Chapter Contents Previous Next

Formats by Category

There are four categories of formats in SAS:

Category	Description
CHARACTER	instructs SAS to write character data values from character variables.
DATE and TIME	instructs SAS to write data values from variables that represent dates, times, and datetimes.
DBCS	instructs SAS to handle various Asian languages
NUMERIC	instructs SAS to write numeric data values from numeric variables.
USER-DEFINED	instructs SAS to write data values by using a format that is created with PROC FORMAT.

Storing user-defined formats is an important consideration if you associate these formats with variables in permanent SAS data sets, especially those shared with other users. For information on creating and storing user-defined formats, see the FORMAT procedure in the **SAS Procedures Guide**.

The following table provides brief descriptions of the SAS formats. For more detailed descriptions, see the "Formats" chapter of **SAS Language Reference: Dictionary**.

Categories and Descriptions of Formats

Category	Format	Description
Character	$ASCII**w**.	Converts native format character data to ASCII representation
	$BINARY**w**.	Converts character data to binary representation
	$CHAR**w**.	Writes standard character data
	$EBCDIC**w**.	Converts native format character data to EBCDIC representation
	$HEX**w**.	Converts character data to hexadecimal representation
	$MSGCASE**w**.	Writes character data in uppercase when the MSGCASE system option is in effect
	$OCTAL**w**.	Converts character data to octal representation
	$QUOTE**w**.	Writes data values that are enclosed in double quotation marks
	$REVERJ**w**.	Writes character data in reverse order and preserves blanks
	$REVERS**w**.	Writes character data in reverse order and left aligns
	$UPCASE**w**.	Converts character data to uppercase
	$VARYING**w**.	Writes character data of varying length
	$**w**.	Writes standard character data
DBCS	$KANJI**w**.	Adds shift-code data to DBCS data
	$KANJIX**w**.	Removes shift code data from DBCS data
Date and Time	DATE**w**.	Writes date values in the form **ddmmmyy** or **ddmmmyyyy**
	DATEAMPM**w**.**d**	Writes datetime values in the form **ddmmmyy:hh:mm:ss.ss** with AM or PM
	DATETIME**w**.**d**	Writes datetime values in the form **ddmmmyy:hh:mm:ss.ss**
	DAY**w**.	Writes date values as the day of the month
	DDMMYY**w**.	Writes date values in the form **ddmmyy** or **ddmmyyyy**
	DDMMYY**x****w**.	Writes date values in the form **ddmmyy** or **ddmmyyyy** with a specified separator
	DOWNAME**w**.	Writes date values as the name of the day of the week
	EURDFDD**w**.	Writes international date values in the form **dd.mm.yy** or **dd.mm.yyyy**
	EURDFDE**w**.	Writes international date values in the form **ddmmmyy** or **ddmmmyyyy**
	EURDFDN**w**.	Writes international date values as the day of the week
	EURDFDT**w**.**d**	Writes international datetime values in the form **ddmmmyy:hh:mm:ss.ss** or **ddmmmyyyy hh:mm:ss.ss**
	EURDFDWN**w**.	Writes international date values as the name of the day
	EURDFMN**w**.	Writes international date values as the name of the month
	EURDFMY**w**.	Writes international date values in the form **mmmyy** or **mmmyyyy**
	EURDFWDX**w**.	Writes international date values as the name of the month, the day, and the year in the form **dd month-name yy** (or **yyyy**)
	EURDFWKX**w**.	Writes international date values as the name of the day and date in the form **day-of-week**, **dd month-name yy** (or **yyyy**)
	HHMM**w**.**d**	Writes time values as hours and minutes in the form **hh:mm**
	HOUR**w**.**d**	Writes time values as hours and decimal fractions of hours
	JULDAY**w**.	Writes date values as the Julian day of the year

