☐ Mac ☑ Windows

STANFORD UNIVERSITY SELF-EXTRACTING INSTALLER (SUSEI)

OVERVIEW

The Stanford University Self-Extracting Installer (SUSEI) is a program that creates self-extracting single exe files. The files that SUSEI creates can then be downloaded from a web page and executed. Once executed, the program will extract all of the files that it contains into a temporary directory, execute a pre-defined program with any command line parameters that have been defined, then delete the temporary files when the program that is executed ends.

SUSEI reads and writes self-extracting file project files (.bwdProj) that contain all the information needed to rebuild the self-extracting file. When the self-extracting file must be updated (for example, if a new version of the program that is being installed becomes available), generating a new self-extracting installer file is simply a matter of replacing the program installer files, loading the .bwdProj file in SUSEI, and clicking on "Build Installer".

REQUIREMENTS

Windows XP or Windows Vista

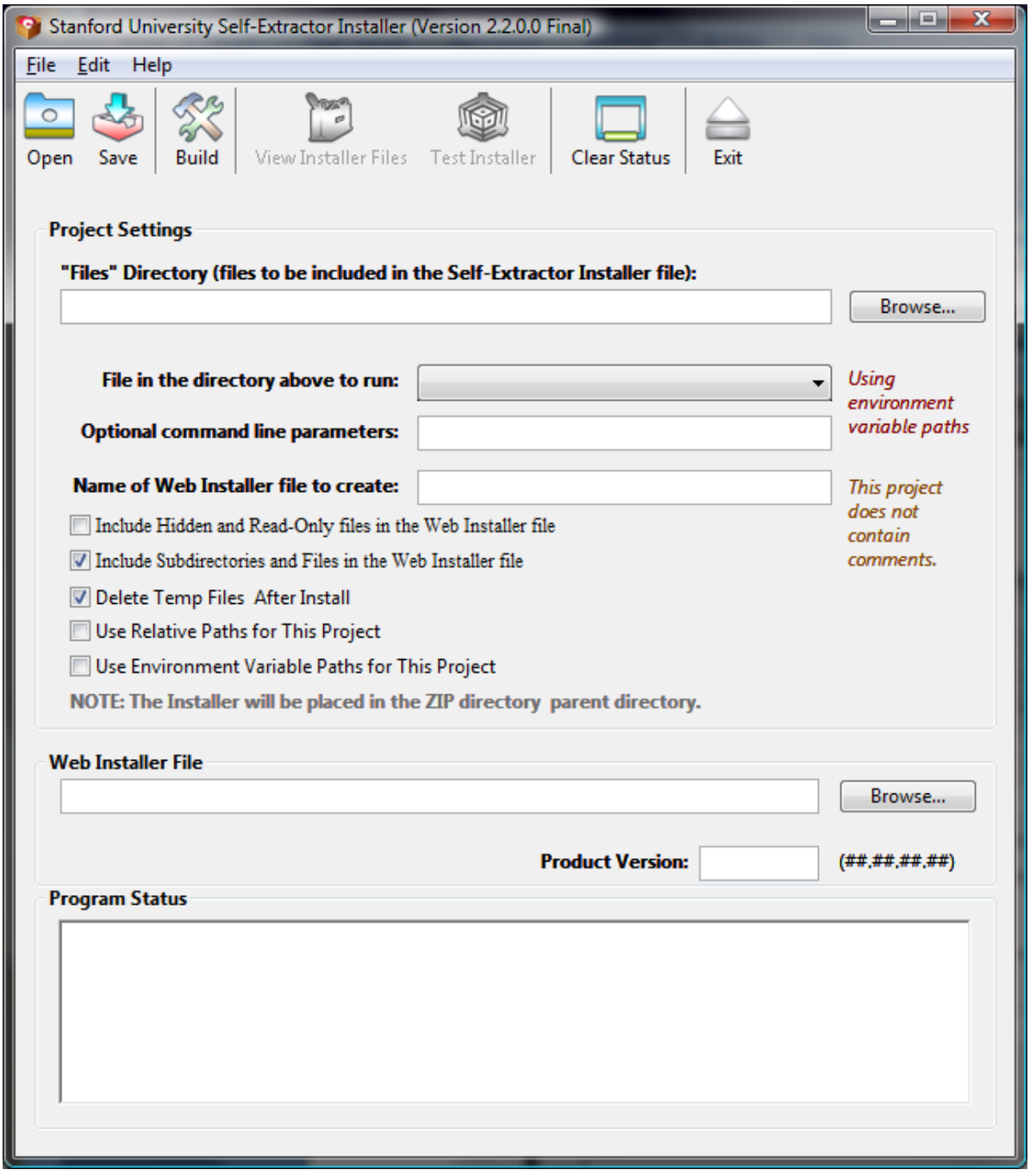
WinZip Professional (http://www.winzip.com/prodpagewz.htm)

