

File created: 22-Aug-90 09:45:58 {PELE:MV:ENVOS}<LISPCORE>SOURCES>CONDITION-HIERARCHY.;6

changes to: (IL:STRUCTURES FILE-NOT-FOUND)

previous date: 9-Jul-90 12:21:39 {PELE:MV:ENVOS}<LISPCORE>SOURCES>CONDITION-HIERARCHY.;5

Read Table: XCL

Package: XEROX-COMMON-LISP

Format: XCCS

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```
(IL:RPAQQ IL:CONDITION-HIERARCHYCOMS
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    ASSERTION-FAILED HASH-TABLE-FULL)
  (IL:STRUCTURES CELL-ERROR UNBOUND-VARIABLE UNDEFINED-FUNCTION ATTEMPT-TO-CHANGE-CONSTANT
    ATTEMPT-TO-RPLAC-NIL)
  (IL:FILES IL:CONDITION-HIERARCHY-SI IL:CONDITION-HIERARCHY-POST-SI)
  (IL:COMS (IL:FUNCTIONS IL:PRETTY-TYPE-NAME)
    (IL:STRUCTURES TYPE-ERROR SIMPLE-TYPE-ERROR TYPE-MISMATCH))
  (IL:STRUCTURES CONTROL-ERROR PROGRAM-ERROR ILLEGAL-GO ILLEGAL-RETURN ILLEGAL-THROW BAD-PROCEED-CASE)
  (IL:STRUCTURES STREAM-ERROR STREAM-NOT-OPEN READ-ERROR SYMBOL-NAME-TOO-LONG END-OF-FILE)
  (IL:STRUCTURES STORAGE-CONDITION STACK-OVERFLOW CRITICAL-STORAGE-CONDITION STORAGE-EXHAUSTED
    SYMBOL-HT-FULL ARRAY-SPACE-FULL DATA-TYPES-EXHAUSTED)
  (IL:STRUCTURES DEVICE-ERROR SIMPLE-DEVICE-ERROR)
  (IL:STRUCTURES FILE-ERROR FILE-WONT-OPEN FS-RESOURCES-EXCEEDED FS-PROTECTION-VIOLATION
    FS-RENAMEFILE-SOURCE-COULDNT-DELETE)
  (IL:STRUCTURES ARITHMETIC-ERROR DIVISION-BY-ZERO FLOATING-POINT-OVERFLOW FLOATING-POINT-UNDERFLOW)
  (IL:STRUCTURES PATHNAME-ERROR FILE-NOT-FOUND INVALID-PATHNAME)
  (IL:FUNCTIONS SIMPLE-CONDITION-FORMAT-ARGUMENTS SIMPLE-CONDITION-FORMAT-STRING)
  (IL:FILES IL:CONDITION-HIERARCHY-IL)
  (IL:PROP (IL:FILETYPE IL:MAKEFILE-ENVIRONMENT)
    IL:CONDITION-HIERARCHY)))
```

```
(DEFINE-CONDITION CONDITION NIL
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "Condition ~S occurred." CONDITION))))
```

```
(DEFINE-CONDITION SIMPLE-CONDITION (CONDITION)
  (FORMAT-STRING FORMAT-ARGUMENTS)
  (:CONC-NAME "%SIMPLE-CONDITION-")
  (:REPORT (LAMBDA (CONDITION STREAM)
    (APPLY 'FORMAT STREAM (%SIMPLE-CONDITION-FORMAT-STRING CONDITION)
      (%SIMPLE-CONDITION-FORMAT-ARGUMENTS CONDITION)))))
```

```
(DEFINE-CONDITION WARNING (CONDITION)
  (CONDITION)
  (:REPORT (LAMBDA (C S)
    (FORMAT S "Warning: ~A" (WARNING-CONDITION S)))))
```

```
(DEFINE-CONDITION SIMPLE-WARNING (WARNING)
  (FORMAT-STRING FORMAT-ARGUMENTS)
  (:CONC-NAME "%SIMPLE-WARNING-")
  (:REPORT (LAMBDA (CONDITION STREAM)
    (APPLY 'FORMAT STREAM (%SIMPLE-WARNING-FORMAT-STRING CONDITION)
      (%SIMPLE-WARNING-FORMAT-ARGUMENTS CONDITION)))))
```

```
(DEFINE-CONDITION SERIOUS-CONDITION (CONDITION)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "Serious condition ~S occurred." (TYPE-OF CONDITION)))))
```

