



# Don't Be a SAS® Dinosaur: Modernize Your SAS Programs

by Warren Repole

## Filter Data: Multiple Values for the Same Variable

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### Scenario:

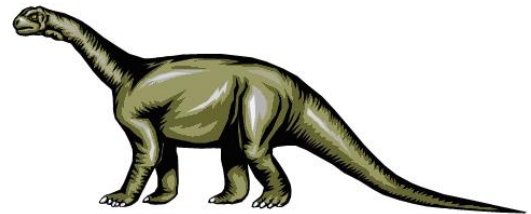
You want to filter a data set based on multiple values of a single variable.

Numeric values, if applicable, do not represent a single continuous range. They represent discrete individual values.

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### The old way: Multiple OR Expressions

The original approach is to specify a compound expression comprised of a series of comparisons connected by the OR operator.



```
proc print data=sashelp.class;
  where Age eq 11 or Age eq 14 or Age eq 16;
  title1 "Students who are 11, 14 or 16 years old";
run;
```

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## The new way: List of Values with the IN Operator (available in SAS Version 6)

An alternate approach is to specify a list of individual filter values using the IN operator.

```
proc print data=sashelp.class;
  where Age in (11, 14, 16);
  title1 "Students who are 11, 14 or 16 years old";
run;
```

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Advantages of the alternate approach:

- The name of the filter variable is referenced only once. [A series of OR expressions referencing the same variable is converted into an IN operator list internally before the filter is applied.]

Disadvantages of the alternate approach:

- The list values used with the IN operator must be constants, so this approach is not suitable when the values that will match the filter criteria must be derived through other variables.

Additional documentation for this technique can be found in *SAS® 9.2 Language Reference: Dictionary*. Cary, NC: SAS Institute Inc.

Visit <http://support.sas.com/documentation/onlinedoc/sas9doc.html> for SAS 9 documentation.

Go to <http://www.repole.com/dinosaur/multchoice.html> for the sample code and output for this topic.

These techniques are mentioned in other SAS references and publications:

SAS Sample 25976 (<http://support.sas.com/kb/25/976.html>)

*SAS Programming by Example*; Ron Cody and Ray Pass, 1995.