Installation Instructions for Hot Fix G77009

Windows for x64

Hot fix **G77009** addresses the issue(s) in *SAS Warranty Analysis 4.31* as documented in the *Issue(s) Addressed* section of the hot fix download page:

http://ftp.sas.com/techsup/download/hotfix/HF2/G77.html#G77009

G77009 is a "container" hot fix that contains the following "member" hot fixes which will update the software components as indicated.

G75009 updates **SAS Warranty Analysis Client 4.31**
G76009 updates **SAS Warranty Analysis Mid-Tier 4.31**
G74005 updates **SAS Warranty Analysis Server 4.31**

See What is a container hot fix? in the Hot Fix FAQ for more information about container hot fixes.

Before applying this hot fix, follow the instructions in SAS Note 35968 to generate a SAS Deployment Registry report, then verify that the appropriate product releases are installed on your system. The release number information in the Registry report should match the 'member' release number information provided above for the software components installed on each machine in your deployment.

The hot fix downloaded, G77009pt.zip, includes the updates required for all components listed above on all applicable operating systems. To apply this hot fix on multiple machines, you can either save G77009pt.zip on each machine or save it in a network location that is accessible to all machines.

Do NOT extract the contents of G77009pt.zip. The hot fix installation process will extract the contents as needed.

IMPORTANT NOTES

1. Files delivered in this hot fix will be backed up during the installation process. However, it is good general practice to back up your system before applying updates to software.
2. You must have Administrator Privileges on your CLIENT or SERVER machine.
3. All currently active SAS sessions, daemons, spawners and servers must be terminated before applying this hot fix.
4. This hot fix should be installed using the same userid who performed the initial software installation.
5. If any modifications have been made to the primary SAS Warranty Analysis solution catalog, located in <SASHOME>/SASFoundation/9.3/cmacros/wrtyanlmva/sasmacr.sas7bcat, then that catalog needs to be replaced with the originally shipped (or hotfix-modified) version of the catalog. Failure to do so will cause this hot fix to install improperly. The reason for this is that the hotfix installation process utilizes file modification dates when determining what to replace - and if the modification date on the sasmacr.sas7bcat file is not what the hotfix installation is expecting, then the existing catalog will not get replaced, and the hotfix install will not be complete. It is strongly recommended that if code/catalog modifications are needed, they be applied using the "override" protocol delivered with SAS Warranty Analysis.

PRE-INSTALLATION INSTRUCTIONS

SAS Warranty Analysis Mid-Tier 4.31

Make backup of following set of jars and then delete any versions of them from

<SASHOME>\SASWarrantyAnalysisMidtier\4.31\Static\plugins\SWA_Eclipse_RCP

- sas.analytics.mfg.queue.client
- sas.analytics.mfg.warranty.app.nls
- sas.analytics.mfg.warranty.app
- sas.analytics.mfg.warranty.core.client
- sas.analytics.mfg.warranty.core.client.nls
- sas.analytics.mfg.queue.client.nls
- sas.graph.silk
- sas.graph.statgraph.nls
- sas.graph.statgraph
- sas.iquery.services
- sas.iqueryutil
- sas.svc.core
- sas.svc.webdav
- sas.swing

INSTALLATION

Hot Fix G77009 must be installed on each machine where the updated components of the product, listed above, are installed. During the installation process you may see references to all operating systems for which updates are provided in the hot fix. The installation process will determine the operating system and which component(s) of SAS Warranty Analysis 4.31 require updating on the machine. See SAS Note 44810 for more details.

The hot fix will be applied using the SAS Deployment Manager (SDM). By default, the SDM will search in the *<SASHOME>/InstallMisc/HotFixes/New* directory for hot fixes to be applied, but will also prompt for a location if you have downloaded hot fixes to a different directory.

After downloading G77009pt.zip, follow the instructions for applying hot fixes in the **SAS Deployment Wizard and SAS Deployment Manager 9.3: User's Guide**.

The hot fix installation process generates the log file

<!SASHOME>/InstallMisc/InstallLogs/IT_date-and-time-stamp.log
for example, IT_2011-10-31-13.18.21.log. Each attempt to apply a hot fix results in the creation of a new log file giving detailed information regarding the installation process.

