**Maintenance Installation Tool Troubleshooting Guide**

**for Hot Fix Installation**

**Introduction**

For SAS 9.2, the Maintenance Install Tool (MIT) is used to apply hot fixes on all platforms. This document is intended to serve as a troubleshooting guide when problems are encountered using the MIT for hot fix application.

For basic information on how to use the MIT to install your hot fixes, see the [Maintenance Install Tool Usage Guide.](http://ftp.sas.com/techsup/download/hotfix/HF2/Maint_Install_Tool.pdf)

**Hot Fix MIT Basics for SAS 9.2**

In order to apply a hot fix to the SAS 9.2 software, the MIT first determines if the software being hot fixed is installed on the system. For a successful hot fix application, the SAS 9.2 software installed must match in product name, product release, and maintenance level to the hot fix being installed. If a match does not occur on all three points, the hot fix will not apply.

There are other reasons that a hot fix might not apply. Those reasons are addressed in the troubleshooting section below.

**Troubleshooting a problem applying a SAS 9.2 hot fix**

Troubleshooting your SAS hot fix application may be as easy as making sure the answer is “Yes” to all the following:

1. Are you applying the hot fix using the same ID as the one used to install SAS?
2. On UNIX and VMI, is the DISPLAY set?
3. On VMI, are you using a privileged account with the BYPASS privilege enabled?
4. Are you applying the hot fix to the appropriate product release and maintenance level for which the hot fix is intended?
5. If you have multiple SAS installs and/or multiple versions of SAS installed, are you pointing to the appropriate SASHOME location when prompted?
6. Are you applying the hot fix on the operating system for which it was intended?
7. Are you following the installation instructions documented for your hot fix?
8. Can you verify that the product for which the hot fix is intended is installed?

For issues that cannot be addressed by answering “Yes” to the questions above, follow the troubleshooting steps and review the known issues in the text below:

1. Run a report against your deployment registry to determine the products installed on your system. See to [SN-35968](http://support.sas.com/kb/35/968.html) for more information and instructions for creating this report.
2. Review the report generated in the step above, comparing the product being updated to the information provided on the hot fix download page. In order for the hot fix to apply properly, the Product Name, Release, and Maintenance level must match.
3. If the name, release, and maintenance level all match between your installation and the hot fix download information, review the known issues below to determine if your issue can be resolved.

**Known Issues and Resolutions**

**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](http://support.sas.com/kb/37/104.html) for more details.

**When applying a hot fix on UNIX, the “Please enter your SAS Home” prompt occurs over and over.**

This behavior is an indication that the SAS Home location you entered is not valid. Either the SAS Home location entered does not exist, or the SAS Home location points to a prior release of SAS (ie, SAS 9.1.3).

**When attempting to apply a hot fix on UNIX, the error message “cannot execute binary file” appears.**

This is an indication that you likely are attempting to run the hot fix on the incorrect OS.

**When attempting to apply a hot fix on UNIX, “cannot execute” appears.**

This is an indication that the hot fix does not have execute privilege. Use the following command to set the execute privilege:

 chmod +x <hot fix file name>

 example: chmod +x A01001s6.bin

**When attempting to apply a hot fix on UNIX, the message below appears:**

The installation package could not be initialized for the following reason:

Failure creating backup directory at {0}.

Installation could not be completed. No changes have been made to your system. More information may be found in the Installation Log:

null

This message indicates one of three things:

1. the product for which the hot fix is intended is not installed on the system
2. the hot fix installation is being attempted on the incorrect operating system
3. the deployment registry is corrupt

See [SN-39122](http://support.sas.com/kb/39/122.html) for details and resolutions to these problems.

**I have confirmed that the correct software component and release are installed, but I continue to receive the message “*Either this package is not applicable for the current platform, or this product cannot be found on your system, so the updates contained in this bundle will not be installed*” when trying to apply a hot fix.**

Software product codes may have been added to the SAS Deployment Registry even though the product was not installed. You will see a value of ***null*** for the **Display Name** field for these entries in the [SAS Deployment Registry Report](http://support.sas.com/kb/35968.html). Attempts to apply hot fixes for these products/components will fail with the message indicated.

[SN-42548](http://support.sas.com/kb/42/548.html) provides more details.

**Attempting to apply a hot fix on Windows to a known product install results in:**

Either this package is not applicable for the current platform,

or this product cannot be found on your system, so the updates

contained in this bundle will not be installed.

This problem can occur for almost any hot fix on Windows if the initial installation of SAS was done with the –forceinstall option.

