

File created: 6-Sep-85 10:23:52 {DSK}<LISPPFILES>FDEVTEST.;2

changes to: (VARS FDEVTESTCOMS)

Read Table: OLD-INTERLISP-FILE

Package: INTERLISP

Format: XCCS

(* * Lots more has to be done here but I have the basic data structures here needed to create the test code)

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```
(RPAQQ FDEVTESTCOMS [(RECORDS FDEV)
                     (MACROS .APPLY. FDEVOP)
                     (P (MOVD (QUOTE APPLY*)
                              (QUOTE SPREADAPPLY*)))]
```

```
(DECLARE: EVAL@COMPILE
```

```
(DATATYPE FDEV ((DEVICENAME POINTER)
                (RESETABLE FLAG)
                (RANDOMACCESSP FLAG)
                (NODIRECTORIES FLAG)
                (PAGEMAPPED FLAG)
                (FDBINABLE FLAG)
                device)
                (FDBOUTABLE FLAG)
                (FDEXTENDABLE FLAG)
                (BUFFERED FLAG)
```

(* True if i/o handled by pmap routines)
(* Copied as a microcode flag for INPUT streams formed on this

(* True implies that the device supports the BIN & BOUT uCode conventions, and implements the GETNEXTBUFFER method)

```
(REMOTEP FLAG)
(SUBDIRECTORIES FLAG)
(NIL 6 FLAG)
(CLOSEFILE POINTER)
(DELETEFILE POINTER)
(DIRECTORYNAMEP POINTER)
(EVENTFN POINTER)
(GENERATEFILES POINTER)
```

(* Device operations:
* true if device not local to machine)
* true if device has real subdirectories)
* (stream) => closes stream, returns it)
* (name) => deletes file so named, returning name, or NIL on failure. RECOG=OLDEST)
* (host/dir) => true if directory exists on host)
* (device event), called before/after logout, sysout, makesys)

(* (device pattern) => generator object for files matching pattern.
Car of object is generator function, cdr is arbitrary state. Generator fn returns next file, or NIL when finished)

```
(GETFILEINFO POINTER)
(GETFILENAME POINTER)
(HOSTNAMEP POINTER)
```

(* (stream/name attribute device) => value of attribute for open stream or name of closed file)
* (name recog device) => full file name)

(* (hostname {device}) => T if hostname is valid. If device is given, return a FDEV for this {new} host, or T to use existing device)

```
(OPENFILE POINTER)
this device, or NIL if name not found)
(READPAGES POINTER)
```

(* (name access recog otherinfo device) => new stream open on

(* (stream firstpage# buflist) => # of bytes read, starting at firstpage#, reading into buflist, a list of buffers or a single buffer (the usual case))

```
(REOPENFILE POINTER)
```

(* (name access recog otherinfo device stream) like openfile, but called after logout to revalidate file, so optionally uses info in old stream to keep this opening like the previous)

```
(SETFILEINFO POINTER)
(TRUNCATEFILE POINTER)
(WRITEPAGES POINTER)
at firstpage# of stream)
(BIN POINTER)
(BOUT POINTER)
(PEEKBIN POINTER)
(READP POINTER)
(BACKFILEPTR POINTER)
```

(* (stream/name attribute newvalue device) sets attribute of open stream or closed file of given name)
* (stream page offset) make stream's eof be at page,offset, discarding anything after it)
* (stream firstpage# buflist) writes from buflist to stream starting
* (stream) => next byte of input)
* (stream byte) output byte to stream)
* (stream) => next byte without advancing position in stream)
* (stream flag) => T if there is input available from stream)

(* (stream) backs up "fileptr" by one. Stream is only required to be able to do this once, i.e. one-character buffer suffices)

```
(DEVICEINFO POINTER)
(FORCEOUTPUT POINTER)
(LASTC POINTER)
```

(* arbitrary device-specific info stored here)
* (stream waitforFinish) flushes out to device anything that is buffered awaiting transmission)
* Should be possible only if RANDOMACCESSP)

