

**SummaSketch®III Series  
Owner's Manual**

*including information about your tablet, and instructions  
for using the Summagraphics drivers/utilities software*

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**Part I:**  
**About Your SummaSketch Tablet**

# Chapter 1: Overview

## 1.1 About This Book

This manual is your guide to using your SummaSketch tablet, and the SummaSketch Drivers/Utilities software. It assumes that you have experience with basic DOS tasks such as changing directories, copying files, and creating batch files. If you are unfamiliar with any of these tasks, refer to a DOS user's manual before continuing.

## 1.2 Introduction To SummaSketch

Below is information to get you acquainted with your new SummaSketch tablet.

### What Are The SummaSketch Tablet Formats?

Your tablet can operate in either of two formats:

- MM/SummaSketch Format
- UIOF/Microgrid Format

Your tablet automatically defaults to one of these formats, depending on which stylus or cursor is attached when your tablet is powered up.

If you have a :	Then your default tablet format is:
stylus	MM/SummaSketch
four-button cursor	MM/SummaSketch
sixteen-button cursor	UIOF/Microgrid

### How Do I Change Between Formats?

There are two ways to change your tablet format:

- Change your stylus or cursor and repower the tablet.
- Use the software utilities provided on the SummaSketch Drivers/Utilities diskette to override the default tablet formats.

### What Are The SummaSketch Drivers?

A SummaSketch driver is a program that lets your SummaSketch tablet communicate with your application. For your tablet to act as an input device, it must be able to communicate with your software. A driver converts tablet data into information that can be read, understood, and used by your application.

### Are There Separate Drivers For The Different Tablet Formats?

Drivers are written for specific tablet formats and work with these tablet formats only. Be sure to select the proper driver within your application software to match your tablet format.

### What Are The SummaSketch Utilities?

The SummaSketch Utilities allow you to do the following:

- Reset your tablet, without turning the power on and off.
- Switch between MM and UIOF formats.
- Test your tablet to ensure that it is working properly.

## 1.2 Introduction To SummaSketch (cont.)

### When Do I Need To Use The Utilities?

- To reset the tablet. You may need to reset your tablet when switching between some applications. Applications configure the tablet for their own needs. Using one of the tablet reset utilities -- MMRST (used with tablets configured for MM/SummaSketch format) or UIOFRST (used with tablets configured for UIOF/Microgrid format) -- clears the tablet for a new configuration. (Note that you can also reset the tablet by repowering it.)
- To change default tablet parameters. Some applications will only support either the MM/SummaSketch format or the UIOF/Microgrid format. For example, if you have a tablet configured for MM/SummaSketch format, and you wish to use an application written for the UIOF/Microgrid format, you must change your default tablet format from MM to UIOF. There are two utilities for changing between the MM and UIOF formats:

MM.COM - - This utility changes the format of a SummaSketch tablet to MM/SummaSketch. Use if you have a 16-button cursor attached to the tablet, or if your tablet has been previously configured for UIOF/Microgrid format.

UIOF.COM - - This utility changes the format of a SummaSketch tablet to UIOF/Microgrid. Use if you have a stylus or four-button cursor attached to the tablet, or if your tablet has been previously configured for MM/SummaSketch format.

## Chapter 2: Caring For Your SummaSketch Tablet

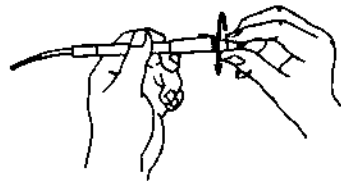
### 2.1 Caring For SummaSketch

Below are basic guidelines for the care and maintenance of your SummaSketch tablet.

- Turn the tablet and computer off and unplug them both before cleaning. Also, unplug the power supply.
- To clean your SummaSketch tablet, wipe with a damp, lint-free cloth and a mild detergent solution. Do not use abrasive cleaners on the tablet surface.
- Never disassemble the SummaSketch tablet. There are no user-serviceable parts inside.
- When you turn off the computer, also turn off the tablet.
- Never scratch or mar the tablet surface.
- Never immerse the SummaSketch tablet or accessories in liquid.
- Do not trace through metal or metallized paper. Do not use metal objects, such as metal or metal-edged rulers, on the tablet.

