

Maintenance Installation Tool for Hot Fixes

Introduction

This document describes how to apply hot fixes to SAS 9.2 (TS2M0 or greater) using the Maintenance Installation Tool (MIT). The Maintenance Installation Tool is used to apply all hot fixes on all SAS 9.2 platforms, with the exception of z/OS. **SAS 9.2 (TS2M0) hot fixes for the z/OS operating system are installed using the SAS 9.13 installation process.** All hot fixes include updates to foundation, client, mid-tier, solutions and any other type of SAS 9.2 software that might need updates

Beginning with SAS 9.2 (TS2M0), each hot fix download contains updates for all applicable languages, including DBCS. If the hot fix you are applying contains updates for more than one language, you will see those languages listed in the initial **Install SAS Updates** window of the MIT. Only the updates for the languages that you have installed in SASHOME will be installed.

Before you begin

When downloading SAS 9.2 hot fix packages, you must choose to “save” the hot fix, then execute from the “saved” location. Executing a hot fix package directly from the download page results in an error or incomplete installation.

In this document, capitalized path references (for example, <SASHOME>) should be replaced with the host-dependent equivalent.

For proper installation, you must have a valid SAS 9.2 (TS2M0 or greater) SASHOME directory on the system where the hot fix is being applied. During the installation, the MIT will confirm

- the proper release of SAS is installed
- the product for which the hot fix is intended is installed
- the hot fix is being applied on the operating system for which it is intended

If any of these criteria are not met, the hot fix installation will fail.

The MIT provides automatic backup for existing files on the system which are being replaced. Information regarding file backup appears in the installation dialogs (see below for examples).

How to use the MIT to download and install a hot fix

From the Technical Support Hot Fix Download site, download and save the SAS 9.2 hot fix package you want to apply:

<http://ftp.sas.com/techsup/download/hotfix/hotfix.html>

Windows:

Run the hot fix package:

```
C:\ <path>\<hotfixid.exe>
```

where:

C:\ <path> is the path where the hot fix was "Saved" upon download.

<hotfixid.exe> is the hot fix you have downloaded; for example, A01001wn.exe

Important note for **Windows VISTA** and **Windows Server 2008**:

You may need to use the "Run as Administrator" option when you run <hotfixid.exe>.

Unix systems:

1) Verify that the hot fix installation binary has execute permission. If it does not, use the Unix **chmod** command to make it executable:

```
$> chmod 755 <hotfixid.bin>
```

where:

<hotfixid.bin> is the hot fix you have downloaded; example, A04001r6.bin.

2) You must set your Unix **\$DISPLAY** environment variable:

```
$> export DISPLAY=<your_node_name>:0
```

3) Execute the hot fix package:

```
$> <path_to_downloaded_file>/hotfixid.bin
```

During the installation, you will be prompted for the **SASHOME** location to be updated. You should provide the path to the top level SAS directory where the **deploymentreg** directory exists. Remaining MIT dialogs will guide you through the installation process.

OpenVMS systems:

1) You must set your **DISPLAY** environment variable:

```
set display/create/node=<your_node_name>/trans=tcPIP
```

