

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

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```
(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:\\ADDRF 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
```

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```
)
```

```
(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))
```

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**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

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**FILE-ENVIRONMENT INDEX**

"CLOSURE-CACHE" .....2

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**VARIABLE INDEX**

SI::\*CLOSURE-CACHE\* .....1

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