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Locale codecvt<> Shift-state Predicate

The Standard C Library function mblen() (found in <stdlib.h>), when called with a magic combination of argument values, reveals whether the character set encoding has "state-dependent encodings". The C++ locale facilities currently provide no corresponding semantics.

Filebuf needs this information for uses that include helping determine whether seeking is possible on a sequence using the encoding. The simplest way to provide this information is by adding a predicate member to codecvt<>.

Proposed Resolution

Add to [lib.locale.codecvt] (22.2.1.5), [lib.locale.codecvt.members] (22.2.1.5.1), and [lib.locale.codecvt.byname] (22.2.1.6) the following members:

protected:

virtual bool do_has_locking_shift() const throw();

Returns: true if the encoding applied to *from* sequences has state-dependent encodings; false otherwise.

public:

bool has_locking_shift() const throw();

Returns: do_has_locking_shift()