

File created: 17-May-90 15:48:43 {DSK}<usr>local>lde>lispcore>sources>STACKFNS.;2

changes to: (VARS STACKFNSCOMS)

previous date: 30-Nov-86 17:10:26 {DSK}<usr>local>lde>lispcore>sources>STACKFNS.;1

Read Table: XCL

Package: INTERLISP

Format: XCCS

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```
(RPAQQ STACKFNSCOMS ((FNS STKARGS MAPDL SEARCHPDL VARIABLES REALFRAMEP \\REALFRAMEP REALSTKNTH)
  (DECLARE\ : DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
    (NLAML)
    (LAMA STKARGS))))))
```

(DEFINEQ

(STKARGS

```
(CL:LAMBDA (POS)
  ;; return the first NARGS arguments at POS
  (FOR I FROM 1 TO (STKNARGS POS) COLLECT (STKARG I POS))))
```

(MAPDL

```
(LAMBDA (MAPDLFN MAPDLPOS) (* |wt:| " 9-SEP-78 20:55")
  (PROG NIL
    (SETQ MAPDLPOS (COND
      ((NULL MAPDLPOS)
       (STKPOS 'MAPDL))
      (SPAGHETTIFLG (STKNTH 0 MAPDLPOS))
      (T MAPDLPOS)))
    LP (COND
      ((NULL (SETQ MAPDLPOS (STKNTH -1 MAPDLPOS MAPDLPOS)))
       (RETURN NIL))
      (APPLY* MAPDLFN (STKNAME MAPDLPOS)
        MAPDLPOS)
      (GO LP))))
```

(SEARCHPDL

```
(LAMBDA (SRCHFN SRCHPOS) (* |Does| |not| |release| |or| |reuse| SRCHPOS)
  (PROG (SRCHX)
    (SETQ SRCHPOS (COND
      ((NULL SRCHPOS)
       (STKPOS 'SEARCHPDL))
      (SPAGHETTIFLG (STKNTH 0 SRCHPOS))
      (T SRCHPOS)))
    LP (COND
      ((NULL (SETQ SRCHPOS (STKNTH -1 SRCHPOS SRCHPOS)))
       (RETURN NIL))
      (APPLY* SRCHFN (SETQ SRCHX (STKNAME SRCHPOS))
        SRCHPOS)
      (RETURN (CONS SRCHX SRCHPOS)))
      (GO LP))))
```

(VARIABLES

```
(LAMBDA (POS)
  (PROG (N L)
    (SETQ N (STKNARGS POS))
    LP (COND
      ((ZEROP N)
       (RETURN L))
      (SETQ L (CONS (STKARGNAME N POS)
        L))
      (SETQ N (SUB1 N))
      (GO LP))))
```

(REALFRAMEP

```
(LAMBDA (POS INTERPFLG) (* |lmm| " 7-Nov-86 01:50")
  ;; Value is T if frame should be visible for backtrace, and error retry
  ;; user did write a call to the function at POS, and either INTERPFLG is T, or else the functio call would also exist if compiled
  (\\REALFRAMEP (\\STACKARGPTR POS)
    INTERPFLG))
```

(\\REALFRAMEP

```
(LAMBDA (FRAME INTERPFLG) (* |lmm| " 7-Nov-86 01:53")
  (LET ((NAME (|fetch| (FNHEADER FRAME) |of| (|fetch| (FX FNHEADER) |of| FRAME)))
    BFLINK)
```

;; note that the selection is on the fnheader's name rather than the nametable name. \REALFRAMEP is thus not affected by SETSTKNAME

```
(AND (CL:SYMBOLP NAME)
      (SELECTQ NAME
        (*ENV*
          NIL)
        (\INTERPRETER
          T)
        (ERRORSET (NEQ (\STKARG 2 FRAME)
          'INTERNAL))
        ((EVAL APPLY)
          (\SMASHLINK NIL FRAME)
          (SELECTQ \INTERNAL
            ((INTERNAL SELECTQ)
              NIL)
            T))
        (OR (NOT (LITATOM NAME))
          (COND
            ((FMEMB NAME OPENFNFS)
              INTERPFLG)
            (T (OR (NEQ (CHCON1 NAME)
              (CHARCODE \))
                (EXPRP NAME)
                (FASSOC NAME BRKINFOLST))))))))))
; *ENV* is used by ENVEVAL etc.
```

(REALSTKNTH

(LAMBDA (N POS INTERPFLG OLDPOS) (* |amd| "11-Nov-86 12:03")
;; skips back N (or -N) real frames on the stack. i.e. frames for which (REALFRAMEP POS INTERPFLG) is true

```
(PROG ((FX (\STACKARGPTR POS))
      (K (COND
        ((ILESSP N 0)
          (IMINUS N))
        (T N))))
  LP (COND
    ((EQ 0 (SETQ FX (COND
      ((IGREATERP 0 N)
        (|fetch| (FX CLINK) |of| FX))
      (T (|fetch| (FX ALINK) |of| FX))))))
      (RETURN NIL)))
    (COND
      ((\REALFRAMEP FX INTERPFLG)
        (COND
          ((ILEQ (SETQ K (SUB1 K))
            0)
            (RETURN (\MAKESTACKP OLDPOS FX))))))
      (GO LP))))))
```

(DECLARE\ : DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS

(ADDTOVAR NLAMA)

(ADDTOVAR NLAML)

(ADDTOVAR LAMA STKARGS)

```
(RPAQQ STACKFNSCOMS ((FNS STKARGS MAPDL SEARCHPDL VARIABLES REALFRAMEP \REALFRAMEP REALSTKNTH)
  (DECLARE\ : DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS (ADDVARS (NLAMA)
    (NLAML)
    (LAMA))))))
```

(DECLARE\ : DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVERS

(ADDTOVAR NLAMA)

(ADDTOVAR NLAML)

(ADDTOVAR LAMA)

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FUNCTION INDEX

MAPDL1 REALFRAMEP ..1 REALSTKNTH ..2 SEARCHPDL ...1 STKARGS1 VARIABLES ...1 \\REALFRAMEP 1
