



PROC FORMAT Tips



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Review the creation of formats:

Proc Format;

Value Rozfmt

0- 1 = 'SAS Newbie'

2- 3 = 'SAS Beginner'

4-10 = 'Intermediate'

11-20 = 'Advanced'

21-High = 'SAS Guru'

;

Picture Phonefmt

Low-High = '999/999-9999'

;

Run;



If someone else creates a format, how can I look at the format categories?

1. Use Proc Format's Fmtlib Option to Print Formats. This will print all formats in the library

```
Proc Format Library=Work Fmtlib;  
  Title 'Proc Format - Print of Rozfmt and Phonefmt';  
Run;
```

```
/* This will print selected formats from the library */
```

```
Proc Format Library=Work Fmtlib;  
  Title 'Proc Format - Print of Rozfmt and Phonefmt';  
  Select Rozfmt;  
Run;
```

Proc Format - Fmtlib Option



SAS LOG:

Proc Format - Print of Rozfmt and Phonefmt

FORMAT NAME: PHONEFMT LENGTH: 12 NUMBER OF VALUES: 1 MIN LENGTH: 1 MAX LENGTH: 40 DEFAULT LENGTH 12 FUZZ: STD		
START	END	LABEL (VER. V7 V8 07MAY2009:10:58:14)
LOW	HIGH	999/999-9999 P F M1

FORMAT NAME: ROZFMT LENGTH: 12 NUMBER OF VALUES: 5 MIN LENGTH: 1 MAX LENGTH: 40 DEFAULT LENGTH 12 FUZZ: STD		
START	END	LABEL (VER. V7 V8 07MAY2009:10:58:14)
	0	1 SAS Newbie
	2	3 SAS Beginner
	4	10 Intermediate
	11	20 Advanced
	21 HIGH	SAS Guru



If someone else creates a permanent format, how can I look at the format categories?

2. Use Proc Format's CNTLOUT Option to create a SAS dataset and print it out using Proc Print

```
/* Create a SAS Dataset */  
Proc Format Library=Work Cntlout=Fmtds;  
Run;  
  
Proc Print Data=Fmtds;  
  Title 'Proc Print of Fmtds';  
Run;
```

Proc Format - Fmtlib Option



SAS LOG:

```

Proc Print of Fmtds

```

	F	M	T	S	L	D	E	L	P	N	S	E	D	D	L
	A	A	A	E	A	M	F	A	R	O	E	E	E	I	A
	M	R	R	N	B	M	U	G	E	F	I	X	S	3	A
	E	T	T	D	L	N	X	T	X	T	L	L	L	P	G
1	PHONEFMT	LOW		HIGH	999/999-9999	1	40	12	12	1E-12	1	0	P	N	N
2	ROZFMT		0		1 SAS Newbie	1	40	12	12	1E-12	0	0	N	N	N
3	ROZFMT		2		3 SAS Beginner	1	40	12	12	1E-12	0	0	N	N	N
4	ROZFMT		4		10 Intermediate	1	40	12	12	1E-12	0	0	N	N	N
5	ROZFMT		11		20 Advanced	1	40	12	12	1E-12	0	0	N	N	N
6	ROZFMT		21	HIGH	SAS Guru	1	40	12	12	1E-12	0	0	N	N	N

Proc Format – Using user created formats



PROC FORMAT stores user-defined informats and formats as entries in SAS catalogs. By default, SAS formats are stored in WORK.FORMATS. However, we can specify a location to save formats to using the LIBRARY= option in PROC FORMAT.

```
Libname FMTLIB 'C:\TEMP\';
```

```
Proc Format Library=FMTLIB;
```

```
Value Roz2fmt
```

```
0 -100 = 'SAS Newbie'  
101-200 = 'SAS Beginner'  
201-300 = 'Intermediate'  
301-400 = 'Advanced'  
401-High = 'SAS Guru'
```

```
;
```

```
Picture Phonefmt
```

```
Low-High = '999/999-9999';
```

```
Run;
```



```
libname FMTLIB 'c:\TEMP\';
```

NOTE: Libref FMTLIB was successfully assigned as follows:

```
Engine:      V9
```

```
Physical Name: c:\TEMP
```

```
15
```

```
16 Proc Format Library=FMTLIB;
```

```
17   Value Roz2fmt
```

```
18     0- 100 = 'SAS Newbie'
```

```
19     101- 200 = 'SAS Beginner'
```

```
20     201-300 = 'Intermediate'
```

```
21     301-400 = 'Advanced'
```

```
22     401-High = 'SAS Guru'
```

```
•      ;
```

NOTE: Format ROZ2FMT has been written to **FMTLIB.FORMATS**.

```
24
```

```
25   Picture Phonefmt
```

```
26     Low-High = '999/999-9999'
```

```
27     ;
```

NOTE: Format PHONEFMT has been written to **FMTLIB.FORMATS**.

```
28 Run;
```

NOTE: PROCEDURE FORMAT used (Total process time):

```
real time      0.45 seconds
```

```
cpu time       0.01 seconds
```



If we save a format to a permanent library, how does SAS know where to find the format?

- SAS always searches in WORK.FORMATS first, and then LIBRARY.FORMATS.
- We can tell SAS to look in a specific location using the FMTSEARCH option.

Options **FMTSEARCH**=(FMTLIB);

- SAS searches the catalogs in the FMTSEARCH= list in the order that they are listed until the format or informat is found.



Here is an example using the FMTSEARCH option:

```
Options FMTSEARCH=(FMTLIB);
```

```
Proc Freq Data=Sashelp.Air;
```

```
Format Air Roz2fmt.;
```

```
Tables Air / List Nocum;
```

```
Title 'Print Using Permanent Format';
```

```
Run;
```

```
Print Using Permanent Format

The FREQ Procedure

international airline travel (thousands)
```

AIR	Frequency	Percent
SAS Beginner	48	33.33
Intermediate	34	23.61
Advanced	34	23.61
SAS Guru	28	19.44



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