

File created: 16-May-90 12:36:15 {DSK}<usr>local>lde>lispcore>sources>CLOSURE-CACHE.;2

changes to: (IL:VARS IL:CLOSURE-CACHECOMS)

previous date: 24-Jan-88 17:32:55 {DSK}<usr>local>lde>lispcore>sources>CLOSURE-CACHE.;1

Read Table: XCL

Package: XEROX-COMMON-LISP

Format: XCCS

; Copyright (c) 1987, 1988, 1990 by Venue & Xerox Corporation. All rights reserved.

```
(IL:RPAQQ IL:CLOSURE-CACHECOMS
  ((IL:FILES IL:IMPLICIT-KEY-HASH)
   (IL:VARIABLES SI::*CLOSURE-CACHE*)
   (IL:FUNCTIONS SI::GET-CACHE-CLOSURE)
   ;; Utilities
   (IL:FUNCTIONS SI::INSTALL-CLOSURE-CACHE SI::DISABLE-CLOSURE-CACHE)
   (IL:FUNCTIONS SI::CLEAR-CLOSURE-CACHE SHOW-CLOSURE-CACHE)
   (IL:DECLARE\ IL:DONTEVAL@LOAD IL:DONTEVAL@COMPILE IL:DOCOPY (IL:P (SI::INSTALL-CLOSURE-CACHE)))
   (FILE-ENVIRONMENTS "CLOSURE-CACHE"))))

(IL:FILESLOAD IL:IMPLICIT-KEY-HASH)

(DEFVAR SI::*CLOSURE-CACHE* (MAKE-IMPLICIT-KEY-HASH-TABLE 64 :FIRST))

(DEFUN SI::GET-CACHE-CLOSURE (CODE-BLOCK)
  (LET ((CLOSURE (GET-IMPLICIT-KEY-HASH CODE-BLOCK SI::*CLOSURE-CACHE*)))
    (OR CLOSURE (LET ((NEW-CLOSURE (IL:|create| IL:COMPILED-CLOSURE)))
      (IL:UNINTERRUPTABLY
        ;; A Non-refcount set of the fnheader field
        (IL:FREPLACEFIELD ' (IL:COMPILED-CLOSURE 0 IL:XPOINTER)
          NEW-CLOSURE CODE-BLOCK)
        ;; Cache the closure
        (SETF (GET-IMPLICIT-KEY-HASH CODE-BLOCK SI::*CLOSURE-CACHE*)
          NEW-CLOSURE)))
      NEW-CLOSURE))))

;; Utilities

(DEFUN SI::INSTALL-CLOSURE-CACHE ()
  (IF (NULL SI::*CLOSURE-CACHE-ENABLED*)
    (IL:UNINTERRUPTABLY
      (SETQ SI::*CLOSURE-CACHE-ENABLED* T))))

(DEFUN SI::DISABLE-CLOSURE-CACHE ()
  (IF SI::*CLOSURE-CACHE-ENABLED*
    (IL:UNINTERRUPTABLY
      ;; Shut off caching
      (SETQ SI::*CLOSURE-CACHE-ENABLED* NIL)
      ;; clear cache
      (SI::CLEAR-CLOSURE-CACHE
        T)))

(DEFUN SI::CLEAR-CLOSURE-CACHE ()
  (IL:UNINTERRUPTABLY
    (IMPLICIT-KEY-MAP-HASH #' (LAMBDA (BLOCK CLOSURE)
      ;; Make the pointer to block from closure real
      (IL:\ADDREF BLOCK))
      SI::*CLOSURE-CACHE*)
    (CLEAR-IMPLICIT-KEY-HASH SI::*CLOSURE-CACHE*)))

(DEFUN SHOW-CLOSURE-CACHE (&OPTIONAL (LONG-P NIL)
  (STREAM T))
  (IMPLICIT-KEY-MAP-HASH #' (LAMBDA (VAL KEY)
    (IF LONG-P (FORMAT STREAM "Code block: ~s~%" KEY))
    (FORMAT STREAM "Closure: ~s~%" VAL)
    (IF LONG-P (TERPRI STREAM))))
  SI::*CLOSURE-CACHE*)

(IL:DECLARE\ IL:DONTEVAL@LOAD IL:DONTEVAL@COMPILE IL:DOCOPY
(SI::INSTALL-CLOSURE-CACHE)
```

```
{MEDLEY}<sources>CLOSURE-CACHE.;1
```

Page 2

```
)
```

```
(DEFINE-FILE-ENVIRONMENT "CLOSURE-CACHE" :READTABLE "XCL"  
  :PACKAGE "XCL"  
  :COMPILER :COMPILE-FILE)
```

```
(IL:PUTPROPS IL:CLOSURE-CACHE IL:COPYRIGHT ("Venue & Xerox Corporation" 1987 1988 1990))
```

FUNCTION INDEX

SI::CLEAR-CLOSURE-CACHE	1	SI::GET-CACHE-CLOSURE	1	SHOW-CLOSURE-CACHE	1
SI::DISABLE-CLOSURE-CACHE	1	SI::INSTALL-CLOSURE-CACHE	1		

FILE-ENVIRONMENT INDEX

"CLOSURE-CACHE"2

VARIABLE INDEX

SI::*CLOSURE-CACHE*1
