

File created: 27-Sep-90 11:03:58 {FUJI1:MV:ENVOS}<LISPARS>ADMIN>SMART-TRICKLE.;5

changes to: (FNS |Smart-Trickle| FILE-SERVER-UP-P)

previous date: 25-Sep-90 18:14:07 {FUJI1:MV:ENVOS}<LISPARS>ADMIN>SMART-TRICKLE.;1

Read Table: XCL

Package: INTERLISP

Format: XCCS

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```
(RPAQQ SMART-TRICKLECOMS ((FILES (SYSLOAD)
                          PROMPTREMINDERS COPYFILES)
                          (FNS FILE-SERVER-UP-P |Smart-Trickle| |TrickleProcessLogfile|)
                          (ADVISE |Trickle|)
                          (DECLARE: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILEVAR (ADDVARS (NLAMA)
                                                                                          (NLAML)
                                                                                          (LAMA)
                                                                                          FILE-SERVER-UP-P
                                                                                          )))))
```

```
(FILESLOAD (SYSLOAD)
           PROMPTREMINDERS COPYFILES)
```

```
(DEFINEQ
```

### (FILE-SERVER-UP-P

```
(CL:LAMBDA (SERVER &OPTIONAL (MESSAGE NIL MESSAGEP)) ; Edited 27-Sep-90 10:50 by gadener
```

```
;; Checks for a certain period of time if server is up. It will try to find a directory specific for the type of server.
; Edited 27-Sep-90 10:45 by gadener
```

```
(CL:BLOCK FILE-SERVER-UP-P
  (CL:UNLESS (NULL SERVER)
    (LET* ((DIRECTORYNAME (COND
      ((CL:SEARCH ":" SERVER) ; This is an NS-server
      ("DESKTOPS")
      ((CL:SEARCH "/N" SERVER) ; This is an NFS-server
      ("/")
      ((AND (EQL (MACHINETYPE)
                 'MAIKO)
            (OR (STRING-EQUAL SERVER "DSK")
                (STRING-EQUAL SERVER "UNIX")))) ; This should be local disk
      ("/")
      (T ; Assume it is an IFS-server
       "SYSTEM"))))
      (PROCESS-RESULT (CONS))
      (PROCESS-HANDLE (ADD.PROCESS `(COND
        ((DIRECTORYNAMEP ,DIRECTORYNAME ,SERVER)
         (RPLACA ',PROCESS-RESULT T))
        'NAME "file-server-upp"))))
      (DISMISS 500)
      (|forDuration| 30 |timerUnits| 'SECONDS |until| (CAR PROCESS-RESULT) |do| (DISMISS 500)
      |finally| (DEL.PROCESS PROCESS-HANDLE))
      (CL:IF (CAR PROCESS-RESULT)
        T
        (CL:WHEN MESSAGEP
          (CL:FORMAT T ">>~%>> ~A but server ~A is down ~%>>~%" MESSAGE SERVER)
          (MENU (CREATE MENU
            TITLE _ (CL:CONCATENATE 'STRING " Server " (STRING SERVER)
                                   " is down ")
            ITEMS _ ((WAIT T "Wait until server is up")
                    (CONDITIONS:CONTINUE NIL "Continue to load the rest"))
            CENTERFLG _ T))))))
```

### (|Smart-Trickle|

```
(LAMBDA (|Source| |Destination| |RootLogfileName| |MailAddress| |ScheduleAnotherOne| |DontReplaceOldVersions|
        |DontCopyExtensions| |Retries|) ; Edited 27-Sep-90 11:03 by gadener
```

;; The Smart-Trickle will first check to see that the file-server of both the Source and Destination are up and running before trying to copy files between them. If either is down, it will retry every 15 minutes up to four times before giving up. If it fails to connect and ScheduleAnotherOne has a value other than (), then it will reschedule for that time, 24 hrs later.

