va_arg	*Fetch Argument from Variable Argument List*	<stdarg.h>

type va_arg(va_list ap, *type*); *macro*

Fetches an argument in the variable argument list associated with ap, then modifies ap so that the next use of va_arg fetches the following argument. ap must have been initialized by va_start (or va_copy in C99) prior to the first use of va_arg.

Returns   Value of the argument, assuming that its type (after the default argument promotions have been applied) is compatible with *type*.   *26.1*

va_copy	*Copy Variable Argument List (C99)*	<stdarg.h>

void va_copy(va_list dest, va_list src); *macro*

Copies src into dest. The value of dest will be the same as if va_start had been applied to dest followed by the same sequence of va_arg applications that was used to reach the present state of src.   *26.1*

va_end	*End Processing of Variable Argument List*	<stdarg.h>

void va_end(va_list ap); *macro*

Ends the processing of the variable argument list associated with ap.   *26.1*

va_start	*Start Processing of Variable Argument List*	<stdarg.h>

void va_start(va_list ap, *parmN*); *macro*

Must be invoked before accessing a variable argument list. Initializes ap for later use by va_arg and va_end. *parmN* is the name of the last ordinary parameter (the one followed by , ...).   *26.1*

vfprintf	*Formatted File Write Using Variable Argument List*	<stdio.h>

```
int vfprintf(FILE * restrict stream,
             const char * restrict format,
             va_list arg);
```

Equivalent to fprintf with the variable argument list replaced by arg.

Returns   Number of characters written. Returns a negative value if an error occurs.   *26.1*

vfscanf	*Formatted File Read Using Variable Argument List (C99)*	<stdio.h>

```
int vfscanf(FILE * restrict stream,
            const char * restrict format,
            va_list arg);
```

Equivalent to fscanf with the variable argument list replaced by arg.

Returns   Number of input items successfully read and stored. Returns EOF if an input failure occurs before any items can be read.   *26.1*

vfwprintf	*Wide-Character Formatted File Write Using Variable Argument List (C99)*	<wchar.h>