



SAS® Tech Report

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SAS Tech Report readers are a varied group. I've received e-mails from some of you in information technology, business and finance. You write from as far away as Africa and as near as Cary, NC. You're enthusiastic about your work and the ways that SAS technology helps you do it. Now, we're ready to hear your ideas in a more formal presentation at [SAS Global Forum 2009](#): The call for papers is now open.

As a side note, I've read a couple of blogs recently that I'd like to point out to you. Alison Bolen, editor of *sascom*® magazine and writer of *sascom* voices, compiled a [list of blogs by SAS users](#). And Renee Harper, Web strategist and author of Key Happenings blog, posted a [list of the newest RSS feeds](#) at SAS. Blogs and RSS feeds are quick routes to information suited to your needs. Enjoy!

[Waynette Tubbs](#)

Editor, SAS Tech Report

SAS News

SAS Global Forum Call for Papers

[SAS Global Forum 2009](http://support.sas.com/events/sasglobalforum/2009/index.html) call for papers is NOW OPEN. Submit your paper and receive recognition for SAS skills and accomplishments, gain peer respect and add a published paper to your résumé.

<http://support.sas.com/events/sasglobalforum/2009/index.html>

Great Forum Paper Series Continued: [Using Regression Diagnostics and Clustering Criteria to Uncover ID Errors](#)

Using PROC REG and PROC CLUSTER on height- and lung-function data, researchers detected the most obvious ID errors from patient data gathered over 13 years.

Check out the complete list of [award-winning papers](#) from SAS Global Forum 2008.

Convert Values from Character to Numeric or Numeric to Character

Change variables to numbers or vice versa by using the INPUT or PUT function.

```
/* Convert a character value to a numeric value by using the INPUT
*/
/* function. Specify a numeric informat that best describes how to
*/
/* read the data value into the numeric variable.
*/
/*
*/
/* When changing types a new variable name is required. If you need
*/
/* to keep the original variable name for the new type, use the
*/
/* RENAME= option as illustrated in Sample 2.
*/
```

```
data char;
  input string :$8. date :$6.;
  numeric=input(string,8.);
  sasdate=input(date,mmddy6.);
  format sasdate mmddy10.;
datalines;
1234.56 031704
3920 123104
;

proc print;
run;
```

```
/* Convert a numeric value to a character value by using the PUT
*/
/* function. Specify a numeric format that describes how to write
*/
/* the numeric value to the character variable. To left align
*/
/* the resulting character value, specify -L after the format
*/
/* specification.
*/
```

```
/*
*/
/* When changing types a new variable name is required. If you need
*/
/* to keep the original variable name, use the RENAME= option on
*/
/* the SET statement to rename the variable as it comes into the PDV.
*/
/* This allows the original variable name to be reused when you
*/
/* change type.
*/
```

```
data now_num;
  input num date: mmddy6.;
datalines;
123456 110204
1000 120504
;
```

```
data now_char;
  set now_num (rename=(num=oldnum date=olddate));
  num=put(oldnum,6. -L);
  date=put(olddate,date9.);
run;
```

```
proc print;
run;
```

Using SAS to Determine Dates for US Holidays

Determine exact dates for some US holidays. You may modify this sample to suit your company's needs.

```
/******  
/* Please be sure to read the Details tab for important information */  
/* about this sample. */  
/******  
  
%let year=2008;  
  
data _null_;  
  fdoy=mdy(1,1,&year);  
  
  /* Martin Luther King Day */  
  mlk_day=intnx('week.2',fdoy,(weekday(fdoy) ne 2)+2);  
  
  /* President's Day */  
  fdo_feb=intnx('month',fdoy,1);  
  pres_day=intnx('week.2',fdo_feb,(weekday(fdo_feb) ne 2)+2);  
  
  /* For years prior to 2007, daylight time begins in the United States  
on */  
  /* the first Sunday in April and ends on the last Sunday in October.  
*/  
  if &year <= 2006 then do;  
    fdo_apr=intnx('month',fdoy,3);  
    dst_beg=intnx('week.1',fdo_apr,(weekday(fdo_apr) ne 1));  
    fdo_oct=intnx('month',fdoy,9);  
    dst_end=intnx('week.1',fdo_oct,(weekday(fdo_oct) in (6,7))+4);  
  end;  
  
  /* Starting in March 2007, daylight time in the United States will  
begin */  
  /* on the second Sunday in March and end on the first Sunday in  
November. */  
  /* For more information, one reference is  
*/  
  /* http://aa.usno.navy.mil  
*/  
  else do;  
    fdo_mar=intnx('month',fdoy,2);  
    dst_beg=intnx('week.1',fdo_mar,(weekday(fdo_mar) in  
(2,3,4,5,6,7))+1);
```

```

    fdo_nov=intnx('month',fdoy,10);
    dst_end=intnx('week.1',fdo_nov,(weekday(fdo_nov) ne 1));
end;

/* Memorial Day */
fdo_may=intnx('month',fdoy,4);
mem_day=intnx('week.2',fdo_may,(weekday(fdo_may) in (1,7))+4);

/* Independence Day */
ind_day=mdy(7,4,&year);

/* Labor Day */
fdo_sep=intnx('month',fdoy,8);
lab_day=intnx('week.2',fdo_sep,(weekday(fdo_sep) ne 2));

/* Columbus Day */
fdo_oct=intnx('month',fdoy,9);
col_day=intnx('week.2',fdo_oct,(weekday(fdo_oct) ne 2)+1);

/* Election Day */
fdo_nov=intnx('month',fdoy,10);
elec_day=intnx('week.3',fdo_nov,1);

/* Veteran's Day */
vet_day=mdy(11,11,&year);

/* Thanksgiving Day */
thks_day=intnx('week.5',fdo_nov,(weekday(fdo_nov) ne 5)+3);

/* Christmas Day */
xmas_day=mdy(12,25,&year);

/* Write results to SAS log */
put mlk_day= worddate. //
    pres_day= worddate. //
    dst_beg= worddate. //
    mem_day= worddate. //
    ind_day= worddate. //
    lab_day= worddate. //
    col_day= worddate. //
    dst_end= worddate. //
    elec_day= worddate. //
    vet_day= worddate. //
    thks_day= worddate. //