2) Execute the hot fix package:

```
<path_to_downloaded_file>/hotfixid.exe
```

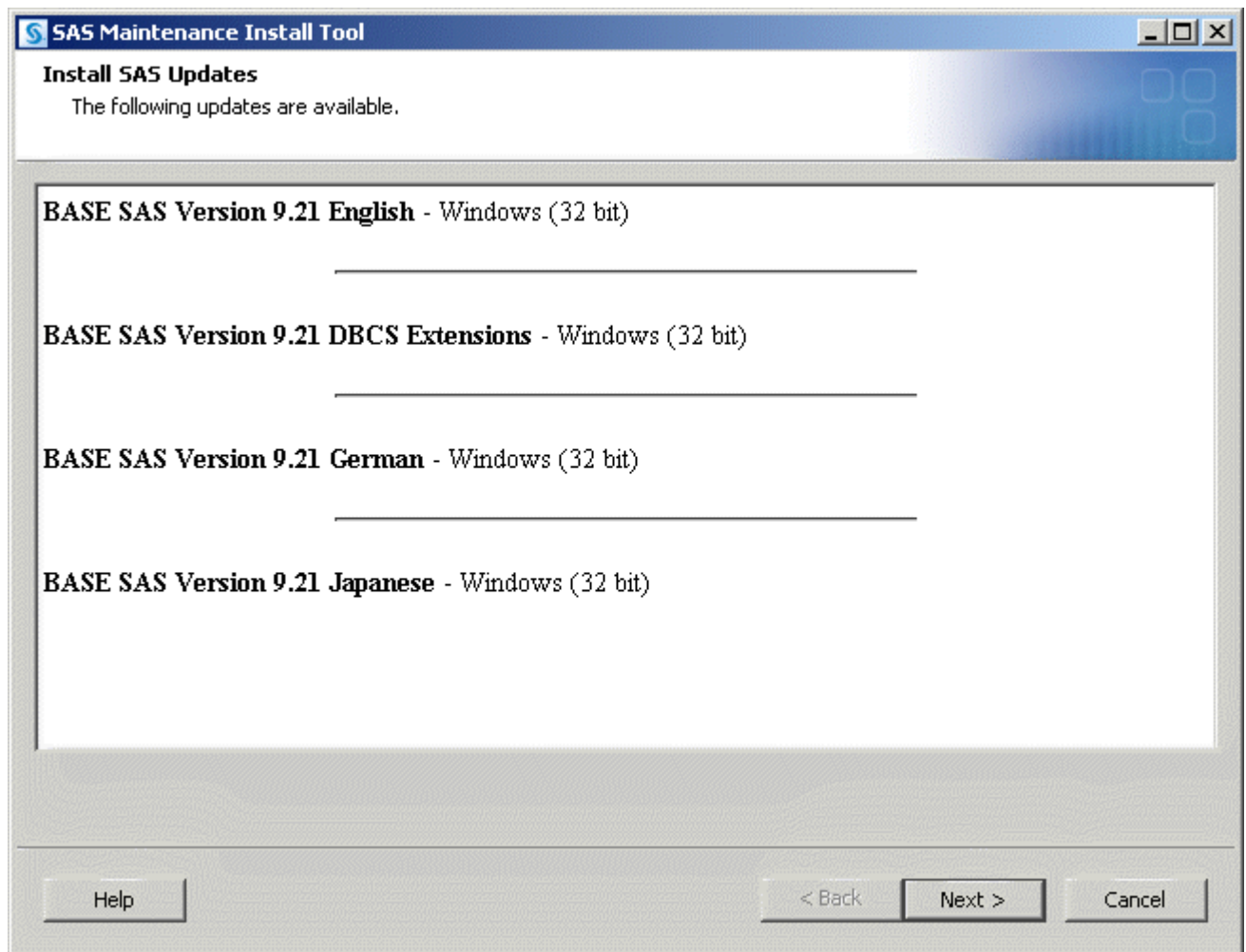
where:

<hotfixid.exe> is the hot fix you have downloaded; example, A04001vi.exe.

During the installation, you will be prompted for the **SASHOME** location to be updated. You should provide the path to the top level SAS directory where the **deploymentreg** directory exists. Remaining MIT dialogs will guide you through the installation process.

