NAME

     dd_ifree - test for access to data distributor control file

SYNOPSIS

     dd_ifree(oid)
     int oid;

DESCRIPTION

     This subroutine is intended to be used by programs which access
     the ddcntl files.   This subroutine, when called, will check a
     file (protect file) which contains an access slot for each of-
     fice. Each access slot is either empty, in which case no process
     is currently accessing the .ddcntl file for that office, or the
     access slot contains the process ID of the process currently
     having access to the .ddcntl file for that office.

     If the access slot for the office of interest is empty, this
     subroutine places the process ID of the calling process in that
     access slot and returns. However, if the access slot, for the
     office of interest, is not empty then another process is current-
     ly accessing the desired ddcntl file.   In that case, the
     subroutine will check to see if the process, corresponding to the
     process ID in the access slot, still exists.   If it does not,
     this subroutine places the process ID of the calling process in
     the access slot of the office of interest and returns.   However,
     if the process does exist, this subroutine would not go any
     further and return.

     Any program which uses this subroutine should not use the SIGFPT
     signal (currently number 8).   This signal is used by this
     subroutine to check the existence of processes which are current-
     ly accessing the ddcntl files. Signal handling for SIGFPT is set
     up automatically by this subroutine. Also, since this subroutine
     sets up and catches alarm system calls, the programs which use
     the Locking Mechanism should not use an alarm call which might
     interfere with this subroutine's operation.

     Subroutine dd_ifree returns one of the following values to the
     calling program:

          -5 Bad Protection file.

          -4 Protection file semaphore permanently locked.

          -3 System error occurred.

          -2 Illegal office ID passed to this subroutine.

          -1 Access to .ddcntl file not gained.

           0 Access to .ddcntl file granted.

The Protect file is a temporary file and is rebuilt, by the first call to subroutine dd wnfree or subroutine dd ifree, each time the system is rebooted.

LIBRARY
     /lib/lib1.a

SEE ALSO
     dd_wnfree(3L), dd_freup(3L), dd_check(3L)