

File created: 16-Dec-2020 09:23:58 {DSK}<home>larry>ilisp>medley>internal>test>Maiko>ARs>STACKHAX.;1

previous date: 15-Nov-88 17:16:48 {ERIS}<TEST>MAIKO>STACKHAX.;4

Read Table: XCL

Package: INTERLISP

Format: XCCS

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(RPAQQ **STACKHAXCOMS** ((FNS CHECKSTACKSPACE)))

(DEFINEQ

(CHECKSTACKSPACE

(LAMBDA (START)

; Edited 16-Dec-2020 09:22 by larry

; Edited 15-Nov-88 16:55 by jds

(PROG ((SCANPTR (OR START (**|fetch|** |StackBase| **|of|** |\\InterfacePage|)))
(EASP (**|fetch|** |EndOfStack| **|of|** |\\InterfacePage|)))
(*PRINT-LEVEL* 2)
(*PRINT-LENGTH* 2))

SCAN

(SELECTC (**|fetch|** (STK FLAGS) **|of|** SCANPTR)
(\\STK.FSB (CL:FORMAT T "~6o Free Block~%" SCANPTR)
(COND
(ZEROP (**|fetch|** (FSB SIZE) **|of|** SCANPTR))
(HELP "FSB size 0 at " SCANPTR)))
(**|add|** SCANPTR (**|fetch|** (FSB SIZE) **|of|** SCANPTR)))
(\\STK.GUARD (CL:FORMAT T "~6o Guard Block~%" SCANPTR)
(COND
(EQ SCANPTR EASP)
(RETURN T)))

:: Guard block not at end of stack, treat as a free block:

(COND
(ZEROP (**|fetch|** (FSB SIZE) **|of|** SCANPTR))
(HELP "Guard block size 0 at " SCANPTR)))
(**|add|** SCANPTR (**|fetch|** (FSB SIZE) **|of|** SCANPTR))
; reached end

)
(\\STK.FX ; frame extension
(CL:FORMAT T "~6o Frame Extn (use ~D) for ~S~%" SCANPTR (**FETCH** (FX USECNT) **OF** SCANPTR)
(**|fetch|** (FNHEADER FRAMENAME) **|of|** (**|fetch|** (FX FNHEADER) **|of|** SCANPTR)))
(OR (**|fetch|** (FX CHECKED) **|of|** SCANPTR)
(HELP (CL:FORMAT T " FX not CHECKED at ~O.~%" SCANPTR)))
(COND
(EQUAL (**|fetch|** (FX NEXTBLOCK) **|of|** SCANPTR)
SCANPTR)
(HELP (CL:FORMAT T " FX's NEXTBLOCK points to itself at ~O.~%" SCANPTR)))
(SETQ SCANPTR (**|fetch|** (FX NEXTBLOCK) **|of|** SCANPTR)))
(LET ((ORIG SCANPTR) ; must be a basic frame
(**|until|** (**|type?|** BF SCANPTR) **|do|** (OR (EQ (**|fetch|** (STK FLAGS) **|of|** SCANPTR)
\\STK.NOTFLAG)
(HELP (CL:FORMAT T " Non-zero flags in a non-BF word
at ~O.~%" SCANPTR)))
(**|add|** SCANPTR WORDSPERCELL))
(CL:FORMAT T "~6o Basic Frame~%" SCANPTR)
(OR (COND
(**|fetch|** (BF RESIDUAL) **|of|** SCANPTR)
(EQ SCANPTR ORIG))
(T (AND (**|fetch|** (BF CHECKED) **|of|** SCANPTR)
(EQ ORIG (**|fetch|** (BF IVAR) **|of|** SCANPTR))))
(CL:FORMAT T " Bad basic frame at ~O.~%" SCANPTR))
(**|add|** SCANPTR WORDSPERCELL)))

NEXT

(OR (ILEQ SCANPTR EASP)
(HELP "SCANPTR got beyond EASP"))
(GO SCAN)))

)

(PUTPROPS **STACKHAX COPYRIGHT** ("I" 1988 2020))

FUNCTION INDEX

CHECKSTACKSPACE1
