

File created: 16-May-90 21:23:08 {DSK}<usr>local>lde>lispcore>sources>READ-PRINT-PROFILE.;2

changes to: (IL:VARS IL:READ-PRINT-PROFILECOMS)

previous date: 13-Nov-86 11:37:11 {DSK}<usr>local>lde>lispcore>sources>READ-PRINT-PROFILE.;1

Read Table: INTERLISP

Package: XEROX-COMMON-LISP

Format: XCCS

(IL:* IL:* ;"
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")

(IL:RPAQQ **IL:READ-PRINT-PROFILECOMS**

```
((IL:P (EXPORT '(MAKE-READ-PRINT-PROFILE COPY-READ-PRINT-PROFILE READ-PRINT-PROFILE-P
      READ-PRINT-PROFILE-READTABLE READ-PRINT-PROFILE-READ-BASE
      READ-PRINT-PROFILE-READ-SUPPRESS READ-PRINT-PROFILE-PACKAGE
      READ-PRINT-PROFILE-READ-DEFAULT-FLOAT-FORMAT READ-PRINT-PROFILE-PRINT-ESCAPE
      READ-PRINT-PROFILE-PRINT-PRETTY READ-PRINT-PROFILE-PRINT-CIRCLE
      READ-PRINT-PROFILE-PRINT-BASE READ-PRINT-PROFILE-PRINT-RADIX
      READ-PRINT-PROFILE-PRINT-CASE READ-PRINT-PROFILE-PRINT-GENSYM
      READ-PRINT-PROFILE-PRINT-LEVEL READ-PRINT-PROFILE-PRINT-LENGTH
      READ-PRINT-PROFILE-PRINT-ARRAY READ-PRINT-PROFILE-PRINT-STRUCTURE
      RESTORE-READ-PRINT-PROFILE SAVE-READ-PRINT-PROFILE WITH-READ-PRINT-PROFILE
      *DEFAULT-READ-PRINT-PROFILE* FIND-READ-PRINT-PROFILE
      LIST-ALL-READ-PRINT-PROFILE-NAMES)
    "XCL"))
  (IL:STRUCTURES READ-PRINT-PROFILE)
  (IL:FUNCTIONS MAKE-READ-PRINT-PROFILE RESTORE-READ-PRINT-PROFILE SAVE-READ-PRINT-PROFILE
    WITH-READ-PRINT-PROFILE FIND-READ-PRINT-PROFILE SETF-FIND-READ-PRINT-PROFILE
    LIST-ALL-READ-PRINT-PROFILE-NAMES)
  (IL:SETFS FIND-READ-PRINT-PROFILE)
  (IL:VARIABLES *READ-PRINT-PROFILES* *DEFAULT-READ-PRINT-PROFILE*)
  (IL:PROP (IL:MAKEFILE-ENVIRONMENT IL:FILETYPE)
    IL:READ-PRINT-PROFILE)))
```

```
(EXPORT '(MAKE-READ-PRINT-PROFILE COPY-READ-PRINT-PROFILE READ-PRINT-PROFILE-P READ-PRINT-PROFILE-READTABLE
      READ-PRINT-PROFILE-READ-BASE READ-PRINT-PROFILE-READ-SUPPRESS READ-PRINT-PROFILE-PACKAGE
      READ-PRINT-PROFILE-READ-DEFAULT-FLOAT-FORMAT READ-PRINT-PROFILE-PRINT-ESCAPE
      READ-PRINT-PROFILE-PRINT-PRETTY READ-PRINT-PROFILE-PRINT-CIRCLE READ-PRINT-PROFILE-PRINT-BASE
      READ-PRINT-PROFILE-PRINT-RADIX READ-PRINT-PROFILE-PRINT-CASE READ-PRINT-PROFILE-PRINT-GENSYM
      READ-PRINT-PROFILE-PRINT-LEVEL READ-PRINT-PROFILE-PRINT-LENGTH READ-PRINT-PROFILE-PRINT-ARRAY
      READ-PRINT-PROFILE-PRINT-STRUCTURE RESTORE-READ-PRINT-PROFILE SAVE-READ-PRINT-PROFILE
      WITH-READ-PRINT-PROFILE *DEFAULT-READ-PRINT-PROFILE* FIND-READ-PRINT-PROFILE
      LIST-ALL-READ-PRINT-PROFILE-NAMES)
  "XCL")
```

(DEFSTRUCT (**READ-PRINT-PROFILE** (:CONSTRUCTOR INTERNAL-MAKE-READ-PRINT-PROFILE))

