

# The Jack OS API

A

## Math

A

```
function int multiply(int x, int y):  
    *  
    x*y    Math.multiply(x,y)  
  
function int divide(int x, int y):  
    /  
    x/y    Math.divide(x,y)  
  
function int min(int x, int y):  
    x    y.  
function int max(int x, int y):  
    x    y.  
function int sqrt(int x):  
    x.
```

## String

```
constructor String new(int maxLength):  
    maxLength    0.  
  
method int dispose():  
  
method int length():  
  
method char charAt(int j):  
    j-  
  
method void setCharAt(int j, char c):  
    j-    c.  
  
method String appendChar(char c):  
    c  
  
method void eraseLastChar():  
  
method int intValue():  
    ,    -  
  
method void setInt(int val):  
  
function char backSpace():  
  
function char doubleQuote():  
    (")  
  
function char newline():  
    .
```

## Array

Array  
arr[i].

function Array new(int size):

method void dispose():

## Output

A

512 256 11 ( 1  
( 0.63, 23 ( 0.22, 64 (0,0). A

function void moveCursor(int i, int j):

j- i-

function void printChar(char c):

function void printString(String s):

function void printInt(int i):

function void println():

function void backSpace():

## Screen

A

512 ( 0.511, 256 ( 0.255, (0,0).

function void clearScreen():

function void setColor(boolean b):

drawXXX

true, false.

function void drawPixel(int x, int y): (x,y)

function void drawLine(int x1, int y1, int x2, int y2): (x1,y1)  
(x2,y2),

function void drawRectangle(int x1, int y1, int x2, int y2):  
(x1,y1) (x2,y2),

function void drawCircle(int x, int y, int r):  $r \leq 181$   
(x,y),

A , 2

## Keyboard

```
function char keyPressed():
    0. A
    : newline (128=String.newline()), backspace (129=String.backspace()),
    left arrow (130), up arrow (131), right arrow (132), down arrow (133), home (134), end
    (135), page up (136), page down (137), insert (138), delete (139), ESC (140), F1-F12
    (141-152).
```

```
function char readChar():
```

```
function String readLine(String message):
    newline
    . A
```

```
function int readInt(String message):
    newline
    (
    ). A
```

## Memory

```

    :
    RAM 32,768 (RAM),
    16-
```

```
function int peek(int address): RAM
```

```
function void poke(int address, int value): RAM
```

```
function Array alloc(int size): RAM
```

```
function void deAlloc(Array o): - ( )
```

## Sys

```
A
```

```
function void halt():
```

```
function void error(int errorCode):
    "ERR<errorCode>",
```

```
function void wait(int duration): duration
```