For more details, and information as to how to resolve this issue, see [SN-36490](http://support.sas.com/kb/36490).

**Application of a hot fix results in the following message:**

No changes need to be made. Your system is up to date.

This message will appear for two reasons. The first reason is that the hot fix has already been applied, in which case an additional message will appear:

This update has already been applied. This update cannot be uninstalled.

[SN-35780](http://support.sas.com/kb/35/780.html) documents this issue.

The second reason is that the SAS software was installed from a SAS Software Depot via the SAS Download Manager and the dates of certain files were not preserved. For more details on this issue, and the appropriate resolution, see [SN-36701](http://support.sas.com/kb/36701).

**Application of a hot fix on any system results in the following error:**

An error has been encountered that cannot be corrected

The details of the error are shown below.

Error extracting file entry <filename> from zip

As soon as you click the ‘OK’ button, we will begin rolling back all changes made by the installer so far so that your system is not left in an inconsistent state. Please do not quit the application before the rollback is complete.

This error has been seen when a SAS process is running at the same time as hot fix application is taking place. In order to determine the true cause of the error, the MIT log associated with the hot fix application must be reviewed.

The MIT logs associated with all hot fix installations are found in

SASHOME/InstallMisc/InstallLogs/Maintenance on UNIX

and

SASHOME/InstallMisc/InstallLogs/Maintenance on Windows.

In order to determine the appropriate MIT log to review, check the date/time stamp on the existing MIT logs, and review the log which has the date/time stamp corresponding to the time the hot fix was applied.

Below is a snip of the MIT log created when the MIT error appears:

[ 30616] MITController : An error occurred during processing:

[ 30616] MITController : There is a problem with the package being installed: Error extracting file entry snamva/cmacros/sasmacr.sas7bcat from zip

[ 30616] MITController : com.sas.tools.maint.mit.InstallException: Error extracting file entry snamva/cmacros/sasmacr.sas7bcat from zip

…

Caused by: com.sas.tools.maint.mit.InstallException: Failure moving C:\Program Files\SAS\SASFoundation\9.2\snamva\cmacros\sasmacr.sas7bcat to destination C:\Program Files\SAS\SASFoundation\9.2\maintenance\snamva\_2.1\_M0\_HFB13001\SASHome\en\SASFoundation\9.2\snamva\cmacros\sasmacr.sas7bcat

In this case, the failure occurred because SAS was in use at the time of hot fix application, and a backup of sasmacr.sas7bcat could not be created. The installer will not extract the new copy and overwrite the file until a successful backup has occurred.

By insuring that no SAS sessions are running when applying a hot fix, this type of error can be avoided.

**On VMI, after issuing the “run” command followed by the hot fix ID, user is returned to the system prompt without MIT launching and without error.**

The issue you describe is a result of not having proper privileges set. Applying a hot fix requires the use of a privileged account. To work around this issue, issue the following command:

$ set process/privilege=bypass

For more detail on this issue, see [SN-36028](http://support.sas.com/kb/36/028.html).

**Attempting to apply a SAS 9.2 hot fix to the wrong release of SAS results in different behavior on different operating systems.**

If the application of SAS 9.2 hot fixes is attempted against previous releases of SAS, the resulting behavior will be different based on the operating system on which the MIT is being launched. For details of the behavior, see [SN-36026](http://support.sas.com/kb/36026).

**Attempting to install multiple hot fixes in one pass on z/OS does not work.**

Only one hot fix can be installed at a time. When installing using the *–nojobsubmit* option you must

- install the hot fix,

- manually submit the install jobs and

- execute the -finalizeinstall step

for one hot fix BEFORE beginning the installation of another hot fix.

Running the install binary for multiple hot fixes, then attempting to manually submit the jobs for each of those hot fixes will result in an unsuccessful installation.

**On z/OS, if the hot fix install jobs submitted to the mainframe do not complete within 30 minutes, the install will time out.**

Using ***Method C) Graphical User Interface (GUI) mode, Installation jobs submitted automatically***, if the hot fix install jobs submitted to the mainframe do not complete within 30 minutes, the install will time out with an error similar to the following. You should clean up the hot fix datasets created and try again. There is currently no way to extend the timeout value for the mainframe jobs to complete.