WinZip Self-Extractor (http://www.winzip.com/prodpagese.htm)

WinZip Command Line Support Add-On (http://www.winzip.com/prodpagecl.htm)

MAIN WINDOW

When SUSEI is launched, the main window below is displayed.

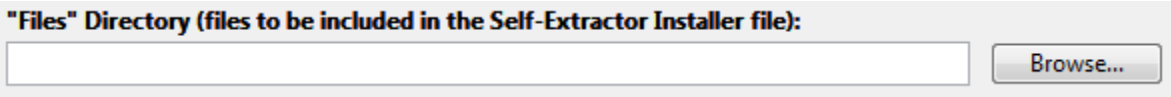


This is the windows where you define all of the parameters that SUSEI will use to create the self-extracting installer file.

SETTINGS

This section contains the information necessary for SUSEI to create the self-extracting installer file.

"FILES" DIRECTORY



This refers to the directory that contains the files that will be extracted to a temporary directory when the self-extracting installer is executed. You can click on the "Browse…" button to navigate to the directory using a standard Windows directory browser dialog box.

FILE IN THE DIRECTORY ABOVE TO RUN:

Once you have selected a directory, this dropdown box will contain all executable files in the selected directory. Select a file that will be executed after the files are extracted to a temporary directory.

If you are distributing a package that contains both 32 bit and 64 bit installers, specify the 32 bit executable, and make sure that the 64 bit executable is located in the same directory, and named 32BitExeBaseName64.exe. Here are a couple of examples:

32 Bit Executable	64 Bit Executable
Setup.exe	Setup64.exe
InstallerWrapper.exe	InstallerWrapper64.exe

At runtime, after your package is extracted, if the operating system is Win 64, SUSEI will look for the 64 bit executable. If SUSEI finds a 64 bit executable, it will run it rather than the one specified in the "File in the directory above to run:" dropdown box.

OPTIONAL COMMAND LINE PARAMETERS:

If the program that will be executed requires command line parameters, enter those command line parameters here.

Some setup.exe files require the /SMS command line parameter to be successfully executed from SUSEI. Since SUSEI will delete all of the temporary files when the launched executable ends, a premature end to that executable will cause the installer to fail. Many setup.exe files will end as soon as the actual installer is launched by setup.exe. The /SMS command line parameter forces setup.exe to remain running until the installer that it launches ends. You can also choose to uncheck the "Delete Temp files After Install" check box, but this means that the files will remain on the user's PC in the temporary directory until the user deletes them.

NAME OF WEB INSTALLER FILE TO CREATE:

SUSEI will create a self-extracting executable with this name, and it will be placed in the parent directory of the directory that contains the files ("Files" Directory).

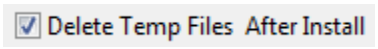
INCLUDE HIDDEN AND READ-ONLY FILES IN THE WEB INSTALLER FILE

If this checkbox is checked, all files in the "Files" Directory (even hidden files and read-only files) will be included in the self-extracting executable. Leave this unchecked unless there is a reason to include these types of files. If you check this box SUSEI might not be able to delete the files from the temporary directory after the installer ends.

INCLUDE SUBDIRECTORIES AND FILES IN THE WEB INSTALLER FILE

If the "Files" Directory contains subdirectories and files that are required by the "File in the directory above to run:" executable, check this checkbox. SUSEI will re-create the directory structure in the temporary directory before the installer is executed.

DELETE TEMP FILES AFTER INSTALL

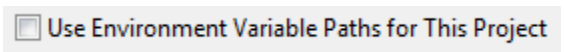


If you uncheck this box, then SUSEI will not delete the extracted files from the temp directory after the install has completed. This might be useful if you need to troubleshoot an installer. In general however, you should keep this checked to avoid leaving files on user's computers that are unnecessary.

