TRAK ®MACHINE TOOLS

SOUTHWESTERN INDUSTRIES, INC.

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White Paper

ProtoTRAK, Windows and Networking

Some IT Managers have expressed concern about networking ProtoTRAK V and S Series CNCs that run previous versions of Windows. On one hand, we can sympathize with how difficult their job is getting. Keeping their network protected from the malicious programs unleashed by lowlife hackers is getting harder and harder. Out of frustration, some IT Departments have issued edicts, like "No more Windows 98."

While we sympathize with the problem and the intent of such blanket pronouncements, we disagree that this step is necessary in the case of the ProtoTRAK V and S series CNCs. ProtoTRAKs of all operating systems present a very, very low network security risk.

The Windows system is an OEM Version.

The Windows operating system that runs on the ProtoTRAK is not the same as the one that runs on a PC. The operating system is an OEM version. It has been modified by our software engineers to be more suitable for running a ProtoTRAK. While Microsoft has (infamously) announced that they will stop supporting the Windows versions prior to XP, we must point out that the software is part of the ProtoTRAK and therefore our responsibility to support. We haven't yet stopped supporting a ProtoTRAK, and the odds are that we will continue to support it in the foreseeable future.

The ProtoTRAK is a device

From the point of view of a network, the ProtoTRAK is a device and not a general computer. It has more in common with a printer or a networked copy machine than with a PC. The "programs" it generates and runs are really just text files that contain machine code.

Someone using a ProtoTRAK to do part programs would not be able to generate a file that can contain a virus. Likewise, it is unlikely to take in and pass destructive files along to other computers. Such file transfers typically happen through e-mail and this application should not be run on a ProtoTRAK. In the Program In/Out function of the ProtoTRAK, only the correct file types may be opened. While a few file types may be viewed and transferred by the ProtoTRAK VM, that is not likely with normal use and when viewing supported file types.

Is it possible for a ProtoTRAK to produce a file that could damage a network? Yes, but barely. We don't want to pronounce that it is impossible because that just issues a challenge to miscreants to prove they are clever enough to do it. Barring intentionally destructive behavior by a customer's employee, it is really, really unlikely.

If a virus were to invade and destroy a ProtoTRAK – also unlikely – the worst that can happen is that the customer has to exchange the computer module. Hardly a disaster worth preventing at a high cost.

Most of the time, when the IT pros find out the nature of the ProtoTRAK "programs", they agree with the idea that the ProtoTRAK is more like a device than a computer.

Install a firewall
For very little money, the small security risk is driven even lower. A router with a firewall and output filter can be set up between the ProtoTRAK and the network, or another computer can be introduced between the ProtoTRAK and the network.