

File created: 14-Aug-87 17:09:50 {QV}<JELLINEK>CONVERT>DEBUGGER-CONTEXT.;2

changes to: (IL:COMMANDS "unlex")
(IL:FUNCTIONS OPEN-LEX-ENV INIT-DEBUGGER-CONTEXT LEX-EVAL-INPUT)
(IL:VARS IL:DEBUGGER-CONTEXTCOMS)

previous date: 10-Aug-87 13:19:47 {QV}<JELLINEK>TOOLS>LEX-TOOL.;1

Read Table: XCL

Package: XCL-USER

Format: XCCS

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(IL:RPAQQ IL:DEBUGGER-CONTEXTCOMS (

;;; Debugger-Context -- fix the Xerox Lisp debugger so that you can work with lexically-defined functions, variables, blocks, and tag-bodies sensibly.

;;; Written out of frustration by Herb Jellinek, 13-Aug-87.

```
(IL:FUNCTIONS INIT-DEBUGGER-CONTEXT LEX-DO-EVENT OPEN-LEX-ENV)
(IL:VARIABLES XCL::*ENVIRONMENT*)
(IL:P (INIT-DEBUGGER-CONTEXT))
(IL:COMMANDS "lex" "unlex")
(IL:PROP IL:MAKEFILE-ENVIRONMENT IL:DEBUGGER-CONTEXT))
```

;;; Debugger-Context -- fix the Xerox Lisp debugger so that you can work with lexically-defined functions, variables, blocks, and tag-bodies sensibly.

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```
(DEFUN INIT-DEBUGGER-CONTEXT ()
  "Set things up for the DEBUGGER-CONTEXT hack"
  (UNDOABLY (SETF *PER-EXEC-VARIABLES* ; cause *environment* to be bound to nil in each executive.
    (ACONS 'XCL::*ENVIRONMENT* NIL *PER-EXEC-VARIABLES*))
    ; "advise" do-event to look at *environment* for its env.
    (UNLESS (FBOUND P 'OLD-DO-EVENT)
      (SETF (SYMBOL-FUNCTION 'OLD-DO-EVENT)
        (SYMBOL-FUNCTION 'IL:DO-EVENT))
      (SETF (SYMBOL-FUNCTION 'IL:DO-EVENT)
        (SYMBOL-FUNCTION 'LEX-DO-EVENT))))))
```

```
(DEFUN LEX-DO-EVENT (ORIGINAL-INPUT ENV &OPTIONAL (FN NIL FUNCTION-P))
  "Replacement for the executive's old DO-EVENT function."
  (IF FUNCTION-P
    (OLD-DO-EVENT ORIGINAL-INPUT (OR ENV XCL::*ENVIRONMENT*)
      FN)
    (OLD-DO-EVENT ORIGINAL-INPUT (OR ENV XCL::*ENVIRONMENT*)))))
```

```
(DEFUN OPEN-LEX-ENV ()
  "Finds the 'current' lex env and makes this debugger instance use it"
  (LET ((FRAME-VARS (IL:STKARGS IL:LASTPOS)))
    (DECLARE (SPECIAL IL:LASTPOS))
    (DOLIST (VALUE FRAME-VARS (FORMAT T ";; ? found no lexical environment"))
      (IF (IL:ENVIRONMENT-P VALUE)
        (PROGN (SETQ XCL::*ENVIRONMENT* VALUE)
          (FORMAT T ";; set lexical environment")
          (RETURN))))))
```

(DEFVAR XCL::*ENVIRONMENT* NIL)

(INIT-DEBUGGER-CONTEXT)

```
(DEFCOMMAND ("lex" :DEBUGGER) NIL "Sets the debugger's lexical environment to that of the selected frame"
  (OPEN-LEX-ENV) ;
  (VALUES))
```

```
(DEFCOMMAND ("unlex" :DEBUGGER) NIL "Unsets the lexical environment in the debugger"
  (SETQ XCL::*ENVIRONMENT* NIL)
  (FORMAT T ";; unset lexical environment")
  (VALUES))
```

(IL:PUTPROPS IL:DEBUGGER-CONTEXT IL:MAKEFILE-ENVIRONMENT (:READTABLE "XCL" :PACKAGE "XCL-USER"))

(IL:PUTPROPS IL:DEBUGGER-CONTEXT IL:COPYRIGHT ("Xerox Corporation" 1987))

FUNCTION INDEX

INIT-DEBUGGER-CONTEXT1	LEX-DO-EVENT1	OPEN-LEX-ENV1
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COMMAND INDEX

"lex"1	"unlex"1
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PROPERTY INDEX

IL:DEBUGGER-CONTEXT1
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VARIABLE INDEX

XCL::*ENVIRONMENT*1
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