```
(LET ((RETRY-TIMES 4) ; How many retries.
      (RETRY-PERIOD 15) ; How many minutes between retries
      |DateString| |LogfileName|)
  (IF (NOT (AND (OR |Retries| (SETQ |Retries| RETRY-TIMES))
                (FILE-SERVER-UP-P (STRING (FILENAMEFIELD |Source| 'HOST)))
                (FILE-SERVER-UP-P (STRING (FILENAMEFIELD |Destination| 'HOST)))))
```

```
THEN ; At least one of the servers is not up, reschedule a new Smart-trickle to try again in 15 minutes, more correctly, the value of
;; RETRY-PERIOD
```

```

(IF (> |Retries| 0)
  THEN ;; Just Retry
    (SETREMINDER (MKATOM (CONCAT "Trickle-Retry-" (GENSYM)
                                "-" |Source|))
                 NIL
                 `(|Smart-Trickle| ,|Source| ,|Destination| ,|RootLogfileName| ,|MailAddress|
                   ,|ScheduleAnotherOne|
                   ,|DontReplaceOldVersions|
                   ,|DontCopyExtensions|
                   ,(- |Retries| 1))
                 (GDATE (PLUS (IDATE)
                               (TIMES 60 RETRY-PERIOD))))
    ELSE ;; Could not connect to either, or both of the servers after retrying several times.
      (PRINTOUT T "Trickle: Tried to connect to " HOST1 " and " HOST2 " , but one or both,
                  are down!" T (IF |ScheduleAnotherOne|
                                  THEN "Rescheduling another one for tomorrow!")))
ELSE ;; OK, servers were up, run the Trickler.
  (SETQ |DateString| (DATE (DATEFORMAT SPACES NUMBER.OF.MONTH NO.TIME)))
  (SETQ |LogfileName| (PACK* (OR |RootLogfileName| ' {|UNIX}<tmp>Trickle-log-|)
                            (SUBSTRING |DateString| 7 8)
                            (SUBSTRING |DateString| 4 5)
                            (SUBSTRING |DateString| 1 2)
                            '.COPYLOG))
  (IF (EQ '\ (NTHCHAR |LogfileName| -10))
    THEN (SETQ |LogfileName| (MKATOM (RPLSTRING |LogfileName| -10 "0"))))
  ;; ensure that the logfile has one line per file operated on
  (RESETVAR FILELINELENGTH 1000 (COPYFILES |Source| |Destination|
                                             (APPEND (LIST '>A (LIST 'OUTPUT |LogfileName|)
                                                           (|if| (NULL |DontReplaceOldVersions|)
                                                           |then| (LIST 'REPLACE|)
                                                           (|if| |DontCopyExtensions|
                                                           |then| `((DONTCOPY ,@|DontCopyExtensions|))))))
  (|TrickleProcessLogfile| |LogfileName| |MailAddress| |Source| |Destination|)
  (IF |ScheduleAnotherOne|
    THEN ;; No matter what happened earlier, if a new Trickle has to be scheduled, DO IT.
      (SETREMINDER (MKATOM (CONCAT "Trickle-" (GENSYM)
                                "-" |Source|))
                   NIL
                   `(|Smart-Trickle| ,|Source| ,|Destination| ,|RootLogfileName| ,|MailAddress|
                     ,|ScheduleAnotherOne| ,|DontReplaceOldVersions| ,|DontCopyExtensions|
                     (CONCAT (SUBSTRING (GDATE (PLUS (IDATE)
                                                       (TIMES 60 60 24)))
                                       1 10)
                               (|if| (EQ |ScheduleAnotherOne| T)
                                   |then| (CONCAT (RAND 1 5)
                                                  ":"
                                                  (RAND 0 59))
                                   |else| |ScheduleAnotherOne|))))))
  (|TrickleProcessLogfile|
    (LAMBDA (|LogfileName| |MailAddress| |Source| |Destination|) (* |N.H.Briggs| " 1-Oct-87 11:29")
      (PROG (|LogfileStream| |EndsOfLines| (|EOLCharacter| (CHARACTER (CHARCODE EOL)))
            |EndOfLine| |Deletions|)
        (SETQ |LogfileStream| (OPENTEXTSTREAM |LogfileName|))
        (|if| (ZEROP (GETEOFPTR |LogfileStream|))
              |then|
                (** |probably| |errored| -
                    |people| |don't| |usually| |Trickle| |empty| |directories|)
                (|if| |MailAddress|
                    |then| (TEDIT.INSERT |LogfileStream| (PACK* "Subject: (Error?) Trickle:" |Source| " to "
                                                                |Destination| |EOLCharacter| "To: "
                                                                |MailAddress| |EOLCharacter| |EOLCharacter|)
                        1)
                    (LAFITE.SENDMESSAGE |LogfileStream|)
                    (CLOSEF |LogfileStream|)
                    (RETURN)))
                (TEDIT.SETSEL |LogfileStream| 1 1 'LEFT)
                (SETQ |EndsOfLines| (CONS 0 (|while| (SETQ |EndOfLine| (TEDIT.FIND |LogfileStream| |EOLCharacter|))
                                                    |collect| (TEDIT.SETSEL |LogfileStream| |EndOfLine| 1 'RIGHT)
                                                    |EndOfLine|)))
                (** |find| |lines| |with| "skipped" |and| |collect| |for| |deletion|)
                (** TEDIT.FIND |is| |very| |poor| |on| |long| |files.| |see| AR# 4220)
                (|for| |EndOfPreviousLine| |on| |EndsOfLines| |bind| |StartOfLine| |EndOfLine|
                  |eachtime| (SETQ |StartOfLine| (AND |EndOfPreviousLine| (ADD1 (CAR |EndOfPreviousLine|))))
                  (SETQ |EndOfLine| (CADR |EndOfPreviousLine|)))
      )
    )
  )

```

