ADB COMMANDS

ADB Features Station and UltraSlate Products

ADB unit powers up as a mouse and the driver switches to tablet mode when "talk r2" is received (units released before 7/1/98 switch on" talk r1"). Inc run at 1000 lpi with extended data enabled.

ADB Formats

The unit powers up as both a mouse and tablet. Only one of the two devices is active at any one time. The mouse is the default. To change over to the tablet, you must issue a (talk reg 1 pre July 98 firmware) and reg 2 (July 98 firmware) to address four or the current tablet address.

ADDRESS 3 REG 0 MOUSE FORMAT

BYTE	B	B6	B5	B4	B3	B2	B1	B0
1	TIP	DY6	DY5	DY4	DY3	DY2	DY1	DY0
2	1	DX6	DX5	DX4	DX3	DX2	DX1	DX0

ADDRESS 4 REG 0 TABLET FORMAT

BYTE	B7	B6	B5	B4	B3	B2	B1	B0
1	PROX	Y14	Y13	Y12	Y11	Y10	Y9	Y8
2	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
3	X15	X14	X13	X12	X11	X10	X9	X8
4	X7	X6	X5	X4	X3	X2	X1	X0
5	00=TILT 01=HIGHT 10=PRSSURE 11= SPEICAL DATA		BD	B3	B2	B1	B0	P8
6	P7 XTILT =0 YTILT =1 H7	P6 T6 H6 SP2	P5 T5 H5 SP1	P4 T4 H4 SP0	P3 T3 H3 TYPE3	P2 T2 H2 TYPE2	P1 T1 H1 TYPE1	P0 T0 H0 TYPE0

	SP3							
7IF ENABL ED	SAME DATA AS MOUSE FOR THESE TWO BYTES IE DELTA AT 100 LPI BD REFLECTS ALL BUTTONS							
8 IF ENABL ED								

Pn = Pressure Bits
Tn = Tilt Bits
Bn = Button Bits (16 button)
BD = Buttons Down

Note at 1000 lpi.
Prox 1 = out 0 = in

100 = Unknown else reserved height data when byte 5
0XXXXXX1
Tilt = 0XXXXXX0

Transducer Type 000 = Pressure Pen 001 = Mouse 011 16 Button Cursor

PENS OR MOUSE 4 BUTTON CURSOR

BUTTON	43210	BUTTON	43210	BUTTON	43210	BUTTON	43210
Up	00000						
0	10001	0+1	10011	1+3	11010	0+2+3	11101
1	10010	0+2	10101	2+3	11100	1+2+3	11110
2	10100	0+3	11001	0+1+2	10111	1+2+3 +0	11111
3	11000	1+2	10110	0+1+3	11011		

5 BUTTON MOUSE BUTTON CURSOR TBD

BUTTON	43210
Up	00000
LEFT	XXXX1
RIGHT	XXX1X
FRONT	XX1XX
SIDE	1XXXX
BACK	X1XXX

SPECIAL DATA FIELD

0 0 0 0	0 0 0 0	PEN
0 0 0 0	0 0 0 1	reserved
0 0 0 0	0 0 1 0	4 button cursor (tbd)
0 0 0 0	0 0 1 1	16 BUTTON CURSOR
0 0 0 0	0 1 0 0	UNKNOWN
0 0 0 0	0 1 0 1	click tip pen
0 0 0 0	0 1 1 0	4 button cursor square buttons IBM style
0 0 0 0	0 1 1 1	5 button mouse
0 0 0 0	1 X X X	RESERVED
0 0 0 1	0 0 0 0	REREAD SIZE INFORMATION (NOT ON THIS PRODUCT, BUT IF ADB/RS-232 BOX) OTHER CODES RESERVED

REGISTER 01 OUTPUT

	B7	B6	B5	B4	B3	B2	B1	B0
1	TYPE							
2	SUBTYPE							
3	REV	-	-	-	-	-	-	-
4	X IN .5 INCH-	-	-	-	-	-	-	X DIM
5	Y IN .5 INCH	-	-	-	-	-	-	-

type = 1 is UltraSlate
type = 2 is ADB box
type = 3 creation station
type = 4 creation station pro, design station pro
SUB TYPE 0 = 4 x 5
SUB TYPE 1 = 6 x 9
SUB TYPE 2 = 12 x 12
SUB TYPE 3 = 12 x 18

INTERFACE: ADB (APPLE DESKTOP BUS)
BUS ADDRESS: 04
HANDLER ID: 64 (40 HEX)
OPERATING MODE: RUN INCREMENT
IE: On change in data by two count or change in button state, a service request is generated; a data pair will be available on the next read.

Talk r2

	msb	lsb	
byte 1		0 1 x x x y y y	offset
byte 2		0 1 x x x y y y	mouse
byte 3		0 1 x x x y y y	cursor
byte 4		0 1 x x x y y y	pen
byte 5		0 0 0 0 0 0 0 0	reserved
byte 6		0 0 0 0 0 0 0 0	reserved
byte 7		0 0 0 0 0 0 0 0	reserved
byte 8		0 0 0 0 0 0 0 0	reserved