;;; Holds complete collection of read / print affecting globals.

```
READTABLE
READ-BASE
READ-SUPPRESS
PACKAGE
READ-DEFAULT-FLOAT-FORMAT
PRINT-ESCAPE
PRINT-PRETTY
PRINT-CIRCLE
PRINT-BASE
PRINT-RADIX
PRINT-CASE
PRINT-GENSYM
PRINT-LEVEL
PRINT-LENGTH
PRINT-ARRAY
PRINT-STRUCTURE)
```

```
(DEFUN MAKE-READ-PRINT-PROFILE (&KEY (READTABLE *READTABLE*)
      (READ-BASE *READ-BASE*)
      (READ-SUPPRESS *READ-SUPPRESS*)
      (PACKAGE *PACKAGE*)
      (READ-DEFAULT-FLOAT-FORMAT *READ-DEFAULT-FLOAT-FORMAT*)
      (PRINT-ESCAPE *PRINT-ESCAPE*)
      (PRINT-PRETTY *PRINT-PRETTY*)
      (PRINT-CIRCLE *PRINT-CIRCLE*)
      (PRINT-BASE *PRINT-BASE*)
      (PRINT-RADIX *PRINT-RADIX*)
      (PRINT-CASE *PRINT-CASE*)
      (PRINT-GENSYM *PRINT-GENSYM*)
      (PRINT-LEVEL *PRINT-LEVEL*)
      (PRINT-LENGTH *PRINT-LENGTH*))
```

