

**NAME**

curl\_maprintf, curl\_mfprintf, curl\_mprintf, curl\_msnprintf, curl\_msprintf, curl\_mvaprintf, curl\_mvfprintf, curl\_mvprintf, curl\_mvsnprintf, curl\_mvsnprintf, curl\_mvsnprintf - formatted output conversion

**SYNOPSIS**

```
#include <curl/mprintf.h>
```

```
int curl_mprintf(const char *format, ...);
int curl_mfprintf(FILE *fd, const char *format, ...);
int curl_msprintf(char *buffer, const char *format, ...);
int curl_msnprintf(char *buffer, size_t maxlen, const char *format, ...);
int curl_mvprintf(const char *format, va_list args);
int curl_mvfprintf(FILE *fd, const char *format, va_list args);
int curl_mvsnprintf(char *buffer, const char *format, va_list args);
int curl_mvsnprintf(char *buffer, size_t maxlen, const char *format, va_list args);
char *curl_maprintf(const char *format, ...);
char *curl_mvaprintf(const char *format, va_list args);
```

**DESCRIPTION**

These are all functions that produce output according to a format string and given arguments. These are mostly clones of the well-known C-style functions and there will be no detailed explanation of all available formatting rules and usage here.

See this table for notable exceptions.

**curl\_mprintf()**

Normal printf() clone.

**curl\_mfprintf()**

Normal fprintf() clone.

**curl\_msprintf()**

Normal sprintf() clone.

**curl\_msnprintf()**

snprintf() clone. Many systems don't have this. It is just like **sprintf** but with an extra argument after the buffer that specifies the length of the target buffer.

**curl\_mvprintf()**

Normal vprintf() clone.

**curl\_mvfprintf()**

Normal vfprintf() clone.

**curl\_mvsnprintf()**

Normal vsprintf() clone.

**curl\_mvsnprintf()**

vsprintf() clone. Many systems don't have this. It is just like **vsprintf** but with an extra argument after the buffer that specifies the length of the target buffer.

**curl\_maprintf()**

Like printf() but returns the output string as a malloc()ed string. The returned string must be free()ed by the receiver.

**curl\_mvaprintf()**

Like curl\_maprintf() but takes a va\_list pointer argument instead of a variable amount of arguments.

To easily use all these cloned functions instead of the normal ones, #define **\_MPRINTF\_REPLACE** before you include the <curl/mprintf.h> file. Then all the normal names like printf, fprintf, sprintf etc will use the curl-functions instead.

**AVAILABILITY**

These function will be removed from the public libcurl API in a near future. They will instead be made "available" by source code access only, and then as `curlx_`-prefixed functions. See `lib/README.curlx` for further details.

**RETURN VALUE**

The `curl_maprintf` and `curl_mvaprintf` functions return a pointer to a newly allocated string, or NULL if it failed.

All other functions return the number of characters they actually outputted.

**SEE ALSO**

`printf(3)`, `sprintf(3)`, `fprintf(3)`, `vprintf(3)`