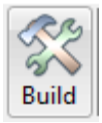
USE RELATIVE PATHS FOR THIS PROJECT

You can override the global relative path setting for the current project by checking this checkbox.

USE ENVIRONMENT VARIABLE PATHS FOR THIS PROJECT

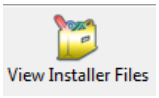


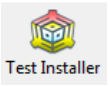
You can override the global environment variable path setting for the current project by checking this checkbox.

BUILD INSTALLER BUTTON 

Clicking on this button (or selecting “Build Installer” from the File Menu), will use all of the information that has been entered on this window, and in the Global Settings window (see the "Options" section for more information) to create the self-extracting executable.

WEB INSTALLER FILE

This section refers to a self-extracting executable that was created by SUSEI. Immediately after a successful build, the full path to the file that was built will be displayed here. Once a valid exe file is displayed in the text box, the “View Installer Files” 

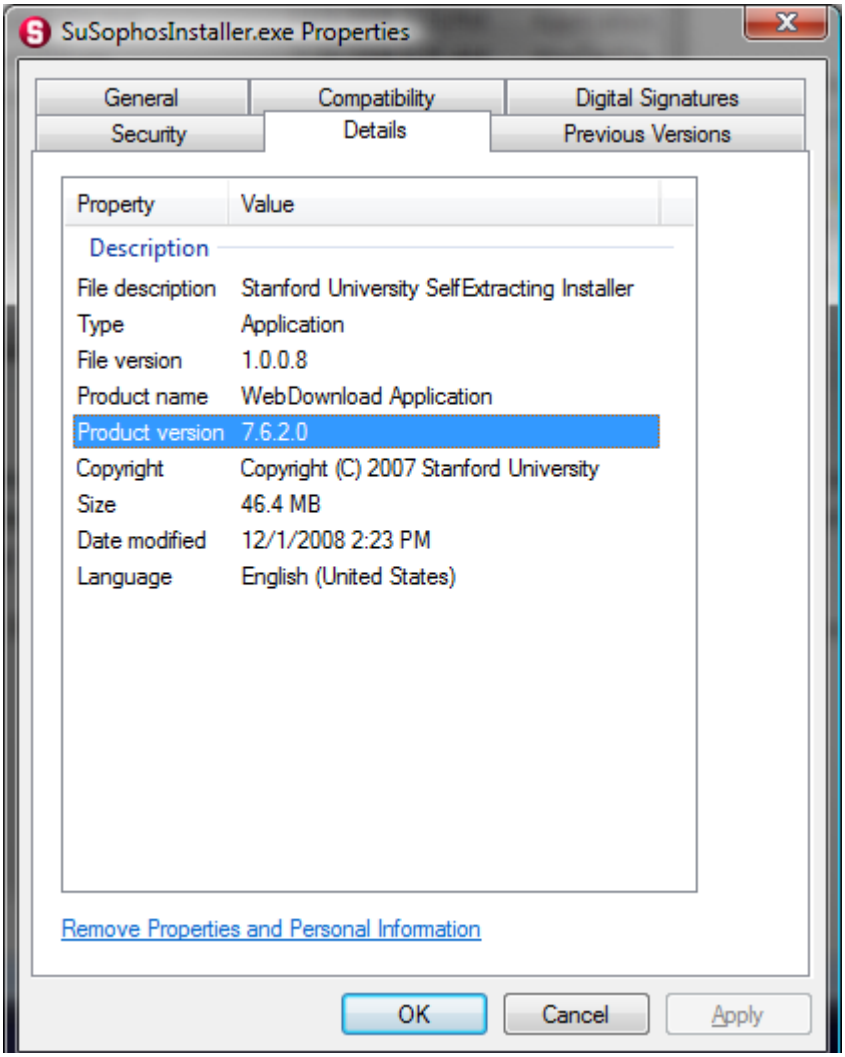
and “Test Web Installer” 

buttons will be enabled. You can also Browse to another file that has been created by SUSEI by clicking on the Browse button to designate a web installer file.

