

The SAS[®] System Version 7 (TS P1) Windows[®], Windows NT[®], Windows NT[®] Server

Please Read Before Beginning Installation

Introduction

Alert Notes list problems that you need to be aware of before installing or using this software. Should you need assistance with the software, we ask that only the SAS Installation Representative or SAS Support Consultant call our Technical Support Division. Sites in the U.S. and Canada may call (919) 677-8008. Other sites should contact their SAS Installation Representative or SAS Support Consultant for the nearest SAS Institute office.

Installation Issues

- A more up-to-date and complete version of **Alert Notes** are provided on our Web site located at <http://www.sas.com/software/enclosures/anote.html>.
- The installation test streams for Windows and Windows NT platforms will fail due to a coding error in the `core\sasmacro\hostinit.sas` macro. Installation test streams may be run after correcting line 34 of the `core\sasmacro\hostinit.sas` macro as follows:

```
rc=system(trim(left('mkdir '||quote(testpath))));
```

- There is a problem with some modules not getting registered during a *Client* installation. This can cause errors such as:

```
OLE: CLASS STRING FOR THE APPLICATION IS NOT VALID
```

which is produced when trying to access the Help system.

At a command prompt, simply type the following commands to fix the problem:

```
(!SASROOT)\sas.exe -regserver  
(!SASROOT)\core\sasexe\sasvhlp.exe -regserver  
Regsvr32 (!SASROOT)\core\sasexe\sasvhelp.dll  
Regsvr32 (!SASROOT)\core\sasocx\sascombo.ocx  
Regsvr32 (!SASROOT)\core\sasocx\sasedit.ocx
```

Note: Fill in the appropriate value for !SASROOT, including the drive letter.

- Attention users of Windows 98, a conflict between InstallShield setup applications and Microsoft's Client for NetWare Networks has been detected. A serious problem in SAS Setup or Windows may occur while changing the default destination directory (i.e., using the `Browse` button in `Setup` dialog windows) while Microsoft's Client for NetWare Networks is installed and network drives are attached to Novell servers. The problem will cause Network Neighborhood and network browsing to fail, which may result in the loss of any unsaved data and other network failures. For these reasons, it is strongly recommended that you unmap all network drives attached to Novell servers before continuing with SAS Setup.

If you accept the default locations and do not choose to browse to a different folder in dialogs such as `Select Temporary Files Folder` and `Select Data Files Folder`, SAS Setup will proceed without any problems regardless of attached network drives.

Notes: This problem is not unique to SAS Setup. It may occur on any Windows 98 system running an InstallShield setup application or any other application that utilizes the same Microsoft browse functionality as InstallShield.

This does not affect Microsoft's Client for Microsoft Networks or network drives connected to LAN Manager-type servers such as Windows NT or OS/2 servers.

If you are running SAS Setup from a mapped network drive, you must keep that drive connected to continue SAS Setup.

If you are using Novell's client software for NetWare Networks, this should not be a problem on your system.

- In order to search and receive SAS System, Version 7 **Alert Notes** via email, use `sasnotes@sas.com` in the `To` field.

In order to search the SAS System, Version 7 **Alert Notes**, include the following in the text of the message.

```
database alert
search keyword1 keyword2 ... keyword9
```

Please note that only one keyword is required. Technical Support will email the **Alert Notes** to the address indicated in the `From` field. The **Alert Notes** will match the search criteria.

In order to retrieve SAS System, Version 7 **Alert Notes**, include the following in the text of the message.

```
database alert
get AlertNote1 AlertNote2 ... AlertNote9
```

Please note that `AlertNoteName` is obtained from the `Document` field of the search report. Please note that only one `AlertNote` value is required. Alternately, you can specify multiple `get` statements.

You will be emailed a log of the server parsing your email and a copy of the **Alert Notes**.

- The installation process will run considerably slower if Microsoft Outlook 98 is running when SAS Setup is launched.

Base SAS Software

- The RANBIN function can return incorrect results under certain circumstances. If the second argument, N, of the RANBIN function is not exactly an integer, but is represented by a number in the interval $I-1e-12 \leq N < I$ (where I is any integer), then RANBIN will incorrectly use N-1 as the second argument.

For example:

```
data _null_;
  n=12;
  wrong=ranbin(12345,n-.0000000000001,.99999999);
  right=ranbin(12345,n,.99999999);
  put wrong= right=;
run;
```

will return the correct value of 12 for right and will return the incorrect value of 11 for wrong. This problem is most likely to occur when the second argument to the RANBIN function is being calculated in the DATA step. To circumvent the problem, apply the INT function to the second argument. In the example above, change the calculation of wrong to wrong=ranbin(12345,int(n-.0000000000001),.99999999);.

