

1. New and Changed Features and Functions

NOTE: Depending on the SURFCAM product you have, functions marked with a “*” may require an upgrade to more capable SURFCAM products or options. Your SURFCAM dealer can provide more information on the capabilities of the various SURFCAM products and options.

New! SPost Post Processor

Powerful, generic post processor with macro programming capability:

- ◆ Configuration tool allows for creation of 2-5 axis post processors
- ◆ Supports unlimited number of machines, including mills, lathes, wire-EDMs, lasers, flame, plasma, and water jets
- ◆ Factory Interface Language for writing macros for non-standard output and custom applications
- ◆ EIA/ISO and Conversational NC code output
- ◆ Leading, trailing and decimal point formatting for letter addresses
- ◆ Incremental or Absolute NC output
- ◆ Limit checking
- ◆ Pre-selecting of the next tool
- ◆ Canned cycles for drill, peck, ream, tap, left handed tap, bore, backbore
- ◆ User configurable custom canned cycle support
- ◆ Emulate canned cycles for older style CNC machines
- ◆ Multiple circular Interpolation formats
- ◆ Full control over leading and trailing zeros and decimal points

(Note: MPOST/LPOST/EPOST are still supported, and will continue to be supported.)

New! SEdit II NC Editor

Virtual memory Windows based NC editor:

- ◆ Standard editing functions including cut, copy, paste
- ◆ Global search and replace
- ◆ Automatic sequence number creation, removal, and resequencing
- ◆ Automatic addition and deletion of end-of-block characters
- ◆ Quickly locates next tool, spindle speed, or feedrate change
- ◆ Determines minimum and maximum axis values

- ◆ Global alteration of word formats
- ◆ Coordinate translation function helps adjust to setup and tool length changes
- ◆ Intelligent compare function can ignore comments and data format differences while comparing programs
- ◆ Context sensitive help

New! Create Rectangle

Ability to create a rectangle as part of wireframe design.

Enhanced! Surface Capping

*Allows window picking of multiple planar curves.

Enhanced! Drilling

*Ability to perform optimized 2-5 axis drilling by specifying a combination of circles, points, and/or lines indicating tool axis and depth. Also has the ability to calculate compensation for drill point angle for depth and thru hole drilling, and mask circles by diameter.

Enhanced! Planar Surface Cutting

*Ability to specify check surfaces, with independent stock.

Enhanced! Printing and Plotting

More reliable printing and plotting of DSN files.

2. Use Issues

Surface Parameter Tolerance

On V6.1, the surface parameter tolerance is now an actual distance, as opposed to a percentage of the distance as it was in SURFCAM versions prior to V6.0.

DSN2OLD and NURBS Surfaces

When using DSN2OLD to convert V6.1 DSN files to SURFCAM versions prior to V6.0, composite/trimmed surfaces trimmed with NURBS curves will become non-composite/untrimmed surfaces. This is because previous SURFCAM versions did not support NURBS curves for trimming.

FARO.EXE

To successfully use the FARO unit you must do the following:

1. Begin by running the FARO configuration program to verify the correct communication parameters,
2. Edit SURFCAM.CFG to remove the # in front of the digitizer_exe line,
3. Start SURFCAM,
4. Start FARO.EXE in the SURF61W directory,
5. Set the communication parameters to match those found in the FARO configuration program,
6. Exit FARO.EXE,
7. Restart FARO.EXE.

3. Installation and Configuration Issues

Memory Requirements

The following RAM and Swap file memory requirements are suggested:

Windows 95

<i>APPLICATION</i>	<i>MINIMUM RAM</i>	<i>RECOMMENDED RAM</i>
Design and 2 axis machining	8MB	8MB
3-5 Axis single and multiple surface machining with files up to 750 surfaces	12MB	16MB
3-5 Axis multiple surface machining with files more than 750 surfaces	32MB	32MB or Greater

Windows NT

<i>APPLICATION</i>	<i>MINIMUM RAM</i>	<i>RECOMMENDED RAM</i>
Design and 2 axis machining	12MB	16MB
3-5 Axis single and multiple surface machining with files up to 750 surfaces	12MB	16MB
3-5 Axis multiple surface machining with files more than 750 surfaces	32MB	32MB or Greater

Windows 3.1

<i>APPLICATION</i>	<i>MINIMUM RAM</i>	<i>RECOMMENDED RAM</i>
Design and 2 axis machining	4MB	8MB
3-5 Axis single and multiple surface machining with files up to 750 surfaces	8MB	16MB
3-5 Axis multiple surface machining with files more than 750 surfaces	32MB	32MB or Greater

Swap file size should be a minimum of three times memory (RAM) size.