#### Changing The Stylus Tip

The stylus is shipped with a non-marking refill tip already installed. To change the stylus tip, unscrew the cap and pull the refill straight out.



Insert the new refill and screw on the cap.

Marking and non-marking stylus tips are available from your Summagraphics dealer, or directly from Summagraphics.

## Chapter 3: Guidelines For Installing The Drivers/Utilities

### 3.1 The Drivers/Utilities Diskette

You'll find four subdirectories on the SummaSketch Drivers/Utilities diskette:

- ADIDVR - - contains the MM format and UIOF format drivers for Autodesk® applications (both real mode and protected mode versions).
- TABLTDVR - - contains the MM format and UIOF format versions of the Summagraphics tablet driver/Microsoft® mouse emulator.
- WINDVR - - contains the MM format and UIOF format WinTab-compliant drivers for Microsoft Windows.
- UTILITY - - contains the following utilities: MMRST, UIOFRST, MMTEST, MM, UIOF, and SEND.

### 3.2 Making Back Ups

Before installing any of the drivers or utilities, make a backup copy of the SummaSketch Drivers/Utilities diskette. Use only your copy and store the master in a safe place.

### 3.3 DOS Prompt vs Batch Files

You may run the SummaSketch drivers and utilities by typing commands at the DOS prompt, or by creating batch files. We have included examples of running the drivers/utilities from the DOS prompt, as well as sample batch files, throughout the manual. If you require additional information on batch files and how to create them, refer to your DOS user's manual.



**Part II:**  
**Summagraphics Drivers**

# Chapter 1:

## Autodesk Application Drivers

### 1.1 MM/SummaSketch Format Drivers

Use these drivers if you have configured AutoCAD for a real or protected mode ADI driver and your tablet has a four-button cursor or stylus attached.

*Note: Summagraphics' ADI drivers are less likely to encounter initialization problems when "shelling out" of AutoCAD, therefore, Summagraphics recommends using the ADI drivers supplied on the Drivers/Utilities disk instead of AutoCAD's drivers.*

Summagraphics provides both a protected mode driver and a real mode driver:

- DGPSUMMA.EXP (protected mode driver) - - Use this driver if you have a release 11 or 12 version of the 386 DOS extender version of AutoCAD and wish to take advantage of AutoCAD's protected mode capabilities.
- DGSUMMA.COM (real mode driver) - - Use this driver with all DOS versions of AutoCAD.

#### 1.1.1 Installing The Protected Mode Driver For AutoCAD Rel. 11

1. Copy the driver file from the diskette to your AutoCAD directory and rename it to "ADIDIG.EXP."  
Example: COPY A:\ADIDVR\DGPSUMMA.EXP C:\ACAD\ADIDIG.EXP
2. Start up AutoCAD. The main menu will appear on the screen.
3. Select "Configure AutoCAD" from the screen menu. A listing of the current configuration appears on the screen. Press ENTER to proceed to the configuration menu.
4. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. Select "ADI P386 digitizer" and press ENTER.
5. Next you are prompted for the size of your tablet. Select the number corresponding to your tablet size and press ENTER.
6. Next, you are prompted for the number of buttons on your pointing device (stylus or cursor). Enter the appropriate number and press ENTER.
7. You are now asked to name the serial port to which your tablet is connected. Type "COM1" or "COM2" and press ENTER.
8. The configuration is now complete; you are now ready to use your Summagraphics tablet with AutoCAD. Exit to the drawing editor and enter "Y" to save changes.

#### 1.1.2 Installing The Protected Mode Driver For AutoCAD Rel. 12

1. Copy the protected mode drivers from the Summagraphics Drivers/Utilities diskette to the ACAD\DRV directory.  
Example: COPY A:\ADIDVR\DGPSUMMA.EXP C:\ACAD\DRV
2. Start up AutoCAD. The AutoCAD Drawing Editor appears on the screen.
3. Type "CONFIG" and press ENTER. A listing of the current configuration appears on the screen. Press ENTER to proceed to the configuration menu.