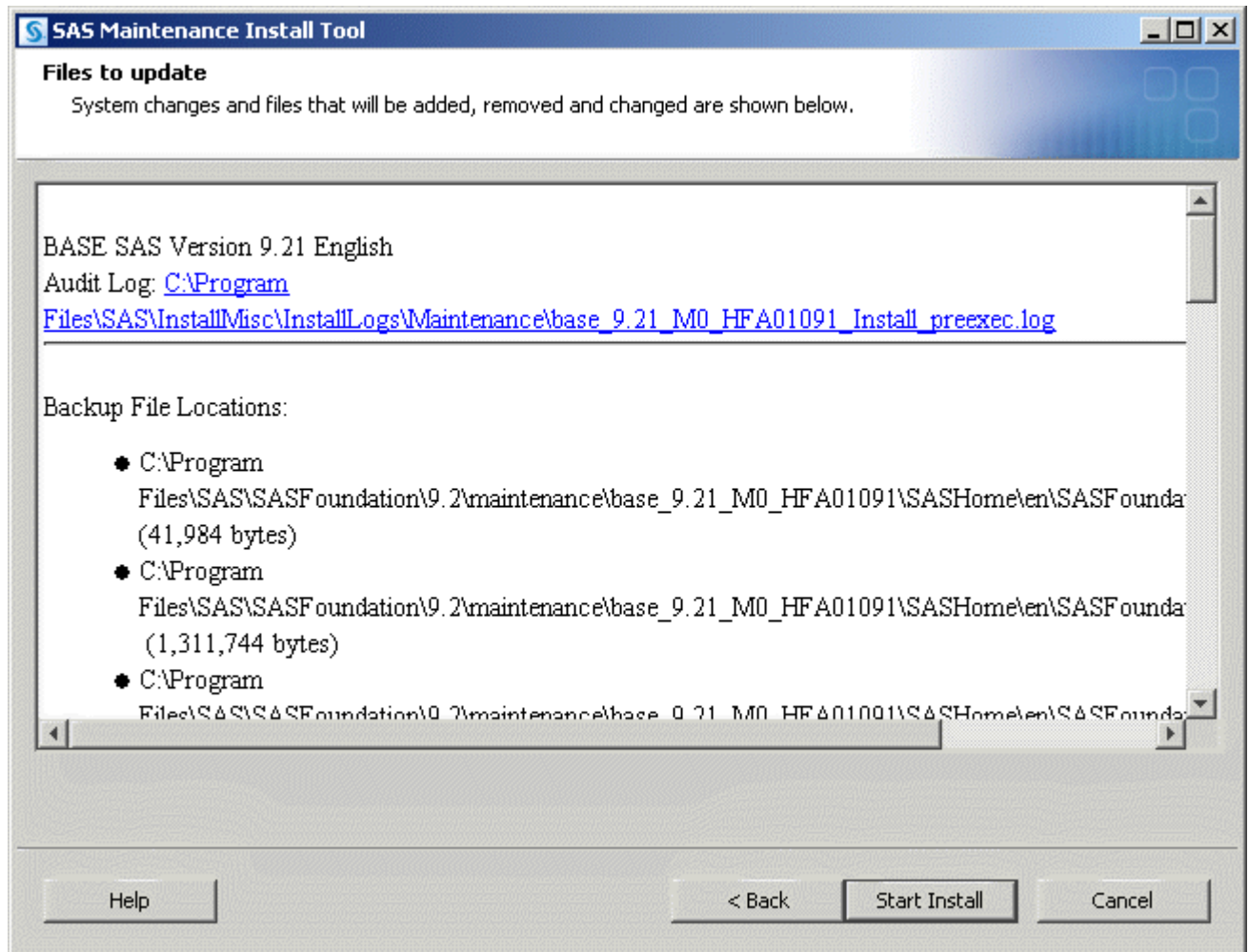
Demonstration of the Maintenance Installation Tool