Postexec log files are created after the installation is completed and identifies the files that were added, backed up, changed and removed. These log files include the 'member' hot fix id in the name of the file and are also written to the *<!SASHOME>/InstallMisc/InstallLogs* directory. There is one postexec log for each 'member' hot fix applied (member hot fixes are listed at the top of these instructions).

The content of this hot fix is listed in the hot fix manifest.

POST-INSTALLATION INSTRUCTIONS

For each product installed, click the link to be redirected to post-installation instructions.

G75009 updates **SAS Warranty Analysis Client 4.31**
G76009 updates **SAS Warranty Analysis Mid-Tier 4.31**
G74005 updates **SAS Warranty Analysis Server 4.31**

G75009 updates SAS Warranty Analysis Client 4.31

Please perform these steps on all SAS Warranty Analysis Client machines after installing SWA4.31 client pieces for hotfix.

The installation of the hot fix to the SAS Warranty Analysis Client assumes that the client is installed in

C:\Program Files\SASHome\

If the client is installed in a location other than C:\Program Files\SASHome, the following file must be manually modified.
<SASHOME>\SASWarrantyAnalysisClient\4.31\configuration\config.ini

All occurrences of the following string must be changed the location to where the client is installed. Make sure to use forward slash (/) in the replaced path location.
C:/Program Files/SASHome/

Verify the folder <SASHOME>\SASVersionedJarRepository exists on your installation.

Configuration
(Follow the steps in this section only if they were not previously performed during the application of G77008.)

While retrieving an exported file from the SAS Content Server, the rich client now downloads it in chunks (for improved performance), instead of retrieving the entire file at once. There is no configuration change needed for the thin client (SAS Portal). The default chunk size is 5 MB (Megabytes). This can be altered by changing the value of property 'swa.io.chunksize'.
Example: to change the chunk size to '50 MB'
For CD client (user has a local, standalone installation of the Warranty executable) – add this line in the *wrtyanl.ini* file where the executable "wrtyanl.exe" was placed:

-Dswa.io.chunksize=50

For JWS client (user starts SWA from a link in the SAS Portal and Java Web Start downloads the client files) – add this line to the already-redeployed SWA_Eclipse_RCP.jnlp file:

< property name="swa.io.chunksize" value="50" > < /property >

By default, the downloaded CSV file will be located in a directory called "Warranty" under the users' TEMP location (environment variable). A Windows 7 example is *C:\Users\<username>\Appdata\Local\Temp\Warranty*. See below for instructions on changing the default location.

New Functionality
(Follow the steps in this section only if they were not previously performed during the application of G77008.)
To enable saving of an exported CSV file on a user's machine (instead of opening it), each user should follow the steps below:

1. Log on to SWA rich client and perform 'export table to spreadsheet' action once. This will create subdirectory named 'Warranty' under user's Temp location.
2. Go to that 'Warranty' subdirectory under user's TEMP directory. (The location of the TEMP directory varies by operating system version, this example assumes a user name of 'dummyuser'):

   For Windows 7: C:\Users\dummyuser\AppData\Local\Temp
   For Windows XP: C:\Documents and Settings\dummyuser\Local Settings\Temp
   For Windows Server 2008: C:\Users\dummyuser\AppData\Local\Temp\2

3. Create a file in the 'Warranty' directory mentioned above with name DO_NOT_EXPORT.txt (it can be empty). Subsequent exports will all go to this "Warranty" subdirectory.
4. If the administrator wants to configure different subdirectory name, s/he needs to add property 'swa.io.tmpdirname' and assign desired value.

   Example: to change default subdirectory name from 'Warranty' to 'SWADownloadArea':
   For CD client (in wrtyanl.ini file) add this line:
   -Dswa.io.tmpdirname=SWADownloadArea

   For JWS client (in SWA_Eclipse_RCP.jnlp file) add this line:
   <property name="swa.io.tmpdirname" value="SWADownloadArea"> < /property >

   NOTE: If *'-Dswa.io.tmpdirname=SWADownloadArea'* parameter is set then DO_NOT_EXPORT.txt file needs to be created in this subdirectory.

