

File created: 30-Oct-87 01:18:07 {FireFS:CS:Univ Rochester}<Koomen>LispUsers>Lyric>SYSTATS.;1

changes to: (VARS SYSTATSCOMS)
(MACROS \SYSTATSREADBODY \MKSYSSTATSBODY \NEWSYSSTATSBODY \SYSTATSPROPBODY \SYSTATSDIFFBODY)
(FNS \LOADFIXP \LOADFIXP2 SYSTATSDIFF \NEWSYSSTATS \MKSYSSTATS SYSTATSREAD SYSTATSPROP)
(RECORDS SYSTATS)
(PROPS (SYSTATS MAKEFILE-ENVIRONMENT))

previous date: 29-Oct-87 15:16:18 {DSK}<LISPPFILES>SYSTATS.;1

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

::
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(RPAQQ SYSTATSCOMS

:: Implementation

```
(DECLARE%: (LOCALVARS . T))
[DECLARE%: EVAL@COMPILE DONTEVAL@LOAD DONTCOPY
  (COMS (FILES (SOURCE FROM LISPUSERS)
             SYSEDIT)
    (P [SETQ SYSTATSPROPS
        (SORT (CONS 'ELAPSEDTIME
                    (INTERSECTION (RECORDFIELDNAMES 'MISCSTATS)
                                   '(DISKIOTIME DISKOPS GCTIME KEYBOARDWAITTIME NETIOOPS NETIOTIME
                                       PAGEFAULTS STARTTIME SWAPWAITTIME SWAPWRITES TOTALTIME])
                    (EVAL `(DATATYPE SYSTATS ,SYSTATSPROPS (CREATE (\NEWSYSSTATS]
  (DECLARE%: DONTCOPY (COMS (RECORDS SYSTATS)
    (MACROS \SYSTATSPROPBODY \SYSTATSREADBODY \SYSTATSDIFFBODY \MKSYSSTATSBODY
      \NEWSYSSTATSBODY)
    (PROP (FILETYPE MAKEFILE-ENVIRONMENT)
          SYSTATS)))
  (INITRECORDS SYSTATS)
  (INITVARS (\SYSTATS NIL))
  (FNS \NEWSYSSTATS \MKSYSSTATS \LOADFIXP \LOADFIXP2)
:: Interface
(VARS SYSTATSPROPS)
(FNS SYSTATSREAD SYSTATSDIFF SYSTATSPROP CLOCKTICKS))
```

:: Implementation

```
(DECLARE%:
(DECLARE%: DOEVAL@COMPILE DONTCOPY
(LOCALVARS . T)
)
)
(DECLARE%: EVAL@COMPILE DONTEVAL@LOAD DONTCOPY
(FILESLOAD (SOURCE FROM LISPUSERS)
  SYSEDIT)
[SETQ SYSTATSPROPS (SORT (CONS 'ELAPSEDTIME
  (INTERSECTION (RECORDFIELDNAMES 'MISCSTATS)
                 '(DISKIOTIME DISKOPS GCTIME KEYBOARDWAITTIME NETIOOPS NETIOTIME PAGEFAULTS
                   STARTTIME SWAPWAITTIME SWAPWRITES TOTALTIME]
[EVAL `(DATATYPE SYSTATS ,SYSTATSPROPS (CREATE (\NEWSYSSTATS]
)
(DECLARE%: DONTCOPY
(DECLARE%: EVAL@COMPILE
(DATATYPE SYSTATS (DISKIOTIME DISKOPS ELAPSEDTIME GCTIME KEYBOARDWAITTIME NETIOOPS NETIOTIME PAGEFAULTS
  STARTTIME SWAPWAITTIME SWAPWRITES TOTALTIME)
  (CREATE (\NEWSYSSTATS)))
)
(/DECLAREDATATYPE 'SYSTATS '(POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER
  POINTER POINTER)
:: ---field descriptor list elided by lister---
' 24)
(DECLARE%: EVAL@COMPILE
(PUTPROPS \SYSTATSPROPBODY MACRO [NOARGS
```

```

      (SELECTQ PROP
        (\,@ [for P in SYSTATSPROPS unless (EQ P 'ELAPSEDTIME)
              collect '(,P (ffetch (SYSTATS ,P) of FROMSYSTATS)]
              (ERROR "Unsupported SYSTATS property:" PROP])