1. Initial MIT installation dialog for a hot fix installation on Windows

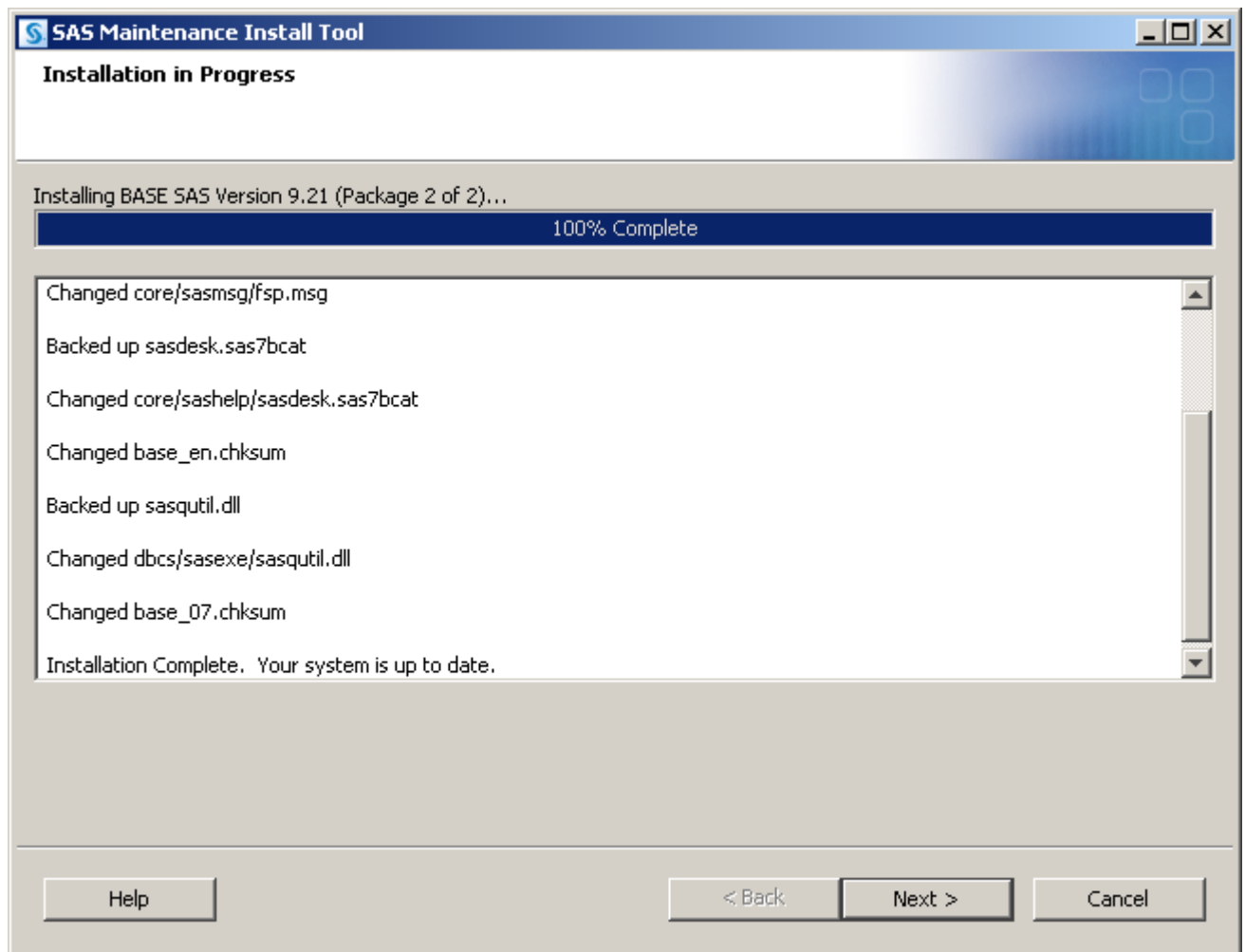


Notice that in this example, the SAS 9.2 (TS2M0) hot fix contains updates for multiple languages. Therefore, on the **Install SAS Updates** screen, you see all the languages for which there are updates to Base SAS. The MIT will update only the languages that you have installed in SASHOME.