5. A new configuration parameter has been defined to control how long the downloaded CSV files will remain in the user's TEMP area before being automatically deleted. To set this parameter, open SAS Management Console (as the administrator), and navigate to Configuration Manager -> SAS Application Infrastructure -> Warranty Analysis 4.3 and right click to bringing up the Properties. In the advanced tab, enter *swa.io.tmpdirfile.daysoldtodelete=N* (where N equals the number of days for files to age out - recommended setting is 30).
6. In Warranty Analysis, right-click on analysis result table and choose Export Table to Spreadsheet.

7. Exported file will be saved in the subdirectory (Warranty / user defined value for - Dswa.io.tmpdirname parameter) of the user's TEMP area with a new naming convention (analysisName_analysisType_dateTimeStamp.CSV):

>   - a Details Analysis having the name 'DetailsTable1', the file name would be 'DetailsTable1_DETAIL_2013_06_11_05_49_23.CSV'
>   - a Pareto Analysis having the name 'Pareto1', the file name would be 'Pareto1_PARETO_2013_06_11_05_42_27.CSV'

8. The UI will display a message containing the location of the saved file.

The behavior of exporting to CSV files will change if 'DO_NOT_EXPORT.txt' is present in mentioned subdirectory under TEMP then message would be shown and file will not be opened directly. However there will be no change to the naming convention for CSV files export from places other than analysis/report output.

G76009 updates SAS Warranty Analysis Mid-Tier 4.31

Export to CSV from SAS Warranty Analysis Reports Portlet

Configuration Steps:

Update the PAR file

1. Get the 'portlet.xml' file delivered by hotfix package from "<SASHome>/SASWarrantyAnalysisMidTier/4.31/Configurable/portalContents/Portlets/Warranty".
2. Open the 'sas.analytics.mfg.warranty.webapp.par' file using the zipped file extractor of your choice. It is located in <CONFIGDIR>/Lev1/Web/Applications/SASPortlets4.3/Deployed
3. Put the portlet.xml from hotfix package into the sas.analytics.mfg.warranty.webapp.par file (it should overwrite the existing one).
4. Clear 'tmp' and 'work' directories of respective WebApp servers.
5. This will require a restart of the web server to be fully implemented, but you can do the restart after you've followed the rest of the instructions in this document.

Web application Update

Updates to the *SAS Warranty Analysis Mid-Tier 4.31* provided in this hot fix require that Web Applications be rebuilt and redeployed. If this component is installed on Windows, follow the steps below to rebuild and redeploy the web application:

Remove *com.sas.app.launcher.cacheFile*

1. Delete

<SASHOME>\SASVersionedJarRepository\eclipse\com.sas.app.launcher.cacheFile

Step 1: Re-build Web Applications

In order for this step to execute correctly, the Metadata Server must be running.

1.1 Invoke the SAS Deployment Manager 9.3

From the SASDeploymentManager directory launch *sasdm.exe*.
SAS Deployment Manager is installed in the following default location:

<SASHOME>\SASDeploymentManager\9.3

1.2 Select a language in the *Choose Language* box

1.3 Select Rebuild Web Applications

1.4 Select Configuration Directory or Enter the Configuration Directory and Level that needs to be updated

1.5 Specify Connection Information, including the *sasadm* User ID and Password

1.6 Select *Warranty Analysis 4.3* as the Web Application to Rebuild

1.7 Verify the information on the Summary screen and select Start

1.8 Select Finish when the deployment is complete

This process will update the SAS Warranty Analysis Mid-Tier 4.3 ear in

<CONFIGDIR>\Lev1\Web\Staging (The "Level" here should be the same Level as in Step 1.4 above)

A backup of the original ear file will be placed in the ***Backup*** directory.

Step 2: Re-deploy Web Applications

Follow the steps provided for your initial Solution deployment to re-deploy the updated ear to your web application.

G74005 updates SAS Warranty Analysis Server 4.31

The following set of instructions are listed in the order they were delivered in SAS Warranty Analysis (cumulative) Hotfixes. Perform them in order beginning with the hotfix that is not currently applied on the server - in other words, if a step has already been performed during a previous hotfix installation, then it does not need to be repeated.

>>>Start of G77001 updates <<<
The following files are delivered to the SAS install area. Take a backup of below files from configuration directory and then copy files locations mentioned below:

From:
<SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\smd\analysisoptionattributes_nls.smd
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\smd

From: <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\swa43_migration.sql
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install

From: <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\swa42_migration.sql
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install

From: <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\swa431_hotfix.sas
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install

From: <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\swa431_migration.sql
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install

From:
<SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\configure\analysisoptions.csv
To: <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\configure

Update the PARMSL datasets
Make a backup of existing PARMSL library before running below script to update the datasets.