```
(DEFINE-CONDITION ERROR (SERIOUS-CONDITION)
  NIL)
```

```
(DEFINE-CONDITION SIMPLE-ERROR (ERROR)
  (FORMAT-STRING FORMAT-ARGUMENTS)
  (:CONC-NAME "%SIMPLE-ERROR-")
  (:REPORT (LAMBDA (CONDITION STREAM)
    (APPLY 'FORMAT STREAM (%SIMPLE-ERROR-FORMAT-STRING CONDITION)
      (%SIMPLE-ERROR-FORMAT-ARGUMENTS CONDITION)))))
```

```
(DEFINE-CONDITION ASSERTION-FAILED (SIMPLE-ERROR)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (APPLY 'FORMAT T (OR (ASSERTION-FAILED-FORMAT-STRING CONDITION)
      "Assertion failed."))))
```

(ASSERTION-FAILED-FORMAT-ARGUMENTS CONDITION))))

(DEFINE-CONDITION HASH-TABLE-FULL (ERROR)
(TABLE)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Hash table full: ~S" (HASH-TABLE-FULL-TABLE CONDITION))))))

(DEFINE-CONDITION CELL-ERROR (ERROR)
(NAME))

(DEFINE-CONDITION UNBOUND-VARIABLE (CELL-ERROR)
NIL
(:REPORT (LAMBDA (C S)
(FORMAT S "~S is an unbound variable." (UNBOUND-VARIABLE-NAME C))))))

(DEFINE-CONDITION UNDEFINED-FUNCTION (CELL-ERROR)
NIL
(:REPORT (LAMBDA (C S)
(FORMAT S "~S is an undefined function." (UNDEFINED-FUNCTION-NAME C))))))

(DEFINE-CONDITION ATTEMPT-TO-CHANGE-CONSTANT (CELL-ERROR)
NIL)

(DEFINE-CONDITION ATTEMPT-TO-RPLAC-NIL (ATTEMPT-TO-CHANGE-CONSTANT)
NIL
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Attempt to rplac NIL with ~S" (ATTEMPT-TO-RPLAC-NIL-NAME CONDITION))))))

(IL:FILESLOAD IL:CONDITION-HIERARCHY-SI IL:CONDITION-HIERARCHY-POST-SI)

(DEFUN IL:PRETTY-TYPE-NAME (IL:TYPESPEC)
(IL:IF (EQ (CAR (IL:LISTP IL:TYPESPEC))
'OR)
IL:THEN (LET ((IL:TYPES (IL:SUBSET (CDR IL:TYPESPEC)
(IL:FUNCTION (IL:LAMBDA (IL:NAME)
(NOT (IL:SOME (CDR IL:TYPESPEC)
(IL:FUNCTION (IL:LAMBDA (IL:OTHER)
(AND (IL:NEQ IL:OTHER IL:NAME)
(SUBTYPEP IL:NAME IL:OTHER)
))))))))))
(IL:IF (IL:EQUAL (IL:SORT IL:TYPES)
'(COMPLEX FLOAT INTEGER RATIO))
IL:THEN "a number"
IL:ELSE (IL:CONCATLIST (CDR (IL:FOR IL:X IL:IN IL:TYPES IL:JOIN (LIST " or " (
IL:PRETTY-TYPE-NAME
IL:X)))))))
IL:ELSE (LET (IL:DOC)
(IF (AND (SYMBOLP IL:TYPESPEC)
(IL:SETQ IL:DOC (DOCUMENTATION IL:TYPESPEC 'TYPE)))
IL:DOC
(IL:CONCAT "a " IL:TYPESPEC))))))

(DEFINE-CONDITION TYPE-ERROR (ERROR)
(EXPECTED-TYPE DATUM)
(:REPORT (LAMBDA (C S)
(FORMAT S "Arg not ~A~&~S" (IL:PRETTY-TYPE-NAME (TYPE-ERROR-EXPECTED-TYPE C)
(TYPE-ERROR-DATUM C))))))

(DEFINE-CONDITION SIMPLE-TYPE-ERROR

;;; This is a pretty worthless type to have around.

(TYPE-ERROR)
(FORMAT-STRING FORMAT-ARGUMENTS)
(:CONC-NAME "%SIMPLE-TYPE-ERROR-")
(:REPORT (LAMBDA (C S)
(APPLY 'FORMAT S (%SIMPLE-TYPE-ERROR-FORMAT-STRING C)
(%SIMPLE-TYPE-ERROR-FORMAT-ARGUMENTS C))))))

(DEFINE-CONDITION TYPE-MISMATCH (TYPE-ERROR)
(NAME VALUE MESSAGE)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(IF (EQL (TYPE-MISMATCH-NAME CONDITION)
(TYPE-MISMATCH-VALUE CONDITION))
(FORMAT T "~S is not ~A." (TYPE-MISMATCH-VALUE CONDITION)
(OR (TYPE-MISMATCH-MESSAGE CONDITION)
(IL:PRETTY-TYPE-NAME (TYPE-MISMATCH-EXPECTED-TYPE CONDITION))))))