SAS Note V7-FUNCTIONS-0238 documents this problem.

- For Version 7 of the SAS System, the default value of the YEARCUTOFF= system option has changed from 1900 to 1920. This change affects how two-digit years representing dates between 1900 to 1919 are interpreted.

SAS Note V7-SYS.DATA-0319 documents this change.

- When a libref assigned to a read-only area is specified in the Import External File window, the SAS System issues a program halt when the File pull-down menu and then the Save menu option is selected.

Please note that when importing data from an external file to a SAS data set, the user must have appropriate authorization to write to the library in which the data set is to be created.

- The Scatter/Gather file access method is experimental for Windows NT in Version 7 of the SAS System. This performance-enhancing feature is only available on Windows NT when the system option SGIO is set.
- Specifying variable names of the form VARn, where n is a whole number starting with 1, may conflict with EFI's automatic naming convention used when the field name attribute is left blank during the importing external file task. It could result in a program halt.

To prevent the possibility from this happening, use variable names other than VARn.

- Generation data sets are not supported in the External File Interface (EFI). Specifying a generation data set for the export external file task will result in errors.
- When the VALIDVARNAME system option is set to V6, EFI does not detect variable names greater than eight characters long as invalid; therefore, this results in a program halt when attempting to create the data set during the import external file task.

For optimal functionality, set the VALIDVARNAME system option to V7, which is the shipped default. This allows for mixed case variable names and up to 32 character variable names.

- In PROC REPORT, if a WEIGHT statement is specified and the PCTSUM statistic is requested on a DEFINE statement, the values of PCTSUM will be incorrect. Values greater than one may be reported.

SAS Note SN-001391 documents this problem.

- Although Version 7 of the SAS System supports variable names longer than eight characters, a SAS data set being written to a Version 6 SAS data library is still limited to variable names with no more than eight characters.

A Version 6 SAS data library is a library that is accessed via the V6 engine. This association is made explicitly by the user in a `LIBNAME` statement or implicitly by the SAS System if all members contained in a library were created with Version 6 of the SAS System.

If you try to create a variable with a name longer than eight characters in a data set that is in Version 6 format, you will get the following error:

```
ERROR: The variable name xxx is illegal for file yyy.
```

where `xxx` is the variable name and `yyy` is the SAS data set. This can occur when Version 7 of the SAS System is writing a variable that is being created by the system or by the user.

To circumvent the problem, write to a data set that is in Version 7 format or specify valid Version 6 variable names. If the problem occurs with a variable that a SAS procedure is creating, specifying:

```
OPTIONS VALIDVARNAME=V6 ;
```

should correct the problem by truncating the variable name to 8 characters.

Note that if the input data set is in Version 6 format and you are writing the output data set to the same library, the output data set will be in Version 6 format also because the same engine will be used.

SAS Note V7-SYS.SYS-0118 documents this issue.

- If the `Integrity Constraint` feature is used to create a referential constraint with either primary or foreign key referential actions of `SET NULL`, and any of the variables in the foreign key constraint are also part of a composite unique index, problems may occur during updating. In practice, it is easy to avoid this situation, because foreign keys tend to be non-unique and the presence of a unique composite index on the foreign key data set is somewhat contradictory.
- The `Integrity Constraint` feature has a conflict with SQL's `alter table`. The SQL `alter table` command cannot be used to drop variables from a data set involved in a referential constraint. Trying to do so provokes error messages. Instead, the referential constraint must be removed first. If the data set contains foreign keys, they must be deleted. If the data set contains a primary key, the foreign keys that reference the primary key must be deleted. After the variable is dropped, the foreign keys can be recreated.
- If the `Properties` window is still running, there will be a segmentation violation if you delete `Results` information.
- Deleting and renaming `Results` nodes after the `Properties` window has been used may yield undesirable results. You will be unable to delete or rename once an instance of the `Results Properties` window has been used. The `Properties` window does not close all of the appropriate item store handles when the window is terminated, thus causing the item store code to corrupt the file when a `Delete` or `Rename` is requested.

- Scrolling engine by engine in the `Engine` list box can result in an error message box. The optional DB2 and ODBC engines attempt to obtain information from third-party database software when these engines are highlighted. If there is a problem accessing the database, the error message box will appear. The text in the message box will be the following.

```
Failure loading dynamic <engine_name> engine information. Your DBMS
environment may be incorrect or your DBMS has not been installed.
```

where `<engine_name>` is the name of the engine from the `Engine` list box.

