



Solid Edge 2020 Guide

Remote Data Access

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1. Introduction

This purpose of this guide is to advise you on the best way of accessing Solid Edge data.

There are many methods for accessing data for Solid Edge and different methods suit different organisations.

However, there are Siemens certified methods of data access for Solid Edge and guidelines given by Siemens should be followed to ensure maximum stability and performance of software

2. Notable Concerns

2.1. A Note Regarding Recommendations made in this Document

This document is purely advisory and makes generic recommendations based on the general experiences of our customers.

We cannot consider all of the factors or requirements that you might have for a accessing data, so we strongly recommend consulting your IT department, or an IT provider, to discuss your specific situation.

2.2. Data Security and Privacy

The security of any of the solutions discussed in this document has not been considered at any point and is a consideration you must make as an organisation.

Different solutions will carry different elements of security that must be considered if a solution if to be used in a production environment. Please consult the provider of the solution if necessary, to discuss data security implications.

2.3. Licensing

When working remotely, licensing of your software must also be a consideration if using a network-based licensing method, such as a floating license.

There are various methods to ways to get around this and we recommend contacting our technical support to discuss these options if necessary (see Section 4).

3. Data Access Methods

3.1. Accessing via Virtual Private Network (VPN)

A virtual private network, or VPN, allows a user to connect to another private network through an internet connection. This means you can connect to your corporate network from home or most networks with internet access.

This would effectively connect you to any network resource accessible on your corporate network, including network drives, software licenses, servers, client computers, printers, etc.

One of the biggest disadvantages of VPN's is the bandwidth and speed sacrifice that comes with it. The VPN will only be as fast as the internet connection as both ends of the network. For example, if your home-network has a very slow connection, the connection to your corporate network will reflect that speed.

For many, internet speed is no longer an issue and they hardly notice a difference using a VPN, but for some the speed of a VPN can be unusable, particularly for CAD users who typically deal with larger file sizes than most users of a network.

Further to this, generally the more users of a VPN the slower it gets as its bandwidth is consumed. If the internet connection drops or becomes unreliable at either end of your VPN network, the VPN connection will drop with it.

In context of Solid Edge with a VPN, you should notice no difference between working on a VPN and directly on the network, other than the speed of the connection in some cases. If the network is unreliable, you may see unrecoverable corrupted files that have been partially written back to the file repository, and so we would also recommend taking regular backups of data if possible, to minimise this impact. This is a trait of Windows-based file systems that makes all file transfers from any software susceptible to corruption given unreliable network transmission and is not specific to Solid Edge itself.

There are no specific requirements or certifications from Siemens for VPN providers, but we recommend making the decision for a VPN as an organisation, and that you consult your IT department, if you have one, or an IT provider for further details.

As a final note, some internet service providers (ISP's) do not allow VPN's, so you should consult the ISP for both your corporate and home network before considering this as an option.

3.2. Cloud Storage

Cloud storage solutions such as Microsoft OneDrive, Google Drive and Dropbox provide a cost-effective and reliable space to store and access files over the cloud, including Solid Edge data.

There is no official recommendation from Siemens for which cloud solution you should use, however, there is also currently no official support by Siemens for cloud storage solutions either. Issues you encounter using Solid Edge with these services may not be fixed or supported, so we recommend thoroughly testing this configuration before using it in a production environment.

Cloud storage solutions generally work by uploading files to a central cloud database, which are then downloaded to a client upon installing the cloud software and when a file is updated.

Normal Windows-based file systems have provision to detect when multiple users request to modify a file. Cloud solutions currently make no such provision for Solid Edge files, and as such risks multiple users editing a single file at the same time, which would cause a file conflict.

Therefore, cloud storage in use with Solid Edge is best suited for single-users where they will experience the least amount of synchronisation problems.

If it is still decided this is the best solution for you, and you must use the system across multiple users, you can enable distributed file access support Solid Edge, shown in the image below. This will produce '.selock' files upon a modifying user opening the Solid Edge file. These files are checked upon opening a Solid Edge file and, if present, will prevent another user from modifying the file until the file is closed by the modifying user.

Note that this will not work 100% with all cloud solutions, and again we recommend thoroughly testing before using this in production.

Siemens have also released a Solid Edge Portal which supports cloud storage, see Section 3.4 for details.