1. Verify that the SAS Share Server is running, to ensure that libraries will be allocated correctly.
2. Start an interactive SAS session using the configuration file
    < CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\sasv9_swaconn.cfg
    to ensure that the PARMSL library reference is properly assigned.

a. Open command prompt navigate to "<SASHOME>SASFoundation\9.3"
b. Invoke the following command "**sas.exe** -**config**
<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\sasv9_swac
onn.cfg"

OR

a. Open Run
b. Copy the following path "<SASHOME>SASFoundation\9.3**sas.exe** -**config**
<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\sasv9_swac
onn.cfg" Press enter

3. File > Open > then select this program:
"<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\swa431_hotfix.sas
"

in your interactive SAS session, submit it, and it will update the PARMSL datasets.

>>>Start of G77002 updates <<<
The following file is also delivered to the SAS install area and it should be manually
merged with the existing file in the Config area:
Delivered: <SASHOME>\SASFoundation\9.3\wrtyanlmva\interactionxml\analysisSetup.xml
Merge With:
<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\interactionxml\analysisSetup.xml

To do a manual merge, open the existing analysissetup.xml and the updated analysissetup.xml in
side-by-side text editor windows. Compare section by section. If the existing analysissetup.xml
has been heavily customized for your installation, the interaction sections in the two files may
not correspond well. If that is the case, then add the following three interaction sections to the
end of your existing file. If the two files are comparable, then when you reach line 328 in the
updated file, the following three interaction sections should be inserted into the existing file
following the interaction section just prior that matches. Please contact SAS Technical Support if
you have questions about this step.

```
<Interaction>

    <!--

    //If Exposure Type = Usage
    //   Disable Apply Usage Profile and set to Yes
    //      Disable Calculation Method and set to Adjusted
    //      Disable Warranty Usage Max Mileage combo box
    //End If
    -->
   <FieldSelected fieldId="AOA163">
   <Value label="Usage">USAGE</Value>
   </FieldSelected>
```

```xml
    <Field fieldId="AOA5" fieldVisibility="DISABLED" requiresValue="true"
minSelections="1" maxSelections="1">
    <SelectedValue>True</SelectedValue>
    </Field>
    <Field fieldId="AOA30" fieldVisibility="DISABLED" requiresValue="true"
minSelections="1" maxSelections="1">
    <SelectedValue>projected</SelectedValue>
    </Field>
    <Field fieldId="AOA8" fieldVisibility="DISABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <SelectedValue>100000-UNLIMITED</SelectedValue>
    </Field>
    <Field fieldId="AOA134" fieldVisibility="DISABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <SelectedValue>frombuild</SelectedValue>
    </Field>
</Interaction>


<Interaction>
                <!--
                //Applicable to Summary Tables
                //If Exposure Type = TIS
                //          Enable Apply Usage Profile and set to Yes
                //      Enable Calculation Method and set to Adjusted
                //      Enable Warranty Usage Max Mileage combo box
                //End If
                -->
    <FieldSelected fieldId="AOA163">
                <Value label="TIS">TIS</Value>
    </FieldSelected>
    <Field fieldId="AOA5" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
                <SelectedValue>True</SelectedValue>
    </Field>
    <Field fieldId="AOA30" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
                <SelectedValue>projected</SelectedValue>
    </Field>
    <Field fieldId="AOA8" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <SelectedValue>36000</SelectedValue>
    </Field>
    <Field fieldId="AOA134" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <ResetField keepCurrentValuesIfValid="true"/>
    </Field>
</Interaction>

<Interaction>
                <!--
                //Applicable to Summary Tables
                //If Exposure Type = none
                //          Enable Apply Usage Profile and set to Yes
                //      Enable Calculation Method and set to Adjusted
                //      Enable Warranty Usage Max Mileage combo box
                //End If
```

```
                 -->
    <FieldSelected fieldId="AOA163">
                <NoValues/>
    </FieldSelected>
    <Field fieldId="AOA5" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
                <SelectedValue>True</SelectedValue>
    </Field>
    <Field fieldId="AOA30" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
                <SelectedValue>projected</SelectedValue>
    </Field>
    <Field fieldId="AOA8" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <SelectedValue>36000</SelectedValue>
    </Field>
    <Field fieldId="AOA134" fieldVisibility="ENABLED" requiresValue="true"
minSelections="1" maxSelections="1">
        <ResetField keepCurrentValuesIfValid="true"/>
    </Field>
</Interaction>
```

>>>Start of G77005 updates <<<

Update the 'init.sas' file

Make a backup of existing 'init.sas' file which is located in
"<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install". Configure the 'g_dpi'
global variable setting in init.sas file.