Installing on Windows NT

You must have Administrator access to install SURFCAM on a Windows NT system.

Windows NT v3.5

You must either be (1) using Windows NT v3.51 or later, or (2) have the compatible version of FONTDLG.DLL installed. This DLL is available on the CD ROM in \SURFCAM\SURF61W\WINNT350 directory. This DLL is also available from the Surfware BBS under the filename FONTDLG.ZIP in the /PUBLIC directory. If necessary, contact your local dealer for information on how to obtain this DLL from the BBS and install it.

SIM Driver Settings on Windows NT

On Windows NT, the SIM driver settings should be set as follows:

1. Start the Control Panel program
2. Pick Drivers, this will show you a list of all the installed drivers,
3. Select the driver labeled "Sentinel for I386 Systems",
4. Pick the Setup button, this will bring-up a list of information about the driver.
5. Pick the Edit button, this will bring-up a dialog box,
6. For "Port Ownership Method", check Auto (this is the default, and should be already selected).
7. Pick OK and reboot your system.

Your driver settings may already be set this way.

SURFCAM Verify .PST Modifications

When doing an update installation, the post menu will use the .pst file from your previous installation. This will not allow access to SURFCAM Verify. In order to add SURFCAM Verify into your post menu, edit your .pst file to include the following lines:

```
menu <num> "&Verify"  
  status  "Verify tool motion"  
  cd      "C:\SURFCAM\inc"  
  task    "C:\SURFCAM\surf61w\verify\ncverify %p%n"
```

Replace <num> with the menu number on which you want Verify to display.

Mouse Trails Option

The mouse trails configuration option in Windows must be turned-off in order for the SURFCAM crosshair/cursor to function properly.

SURFCAM Verify on Foreign Version of Windows 3.1

This applies only to running SURFCAM Verify on Windows 3.1/Windows for Workgroups 3.11: On a foreign language version of Windows 3.1, the corresponding foreign language version of Win32s 1.30 must also be used.

SURFCAM for Windows 3.1 and Autocad™

This applies only to running SURFCAM on Windows 3.1/Windows for Workgroups 3.11: If there are problems starting up Autocad, install the OLE version of Win32s. This is installable by running \win32s\ole32s\disk1\setup.exe. If you are doing a floppy installation, this version is available from the Surfware BBS as OLE32S.ZIP in the /Public directory. If necessary, contact your local dealer for information on how to obtain this file from the BBS and install it. On a foreign language version of Windows 3.1, the corresponding foreign language version of Win32s 1.30 must also be used.

SURFCAM for Windows 3.1 Win32s Applications

This applies only to running SURFCAM on Windows 3.1/Windows for Workgroups 3.11: SURFCAM for Windows and SURFCAM Utilities for Windows are now Win32s applications. This allows the same 32 bit executable files to be used under Windows and Windows NT. To run Win32s applications under Windows, the Win32s extension must be installed and running prior to operation. If the FREECELL game does not start up after installing Win32S, your machine will probably not run SURFCAM, please contact your local dealer or Surfware.

NOTE: The SURFCAM Windows based installation program SETUP will automatically install all Win32s extensions.

KNOWN Win32s PROBLEMS

Problem: While loading SURFCAM a Grow Stub Error Message is displayed.

Solution: Microsoft mouse driver version 9.02 does not work with all Win32S applications. Use the mouse driver supplied with Windows.

Problem: Random graphics problems, stray pixels, garbage icons etc. Some S3 and other card graphics drivers are not 100% compatible with Win32s.

Solution: Newer versions of these drivers are available from the graphics card manufacturers that resolve these problems. If newer graphics drivers are not available use the generic super VGA drivers that come with Windows v3.11 which supports a large range of resolutions and colors.

Problem: If you receive the message "Error RRI: Can't open surfwin.exe" there is a problem with your 'vshare.386'.

Solution: Make sure 'vshare.386' is setup correctly. VSHARE.386 is a Windows device driver that replaces SHARE and is installed in the WINDOWS\SYSTEM.INI file. Edit the WINDOWS\SYSTEM.INI file. If there is no line such as the one shown below, add it to the [386Enh] section.

device=vshare.386