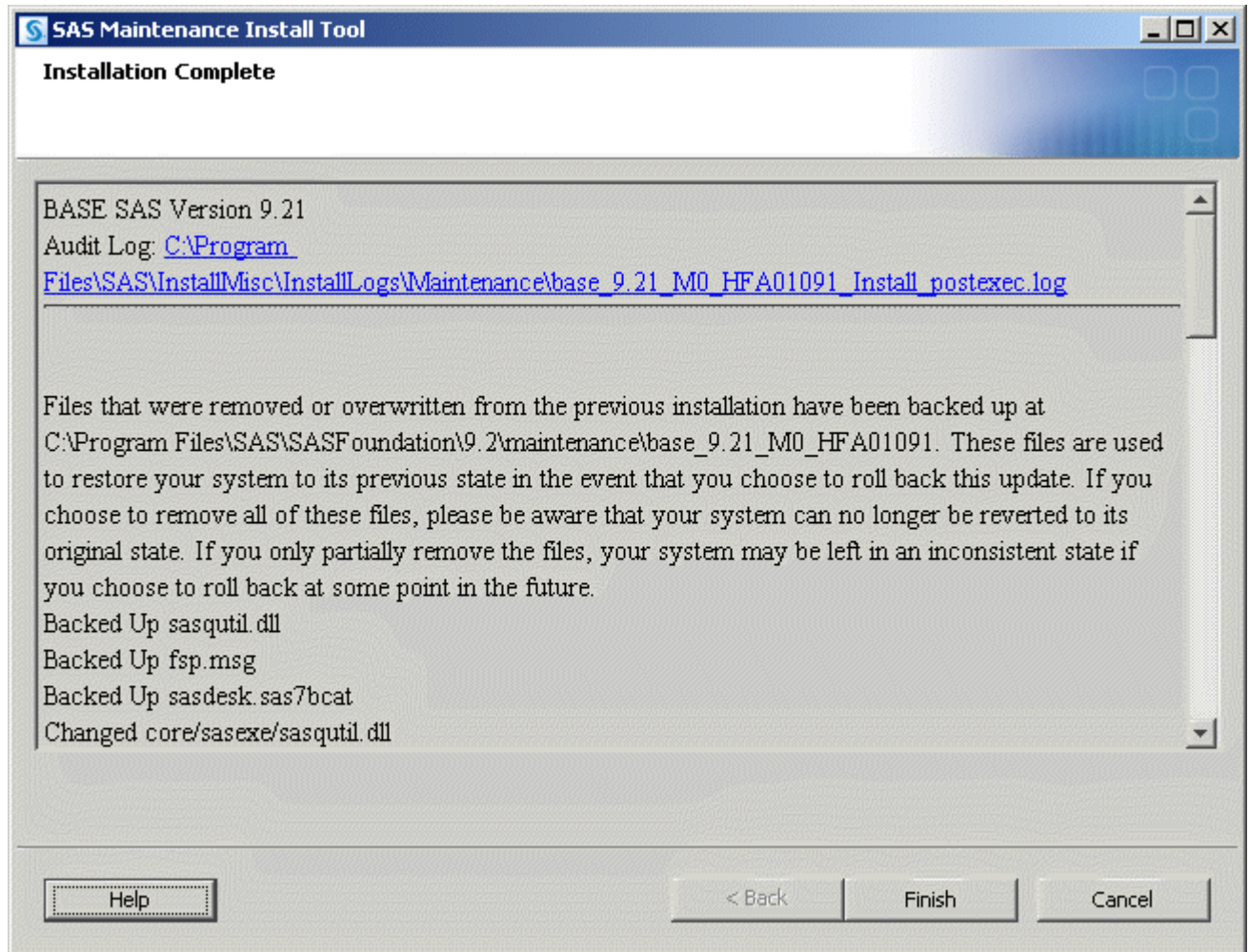
2. Files to Update *dialog on Windows*



3. Installation in Progress *dialog on Windows*



4. Installation Complete *dialog on Windows*



The dialog above illustrates that you will see the location of the MIT Audit Log file, which provides details about the progression of the hot fix installation.