Also, a message similar to this will appear in the `SAS LOG` window.

```
Error: BRIDGE FAILURE CALLING UNKNOWN
Error: Unable to load <engine_name> for subsystem <subsystem_number>.
Error: New Library Window failed to initialize
```

where `<engine_name>` is the name of the engine image and `<subsystem_number>` is the number of the subsystem related to the bridge failure.

Once the error message box is cleared, the `New Library` window closes. This problem can be avoided by using the mouse and scroll bar or the `Page Down` key to avoid highlighting either of these engines.

- `Multiple SAS Processes` is an experimental feature for Version 7 of the SAS System. The documentation for the `startsas` window, statement, and any other `Multiple SAS Processes` documentation presents it as production.
- Integrity constraint names longer than 32 characters are able to be created with `PROC DATASETS`, but do not function properly after being created. The constraint does not enforce its corresponding validation rules and it cannot be displayed or deleted. Its use may result in segmentation violations or abends.

To avoid this problem, limit integrity constraint names to 32 characters or less.

- When running an `MPEG` file on Windows using the Video Player, the SAS System may hang due to loss of focus. Focus can be restored by pressing the `Alt` and `Tab` key to another SAS window and making SAS as the active task.
- `PROC FREQ` generates incorrect data in the output data set created by ODS when a `BY` statement is specified. The row frequency totals are repeated and some cross-tab frequencies are omitted.

A possible circumvention is to add the `MISSING` option on the `TABLES` statement. However, this will include missing values in the output data set.

SAS Note SN-000920 documents this problem.

- Specific variables may have incorrect values in the output table when created with the ODS OUTPUT statement. For this to occur, the following two conditions will have to be met:
 1. when there is a grouping of output; most commonly the use of BY processing, and
 2. the ODS output table consist of some variables named by ODS in such a way that a conflict of variable names could occur. For example, if your original variable is SALES, the naming convention for the default p-value variable would be to precede the variable SALES with the first letter of the statistic (PSALES). If there is another analysis variable by that name, the default p-value variable is renamed and may be incorrect. A note is generated in the SAS LOG window documenting the fact that another variable was found with the same name.

To circumvent the problem, rename the offending variable before running the procedure or run the procedure separately on each BY group using a WHERE statement.

SAS/AF Software

- In a SAS/AF FRAME master/detail application created with a data table within a data form and connected using the Key Column setting in the data table's object attributes, the data table portion may not be subset as you scroll through the data form. This is only true if the tables in the data form and data table are not indexed. No error message is generated.

To circumvent the problem, create an index on the column used as the key column for both tables in the data form and data table.

SAS Note SN-001102 documents this problem.

- In a Data Form object within a SAS/AF FRAME entry, modifying a character column from model SCL may result in a numeric column being set to missing or the first character of a character column being blanked out.

This may occur in the following situations:

1. You modify any column that has an associated model SCL label and press Enter.
2. Model SCL code runs for the modified column and a character column's value is set in model SCL.
3. You modify another column and press Enter.
4. The value of the column following the character column whose value was modified in model SCL may be corrupted.

No error messages are generated. This problem is corrected in Production Version 8.

SAS Note SN-000992 documents this problem.

SAS/CONNECT Software

- Observations might be skipped when all of the following conditions are true:
 1. The input SAS data set is accessed via the product's REMOTE engine,
 2. the input SAS data set contains one or more indexed variables, and
 3. one or more of the input SAS data set's indexed variables are specified in the BY statement of a select group of SAS procedures.

There is no message, abend, or other obvious indication that some observations were not read. The noted SAS procedures accurately report the number of observations that were actually read.

The combination of two of the conditions required for this problem (a BY statement and indexes on one or more of the BY variables) is explicitly discouraged on page 132 of the **SAS Language Reference, Version 6, First Edition**.

Note that the physical order of the observations in the data set does not affect whether this problem may be seen. This problem can occur even when the SAS data set is in sorted order of the BY variable(s).

The DATA step and SAS Component Language are not vulnerable to this problem. In addition, not all SAS procedures are vulnerable to this problem. Only the following SAS procedures have the exposure to this problem:

Base SAS Software:

BMDP CHART PATTERN RANK SSCP STANDARD

SAS/ETS Software:

ARIMA AUTOREG PDLREG

SAS/QC Software:

RELIABILITY

SAS/STAT Software:

ACECLUS ANOVA CANCELL CALIS FASTCLUS GENMOD
GLM INBREED KDE LIFEREG LOESS MIXED
MODECLUS NESTED NLMIXED PLAN ROBIT RSREG
SELECT (SURVEYSELECT) SURVEYMEANS SURVEYREG TPSPLINE

To circumvent this problem, use PROC SORT to copy the SAS data set from the remote server session to the local session's WORK library, sorting the data by the BY variable(s). Next, execute the applicable analysis procedure using the SAS data set in the WORK library as its input. This will provide the additional benefit of reducing the time needed to read and process the data; it also reduces the load on the server and network.