PRODUCT VERSION

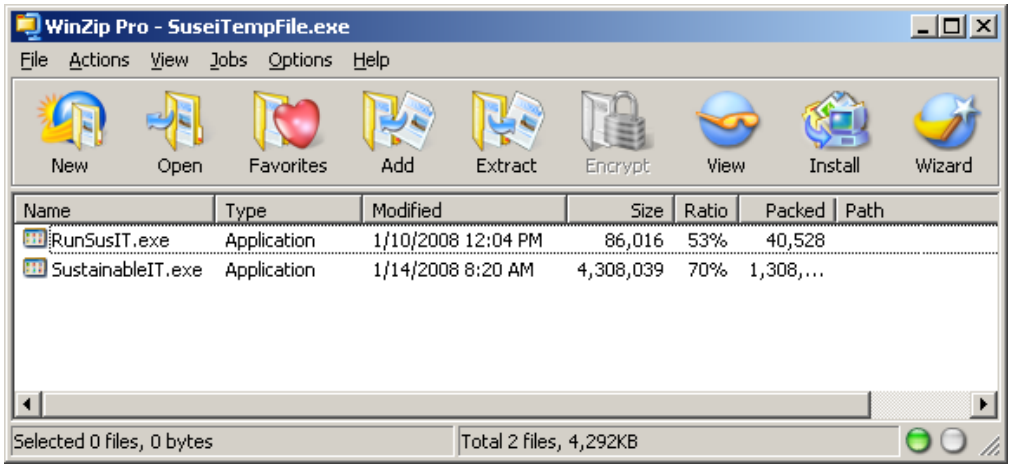
You set this to the version number of the program that you are installing. By doing this, you can right click on the web installer file that you create and examine the version number to see what version of the program will be installed by the file.

If you enter a version here, SUSEI will change the exe **Product Version** when the installer is successfully built. Example:


SuSophosInstaller.exe Properties
General
Compatibility
Digital Signatures
Security
Details
Previous Versions
Property
Value
Description
File description
Stanford University SelfExtracting Installer
Type
Application
File version
1.0.0.8
Product name
WebDownload Application
Product version
7.6.2.0
Copyright
Copyright (C) 2007 Stanford University
Size
46.4 MB
Date modified
12/1/2008 2:23 PM
Language
English (United States)
Remove Properties and Personal Information
OK
Cancel
Apply

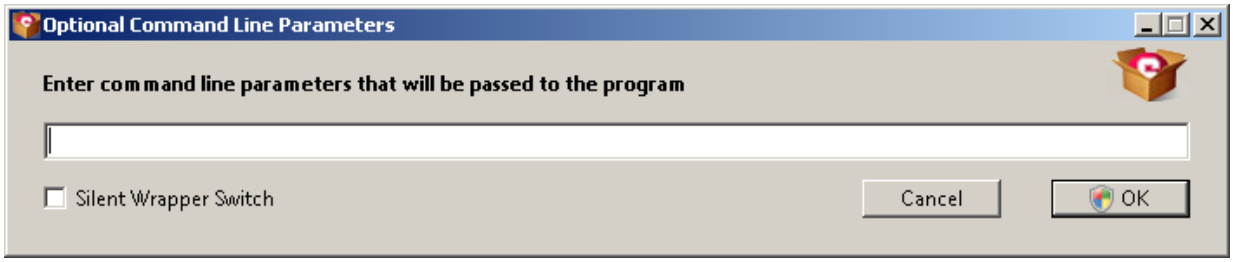
VIEW FILES IN INSTALLER

Clicking on this button will extract the WinZip created zip file and display it in the WinZip Window. Example:



TEST INSTALLER

Clicking on this button will display a window that will ask for additional information, and then execute the file that is displayed in the "Web Installer File Actions" text box. The window that will be displayed is:

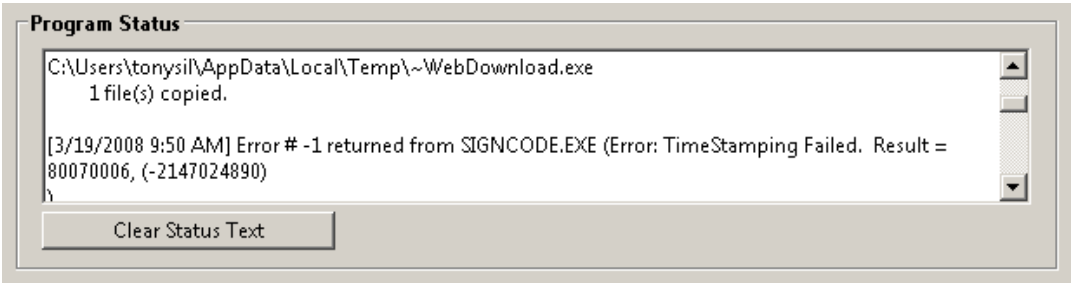


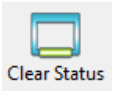
In addition to the command line parameters that were specified in the "Optional Command Line Parameters" text box (which is built into the self-extracting executable itself), the self-extracting zip file can also accept addition command line parameters from the command line. These parameters, plus any that were defined in the "Optional Command Line Parameters" text box will be passed to the file that was specified in the "File in the directory above to run:" dropdown box.

The resulting self-extracting executable will display a splash screen unless the "Silent Wrapper Switch" check box is checked. Example of the splash screen:

PROGRAM STATUS

This section will display a log file of all program activity. If the program is unable to perform certain actions, error messages will be displayed here. Example:



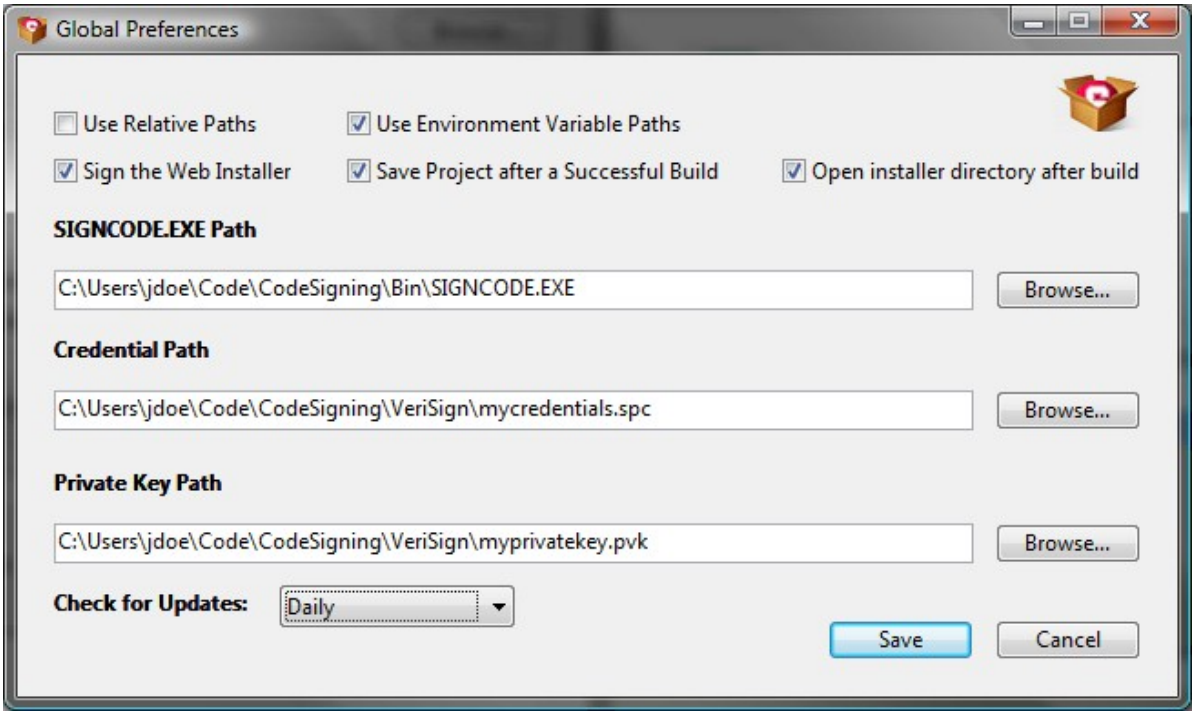
Clicking on the "Clear Status" 

button will delete all log messages from the status text box.

MENU ITEMS

OPTIONS…

Selecting "Options…" from the Edit Menu will display the Global Options Window:



You can define variables here that will determine how SUSEI will create the self-extracting executable, how file paths will be displayed in the SUSEI user interface, and how file paths will be saved to the .bwdProj project file.

