UNIVERSITY OF QUEENSLAND

Prentice Computer Centre

NEWSLETTER

authorization:  Director of the Centre

1    DEFAULT SWITCH SETTINGS - SWITCH.INI

Certain system programs are capable of reading a file from a
user's directory containing default switch settings and values.
This feature is valuable for applications like -

(i)    Allowing a user to specify standard actions by LOGIN
       (default COST, CUSP ro RUN, etc),

(ii)   Causing INITIA to set up terminal characteristics
       (see example below),

(iii)  Setting defaults for batch jobs submitted from a
       terminal (or any other queue management requests).

Some system programs (currently DUMP, DIRECT, QUEUE, LOGIN, INITIA)
are able to read an ASCII file SWITCH.INI which supplies default
switch values for these programs or CUSPS.    SWITCH.INI has the
following format -

       CUSP-name tab or space(s) /switch /switch...

Each switch on the line for the appropriate CUSP is taken as a
default each time that CUSP scans a command line.   If SWITCH.INI
on the user's area has the line -

       QUEUE/PRIORITY:4

then the command -    PRINT A.LST

will cause the queue request to have a priority of 4 but the
command -

       PRINT A.LST/PRIOR:15

will cause the user specified priority of 15 to override the
default of 4.

SWITCH.INI also has an option feature.  Option lines have the following format -

CUSP-name : option tab or space(s) /switch /switch...

To have this line selected rather than the line simply labelled with the CUSP name the /OPTION switch is used.  Thus if SWITCH.INI has lines -

QUEUE:KEEP/DISPOSE:PRESERVE
QUEUE/PRIORITY:4

then    PRINT A.LST

will cause A.LST to be renamed to the queue area (default for *.LST) and the queue request to have priority 4
but -

PRINT A.LST/OPT:KEEP

will cause A.LST to be queued for printing with a priority of 10 (default) and the file will remain in the user's disk area.

Thus several sets of default switch values may be maintained and the appropriate one selected by means of the /OPTION switch.  To prevent SWITCH.INI being read, the /NOOPTION switch should be used.
Thus -

PRINT A.LST/NOOPTION

will cause A.LST to be renamed to the system queue area and queued for printing with a priority of 10 (the usual defaults).

## INITIA and SWITCH.INI

The INITIA command can be followed by one or more keywords:

| | |
|---|---|
| HELP | type this text |
| KSYS | indicate when timesharing will cease |
| NAME | (default) type system name |
| NORUN | suppress running any operator program |
| NOTICE | type general operator notice |
| SETTTY | (default unless logged in) setup terminal |
| STRUCTURES | type any operator notes about mounted structures |
| TERMINET | set tabs for a terminet-300 |
| TTY | type tty mode settings for this terminal |

NO may precede any of the above to override default settings

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INITIA reads SWITCH.INI to set up defaults for any terminal or
by specifying a tty number, defaults for that hardware line
number.   Within SWITCH.INI the following set tty commands may
be issued by following the SETTTY keyword by ':(' separating
them with spaces or commas and terminating the list by a ')'.
Complements are set by appending 'NO' to the beginning of the
option, e.g.  NOTAB.

ALTMODE BLANK CRLF DEBREAK DISPLAY ECHO FILL:n(n=0,1,2 or 3)
FORM GAG HDX LC PAGE PAGE:n SLAVE SPEED:x TABS TAPE WIDTH:n

Thus the command      .I TERMINET

may be used to initialize terminal settings for a GE Terminet 300.

The line INITIA:TTY6 TERMINET SETTTY: (TABS,FORM LC)
within SWITCH.INI will cause INITIA to initialize terminet tabs
and set tty tabs, set tty lc and set tty form if the user is
logged in on hardware line 6.

.TYPE SWITCH.INI[60,116]
[8:58:42]
LOGIN /LIB:[60,140]/WATCH:DAY
QUEUE /UNIQUE:0/COST:$20/TIME:30:00/RESTART:1
INITIA SETTTY:(LC,NOALTMODE,FILL:0,WIDTH:80)

.