1. Edit the init.sas file in a text editor and declare the g_dpi global variable:
   Look for the line that reads: *%global _server;* and edit it to read: *%global _server g_dpi;*
2. Initialize the g_dpi variable by adding the following line below the %global statement
   (which concludes with a semi-colon).
   %let g_dpi=300;

>>>Start of G77008 updates <<<

Update to util_allocWARRUSER.sas:

Manually edit:
<CONFIGDIR>\Lev1\SASApp\SASEnvironment\SASWarrantyAnalysis4.3\SASMacro\util_all
ocWARRUSER.sas

Replace this section of code:

```
%util_assignUserLibname(p_username=&l_personname,
        p_libname=WARRUSER, p_subDirPath=filteredData,
        p_options=%str(access=readonly));
```

With this section of code:

```
/* ****************************************************
not using this call because it will create the directory if it does
not exist;
        %util_assignUserLibname(p_username=&l_personname,
            p_libname=WARRUSER, p_subDirPath=filteredData,
            p_options=%str(access=readonly));
**************************************************** */
%global g_serverPath g_guarc;        /* cis: S0796738 */
%local l_dirpath nummems;
%let nummems = 0;
%util_getuserattributes(p_personomrname=&l_personname,

servername_mv=g_servername,

serverpath_mv=g_serverPath
);
%if &g_guarc EQ 0 %then  /* user's data directory exists in the
PARMSL.USERATTRIBUTES table */
%do;
                %let l_dirpath = &g_serverPath.&g_slash.filteredData;
                data _null_;
                rc = filename("tempdir", "&l_dirpath");
                dirid = dopen("tempdir");
                if dirid GT 0 then
                        members = dnum(dirid);
                dirid = dclose(dirid);
                call symput("nummems",members);
                run;

                %if &nummems GT 0 %then  /* USERFDL physical directory
exists and contains data */
                libname WARRUSER "&l_dirpath" access=readonly;
%end;
/* ----------------------------------- */
```

Then make this modification after "%put &l_Errormsg;" and before "%mend
util_allocWARRUSER;":

```
%put &l_Errormsg;

%sysmstoreclear;;           /* insert these 3 new lines */
libname swasrcl clear;   /* <<<                        */
libname response clear;  /* <<<                        */

%mend util_allocWARRUSER;
```

There is a behavior change associated with this fix. When a new SAS Warranty Analysis user is

defined in SAS Management Console, if that user logs into Enterprise Guide before logging into SAS Warranty Analysis, that user will no longer see library references for SWASRCL, RESPONSE, and WARRUSER. Once the user has successfully logged into SAS Warranty Analysis and run an analysis, then all subsequent Enterprise Guide sessions will include the library reference for WARRUSER, which holds the data that was stored for their analyses.

Update the Graphics Templates Catalog

1. Make a backup of the existing Graphics Template Catalog (templat.sas7bitm) which is located in USERTL library before continuing.

2. The following files which are delivered to the SAS Install area need to be copied over to the SAS Configuration area (<CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\templates):

   ```
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgT
   emplate_BarChart.sas

   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_BarChart_MVA.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_BarChartOverlay.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_ControlChart.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_Dummy.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_LineOverlay.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_OverlayTrend.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_ProbPlot.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_SDChart.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\sgTem
   plate_SolidDashLines.sas
   <SASHOME>\SASFoundation\9.3\wrtyanlmva\sasmisc\install\templates\style
   Template_SWAStyle.sas
   ```

3. Start an interactive SAS session using the configuration file (please refer to step #1 of 'Update the PARMSL datasets' section to start an interactive SAS session).
   1. <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\sasv 9_swaconn.cfg
      (to ensure that the USERTL library reference is properly assigned)
4. Modify the path in the following code to point to your configuration directory, and modify the g_slash macro variable below to run in your environment:

   ```
   Options validvarname=v7;
   %let g_swaConfigRoot =
   <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install;
   ```

```
    %let g_slash = /;    /* this designates the path separator used with
the operating system: "/" for unix, "\" for Windows */

    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTagsets_GTL.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChart_MVA.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChartOverlay.sa
s";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_ControlChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_Dummy.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_LineOverlay.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_OverlayTrend.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_ProbPlot.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_SDChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_SolidDashLines.sas
";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.styleTemplate_SWAStyle.sas";
```

> Note: this code was excerpted from
> <CONFIGDIR>\Lev1\Applications\SASWarrantyAnalysis4.3\install\runinstall.sas.

5. Run this code in your interactive SAS session, and it will update the contents of your
   Graphics Template Catalog.

Additional Functionality Configuration (Optional)

Two new footnote options have been added to graph results, one which always displays the
"Data As Of Date" and another that displays the message "Hollow Points represent Immature
Points" on analyses which can display both mature and immature points - both are in addition to
the user-configurable Title, Subtitle, and Footnote options that are currently available when
configuring an analysis.

To configure either or both of these footnotes, run this code on the Server in an environment
where the PARMSL library is allocated:

```
proc sql noprint;
        insert into parmsl.analysismacvars
        values ("COMMON", "ShowDataAsOfDateFootnote", "TRUE")
        values ("COMMON", "ShowHollowPointFootnote", "TRUE");
```

```
    quit;
```

To enable only one, simply set the above value for the other one to "FALSE". If this configuration step is not run at all, there is no change in the display of the analysis graphs and no additional footnotes will be added.

Creating a Synonym List for use with Text Analysis

To create a smaller and cleaner synonym list for use with Text Analysis, have a SAS Consultant access the Consulting Resource Center (http://support.sas.com/software/warranty/4.3/index.html) to find updated versions of the program anl_tmcreatesynonyms.sas and the textsyn.sas autocall macro. Both file updates are needed to complete this fix.
-   Backup the file *<CONFIGDIR>\Lev1\SASApp\SASEnvironment\SASWarrantyAnalysis4.3\SASMacro\anl_tmcreatesynonyms.sas* to a different directory, then replace it with the version that is on the CRC.
-   Backup the file *<SASHOME>\SASFoundation\9.3\sasautos\textsyn.sas* to a different directory, then replace it with the version that is on the CRC.
The automatic update of these files will be included in a future hotfix.

Changes in Behavior

There are two requested changes in this hotfix pertaining to viewing reports.

1. Both in the application (Reports Workspace) and in the thin client (SAS Warranty Analysis Reports portlet), the new default sort order of Reports is descending by Run Date.
2. Also, in the thin client (SAS Warranty Analysis Reports portlet), there is new information being displayed about the filters which have been applied in the viewer. The user will see a new icon next to the column label to designate that the table has been sorted by that column.

There are a few behavior changes associated with displaying of graphs and the legends.

1. Modifications have been made to adjust the layout of legends that appear underneath the SAS Warranty Analysis graphs. The dimensions have been changed to ensure that a legend will appear with the graph, when applicable, both in the UI and when saved as a PDF.
2. On line charts, the square marker has been replaced with an upside down triangle.
3. When viewing an exported PDF, a page break will precede each graph, to ensure that the graph's title appears at the top of the page.
4. And finally, when a graph displays both mature and immature points, there is no longer a gap in the line between a mature point and an immature point.

>>>Start of G77009 updates <<<

New Functionality: Export to CSV from SAS Warranty Analysis Reports Portlet

With this hotfix, the user now has the option to export Analysis Results to a CSV file directly from the SAS Portal. Previously, CSV export was only available from within the UI. To implement this behavior, the look of the SAS Warranty Analysis Reports portlet has changed slightly. In place of two columns in the results table (one containing an icon to "View as HTML" and another containing an icon to "View as PDF"), there is now a pull-down list next to the header "Export Type:" which also includes the option "View as CSV". There is a single icon in the results table which is simply titled "Export" and will create a new browser "tab" with the results in the format you choose.