```
(FORMAT T "The value of ~S, ~S, is not ~A." (TYPE-MISMATCH-NAME CONDITION)
(TYPE-MISMATCH-VALUE CONDITION)
(OR (TYPE-MISMATCH-MESSAGE CONDITION)
(IL:PRETTY-TYPE-NAME (TYPE-MISMATCH-EXPECTED-TYPE CONDITION))))))
```

```
(DEFINE-CONDITION CONTROL-ERROR (ERROR)
NIL)
```

```
(DEFINE-CONDITION PROGRAM-ERROR (ERROR)
NIL)
```

```
(DEFINE-CONDITION ILLEGAL-GO (PROGRAM-ERROR)
(TAG)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "GO to a nonexistent tag: ~S." (ILLEGAL-GO-TAG CONDITION))))))
```

```
(DEFINE-CONDITION ILLEGAL-RETURN (PROGRAM-ERROR)
(TAG)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "RETURN to nonexistent block: ~S." (ILLEGAL-RETURN-TAG CONDITION))))))
```

```
(DEFINE-CONDITION ILLEGAL-THROW (CONTROL-ERROR)
(TAG)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Tag for THROW not found: ~S." (ILLEGAL-THROW-TAG CONDITION))))))
```

```
(DEFINE-CONDITION BAD-PROCEED-CASE (CONTROL-ERROR)
(NAME)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Proceed case ~S is not currently active." (BAD-PROCEED-CASE-NAME CONDITION))))))
```

```
(DEFINE-CONDITION STREAM-ERROR (ERROR)
(STREAM)
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Stream error on ~S." (STREAM-ERROR-STREAM CONDITION))))))
```

```
(DEFINE-CONDITION STREAM-NOT-OPEN (STREAM-ERROR)
NIL
(:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
(FORMAT T "Stream not open: ~S" (STREAM-NOT-OPEN-STREAM CONDITION))))))
```

```
(DEFINE-CONDITION READ-ERROR (ERROR)
NIL)
```

```
(DEFINE-CONDITION SYMBOL-NAME-TOO-LONG (READ-ERROR)
NIL
(:REPORT "Symbol name too long"))
```

```
(DEFINE-CONDITION END-OF-FILE (STREAM-ERROR)
NIL
(:REPORT (LAMBDA (CONDITION STREAM)
(FORMAT STREAM "End of file ~S" (END-OF-FILE-STREAM CONDITION))))))
```

```
(DEFINE-CONDITION STORAGE-CONDITION (SERIOUS-CONDITION)
NIL)
```

```
(DEFINE-CONDITION STACK-OVERFLOW (STORAGE-CONDITION)
NIL
(:REPORT "Stack overflow"))
```

```
(DEFINE-CONDITION CRITICAL-STORAGE-CONDITION (STORAGE-CONDITION)
NIL)
```

```
(DEFINE-CONDITION STORAGE-EXHAUSTED (CRITICAL-STORAGE-CONDITION)
NIL)
```

```
(DEFINE-CONDITION SYMBOL-HT-FULL (CRITICAL-STORAGE-CONDITION)
NIL
(:REPORT "Symbol hash table full"))
```

```

{MEDLEY}<sources>CONDITION-HIERARCHY.;1

(DEFINE-CONDITION ARRAY-SPACE-FULL (CRITICAL-STORAGE-CONDITION)
  NIL
  (:REPORT "Array space full"))

(DEFINE-CONDITION DATA-TYPES-EXHAUSTED (CRITICAL-STORAGE-CONDITION)
  NIL
  (:REPORT "No more data types available"))

(DEFINE-CONDITION DEVICE-ERROR (SERIOUS-CONDITION)
  (DEVICE))

(DEFINE-CONDITION SIMPLE-DEVICE-ERROR (DEVICE-ERROR)
  (MESSAGE)
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "Device error: ~A" (SIMPLE-DEVICE-ERROR-MESSAGE CONDITION))))))

(DEFINE-CONDITION FILE-ERROR (ERROR)
  (PATHNAME))

(DEFINE-CONDITION FILE-WONT-OPEN (FILE-ERROR)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "File won't open: ~A" (FILE-WONT-OPEN-PATHNAME CONDITION))))))

(DEFINE-CONDITION FS-RESOURCES-EXCEEDED (FILE-ERROR)
  NIL
  (:REPORT (LAMBDA (C S)
    (FORMAT S "File system resources exceeded: ~A" (FS-RESOURCES-EXCEEDED-PATHNAME C))))))

(DEFINE-CONDITION FS-PROTECTION-VIOLATION (FILE-ERROR)
  NIL
  (:REPORT (LAMBDA (C S)
    (FORMAT S "Protection violation: ~A" (FILE-ERROR-PATHNAME C))))))