INITIA Version 4

INITIA has been modified to use the user's line number rather than
TTY number in determining the terminal characteristics to set.
Since INITIA reads SWITCH.INI on the user's area (if logged in)
and selects an option line based on the user's line number, INITIA
option lines may be used to setup special terminal characteristics,
e.g. some display terminals should be setup with the characteristics -

        TTY page
        TTY nocrlf
        TTY altmode
        TTY fill 0

and if such a terminal is on line 113, then the line -

        INITIA:TTY113 /SETTTY:(PAGE,NOCRLF,ALTMODE,FILL:0) /TTY

will cause INITIA to issue the above listed SET TTY commands,
[the effect of the /SETTTY: (....) switch] and type out the
current TTY settings (the /TTY switch) if the user is logged on
LINE 113.

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If there is no CUSP to run in the user's accounting file entry, then special terminal initialization may be easily performed by specifying /RUN:INITIA to LOGIN either in SWITCH.INI or in the LOGIN command, e.g. SWITCH.INI might contain the following lines -

```
LOGIN /NEW/LIB:[700,100]/COST:$10/RUN:INITIA
INITIA:ALL/NONOTICE SETTTY:(NOPAGE,WIDTH:80,LC)
INITIA:TTY415/SETTTY:(FILL:0,NOCRLF,ECHO,NOALTMODE,FORM,LC,PAGE)
INITIA:TTY6/TERMINET SETTTY:(NOPAGE,FILL:1,TAB,LC,FORM,WIDTH:118)
LOGIN:T/NEW/COST:$10
QUEUE/PRIORITY:4/RESTART:1
```

## 2    MOTOROLA M6800 SUPPORT SOFTWARE

Users of the Motorola M6800 family of microcomputer components will be aware of the software support package which is available to designers to assist in the implementation of their micro-processor systems.   These support programs have been purchased and are available for use on the PDP-10 by internal users only. (The terms of the software licence purchase agreement restricts the use of this package to University Departments).

The programs are:

(i)    SYS:M68XAS.SAV - the cross-assembler for the M6800

(ii)   SYS:M68EML.SAV - the emulator for the M6800.

Operating instructions are as follows:

### Cross-Assembler M68XAS

The cross-assembler accepts source input from a disk file, and outputs a "paper tape format" file to disk, and a listing of the assembled source code to the spooled line printer.

A sample running sequence from teletype follows:

```
.R M68XAS
SOURCE FILE NAME.EXT: M68PGM.SAM
BINARY FILE NAME.EXT: M68PGM.BIN
LISTING TO LPT:

TOTAL ERRORS DETECTED:    0
SOURCE FILE NAME.EXT:
                 (<cr> to exit)
.
```

When running the assembler in batch mode, the source and output
filenames are not requested, and the default input and output
files are FOR20.DAT and FOR21.DAT respectively.  The output
still goes to the spooled LPT:.

A sample deck setup would be:

```
$SEQUENCE
$JOB
$DECK FOR20.DAT
    .
    .     source deck
    .
$EOD
.R M68XAS

.PRINT *.LPT,FOR21.DAT
$EOJ
```

Emulator M68EML

The emulator is designed as an interactive method of simulating
a given M6800 software configuration.   The reader is referred to
the Motorola M6800 Programming Manual for details of its commands.

It accepts commands from the teletype (or spooled card reader if
in batch) and outputs to the teletype (or spooled line printer).
The '$' character indicates to the teletype user that M68EML is
ready to receive a command.

The input file is in the Motorola "paper tape format", and the user
specifies which file is to be input when working interactively.
Through batch, the default input file is assumed, FOR21.DAT.

A sample interactive dialogue follows:

```
.R M68EML
PT INPUT FILE NAME.EXT: M68PGM.BIN
    M68EML IS THE PROPERTY OF MOTOROLA SPD, INC.
          COPYRIGHT 1975 BY MOTOROLA INC

       MOTOROLA M6800 EMULATOR, RELEASE 1.0

HH IA   OC    EA   P    X    A   B    C     S     T
 0000 ***    0000 0000 0000 00 00 000000 0000 0000000
$ DM,0,300.
```

```
0000 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
SAME PATTERN
$ IM,
$ DM,0,300.
0000 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
SAME PATTERN
0100 8E 01 32 FE 01 34 C6 03 96 0A A1 02 27 05 09 5A  ..2..4......'..Z
0110 26 F6 3E BD 01 19 7E 01 00 16 BA 01 33 39 F0 00  &.>.........39..
0120 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
0130 00 00 00 80 01 36 53 45 54 1F 00 00 00 00 00 00  .....6SET.......
0140 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ................
SAME PATTERN
$ EX
PT INPUT FILE NAME.EXT: <cr>
```

.

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