any technical issues with SolidWorks, 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.

## Contents

# Product Information

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

When using SOLIDWORKS PCB Connector, the PCB design tools are provided by Altium Designer, while the 3D collaboration tools are provided by SOLIDWORKS 3D. 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 differs from the installation configuration type, which can be standalone or shared. The license type can be standalone or client-server (this guide is for the standalone 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 your 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.

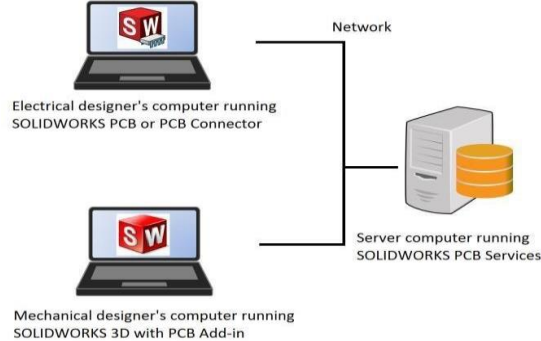| Altium Designer | SOLIDWORKS PCB Connector | SOLIDWORKS PCB Services | SOLIDWORKS |
|---|---|---|---|
| Altium Designer 17 | SOLIDWORKS PCB Connector 2017 | SOLIDWORKS PCB Services 2017, SOLIDWORKS PCB Service 2018. Recommended to have all on same version | SOLIDWORKS 2017 |
| | SOLIDWORKS PCB Connector 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

For SOLIDWORKS PCB Connector, you will need to install (in addition to Altium Designer):

- SOLIDWORKS PCB Connector
- SOLIDWORKS PCB Services

Refer to the table below for more information on the four 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, 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 and push changes back to SOLIDWORKS PCB | MCAD user computer running SOLIDWORKS 3D |



## Installation Types

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

In a shared configuration, SOLIDWORKS PCB Services 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 Altium Designer with the PCB Connector or the SOLIDWORKS PCB Add-In. These components all connect to SOLIDWORKS PCB Services over the network. This is illustrated in the image above.

In a local configuration, SOLIDWORKS PCB Services is installed on the same computer as the design tools (Altium Designer and SOLIDWORKS PCB Connector). This would typically be used if one user works independently on the electrical and mechanical PCB design aspects, without collaboration.

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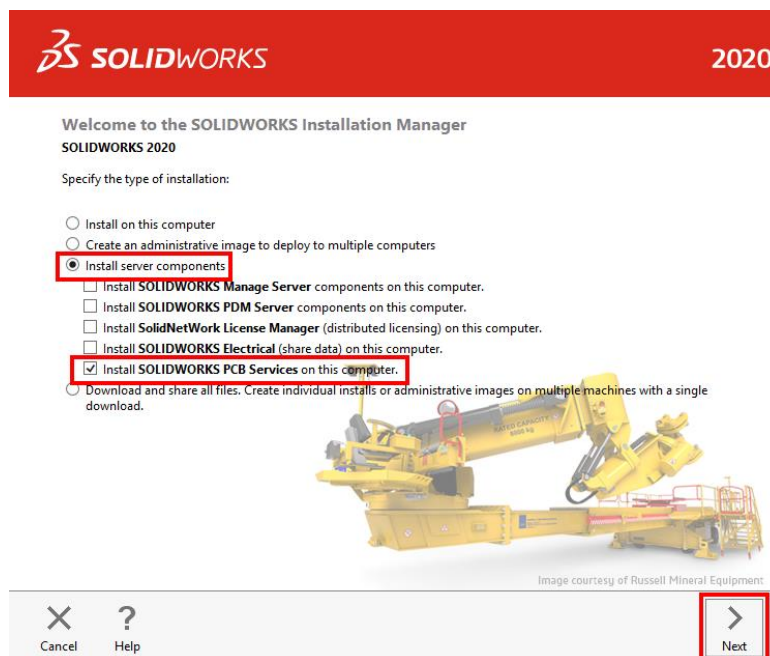
3. Specify the installation location, database folder, revisions file folder, and port number by selecting CHANGE, next to PCB Options on the Summary Page, for custom settings. Click Back to Summary when finished. We recommend keeping the default values for all options here.

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

5. 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.