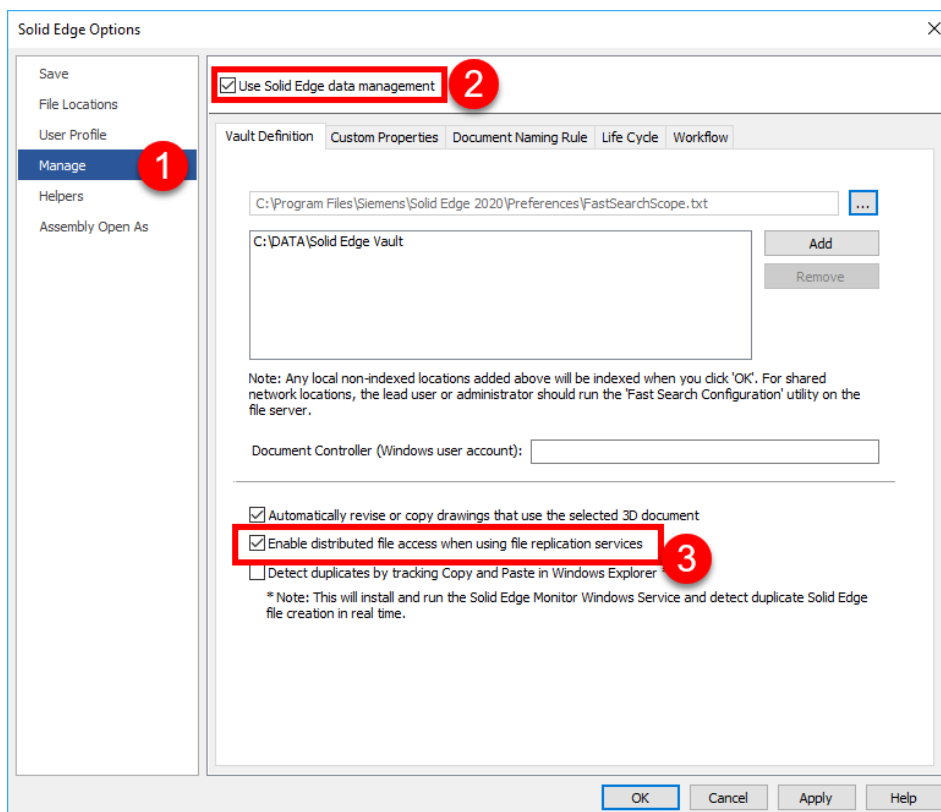


Figure 1 – Solid Edge Options: Enable distributed file access.

3.3. Teamcenter Integration

If your organisation uses Teamcenter with Solid Edge (SEEC), there are a few additional options you can choose from for working remotely.

If you use a VPN, discussed in Section 3.1 of this document, you can continue to use Teamcenter normally, and you should notice minimal impact to your working, other than the speed implications also mentioned in Section 3.1. The difference being that Teamcenter will not write a file to the database unless it has completely transferred over the network, so the opportunity for file corruption is greatly reduced.

However, if the VPN infrastructure does not exist, or your network connection is so poor that a VPN connection is simply unusable, there is a 'Work Offline' mode for SEEC. This allows you to download files from Teamcenter to your local machine to be used offline. When you re-enter the corporate network, you can then sync modified files back to Teamcenter after you have worked on them.

You can also create new document whilst in offline mode and sync them back to Teamcenter once you are reconnected to the Teamcenter server.

For guidance on using the 'Work Offline' functionality, please refer to the Siemens documentation [here](#).

3.4. Solid Edge Portal

The Solid Edge Portal is a cloud storage platform provided by Siemens specifically for Solid Edge users, which allows any number of users to upload files, collaborate and markup inside a virtual environment.

If you have a WebKey account, you can access the Solid Edge Portal right now! Simply sign in on the portal website [here](#). If you don't, you can create a free account, but we suggest creating a WebKey first using our guide.

The Solid Edge Portal ultimately allows you to store your CAD data and associated files in the cloud, which can then be accessed virtually anywhere in the world with an internet connection using your account. By using the portal though, you do get some specific advantages with regards to functionality specific to CAD users. These are some major functions in the portal at your disposal:

- Organise files into Projects.
- Share projects with internal and external users (view only, or view + download).
- Use the Solid Edge Online Viewer (includes measure, markup, section, 3D and 2D).
- Non-native file format support.

Many cloud storage platforms, including those discussed in Section 3.2, usually provide a desktop application which allows you to sync files back and forth between your local machine and the cloud storage. Unfortunately, the SE Portal currently does not provide this and as such you must upload and download any documents to and from the portal. The lack of a desktop application does, however, also rule out many of the synchronisation problems associated with the other cloud platforms discussed in Section 3.2.

See [here](#) for further information from Siemens on getting started using the Solid Edge Portal.

4. Contact OnePLM

Have a question or need technical support? No problem, our team of technical experts are on hand. Please include as many details as possible so that we can assist you.

4.1. Technical Support – Contact Details

For technical enquiries, please contact our helpdesk through one of the following methods:

Email: Support@OnePLM.com

Tel: [01865 954 301](tel:01865954301)

Website: OnePLM.com/Contact

4.2. Sales – Contact Details

For sales enquiries, please contact us through one of the following methods:

Email: Sales@OnePLM.com

Tel: [01865 954 300](tel:01865954300)

Website: OnePLM.com/Contact

Revision History

Rev	Author	Date	Notes
1	JSTA	19/03/2020	First release
1.1	JSTA	23/03/2020	Added Solid Edge Portal details