```

|when| (AND |EndOfLine| (STRPOS "skipped" (TEDIT.SEL.AS.STRING |LogfileStream|
(TEDIT.SETSEL |LogfileStream| |StartOfLine|
(ADD1 (IDIFFERENCE |EndOfLine| |StartOfLine|
))))))

```

|do|

(\* \* |if| |this| |deletion| |is| |an| |extension| |of| |the| |previous| |one|,| |then| |extend| |the| |previous| |one|,| |otherwise| |add| |this| |to| |the| |collection|. |This| |collapsing| |makes| |the| |actual| |deletion| |much| |more| |efficient|,| |since| |we| |expect| |to| |have| |few| |of| |the| |lines| |kept|.)

```

(|if| (AND |Deletions| (EQUAL (PLUS (CAAR |Deletions|)
(CDAR |Deletions|))
|StartOfLine|))
|then| (RPLACD (CAR |Deletions|)
(PLUS (CDAR |Deletions|)
(DIFFERENCE |EndOfLine| (CAR |EndOfPreviousLine|))))
|else| (|push| |Deletions| (CONS |StartOfLine| (DIFFERENCE |EndOfLine| (CAR |EndOfPreviousLine|)
))))))

```

(\* \* |do| |collected| |deletions|)

```

(|for| |Deletion| |in| |Deletions| |do| (TEDIT.DELETE |LogfileStream| (CAR |Deletion|)
(CDR |Deletion|)))

```

(\* \* KLUDGE! TEDIT.PUT |bombs| |after| |putting| |the| |file| |if| |the| |stream| |doesn't| |have| |a| |window| |associated|)

```

(NLSETQ (TEDIT.PUT |LogfileStream| |LogfileName| T T))

```

(\* \* |construct| |a| |mail| |message| |and| |send| |it|)

```

(|if| |MailAddress|
|then| (TEDIT.INSERT |LogfileStream| (PACK* (|if| (NOT (ZEROP (GETEOFPTR |LogfileStream|)))
|then| "Subject: Trickle: "
|else| "Subject: (Empty) Trickle:")
|Source| " to " |Destination| |EOLCharacter| "To: "
|MailAddress| |EOLCharacter| |EOLCharacter|
1)
(LAFITE.SENDMESSAGE |LogfileStream|))
(CLOSEF |LogfileStream|)))

```

)

```

(XCL:REINSTALL-ADVICE ' |Trickle| :AROUND ' ((:LAST (|Smart-Trickle| |Source| |Destination| |RootLogfileName|
|MailAddress| |ScheduleAnotherOne|
|DontReplaceOldVersions| |DontCopyExtensions|))))

```

```

(READWISE |Trickle|)

```

```

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

```

```

(ADDTOVAR NLAMA )

```

```

(ADDTOVAR NLAML )

```

```

(ADDTOVAR LAMA FILE-SERVER-UP-P)

```

)

```

(PUTPROPS SMART-TRICKLE COPYRIGHT ("Venue" 1990))

```

**FUNCTION INDEX**

FILE-SERVER-UP-P .....1 |Smart-Trickle| .....1 |TrickleProcessLogfile| .....2

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**ADVICE INDEX**

|Trickle| .....3

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