



THE
POWER
TO KNOW.

Dear Readers,

As 2007 draws to a close, I want to thank you for your questions, comments, suggestions and loyal readership over the past 12 months. It's truly rewarding to know the effort that goes into this newsletter is appreciated by so many people.

I'm not resting on my laurels though. I want to make sure I continue to bring you the content you need and want, so don't hesitate to [send me a note](#) and tell me what's on your mind. And if you've missed an issue of the newsletter throughout the year, the [archives](#) are online, so be sure to check them out.

Happy holidays to you and yours!

A handwritten signature in black ink that reads 'Shelley Sessoms'.

[Shelley Sessoms](#)

Editor, *SAS Tech Report*

Sample 26178: Efficient Data Access using SAS Enterprise Guide

Data access can be mysterious, like drawing water from the kitchen sink. You can see the water come out of the tap — and touch it and taste it, which is instantly gratifying. But do you really know where the water comes from? And do you know exactly how much water there is beyond that magical water faucet? Probably not — that’s something that most of us simply take for granted.

However, when you have a problem — water doesn’t flow, or it flows too slowly — then you really notice. And diagnosing plumbing issues is something that most people are uncomfortable with. (If you’re lucky, it’s just a kink in a hose somewhere.)

Data access works the same way. When your data flows freely into your SAS Enterprise Guide session, it seems like you can do nothing wrong. You can view it in the data grid, create queries, and run tasks. However, when data access points are not defined efficiently, that data flow can feel like you’re trying to suck an elephant through a straw. Everything seems to take so much longer to accomplish.

Crash course in data plumbing

Diagnosing data access issues can be easier than household plumbing chores. You simply need be able to answer three main questions:

Where does the data source originate? For example, is it in a database system such as Oracle, or is it in a text file on your server file system?

How large is the data source? SAS and SAS Enterprise Guide can deal with data sources that are millions or even billions of records large. However, understanding the data size is important to understanding the tradeoffs of various data configurations.

What route does the data travel to get to your SAS session? Because SAS needs to process your data for analysis and reporting, your data needs to travel the shortest distance possible from its point of origin into your SAS session. Even though you might use SAS Enterprise Guide to select your data source, what counts is how many “hops” the data must make to get to the SAS session where the real work occurs.

All this leads to the golden rule of efficient data access with SAS:

Define your data sources in terms of your SAS server. Use SAS libraries to connect to your data sources, and route all of your data access through those libraries.

Passing Niagara Falls through a garden hose

Because SAS Enterprise Guide makes it easy to get to data in many ways, you can easily violate this rule (inadvertently, of course). For example, you can choose File->Open->ODBC and select a data source defined relative to your local PC. However, when you use that data within your project, SAS Enterprise Guide realizes that this data is not presently accessible to your SAS session, so it attempts to perform the great favor of copying it for you.

WARNING: SAS Enterprise Guide is a great tool for many things, but it can be a bottleneck in the process of copying data. Copying data from an external source to your SAS session with SAS Enterprise Guide as the go-between is very inefficient. If the data is large, this operation can take several minutes (or longer!). In technical terms, this called “going around your elbow to get to your thumb.”

SAS/ACCESS: The plumber’s helper

Fortunately, it is easy to avoid moving all those data records through SAS Enterprise Guide: Simply define access to the external data source on the SAS server. SAS provides a set of data access products — SAS/ACCESS — to make this easy to do. A SAS/ACCESS module exists for just about every major database type in use today. For any that are missing, you can use SAS/ACCESS to ODBC, which can be like a universal pipe fitting to connect you to any data source.

The SAS/ACCESS products allow you to define the data sources in terms of SAS libraries. And after a data source is in a SAS library, your SAS programs can access it just as if it were a native SAS data set.

SAS libraries can be defined in your environment by a SAS administrator, or they can be defined as needed within your SAS Enterprise Guide project. You can find a step-by-step example of how to define such a library in SAS for Dummies, Chapter 15, "Setting it All Up."

Efficient data access with SAS Enterprise Guide -- a performance in three movements

For the visual learner out there, here is a bonus feature that you won't find in SAS for Dummies. It's a video demonstration of what happens when you access data using various techniques in SAS Enterprise Guide. Because it's difficult to "see" data flowing across the network into your desktop machine, the video represents your data using a prop that we can all understand: M&Ms. <http://www.youtube.com/watch?v=OSTa1EUpKT8>

About the Author

Chris Hemedinger is a senior software manager in the Business Intelligence Clients division at SAS. Chris began his career at SAS in 1993 as a technical writer, creating hits such as SAS Companion for the OS/2 Environment (remember OS/2?) and SAS Companion for the Microsoft Windows Environment. In 1997 he became involved in a prototype project to make SAS easier to use for non-programmers -- that project evolved into the hugely popular SAS Enterprise Guide, a product that Chris has worked with ever since.

