

# Customizing Your Windows Installation

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*By SunPCi Product Development Team*

<http://www.sun.com/desktop/products/sunpci/>

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# Introduction

This article will explain some of the things that you can do to customize the installation of Microsoft Windows operating systems.

## Customization:

Microsoft Windows Operating Systems have always had some degree of customization available to the administrator. The installation of the various Windows operating systems on the SunPCi™ card involves the use of some of these options.

The Windows 98 and Windows ME operating systems use the fewest of these features but still can be customized to some degree. Windows NT, Windows 2000, and Windows XP can make more use of these features, such as a total quiet install, or auto completing some of the dialog boxes.

## Windows 98 and ME Operating Systems

The installation of the SunPCi card's drivers uses Installshield software to perform the driver installation. Features built into the Installshield package allows for a reduction in the number of questions asked during the installation.

Running `f:\drivers\win98` or `winme \setup\setup -r` and `f:\drivers\win98` or `winme\sisaudio\setup -r` will create a `setup.iss` file. Placing the resulting `setup.iss` files in their respective directories will allow the installation to run without any dialog boxes.

The Windows 98 Resource Kit contains other methods of improving the installation of Windows 98 and Windows ME operating systems. Of interest is the use of `msbatch` scripts to aid in the installation. `Msbatch` files are covered in the Windows 98 Resource Kit documentation. Some of the parameters that can be used to automate the install allow you to set system names, user names, and network configuration. All of the questions that are asked during the install can be answered in the `msbatch` file.

To run setup using the `msbatch` file run `r:\cdrom\cdrom0\setup <msbatch.inf>`.

## Windows NT, 2000 and XP Operating Systems

There are three basic phases of the install: `copyfiles`, `textmodesetup` and `guisetup`. `Copyfiles` runs first and copies the files to the C: drive. `Textmodesetup` runs next and begins the installation of the operating system. `Guisetup` runs last and finishes the install.

The files `setupnt`, `setupwxp`, and `setupw2k` have some options that can allow for custom installs as required. The following list describes some of those options.

`/t<drive letter>` copy temporary files to <drive letter> the drive letter must be an emulated drive or a partition on an emulated drive which is not being expanded to NTFS or FAT32.

`/NTFS:Maxsize` convert the file system to NTFS and expand the partition to the entire disk size. SunPCi software versions prior to 2.3 did not support this feature. Support for Microsoft Windows 2000 was added in 2.3.1.

`/S:<path to cdrom>` use a path other than `r:\cdrom\cdrom0\i386`

If you need to copy additional files to the C: drive you can place them in `/opt/SUNWspci2/drivers/win<os>/oem/C` as root. This will cause these files to be copied from this directory to `c:\` during copy files. The files that are in `c:\sun` were created in this fashion. Any files that are located in the top directory are copied to `c:\`. Adding additional sub-

directories will cause those directories to be created and the contents copied. This will allow you to put additional files on the c: drive that could be used by your installation.

The `sunpcint.inf` file is another area that can be modified to provide a more automated installation. This file is an unattended installation file used during `texmodesetup`. Refer to the appropriate resource kit for the Windows operating system that you want to install for more information. Do not delete lines that are part of the original file, as you may cause the installation to fail at some point.

The files `/opt/SUNWspci2/drivers/winnt/oem/cmdlines.wxp`, `cmdlines.w2k` and `cmdlines.wnt` are used by the Microsoft Windows installation program during `guisetup` to allow other commands to run after the install has completed. In these files place additional commands that will run at the end of the installation. Do not delete any of the lines in this file. The current configuration is required for proper functioning of the installation process. The SunPCi software uses the `cmdlines` files to start services and install drivers.

SunPCi software creates an installation log file that is kept in `c:\ntsetup.log`. This file is an ASCII text file that can be viewed with any text editor. If changes are made to the installation, one place to look for errors is in this file. It is also a good idea to echo the results of commands to this file so you can view the progress of the installation.

## Large Scale Deployment

The easiest way to deploy multiple installations is to copy the hard drives once the installation has finished. The permissions must be changed and you must manually attach the drives. Tools such as Norton Ghost will allow you to remove any SIDs. If all of your users use a common configuration and applications, this is by far the easiest and most efficient method of large scale deployment of SunPCi cards. This method works for all Microsoft operating systems. You can not use this method with different versions of the SunPCi card. You must create a different drive for each of the types of SunPCi cards in use (SunPCi I, SunPCi II).

## Warnings

Any of the changes you make are your responsibility and will not be supported by Sun Microsystems Support. The addition of files to the package installation location will result in errors when removing the SUNWspci2 package and will result in those files not being removed when the `pkgrm` command is executed. You should always make copies of any files you change so that you can restore the system to its original configuration.

There is a bug in the Microsoft Windows operating system that prevents the use of `sysprep` to install our product.

Remember to have the appropriate Microsoft operating system licensing when deploying multiple copies of any operating system.