::: Create and return a profile with default contents the current bindings of the read print special variables.

```
(INTERNAL-MAKE-READ-PRINT-PROFILE :READTABLE READTABLE :READ-BASE READ-BASE :READ-SUPPRESS READ-SUPPRESS
:PACKAGE PACKAGE :READ-DEFAULT-FLOAT-FORMAT READ-DEFAULT-FLOAT-FORMAT :PRINT-ESCAPE PRINT-ESCAPE
:PRINT-PRETTY PRINT-PRETTY :PRINT-CIRCLE PRINT-CIRCLE :PRINT-BASE PRINT-BASE :PRINT-RADIX PRINT-RADIX
:PRINT-CASE PRINT-CASE :PRINT-GENSYM PRINT-GENSYM :PRINT-LEVEL PRINT-LEVEL :PRINT-LENGTH PRINT-LENGTH)
)
```

```
(DEFUN RESTORE-READ-PRINT-PROFILE (PROFILE)
  "Restore values of special io bindings from profile. Sets current bindings. Returns T."
  (SETF *READTABLE* (READ-PRINT-PROFILE-READTABLE PROFILE))
  (SETF *READ-BASE* (READ-PRINT-PROFILE-READ-BASE PROFILE))
  (SETF *READ-SUPPRESS* (READ-PRINT-PROFILE-READ-SUPPRESS PROFILE))
  (SETF *PACKAGE* (READ-PRINT-PROFILE-PACKAGE PROFILE))
  (SETF *READ-DEFAULT-FLOAT-FORMAT* (READ-PRINT-PROFILE-READ-DEFAULT-FLOAT-FORMAT PROFILE))
  (SETF *PRINT-ESCAPE* (READ-PRINT-PROFILE-PRINT-ESCAPE PROFILE))
  (SETF *PRINT-PRETTY* (READ-PRINT-PROFILE-PRINT-PRETTY PROFILE))
  (SETF *PRINT-CIRCLE* (READ-PRINT-PROFILE-PRINT-CIRCLE PROFILE))
  (SETF *PRINT-BASE* (READ-PRINT-PROFILE-PRINT-BASE PROFILE))
  (SETF *PRINT-RADIX* (READ-PRINT-PROFILE-PRINT-RADIX PROFILE))
  (SETF *PRINT-CASE* (READ-PRINT-PROFILE-PRINT-CASE PROFILE))
  (SETF *PRINT-GENSYM* (READ-PRINT-PROFILE-PRINT-GENSYM PROFILE))
  (SETF *PRINT-LEVEL* (READ-PRINT-PROFILE-PRINT-LEVEL PROFILE))
  (SETF *PRINT-LENGTH* (READ-PRINT-PROFILE-PRINT-LENGTH PROFILE))
  (SETF *PRINT-ARRAY* (READ-PRINT-PROFILE-PRINT-ARRAY PROFILE))
  (SETF *PRINT-STRUCTURE* (READ-PRINT-PROFILE-PRINT-STRUCTURE PROFILE))
  T)
```

```
(DEFUN SAVE-READ-PRINT-PROFILE (PROFILE)
  "Capture bindings of special io variables. Returns profile."
  (SETF (READ-PRINT-PROFILE-READTABLE PROFILE)
    *READTABLE*)
  (SETF (READ-PRINT-PROFILE-READ-BASE PROFILE)
    *READ-BASE*)
  (SETF (READ-PRINT-PROFILE-READ-SUPPRESS PROFILE)
    *READ-SUPPRESS*)
  (SETF (READ-PRINT-PROFILE-PACKAGE PROFILE)
    *PACKAGE*)
  (SETF (READ-PRINT-PROFILE-READ-DEFAULT-FLOAT-FORMAT PROFILE)
    *READ-DEFAULT-FLOAT-FORMAT*)
  (SETF (READ-PRINT-PROFILE-PRINT-ESCAPE PROFILE)
    *PRINT-ESCAPE*)
  (SETF (READ-PRINT-PROFILE-PRINT-PRETTY PROFILE)
    *PRINT-PRETTY*)
  (SETF (READ-PRINT-PROFILE-PRINT-CIRCLE PROFILE)
    *PRINT-CIRCLE*)
  (SETF (READ-PRINT-PROFILE-PRINT-BASE PROFILE)
    *PRINT-BASE*)
  (SETF (READ-PRINT-PROFILE-PRINT-RADIX PROFILE)
    *PRINT-RADIX*)
  (SETF (READ-PRINT-PROFILE-PRINT-CASE PROFILE)
    *PRINT-CASE*)
  (SETF (READ-PRINT-PROFILE-PRINT-GENSYM PROFILE)
    *PRINT-GENSYM*)
  (SETF (READ-PRINT-PROFILE-PRINT-LEVEL PROFILE)
    *PRINT-LEVEL*)
  (SETF (READ-PRINT-PROFILE-PRINT-LENGTH PROFILE)
    *PRINT-LENGTH*)
  (SETF (READ-PRINT-PROFILE-PRINT-ARRAY PROFILE)
    *PRINT-ARRAY*)
  (SETF (READ-PRINT-PROFILE-PRINT-STRUCTURE PROFILE)
    *PRINT-STRUCTURE*)
  PROFILE)
```

```
(DEFMACRO WITH-READ-PRINT-PROFILE (PROFILE-FORM &BODY FORMS)
  "Bind all the special IO variables to the values in the profile and execute the body forms."
  `(LET ((PROFILE ,PROFILE-FORM))
    (LET ((*READTABLE* (READ-PRINT-PROFILE-READTABLE PROFILE))
          (*READ-BASE* (READ-PRINT-PROFILE-READ-BASE PROFILE))
          (*READ-SUPPRESS* (READ-PRINT-PROFILE-READ-SUPPRESS PROFILE))
          (*PACKAGE* (READ-PRINT-PROFILE-PACKAGE PROFILE))
          (*READ-DEFAULT-FLOAT-FORMAT* (READ-PRINT-PROFILE-READ-DEFAULT-FLOAT-FORMAT PROFILE))
          (*PRINT-ESCAPE* (READ-PRINT-PROFILE-PRINT-ESCAPE PROFILE))
          (*PRINT-PRETTY* (READ-PRINT-PROFILE-PRINT-PRETTY PROFILE))
          (*PRINT-CIRCLE* (READ-PRINT-PROFILE-PRINT-CIRCLE PROFILE))
          (*PRINT-BASE* (READ-PRINT-PROFILE-PRINT-BASE PROFILE))
          (*PRINT-RADIX* (READ-PRINT-PROFILE-PRINT-RADIX PROFILE))
          (*PRINT-CASE* (READ-PRINT-PROFILE-PRINT-CASE PROFILE))
          (*PRINT-GENSYM* (READ-PRINT-PROFILE-PRINT-GENSYM PROFILE))
          (*PRINT-LEVEL* (READ-PRINT-PROFILE-PRINT-LEVEL PROFILE))
          (*PRINT-LENGTH* (READ-PRINT-PROFILE-PRINT-LENGTH PROFILE))
          (*PRINT-ARRAY* (READ-PRINT-PROFILE-PRINT-ARRAY PROFILE))
          (*PRINT-STRUCTURE* (READ-PRINT-PROFILE-PRINT-STRUCTURE PROFILE)))
      ,@FORMS)))
```

