



onshape™



The top **4** Biggest Killers of CAD Productivity

In today's dynamic and rapidly-evolving market, it is paramount that companies introduce new products to market quickly in order to stay ahead of the competition. Rapidly-shifting consumer preferences and the emergence of new technologies necessitate the need for companies to stay agile in order to capitalize on market trends. However, companies who rely on file-based CAD are at a greater risk of experiencing product development delays due to an outdated technology stack.

The time required to build a product using file-based CAD is far longer than those using more modern solutions like Cloud-native CAD.

Here are the top four biggest killers of file-based CAD productivity and how Cloud-native CAD solutions compare:

1 Data Loss/Corruption



One of the biggest challenges of using a file-based CAD system is the risk of data loss due to hardware failure or corruption. Since all of the design data is stored on a computer's local hard drive, any issues it encounters could lead to the loss of important files and designs setting your team back months behind schedule.

Cloud-native CAD addresses data loss and corruption by storing data in the cloud rather than on local hardware. This means that data is replicated across multiple, geographically distributed, cloud-based locations. This ensures that if one data source is affected by a data loss or corruption event, there will still be an accessible backup source.



2 File Check-In / Check-Out System



Slow file check-in/check-out systems can have a huge impact on product development time. With these systems, developers have to wait for a file to be checked out of a shared repository before they can begin working on it, and then wait for it to be checked back in before they can move on to their next task. This method of accessing files can lead to data being overwritten due to the lack of visibility and communication when it comes to who is working on a file at any given time.

Cloud-native CAD is completely browser-based, eliminating the need for files. Unlike traditional CAD systems that rely on slow file check-in/check-out systems, cloud-native CAD allows multiple users to work on design data concurrently from any web-connected device. Eliminating design gridlocks results in faster and more efficient project collaboration.



3 High Cost of Administration



IT administration for file-based CAD systems can be a drain on both productivity and money for any organization. Hardware/software must be configured correctly. Expensive, tacked-on PDM systems must be implemented and maintained. And, licensing must be managed and tracked to ensure compliance. Not only are these IT administrative tasks expensive, but are prohibitive to many teams.

Cloud native CAD eliminates the need for long-term deployment and maintenance of software/hardware, freeing up valuable resources. Cloud-native CAD solutions can be scaled up and down rapidly, allowing for greater agility within the project workflow. Engineers can quickly modify existing designs or develop new ones with minimal time and resources spent. As a result, companies can dedicate more time to what truly matters: bringing their products to market faster while reducing their total cost of ownership.



4 File Sharing / Compatibility Issues



One major drawback of file-based CAD is that not all CAD files are compatible with one another. Users may encounter issues while attempting to move data between other CAD applications. File incompatibility complicates document sharing and collaboration amongst engineers and external suppliers, causing long wait times as files need to be translated into compatible formats before they can be accessed. Constantly having to convert data between multiple formats is a frustrating hassle that ultimately slows down product development and results in lost revenue.

Cloud computing enables CAD data to be stored, accessed and shared with other users regardless of the hardware/software they have installed. Cloud-native CAD is designed to be compatible with multiple platforms and devices, further removing any compatibility issues.



Surface modeling skills are a valuable asset to any business creating consumer goods, enabling user to quickly produce prototypes and refine the design of their products. By using surfacing modeling skills, businesses can ensure the highest possible product quality by making accurate and detailed modifications to their product's design.

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