The following exception was thrown outside of package processing. Installation halted

An error occurred during processing:

java.lang.reflect.InvocationTargetException

 at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

 at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:79)

 at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

 at java.lang.reflect.Method.invoke(Method.java:618)

 at com.sas.tools.maint.mit.ExecutionThread.run(ExecutionThread.java:92)

Caused by: com.sas.tools.maint.mit.InstallException: Job J0027073 did not complete. It remains on the JES queue

 at com.sas.tools.maint.mit.tasks.AssembleMVSJobcode.submitJob(AssembleMVSJobcode.java:1344)

 at com.sas.tools.maint.mit.tasks.AssembleMVSJobcode.submitJobs(AssembleMVSJobcode.java:780)

 ... 5 more

Caused by:

Job J0027073 did not complete. It remains on the JES queue

com.sas.tools.maint.mit.InstallException: Job J0027073 did not complete. It remains on the JES queue

 at com.sas.tools.maint.mit.tasks.AssembleMVSJobcode.submitJob(AssembleMVSJobcode.java:1344)

 at com.sas.tools.maint.mit.tasks.AssembleMVSJobcode.submitJobs(AssembleMVSJobcode.java:780)

 at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

 at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:79)

 at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

 at java.lang.reflect.Method.invoke(Method.java:618)

 at com.sas.tools.maint.mit.ExecutionThread.run(ExecutionThread.java:92)

**On z/OS, executing a hot fix installation without the *-nojobsubmit* option on a system that was initially installed using the *-nojobsubmit* option will result in an error.**

See [Usage Note 42460](http://support.sas.com/kb/42/460.html) for details.

**When installing z/OS hot fixes that contain updated language content you will see extraneous messages produced during the installation.**

When the installation is invoked you may see repetition like the following.

beginning install of Base SAS

beginning install of Base SAS

beginning install of Base SAS

.

.

.

The installation jobs have been written to members

Hotfix0

Hotfix1

Hotfix2

in *<HLQ>*.A50906.CNTL. These jobs should be submitted in sequence.

Then launch your hot fix package with the -finalizeinstall parameter:

<hotfixid>.bin -- -finalizeinstall

Install completed without errors for A50906

The installation jobs have been written to members

Hotfix0

Hotfix1

Hotfix2

in *<HLQ>*.A50906.CNTL. These jobs should be submitted in sequence.

Then launch your hot fix package with the -finalizeinstall parameter:

<hotfixid>.bin -- -finalizeinstall

Install completed without errors for A50906

The installation jobs have been written to members

Hotfix0

Hotfix1

Hotfix2

in *<HLQ>*.A50906.CNTL. These jobs should be submitted in sequence.

Then launch your hot fix package with the -finalizeinstall parameter:

The amount of repetition will vary depending on the number of languages being updated by the hot fix.

Then, during the final stage of the installation you will be notified of the language content included in the hot fix that was not installed. These messages will vary depending on the number of languages being updated by the hot fix and the the encoding under which your SAS installation was performed.

The other hot fixes in this bundle did not apply to your system:

<*hotfixid*>: WU is not installed thus the maintenance for WU will not be applied. <br>

<*hotfixid*>: WB is not installed thus the maintenance for WB will not be applied. <br>

<*hotfixid*>: WA is not installed thus the maintenance for WA will not be applied. <br>

<*hotfixid*>: W9 is not installed thus the maintenance for W9 will not be applied. <br>

<*hotfixid*>: W8 is not installed thus the maintenance for W8 will not be applied. <br>

<*hotfixid*>: W7 is not installed thus the maintenance for W7 will not be applied. <br>

<*hotfixid*>: W6 is not installed thus the maintenance for W6 will not be applied. <br>

<*hotfixid*>: W5 is not installed thus the maintenance for W5 will not be applied. <br>

<*hotfixid*>: W3 is not installed thus the maintenance for W3 will not be applied. <br>

<*hotfixid*>: R0 is not installed thus the maintenance for R0 will not be applied. <br>

<*hotfixid*>: F0 is not installed thus the maintenance for F0 will not be applied. <br>

<*hotfixid*>: C0 is not installed thus the maintenance for C0 will not be applied. <br>

These messages are not an indication of any failure on behalf of the hot fix install.

**Hot fixes that contain SASMSG modules on z/OS do not create correct CLISTs and PROCs for Non-English Language**

See [Installation Note 41892](http://support.sas.com/kb/41/892.html) for details.

**When all else fails**

If you are unable to resolve the issue with your hot fix installation using the information above, [contact SAS Technical Support](http://support.sas.com/ctx/supportform/createForm). In order for Technical Support to assist you, the following information will be needed:

* Hot Fix ID being applied
* Operating System (for UNIX, use “uname –a” to get full information)
* Deployment Registry report (See Step 1 in the Troubleshooting section above)
* Log from the attempted install, located at:

 <SASHOME>/InstallMisc/InstallLogs/Maintenance/MIT\_<…>.log