, @FORMS)))

```
(DEFUN FIND-READ-PRINT-PROFILE (NAME)
  (GETHASH (STRING-UPCASE NAME)
    *READ-PRINT-PROFILES*))
```

```
(DEFUN SETF-FIND-READ-PRINT-PROFILE (NAME READ-PRINT-PROFILE)
  (CHECK-TYPE READ-PRINT-PROFILE READ-PRINT-PROFILE)
  (SETF (GETHASH (STRING-UPCASE NAME)
    *READ-PRINT-PROFILES*)
    READ-PRINT-PROFILE))
```

```
(DEFUN LIST-ALL-READ-PRINT-PROFILE-NAMES ()
  (LET ((NAMES NIL))
    (MAPHASH #'(LAMBDA (NAME VALUE)
      (PUSH NAME NAMES))
      *READ-PRINT-PROFILES*)
    NAMES))
```

```
(DEFSETF FIND-READ-PRINT-PROFILE SETF-FIND-READ-PRINT-PROFILE)
```

```
(DEFPARAMETER *READ-PRINT-PROFILES*
  (LET ((TABLE (MAKE-HASH-TABLE :TEST 'EQUAL))
    (LISP-TABLE (MAKE-READ-PRINT-PROFILE :READTABLE (IL:FIND-READTABLE "LISP")
      :READ-BASE 10 :READ-SUPPRESS NIL :PACKAGE (FIND-PACKAGE "USER")
      :READ-DEFAULT-FLOAT-FORMAT
      'SINGLE-FLOAT :PRINT-ESCAPE T :PRINT-PRETTY NIL :PRINT-CIRCLE NIL :PRINT-BASE 10
      :PRINT-RADIX NIL :PRINT-CASE :UPCASE :PRINT-GENSYM T :PRINT-LEVEL NIL :PRINT-LENGTH
      NIL :PRINT-ARRAY NIL :PRINT-STRUCTURE NIL))
    (XCL-TABLE (MAKE-READ-PRINT-PROFILE :READTABLE (IL:FIND-READTABLE "XCL")
      :READ-BASE 10 :READ-SUPPRESS NIL :PACKAGE (FIND-PACKAGE "XCL-USER")
      :READ-DEFAULT-FLOAT-FORMAT
      'SINGLE-FLOAT :PRINT-ESCAPE T :PRINT-PRETTY NIL :PRINT-CIRCLE NIL :PRINT-BASE 10
      :PRINT-RADIX NIL :PRINT-CASE :UPCASE :PRINT-GENSYM T :PRINT-LEVEL NIL :PRINT-LENGTH
      NIL :PRINT-ARRAY NIL :PRINT-STRUCTURE NIL))
    (INTERLISP-TABLE (MAKE-READ-PRINT-PROFILE :READTABLE (IL:FIND-READTABLE "INTERLISP")
      :READ-BASE 10 :READ-SUPPRESS NIL :PACKAGE (FIND-PACKAGE "INTERLISP")
      :READ-DEFAULT-FLOAT-FORMAT
      'SINGLE-FLOAT :PRINT-ESCAPE T :PRINT-PRETTY NIL :PRINT-CIRCLE NIL :PRINT-BASE
      10 :PRINT-RADIX NIL :PRINT-CASE :UPCASE :PRINT-GENSYM T :PRINT-LEVEL NIL
      :PRINT-LENGTH NIL :PRINT-ARRAY NIL :PRINT-STRUCTURE NIL)))
    (SETF (GETHASH "LISP" TABLE)
      LISP-TABLE)
    (SETF (GETHASH "XCL" TABLE)
      XCL-TABLE)
    (SETF (GETHASH "INTERLISP" TABLE)
      INTERLISP-TABLE)
    TABLE)
  "Where read-print-modes live.")
```

```
(DEFPARAMETER *DEFAULT-READ-PRINT-PROFILE* (FIND-READ-PRINT-PROFILE "INTERLISP")
  "The default read & print state to be used when not explicitly
  set.")
```

```
(IL:PUTPROPS IL:READ-PRINT-PROFILE IL:MAKEFILE-ENVIRONMENT (:READTABLE "INTERLISP" :PACKAGE "XCL"))
```

```
(IL:PUTPROPS IL:READ-PRINT-PROFILE IL:FILETYPE IL:COMPILE-FILE)
```

```
(IL:PUTPROPS IL:READ-PRINT-PROFILE IL:COPYRIGHT ("Venue & Xerox Corporation" 1986 1990))
```

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