

File created: 16-May-90 13:05:47 {DSK}<usr>local>lde>lispcore>sources>CMLDESTRUCT.;2

changes to: (VARS CMLDESTRUCTCOMS)

previous date: 29-Apr-87 11:30:49 {DSK}<usr>local>lde>lispcore>sources>CMLDESTRUCT.;1

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

;;
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```
(RPAQQ CMLDESTRUCTCOMS ((FUNCTIONS DESTRUCTURING-BIND DESTRUCTURING-SETQ EXPAND-DESTRUCTURING-BIND)
  ;; Arrange for the correct compiler to be used.
  (PROP FILETYPE CMLDESTRUCT)))
```

```
(DEFMACRO DESTRUCTURING-BIND (PATTERN FORM &BODY BODY &ENVIRONMENT ENV)
  (EXPAND-DESTRUCTURING-BIND PATTERN FORM BODY ENV))
```

```
(DEFMACRO DESTRUCTURING-SETQ (VARS VALUE)
  [IF (NULL VARS)
    THEN VALUE
  ELSEIF (NLISTP VARS)
    THEN `(SETQ ,VARS ,VALUE)
  ELSEIF (NULL (CDR VARS))
    THEN `(DESTRUCTURING-SETQ , (CAR VARS)
      (CAR ,VALUE))
  ELSEIF (LISTP VALUE)
    THEN [LET ((DV (GENSYM))
      `(LET ((,DV ,VALUE))
        (DESTRUCTURING-SETQ , (CAR VARS)
          (CAR ,DV))
        (DESTRUCTURING-SETQ , (CDR VARS)
          (CDR ,DV)]
    ELSE `(PROGN (DESTRUCTURING-SETQ , (CAR VARS)
      (CAR ,VALUE))
      (DESTRUCTURING-SETQ , (CDR VARS)
        (CDR ,VALUE)])
```

```
(CL:DEFUN EXPAND-DESTRUCTURING-BIND (PATTERN FORM BODY ENVIRONMENT)
```

;; A compiled function so that circularity of MULTIPLE-VALUE-BIND isn't caught. DO NOT try to run with this function interpreted!

```
[LET ((WHOLE-VAR (GENSYM)))
  (CL:MULTIPLE-VALUE-BIND (CODE DECLARATIONS)
    (PARSE-DEFMACRO PATTERN WHOLE-VAR BODY 'DESTRUCTURING-BIND ENVIRONMENT :PATH WHOLE-VAR
      :DOC-STRING-ALLOWED NIL)
    (CL:ASSERT (EQ (CAR CODE)
      'LET*)
      NIL "BUG: PARSE-DEFMACRO didn't return a LET* form.")
    `(, 'LET* ((,WHOLE-VAR ,FORM)
      ,@(CADR CODE))
      ,@DECLARATIONS
      ,@(CDDR CODE)))]
```

;; Arrange for the correct compiler to be used.

```
(PUTPROPS CMLDESTRUCT FILETYPE CL:COMPILE-FILE)
```

```
(PUTPROPS CMLDESTRUCT COPYRIGHT ("Venue & Xerox Corporation" 1986 1987 1990))
```

FUNCTION INDEX

EXPAND-DESTRUCTURING-BIND1

MACRO INDEX

DESTRUCTURING-BIND1 DESTRUCTURING-SETQ1

PROPERTY INDEX

CMLDESTRUCT1
