

File created: 16-May-90 14:19:58 {DSK}<usr>local>lde>lispcore>sources>CMLPRINT.;2

changes to: (VARS CMLPRINTCOMS)

previous date: 16-Feb-88 11:47:48 {DSK}<usr>local>lde>lispcore>sources>CMLPRINT.;1

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

;;  
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(RPAQQ **CMLPRINTCOMS**

```
[ (FNS WRITE CL:WRITE-CHAR CL:PRIN1 CL:PRINT CL:TERPRI CL:FRESH-LINE CL:FINISH-OUTPUT CL:FORCE-OUTPUT
  CL:CLEAR-OUTPUT CL:PPRINT CL:PRINC)
  (FUNCTIONS \WRITE1)
  (FNS CL:WRITE-TO-STRING CL:PRIN1-TO-STRING CL:PRINC-TO-STRING)
  (FUNCTIONS CL:WRITE-LINE)
  (INITVARS (XCL:*PRINT-STRUCTURE*))
  (PROP FILETYPE CMLPRINT)
  (DECLARE%: DONTVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVARS
    (ADDVARS (NLAMA)
      (NLAML)
      (LAMA CL:WRITE-TO-STRING CL:PRINC CL:PPRINT CL:PRINT CL:PRIN1 CL:WRITE-CHAR WRITE]))
```

(DEFINEQ

(**WRITE**

```
(CL:LAMBDA (OBJECT &KEY (STREAM *STANDARD-OUTPUT*)
  ((:ESCAPE *PRINT-ESCAPE*)
   *PRINT-ESCAPE*)
  ((:RADIX *PRINT-RADIX*)
   *PRINT-RADIX*)
  ((:BASE *PRINT-BASE*)
   *PRINT-BASE*)
  ((:LEVEL *PRINT-LEVEL*)
   *PRINT-LEVEL*)
  ((:LENGTH *PRINT-LENGTH*)
   *PRINT-LENGTH*)
  ((:CASE *PRINT-CASE*)
   *PRINT-CASE*)
  ((:GENSYM *PRINT-GENSYM*)
   *PRINT-GENSYM*)
  ((:ARRAY *PRINT-ARRAY*)
   *PRINT-ARRAY*)
  ((:PRETTY *PRINT-PRETTY*)
   *PRINT-PRETTY*)
  ((:CIRCLE *PRINT-CIRCLE*)
   *PRINT-CIRCLE*)) ; Edited 20-Feb-87 16:56 by bvm:
(DECLARE (CL:SPECIAL *PRINT-ESCAPE* *PRINT-RADIX* *PRINT-BASE* *PRINT-LEVEL* *PRINT-LENGTH*
  *PRINT-CASE* *PRINT-GENSYM* *PRINT-ARRAY* *PRINT-PRETTY* *PRINT-CIRCLE*
  *PRINT-CIRCLE-HASHTABLE* *PRINT-CIRCLE-NUMBER* THERE-ARE-CIRCLES)) ; Make sure STREAM ends up as an appropriate stream

(SETQ STREAM (\GETSTREAM STREAM 'OUTPUT))
[COND
  ((OR (NOT *PRINT-CIRCLE*)
    *PRINT-CIRCLE-HASHTABLE*)
   (\WRITE1 OBJECT STREAM))
  (T (LET ((*PRINT-CIRCLE-NUMBER* 1)
    (*PRINT-CIRCLE-HASHTABLE* (CL:MAKE-HASH-TABLE))
    THERE-ARE-CIRCLES)
    (DECLARE (CL:SPECIAL *PRINT-CIRCLE-NUMBER* *PRINT-CIRCLE-HASHTABLE* THERE-ARE-CIRCLES))
    (PRINT-CIRCLE-SCAN OBJECT)
    (COND
      ((NOT THERE-ARE-CIRCLES)
       (CL:SETQ *PRINT-CIRCLE-HASHTABLE* NIL)))
    (\WRITE1 OBJECT STREAM]
  OBJECT))
```