(DEFINE-CONDITION FS-RENAMEFILE-SOURCE-COULDNT-DELETE (FILE-ERROR)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "Couldn't delete the source file: ~A" (FS-RENAMEFILE-SOURCE-COULDNT-DELETE-PATHNAME
      CONDITION))))))

(DEFINE-CONDITION ARITHMETIC-ERROR (ERROR)
  (OPERATION OPERANDS)
  (:REPORT (LAMBDA (C S)
    (FORMAT S "Arithmetic error during (~S~{ ~S~})" (ARITHMETIC-ERROR-OPERATION C)
      (ARITHMETIC-ERROR-OPERANDS C))))))

(DEFINE-CONDITION DIVISION-BY-ZERO (ARITHMETIC-ERROR)
  NIL
  (:REPORT "Attempt to divide by zero.))

(DEFINE-CONDITION FLOATING-POINT-OVERFLOW (ARITHMETIC-ERROR)
  NIL
  (:REPORT "Floating point overflow.))

(DEFINE-CONDITION FLOATING-POINT-UNDERFLOW (ARITHMETIC-ERROR)
  NIL
  (:REPORT "Floating point underflow.))

(DEFINE-CONDITION PATHNAME-ERROR (ERROR)
  (PATHNAME))

(DEFINE-CONDITION FILE-NOT-FOUND (FILE-ERROR)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
    (FORMAT T "File not found: ~A" (FILE-NOT-FOUND-PATHNAME CONDITION))))
  (:HANDLE (LAMBDA (CONDITION)
    (COND
      ((BOUNDP 'IL:ERRORPOS)
        (LET ((NEWNAME (IL:SPELLFILE (IL:ROOTFILENAME (FILE-NOT-FOUND-PATHNAME CONDITION))
          NIL IL:NOFILESPELLFLG)))
          (COND
            (NEWNAME (IL:ENVAPPLY (IL:STKNAME IL:ERRORPOS)
              (IL:SUBST NEWNAME (FILE-NOT-FOUND-PATHNAME CONDITION))

```

```

(MAPCAR #'(LAMBDA (X)
          (IF (PATHNAMEP X)
              (NAMESTRING X)
              X))
        (IL:STKARGS IL:ERRORPOS))
(IL:STKNTH -1 IL:ERRORPOS IL:ERRORPOS
 IL:ERRORPOS T T))))))

```

```

(DEFINE-CONDITION INVALID-PATHNAME (PATHNAME-ERROR)
  NIL
  (:REPORT (LAMBDA (CONDITION *STANDARD-OUTPUT*)
            (FORMAT T "Invalid pathname: ~A" (INVALID-PATHNAME-PATHNAME CONDITION))))))

```

```

(DEFUN SIMPLE-CONDITION-FORMAT-ARGUMENTS (CONDITION)
  (ETYPESCASE CONDITION
    (SIMPLE-ERROR (%SIMPLE-ERROR-FORMAT-ARGUMENTS CONDITION))
    (SIMPLE-TYPE-ERROR (%SIMPLE-TYPE-ERROR-FORMAT-ARGUMENTS CONDITION))
    (SIMPLE-CONDITION (%SIMPLE-CONDITION-FORMAT-ARGUMENTS CONDITION))
    (SIMPLE-WARNING (%SIMPLE-WARNING-FORMAT-ARGUMENTS CONDITION))))

```

```

(DEFUN SIMPLE-CONDITION-FORMAT-STRING (CONDITION)
  (ETYPESCASE CONDITION
    (SIMPLE-ERROR (%SIMPLE-ERROR-FORMAT-STRING CONDITION))
    (SIMPLE-TYPE-ERROR (%SIMPLE-TYPE-ERROR-FORMAT-STRING CONDITION))
    (SIMPLE-CONDITION (%SIMPLE-CONDITION-FORMAT-STRING CONDITION))
    (SIMPLE-WARNING (%SIMPLE-WARNING-FORMAT-STRING CONDITION))))

```

```
(IL:FILESLOAD IL:CONDITION-HIERARCHY-IL)
```

```
(IL:PUTPROPS IL:CONDITION-HIERARCHY IL:FILETYPE COMPILE-FILE)
```

```
(IL:PUTPROPS IL:CONDITION-HIERARCHY IL:MAKEFILE-ENVIRONMENT (:READTABLE "XCL" :PACKAGE (DEFPACKAGE "XCL" (:USE)
))
```

```
(IL:PUTPROPS IL:CONDITION-HIERARCHY IL:COPYRIGHT ("Venue & Xerox Corporation" 1986 1987 1988 1990))
```

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IL:CONDITION-HIERARCHY5