### 1.1.2 Installing The Protected Mode Driver For AutoCAD Rel. 12 (cont.)

4. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. Select "Summagraphics MM Series v 1.3, ADI 4.2 by Summagraphics" and press ENTER.
5. Next you are prompted for the size of your tablet. Select the number corresponding to your tablet size and press ENTER.
6. Next, you are prompted for the number of buttons on your pointing device (stylus or cursor). Enter the appropriate number and press ENTER.
7. You are now asked to name the serial port to which your tablet is connected. Type "COM1" or "COM2" and press ENTER.
8. The configuration is now complete; you are now ready to use your Summagraphics tablet with AutoCAD. Exit to the drawing editor and enter "Y" to save changes.

### 1.1.3 Installing The Real Mode Driver (For All Versions of AutoCAD)

Copy the file DGSUMMA.COM from the Drivers/Utilities disk to your hard drive, and run the driver before starting Autodesk applications.

Command Syntax: DGSUMMA [com port]

Parameter	Permissible Values	Description
[com port]	/1 (default)	Indicates tablet is connected to serial port 1 of computer.
	/2	Indicates tablet is connected to serial port 2 of computer.
	/3	Indicates tablet is connected to serial port 3 of computer. (IBM PS/2 only)
	/4	Indicates tablet is connected to serial port 4 of computer. (IBM PS/2 only)
[/OFF]	/OFF	Disables the driver.

#### Examples

For a SummaSketch Professional connected to Com 2, type the following at the DOS prompt:

```
DGSUMMA /2
```

#### Sample Batch File

```
DGSUMMA /2           installs driver
CD \ACAD             changes to application directory "ACAD"
ACAD                 runs application "ACAD"
```

#### 1.1.3.1 Configuring AutoCAD For The Real Mode Driver

After you have installed the Summagraphics ADI driver, start up AutoCAD and follow the instructions listed below.

1. If you are running AutoCAD release 11, select "Configure AutoCAD" from the AutoCAD main screen menu and press ENTER to proceed to the configuration menu. If you are running AutoCAD release 12, select "Configure" from the "File" pop-down menu and press ENTER to proceed to the configuration menu.

### 1.1.3.1 Configuring AutoCAD For The Real Mode Driver (cont.)

2. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. If you are running AutoCAD release 11, select "Autodesk Device Interface" and press ENTER. If you are running AutoCAD release 12, select "ADI Digitizer (Real Mode)" and press ENTER.
3. Next you are prompted for the hexadecimal interrupt code (INT0XXh)<79>. Press ENTER to accept the default of 79 and return to the configuration menu.
4. If you are running AutoCAD release 11, select "Exit To Main Menu" and press ENTER. If you are running AutoCAD release 12, select "Exit To Drawing Editor" and press ENTER.
5. Type "Y" to save configuration changes and press ENTER.

## 1.2 UIOF/Microgrid Format Drivers

Use these drivers if you have configured AutoCAD for a real or protected mode ADI driver and your tablet has a 16-button cursor attached.

*Note: Summagraphics' ADI drivers are less likely to encounter initialization problems when "shelling out" of AutoCAD, therefore, Summagraphics recommends using the ADI drivers supplied on the Drivers/Utilities disk instead of AutoCAD's drivers.*

Summagraphics provides both a protected mode driver and a real mode driver:

- DGPMG.EXP (protected mode driver) - - Use this driver if you have a release 11 or 12 version of the 386 DOS extender version of AutoCAD and wish to take advantage of AutoCAD's protected mode capabilities.
- DGMG.COM (real mode driver) - - Use this driver with all DOS versions of AutoCAD.

