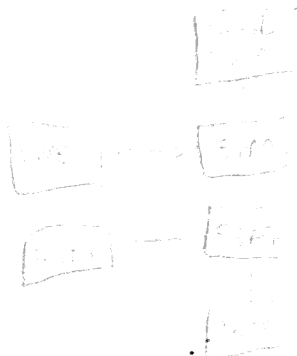```
; Test the .exec system call with the CDOS Simulator
;
; The object of the program is to load the Simulator, which will load
; Sbasic.com from the /bin directory, which will load and execute the
; program "Test1" from the current directory.
;
; First, include the Cromix Operating System Jsysequ file
;
*include   Jsysequ.z80
;
Start: ld   de,arglist   ; pointers to args
         ld   hl,prog   ; program to be loaded
         ld   bc,0   ; required under vers. 11
         jsys   .exec   ; execute simulator
;
; data definitions
;
prog: defb   '/bin/sim.bin\0'   ; all terminated by \0
arglist: defw   argu0,argu1,0   ; may be as many as req'd
argu0:   defb   '/bin/sbasic.com\0'   ; .com program is an arg
argu1:   defb   'test1\0'   ; so is Test1
;
          end
```

```
10    Rem     Test1 - print a message to indicate we're here
20    @"Test1 is now executing - successful .exec call"
30    @
40    Bye
```

```
                    0001   ; Test the .exec system call with the CDOS Simulator
                    0002   ;
                    0003   ; The object of the program is to load the Simulator, w
                    0004   ; Sbasic.com from the /bin directory, which will load a
                    0005   ; program "Test1" from the current directory.
                    0006   ;
                    0007   ; First, include the Cromix Operating System Jsysequ fi
                    0008   ;
                    0009   *include          Jsysequ.z80
                           (***** end of include *****)
                    0199   ;
0000' 111800'       0200   Start:  ld      de,arglist       ; pointers to args
0003' 210B00'       0201           ld      hl,prog          ; program to be loaded
0006' 010000        0202           ld      bc,0             ; required under vers.
0009' CF4C          0203           jsys    .exec            ; execute simulator
                    0204   ;
                    0205   ; data definitions
                    0206   ;
000B' 2F62696E      0207   prog:    defb   '/bin/sim.bin\0'        ; all terminate
0018' 1E00'         0208   arglist: defw   argu0,argu1,0           ; may be as man
      2E00'
      0000
001E' 2F62696E      0209   argu0:   defb   '/bin/sbasic.com\0'     ; .com program
002E' 74657374      0210   argu1:   defb   'test1\0'               ; so is Test1
                    0211   ;
0034' (0000)        0212           end
```

```
Errors.              0
Range Count          0

Program Length  0034 (52)
```

```
; Test the .shell system call by executing the command line
; # Sbasic test1     (same procedure as testexec.bin)
;
*include          jsysequ.z80
;
start:  ld        de,arglist        ; pointers to args
        ld        bc,0              ; req'd in vers. 11.00
        jsys      .shell            ; shell system call
;
; data definitions
;
; this is the same as the command line
;         sh -c sbasic test1
;
; notice that all the arguments are terminated
; by a null (hex 0, or \0)
;
arglist: defw     argu0,argu1,argu2,0
argu0:   defb     'sh\0'
argu1:   defb     '-c\0'
argu2:   defb     'sbasic test1\0'
;
         end
```

```
                   0001   ; Test the .shell system call by executing the command
                   0002   ; # Sbasic test1    (same procedure as testexec.bin)
                   0003   ;
                   0004   *include        jsysequ.z80
                          (***** end of include *****)
                   0194   ;
0000´ 110800´      0195   start:  ld      de,arglist      ; pointers to args
0003´ 010000       0196           ld      bc,0            ; 'req´d in vers. 11.00
0006´ CF49         0197           jsys    .shell          ; shell system call
                   0198   ;
                   0199   ; data definitions
                   0200   ;
                   0201   ; this is the same as the command line
                   0202   ;       sh -c sbasic test1
                   0203   ;
                   0204   ; notice that all the arguments are terminated
                   0205   ; by a null (hex 0, or \0)
                   0206   ;
0008´ 1000´        0207   arglist: defw   argu0,argu1,argu2,0
      1300´
      1600´
      0000
0010´ 736800       0208   argu0:  defb    ´sh\0´
0013´ 2D6300       0209   argu1:  defb    ´-c\0´
0016´ 73626173     0210   argu2:  defb    ´sbasic test1\0´
                   0211   ;
0023´ (0000)       0212           end

Errors             0
Range Count        0

Program Length  0023 (35)
```

USER - SYSTEM   DATE - 07/09/81   TIME - 08:38:04   FILENAME - TDECS.H

