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PROGRAM APPLICATION INSTRUCTION   Section 14 (c)
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OPENI(c)   OPENI(c)

NAME
> openi − open file specified by inode number

SYNOPSIS
> openi = 25.

ARGUMENTS (input)
> capability associated with working directory of sender process
> 0 - file system device code
> 1 - file inode number
> 2 - mode

VALUES (returned)
> 0 - capability number of file
> 1 - file type
> 2 - process number (for device file only)
> 3 - channel number (for device file only)
> 4,5 - size of file

DESCRIPTION

The *openi* message requests that the file specified by the file system device code and the file inode number passed as arguments is opened for reading (mode = 0), writing (mode = 1) or for both reading and writing (mode = 2). The returned capability number associated with the file must be saved to be used for subsequent read's, write's and close's. The file type is returned in bits 3-5 of argument one. These bits correspond to bits 12-14 in mode bits of the inode (see fs(g)). If the file type is a device file, the file manager will send the appropriate messages to the process manager to load and lock in memory the appropriate device driver. An *openi* message will also be sent to this device driver if one is expected by this device driver. In this case, arguments 2 and 3 will contain the process number of the device driver and the logical channel of this driver, respectively.

The capability associated with the file opened is added to the PCB of the sender process.

SEE ALSO
> creat(II), read(II), write(II), close(II).
> creat(c), read(c), write(c), close(c).

DIAGNOSTICS

> An error status byte is returned if the file does not exist, if one of the necessary directories does not exist or is unreadable, or if the file is not readable(resp. writable). Also an error status byte is returned if the device driver can not be loaded by the process manager or if a bus error is generated by accessing the device control and status register.