```

```
        xmas_day= worddate.  
    ;  
run;
```

FAQs About SAS® 9.2 ESD

Q. What is the SAS Electronic Software Delivery (ESD) process?

A. SAS Electronic Software Delivery provides a way for customers to download their SAS software from the Internet instead of receiving it via physical media. Providing this delivery option allows the customer to receive software faster, and reduces shipping time and expense.

Q. How many times can I download the SAS installation package?

A. The process of downloading your software from SAS should not be used as a mechanism for distributing your software across your organization. The SAS download site will limit the number of downloads that may be performed per order. If you need to distribute the software image internally, download it to a networked location that is available to all systems where the software needs to be installed. Alternatively, you can create your own media from the downloaded image using the tools provided. Installation using either internal distribution method is subject to the number of users or copies you have licensed.

Q. How long does the download take?

A. The amount of time it takes to download the software depends on a number of factors, including the products you have licensed and the available bandwidth of your network. The full order of all products is between 5 and 6 Gigabytes, which could take approximately an hour on a T3 line. If you are using a dial-up modem with 56 Kb of bandwidth, it could take several hours. Most orders will be smaller in size (averaging 3-4 Gigabytes), which will not take as long to download.

Q. I am no longer the SAS Representative for my company, but I received the SAS 9.2 upgrade email. How should this be handled?

A. Please contact [SAS Contracts Support](#) to have your company's information updated.

Q. What if I'm the SAS rep, but someone else is receiving notifications from SAS?

A. Please contact [SAS Contracts Support](#) to have your company's information updated.

Q. I am the SAS Representative for my company, and I received email about upgrading to SAS 9.2, but I am not the one who installs the software. How should this be handled?

A. We suggest that the SAS Representative use the application to request the software upgrade. A Software Order Email (SOE) will be sent to you for each requested upgrade. Forward the SOE to the person who will be installing the software.

Q. How many Software Order Emails (SOE's) will I receive?

A. You will receive one Software Order email for each requested upgrade (or site).

Q. May I request physical media, such as DVDs?

A. The preferred method for acquiring the software is by using the SAS Electronic Software Delivery (ESD) system. By downloading the software over the Internet, you are able to receive

your software faster. In addition, this helps you and SAS to make changes to protect our environment by eliminating the need to expend resources on a physical shipment. Once the software is downloaded, you have the option of creating physical media onsite if needed. We encourage you to try the ESD system. If it doesn't work for you, then contact your account manager.

Q. Why do I have a new Technical Support site number?

A. We have created this new external site numbering system to help us more quickly identify you, track any problems, and provide a high level of customer service when you call us for support.

For additional ESD information and troubleshooting, see SAS Note [30950](#).

Does SAS® run on Windows x64 or 64-bit systems?

Background

Two Microsoft Windows operating system releases are 64-bit enabled:

- 64
- x64

Microsoft introduced the Windows 64-bit system several years ago. It runs only on a computer that has an Intel Itanium processor. Later, Microsoft introduced the second Windows 64-bit system and called it Windows x64. It does not run on machines that have the Intel Itanium processor but instead runs on machines that have the following processors:

- Intel Pentium 4 EM64T
- Intel Xeon EM64T
- AMD Opteron
- AMD Athlon 64
- AMD Turion 64

Microsoft started out supporting Windows 64-bit on both workstation and server but has since dropped support of Windows 64-bit on workstation. Windows x64 supports both workstation and server versions.

SAS and Windows 64-bit

SAS 9.1.3 for Microsoft Windows for 64-bit Itanium-Based Systems and SAS 9.2 for Microsoft Windows for 64-bit Itanium-Based Systems are available for Itanium-based 64-bit Windows systems.

SAS 9.1.3 for Microsoft Windows for 64-bit Itanium-Based Systems and SAS 9.2 for Microsoft Windows for 64-bit Itanium-Based Systems do not run on Windows x64.

