

Interleaving a Dataset with Itself: How and Why

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- DEMO

A SAS dataset

- MORE

Another SAS dataset

- Simplest SET

- SET with Multiple Datasets

- SET with BY statement

- Self-interleave

```
data _null_;  
set  
  demo(in=firstpass)  
  demo;  
by id;  
put _all_;  
run;
```

- Applications

- Processing which requires both preservation of detail and summarization or evaluation across observations

- Ordering without sorting

- Scale transformation

Task: for each ID level in DEMO, create variable SCALE which transforms variable VALUE to a zero-one scale

```
data zero_one_scale;  
set  
  demo(in=firstpass)  
  demo;  
by id;  
retain min max;  
drop min max;  
if first.id then do;  
  min = .;  
  max = .;  
end;  
if firstpass  
then do;  
  min =  
    min(min,value);  
  max =  
    max(max,value);  
end;  
else do;  
  scale =  
    (value-min)/  
    (max-min);  
output;  
end;  
run;
```

· Ordering without sorting

Task: for each ID level in DEMO, present observations with odd values of VALUE first, followed by observations with even values of VALUE

```
data odd_then_even;
set
  demo(where=
    (mod(value,2)=1))
  demo(where=
    (mod(value,2)=0))
by id;
run;
```

• Detecting the boundary :

```
data _null_;
set demo(in=p1)
      demo(in=p2);
by id;
boundary =
  p2 and lag(p1);
put _all_;
run;
```

<http://howles.com/schreier/saspapers/>

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