```

(SETFILEPTR POINTER)
(GETFILEPTR POINTER)
(GETEOFPTR POINTER)
(EOFP POINTER)
(BLOCKIN POINTER) (* (stream buffer byteoffset nbytes))
(BLOCKOUT POINTER) (* (stream buffer byteoffset nbytes))
(RENAMEFILE POINTER) (* oldfile newfile device)
(RELEASEBUFFER POINTER) (* (stream) => Does whatever appropriate when CBUFPTR is
released)
(GETNEXTBUFFER POINTER)

```

(* (stream whatfor noerrorflg) => Disposes of current buffer and optionally reads next. whatfor is READ or WRITE. Can cause EOF error unless noerrorflg)

```

(SETEOFPTR POINTER) (* (stream length) => truncates or lengthens stream to indicated
length)
(FREEPAGECOUNT POINTER) (* (host/dir dev) => # of free pages on host/dir)
(MAKEDIRECTORY POINTER) (* (host/dir dev))
(WINDOWOPS POINTER) (* window system operations -
type WSOPS)
(WINDOWDATA POINTER) (* data for window systems)
(CHECKFILENAME POINTER) (* (name dev) => name if it is well-formed file name for dev)
(HOSTALIVEP POINTER)

```

(* (host dev) => true if host is alive, i.e., responsive; only defined if REMOTEP is true)

```
(OPENP POINTER)
```

(* (name access dev) => stream if name is open for access, or all open streams if name = NIL)

```

(OPENFILELST POINTER) (* Default place to keep list of streams open on this device)
(NIL POINTER) (* Spare)
)

```

```

DIRECTORYNAMEP _ (FUNCTION NIL)
HOSTNAMEP _ (FUNCTION NIL)
READP _ (FUNCTION \GENERIC.READP)
SETFILEPTR _ (FUNCTION \IS.NOT.RANDACCESSP)
GETFILEPTR _ (FUNCTION \ILLEGAL.DEVICEOP)
GETEOFPTR _ (FUNCTION \IS.NOT.RANDACCESSP)
EOFP _ (FUNCTION \ILLEGAL.DEVICEOP)
BLOCKIN _ (FUNCTION \GENERIC.BINS)
BLOCKOUT _ (FUNCTION \GENERIC.BOUTS)
RENAMEFILE _ (FUNCTION \GENERIC.RENAMEFILE)
FORCEOUTPUT _ (FUNCTION NIL)
)

```

```

(/DECLAREDATATYPE (QUOTE FDEV)
(QUOTE (POINTER FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG FLAG POINTER
POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER
POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER
POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER)))

```

;; ---field descriptor list elided by lister---

```
(QUOTE 84))
```

```
(DECLARE: EVAL@COMPILE
```

```

(PUTPROPS .APPLY. MACRO [(U V) (* body for APPLY, used by RETAPPLY too)
(PROG ((DEF U))
LP [COND
((LITATOM DEF)
(COND
((NOT (fetch (LITATOM CCODEP) of DEF))
(* EXPR)
(SETQ DEF (fetch (LITATOM DEFPOINTER) of DEF)))
(EQ (fetch (LITATOM ARGTYPE) of DEF)
3)
(GO NLSTAR))
(T (GO NORMAL]
[COND
((LISTP DEF)
(SELECTQ (CAR DEF)
(NLAMBDA (AND (NLISTP (CADR DEF))
(CADR DEF)
(GO NLSTAR)))
(FUNARG (SETQ DEF (CADR DEF))
(GO LP))
NIL))
(NULL DEF)
(RETURN (FAULTAPPLY U V]
NORMAL
(RETURN (SPREADAPPLY U V))
NLSTAR
(* NLAMBDA*)
(RETURN (SPREADAPPLY* U V]))

```

{MEDLEY}<test>tools>FDEVTEST.;1

```
(PUTPROPS FDEVOP MACRO [ARGS (CONS (QUOTE SPREADAPPLY*)
                                     (CONS (COND
                                             ((EQ (CAR (LISTP (CAR ARGS)))
                                                  (QUOTE QUOTE))
                                              (LIST (QUOTE fetch)
                                                  (CADAR ARGS)
                                                  (QUOTE of)
                                                  (CADR ARGS)))
                                             (T (HELP "FDEVOP - OPNAME not quoted:" ARGS)))
                                         (CDDR ARGS])
                                     )
)
(MOVD (QUOTE APPLY*)
      (QUOTE SPREADAPPLY*))
(PUTPROPS FDEVTEST COPYRIGHT ("Xerox Corporation" 1985))
```

MACRO INDEX

.APPLY.2 FDEVOP3

RECORD INDEX

FDEV1
