

```

1 *****;
2 *   Creating Custom Formats from Tables   *;
3 *****;
4 *   Syntax                               *;
5 *                                       *;
6 *   CNTLIN table must include:           *;
7 *       FmtName: name of format          *;
8 *       Start: values to format          *;
9 *       Label: labels to apply           *;
10 *                                       *;
11 *   PROC FORMAT CNTLIN=input-table FMTLIB; *;
12 *       SELECT format-names;             *;
13 *   RUN;                                 *;
14 *****;
15
16 *****;
17 *   Demo                                *;
18 *   1) Examine the DATA step that creates the SBADATA table from *;
19 *       the PG2.STORM_SUBBASINCODES table and the PROC FORMAT step *;
20 *       that imports the SBADATA table. Highlight the demo program *;
21 *       and run the selected code. Verify that the new table      *;
22 *       contains three required columns to build a format. View the *;
23 *       log and confirm the $SBFMT format was created.             *;
24 *   2) Open the PG2.STORM_CATEGORIES table. This table defines a  *;
25 *       range of maximum wind speeds (Low and High) and assigns a  *;
26 *       storm Category.                                           *;
27 *   3) Modify the second DATA and PROC FORMAT steps to create a  *;
28 *       table named CATDATA that will include the following       *;
29 *       columns. Highlight the DATA and PROC FORMAT steps and run *;
30 *       the selected code. View the log and confirm the CATFMT    *;
31 *       format was created.                                       *;
32 *       Column in PG2.STORM_CATEGORIES => Column in CATDATA      *;
33 *       <none> => FmtName (assign CATFMT for each row            *;
34 *       Low => Start                                             *;
35 *       High => End                                              *;
36 *       Category => Label                                       *;
37 *   4) Add a FORMAT statement in the PROC FREQ step to format    *;
38 *       Sub_basin with the $SBFMT. format and Wind with the CATFMT. *;
39 *       format. Highlight the TITLE statements and PROC FREQ step *;
40 *       and run the selected code.                               *;
41 *   *****;
42
43
44 /*Create the $SBFMT format for subbasin codes*/
45 data sbdata;
46     retain FmtName '$sbfmt';
47     set pg2.storm_subbasincodes(rename=(Sub_Basin=Start
48                                     SubBasin_Name=Label));
49     keep Start Label FmtName;
50 run;
51
52
53 proc format cntlin=sbdata;
54 run;
55
56 /*Complete the steps to create the CATFMT format from the storm_categories table*/

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```
57 data catdata;
58     retain fmtName 'catfmt';
59     set pg2.storm_categories(rename=(Low=Start High=End Category=Label)) ;
60     keep FmtName Start End Label;
61 run;
62
63 proc format cntlin=catdata;
64 run;
65
66 title "Frequency of Wind Measurements for Storm Categories by SubBasin";
67 title2 "2016 Storms";
68 proc freq data=pg2.storm_detail;
69     /*include only Category 1-5 2016 storms with known subbasin*/
70     where Wind>=64 and Season=2016 and Sub_basin not in('MM', 'NA');
71     tables Sub_basin*Wind / nocol norow nopercent;
72     *Add a FORMAT statement;
73     format Sub_basin $sbfmt. Wind catfmt.;
74 run;
75 title;
76
77
78
79
80
```