```
$$$$$$$$$$      $$        $$     $$$$$$$$$$      $$$$$$$$$$$$      $$$$$$$$$$$$
$$$$$$$$$$$$    $$        $$     $$$$$$$$$$$$    $$$$$$$$$$$$      $$$$$$$$$$$$
$$        $$      $$    $$       $$        $$         $$                $$
$$                  $$ $$        $$                   $$                $$
$$                  $$$$         $$                   $$                $$
$$$$$$$$$$$$          $$         $$$$$$$$$$$$          $$         $$$$$$$$$$
$$$$$$$$$$$$          $$         $$$$$$$$$$$$          $$         $$$$$$$$$$$$ .
          $$         $$                   $$          $$                $$
          $$         $$                   $$          $$                $$
$$        $$         $$         $$        $$          $$                $$
$$$$$$$$$$$$          $$         $$$$$$$$$$$$          $$         $$$$$$$$$$$$
$$$$$$$$$$            $$         $$$$$$$$$$            $$         $$$$$$$$$$$$


   $$$$$$        $$$$$$$$$$$$                   $$        $$$$$$         $$$$$$$$$$
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 $$      $$$             $$                   $$      $$      $$$       $$        $$
 $$       $$ $$          $$                   $$      $$       $$ $$    $$        $$
 $$       $$  $$         $$                   $$      $$       $$  $$   $$$$$$$$$$$$
 $$       $$  $$         $$                   $$      $$       $$  $$   $$$$$$$$$$$$
 $$       $$  $$         $$                   $$      $$       $$  $$            $$
 $$     $$    $$         $$                   $$      $$     $$    $$            $$
 $$    $$     $$         $$                   $$      $$    $$     $$            $$
   $$$$$$$$$             $$                   $$        $$$$$$$$$        $$$$$$$$$$$$
     $$$$$$              $$                   $$          $$$$$$        $$$$$$$$$$$$


   $$$$$$          $$$$$$$$                         $$$$$$$$$$$$      $$$$$$$$
  $$$$$$$$        $$$$$$$$$$                       $$$$$$$$$$$$$$    $$$$$$$$$$
 $$      $$$     $$        $$       $$$$$$         $$        $$    $$        $$
 $$       $$ $$  $$        $$      $$$$$$$                   $$    $$        $$
 $$       $$  $$ $$        $$      $$$$$$           $$$$$$$$$$      $$$$$$$$$$$$
 $$       $$  $$ $$$$$$$$$$$$                       $$$$$$$$$$      $$$$$$$$$$$$
 $$     $$    $$ $$$$$$$$$$$$                                $$            $$
 $$    $$     $$ $$        $$      $$$$$$                    $$            $$
   $$$$$$$$$     $$        $$      $$$$$$           $$       $$    $$      $$
     $$$$$$       $$$$$$$$$$$$      $$$$$$           $$$$$$$$$$$$    $$$$$$$$$$$$
                  $$$$$$$$$$        $$$$$$            $$$$$$$$$$      $$$$$$$$


$$$$$$$$$$$$      $$$$$$$$$$$$      $$$$$$$$$$$$$$      $$$$$$$$      $$$$$$$$$$$$
$$$$$$$$$$$$$$    $$$$$$$$$$$$      $$$$$$$$$$$$$$     $$$$$$$$$$    $$$$$$$$$$$$$$
    $$           $$        $$      $$                $$      $$    $$          $$
    $$           $$                $$                $$            $$
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    $$           $$                $$                $$                      $$
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    $$           $$$$$$$$$$$$$      $$$$$$$$$$$$$      $$$$$$$$$$    $$          $$
    $$           $$$$$$$$$$$        $$$$$$$$$$$$        $$$$$$$$    $$$$$$$$$$$$$$
```

```
/*      TDECS.H

        DECLARATIONS FOR TCALLS MODULES

DKE 12-22-80
DKE 1-16-81
DKE 1-20-81
*/

#DEFINE INVINT INT
#DEFINE INVLONG LONG

#DEFINE ERR (-1)
#DEFINE STDIN 0
#DEFINE STDOUT 1
#DEFINE STDERR 2
#DEFINE MAXERRS 41
#DEFINE BLANKLINE; PRINTF( "\N" );

/*-------DEVICE NUMBER / TYPE STRUCTURE FOR FSTAT CALL-------*/

STRUCT BTAG [
        CHAR DEVNO;
        CHAR FTYPE;
];

/*-------INODE-------*/

STRUCT IN [              /* INODE STRUCTURE */
        INVINT OWNER;
        INVINT GROUP;

        CHAR AOWNER;
        CHAR AGROUP;
        CHAR AOTHER;
        CHAR STAT;
        CHAR NLINKS;
        CHAR DUMMY;

        INVLONG SIZE;
        INVINT INODE;
        INVINT PARENT;
        INVINT DCOUNT;
        INVLONG USAGE;
        CHAR TCREATE[6];
        CHAR TMODIFY[6];
        CHAR TACCESS[6];
        CHAR TDUMPED[6];

        INVLONG INDEX[20];
];
```

```
/*      TEXEC

        TESTS EXEC CROMIX CALL

DKE 1-26-81
*/

#INCLUDE "TDECS.H"
#INCLUDE "JSYSEQU.H"