Note that some options are duplicated in the main window. If those options differ from the ones here, the project specific settings (those in the main window) take precedence.

USE RELATIVE PATHS

If this check box is checked, SUSEI will save the paths specified in '"Files" Directory' and "Web Installer File Actions" to the .bwdProj file as paths relative to the location of the .bwdProj file.

For example, if the '"Files" Directory' is set to "C:\MyProjects\WebInstallers\SustainableIT\Files", and the .bwdProj file is located in the "C:\MyProjects\WebInstallers\bwdProjFiles\SustainableIT.bwdProj", then the path that is saved to the SustainableIT.bwdProj for "C:\MyProjects\WebInstallers\SustainableIT\Files" will be "..\SustainableIT\Files".

Since only one path type can be saved to the project file, if "Use Environment Variable Paths" is checked when "Use Relative Paths" is checked, "Use Environment Variable Paths" will be automatically unchecked.

USE ENVIRONMENT VARIABLE PATHS

If this check box is checked, SUSEI will save the paths specified in "FILES" DIRECTORY and WEB INSTALLER FILE ACTIONS to the .bwdProj file as paths that will have environment variables that have been defined in the Environment Variable definition window substituted for the actual path.

For example, if the "FILES" DIRECTORY is set to "C:\MyProjects\WebInstallers\SustainableIT\Files", and the environment variable "PROJECTS" as been set to "C:\MyProjects" , then the path that is saved to the SustainableIT.bwdProj for "C:\MyProjects\WebInstallers\SustainableIT\Files" will be "%PROJECTS%\WebInstallers\SustainableIT\Files".

Since only one path type can be saved to the project file, if "Use Relative Paths" is checked when "Use Environment Variable Paths" is checked, "Use Relative Paths" will be automatically unchecked.

If both "Use Relative Paths" and Use Environment Variable Paths" are unchecked, the the full absolute path will be saved to the bwd.Proj file.

SIGN THE WEB INSTALLER

If this checkbox is checked, the remaining entry items on the window are enabled. SUSEI will sign the self-extracting executable, if you check this check box, and enter all of the required code signing information (Windows Authenticode).

SAVE PROJECT AFTER A SUCCESSFUL BUILD

If this checkbox is checked, SUSEI will automatically save the project file immediately after a successful build.

OPEN INSTALLER DIRECTORY AFTER BUILD

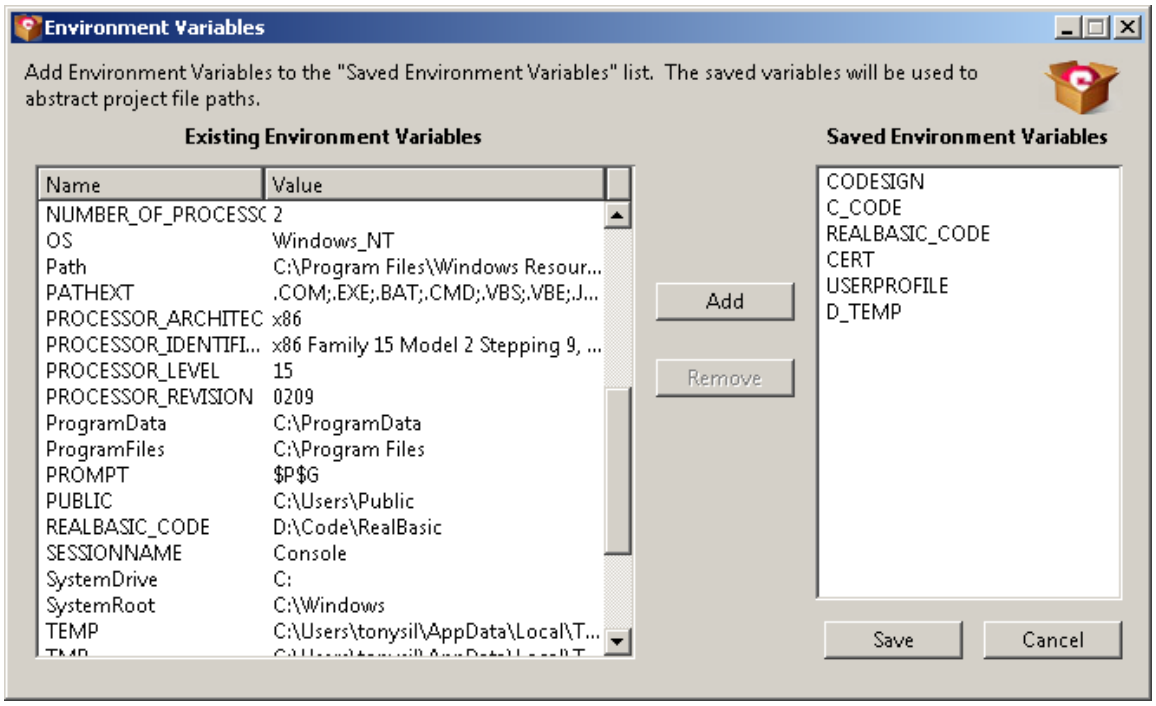
If checked, the directory that contains the newly built self-extracting installer will be opened in Windows Explorer.