You will also see the location of the files that were backed up automatically for you. The locations are:

On Windows:

C:\Program Files\SAS\InstallMisc\InstallLogs\Maintenance*<hotfixid>*

On UNIX:

<SASHOME>/InstallMisc/InstallLogs/Maintenance/*<hotfixid>*

Silent Installation (Windows only)

The MIT allows you to install silently on Windows hosts. After you have downloaded the hot fix package, invoke the self-extracting hot fix package from a command prompt using the following command:

```
<hot fix file name> -silent -sashome "<SASHOME>"
```

where:

<hot fix file name> is the full path name of the hot fix downloaded from the Technical Support Hot Fix Download site.

<SASHOME> is the directory where SAS 9.2 is installed.

For example, if you are applying a hot fix that has been saved to a file called A02001wn.exe, and SAS 9.2 is installed in the directory C:\Program Files\SAS, then you would issue the following command:

```
C:\temp\A02001wn.exe -silent -sashome "C:\Program Files\SAS"
```

If <SASHOME> exists and is correct, the installation will run silently.

During a silent installation, the MIT will parse the file below to set the default SASHOME location:

```
"%ALLUSERSPROFILE%\Application Data\SAS\SASDeploymentWizard\9.2\sdwprefs.txt
```

The default location on Windows is:

```
C:\Documents and Settings\<Userid_performing_install>\Application Data \SAS\SAS Deployment Wizard\9.2\sdwprefs.txt
```

The default location on Windows Vista is:

```
C:\Users\<Userid_performing_install>\Application Data \SAS\SAS Deployment Wizard\9.2\sdwprefs.txt
```

You can use the -unzipdir option to expand the contents of the self-extracting zip file into a different directory.

Uninstall/RollBack Functionality

Uninstall/rollback functionality will be available in a future release of the Maintenance Installation Tool. If you need to uninstall a hot fix, please contact SAS Technical Support for assistance.

Client /Server Installations

NOTE: Steps 1-3 are applicable to **SAS 9.2 (TS2M0) and prior** installations only: If you have created a Client Users SAS Software Depot with an order that contains **SAS 9.2 (TS2M2) or later** you will not need to run prepclientserver.bat (Steps 1-3) and can skip to step 4. There is one exception, you will also not need to run prepclientserver.bat (Step 1-3) on any **SAS 9.2 (TS2M0), Rev. 920_09w38** Client Users SAS Software Depot.

Below are instructions for Hot Fix installation for Client Users SAS Software Depots and Personal Users SAS Software Depots.

- Hot fixes cannot be applied to depots other than the server for client depot, not a Personal User depot nor a SAS Software depot. To apply a Hot fix to a Personal User depot it must be done on the end user installation.

1) Download the Server/Client Tool, PrepClientServer.bat, from the following location:

<http://ftp.sas.com/techsup/download/hotfix/HF2/util01/clientserver/PrepClientServer.bat>

This tool is required to make a few modifications to the SAS Software Depot for Client Users (depot) such that hot fixes can be applied. It doesn't matter where the tool is downloaded to just as long as it has write permission to the depot to update.

NOTE: This script should not be run on the client machine itself, it is applicable to the "server for client" depot only.

2) Run PrepClientServer.bat

The script will prompt you for the root location of the depot, which is where is where setup.exe resides. Below are several important notes about this tool.

- a. The tool only needs to be run once. If multiple attempts are made the tool will exit gracefully.
- b. The tool should only be run for SAS Software Depot for Client Users. A valid depot must be given or the process will not continue.

3) The script will perform the following three steps.

- a. Extract a jre. This will result in a new jre directory in the depot.
- b. Create a deployment registry. A new deploymentreg directory will be in depot.
- c. Create a sassw.config file in the root location.