To circumvent this problem without copying the SAS data set to the client-side WORK library, specify TOBSNO=1 as a data set option on the SAS data set being read by the analysis procedure. Note that this second circumvention not only retains the performance penalty of using an index for BY retrieval, but additionally adds a very inefficient communication between the local session and the remote SAS/CONNECT session. These performance degradations can penalize other users of the network.

SAS Note SN-000823 documents this problem.

- The encryption attribute is lost when downloading an encrypted data set from Version 6 to Version 8 when all of the following conditions are met:
 - You are running SAS/CONNECT software from a Version 8 client to a Version 6 (or earlier) remote, and
 - you are executing PROC DOWNLOAD of an encrypted data set, and
 - you have specified the DATA= option without the OUT= option.

If all of these conditions are in effect, then the encrypted flag is not set on the data set created in the Version 8 client session and the data set is stored unencrypted.

PROC UPLOAD clones the encryption attribute correctly. In addition, both PROC UPLOAD and DOWNLOAD clone the encryption attribute correctly in all other version/release combinations.

SAS/ETS Software

- If a variable with missing values for all observations is included on a data set that is processed by PROC X11, and the missing variable is included on the VAR statement, and the ARIMA statement is specified, then the values for all of the tables output to the OUT= data set are incorrect for all of the variables listed on the VAR statement after the missing variable.

The table values shown in the printed output for PROC X11 are correct. Only the values in the OUT= data set are incorrect. To circumvent the problem, remove the variable with all missing values from the VAR statement.

SAS Note SN-001386 documents this problem.

SAS/FSP Software

- You may receive an abend when FSEDIT SCL code references a variable whose length is greater than 200 bytes. You could receive the abend when you leave the FSEDIT window, when you attempt to edit the SCL program, or when the SCL code executes. You may also see that an assignment statement, which sets a variable equal to the value of a variable whose length is greater than 200 bytes, only reads 12 bytes of the existing value. A PUT statement may only write out 12 bytes of this long variable also.

The abend may be:

```
ERROR: Write Access Violation in Task (FSEDIT)
```

or

```
ERROR: Segmentation Violation in Task (FSEDIT)
```

depending on your operating system.

SAS Note V7-FSEDIT-0502 documents this problem.

- A numeric value that is too large to fit the format specified may display as a dot, which makes it incorrectly appear to be a missing value. When this happens with the FSEDIT procedure, you will receive the following error message on the message line for the offending observation:

```
ERROR: Invalid value for width specified - width out of range.
```

With the FSVIEW procedure, no error message is given. To circumvent the problem, increase the width of the format so all values will display.

SAS Note V7-FSP-0331 documents this problem.

SAS/GIS Software

- The Online Documentation for Version 7 of the SAS System contains incorrect information regarding the support status of two components within SAS/GIS Software: the SAS/GIS Map Object and the SAS/GIS Redistricting Action. This documentation incorrectly states that both components are fully supported in Version 7. The correct statement is that both the SAS/GIS Map Object and the SAS/GIS Redistricting Action are experimental components in Version 7 of the SAS System.

The page with the incorrect information would be most easily accessed by making the following selections from the `Contents` tab in the Online Documentation:

- What's New for Version 7
- Other SAS Software Products
- SAS/GIS
- Features That Were Formerly Experimental

However, please note that this same page may be accessed in many different ways within the Online Documentation.

- Problems may occur when running a redistricting action if both of the following are true:
 1. You have explicitly defined a theme for the layer upon which the redistricting action is based. The theme is defined exactly as the redistricting action would define for you.
 2. Even though a theme is defined for the layer, it is not active. That is, the layer is set to `STATIC`.

When the redistricting action is run, you will receive messages similar to the following in your `SAS LOG` window:

```
ERROR: Read Access Violation In Task [GIS]
Exception occurred at [nnnnnn]
```

At this point, SAS/GIS software will terminate and the rest of the SAS System may terminate or become unresponsive. Should the SAS System become unresponsive, you may need to terminate the process through the Task Manager. Upon termination of the SAS System, the following messages may appear in individual pop-up windows.

```
Invalid free() attempt to deleted pool!
Traceback
No Traceback Available
```

To circumvent the problem, do either of the following.

