## 형식 지정자

## %[flags][width][.precision][length]specifier

0 P P B 9 -

flags

flags	description						
-	Left-justify within the given field width; Right justification is the default (see width sub-specifier).						
	Forces to preceed the result with a plus or minus sign (+ or -) even for positive numbers. By default,						
	only negative numbers are preceded with a - sign.						
(space)	If no sign is going to be written, a blank space is inserted before the value.						
#	Used with o, x or x specifiers the value is preceded with 0, $0x$ or $0x$ respectively for values different than						
	zero.						
	Used with a, A, e, E, f, F, g or G it forces the written output to contain a decimal point even if no more						
	digits follow. By default, if no digits follow, no decimal point is written.						
i CA	Left-pads the number with zeroes (0) instead of spaces when padding is specified (see width sub-						
	specifier).						

http://www.cplusplus.com/reference/cstdio/printf/





width	description							
(num <mark>b</mark> er)	Minimum number of characters to be printed. If the value to be printed is shorter than this number, the result is padded with blank spaces. The value is not truncated even if the result is larger.							
	the result is padded with blank spaces. The value is not truncated even if the result is larger.							
	The width is not specified in the format string, but as an additional integer value argument preceding							
	the argument that has to be formatted.							

.precision	description				
.number	For integer specifiers (d, i, o, u, x, X): precision specifies the minimum number of digits to be written. If the value to be written is shorter than this number, the result is padded with leading zeros. The value is not truncated even if the result is longer. A precision of 0 means that no character is written for the value 0.  For a, A, e, E, f and F specifiers: this is the number of digits to be printed after the decimal point (by default, this is 6).  For g and G specifiers: This is the maximum number of significant digits to be printed.  For s: this is the maximum number of characters to be printed. By default all characters are printed until the ending null character is encountered.  If the period is specified without an explicit value for precision, 0 is assumed.				
.*	The <i>precision</i> is not specified in the <i>format</i> string, but as an additional integer value argument preceding the argument that has to be formatted.				

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## length and specifiers

The *length* sub-specifier modifies the length of the data type. This is a chart showing the types used to interpret the corresponding arguments with and without *length* specifier (if a different type is used, the proper type promotion or conversion is performed, if allowed):

	specifiers								
length	d i	u o x X	fFeEgGaA	С	s	р	n		
(none)	int	unsigned int	double	int	char*	void*	int*		
hh	signed char	unsigned char					signed char*		
<b>₽</b>	short int	unsigned short int					short int*		
1	long int	unsigned long int		wint_t	wchar_t*		long int*		
11	long long int	unsigned long long int					long long int*		
j	intmax_t	uintmax_t					intmax_t*		
z	size_t	size_t					size_t*		
t	ptrdiff_t	ptrdiff_t					ptrdiff_t*		
L			long double						

Note regarding the c specifier: it takes an int (or wint\_t) as argument, but performs the proper conversion to a char value (or a wchar\_t) before formatting it for output.

http://www.cplusplus.com/reference/cstdio/printf/

