

Standard Numeric Format Strings

More info: <https://docs.microsoft.com/en-us/dotnet/standard/base-types/standard-numeric-format-strings>

Format	Name	Result	Example 1	Example 2	Example 3
"C" or "c"	Currency	A currency value.	123.456 ("C", en-US) -> \$123.46 -123.456 ("C3", en-US) -> (\$123.456)	123.456 ("C", fr-FR) -> 123,46 € -123.456 ("C3", fr-FR) -> -123,456 €	123.456 ("C", ja-JP) -> ¥123 -123.456 ("C3", ja-JP) -> -¥123.456
"D" or "d"	Decimal	Integer digits with optional negative sign.	1234 ("D") -> 1234	-1234 ("D6") -> -001234	
"E" or "e"	Exponential (scientific)	Exponential notation.	1052.0329112756 ("E", en-US) -> 1.052033E+003 -1052.0329112756 ("e2", en-US) -> -1.05e+003	1052.0329112756 ("e", fr-FR) -> 1,052033e+003 -1052.0329112756 ("E2", fr_FR) -> -1,05E+003	
"F" or "f"	Fixed-point	Integral and decimal digits with optional negative sign.	1234.567 ("F", en-US) -> 1234.57 1234.567 ("F", de-DE) -> 1234,57	1234 ("F1", en-US) -> 1234.0 1234 ("F1", de-DE) -> 1234,0	-1234.56 ("F4", en-US) -> -1234.5600 -1234.56 ("F4", de-DE) -> -1234,5600
"G" or "g"	General	The most compact of either fixed-point or scientific notation.	-123.456 ("G", en-US) -> -123.456 -123.456 ("G", sv-SE) -> -123,456	123.4546 ("G4", en-US) -> 123.5 123.4546 ("G4", sv-SE) -> 123,5	-1.234567890e-25 ("G", en-US) -> -1.23456789E-25 -1.234567890e-25 ("G", sv-SE) -> -1,23456789E-25
"N" or "n"	Number	Integral and decimal digits, group separators, and a decimal separator with optional negative sign.	1234.567 ("N", en-US) -> 1,234.57 1234.567 ("N", ru-RU) -> 1 234,57	1234 ("N1", en-US) -> 1,234.0 1234 ("N1", ru-RU) -> 1 234,0	-1234.56 ("N3", en-US) -> -1,234.560 -1234.56 ("N3", ru-RU) -> -1 234,560
"P" or "p"	Percent	Number multiplied by 100 and displayed with a percent symbol.	1 ("P", en-US) -> 100.00 % 1 ("P", fr-FR) -> 100,00 %	-0.39678 ("P1", en-US) -> -39.7 % -0.39678 ("P1", fr-FR) -> -39,7 %	
"R" or "r"	Round-trip	A string that can round-trip to an identical number.	123456789.12345678 ("R") -> 123456789.12345678	-1234567890.12345678 ("R") -> -1234567890.12345678	
"X" or "x"	Hexadecimal	A hexadecimal string.	255 ("X") -> FF 255 ("x4") -> 00ff	-1 ("x") -> ff -1 ("X4") -> 00FF	

Custom Numeric Format Strings

More information: <https://docs.microsoft.com/en-us/dotnet/standard/base-types/custom-numeric-format-strings>

Format specifier	Name	Description	Example 1	Example 2	Example 3
"0"	Zero placeholder	Replaces the zero with the corresponding digit if one is present; otherwise, zero appears in the result string.	1234.5678 ("00000") -> 01235	0.45678 ("0.00", en-US) -> 0.46	0.45678 ("0.00", fr-FR) -> 0,46
"#"	Digit placeholder	Replaces the "#" symbol with the corresponding digit if one is present; otherwise, no digit appears in the result string.	1234.5678 ("#####") -> 1235	0.45678 ("#.##", en-US) -> .46	0.45678 ("#.##", fr-FR) -> ,46
"."	Decimal point	Determines the location of the decimal separator in the result string.	0.45678 ("0.00", en-US) -> 0.46	0.45678 ("0.00", fr-FR) -> 0,46	
" " ,	Group separator and number scaling	As a group separator, it inserts a localized group separator character between each group. As a number scaling specifier, it divides a number by 1000 for each comma specified.	Group separator specifier: Scaling specifier:	2147483647 ("##,#", en-US) -> 2,147,483,647 2147483647 ("#,#,," en-US) -> 2,147	2147483647 ("##,#", es-ES) -> 2.147.483.647 2147483647 ("#,#,," es-ES) -> 2.147
"%"	Percentage placeholder	Multiplies a number by 100 and inserts a localized percentage symbol in the result string.	0.3697 ("%#0.00", en-US) -> %36.97 0.3697 ("##.0 %", en-US) -> 37.0 %	0.3697 ("%#0.00", el-GR) -> %36,97 0.3697 ("##.0 %", el-GR) -> 37,0 %	
"‰"	Per mille placeholder	Multiplies a number by 1000 and inserts a localized per mille symbol in the result string.	0.03697 ("%0.00‰", en-US) -> 36.97‰	0.03697 ("%0.00‰", ru-RU) -> 36,97‰	
"E0", "E+0", "E-0", "e0", "e+0", "e-0"	Exponential notation	If followed by at least one 0 (zero), formats the result using exponential notation. The number of zeros following "E" or "e" determines the minimum number of digits in the exponent. A plus sign (+) indicates that a sign character always precedes the exponent. A minus sign (-) indicates that a sign character precedes only negative exponents.	987654 ("#0.0e0") -> 98.8e4	1503.92311 ("0.0##e+00") -> 1.504e+03	1.8901385E-16 ("0.0e+00") -> 1.9e-16
\	Escape character	Causes the next character to be interpreted as a literal rather than as a custom format specifier.	987654 ("\\###00\\#") -> #987654#		
'string', "string"	Literal string delimiter	Indicates that the enclosed characters should be copied to the result string unchanged.	68 ("# ' degrees") -> 68 degrees	68 ("# ' degrees") -> 68 degrees	
;	Section separator	Defines sections with separate format strings for positive, negative, and zero numbers. More information: The ";" Section Separator.	12.345 ("#0.0#;(##0.0#);-\\0-") -> 12.35 12.345 ("#0.0#;(##0.0#)") -> 12.35	0 ("#0.0#;(##0.0#);-\\0-") -> -0- 0 ("#0.0#;(##0.0#)") -> 0.0	-12.345 ("#0.0#;(##0.0#);-\\0-") -> > (12.35) -12.345 ("#0.0#;(##0.0#)") -> (12.35)
Other	All other characters	The character is copied to the result string unchanged.	68 ("# °") -> 68 °		