Since many UI components in the Portal are shared, this change in export functionality has also altered the appearance of the SAS Warranty Analysis Emerging Issues Portlet. The export mechanism shares the same change in UI as the Reports Portlet, except that there is no additional option for "View as CSV", only the existing "View as HTML" and "View as PDF" options.

New Functionality: New Analysis Option for Text Analysis

A new analysis option has been created to allow the Text Analysis user to set the minimum number of documents a term should appear for inclusion in the analysis. The new option is presented in the UI as a text box in which the user may only enter the integer values from 1 to 10. The default value is delivered as 1. The default value can be updated in the PARMSL.ANALYSISOPTIONATTRIBUTES_BASE table by an administrator. To allow the option to be surfaced to the user, the Warranty Analysis configuration must be changed. To do this, a script like the following can be run in a SAS session on the Warranty Analysis Server which has the library PARMSL pre-allocated (or a LIBNAME statement can be added to this code). Please note that since a new analysis option is being added to the existing system, a new analysis option ID must be created. Review this script in all places marked with "<<<" for applicability to your installation and modify if necessary before running.

```
%let newOptionName=minNumDocs;
%let newOptionLabel=%str(Minimum number of documents required to
include a term);
%let warrantyType=2;                /* <<< must match your site's warranty
type - found in parmsl.datasourcegroups */
%let defaultValue=1;                /* default value for minimum # of docs
to include a term */

proc sql noprint;
    select anloptattrid into :l_deleteid
      from parmsl.analysisoptionattributes_base
     where upcase(name)="INCSINGLEDOCTERMS";        /* shipped as AOA47 -
references to this entry need to be deleted */

    delete * from parmsl.analysisoptionattributes_base
     where ANLOPTATTRID ="&l_deleteid" ;            /* deleting reference
to AOA47 */
```

```sas
   delete * from parmsl.analysisoptionattributes_nls
    where key ="&l_deleteid" ;                       /* deleting reference
to AOA47 */
   delete * from parmsl.analysisoptions
    where ANLOPTATTRID = "&l_deleteid" ;        /* deleting reference
to AOA47 */

   select anloptattrid into :l_updateid
     from parmsl.analysisoptionattributes_base
    where upcase(name)="PPERIODSEXCLUDEFROMCALC"; /* shipped as AOA121
*/

   update parmsl.analysisoptionattributes_nls
     set text = compress(text,'"')               /* remove double
quotes from the value of AOA121 */
    where key = "&l_updateid";

   select count(*) into :l_option_exists
     from parmsl.analysisoptionattributes_base
    where upcase(name)=upcase("&newOptionName");  /* check to make sure
the option doesn't already exist */
quit;



%macro make_updates;

%if &l_option_exists EQ 0 %then
%do;

   /*
*************************************************************************
************************** */
   /* >>> This section is used to programmatically determine the next
sequential analysis option ID – however
          if your configuration does not use analysis option IDs in the
form of AOA###, then either modify this
          code to adjust to your numbering scheme or explicitly define
the macro variable "NEWID" to be a new
          analysis option attribute ID.
*/
   proc sql noprint;
      select max(input(substr(anloptattrid,4),best.)) into :m  /* <<<
find largest existing attribute ID */
        from parmsl.analysisoptionattributes_base;
   quit;
   %let m=&m;
   %let newid=AOA%eval(&m+1);
/* <<< create the new attribute ID */
   /* >>> End of section to programmatically determine the next
sequential analysis option ID             */
   /*
*************************************************************************
************************** */

   %put NOTE: New attribute ID for &newOptionName. will be: &newid.;
```

```
   proc sql noprint;
       insert into parmsl.analysisoptionattributes_base    /* for the
new attribute */
                (ANLOPTATTRID, NAME, INPUTFIELDTYPE, ISRANGE, FORMATREGEX,
SIGN, ALLOWZERO, MIN, MAX,
                PRECISION, DATETYPE, DATESTYLEPATTERN, INPUTFIELDSOURCE,
INPUTFIELDTABLELIBRARY,
                INPUTFIELDTABLENAME, INPUTFIELDTABLEWHERE,
INPUTFIELDTABLENUMROWS, INPUTFIELDVALUECOLUMN,
                INPUTFIELDLABELCOLUMN, MINSELECT, MAXSELECT,
INTERACTIONXML)
       values ("&newid", "&newOptionName", 'IntegerDataType', '', '',
'', '0', 1, 10, 0, '', '', '',
                '', '', '', ., '', '', 1, 1, '')
       ;

       insert into parmsl.analysisoptionattributes_nls (key, LOCALE,
LINENO, TEXT)    /* for the new attribute */
       values ("&newid", "en_US", 1, "&newOptionLabel")
   /* optional: insert a line like this for each locale */
   /* values ("&newid", "<other_locale>", 1, "<translated_label>") */
       ;

       insert into parmsl.analysisoptions                      /* for the
new attribute */

(WARRANTYTYPE,ANALYSISTYPE,ANLOPTGROUPID,ANLOPTATTRID,PEERNUMBER,ISREQU
IRED,
                ALLOWDEFAULTVALUE,DEFAULTVALUE,ALLOWSTEMPLATES)
       values
("&warrantyType",'TEXTANALYSIS','ANAL',"&newid",2,'1','1',"&defaultValu
e",'0')
       ;

   quit;
%end;

%mend;

%make_updates;
```