1. Do not define the theme before running the redistricting action, the redistricting action will define the appropriate theme for you.
 2. If you have already defined a theme, make sure that the theme is active. That is, the layer is not set to `STATIC` when the redistricting action is run.
- Problems may occur when removing an attribute data set link if both of the following conditions are true:
 1. Multiple themes have been defined for a layer.
 2. None of the defined themes are displayed; that is, the layer is set to `STATIC`.

These problems may include, but are not limited to the following.

1. Abnormal termination of SAS/GIS software with messages in the `SAS LOG` window similar to the following.

```
ERROR: Read Access Violation In Task [GIS ]
Exception occurred at [nnnnnn]
WARNING: Closing data set libref.data-set-name left open by program.
ERROR: Generic critical error.
```

To circumvent the problem, remove the theme from the layer by selecting the `Theme` menu option and then selecting the `Remove` menu option from the `GIS Layer` window for the layer theme to be removed before removing the attribute data set link being used by the theme.

- The SAS/GIS Redistricting Action is experimental in Version 7 of the SAS System. There are no indicators of this support status when defining or using a Redistricting Action.
- The SAS/GIS Map Object is experimental in Version 7 of the SAS System. There are no indicators of this support status when using the SAS/GIS Map Object.
- If you select the `CANCEL` button in the `GIS Attribute Data Sets` window during the process of defining a theme for a layer, problems may occur. These problems may include, but are not limited to the following.
 1. Setting a thematic layer to `STATIC`.
 2. Abnormal termination of SAS/GIS software upon subsequent theme definitions.

The SAS `LOG` window will contain messages similar to the following.

```
ERROR: Read Access Violation In Task [GIS]
Exception occurred at [nnnnnn]
WARNING: Closing data set libref.data-set-name left open by program
ERROR: Generic critical error.
```

Although SAS/GIS software terminates, the rest of the SAS System will remain active.

To circumvent the problem, do not cancel out of the `GIS Attribute Data Sets` window. Select `CONTINUE` and then select a theme variable.

If you do not want the theme that was just defined, you can remove it by selecting the `Theme` menu option and then selecting the `Remove` menu option from the `GIS Layer` window for the layer theme to be removed.

SAS/GRAPH Software

- Printing graphs while having the visible columns set (using the `_setviscol` method) and using the graphics drivers may display incorrect results in the printed graph. The workaround is to use host printing.
- Scrolling a legend that is too small to display any legend values will cause a crash.
- A batch job incorrectly terminates when a `SYMBOL` statement is specified in the `PROC` step of the `GPLOT` procedure. The job is most likely to terminate when the data set referenced by `PROC GPLOT` is empty.

The following notes are generated in the SAS `LOG` window:

```
NOTE: No observations in data set <xxxx.xxxx>.
NOTE: The SAS System stopped processing this step because of errors.
NOTE: SAS set option OBS=0 and will continue to check statements.
```

Encountering an empty data set or specifying a `SYMBOL` statement in the `PROC` step should not flag an error condition. The second and third note in the SAS `LOG` window are incorrect. The third note appears to terminate the further processing of the SAS job.

Note: This is not a problem with PROC GCHART and PATTERN statement.

```
Test Program:
DATA TEST;
X=. ; Y=. ;
STOP;
RUN;
PROC GPLOT;
PLOT Y*X;
SYMBOL1 I=NONE V=PLUS C=BLACK;
RUN;
QUIT;
proc gtestit pic=1;
```

The second PROC will not run in batch. If you move the SYMBOL statement before PROC GPLOT, then this will not be a problem.

- CPorted Version 6 catalogs that have SAS/GRAPH objects in the frames may crash if edited. These CPorted frames will run with no problem. To workaroud this problem, use PROC COPY to copy the frame into a Version 7 catalog and save it if you want to edit the Version 6 frame. This new frame can now be edited and run.

SAS/LAB Software

- If you are using variable names with 25 or more characters and performing a simple linear regression, the information in the Interpretation, Detailed Interpretation, and Predicted Values windows will be incorrect. Note that the information in these windows is correct for quadratic or cubic regression.

To circumvent the problem, use variable names of 24 characters or less.

SAS Note V7-LAB-0201 documents this problem.

SAS/MDDB Server Software

- It is strongly recommended that the data used for input into PROC MDDB and the MDDB object be sorted on the classifier variables in the same order that they are used on the classifier list for the procedure. This same order should also be used on the hierarchy statements. Failure to follow this recommendation may result in severe performance degradation at MDDB build and report time.
- The packet size set on the MDDB procedure may not exceed the `vmemsize` (either the default setting or the size specified on the PROC). Setting a packet size larger than the `vmem` setting will result in a segmentation violation.
- Some large MDDBs may crash as a result of tshortcut nodes being stored on disk. Increasing the `vmemsize` (and the memory available on the machine) may be a workaround to this problem.
- Setting an excessively small `vmemsize` may result in a segmentation violation. It is recommended that you do not set `vmemsize` below the default of 16M.