He co-authored *SAS for Dummies* with Stephen McDaniel. The book is available from the [online bookstore](#).

You can also hear from Chris in this [informative podcast](#).

Turbo-Charging Spreadsheets

This technical white paper shows how SAS Forecast Server can be accessed from Microsoft Excel using three new forecasting wizards in SAS Add-In for Microsoft Office.

Read the complete 27-page whitepaper:

http://www.sas.com/resources/whitepaper/wp_3837.pdf

SAS No Longer Providing Backup Media for Older Releases

SAS is committed to providing you, our customer, with world-class technical support. With the many versions of SAS software used at more than 43,000 customer sites worldwide, our support team is focused on maximizing our responsiveness and efficiency to best serve you.

"To help in these efforts, we strongly encourage all SAS customers to make and keep a backup copy of their SAS software and solutions media," says Annette Harris, Vice President, SAS Technical Support.

In line with our responsiveness and efficiency goals, SAS will create replacement media only for those customers currently receiving Support Levels A and B.

Customers receiving Support Level C should make their own backups of SAS media because we will no longer provide them. "This also applies to those running applications on platforms for which SAS is no longer being developed and those using SAS solutions or technology that are no longer generally available," notes Harris.

For more information on the Levels of Support, please see [SAS Technical Support Services and Policies](#).

Rest assured, you will continue to receive the support appropriate for the release/version of the software you are using. Of course, if you're interested in learning more about the features and functionality of the latest versions of SAS software and solutions - and what they can do for your organization - please contact your SAS account executive.

SAS Learning Edition 4.1

List price: 199.00 USD

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Description:

SAS Learning Edition 4.1-Bringing the power of data analytics to individuals

Gain hands-on experience and build your SAS skills with this inexpensive, comprehensive learning version of SAS. This educational bundle gives both students and knowledge workers-looking to enhance their data analytics skills-the freedom to learn SAS at their own pace and on their own PC or laptop.

This latest and expanded version includes Base SAS 9.1.3, SAS/STAT, SAS/GRAPH, SAS/QC, SAS/ETS, and SAS Enterprise Guide 4.1. SAS Learning Edition 4.1 comes bundled with The Little SAS Book for Enterprise Guide 4.1. Maximize your learning experience with SAS Enterprise Guide, point-and-click access to the power of SAS. Or, write and modify SAS code using the SAS Program Editor-all on low-cost, self-install CD-ROMs.

You have a choice of loading SAS Learning Edition 4.1 in English, Japanese, Chinese (Traditional or Simplified), or Korean. SAS Learning Edition is an educational tool.

Important notes

- This software will operate through **December 31, 2011**.
- This product will process and display the first 1500 observations of any size data set from any given data source.
- This product is licensed for use on one (1) workstation at a time, for non-production purposes only. Concurrent usage or use on a network is not authorized.
- Limited product support is available via the SAS Learning Edition Web site http://support.sas.com/le_, and an interactive tutorial included with the product.

System requirements

- Microsoft Windows 2000 or XP Professional
- Works on Microsoft Windows operating systems only, not on Windows Server operating systems
- 1,080 MB hard disk storage
- 256 MB RAM minimum, 512 MB RAM recommended

Not supported on any Microsoft Vista Operating System.

Get that extra competitive advantage: Use SAS Learning Edition 4.1 to prepare for the SAS Base Programming and Advanced Programming Certification exams!

SAS Products and Releases:

Base SAS: 9.1.3, 9.1.2, 9.1, 9.0

SAS Enterprise Guide: 4.1

SAS Learning Edition: 4.1

SAS/ETS: 9.1.3, 9.1.2, 9.1, 9.0

SAS/GRAPH: 9.1.3, 9.1.2, 9.1, 9.0

SAS/QC: 9.1.3, 9.1.2, 9.1, 9.0

SAS/STAT: 9.1.3, 9.1.2, 9.1, 9.0

Operating Systems: Windows

Replaces: SAS Learning Edition 2.0

** ISBNs have changed from 10 to 13 digits. To form the 13-digit ISBN, a prefix of "978" is added and the last digit is changed.

Training and Certification News

Time is running out to save BIG on training. With prices going up in 2008, you'll want to take advantage of special [end-of-year training discounts](#) before Dec. 31. SAS is also excited to introduce its newest Certification credential, [Predictive Modeling using SAS Enterprise MinerTM 5.2](#). With the first test event on Feb. 11, and additional event dates scheduled in 2008, you'll want to register early.

Webcasts and Events

[SAS® Global Forum 2008](#)

March 16-19
San Antonio

[Better Decisions Faster with SAS® Optimization](#)

On-Demand Webcast

[Inside SAS Web Seminar Series](#)

On-Demand Webcasts