```
9-Sep-88 12:35:44 {DSK}<LISPFILES2>SYSTEM>MSPATCH.;5
 File created:
  changes to:
               (VARS MSPATCHCOMS)
               (RECORDS MSANALYZABLE MSSETPHRASE)
               (FNS MSEDITF MSSHOWUSE PatchCCode)
previous date:
               9-Sep-88 11:57:36 {DSK}<LISPFILES2>SYSTEM>MSPATCH.;4
 Read Table:
              INTERLISP
   Package:
              INTERLISP
      Format:
                XCCS
;;
;; Copyright (c) 1988 by Savoir, Inc.. All rights reserved.
(RPAQQ MSPATCHCOMS
       [(RECORDS MSANALYZABLE MSSETPHRASE)
        (FNS MSEDITF MSSHOWUSE PatchCCode)
        [P (PatchCCode '\MasterscopeBLOCK/msinterpret 530 '(104) '(105 104]
        (PROP FILETYPE MSPATCH)
        (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
                                                                                   (NLAML)
                                                                                   (LAMA PatchCCodel)
(DECLARE%: EVAL@COMPILE
(RECORD MSANALYZABLE (FILEPKGNAME SETNAME GETDEF-FN MARKCHANGED-FN))
(RECORD MSSETPHRASE (DET (TYPE KNOWN . DEFAULTTYPE) . REP)
       (TYPE? (EQLENGTH (CADR DATUM)
                      2)))
(DEFINEQ
(MSEDITF
                                                                     ; Edited 9-Sep-88 12:24 by TAL
  [LAMBDA ARGCOUNT
    (LET [(FNAME (ARG ARGCOUNT 1))
            FEDITCOMS (for X from 2 to ARGCOUNT collect (ARG ARGCOUNT X]
          (DECLARE (SPECVARS MSFNTYPES))
          (for fptype in msfntypes bind fpname when (hasdef fname (setq fpname (ffetch (msanalyzable filepkgname)
                                                                                     of FPTYPE)))
            do [if (EQ FPTYPE 'FNS)
                    then (APPLY 'EDITF (CONS FNAME FEDITCOMS))
                  else (EDITE (GETDEF FNAME FPNAME NIL '(NOERROR NOCOPY EDIT))
                              FEDITCOMS FNAME FPNAME (FUNCTION (LAMBDA (NAME DEF TYPE EXITFLG)
                                                                     ; this function is called when there were changes made
                                                                    (MARKASCHANGED NAME TYPE 'CHANGED)
                                                                    (PUTDEF NAME TYPE DEF]
                (RETURN FNAME])
(MSSHOWUSE
  [LAMBDA (SHOWFN SHOWTYPE SHOWSET SHOWEDIT IFCANT EDITCOMS)
                                                                     ; Edited 9-Sep-88 11:51 by TAL
           (DEF ANYFOUND) (DECLARE (LOCALVARS . T)
    (PROG
                  (SPECVARS DEF ANYFOUND SHOWFN))
              ([SETQ DEF (OR (MSGETDEF SHOWFN (AND (fetch (MSSETPHRASE KNOWN) of SHOWSET)
                                                      (fetch (MSSETPHRASE TYPE) of SHOWSET))
                                      (COND
                                         ((EQ SHOWEDIT 'SHOW)
                                         '?)