Standard Date and Time Format Strings

More information: <https://docs.microsoft.com/en-us/dotnet/standard/base-types/standard-date-and-time-format-strings>

Format specifier	Description	Example 1	Example 2	Example 3
"f"	Full date/time pattern (short time).	Monday, June 15, 2009 1:45 PM (en-US)	den 15 juni 2009 13:45 (sv-SE)	Δευτέρα, 15 Ιουνίου 2009 1:45 μμ (el-GR)
"F"	Full date/time pattern (long time).	Monday, June 15, 2009 1:45:30 PM (en-US)	den 15 juni 2009 13:45:30 (sv-SE)	Δευτέρα, 15 Ιουνίου 2009 1:45:30 μμ (el-GR)
"U"	UTC full date/time pattern.	Monday, June 15, 2009 8:45:30 PM (en-US)	den 15 juni 2009 20:45:30 (sv-SE)	Δευτέρα, 15 Ιουνίου 2009 8:45:30 μμ (el-GR)
"g"	General date/time pattern (short time).	6/15/2009 1:45 PM (en-US)	15/06/2009 13:45 (es-ES)	2009/6/15 13:45 (zh-CN)
"G"	General date/time pattern (long time).	6/15/2009 1:45:30 PM (en-US)	15/06/2009 13:45:30 (es-ES)	2009/6/15 13:45:30 (zh-CN)
"O", "o"	Round-trip date/time pattern.	2009-06-15T13:45:30.0000000-07:00	2009-06-15T13:45:30.0000000Z	2009-06-15T13:45:30.0000000-07:00
"R", "r"	RFC1123 pattern (not necessarily UTC).	Mon, 15 Jun 2009 20:45:30 GMT		
"s"	Sortable date/time pattern.	2009-06-15T13:45:30		
"u"	Universal sortable date/time pattern.	2009-06-15 20:45:30Z		
"d"	Short date pattern.	6/15/2009 (en-US)	15/06/2009 (fr-FR)	2009/06/15 (ja-JP)
"D"	Long date pattern.	Monday, June 15, 2009 (en-US)	15 июня 2009 г. (ru-RU)	Montag, 15. Juni 2009 (de-DE)
"M", "m"	Month/day pattern.	June 15 (en-US)	15. juni (da-DK)	15 Juni (id-ID)
"Y", "y"	Year/month pattern.	June, 2009 (en-US)	juni 2009 (da-DK)	Juni 2009 (id-ID)
"t"	Short time pattern.	1:45 PM (en-US)	13:45 (hr-HR)	01:45 م (ar-EG)
"T"	Long time pattern.	1:45:30 PM (en-US)	13:45:30 (hr-HR)	01:45:30 م (ar-EG)

Custom Date and Time Format Strings

More information: [https://msdn.microsoft.com/en-us/library/8kb3ddd4\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/8kb3ddd4(v=vs.110).aspx)

Format specifier	Description	Examples
y, yy, yyyy, yyyyy, yyyyyy	Year	9, 09, 009, 2009, 02009
M, MM, MMM, MMMM	Month	6, 06, Jun, June
d, dd, ddd, dddd	Day	1, 01, Mon, Monday
h, hh, H, HH	hour using 12 or 24 hour clock	1, 01, 13, 13
m, mm	Minute	9, 09
s, ss	Second	9, 09
f to fffffff	Parts of a second	6 to 6175425; 0
F to FFFFFFFF	Parts of a second, is non-zero	6 to 6175425; (blank)
t, tt	AM or PM	P, PM
/	Date separator	/ (en-US), - (ar-DZ), . (tr-TR)
:	Time separator	: (en-US, ja-JP) . (it-IT)
K	Time zone information	Z, -07:00
z, zz, zzzz	Offset from UTC	-7, -07, -07:00
g, gg	Period or era	A.D.
"string"	Literal string delimiter	string
%	Next character is custom format specifier	
\	escape character	
Other characters	Literal string	