In addition, a minimum packet size of 6K is required. Smaller settings may be insufficient to hold the minimum number of data nodes in memory.

SAS/SHARE Software

- If you are using SAS/SHARE software, do not attempt to access a SAS data file allocated to a Version 7 SAS/SHARE server with a Version 6 client. All communication between Version 7 SAS/SHARE servers and Version 6 clients should be avoided.

A Version 7 SAS/SHARE server will not perform the locking necessary to allow multiple users to process the same data file when the data file is being accessed by a Version 6 client.

Note that Version 7 clients may access Version 6 or Version 7 SAS/SHARE servers. However, Version 6 clients should be restricted to using only Version 6 SAS/SHARE servers. A fix is underway for this problem.

For further details, refer to SAS Note SN-001458. SAS Note SN-001458 can be viewed from SAS Institute's Web site at:

<http://www.sas.com/service/techsup/unotes/SN/000/001458.html>

- Observations might be skipped when all of the following conditions are true:
 1. The input SAS data set is accessed via the product's REMOTE engine,
 2. the input SAS data set contains one or more indexed variables, and
 3. one or more of the input SAS data set's indexed variables are specified in the BY statement of a select group of SAS procedures.

There is no message, abend, or other obvious indication that some observations were not read. The noted SAS procedures accurately report the number of observations that were actually read.

The combination of two of the conditions required for this problem (a BY statement and indexes on one or more of the BY variables) is explicitly discouraged on page 132 of the **SAS Language Reference, Version 6, First Edition**.

Note that the physical order of the observations in the data set does not affect whether this problem may be seen. This problem can occur even when the SAS data set is in sorted order of the BY variable(s).

The DATA step and SAS Component Language are not vulnerable to this problem. In addition, not all SAS procedures are vulnerable to this problem. Only the following SAS procedures have the exposure to this problem:

Base SAS Software:

BMDP CHART PATTERN RANK SSCP STANDARD

SAS/ETS Software:

ARIMA AUTOREG PDLREG

SAS/QC Software:

RELIABILITY

SAS/STAT Software:

ACECLUS ANOVA CANCELL CALIS FASTCLUS GENMOD
GLM INBREED KDE LIFEREG LOESS MIXED
MODECLUS NESTED NLMIXED PLAN ROBIT RSREG
SELECT (SURVEYSELECT) SURVEYMEANS SURVEYREG TPSPLINE

To circumvent this problem, use `PROC SORT` to copy the SAS data set from the remote server session to the local session's `WORK` library, sorting the data by the `BY` variable(s). Next, execute the applicable analysis procedure using the SAS data set in the `WORK` library as its input. This will provide the additional benefit of reducing the time needed to read and process the data; it also reduces the load on the server and network.

To circumvent this problem without copying the SAS data set to the client-side `WORK` library, specify `TOBSNO=1` as a data set option on the SAS data set being read by the analysis procedure. Note that this second circumvention not only retains the performance penalty of using an index for `BY` retrieval, but additionally adds a very inefficient communication between the client session and the remote SAS/SHARE server. These performance degradations can penalize other users of the SAS/SHARE server and the network.

SAS Note SN-000824 documents this problem.

SAS/STAT Software

- When the `MISSING` option is not specified on the `PROC SURVEYMEANS` statement and more than one class or categorical variable is listed on the `VAR` statement, observations with a missing value for any class variable will be incorrectly excluded from estimates for all of the class variables. As a result, if the pattern of missing values is different across the class variables, then all of their output statistics will be incorrect. In addition, if one or more continuous variables are also specified on the `VAR` statement, then the degrees of freedom, p-values, and confidence intervals will be incorrect for all of the class variables even if there is a consistent pattern of missing values in the class variables.

In all of these situations, corresponding observations are not excluded from continuous variables on the `VAR` statement, so the results for these variables are correct.

To circumvent this problem, run any categorical variables with missing values by themselves in separate executions of the procedure.

SAS Note SN-001436 documents this problem.

- When the `MISSING` option is omitted from the `PROC SURVEYMEANS` statement and a `STRATA` statement is specified, if a categorical analysis variable contains all missing values in one or more strata, then the `MIN`, `MAX`, `RANGE`, `DF`, `PR>|T|`, `CLM`, and `CLSUM` will be incorrect.

