<stdbool.h> Boolean Type and Values

<stdbool.h> header ➤21.5

Defines the `bool`, `true`, and `false` macros, as well as a macro that can be used to test whether these macros have been defined.

<stdint.h> Integer Types

<stdint.h> header ➤27.1

Declares integer types with specified widths and defines related macros (such as macros that specify the maximum and minimum values of each type). Also defines parameterized macros that construct integer constants with specific types.

<tgmath.h> Type-Generic Math

<tgmath.h> header ➤27.5

In C99, there are multiple versions of many math functions in the <math.h> and <complex.h> headers. The "type-generic" macros in <tgmath.h> can detect the types of the arguments passed to them and substitute a call of the appropriate <math.h> or <complex.h> function.

<wchar.h> Extended Multibyte and Wide-Character Utilities

<wchar.h> header ➤25.5

Provides functions for wide-character input/output and wide string manipulation.

<wctype.h> Wide-Character Classification and Mapping Utilities

<wctype.h> header ➤25.6

The wide-character version of <ctype.h>. Provides functions for classifying and changing the case of wide characters.

21.4 The <stddef.h> Header: Common Definitions

The <stddef.h> header provides definitions of frequently used types and macros; it doesn't declare any functions. The types are:

- `ptrdiff_t`. The type of the result when two pointers are subtracted.
- `size_t`. The type returned by the `sizeof` operator.
- `wchar_t`. A type large enough to represent all possible characters in all supported locales.

All three are names for integer types: `ptrdiff_t` must be a signed type, while `size_t` must be an unsigned type. For more information about `wchar_t`, see Section 25.2.

The <stddef.h> header also defines two macros. One of them is `NULL`, which represents the null pointer. The other macro, `offsetof`, requires two arguments: *type* (a structure type) and *member-designator* (a member of the structure).