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ABSTRACT and CONTENTS

This document describes the calls that can be made to the Basic System for sending and receiving characters from the teletypes.

Introduction

The Basic System provides functions for sending and receiving characters from the CHIO. Conversion from internal to external code (and vice versa) is done by the CHIO. Certain functions in the monitor require special status.

If a request is made to the monitor CHIO functions and the process is non-interactive, it gets put on the disk and becomes dormant.

0) Set Break Strategy

The break and wake-up strategies of the CHIO can get set

to four values:

0) never break

1) always break

2) break on punctuation and control characters

3) break on punctuation characters

FUNCTION CHIOST ('BWS', LNO, STW), MONITOR ← 18∅; or

FUNCTION CHIOST (∅, LNO, STW), MONITOR ← 18∅;

STW is an integer consisting of two half word fields.

The most significant half is for the break strategy

(BS), the least significant half is for the wake-up

strategy (WS).

> SRETURN   : NONE
>
> FRETURN   : a) no access to line
>
> b) BS > 3, BS < -1
>
> c) WS > 3, WS < -1
>
> d) line number out of range

If BS(WS) is -1, then no change is made in the BS(WS).

1) Set Device Type

Five devices have been specified and have been assigned
fixed numbers.

0) null device

1) model 37 teletype

2) model 35 teletype

3) IBM 2740 selectric

4) 300 line a minute printer

FUNCTION CHIOST ('SDT', LNO, DT), MONITOR ← 180; or

FUNCTION CHIOST (1, LNO, DT), MONITOR ← 180;

SRETURN : NONE

FRETURN : a) no access to line

b) DT < 0, DT > 127

c) line number out of range

2) Set Echo Strategy

The echo strategy can be set to the following two values:

1) echo

2) don't echo

FUNCTION CHIOST ('EST', LNO, ES), MONITOR ← 18Ø; or

FUNCTION CHIOST (2, LNO, ES), MONITOR ← 18Ø;

SRETURN : NONE

FRETURN : a) no access to line

b) ES > 1, ES $< Ø$

c) line number out of range

3) Set Quit Character

This function sets the Quit character in the CHIO line table.

FUNCTION CHIOST ('QIT', LNO, CH), MONITOR ← 18∅; or

FUNCTION CHIOST (3, LNO, CH), MONITOR ← 18∅;

      SRETURN : NONE

      FRETURN : a) no access to line

                      b) $CH > 255$, $CH < \emptyset$

                      c) line number out of range

4)   Read Line Table

This function returns the four words of the line

table associated with the line given as argument to the

function.

FUNCTION RDLNT (LNO), MONITOR ← 181;

SRETURN   :   Contents of line table (T = 2)

FRETURN   :   a)   line number out of range

b)   no access to line

5) Read String to Break Character

This function reads characters from the teletype until one of three conditions is true:

1) A character that caused echoing to stop (break character).

2) A character that caused the process to be awakened (wake-up character).

3) The number of characters that the user asked for have been read from the CHIO

FUNCTION RSTB (LNO, RDND, STRING STR), MONITOR 182;

      SRETURN : RETURN STRING DESCRIPTOR 'STR'.

      FRETURN : a) no access to line

                  b) line number out of range

LNO : LINE NUMBER

RDND : if 1 then read non-destructively

           if $\emptyset$ then read destructively

STR : String descriptor

6) Write String to Teletype

This function is called to send characters to the

teletype. The call has to specify whether

a) output should begin immediately or a delay should

occur

FUNCTION WST (LNO, CTRL, STRING STR), MONITOR ← 183;

SRETURN : RETURN STRING DESCRIPTOR 'STR'.

FRETURN : a) no access to line

b) line number out of range

CTRL : BIT 23 $\emptyset$ = no delay on output

1 = delay on output