

TIPS Digitizers – Setup for NT/2000/XP

An "official" TIPS digitizing tablet is either an [Altek AC32](#) or a [Calcomp DrawingBoard III](#). Both can store several setups (also called emulations or personalities) making them usable with any TIPS software which supports digitizer input.

The TIPS-bought PC Workstations and/or servers have 2 serial (COM) ports. This simplifies setting up a tablet because some software and hardware conflict with Windows tablet drivers (Wintabs). With 2 COM ports available - one can be dedicated to software and devices which require Wintabs and the other to everything else. Recently-manufactured PCs are apt to have only one COM port and configuration is, to say the least, PAINFUL. So much so that I recommend spending \$50 dollars (or less) on a serial card. (Someday I'll type up all the steps needed to deal with a single COM port - but I'd rather not! If you think you can't afford \$50, give me, Mike Dunn (412-937-2910), a call and I'll convince you otherwise!)

It may be possible to use a USB-serial adaptor but I've never tried. Besides, NT doesn't support USB

List A - Wintab is required for:

- AutoCAD
- ArcGIS - ArcMap
- Arcview
- Windows mouse emulation
- TIPS Planimeter

List B - Wintab conflicts with:

- ArcGIS - Arcinfo - arcedit
- earthVision
- ERDAS IMAGINE
- GPS units
- Modems
- PDA's
- STORM

Recommended Setup - From "Scratch"

Requires two serial ports (COM1 and COM2) - use a switchbox if possible

Wintab (List A) is "Default" on COM1; non-Wintab (List B) on COM2.

1. (a) If you don't have a Wintab, download one for Calcomp from <http://www.gtcocalcomp.com>. Contact your OSM Service Manager (or me) for an ALTEK Wintab. (b) if you have a Wintab, get the installation files and/or the original disk. Keep it handy.

2. Completely disconnect the tablet and cables from the PC. Reboot.

3. Find, stop, and disable any Wintab services running. Reboot.

4. Remove existing Wintab drivers with (in order of preference): (a) any Wintab icon in the Control Panel; (b) an Uninstall option in Start, Programs, manufacturer (or Wintab) group; or lastly (c) the Control Panel Add/Remove programs. Reboot.

5. Configure tablet settings:

ALTEK - Model AC32 (an AC40 with new brains)

A. Find the Setup Menu and lightly tape it to the tablet somewhere out in the active area. Be sure the menu is positioned so that the "Emulation" box is to the upper right.

B. Power tablet off, power tablet on.

C. At the upper left of the tablet is a command strip, use the cursor (aka puck) button 0 to click on Setup Menu. Next click the dot on the lower left and then the dot on the lower right.

D-1. Wintab/Default - Find and click on the following, in order:

- Emulation ALTEK
- 9600 bps
- 1 stop bit
- 8 data bits
- no parity
- F8
- 100 pts/sec
- Type 1
- Increment .100 inch
- Resolution .001 inch
- Run
- CR on
- LF off
- CTS off
- Store 1

D-2. Non-Wintab - Find and click on the following, in order:

- Emulation B
- 9600 bps
- 1 stop bit
- 8 data bits
- no parity
- F12
- 100 pts/sec
- Type 1
- Increment .100 inch
- Resolution .001 inch
- Point
- CR off
- LF on
- CTS off
- Store 4

(D-1 is for Wintab and is now the default; D-2 is for non-Wintab and is activated by selecting RECALL 4 from the command strip.)

E. Power board off; connect it to COM1; power board on; disable virus scanning; install Wintab; Reboot. The puck should now act like a second mouse and the software in List A should recognize the tablet. If the tablet doesn't seem to be "talking" to the computer, then it's time to play "cable roulette."

F. Once the cabling is OK and the tablet is talking, you can use it with List B software by moving the cable from COM1 to COM2 (or use a switchbox); selecting RECALL 4 from the command strip; and setting the List B software drivers up so they're "listening" for the tablet on COM2.

Calcomp DrawingBoard III

A. Power tablet off, power tablet on.

B. Use the cursor (aka puck) button 0 to click on CONFIG/EXIT (upper left of board) to enter configuration mode. The CONFIGURATON light will come on (this means menu strip is activated..

C. Click on the Bank A key. (as you move the puck over buttons 1 through 18, the POWER light will come on sometimes. This means that button is ON. Pressing the 0 puck button will toggle BANK buttons ON and OFF.)

D-1. Wintab/Default (1 POWER light on; 0 POWER light off)

BANK A 1 1 0 0 0 1 1 1 1 1 0 1 0 1 1 1 0 1 (1,2,6-10,12,14-16,18 ON)

BANK B 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 (3,4,18 ON)

BANK C 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (3,4 ON)

Click on SAVE DEFAULT

D-2. Non-Wintab (1 POWER light on; 0 POWER light off)

BANK A 0 1 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0 1 (2,9,10,14,15,18 ON)

BANK B 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (3,4 ON)

BANK C 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 (3,4 ON)

Click on SAVE 3

(D-1 is for Wintab and is now the default; D-2 is for non-Wintab and is activated by selecting CONFIG/EXIT, RESTORE 3, CONFIG/EXIT from the CONFIGURATION strip.)

E. Power tablet off; connect it to COM1; power tablet on; disable virus scanning; install Wintab; Reboot. The puck should now act like a second mouse and the software in List A should recognize the tablet. If the tablet doesn't seem to be "talking" to the computer, then it's time to play "cable roulette."

F. Once the cabling is OK and the tablet is talking, you can use it with List B software by moving the cable from COM1 to COM2 (or use a switchbox); selecting CONFIG/EXIT, RESTORE 3, CONFIG/EXIT from the CONFIGURATION strip; and setting the List B software drivers up so they're "listening" for the board on COM2.
