XEROX

RS232CNetwork

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Uses: DLRS232C

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INTRODUCTION

The RS232C port on a Daybreak can be configured in such a way that it can be used to communicate with a Pup Gateway over a phone line to provide a network communications path equivalent in all but speed to an Ethernet connection.

USE

Load the RS232CNetwork module. It redefines a number of functions, the one of general interest being

(RS232C.INIT *BAUDRATE BITSPERSERIALCHAR PARITY NOOFSTOPBITS*
    FLOWCONTROL LINETYPE)   [Function]

RS232C.INIT performs as documented in the Lisp Library modules manual, except for the addition of the *LINETYPE* argument. *LINETYPE* should be SYNC or ASYNC (also accepted are the alternate spellings SYNCH and ASYNCH).

In order to use the RS232C port for communicating with a Pup Gateway it must be configured (using RS232C.INIT) in SYNC mode. In addition, the variable

RS232C-NETWORK   [Variable]

should be set to T (which is the default setting on loading the RS232CNetwork module.

The variable

RS232C-NETWORK-AUTODIAL   [Variable]

controls whether the system will attempt to start the network connection automatically when Lisp returns from a LOGOUT. If *RS232C-NETWORK-AUTODIAL* is set to NIL, you can cause the system to attempt to establish the connection manually by calling the function RESTART.ETHER.

The modem should be configured to dial on detecting an off to on transition of DTR. On a Codex 2260 modem this is DTR mode 108.1. Since the dialing and answering process can take a non-trivial amount of time, the variable

RS232C-NETWORK-DIALING-TIMEOUT   [Variable]

indicates how many seconds the code will wait for the modem to signal that the connection has been established (by raising DSR) before timing out and continuing without the network connection. The default value is 30 seconds.

EXAMPLE

The very first time the code has been loaded the initialization sequence, when using Codex 2260 modems which can communicate at 9600 baud, would be

```
(RS232C.INIT 9600 8 'NONE 1 NIL 'SYNC)

(SETQ *RS232C-NETWORK-AUTODIAL* T)

(RESTART.ETHER)
```

Subsequently, whenever the Daybreak boots into Lisp, the network code will attempt to establish a phone connection.

To shutdown the phone connection you can call the function TURN.OFF.ETHER. The connection will also be broken when you log out of Lisp (assuming that the modem is configured to disconnect on loss of the DTR signal, which the Codex 2260 modems will do)