6. Log in with the user name admin and password admin.



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.
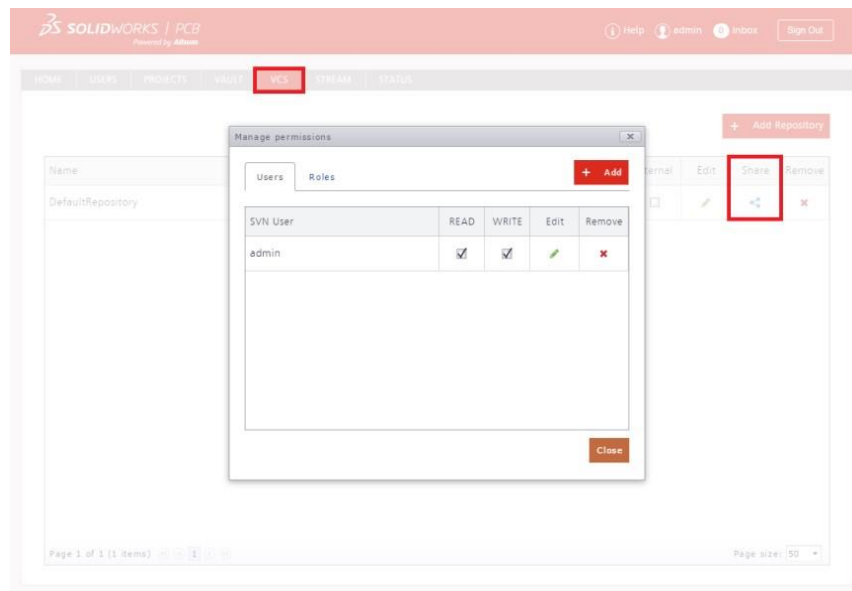


9.  Click Sign Out when finished.

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.

# Installing SOLIDWORKS PCB Connector

1.  Sign into your Altium Account if you are not signed in automatically.

2.  Launch Altium Designer, open the DXP tab, then click Extensions and Updates.

3.  On the Extensions and Updates page, scroll down to SOLIDWORKS PCB Connector, then click the download icon in the top-right corner to begin the installation.



4.  In the Confirm dialog box, click Yes to proceed with the installation.

5. On the SOLIDWORKS PCB Connector Registration page, enter your SOLIDWORKS PCB Connector serial number and click Register.

6. On the Confirm dialog, either click Yes to restart the system and complete the installation, or click No to complete the restart later.

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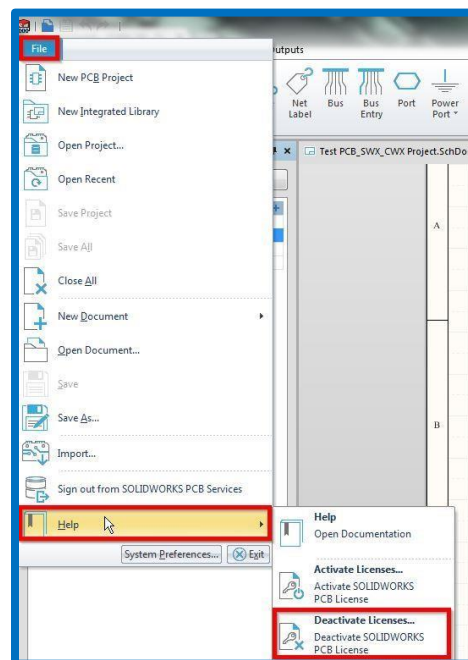
3. Choose to transfer **Automatically over the Internet** and click **Next**.
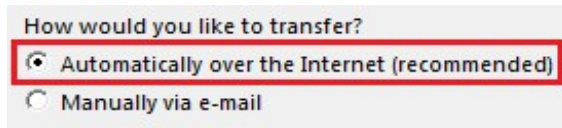


4. The software will connect to the **SOLIDWORKS** activation servers and you will be informed when the license has been successfully transferred.
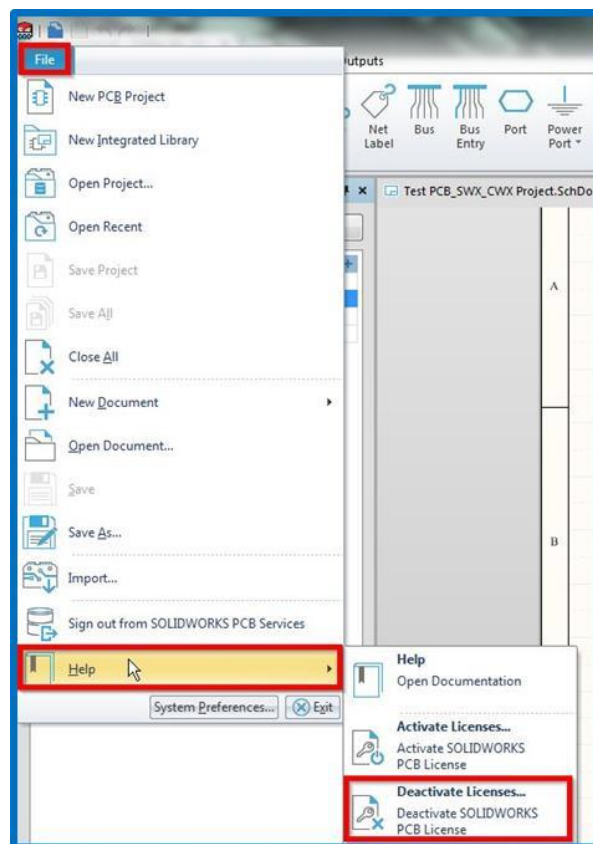


5. Press the **Finish** button to complete the process.

   **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](mailto: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.**