

## Kirk's Korner



### Quick & Simple Tips

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## ***Copying SAS Data Sets and Indexes***

SAS users often need to copy or backup one or more SAS data sets. There are several ways to copy a data set. Unfortunately not all methods are the same and most definitely don't produce the same results. Here's a tip that may prevent unwanted surprises when copying data sets and any associated indexes.

The SAS<sup>®</sup> System provides several ways to copy a data set, but not all methods are designed to copy a data set with one or more indexes associated with it. We'll first look at a commonly used approach and one that may not produce the desired results. The DATA and SET statements provide an easy way to copy a data set by performing a simple process of reading and writing one observation at a time to either an existing or new data set. Although this approach is convenient, it is not the most efficient technique for making data set copies and, more importantly, does not copy the indexes associated with the data set.

A better and more efficient approach than using the DATA and SET statements is to use the COPY procedure. It can copy data sets quickly along with any associated indexes. Although it cannot make copies within the same library or change the name of a data set, it is a procedure that can be used for all your copying and backup needs. The following syntax illustrates how the COPY procedure is used:

```
PROC COPY IN=libref OUT=libref MTYPE=(DATA PROGRAM) ;  
  SELECT dataset1 dataset2 ... datasetn ;
```

The IN= and OUT= parameters specify the input and output locations using user-assigned librefs. The MTYPE= parameter, if specified, informs the SAS System what to copy in a SAS data library. Various values that can be specified for MTYPE= include CATALOG for catalogs, PROGRAM for compiled DATA steps, and VIEW for views. The SELECT statement is optional and, if specified, tells the SAS System what to copy from the input location to the output location. If SELECT is omitted, the COPY procedure copies all files, including indexes, from the input to output location.

Another way to copy data sets and indexes is to use the DATASETS procedure. The following syntax illustrates how the DATASETS procedure is used:

```
PROC DATASETS LIBRARY=libref MTYPE=DATA ;  
  COPY OUT=libref ;  
  SELECT dataset1 dataset2 ... datasetn ;
```

The LIBRARY= parameter specifies the input location using the assigned libref. The MTYPE= parameter works the same as in the COPY procedure. The COPY OUT= statement specifies the output location using the assigned libref. The SELECT statement works the same as in the COPY procedure.

If you would like more information or have any questions about this tip, please contact: Kirk Lafler, Software Intelligence Corporation at [KirkLafler@cs.com](mailto:KirkLafler@cs.com). Kirk's new book, Power SAS: A Survival Guide is published by Apress and provides SAS users with the largest and most comprehensive collection of SAS tips and techniques ever offered. Power SAS can be purchased on Amazon.com and BarnesandNoble.com.