```
;;
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(RPAQQ RULESTTYCOMS
       [(* * Simplified TTY handling fns. Written by Mark Stefik.)
        (FNS RS.INTTY RS.INTTYL RS.WRITE)
        (* * Internal fns not called directly by User.)
        (FNS RS.CHECKREPLY)
        (VARS (tty T))
        (DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS (ADDVARS (NLAMA)
                                                                              (NLAML)
                                                                              (LAMA RS.WRITE])
```

(* * Simplified TTY handling fns. Written by Mark Stefik.)

```
(DEFINEQ
```

(**RS.INTTY**
```
  [LAMBDA (promptStr goodList helpStr noShiftFlg initialAtom)      ; Edited 10-May-88 15:37 by hwl
```

```
          (* RS.INTTY is a routine which returns an atom typed by the User at a terminal.
          If the User has not yet typed anything and a promptStr has been supplied, it is typed as a prompt to the User.
          (If the User has typed ahead, the prompt is suppressed.) goodList
          (if given) is a list of acceptable answers. If the first characters typed by the User correspond to the first characters of any
          element of goodlist, that element is returned as the value of INTTY.
          If goodList is supplied and the User's reply matches no entry, he is warned and reprompted.
          If the User types ? to INTTY, the helpStr is typed out and he is re-prompted.
          Note%: If the User types a semicolon, the entire message after it will be treated as a comment.
          MJS)
```

```
    (PROG (reply (CRLF (CHARACTER 13))
                 (SPACE (CHARACTER 32))
                 promptedInitial)
          [COND
            ((AND goodList (NOT noShiftFlg))                          (* Capitalize Goodlist Items.)
             (SETQ goodList (for Item in goodList collect (U-CASE Item]
     ReadLoop
          [COND
            [(READP tty)
             (COND
               ((EQ SPACE (PEEKC tty))                               (* Eliminate leading blanks.)
                (READC tty)
                (GO ReadLoop]
            (promptStr (PRIN1 promptStr tty)
                   (COND
                     ((AND initialAtom (NOT promptedInitial))
                      (SETQ promptedInitial T)
                      (BKSYSBUF initialAtom]
          [SETQ reply (PROG (chars char doneflg)
                            (do [PROGN (SETQ char (READC tty))
                                       (COND
                                         ((AND (NULL chars)
                                               promptStr
                                               (EQ char CRLF))       (* Re-prompt if just CRLF typed.)
                                          (PRIN1 promptStr T))
                                         [(OR (EQ char SPACE)
                                              (EQ char CRLF))        (* Done if SPACE or Return Typed after some CHARS.)
                                          (COND
                                            (chars (SETQ doneflg T]
                                         (T (SETQ chars (CONS char chars]
                                until doneflg)
                            (RETURN (PACK (DREVERSE chars]
          [COND
            [(EQ reply '?)
             (COND
               [helpStr (RS.WRITE helpStr)
                      (COND
                        (goodList (RS.WRITE "Expecting one of: " goodList]
               (goodList (RS.WRITE "Expecting one of: " goodList))
               (T (RS.WRITE "(Sorry -- No Help Provided)"]
            ((STRPOS ";" reply 1 NIL T))
            ((NOT (ATOM reply))
             (RS.WRITE "Invalid response.  Expecting one of: " goodList))
            (T [COND
                 ((NOT noShiftFlg)
```

```
                              (SETQ reply (U-CASE reply]
                       (COND
                          ((SETQ reply (RS.CHECKREPLY reply goodList))
                           (RETURN reply]
                  (CLEARBUF)
                  (GO ReadLoop])
```

(**RS.INTTYL**
```
  [LAMBDA (promptStr goodList helpStr noShiftFlg initialList)        ; Edited 10-May-88 15:37 by hwl
```

