

Procedures

Can I write my own SAS date formats?

Yes, this is possible using the PICTURE format in conjunction with date / time directives.

For example there is a system defined format YYQw. which writes dates with a 'Q' separating the year and quarter numbers (2021Q3) and the YYQDw. which uses a dash as the separator (2021-3), but what if you wanted both a dash and Q? (2021-Q3)

First create a temporary format using the FORMAT procedure. Using the PICTURE statement allows you to combine text and values, and the date time directives allow you to insert specific values - just be sure to include a DATATYPE definition to resolve these correctly.

```
proc format ;  
  picture yrdq  
    low = high = '%Y-Q%q' (datatype = date) ;  
run ;
```

Applying this format:

```
%let runq = %sysfunc(intnx(quarter,%sysfunc(today()),-1,e),yrdq7.) ;  
%put &=runq ;
```

will return the appropriate value in the LOG.

Examples of the date time directives are as follows:

Directive	Description	Directive	Description
%a	Short weekday name (e.g. "Mon")	%q	Quarter of year, number (1-4)
%A	Full weekday name (e.g. "Monday")	%Q	Quarter of year (e.g. "Quarter4")
%b	Short month name (e.g. "Dec")	%s	Fractional seconds
%B	Full month name (e.g. "December")	%S	Seconds*
%d	Day of the month (1-31)*	%u	Day of week (1-7, Sunday=7)*
%H	Hour, 24-hour clock (0-23)*	%U	Week number (0-53, by Mondays)*
%I	Hour, 12-hour clock (1-12)*	%w	Day of week (0-6, Sunday=0)*
%j	Day of year, number (1-366)*	%W	Week number (0-53, by Sundays)*
%m	Month as a number (1-12)*	%y	Year, two-digit*
%M	Minute (0-59)*	%Y	Year, four-digit
%p	AM or PM	%%	Escape code for % character
*Insert a zero immediately after the percent sign to indicate leading zeroes should be included.			

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