DROS 0.5

User manual

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Introduction

DROS is a DOS like shell written in MIDP with a BASIC interpreter for the writing of simple programs. This brief user guide is split into two parts a user guide for the DROS environment and a guide to the BASIC interpreters API.

Because the application requires access to the file system the application requires JSR 75 file system support on the phone. Phones that have this present (at the time of writing the document) are Sony Ericsson phones starting with the K750i. Nokia Series 60 (Symbian) phones starting with the 6630. Nokia Series 40 phones starting with the 6230i. Siemens phones starting with the 75 Series. It should be noted that some network operators such as Cingular and T-Mobile in America disable the JSR-75 file support so the application will not work.

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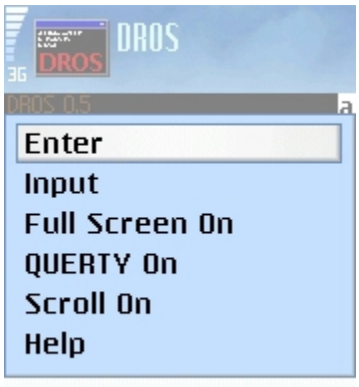
Part 1 The DROS command shell

Application navigation

Direct text input

Input Screen input



Menu

There are two forms of command entry in the shell text can be entered directly into the command window and it can also be entered through an input screen. Commands can be executed by either pressing the fire button or by using the Enter menu item. Previously executed commands can be accessed by pressing the up button. By pressing the * button a scrolling mode is entered where by using the up and down direction keys the session so far can be viewed. Pressing * again returns to the normal command input mode. The command window can be placed in full screen mode using the 'Full Screen On' menu item. If the phone has a QUERTY keyboard this input mode can be selected using the menu item.

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Commands

Supported commands are as follows:

- cd: Change directory
- copy: Copy file
- move: Move file
- dir: List directory
- del: Delete file/directory
- mkdir: Make directory
- dial: Dial number
- cls: Clear screen
- pf: Print file
- run: Run basic file
- <drive>: Change drive
- edit: Edit text file
- <file>.bat: Run batch file
- bcolor: Set background colour
- fcolor: Set foreground colour
- time: Print time
- play: Play media
- ftp: ftp client
- ?: Help

Batch Files

Batch files can be written using most of the commands above. Create or edit a batch file using the edit <filename>.bat command.

If a batch file named autoexec.bat is added to the root of the initial drive normally (E:) this is run upon startup.

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Applications

Media Player

Text Editor

There are a number of applications available within DROS.

- There is a media player can be used for playing mp3's and videos.
- The editor can be used to edit text files. These may be DROS BASIC files or DROS batch files. If the files are BASIC files there is the possibility to run the program from the editor, thus providing a very basic IDE.
- There is also a FTP client available.

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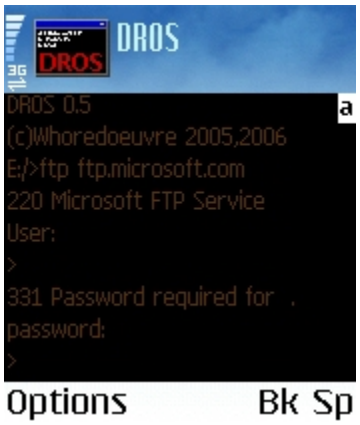
FTP



The FTP client has the following commands available:

- open: Open site
- user: User name
- pass: Password
- cd: Change directory
- get: Get file
- put: Put file
- rename: rename file/dir
- site: Remote command
- dir <path>: List directory
- dirf <path>: Full directory list
- del: Delete file/dir
- deldir: Delete directory/dir
- mkdir: Make directory
- ascii: Text mode
- binary: Binary mode
- cls: Clear screen
- ?: Help

When opening a site using enter will automatically send a anonymous user and anonymous email address as a password. Transfers can be canceled at anytime using the menu item cancel.

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Part 2 BASIC Interpreter

Introduction

Basic Files can be run either from the command line or through the on board editor. Basic source files can be created/edited using edit <filename>.bas, as stated before the programs can be run from within the editor.

Commands

IF

IF H<11 THEN GOTO 200 or
IF A>10 THEN PRINT "this is ok" or
IF "Hello"=X$ THEN PRINT "hello to you"

FOR

FOR X = 1 TO 100
...
NEXT

GOTO

10
PRINT "DAVE IS SKILL"
GOTO 10

GOSUB

IF 10 > 5 THEN GOSUB 300

300 PRINT "DAVE IS SKILL"
RETURN

VADDELEMENT

VADDELEMENT 1, 23 or
VADDELEMENT 1, "DAVE IS SKILL" or
VADDELEMENT 1, S$ or
VADDELEMENT 1, S

Adds a element to vector with the index 1 in the vector buffer. If no vector exists then a new one is created at this index.

