

Kirk's Korner



Quick & Simple Tips

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Tip: Data Storage Performance Tuning Techniques

As SAS[®] Software becomes increasingly more popular, guidelines for its efficient use is critical. Areas deserving special consideration include program execution, I/O, data storage, and programming time. This is the third installment in a series of tips related to the area of SAS performance tuning. This tip highlights techniques related to reducing data storage or the size of SAS data sets. The following suggestions are not meant as an exhaustive review of all known data storage efficiency techniques, but as a sampling of proven methods that can provide some measure of efficiency gain.

Data Storage Performance Tuning Techniques

- 1) Use the trailing @ when reading external data with an INPUT statement.
- 2) Use KEEP= or DROP= data set options to retain only desired variables.
- 3) Use a LENGTH statement to reduce the size of SAS data set variables.
- 4) Use data compression for large data sets containing repetitive data using the COMPRESS= data set option.
- 5) Use the DATA _NULL_ statement to allow DATA step processing while suppressing the creation of a SAS data set.
- 6) Delete unwanted WORK data sets to conserve on disk space.
- 7) Create character variables for single-byte coded data.
- 8) Consider creating and using SAS views (virtual tables) to reduce data storage demands.
- 9) Consider storing data to less-expensive storage mediums like CD, tape, or zip disks.

If you would like more information or have any questions about this tip, please contact: Kirk Lafler, Software Intelligence Corporation at KirkLafler@cs.com. Kirk, a SAS Certified Professional[®] and SAS Alliance Partner[®] (1996 – 2002) with more than 25 years of SAS programming experience, provides SAS consulting services and hands-on training around the world. Kirk has written four books including Power SQL: Beyond the Basics Using SAS by SAS Institute (available October 2004), Power SAS by Apress, and more than one hundred peer-reviewed articles for professional journals and SAS User Group proceedings. His popular SAS Tips column, Kirk's Korner, appears regularly in the BASAS, HASUG, SANDS, SAS Institute, SESUG, and WUSS Newsletters and websites.

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