

An aerial photograph of New York City, showing the Hudson River on the left, Central Park in the middle, and the dense Manhattan skyline with various skyscrapers under a cloudy sky. The text is overlaid on the center of the image.

Old Dogs, New Tricks Part II

**Using the SELECT statement and FLAGS
to streamline your code**

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New Dogs and Old Tricks Part II:

Using the SELECT statement and FLAGS to Streamline your Code

Stanley Fogleman is an independent consultant. He has used SAS for over 20 years in a variety of industries: financial services, clinical trials, federal and state government.

Gilsen declaration

- Please DO read my paper later, but this presentation is different in layout and organization.

Two simple ideas...

- a FLAG is a simple way to indicate a YES or NO answer
- a SELECT statement helps us organize a series of IF statements into a compact unit

Definition of a Boolean

- In computer science, the Boolean or logical data type is a primitive data type having one of two values: true or false, intended to represent the truth values of logic and Boolean algebra.
- Source: Wikipedia

Disclaimer

- SAS[®] does not have a boolean data type; however, a numeric value of zero or a missing value evaluates to FALSE and ANY OTHER VALUE evaluates to TRUE.

More on FLAGS

- Test can be simple or complex:
- IF month = 'JAN' then FLAG = 1 (true)
- IF num between 0 and 13 and temp greater than 72 and hoursdaylight GT 8 then DAYLIGHTSAVINGS = 0 (false)
- Remember, in SAS, zero or a missing value is false and everything else is true!

A short lesson on SELECT

- Not the SQL statement!
- There are two forms – we will only cover one.

```
SELECT;
```

```
When (Condition1 is TRUE)
```

```
Do;
```

```
    Some SAS statements
```

```
End;
```

```
When (Condition2 is TRUE)
```

```
Do;
```

```
    Some SAS statements
```

```
End;
```

```
Otherwise /* if none of the above are TRUE */
```

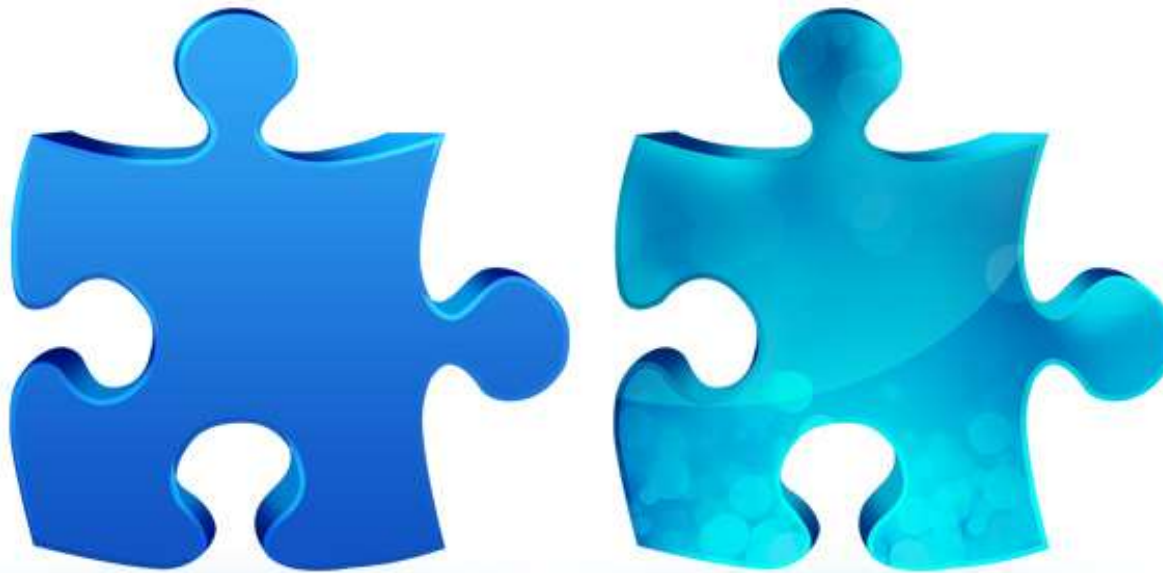
```
Do;
```

```
End;
```

```
END; /* of SELECT */
```


Now put the two together...

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```
data cohortonly
  enrollonly
  matchrec;

merge sortcohort(in=oncohort)
      sortenroll(in=onenroll);
by subid;

select;

  when (oncohort and not onenroll)
    output cohortonly;

  when (onenroll and not oncohort)
    output enrollonly;

  otherwise
    output matchrec; /* only equal keys */

end; /* of select */

run;
```

Select plus flags...

```
data one;
select;
  when (EUREKA)
  do;
  put 'some sample sas code';
  end;
  otherwise
  do;
  put 'some other code instead';
  end;
end; /* of SELECT statement */
```

Why bother?

- Use of these two features makes programs easy to modify and maintain and simplifies debugging.

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