MAIN()
[
        INT CH, I, ID, STATUSES[2];
        CHAR S[100];
        CHAR *ARGV[] = [ "/BIN/SPOOL.BIN", "/DEV/TTY1", "EXEC.DAT", 0 ];

        PRINTF( "EXEC TEST\N" );

        PRINTF( "THIS TEST SHOULD FIRST CREATE A FILE AND WRITE 5 LINES TO IT: %S
                ((CH = CREATE( "EXEC.DAT", OP<-WRITE \ OP<-TRUNCF,
                                        OP<-WRITE \ OP<-TRUNCF ) ) != -1 ) ?
                        "OK" : "CREATE ERROR" );
        FOR (I = 1; I <= 5; ++I ) [
                SPRINTF( S, "\TFILE LINE %D\N", I );
                WRLINE( CH, S );
        ]
        CLOSE( CH );

        PRINTF( "THEN EXEC SPOOL TO DISPLAY THAT FILE ON THIS SCREEN:\N" );
        EXEC( "/BIN/SPOOL.BIN", ARGV, 0 );
]
```

```c
/*      TFEXEC

        TESTS FEXEC CROMIX CALL

DKE 1-24-81
*/

#INCLUDE "TDECS.H"
#INCLUDE "JSYSEQU.H"

TFEXEC()
[
        INT CH, I, ID, STATUSES[2];
        CHAR S[100];
        CHAR *ARGV[] = [ "/BIN/SPOOL.BIN", "/DEV/TTY1", "FEXEC.DAT", 0 ];

        PRINTF( "FEXEC TEST\N" );

        PRINTF( "FIRST, CREATE A FILE AND WRITE 5 LINES TO IT: %S\N",
                ((CH = CREATE( "FEXEC.DAT", OP<-WRITE \ OP<-TRUNCF,
                                        OP<-WRITE \ OP<-TRUNCF ) ) != -1 ) ?
                        "OK" : "CREATE ERROR" );
        IF (CH == -1) ERROR( STDERR );

        FOR (I = 1; I <= 5; ++I ) [
                SPRINTF( S, "\TFILE LINE %D\N", I );
                WRLINE( CH, S );
        ]
        CLOSE( CH );

        PRINTF( "NOW SPOOL THAT FILE TO THIS SCREEN:\N" );
        ID = FEXEC( "/BIN/SPOOL.BIN", ARGV, 0 );
        WAIT( 0, ID, STATUSES );
        PRINTF( "5 LINES SHOULD HAVE BEEN WRITTEN.\N" );

        BLANKLINE;
]
```

```
/*      TSHELL

        TESTS SHELL CROMIX CALL

DKE 1-26-81
*/

MAIN()
[
        INT STATUSES[2];
        CHAR *ARGS1[] = [ "SHELL", "-C",
                          "PSTAT; EX", 0 ];

        PRINTF( "SHELL TEST\N" );

        PRINTF( "THIS ROUTINE SHOULD TRANSFER TO A SHELL, WHICH \
DOES A PSTAT, THEN EXITS\N" );
        SHELL( ARGS1 );
]
```

```
/*      TCREATE.C

        TESTS CREATE CROMIX CALL

DKE 12-23-80
*/

#CONTROL NSOURCE
#INCLUDE "JSYSEQU.H"
#INCLUDE "TDECS.H"
#CONTROL SOURCE

TCREATE()
[
        EXTERN INT ERRNO;
        INT FN;
        STRUCT IN *INOP;

        PRINTF( "CREATE TEST\N" );
        PRINTF( "FIRST, ATTEMPT TO CREATE /C/TCALLS/DATA: " );
        IF (CREATE( "/C/TCALLS/DATA", OP<-READ\OP<-CONDF ) == ERR )
                PRINTF( "ERROR %D, AS EXPECTED\N", ERRNO );
        ELSE
                PRINTF( "NO ERROR, = WRONG\N" );

        PRINTF( "SECOND, CREATE TCRE1: " );
        IF (CREATE( "TCRE1", OP<-WRITE\OP<-TRUNCF ) == ERR)
                PRINTF( "ERROR %D\N", ERRNO );
        ELSE
                PRINTF( "OK\N" );

        PRINTF( "THIRD, CREATE TCRE2 FOR EXCLUSIVE ACCESS: " );
        IF ((FN = CREATE( "TCRE2", OP<-XRDWR\OP<-TRUNCF, OP<-XRDWR )) == ERR)
                PRINTF( "ERROR %D\N", ERRNO );
        ELSE
                PRINTF( "OK\N" );

        PRINTF( "FN=%D\N", FN);

        CSTAT( FN, ST<-ALL, INOP );
        PRINTF( "THE ACCESS BYTES = %02X, %02X, %02X\N",
                        INOP->AOWNER, INOP->AGROUP, INOP->AOTHER );

        PRINTF( "\N" );
]
```