

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)))

(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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