Executing the Hot Fix for the SAS Software Depot for Client Users installation.

- 4) Download the applicable Hot Fix
- 5) Execute the Hot Fix
- 6) If SAS is installed on the console where the hot fix is running, you must specify the location of the depot via a command line option. Otherwise the hot fix will use the SAS software path for the install location rather than the depot.

The command line option is used as follows:

Example: hotfix.exe -sashome "c:\SAS Software Depot"

If an invalid path is specified, the MIT will prompt for the sashome.

The hot fix tool will continue prompting until a valid sashome location is provided.

- 7) Once a valid sashome (in this case a valid depot) is provided, the hot fix will be applied to the depot.

- 8) After the hot fix or hot fixes are applied to the depot, the SAS Foundation install must be run again on the client systems. This is done by running the SAS Deployment Wizard from the depot and selecting to install SAS Foundation. The SAS Foundation install will install any necessary updated files to the client..

Best Practices when applying hot fixes

- When downloading hot fixes to your system, you should store them in your SAS Software Depot. This provides a safe common location for easy access and maintenance.

Frequently Asked Questions (FAQ):

Was my hot fix installation successful?

- On the last dialog of the installation (the **Installation Complete** dialog), information will be provided regarding the files that were successfully updated during the installation.
- The MIT will create an installation log in the following location:
<SASHOME>\InstallMisc\InstallLogs\Maintenance\MIT_xxxxxxx.log
This log will give detailed information regarding the installation process.

Is it possible to apply a hot fix multiple times on the same SAS image?

- Once a hot fix has been applied, it cannot be reapplied. Attempting to re-apply a hot fix will result in an MIT failure. See SAS Note: [SN-35780](#)

Cancelling the hot fix installation:

- If the MIT is cancelled through an acceptable means (for example, by clicking the Cancel button, not by terminating the process) you may receive the following message:
Installation could not be completed. No changes have been made to your system.
- The MIT will roll back any changes it has made to the point of cancellation.

How can I determine what hot fixes have been applied to my system?

- For SAS 9.2 Phase 2 (TS2M0) and later, the installation of hot fixes is logged in the SAS Deployment Registry. A reporting utility named View Registry (*[sas.tools.viewregistry.jar](#)*) processes the deployment registry and generates a report named *[DeploymentRegistry.html](#)*. This report identifies all SAS 9.2 software that is installed in the current *SASHOME* location, including hot fixes.

For more information on the View Registry utility, including details on how to access and execute the utility, see [Usage Note 35968](#).

How do I determine what version of the Maintenance Install Tool I am running for applying hot fixes?

- The version number of the Maintenance Install Tool is displayed in the version box on the Help dialog during the installation of a hot fix.
See [SN- 35955](#) for more details.

How do I translate the new hot fix-ids?

- Beginning with SAS 9.2 Phase 2 (TS2M0), a new naming convention is being used to identify hot fixes.
See [SN-35960](#) for more details.

I tried to apply the SAS 9.2 Hot Fix and have received the message “*Windows has found a problem with this file*”. How do I get around the error?

- Hot fixes cannot be installed directly from the download page. They must be saved to disk and then installed. See [SN-37104](#) for more details.

Related SAS Notes:

- [SN-35769](#) Attempts to install SAS 9.2 hot fixes for products not installed will fail
- [SN-36641](#) Use FixForceInstall.bat to repair the deployment registry(registry.xml) for SAS Foundation 9.2 installed from media with FORCEINSTALL option
- [SN-35780](#) Attempts to re-apply SAS 9.2 hot fixes will fail
- [SN-36028](#) SAS 9.2 hot fix installs fail on OpenVMS on HP Integrity due to insufficient privileges
- [SN-36026](#) Attempting to apply a SAS 9.2 hot fix to an incorrect SAS release will result in erratic behavior

Revision: HF_MIT_090709