NAME

  caph_limit_stream, **caph_limit_stdin**, **caph_limit_stderr**, **caph_limit_stdout**, **caph_limit_stdio**,
  caph_stream_rights, **caph_cache_tzdata**, **caph_cache_catpages**, **caph_enter**, **caph_enter_casper**,
  caph_rights_limit, **caph_ioctls_limit**, **caph_fcntls_limit** - set of the capsicum helpers, part of the
  libcapsicum

LIBRARY

  library "libcapsicum"

SYNOPSIS

  #include <capsicum_helpers.h>

  int
  caph_enter(*void*);

  int
  caph_enter_casper(*void*);

  int
  caph_rights_limit(*int fd*, *const cap_rights_t *rights*);

  int
  caph_ioctls_limit(*int fd*, *const unsigned long *cmds*, *size_t ncmds*);

  int
  caph_fcntls_limit(*int fd*, *uint32_t fcntlrights*);

  int
  caph_limit_stream(*int fd*, *int flags*);

  int
  caph_limit_stdin(*void*);

  int
  caph_limit_stderr(*void*);

  int
  caph_limit_stdout(*void*);

  int

caph_limit_stdio(*void*);

void
caph_stream_rights(*cap_rights_t **, *int flags*);

void
caph_cache_tzdata(*void*);

void
caph_cache_catpages(*void*);

DESCRIPTION

The **caph_enter**, **caph_rights_limit**, **caph_ioctls_limit** and **caph_fcntls_limit** are respectively equivalent to cap_enter(2), cap_rights_limit(2), cap_ioctls_limit(2) and cap_fcntls_limit(2), it returns success when the kernel is built without support of the capability mode.

The **caph_enter_casper** is equivalent to the **caph_enter** it returns success when the system is built without Casper support.

The **capsicum helpers** are a set of a inline functions which simplify modifying programs to use Capsicum. The goal is to reduce duplicated code patterns. The **capsicum helpers** are part of **libcapsicum** but there is no need to link to the library.

caph_limit_stream() restricts capabilities on *fd* to only those needed by POSIX stream objects (that is, FILEs).

These flags can be provided:

      CAPH_IGNORE_EBADF Do not return an error if file descriptor is invalid.
      CAPH_READ   Set CAP_READ on limited descriptor.
      CAPH_WRITE   Set CAP_WRITE on limited descriptor.

caph_limit_stdin(), **caph_limit_stderr**() and **caph_limit_stdout**() limit standard descriptors using the **caph_limit_stream** function.

caph_limit_stdio() limits stdin, stderr and stdout.

caph_stream_rights may be used to initialize *rights* with the same rights that a stream would be limited to, as if **caph_limit_stream**() had been invoked using the same *flags*.

caph_cache_tzdata() precaches all timezone data needed to use libc local time functions.

caph_cache_catpages() caches Native Language Support (NLS) data. NLS data is used for localized error printing by strerror(3) and err(3), among others.

SEE ALSO

cap_enter(2), cap_rights_limit(2), rights(4)