This will define the necessary metadata to surface the new analysis option "Minimum number of documents required to include a term". A clearing of the mid-tier's cache will be required to complete the configuration.

Update the Graphics Templates Catalog

1. Make a backup of the existing Graphics Template Catalog (templat.sas7bitm) which is located in USERTL library before continuing.

2. The following files which are delivered to the SAS Install area need to be copied over to the SAS Configuration area
   (<CONFIGDIR>/Lev1/Applications/SASWarrantyAnalysis4.3/install/templates):

```
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_BarChart.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_BarChart_MVA.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_BarChartOverlay.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_ControlChart.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_Dummy.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_LineOverlay.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_OverlayTrend.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_ProbPlot.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_SDChart.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/sgTempla
te_SolidDashLines.sas
    <SASHOME>/SASFoundation/9.3/misc/wrtyanlmva/install/templates/styleTem
plate_SWAStyle.sas
```

3. Start an interactive SAS session using the configuration file (please refer to step #1 of 'Update the PARMSL datasets' section to start an interactive SAS session).

   <CONFIGDIR>/Lev1/Applications/SASWarrantyAnalysis4.3/install/sasv9_swaconn.cfg
   (to ensure that the USERTL library reference is properly assigned)

4. Modify the path in the following code to point to your configuration directory, and modify the g_slash macro variable below to run in your environment:

```
    Options validvarname=v7;
    %let g_swaConfigRoot =
<CONFIGDIR>/Lev1/Applications/SASWarrantyAnalysis4.3/install;
    %let g_slash = /;    /* this designates the path separator used with
the operating system: "/" for unix, "\" for Windows */

    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTagsets_GTL.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChart_MVA.sas";
```

```
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_BarChartOverlay.sa
s";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_ControlChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_Dummy.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_LineOverlay.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_OverlayTrend.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_ProbPlot.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_SDChart.sas";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.sgTemplate_SolidDashLines.sas
";
    %include
"&g_swaConfigRoot.&g_slash.templates&g_slash.styleTemplate_SWAStyle.sas";
```

Note: this code was excerpted from<
CONFIGDIR>/Lev1/Applications/SASWarrantyAnalysis4.3/install/runinstall.sas.

Run this code in your interactive SAS session, and it will update the contents of your
Graphics Template Catalog.

Changes in Behavior
- In Text Analysis output, when there is a tie in Cumulative Probability of 1, the results are now presented in descending order of their count in the cluster instead of alphabetically.
- On the SAS Warranty Analysis Emerging Issues portal tab, the option for what format to view results in has changed from two icons (View PDF and View HTML) in the table to a selection list in the top section called Export Type with the same two entries.

Known Issues
- There is an unresolved issue related to the display of a 'sort-directional' icon remaining in the display of the list of reports when sorting has been changed - the directional icon from the previously sorted column remains displayed, which can be confusing. A fix for this issue will be delivered in a future hotfix.
- There is an unresolved calculation issue with using the Extrapolated calculation method in the Statistical Drivers and Multivariate Statistical Drivers analyses, which was not complete at the time of this hotfix release. The fix for this issue will be delivered in Hotfix 10. Prior to that time, please contact Technical Support for assistance with this problem.

This completes the installation of hot fix **G77009** on **Windows for x64**.