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Is Shop Floor Connect a good fit for your team?

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A quick look at what it does

Shop Floor Connect (SFC) is an add-on for Teamcenter that helps bridge the gap between your PLM system and the shop floor. It delivers CNC programs, tool data, setup instructions, 3D models, drawings, and work instructions directly to machines and other assets. Operators use a simple web interface to access only released data, and every transfer is logged to support compliance.

At a high level, SFC sits on top of Teamcenter, acting as the distribution engine. It connects to CNC machines, robots, additive equipment, and presetters using Ethernet or serial links.

Key capabilities

- Effortless integration with Siemens Teamcenter ensures a unified digital thread across the enterprise, enabling a single source of truth for product data, workflow processes, and collaboration.
- SFC can be configured to log when a program is transferred from Teamcenter to the machine and conversely, when a program is edited on the shop floor and uploaded back into Teamcenter. This fully traceable bi-directional logging takes the guesswork out of the process and adds a level of transparency necessary for compliance.
- The browser-based UI is easy to use and works across a multitude of devices, making it ideal for today's digital workflows.
- SFC helps users stay informed about the tools, resources, and support available to them. Whether it's software, documentation, or training materials, SFC makes it easier with all the information at the end of users' fingertips.
- SFC has been successfully configured to work with a wide range of machine types using both Ethernet and Serial connections, so customers can continue to use the equipment that they have so heavily invested in.

Things to consider

- SFC depends on Teamcenter, so it's not a standalone solution. Adopting both requires a significant investment of time, money, and effort. It also means major changes to existing processes, which demand careful planning, full organizational support, and resources that may be prohibitive for some companies.
- Setting up and maintaining SFC can be challenging due to the need for careful configuration, system compatibility, and integration with existing workflows. Additionally, ongoing maintenance also demands attention to updates, troubleshooting, and ensuring that both systems continue to communicate effectively as business needs evolve.
- Older machine controllers may present compatibility issues. These challenges may require additional configuration, upgrades, or workarounds to ensure smooth operation.
- As with any new software, training and adoption are key. Without proper onboarding, users might struggle with new workflows or fail to use the systems effectively, reducing the value of the integration.

Bottom line

Shop Floor Connect helps improve quality and compliance by eliminating uncontrolled file transfers and enabling feedback from the shop floor into PLM. With the right planning, it can become the foundation for paperless NC execution and fully auditable manufacturing workflows.