(**CL:WRITE-CHAR**

```
(CL:LAMBDA (CHARACTER &OPTIONAL OUTPUT-STREAM) ; Edited 20-Feb-87 16:57 by bvm:
  (\OUTCHAR (\GETSTREAM OUTPUT-STREAM 'OUTPUT)
    (CL:CHAR-INT CHARACTER))
  CHARACTER))
```

(**CL:PRIN1**

```
(CL:LAMBDA (OBJECT &OPTIONAL OUTPUT-STREAM) ; Edited 20-Feb-87 16:58 by bvm:
  (\WRITE OBJECT :STREAM OUTPUT-STREAM :ESCAPE T)))
```

(**CL:PRINT**

```
(CL:LAMBDA (OBJECT &OPTIONAL (OUTPUT-STREAM *STANDARD-OUTPUT*))
  (TERPRI OUTPUT-STREAM)
  (PROG1 (CL:PRIN1 OBJECT OUTPUT-STREAM)
    (SPACES 1 OUTPUT-STREAM)))
(* Imm " 4-May-86 03:15")
```

```
(CL:TERPRI
  [LAMBDA (OUTPUT-STREAM)
    (TERPRI (OR OUTPUT-STREAM *STANDARD-OUTPUT*))])
(* bvm%: "19-May-86 15:53")
```

```
(CL:FRESH-LINE
  [LAMBDA (OUTPUT-STREAM)
    (FRESHLINE (OR OUTPUT-STREAM *STANDARD-OUTPUT*))])
(* bvm%: "19-May-86 15:53")
```

```
(CL:FINISH-OUTPUT
  [LAMBDA (OUTPUT-STREAM)
    (FORCEOUTPUT (OR OUTPUT-STREAM *STANDARD-OUTPUT*)
      T)
  NIL])
(* bvm%: "19-May-86 15:53")
```

```
(CL:FORCE-OUTPUT
  [LAMBDA (OUTPUT-STREAM)
    (FORCEOUTPUT (OR OUTPUT-STREAM *STANDARD-OUTPUT*))
  NIL])
(* bvm%: "19-May-86 15:53")
```

```
(CL:CLEAR-OUTPUT
  [LAMBDA (OUTPUT-STREAM)
  NIL])
(* bvm%: "19-May-86 15:38")
```

```
(CL:PPRINT
  (CL:LAMBDA (OBJECT &OPTIONAL (OUTPUT-STREAM *STANDARD-OUTPUT*))
    (TERPRI OUTPUT-STREAM)
    (WRITE OBJECT :STREAM OUTPUT-STREAM :ESCAPE T :PRETTY T)
    (CL:VALUES)))
(* Imm " 4-May-86 03:19")
```

```
(CL:PRINC
  (CL:LAMBDA (OBJECT &OPTIONAL OUTPUT-STREAM)
    (WRITE OBJECT :STREAM OUTPUT-STREAM :ESCAPE NIL)))
; Edited 20-Feb-87 16:59 by bvm:
)
```

```
(CL:DEFUN \WRITE1 (OBJECT STREAM)
  (CL:IF (AND *PRINT-PRETTY* (OR (NOT *PRINT-CIRCLE*)
    (NOT *PRINT-CIRCLE-HASHTABLE*))
    *PRINT-ESCAPE*)
    ;; If :pretty is on, and either :circle is not, or it was and no circles exist, and :escape is on...
    ;; For the moment, *PRINT-CIRCLE* and *PRINT-ESCAPE* override *PRINT-PRETTY* completely. This leaves *PRINT-LEVEL* AND
    ;; *PRINT-LENGTH* ignored when *PRINT-PRETTY* is on; this must be fixed later... probably by a new pretty-printer (ecch).
    (LET (FONTCHANGEFLG)
      (DECLARE (CL:SPECIAL FONTCHANGEFLG))
      (PRINTDEF OBJECT (POSITION STREAM)
        NIL NIL NIL STREAM))
    ;; otherwise just print it all on one line
    (LET (\THISFILELINELENGTH)
      (DECLARE (CL:SPECIAL \THISFILELINELENGTH))
      ;; CommonLisp streams do not observe line length
      (\PRINDATUM OBJECT (\GETSTREAM STREAM 'OUTPUT)
        0))))
```

