

Kirk's Korner



Quick & Simple Tips

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Displaying Additional SAS Log Messages with *MSGLEVEL=*

SAS users can have the SAS System automatically display additional information directly to the SAS log by specifying the `MSGLEVEL=` SAS System option in an Options statement. The `MSGLEVEL=` option supports two options: `N` (which is the default) and `I`. By specifying `MSGLEVEL=I`, SAS displays on the SAS Log helpful information pertinent to merge and sort processing; as well as index usage and suggestions on what can be done to influence SAS to use an index; along with the usual assortment of notes, warnings, and error messages.

To demonstrate the effect of using a `MSGLEVEL=I` option, the following example code illustrates a program that performs a simple SQL join on two tables, `MOVIES` and `ACTORS`. As can be seen in the resulting SAS Log, an informative message was automatically generated explaining that the SAS system chose to use an available index called `Rating` to optimize `WHERE` clause processing. This type of information is not only helpful in gaining a better understanding of what the SAS system did to improve processing, but provides the specific name of the index that was selected and used to achieve improved processing.

SAS Code:

```
OPTIONS MSGLEVEL=I;
PROC SQL;
  SELECT MOVIES.TITLE, RATING, LENGTH, ACTOR_LEADING
  FROM MOVIES,
  ACTORS
  WHERE MOVIES.TITLE = ACTORS.TITLE AND
  RATING = 'PG';
QUIT;
```

SAS Log Results

```
OPTIONS MSGLEVEL=I;
PROC SQL;
  SELECT MOVIES.TITLE, RATING, LENGTH, ACTOR_LEADING
  FROM MOVIES,
  ACTORS
  WHERE MOVIES.TITLE = ACTORS.TITLE AND
  RATING = 'PG';
INFO: Index Rating selected for WHERE clause optimization.
QUIT;
```

Contact Information

If you would like more information or have any questions about this tip, please contact: Kirk Paul Lafler, Software Intelligence Corporation at KirkLafler@cs.com. Kirk has been working with the SAS System since 1979 and is a SAS Certified Professional®. His company provides custom SAS programming, application design and development, consulting services, and hands-on SAS training to clients around the world. Kirk is the author of four books including PROC SQL: Beyond the Basics Using SAS by SAS Institute, and more than two hundred peer-reviewed articles and papers that have appeared in professional journals and SAS User Group proceedings. Kirk can be reached at:

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