## Index of implementation-defined behavior

The entries in this section are rough descriptions; exact specifications are at the indicated page in the general text.

```
dynamic initialization of thread-local objects be-
#pragma, 412
                                                                  fore entry, 61
additional formats for time_get::do_get_date,
                                                         effect of calling basic_filebuf::setbuf with non-
alignment, 76
                                                                  zero arguments, 1075
alignment additional values, 77
                                                         effect of calling basic filebuf::sync when a get
alignment of bit-fields within a class object, 226
                                                                  area exists, 1076
allocation of bit-fields within a class object, 226
                                                         effect of calling basic_streambuf::setbuf with
argument values to construct basic ios::failure,
                                                                  non-zero arguments, 1063
         1015
                                                         effect of calling ios_base::sync_with_stdio af-
assignability of placeholder objects, 578
                                                                  ter any input or output operation on stan-
                                                                  dard streams, 1008
behavior of attribute scoped token, 176
                                                         effect on C locale of calling locale::global, 683
behavior of iostream classes when traits::pos -
                                                         encoding of universal character name not in exe-
        type is not streampos or when traits::off_-
                                                                  cution character set, 26
         type is not streamoff, 996
                                                         error_category for errors originating outside the
behavior of non-standard attributes, 177
                                                                  operating system, 441
bits in a byte, 6
                                                         exception type when shared_ptr constructor fails,
                                                                  548, 549
choice of larger or smaller value of floating literal,
                                                         exceptions thrown by standard library functions
                                                                  that do not have an exception specifica-
concatenation of some types of string literals, 29
                                                                  tion, 441
conversions between pointers and integers, 106
                                                         execution character-set and execution wide-character
converting characters from source character set to
                                                                  set. 18
        execution character set, 17
                                                         exit status, 456
converting function pointer to object pointer and
                                                         extended signed integer types, 72
         vice versa, 106
                                                         formatted character sequence generated by time_-
default number of buckets in unordered map, 813
                                                                  put::do_put in C locale, 718
default number of buckets in unordered multimap,
        817
                                                         headers for freestanding implementation, 425
default number of buckets in unordered_multiset,
         824, 825
                                                         interactive device, 8
default number of buckets in unordered_set, 821
                                                         linkage of main, 59
defining main in freestanding environment, 59
                                                         linkage of names from Standard C library, 426
definition and meaning of __STDC__, 412
                                                         locale names, 681
definition and meaning of __STDC_VERSION__-
         , 413
                                                         manner of search for included source file, 405
derived type for typeid, 103
                                                         mapping from name to catalog when calling messages
diagnostic message, 2
                                                                  ::do open, 726
distinctness of string literals, 29
                                                         mapping header name to header or external source
dynamic initialization of static objects before main,
                                                                  file, 21
        61
```

## ISO/IEC 14882:2014(E)

| mapping physical source file characters to basic                                 | string resulting fromfunc, 197                                       |
|--|--|
| source character set, 16   | support for extended alignment, 602                                  |
| mapping to message when calling messages::do                                     | support for over-aligned types, 110, 530, 532                        |
| get, 726   | supported multibyte character encoding rules, 634,                   |
| meaning of asm declaration, 173  | 636  |
| meaning of attribute declaration, 140  | text of DATE when date of translation is not                         |
| nogative value of character literal in preprocessor                              | available, 412   |
| negative value of character literal in preprocessor,                             | text of TIME when time of translation is not                         |
| 405  | available, 412   |
| nesting limit for #include directives, 406                                       | type of ios_base::streamoff, 1248                                    |
| number of threads in a program under a freestand-                                | type of ios_base::streamor, 1248                                     |
| ing implementation, 11   | · · · · · · · · · · · · · · · · · · ·                                |
| numeric values of character literals in #if direc-                               | type of ptrdiff_t, 119, 444  |
| tives, $405$   | type of regex_constants::error_type, 1097                            |
| parameters to main, 59   | type of size_t, 444  |
| passing argument of class type through ellipsis, 99                              | type of streamoff, 634   |
|  | type of streampos, 634   |
| physical source file characters, 16  | type of u16streampos, 635  |
| presence and meaning of native_handle_type and                                   | type of u32streampos, 636  |
| native_handle, 1151  | type of wstreampos, 636  |
| rank of extended signed integer type, 83   | type of array::const_iterator, 763                                   |
| representation of char, 71   | type of array::iterator, 763   |
| required libraries for freestanding implementation,                              | underlying source of random numbers for random                       |
| 5  | shuffle, 1267  |
| result of exception::what, 466   | underlying type for enumeration, 159                                 |
| result of exception: . what, 400 result of inexact floating-point conversion, 82 | use of non-POF function as signal handler, 472                       |
| result of right shift of negative value, 120                                     |  |
| return value of bad_alloc::what, 462   | value of ctype <char>::table_size, 694</char>                        |
| return value of bad_cast::what, 464  | value of character literal outside range of corre-                   |
| return value of bad_exception::what, 467   | sponding type, $26$  |
| return value of bad_typeid::what, 465  | value of multicharacter literal, 25                                  |
| return value of char_traits <char16_t>::eof, 635</char16_t>                      | value of result of inexact integer to floating-point                 |
| return value of char_traits <char32_t>::eof, 636</char32_t>                      | conversion, 82   |
| return value of type_info::name(), 464   | value of result of unsigned to signed conversion, 81                 |
| <b>71 –</b>  | value of wide-character literal containing multiple                  |
| search locations for "" header, 406  | characters, 26   |
| search locations for <> header, 405  | value of wide-character literal with single c-char                   |
| semantics of linkage specification on templates,                                 | that is not in execution wide-character                              |
| 317  | $\operatorname{set}$ , $26$  |
| semantics of linkage specifiers, 173   | value representation of floating-point types, 72                     |
| semantics of non-standard escape sequences, 26                                   | value representation of pointer types, 73                            |
| sequence of places searched for a header, 405                                    | values of a trivially copyable type, 70                              |
| signedness of char, 71   | values of various ATOMICLOCK_FREE macros,                            |
| sizeof applied to fundamental types other than                                   | 1139   |
| char, signed char, and unsigned char,  |  |
| 109  | whether get_pointer_safety returns pointer                           |
| stack unwinding before call to std::terminate(),                                 | <pre>safety::relaxed or pointer_safety::preferred</pre>              |
| 396, 401   | if the implementation has relaxed pointer                            |
| start-up and termination in freestanding environ-                                | safety, 525  |
| ment, 59   | whether time_get::do_get_year accepts two-digit<br>year numbers, 716 |

## ISO/IEC 14882:2014(E)

```
whether an implementation has relaxed or strict
        pointer safety, 66
whether locale object is global or per-thread, 678
whether sequence pointers are copied by basic_-
        filebuf move constructor, 1071
whether sequence pointers are copied by basic_-
        stringbuf move constructor, 1060
whether source of translation units must be avail-
        able to locate template definitions, 17
whether stack is unwound before calling std::terminate()
        when a noexcept specification is violated,
        401
whether values are rounded or truncated to the
        required precision when converting be-
        tween time_t values and time_point ob-
        jects., 621
which functions in Standard C++ library may be
        recursively reentered, 440
```