Version 9: Scaling the Future

Robert Ray, SAS® Institute Inc., Cary NC
Diane Olson, SAS® Institute Inc., Cary NC

ABSTRACT

In Version 6 SAS introduced SPDS as a technology to exploit SMP hardware for speeding up data services. In Version 9, BASE SAS introduces the new SAS Scalable Architecture (SSA). SSA is a fully integrated data and computational approach to parallel processing, including partitioned I/O. What does that mean to you? It means that some elements of your jobs will take full advantage of SMP architectures to reduce time-to-solution for critical tasks. This paper presents an overview of this new strategy to improve your compute and I/O bound tasks, including specifics on how you may get a significant performance increase for your SAS jobs.

INTRODUCTION

The data processing and warehousing industry is being bombarded with immense volumes of data from both the bricks and clicks sides of the business; however, the time to process this data remains unchanged. SAS' solution is comprised of several strategies to be incorporated into SAS in an evolutionary manner over the next several releases, starting with Version 9.

Changes in Version 9 include performance enhancements for both I/O and compute-bound problems. These performance enhancements are realized by a combination of strategies - employing threaded I/O and computation, partitioned I/O and modified algorithms. Version 9 also speeds access by taking advantage of utilities provided by each host's operating system.

This paper begins with overview of SSA and enumerates the problems Version 9 starts to solve. The solutions to these problems are explained, along with how you can make use of the new features. Performance numbers resulting from these changes are also available.

The body of this paper can be viewed at:
http://www.sas.com/rnd/base/topics/scalingfuture/scalingfuture.html

Your comments and/or questions are welcome. Please contact the authors at:
Robert Ray - Robert.Ray@sas.com
Diane Olson - Diane.Olson@sas.com