CHECK FOR UPDATES

Select how often SUSEI will check the network for updates. Possible options are Daily, Weekly, Monthly, or Never. Be aware that if you select Never, you will not be notified when a newer version of the program becomes available. This option is not recommended.

DEFINE ENVIRONMENT VARIABLES…

Selecting “Define Environment Variables…” from the Edit Menu will display the following window:



If you choose to abstract file paths using environment variables, you can define which environment variables will be used by SUSEI to abstract absolute paths from this window. Select the environment variables that you want to use from the column on the left and press Add to add them to the list of Saved Environment Variables. If you want to remove a variable, select it from the column on the right and press “Remove”.

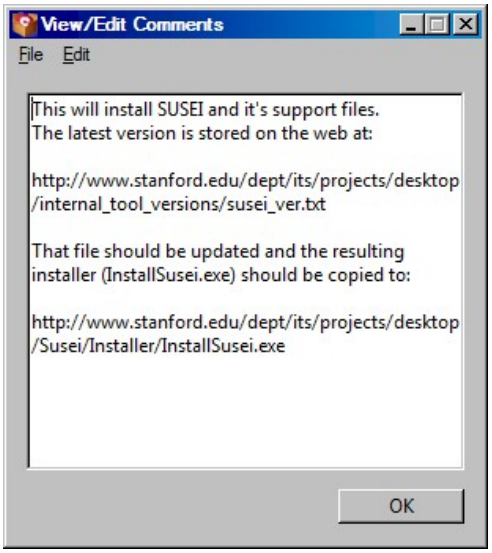
Using environment variables to abstract project paths is useful if you will be sharing the project with other people. So, for example if two people will be working on the same SUSEI project on separate computers, and they use different paths to store their project paths, using the same environment variables can make sharing the SUSEI project easier. If user #1 keeps all of the project files in the "C:\MySuseiProjects" and user #2 keeps the project files in "D:\SourceCode\SUSEI", and they agree to use %SUSEI% as the base path, and the project directory is called "WebInstaller", "%SUSEI%\WebInstaller" would resolve to the following:

User #1: "C:\MySuseiProjects\WebInstaller"

User #2: "D:\SourceCode\SUSEI\WebInstaller"

COMMENTS…

Selecting comments from the menu will display a window where you can add comments to the project file. Example:



RECENT PROJECT LIST…

Occasionally, the list of recently loaded projects that are listed in the "Open Recent" menu can get large or may contain files that are no longer available. You can rearrange or delete these items by choosing "Recent Project List…" from the Edit Menu.

SUSEI COMMAND LINE PARAMETERS

You can script SUSEI by passing the program command line parameters.

SUSEI will accept two command line parameters:

/Build: and /Extract:

/Build: will cause SUSEI to build the self-extracting install by using the settings that re in the bwdProj file. Examples:

Susei.exe /Build:"C:\MyProjects\TestInstaller\SelfExtract.bwdProj"

/Extract: will extract the files that are contained in the SUSEI-generated self extracting file that is specified the path specified by the /TO: parameter. Example:

Susei.exe /Extract:"C:\MyProjects\TestInstaller\TestInstaller.exe:" /TO:"C:\Temp"

/Version: will set the Product Version of the web installer to the version specified on the command line. Example:

Susei.exe /Build:"C:\MyProjects\TestInstaller\SelfExtract.bwdProj" /Version:"1.0.2.3"