(* RS.INTTYL returns a list typed by the User at the terminal. If the User has not yet typed anything and a promptStr has
been supplied, it is typed as a prompt to the User. (If the User has typed ahead, the prompt is suppressed.) goodList
(optional) is a list of acceptable answers. If the leading characters correspond to any element of goodList, that element is
added to the list returned. If goodList is supplied an the User's reply matches no entry, he is warned and reprompted.
helpStr is a help message supplied to the User if he types a question mark.
Note%: If the User types a semicolon, the entire message after it will be treated as a comment.
If the User just types a carriage return, then NIL will be returned.
If noShiftFlg is NIL, type-in will be returned in upper case; it it is T, it will be returned as typed.)

```
    (PROG (reply (CRLF (CHARACTER 13))
                 (SPACE (CHARACTER 32))
                 promptedInitial)
          [COND
             ((AND goodList (NOT noShiftFlg))                         (* Capitalize the Goodlist items.)
              (SETQ goodList (for Item in goodList collect (U-CASE Item]
      ReadLoop
          [COND
             [(READP tty)
              (COND
                 ((EQ SPACE (PEEKC tty))
                  (READC tty)
                  (GO ReadLoop]
             (promptStr (PRIN1 promptStr tty)
                    (COND
                       ((AND initialList (NOT promptedInitial))
                        (SETQ promptedInitial T)
                        (SETQ initialList (SUBSTRING (MKSTRING initialList)
                                                     2 -2))
                        (BKSYSBUF initialList]
          [SETQ reply (COND
                         ((EQ CRLF (PEEKC tty))                       (* Return NIL (empty list) if User just types CRLF.)
                          (READC tty)
                          NIL)
                         (T (for char collect [PROG (chars doneFlg)
                                                    (do [PROGN (SETQ char (READC tty))
                                                               (COND
                                                                  ((OR (EQ char SPACE)
                                                                       (EQ char CRLF))
                                                                   (* Done if SPACE or Return Typed--
                                                                   even if no chars typed.)
                                                                   (SETQ doneFlg T))
                                                                  (T (SETQ chars (CONS char chars]
                                                        until doneFlg)
                                                    (RETURN (PACK (DREVERSE chars]
                                     until (EQ char CRLF]
          (COND
             ((NOT reply)
              (RETURN)))
          [COND
             [(FMEMB '? reply)
              (COND
                 [helpStr (RS.WRITE helpStr)
                        (COND
                           (goodList (RS.WRITE "Expecting subset of: " goodList]
                 (goodList (RS.WRITE "Expecting subset of: " goodList))
                 (T (RS.WRITE "(Sorry -- No Help Provided)"]
             ((STRPOS ";" reply 1 NIL T))
             (T [COND
                   ((NOT noShiftFlg)
                    (SETQ reply (U-CASE reply]
                (SETQ reply (for X in (MKLIST reply) collect (RS.CHECKREPLY X goodList)))
                (COND
                   ((NOTANY reply (FUNCTION NULL))
                    (RETURN reply]
          (CLEARBUF)
          (GO ReadLoop])
```

(**RS.WRITE**
```
  [LAMBDA nargs                                                      ; Edited 10-May-88 13:09 by hwl
    (PROG ((I 0))
      TOP [while (ILESSP I nargs) do (PRIN1 (ARG nargs (SETQ I (ADD1 I]
          (TERPRI])
```

)

```
                    (* * Internal fns not called directly by User.)

(DEFINEQ

(RS.CHECKREPLY
  [LAMBDA (reply goodList possibilities)                                ; Edited 10-May-88 12:57 by hwl

                    (* RS.CHECKREPLY is a subroutine of RS.INTTY and RS.INTTYL.
                    It tries to match the reply against the items in goodList as described below.)

    (COND
      ((NULL goodList)                                          (* If goodList=NIL, no work to do.)
       reply)
      ((MEMBER reply goodList)                                  (* If spelling is correct, no work to do.)
       reply)
      [(SETQ possibilities (for X in goodList when (STRPOS reply X 1 NIL T) collect X))
                                                                (* Match if an exact leading substring of 1 item in goodList.)
       (COND
          ((CDR possibilities)
           (RS.WRITE "Ambiguous: " possibilities)
           NIL)
          (T (CAR possibilities]
      ((FIXSPELL reply 70 goodList T))
      [(SETQ possibilities (for X in goodList when (STRPOS X reply 1 NIL T) collect X))
                                                                (* Match if one goodList item is leading substring of reply.)
       (COND
          ((CDR possibilities)
           (RS.WRITE "Ambiguous: " possibilities))
          (T (CAR possibilities]
      (T (RS.WRITE "Response not recognized. Type ? for help."])
)

(RPAQQ tty T)

(DECLARE%: DONTEVAL@LOAD DOEVAL@COMPILE DONTCOPY COMPILERVARS

(ADDTOVAR NLAMA )

(ADDTOVAR NLAML )

(ADDTOVAR LAMA RS.WRITE)
)

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