```

```

(PUTPROPS SYSTATSREADBODY MACRO
  [NOARGS \ (PROGN ,@ (for P in SYSTATSPROPS collect \(\LOADFIXP2 (ffetch (SYSTATS ,P) of INTOSYSTATS)
    (ffetch (SYSTATS ,P) of FROMSYSTATS])

```

```

(PUTPROPS SYSTATSDIFFBODY MACRO
  [NOARGS \ (PROGN ,@ (for P in SYSTATSPROPS collect \(\LOADFIXP (ffetch (SYSTATS ,P) of DIFSYSTATS)
    (IDIFFERENCE (ffetch (SYSTATS ,P) of NEWSYSTATS)
      (ffetch (SYSTATS ,P) of OLDSYSTATS])

```

```

(PUTPROPS MKSYSTATSBODY MACRO
  [NOARGS \ (PROG NIL
    (DECLARE (GLOBALVARS \MISCSTATS \SYSTATS))
    (if (NOT NOCLOCKFLG)
      then (\LOADFIXP2 (ffetch (SYSTATS ELAPSEDTIME) of \SYSTATS)
        (CLOCK0 \SYSTATSCLOCK0)))
    ,@ (for P in SYSTATSPROPS unless (EQ P 'ELAPSEDTIME)
      collect \(\LOADFIXP2 (ffetch (SYSTATS ,P) of \SYSTATS)
        (LOCf (ffetch (MISCSTATS ,P) of \MISCSTATS])

```

```

(PUTPROPS NEWSYSTATSBODY MACRO [NOARGS \ (PROG [(STATS (NCREATE 'SYSTATS)
  ,@ [for P in SYSTATSPROPS
    collect \ (freplace (SYSTATS ,P) of STATS with (create FIXP)
  (RETURN STATS])
)

```

```

(PUTPROPS SYSTATS FILETYPE :TCOMPL)

```

```

(PUTPROPS SYSTATS MAKEFILE-ENVIRONMENT (:READTABLE "INTERLISP" :PACKAGE "INTERLISP" :BASE 10))
)

```

```

(/DECLAREDATATYPE 'SYSTATS ' (POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER POINTER
  POINTER POINTER)

```

;; ---field descriptor list elided by lister---

' 24)

```

(RPAQ? \SYSTATS NIL)

```

```

(DEFINEQ

```

(\NEWSYSTATS

```

  [LAMBDA NIL
    (\NEWSYSTATSBODY)]

```

; Edited 30-Oct-87 00:16 by Koomen

(\MKSYSTATS

```

  [LAMBDA (STATS SYSFLG NOCLOCKFLG)
    (DECLARE (GLOBALVARS \MISCSTATS \SYSTATS \SYSTATSCLOCK0))
    (if STATS
      then (\DTEST STATS 'SYSTATS)
      elseif (NOT SYSFLG)
      then (create SYSTATS)
      else (if (NULL \SYSTATS)
        then (SETQ \SYSTATS (create SYSTATS))
        (SETQ \SYSTATSCLOCK0 (create FIXP))
        else (\DTEST \SYSTATS 'SYSTATS))
      (\MKSYSTATSBODY)
      \SYSTATS])