(T 'CURRENT))
                                     '(NOERROR NODWIM NOCOPY))
                              (AND (EQ SHOWEDIT 'EDIT)
                                   (LET ((FILE (EDITLOADFNS? SHOWFN)))
                                         (COND
                                            (FILE (LOADFNS SHOWFN FILE 'PROP)
                                                   (GETPROP SHOWFN 'EXPR]
                                                                     ; was (MSGETDEF SHOWFN IFCANT (EQ SHOWEDIT
                                                                      (QUÒTE SHOW)))
                                                                     The SHOW command does not need to save
               (\MASTERSCOPEBLOCK/MSUPDATEFN1 SHOWFN DEF
                      (LIST SHOWTYPE [FUNCTION (LAMBDA (ITEM SS SE PRNT INCLISP)
                                                    (COND
                                                       ((MSMEMBSET ITEM SS)
                                                        (COND
                                                           ((NOT ANYFOUND)
                                                            (TAB 0 0 T)
                                                            (PRIN2 SHOWFN)
                                                            (PRIN1 "
                                                                    ")))
```

```
(SETQ ANYFOUND (CONS (CONS PRNT
                                                                                                    INCLISP
                                                                                                     (NOT (MSFIND INCLISP PRNT))
                                                                                                     INCLISP))
                                                                                       ANYFOUND))
                                                              (COND
                                                                  ([AND (EQ SE 'SHOW)
                                                                         (NOT (FASSOC PRNT (CDR ANYFOUND]
                                            ;; The EDIT command works by collecting a list of the expressions, and then doing a ({}^{*}ORF{}^{*} (= . lst1); (= . lst2)) --- if within a CLISP translation (determined by the binding of the INCLISP variable) then ;; want to point at the CLISP if the expression is not actually embedded in the expression
                                                                   (SPACES 3)
                                                                   (LVLPRINT PRNT (OUTPUT)
                                                                           2)
                                                                   (COND
                                                                       ((CDAR ANYFOUND)
                                                                             ; This is under a clisp
                                                                        (PRIN1 "
                                                                                    (under ")
                                                                        (LVLPRIN2 INCLISP (OUTPUT)
                                                                                2)
                                                                        (PRIN1
                                SHOWSET SHOWEDIT)))
               (T (printout T "Can't find a definition for " SHOWFN "!" T)
                   (RETURN)))
            (COND
               ((NOT ANYFOUND)
                 (RETURN))
               ((EQ SHOWEDIT 'EDIT)
                 [MAPC ANYFOUND (FUNCTION (LAMBDA (X)
                                                 ;; Definer definitions get copied, so == pattern loses.
                                                 ;; (FRPLNODE X (QUOTE ==) (OR (CDR X) (CAR X)))
                                                 (FRPLNODE2 X (OR (CDR X)
                                                                      (CAR X1
                 (SETQ ANYFOUND (CONS '*ANY* ANYFOUND))
                 (PRINT [APPLY* 'MSEDITF SHOWFN (LIST 'BIND '(E (SETQ %#1)
                                                                         T)
                                                             (LIST 'F ANYFOUND T)
                                                             (LIST 'LPQ (LIST 'IF '(NEQ (%##)
                                                                                             %#1)
                                                                                  [LIST '(ORR (P)
                                                                                                NIL)
                                                                                         '(S %#1)
                                                                                         (COND
                                                                                             (EDITCOMS (CONS 'BIND EDITCOMS))
                                                                                             (T 'TTY%:]
                                                                                 NIL)
                                                                     (LIST 'F ANYFOUND 'N]
                        T T)))
            (RETURN T])
(PatchCCode
  [CL:LAMBDA (Fn Offset NewBytes &OPTIONAL OldBytes)
                                                                             ; Edited 7-Sep-88 15:24 by TAL
          (LET ((tmp (GETD Fn)))
                (COND
                    ((AND (CCODEP tmp)
                           (SETQ tmp (\GETBASEPTR tmp 0))
                           (for off from Offset as x inside OldBytes always (EQ (\GETBASEBYTE tmp off)
                                                                                       x)))
                     (for off from Offset as x inside NewBytes do (\PUTBASEBYTE tmp off x))
                     T])
(PatchCCode '\MASTERSCOPEBLOCK/MSINTERPRET 530 '(104)
        (105 104))
(PUTPROPS MSPATCH FILETYPE : COMPILE-FILE)
(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS
(ADDTOVAR NLAMA )
(ADDTOVAR NLAML)
(ADDTOVAR LAMA PatchCCode)
(RPAQQ MSPATCHCOMS
        [(RECORDS MSANALYZABLE MSSETPHRASE)
         (FNS MSEDITF MSSHOWUSE PatchCCode)
         [P (PatchCCode '\MASTERSCOPEBLOCK/MSINTERPRET 530 '(104)
                     '(105 104]
         (PROP FILETYPE MSPATCH)
```

```
(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA) (NLAML) (NLAML) (LAMA PatchCCode MSEDITF])

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS

(ADDTOVAR NLAMA )

(ADDTOVAR NLAMA )

(ADDTOVAR LAMA PatchCCode MSEDITF)
)

(PUTPROPS MSPATCH COPYRIGHT ("Savoir, Inc." 1988))
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## 

MSEDITF1	FUNCTION INDEX MSSHOWUSE	PatchCCode2
MSANALYZABLE1	RECORD INDEX  MSSETPHRASE	
MSPATCH2	PROPERTY INDEX	