These same results will be incorrect when a continuous analysis variable contains all missing values in one or more strata, even when the `MISSING` option is specified.

Note that all other results are correct for either type of analysis variable and with or without the `MISSING` option.

To circumvent this problem, run the analysis variable by itself, omitting any strata with all missing values, or merge these observations into any non-empty stratum. Note that if the all-missing strata are deleted, then those observations will not be included in `NMISS`. If the all-missing strata are merged into other strata, then those observations will be included in `NMISS`. In either case, the all-missing strata will not be included in the total number of strata.

SAS Note SN-001429 documents this problem.

- PROC SURVEYSELECT may produce an invalid sample when the options METHOD=PPS_SAMPFORD and CERTSIZE=P= are specified. The sample is invalid when the number of observations selected is less than the requested sample size. The problem does not occur when the CERTSIZE=certain option is specified.

To circumvent this problem, sort the input data set by the SIZE variable or by the SIZE variable within strata. Alternatively, use METHOD=PPS instead of METHOD=PPS_SAMPFORD.

SAS Note SN-001387 documents this problem.

- If you specify FISHER on the TEST statement and there are missing values in one or more VAR variables, then the contrast group count variables (_XVAL_ and _YVAL_) in the OUT= data set are incorrect if the groups defined by a CONTRAST statement include observations with missing values. The counts in the printed output are correct and the p-values in both the printed output and the OUT= data set are also correct. Correct values can be output using the ODS OUTPUT statement to output the table named Discrete.

SAS Note V7-MULTTEST-0349 documents this problem.

- If you specify more than one within-subjects factor in the REPEATED statement (for example, REPEATED TIME 2, TRIAL 2;), and if you specify interaction(s) of between- and within-subjects factors on the MODEL statement (for example, group*_response_), then the tests of these interactions will be incorrect in the Analysis of Variance table. Also, the parameter estimates, while correct, are not correctly organized in the Analysis of Weighted-Least-Squares Estimates table. PROC CATMOD generates the correct design matrix columns, but if a between*within interaction requires more than one column, those columns are not consecutive in the matrix. Consequently, they are not in the order stated in the Analysis of Weighted-Least-Squares Estimates table and the wrong contrast of parameters is tested in the Analysis of Variance table. By examining the design matrix, you can find the columns belonging to the interaction and then produce a correct test of it using the CONTRAST statement. One symptom of this problem is that tests of these interactions change if you change the order of the within-subjects factors in the _RESPONSE_= option of the REPEATED statement.

SAS Note V7-CATMOD-0347 documents this problem.

- If the LOGORVAR() option is specified on the REPEATED statement in PROC GENMOD, the design matrix for the log odds ratio is incorrectly constructed, resulting in incorrect results. You can avoid the problem by directly specifying the design matrix via the LOGOR=ZFULL, ZDATA=, ZROW=, and YPAIR= options on the REPEATED statement.

SAS Note SN-000852 documents this problem.

- If initial parameter values are input using the INEST= option and there is a linear dependency among the columns of the design matrix, PROC LOGISTIC will issue a NOTE in the output indicating that the linear dependency exists and that parameters are set to zero as a result. However, the parameter estimates table may show nonzero values for these parameters even though their degrees of freedom are zero. Also, X*Beta and predicted values from the XBETA= and PREDICT= options on the OUTPUT statement are incorrect, as is the output of the CTABLE option that relies on predicted values. To avoid the problem, remove the linear dependencies indicated by the NOTE.

SAS Note SN-000881 documents this problem.

SAS/ACCESS Interface to DB2 Software

- In Version 7 and Version 8, the SAS System will name variables differently than it did in Version 6 when the following conditions are all true:
 1. Code that is being used includes the PROC SQL Pass-Through Facility, where the DBMS column names are allowed to default to column names determined by the SAS System.
 2. The system option `VALIDVARNAME` is set to `V6`.
 3. The DBMS table being queried has variable names that are longer than eight characters in length and has more than one group of variables with name collisions.
 4. The code was written in Version 6 to query one of the following databases: DB2, SQL/DS, and CA-OpenIngres. In addition, in Version 7 and Version 8, it is querying these same databases.

This results in a compatibility and possible integrity problem that may be hard to detect. Often there is no message or indication of a problem when looking at the SAS LOG. The only way a user might know that a problem occurred is if the user compares the results between the current and prior version of the SAS System. The only workaround is to manually rename the columns.

SAS Note SN-001198 documents this problem.

SAS/ACCESS Interface to ODBC Software

- SAS/ACCESS Interface to ODBC software may return incorrect values for DBMS tables with multiple `DATE` columns. Any row that has a `NULL` or missing value in a `DATE` column will cause any subsequent `DATE` column in that row to be interpreted incorrectly.