```

; Edited 29-Oct-87 22:14 by Koomen

(\LOADFIXP

```

  [LAMBDA (DST SRC)
    ;; DST is assumed to be a FIXP
    ;; SRC is assumed to be either a FIXP or a SMALLP
    (if (type? FIXP SRC)
      then (freplace (FIXP HINUM) of DST with (ffetch (FIXP HINUM) of SRC))
      (freplace (FIXP LONUM) of DST with (ffetch (FIXP LONUM) of SRC))
      elseif (ILESSP SRC 0)
      then (freplace (FIXP HINUM) of DST with MAX.SMALLP)
      (freplace (FIXP LONUM) of DST with (ADD1 (IPLUS SRC MAX.SMALLP)))
      else (freplace (FIXP HINUM) of DST with 0)
      (freplace (FIXP LONUM) of DST with SRC))
    DST])

```

; Edited 30-Oct-87 00:27 by Koomen

(\LOADFIXP2

```

  [LAMBDA (DST SRC)
    ;; DST and SRC are assumed to be a FIXP
    (freplace (FIXP HINUM) of DST with (ffetch (FIXP HINUM) of SRC))
    (freplace (FIXP LONUM) of DST with (ffetch (FIXP LONUM) of SRC))

```

; Edited 30-Oct-87 00:27 by Koomen

DST])

)

:: Interface

(RPAQQ **SYSTATSPROPS** (DISKIOTIME DISKOPS ELAPSEDTIME GCTIME KEYBOARDWAITTIME NETIOOPS NETIOTIME PAGEFAULTS
STARTTIME SWAPWAITTIME SWAPWRITES TOTALTIME))

(DEFINEQ

(SYSTATSREAD

[LAMBDA (INTOSTATS FROMSTATS)
(PROG ((INTOSYSTATS (\MKSYSTATS INTOSTATS))
(FROMSYSTATS (\MKSYSTATS FROMSTATS T))
(\SYSTATSREADBODY)
(RETURN INTOSYSTATS])

; Edited 29-Oct-87 12:52 by Koomen

(SYSTATSDIFF

[LAMBDA (OLDSTATS NEWSTATS DIFSTATS)
(PROG ((OLDSYSTATS (\MKSYSTATS OLDSTATS T))
(NEWSYSTATS (\MKSYSTATS NEWSTATS T))
(DIFSYSTATS (\MKSYSTATS DIFSTATS))
(\SYSTATSDIFFBODY)
(RETURN DIFSYSTATS])

; Edited 30-Oct-87 00:35 by Koomen

(SYSTATSPROP

[LAMBDA (PROP FROMSTATS)
(if (EQ PROP 'ELAPSEDTIME)
then (ffetch (SYSTATS ELAPSEDTIME) of (\MKSYSTATS FROMSTATS T))
else (PROG ((FROMSYSTATS (\MKSYSTATS FROMSTATS T))
(RETURN (\SYSTATSPROPBODY])

; Edited 29-Oct-87 14:51 by Koomen

(CLOCKTICKS

[LAMBDA (interval timerunits)
(**DECLARE** (GLOBALVARS \RCLKSECOND))
(PROG ((ticks (if (NULL interval)
then 1
elseif (NOT (NUMBERP interval))
then (ERROR "Non-numeric arg: " interval)
elseif (NOT (GREATERP interval 0))
then (ERROR "Non-positive arg: " interval)
else interval)))
(**SELECTQ** (U-CASE timerunits)
((TICK TICKS)
(MSEC MILLISEC MSECs MILLISECS
(SETQ ticks (FTIMES 0.001 \RCLKSECOND ticks)))
(NIL SEC SECOND SECS SECONDS)
(SETQ ticks (TIMES \RCLKSECOND ticks)))
(MIN MINUTE MINS MINUTES)
(SETQ ticks (TIMES 60 \RCLKSECOND ticks)))
(HR HOUR HRS HOURS)
(SETQ ticks (TIMES 3600 \RCLKSECOND ticks)))
(ERROR "unknown timerunits: " timerunits))
(RETURN (if (FLOATP ticks)
then (FIX (FPLUS ticks 0.5))
else ticks])

(* Koomen "12-Jan-87 17:22")

)

(PUTPROPS **SYSTATS COPYRIGHT** ("Johannes A. G. M. Koomen" 1987))

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