(DEFINEQ

```
(CL:WRITE-TO-STRING
  (CL:LAMBDA (OBJECT &KEY ((:ESCAPE *PRINT-ESCAPE*)
    *PRINT-ESCAPE*)
    ((:RADIX *PRINT-RADIX*)
    *PRINT-RADIX*)
    ((:BASE *PRINT-BASE*)
    *PRINT-BASE*)
    ((:CIRCLE *PRINT-CIRCLE*)
    *PRINT-CIRCLE*)
    ((:PRETTY *PRINT-PRETTY*)
    *PRINT-PRETTY*)
    ((:LEVEL *PRINT-LEVEL*)
    *PRINT-LEVEL*)
    ((:LENGTH *PRINT-LENGTH*)
```

```

        *PRINT-LENGTH*)
      (:CASE *PRINT-CASE*)
      *PRINT-CASE*)
      (:ARRAY *PRINT-ARRAY*)
      *PRINT-ARRAY*)
      (:GENSYM *PRINT-GENSYM*)
      *PRINT-GENSYM*)) (* bvm%: "13-May-86 15:38")
"Returns the printed representation of OBJECT as a string."
(\PRINDATUM.TO.STRING OBJECT))

```

**(CL:PRIN1-TO-STRING**

```

[LAMBDA (OBJECT) (* bvm%: "13-May-86 15:24")

  (* * Produces a string consisting of the output of (CL:PRIN1 OBJECT))

  (LET ((*PRINT-ESCAPE* T))
    (\PRINDATUM.TO.STRING OBJECT))

```

**(CL:PRINC-TO-STRING**

```

[LAMBDA (OBJECT) (* bvm%: "13-May-86 15:23")

```

;;; A lot like MKSTRING, but not quite. Produces a string consisting of the output of (PRINC OBJECT)

```

  (LET ((*PRINT-ESCAPE* NIL))
    (\PRINDATUM.TO.STRING OBJECT))

```

)

```

(CL:DEFUN CL:WRITE-LINE (STRING &OPTIONAL (STREAM *STANDARD-OUTPUT*)
                                     &KEY
                                     (CL::START 0)
                                     (CL::END))
  (PROG1 (WRITE-STRING* STRING STREAM CL::START CL::END)
    (CL:TERPRI STREAM)))

```

```

(RPAQ? XCL:*PRINT-STRUCTURE* )

```

```

(PUTPROPS CMLPRINT FILETYPE :FAKE-COMPILE-FILE)

```

```

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVAR$

```

```

(ADDTOVAR NLAMA )

```

```

(ADDTOVAR NLAML )

```

```

(ADDTOVAR LAMA CL:WRITE-TO-STRING CL:PRINC CL:PPRINT CL:PRINT CL:PRIN1 CL:WRITE-CHAR WRITE)
)

```

**(RPAQ CMLPRINTCOMS**

```

  [(FNS WRITE CL:WRITE-CHAR CL:PRIN1 CL:PRINT CL:TERPRI CL:FRESH-LINE CL:FINISH-OUTPUT CL:FORCE-OUTPUT
    CL:CLEAR-OUTPUT CL:PPRINT CL:PRINC)
    (FUNCTIONS \WRITE1)
    (FNS CL:WRITE-TO-STRING CL:PRIN1-TO-STRING CL:PRINC-TO-STRING)
    (FUNCTIONS CL:WRITE-LINE)
    (INITVARS (XCL:*PRINT-STRUCTURE*))
    (PROP FILETYPE CMLPRINT)
    (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVAR$ (ADDVARS (NLAMA)
                                                                              (NLAML)
                                                                              (LAMA CL:WRITE-TO-STRING CL:PPRINT
                                                                              CL:PRINT WRITE))

```

```

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVAR$

```

```

(ADDTOVAR NLAMA )

```

```

(ADDTOVAR NLAML )

```

```

(ADDTOVAR LAMA CL:WRITE-TO-STRING CL:PPRINT CL:PRINT WRITE)
)

```

```

(PUTPROPS CMLPRINT COPYRIGHT ("Venue & Xerox Corporation" 1985 1986 1987 1988 1990))

```

---

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