

Completely Automating Microsoft Windows Installations to Produce "Ready to Use" Systems for Business and Process Control Systems

We believe computers should just work. When a user logs onto a computer and opens email, it should just work. Be it the first time the user ever logged onto that computer or the 1,000th, it should just work. We believe users should never be asked anything before using software and therefore we answer all these questions before the system is ever used. We believe users should have everything they need to get their job done. We believe the user should never have to do anything administratively on a computer and therefore limit that ability to administrators only. The user should simply logon and have everything work. It should work the same today as it did yesterday. It should work the same on all computers users have access to. It should just work.

This is how we named our systems management software suite "IT Works". "IT Works" facilitates the "it works" environment. The name, "IT Works", can be looked at as Information Technology Works, as in a suite of software, also. It can be looked at "it works" as our software, and people, makes sure your systems work well.

IT Works is a software installation and process management system based upon reaching a desired state. IT Works will continually bring the managed systems to the current desired state. Meaning, if a new software version is assigned to a system, at the next maintenance cycle, the new software will install on the computer system and the computer will have reached the desired state. If a hard drive fails and is subsequently replaced, the computer will build back to the current desired state. If a hardware refresh is due and the computer will be replaced, it will be cloned and given a new name. It will be built to the current desired state well ahead of the replacement date. When ready, the user shuts down the current computer and the old system is replaced with the new one. It will have everything the old one had but with newer hardware and maybe newer versions of software. The user just logs on and it all works.

Simplified Management

We believe in simplifying the entire management process. We believe in making choices at the highest level possible and having that software or

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setting propagated to all subsequent systems. Our system is modeled after Active Directory in the sense that our system has OUs, Computers and Inheritance. Our system is based on the Hierarchical Inheritance Model. The managed computers are comprised of local software assignments and settings unique to themselves and of inherited software assignments and settings unique to the parent OUs under which it resides. In other words, we assign software and settings at the highest possible level such that we maximize the effect of the assignment. This is most effective with corporate software where it can be assigned at a very high level, but is flexible enough to allow specific settings to be made (i.e., overridden) at OUs specific to a site and at the computer itself. Examples of this are Antivirus Software, settings for network drive letter mappings, local contact information or local server names.

Another large and powerful component of the inheritance model is the minimal settings required for configuring individual computers where they are of a common type of system. For example: If we have 2 Accounting computers in an OU and we add a third; we can simply clone one, give it a new name, assign its MAC address and start the build. We will have a new Accounting computer all ready to go with very little work at all. If PXE and Wake-on-LAN are both enabled, we can build computers without ever touching them.

Remote Management

We believe in supporting more systems with fewer high-level IT Professionals. We do this with remote management tools including, but not limited to, Remote Control, Remote Desktop, Remote Registry Access, Remote Event Viewer, Network File Access, Windows Management Instrumentation (WMI) and more. Higher level IT support staff will assist remote users through trouble shooting, diagnosing and remedying the issue. If the fix is related to a software install or management process, the fix will be incorporated into the software install or management process so that all

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new builds and existing computers will see the change in the desired state and make the change. The local staff has the authority to perform 1st level break/fix functions. If 1st level support can't fix it, remote support takes over.

Asset Management

We believe using quality hardware and software. We also believe in reducing the models of hardware to a small set. In doing this, we recommend getting models sufficient to last the expected lifetime. We recommend high quality CPU/Video and as much Memory and Disk Space as warranted. We believe some free software may cost you more than purchasing a quality version. We believe in business quality peripherals such as network printers while also limiting the number of models. Many of these assets can be leased to further assist in the financials and to maintain fresh new equipment on a yearly basis (you could refresh 1/3 of you equipment each year with a 3 year lease).

Benefits

1. We believe that a higher control of the systems will result in a lower cost of ownership for those systems. This is achieved from reduced downtime of systems related to users installing any software they choose. Users installing software may introduce virus/malware and compatibility problems with other business software. If the systems require less daily maintenance, this will increase user productivity and satisfaction with the systems. This will also reduce IT manpower support costs.
2. We believe that better hardware and software will result in a lower cost of ownership because of better support for the hardware and software. Using a smaller set of hardware and software will also reduce costs due to less knowledge required for diverse set of hardware and software. Micromanagement of who needs what computer will also be reduced, hence lower costs, if all the computers are same. They will become just

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a “computer” instead of something to be desired. Everyone has the same thing. Management becomes easier and less costly.

3. We believe that IT should be working hard behind the scenes to make everything work, and this is a lot of work. Once all the user systems work, the scramble mode of support stops. Remote support takes over. This allows faster support and more issues handled. IT professionals are able to start assisting the business in achieving the business goals from an IT point of view.

About SMT

Who are “we”? We are former Texaco employees who developed this philosophy and adjoining software suite for use at the Texaco Los Angeles Refinery beginning in 1996. We shared our philosophy and software with any other Texaco entity who wanted to use it. There were 9 other locations that joined in this project and immediately recognized cost cutting benefits while improving the computer systems by investing in business quality systems and software. System Management Technologies Inc. was formed in 1998. Over the last 2 decades, the software suite has evolved to support all Microsoft Windows® versions (i.e. “Windows”) and we continue to improve the flexibility and robustness of IT Works.

We believe that ALL software can be installed without user intervention and we CAN make this happen. We believe we can accomplish any task or solve any problem presented to us as we have yet to fail at any challenge. We believe computers are simply based on 0s and 1s and it is up to you to make those 0s and 1s do what you want them to do. For example, we were told there was no way to install a particular software suite without user intervention as it required inserting a physical floppy disk. Needless to say, we solved this issue with an image of the floppy disk and a virtual floppy

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service. It was an elegant and rewarding solution. There are other complicated installs we have automated as well.

We are experts in Windows Installations and Management, Scripting, Automation, Integration, Remote Administration, Windows Management Instrumentation (WMI), WinPE, PXE and more. We are all things Windows. We are experts in problem solving. IT Works is developed with SQL Server, HTTP/HTTPS, ASP, C/C++, MFC, ATL, C#, VB .NET, VB6, Windows Script Host (vbs) and Windows Batch/Shell Scripting (cmd). IT Works is continually improved to take advantage of new technologies and offer more options for software installation.