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VDELELEMENT

VDELELEMENT 1,0

Deletes the element at position 0 from the vector at index 1 in the vector buffer.

VGETELEMENT

VGETELEMENT 1, 0 ,S or
VGETELEMENT 1, 0 ,S$

Gets the element at position 0 from the vector at index 1 in the vector buffer and sets the variable S to this value.

VSIZE

VSIZE 1,S

Gets the size of the vector at index 1 in the vector buffer and sets the variable S to be the size.

VCLEAR

VCLEAR 1

Clears the vector at index 1 in the vector buffer.

PRINT

PRINT "HELLO WORLD",X$;"TEST",

; = tab
X$ = String variable
*__TEXTMODE__ only

INPUT

INPUT X or
INPUT X$ or
INPUT "What is your age?",X or
INPUT "What is your name?",X$

Sets the variable X/X$ to the string or a number read in.

CLS

CLS

clears the screen in textmode and graphics mode

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GRAPHICSMODE

Set graphics mode on

Graphics commands need graphics mode turned on

X: x coord
Y: y coord

SETCOLOUR

SETCOLOUR R,G,B

DRAWCIRCLE

DRAWCIRCLE X,Y,W,H

W: width
H: height

FILLCIRCLE

FILLCIRCLE X,Y,W,H

W: width
H: height

DRAWLINE

DRAWLINE X,Y,A,B

A: end point x coord
B: end point y coord

DRAWBOX

DRAWBOX X,Y,W,H

W: width
H: height

DRAWPIXEL

DRAWPIXEL X,Y

FILLCIRCLE

See **DRAWCIRCLE**

FILLBOX

See **DRAWBOX**

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DRAWSTRING

DRAWSTRING X,Y,"OWEN IS SKILL"

LOADSPRITE

LOADSPRITE 0,"C:/test.jpg"

Loads a sprite of jpg or png format into the spite buffer 0;

DRAWSPRITE

DRAWSPRITE 50,60,0

Draws the sprite at x coordinate 50 and y coordinate 60 from sprite buffer index 0

TEXTMODE

Set text mode on

GETKEY

GETKEY I

Gets the id of the last key pressed

TIME

TIME X

Gets the number of milli seconds since 1970

File Commands

FOPEN

FOPEN "c:/test.txt"

If the file doesn't exist an attempt is made to create it.

FINPUT

FINPUT X$,Y

Reads from the currently open file into the variables.

FPRINT

FPRINT "OWEN IS SKILL",1,X,Y$

Writes into the currently open file. Subsequent calls before **FCLOSE** append to the end of the file.

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FCLOSE

closes the file

String functions

CONCAT

CONCAT X$,Y$ or
CONCAT Y$,"OWEN IS SKILL"

Concatenates the second string onto the first

SUBSTR

SUBSTR S,E,X$,Y$ or
SUBSTR S,E,X$,"OWEN IS SKILL"

Sets the first string to be the substring of the second starting at S and ending at E

INDEXOF

INDEXOF X$,"a",Y or
INDEXOF "OWEN IS SKILL",X$,Y

Finds the index of the second string within the first and sets the variable Y with this index.
Sets the variable Y to -1 if the string cannot be found.

LENGTH

LENGTH X$,Y or
LENGTH "OWEN IS SKILL",Y

Sets the variable Y to the length of the string

WAIT

WAIT 1000

Pauses the program execution for the time set in milliseconds.

EXIT

Exits the program

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Example program 1

```
GRAPHICSMODE
X = 10
Y = 10
A = 1
B = 2

C = 0

10
X = X + A
Y = Y + B

I = I + 1
IF I % 300 = 0 THEN C = 1
IF B > 0 THEN B = B-C
IF B < 0 THEN B = B+C
C=0

IF X > 75 THEN A=-A
IF X < 3 THEN A=-A
IF Y > 179 THEN B=-B
IF Y < 10 THEN B=-B

SETCOLOUR 255-Y,X,Y
CLS
DRAWSTRING X,Y,"OWEN IS SKILL"
SETCOLOUR 255,255,255
DRAWBOX X+27,194,43,12
WAIT 35
GOTO 10

EXIT
```

Example program 2

```
VADDELEMENT 1, 23
VGETELEMENT 1, 0 ,S
PRINT S,
VDELELEMENT 1,0
VADDELEMENT 1, 26
VGETELEMENT 1, 0 ,S
PRINT S,
EXIT
```

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Example program 3

```
FOPEN "C:/test.txt"
INPUT "Please enter your name",Z$
INPUT "Please enter your age", I
FPRINT Z$, I
FCLOSE

FOPEN "C:/test.txt"
FINPUT D$, X
FCLOSE
PRINT "Name is:",D$," Age is:", X

EXIT
```

Example program 4

```
GRAPHICSMODE
LOADSPRITE 0,"C:/test.jpg"
DRAWSPRITE 50,50,0
EXIT
```

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