SAS and Windows x64

SAS 9.1.3 Foundation (32-bit) is available for Windows x64 systems.

SAS 9.2 Foundation 32-bit (Phase 1) and SAS 9.2 Foundation x64 (Phase 1) are available for Windows x64 systems.

SAS and Windows x64 installation issues

In order to install SAS Foundation 9.1.3 32-bit release on Windows x64, you are required to have the following:

- CDs shipped after 1 Sept 2005 (spine of SAS Installation Kit indicates "Rev: 15") is required.
- CD set 45 or later

Both date and CD set can be found at the bottom of the SAS Setup CD as "CD Set 45 - 1Sept2005".

SAS Installation Data File (SID) has CDSetVersion=45.

If you have received a new SAS 9.1.3 Foundation SID file after 03 August 2007, it will work on x64. If you received a SID file before that date, then you need a new one. For a new one, contact Contracts for a new SID file @

https://www3.sas.com/apps/cpi/admincenter_checkoptions.jsp?_admin_option=RsndSID.

In order to install SAS Foundation 9.2 32-bit (Phase 1) or SAS Foundation 9.2 32-bit (Phase 1) on Windows x64, you are required to have appropriate SAS installation files and to have the appropriate 32-bit and x64 OSNAME settings in a SAS Installation Data file provided by SAS:

- OSNAME=W32_WKS for 32-bit workstations
- OSNAME=W32_SV for 32-bit servers
- OSNAME=X64_WKS for x64 workstations
- OSNAME=WX64_SV for x64 servers

Under Windows x64, SAS 9.1.3 supports the installation of bundles, such as Education Analytic Suite (EAS). Note, however, that some products in those bundles are NOT supported under Windows x64 and should not be installed. See below.

You can install only these SAS products on Windows x64:

- Base SAS Software
- SAS Data Quality Server Software
- SAS High-Performance Forecasting
- SAS/Integration Technologies
- * SAS/ACCESS Interface to DB2
- * SAS/ACCESS Interface to ODBC
- * SAS/ACCESS Interface to OLE/DB
- * SAS/ACCESS Interface to Oracle
- * SAS/ACCESS Interface to PC File Format
- SAS/AF Software
- SAS/ASSIST Software
- SAS/CONNECT Software
- SAS/EIS Software
- SAS/ETS Software
- SAS/FSP Software
- SAS/GENETICS Software
- SAS/GIS Software
- SAS/GRAPH Software

- SAS/IML Software
- SAS/INSIGHT Software
- SAS/IntrNet Software
- SAS/LAB Software
- SAS/MDDDB Server Software
- SAS/OR Software
- SAS/QC Software
- SAS/SHARE Software
- SAS/SPECTRAVIEW Software
- SAS/STAT Software
- SAS/TOOLKIT Software

* For SAS 9.1.3, these SAS/ACCESS products are supported under Windows x64 as a 32-bit application as long as the database client 32-bit libraries are installed and configured where Windows x64 is installed. For a fuller description of the status of SAS/ACCESS to PC File Formats on x64 and 64-bit Itanium, please see SAS Note [#017075](#) and [#019381](#).

Note: SAS Enterprise Miner Client solution is NOT supported under Windows x64. SAS Enterprise Server Solution IS supported under under Windows x64. For more information, see SAS Note [#017570](#).

Additional information

For a more complete list of Windows operating systems, see <http://support.sas.com/documentation/hosts/pc/>.

Webcasts

Recipe for Success series: Stirring Up a Complete Predictive Analytics Process – On Demand

<http://www.sas.com/events/cm/143230/oview.html>

Spotlight on Information Quality – On Demand

<http://www.sas.com/events/cm/retention/infoquality.html>

Better Decisions Faster with SAS® Optimization – On Demand

<http://www.sas.com/events/cm/149050/index.html>

Events

Fall US SAS Users Group Conferences

<http://support.sas.com/usergroups/namerica/allregconf.html>

M2008

<http://www.sas.com/events/dmconf/index.html>

Data mining
October 27 – 28
Las Vegas

Tech Resources

Focus on Bayesian Methods

<http://support.sas.com/rnd/app/da/focusbayesian.html>

Introduced with an experimental download in SAS 9.1.3, Bayesian techniques are production with SAS 9.2, First Phase.

SAS® Abbreviations Are Your Friends

<http://support.sas.com/resources/papers/abbreviations07.pdf>

Learn about these easy-to-use SAS abbreviations for use with the Windows platform Enhanced Editor.

Online A-Z Product Documentation List

<http://support.sas.com/documentation>

Use this A-Z index to find documentation for your product or solution.

Multimedia

e-Learning & Back to School

<http://www.support.sas.com/selfpaced>

With this special discount, you'll save 30%, and SAS will donate 10% to the Communities in Schools organization.

Multiple Comparisons in SAS[®]: Classical to Modern Methods

<http://support.sas.com/training/us/crs/bmmc.html>

Explore the most powerful and flexible MCP methods available in this SAS course Oct. 6 – 8 in San Francisco.