	JULIAN**w**.	Writes date values as Julian dates in the form **yyddd** or **yyyyddd**
	MINGUO**w**.	Writes date values as Taiwanese dates in the form **yyymmdd**
	MMDDYY**w**.	Writes date values in the form **mmddyy** or **mmddyyyy**
	MMDDYY**xw**.	Writes date values in the form **mmddyy** or **mmddyyyy** with a specified separator
	MMSS**w**.**d**	Writes time values as the number of minutes and seconds since midnight
	MMYY**xw**.	Writes date values as the month and the year and separates them with a character
	MONNAME**w**.	Writes date values as the name of the month
	MONTH**w**.	Writes date values as the month of the year
	MONYY**w**	Writes date values as the month and the year in the form **mmmyy** or **mmmyyyy**
	NENGO**w**.	Writes date values as Japanese dates in the form **e.yymmdd**
	PDJULG**w**.	Writes packed Julian date values in the hexadecimal format **yyyyddd**F for IBM
	PDJULI**w**.	Writes packed Julian date values in the hexadecimal format **ccyyddd**F for IBM
	QTR**w**.	Writes date values as the quarter of the year
	QTRR**w**.	Writes date values as the quarter of the year in Roman numerals
	TIME**w**.	Writes time values as hours, minutes, and seconds in the form **hh:mm:ss.ss**
	TIMEAMPM**w**.**d**	Writes time values as hours, minutes, and seconds in the form **hh:mm:ss.ss** with AM or PM
	TOD**w.d**	Writes the time portion of datetime values in the form **hh:mm:ss.ss**
	WEEKDATE**w**.	Writes date values as the day of the week and the date in the form **day-of-week**, **month-name dd**, **yy** (or **yyyy**)
	WEEKDATX**w**.	Writes date values as day of week and date in the form **day-of-week**, **dd month-name yy** (or **yyyy**)
	WEEKDAY**w**.	Writes date values as the day of the week
	WORDDATE**w**.	Writes date values as the name of the month, the day, and the year in the form **month-name dd**, **yyyy**
	WORDDATX**w**.	Writes date values as the day, the name of the month, and the year in the form **dd month-name yyyy**
	YEAR**w**.	Writes date values as the year
	YYMM**xw**.	Writes date values as the year and month and separates them with a character
	YYMMDD**w**.	Writes date values in the form **yymmdd** or **yyyymmdd**
	YYMMDD**xw**.	Writes date values in the form **yymmdd** or **yyyymmdd** with a specified separator
	YYMON**w**.	Writes date values as the year and the month abbreviation
	YYQ**xw**.	Writes date values as the year and the quarter and separates them with a character
	YYQR**xw**.	Writes date values as the year and the quarter in Roman numerals and separates them with characters
Numeric	BEST**w**.	SAS chooses the best notation
	BINARY**w**.	Converts numeric values to binary representation
	COMMA**w**.**d**	Writes numeric values with commas and decimal points
	COMMAX**w**.**d**	Writes numeric values with periods and commas
	D**w**.**s**	Prints variables, possibly with a great range of values, lining up decimal places for values of similar magnitude

	DOLLAR**w**.**d**	Writes numeric values with dollar signs, commas, and decimal points
	DOLLARX**w**.**d**	Writes numeric values with dollar signs, periods, and commas
	E**w**.	Writes numeric values in scientific notation
	FLOAT**w**.**d**	Generates a native single-precision, floating-point value by multiplying a number by 10 raised to the **d**th power
	FRACT**w**.	Converts numeric values to fractions
	HEX**w**.	Converts real binary (floating-point) values to hexadecimal representation
	IB**w**.**d**	Writes native integer binary (fixed-point) values, including negative values
	IBR**w**.**d**	Writes integer binary (fixed-point) values in Intel and DEC formats
	IEEE**w**.**d**	Generates an IEEE floating-point value by multiplying a number by 10 raised to the **d**th power
	NEGPAREN**w**.**d**	Writes negative numeric values in parentheses
	NUMX**w**.**d**	Writes numeric values with a comma in place of the decimal point
	OCTAL**w**.	Converts numeric values to octal representation
	PD**w**.	Writes data in packed decimal format
	PERCENT**w**.**d**	Writes numeric values as percentages
	PIB**w**.**d**	Writes positive integer binary (fixed-point) values
	PIBR**w**.**d**	Writes positive integer binary (fixed-point) values in Intel and DEC formats
	PK**w**.**d**	Writes data in unsigned packed decimal format
	PVALUE**w**.**d**	Writes **p**-values
	RB**w**.**d**	Writes real binary data (floating-point) in real binary format
	ROMAN**w**.	Writes numeric values as Roman numerals
	SSN**w**.	Writes Social Security numbers
	S370FF**w**.**d**	Writes native standard numeric data in IBM mainframe format
	S370FIB**w**.**d**	Writes integer binary (fixed-point) values, including negative values, in IBM mainframe format
	S370FIBU**w**.**d**	Writes unsigned integer binary (fixed-point) values in IBM mainframe format
	S370FPD**w**.	Writes packed decimal data in IBM mainframe format
	S370FPDU**w**.	Writes unsigned packed decimal data in IBM mainframe format
	S370FPIB**w**.**d**	Writes positive integer binary (fixed-point) values in IBM mainframe format
	S370FRB**w**.**d**	Writes real binary (floating-point) data in IBM mainframe format
	S370FZD**w**.**d**	Writes zoned decimal data in IBM mainframe format
	S370FZDL**w**.**d**	Writes zoned decimal leading sign data in IBM mainframe format
	S370FZDS**w**.**d**	Writes zoned decimal separate leading-sign data in IBM mainframe format
	S370FZDT**w**.**d**	Writes zoned decimal separate trailing-sign data in IBM mainframe format
	S370FZDU**w**.**d**	Writes unsigned zoned decimal data in IBM mainframe format
	w.**d**	Writes standard numeric data one digit per byte
	WORDF**w**.	Writes numeric values as words with fractions that are shown numerically
	WORDS**w**.	Writes numeric values as words

	YEN**w**.**d**	Writes numeric values with yen signs, commas, and decimal points
	Z**w**.**d**	Writes standard numeric data with leading 0s
	ZD**w**.**d**	Writes numeric data in zoned decimal format

Chapter Contents Previous Next Top of Page