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** Document Number: WG21/N0888 = X3J16/96-0070
** Reply to:        Nathan Myers <ncm@cantrip.org>
** Date:            13 Mar 1996

** Work Group:      Library: Localization Clause 22
** Issue Number:    22-062
** Title:           ctype<char> member table() size overspecified
** Sections:        [lib.locale.ctype.char.members]
** Status:          active
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** Description:

The size of the table used by ctype<char> is specified in the
WP to be of size UCHAR_MAX+1. This may be an arbitrarily large
value, too large for practicality in some implementations.

** Discussion:

There is no reason all implementations need to have a table
this large, if it is large. For very large values of UCHAR_MAX,
the set of actual character codes used is always much smaller.

** Proposed Resolution:

In [lib.facet.ctype.special] 22.2.1.3

  Add a public member:

    static const size_t table_size = IMPLEMENTATION_DEFINED;

  Add a sentence:

    The implementation-defined value of table_size is at least 256.

In [lib.facet.ctype.char.members] 22.2.1.3.2 (p. 22-16),
add a paragraph before the member descriptions:

  In the following member descriptions, for unsigned char values v
  where (v >= table_size), table()[v] is assumed to have an
  implementation-defined value (possibly different for each such
  value v) without performing the array lookup.

In [lib.facet.ctype.char.statics] 22.1.3.3

  Change the table size to (simply) table_size.

In [lib.facet.ctype.char.members] 22.2.1.3.2, in the constructor, add:

  Precondition: tab either 0 or an array of at least table_size
    elements.