Below is an edited extract from an email I found on Google's Usenet Archive. I think there is enough information in there to allow us to use some older serial port graphics tablets as X-Y controllers under MIOS.

If you are the original author of this post and wish to have it removed, please contact me through the Private Messages at midibox.org/forum

DrBunsen.

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Date: Sat, 26 Jul 86 09:12:59 pdt
From: oster%ucbla…@BERKELEY.EDU (David Phillip Oster)
Subject: Re: Digitizing point coordinates (MacTablet)
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This letter discusses using Mac compatible digitizing tablets to get high resolution data … since you are not afraid to program, you might try the following:

I assume the MacTablet connects to the Mac using a serial port…

Listen to the tablet using terminal software (Versaterm, naacterm …)(try 9600 baud as an initial guess at the baud rate.)

The tablet probably sends a 5 byte data packet of the following form:

b7	b6	b5	b4	b3	b2	b1	b0	bits of a byte
P	1	0	0	0	S	0	0	P is parity. S is on if switch is down
P	0	x5	x4	x3	x2	x1	x0	low 6 bits of x data
P	0	x11	x10	x9	x8	x7	b6	high 6 bits of x data
P	0	y5	y4	y3	y2	y1	y0	low 6 bits y data
P	0	y11	y10	y9	y8	y7	y6	high 6 bits y data

b6 is 1 only at the start of a 5 byte data packet.

This data is drawn from a Summagraphics data sheet for their Bit Pad 1 digitizer.

Unlike the Mac, point (0,0) is probably at the LOWER-left corner.

If you get data that is consistent with this, then you need only write a basic program to read data at the serial port. Tablets generate so much data that you're program had better check the fullness of the serial buffer and throw away 5 byte data packets periodically to keep the buffer from overflowing. Alternatively, you could write in a language, like C or compiled Pascal, that was fast enough to keep up with the data rate.

Low-resolution Kurta tablets and other-than-MacTablet Summagraphic tablets use this data format when they are not transmitting data as strings of ASCII, base-10 integers.

Kurta's PenMouse, a cordless digitizer considerably cheaper than MacTablet, sends 2400 baud, their other models generally run at 4800 baud. Kurta also makes a MacXL compatible version.

Disclaimer: My opinions are solely my own, but, in evaluating them, you should know that I am currently re-writing Kurta's software.

— David Phillip Oster – "The goal of Computer Science is to
Arpa: o…@lapis.berkeley.edu – build something that will last at

Uucp: ucbvax!ucblapis!oster – least until we've finished building it."

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