This problem occurs when querying data with PROC SQL Pass-Through, which includes the `Query` window.

You can download a module from SAS Institute's Web site that addresses this problem for Version 7 of the SAS System. The new module can be found at:

<http://www.sas.com/techsup/download/pc/v7odbc.zip>

Extracting this module produces two files: `sasioodb.dll` and `readme.txt`.

The `readme.txt` file contains full instructions on applying the fix.

If you have any problems applying the fix, please contact SAS Institute Technical Support and reference SAS Note V7-ENGINE-0419. You can reach us by email at support@sas.com or by phone at (919) 677-8008.

- When using the SAS/ACCESS Interface to ODBC Pass-Through facility to access SQL Server data through a SQL Server ODBC driver, you may encounter problems when using the PROC SQL Pass-Through facility and the `delete` statement. If you use the PROC SQL Pass-Through facility to delete rows from an existing SQL Server table, all rows may not be deleted as expected. No error message is issued. This problem only occurs when using Microsoft SQL Server, Version 6.5. If you have used the ODBC libname engine to identify your SQL Server data, the following code would cause the problem (assuming a ODBC libref called `X` has been defined using the `libname` statement):

```
PROC SQL;
  delete from X.TEST where key=10;
quit;
```

Currently, the only circumvention to the problem is to upgrade your Microsoft SQL Server client software to Microsoft SQL Server, Version 7.

SAS/ACCESS Interface to OLE DB Software

- In Version 7 of the SAS System, the new product, SAS/ACCESS Interface to OLE DB software, is experimental.

When SAS/ACCESS Interface to OLE DB software is used, a note is issued to the SAS LOG window stating that it is experimental.

Users can receive a copy by contacting Sales and Marketing.

SAS/ACCESS Interface to PC File Formats Software

- If you have two SAS sessions executing on the same machine and you attempt to run PROC IMPORT or PROC EXPORT or use the IMPORT/EXPORT wizard to Microsoft Access or Excel from both SAS sessions simultaneously, you may encounter the following errors/conditions:

1. The first SAS session will hang (non-responsive).
2. The second SAS session will issue the following error in the Log:

```
ERROR: DAO error encountered:
```

Note: To recover from this condition, you should terminate the first SAS session using the Windows Task Manager.

This problem will occur only when you are using Excel 97 (or higher) and/or SAS/ACCESS files through the IMPORT/EXPORT facilities of the SAS System and you are executing the process on both SAS sessions simultaneously. The problem will occur even if each SAS session is reading/creating different Excel or Microsoft Access files.

This problem occurs because the Microsoft facility, DAO, used to read and create Excel and SAS/ACCESS files, does not properly support multiple processes on a single machine under certain conditions.

To circumvent this problem, you should use an alternate file format (for example, Excel 5 or CSV) for import/export when there is potential that SAS jobs will be submitted simultaneously on the same machine.

SAS Note SN-001341 documents this problem.

SAS/ACCESS Interface to SYBASE Software

- SAS/ACCESS Interface to SYBASE software may not insert rows properly when the `bulkcopy` option is used. The default `bulkcopy` buffer size is 100. If you attempt to insert any number of rows over 100, which is not equal to a multiple of 100, then the rows above 100 or above a multiple of 100 will not be inserted into the DBMS table. The SAS LOG window does not indicate that the rows were not inserted. This problem also occurs if the `BULK_BUFFER` option is used to change the default buffer size of 100. In this case, any number of rows greater than or not equal to a multiple of the `BULK_BUFFER` setting will not be inserted.
- SAS/ACCESS Interface to SYBASE software may not display dates correctly. When accessing a Sybase table that contains fields of type `SMALLDATETIME`, SAS/ACCESS Interface to SYBASE software is setting the field length to 8, rather than 4. The SAS LOG window will not report that this situation has occurred, but the fields of type `SMALLDATETIME` will be displayed incorrectly.

- For the SYBASE ACCESS engine, the data set option AUTOCOMMIT is set to YES by default. This means that each insert, update, or delete statement is committed if it does not fail. Procedures such as PROC SQL, using either a libname or a view, will also use this as the default; however, currently, there is no way that the procedure is aware that this is the case. Therefore, if the user does not specify otherwise, PROC SQL will return misleading messages of a ROLLBACK occurring when there is an error in processing more than one insert, update, or delete statement. The following is an example of how a user could enable transaction processing recognized by PROC SQL.

```
proc sql ;  
    update x.foo (autocommit=no) set x=5 where y=3 ;  
quit ;
```

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