

SerialOTG and Physicaloid in app inventor 2

This extension can replace the built-in function in most applications without change.

The following has been changed in the access methods:

Add set and get of Parity, Rts and Cts (Cts used for Arduino reset)

The following functions gives the ability to read and write any byte 0..255

ReadSerialByte, WriteSerialByte, read and write a number 0..255 on serial line

ReadSerialHexString, WriteSerialHexString, read and write hex coded string on serial line

The following function adds the ability to read text messages separated with new_line char.

ReadSerialLn() (used with PrintSerial())

Test number of bytes in read buffer

BytesToRead()

Note: returns the number of bytes at that moment. You may receive more bytes any time.

This may also differ from number of characters if you use UTF-8 extended character set.

Experimental, may be removed in the future.

ReadSerialHexList, WriteSerialHexString, read and write hex coded string as list on serial line.

Upload, upload hex file to arduino.

The new Physicaloid library is built on the latest and most updated library found on github (Apache License, Version 2.0). It has been modified to accept more USB to serial chips and a number of problems has been resolved and some code has been rewritten. The library and the extension has been refactored to make it coexist with the built-in Serial component and Physicaloid library. It can now be used with AI Companion.

It has been tested with a Lenovo 3500FL/Android 7.1 and the most common adapters:

CdcAcm (original Arduino Uno)

PL2303

PL2303HX

(PL2303HXN not implemented yet)

FTDI

CP210x

CH341

CH341 ("fake")

It has also been checked on devices with Android 4.1, Android 8.1, Android 10 but not with all adapters.

I now make com.SerialOTG.aix available for testing. Note, it is a debug version. A lot of output are logged to be able to trace problems.

I have included SerialOTG.aia led.ino as a demo how to use it.

ArduinoTime.aia and Time.ino shows how to use the new text message communication.