### 1.2.1 Installing The Protected Mode Driver For AutoCAD Rel. 11

1. Copy the driver file from the diskette to your AutoCAD directory and rename it to "ADIDIG.EXP."  
Example: COPY A:\ADIDVR\DGPMG.EXP C:\ACAD\ADIDIG.EXP
2. Start up AutoCAD. The main menu will appear on the screen.
3. Select "Configure AutoCAD" from the screen menu. A listing of the current configuration appears on the screen. Press ENTER to proceed to the configuration menu.
4. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. Select "ADI P386 digitizer" and press ENTER.
5. Next you are prompted for the size of your tablet. Select the number corresponding to your tablet size and press ENTER.
6. Next, you are prompted for the number of buttons on your pointing device (stylus or cursor). Enter the appropriate number and press ENTER.
7. You are now asked to name the serial port to which your tablet is connected. Type "COM1" or "COM2" and press ENTER.
8. The configuration is now complete; you are now ready to use your Summagraphics tablet with AutoCAD. Exit to the drawing editor and enter "Y" to save changes.

### 1.2.2 Installing The Protected Mode Driver For AutoCAD Rel. 12

1. Copy the protected mode drivers from the Summagraphics Drivers/Utilities diskette to the ACAD\DRV directory.
2. Start up AutoCAD. The AutoCAD Drawing Editor appears on the screen.
3. Type "CONFIG" and press ENTER. A listing of the current configuration menu appears on the screen. Press ENTER to proceed to the configuration menu.
4. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. Select "Summagraphics Microgrid, v 1.3, ADI 4.2 by Summagraphics" and press ENTER.
5. Next you are prompted for the size of your tablet. Select the number corresponding to your tablet size and press ENTER.
6. Next, you are prompted for the number of buttons on your pointing device (stylus or cursor). Enter the appropriate number and press ENTER.
7. You are now asked to name the serial port to which your tablet is connected. Type "COM1" or "COM2" and press ENTER. If you are using a computer with a non-standard serial port, you may specify the IRQ number and the address of the port in hexadecimal by choosing the "Allow Detailed Configuration" option from the configuration menu before running "Configure Digitizer" as described above.
8. The configuration is now complete; you are now ready to use your Summagraphics tablet with AutoCAD. Exit to the drawing editor and enter "Y" to save changes.

### 1.2.3 Installing The Real Mode Driver (For All Versions of AutoCAD)

Copy the file DGMG.COM from the drivers/utilities disk to your hard drive, and run the driver before starting Autodesk applications.

Command Syntax: DGMG [com port] [transducer]

Parameter	Permissible Values	Description
[com port]	/1 (default)	Tablet is connected to serial port 1 of computer.
	/2	Tablet is connected to serial port 2 of computer.
	/3	Tablet is connected to serial port 3 of computer (IBM PS/2 only)
	/4	Tablet is connected to serial port 4 of computer (IBM PS/2 only).
[transducer]	/CP	Selects two-button stylus.
	/C16 (default)	Selects 16-button cursor.
[/OFF]	/OFF	Disables driver.

#### Examples

For a SummaSketch Professional with a 16-button cursor connected to Com 2 type the following at the DOS prompt: DGMG /2 /C16

#### Sample Batch File

```
DGMG /2 /C16    installs driver
CD \ACAD       changes to application directory "ACAD"
ACAD           runs application "ACAD"
```

### 1.2.3.1 Configuring AutoCAD For The Real Mode Driver

After you have installed the ADI driver, and restarted your computer, start up AutoCAD and follow the instructions listed below.

1. If you are running AutoCAD release 11, select "Configure AutoCAD" from the AutoCAD Main Menu and press ENTER to proceed to the configuration menu. If you are running AutoCAD release 12, select "configure" from the "File" pull-down menu and press ENTER to proceed to the configuration menu.
2. At the configuration menu, select "Configure Digitizer". AutoCAD asks if you want a new digitizer. Since you are installing for the first time, type "Y" then press ENTER. A list of digitizer options appears on the screen. If you are running AutoCAD release 11, select "Autodesk Device Interface" and press ENTER. If you are running AutoCAD release 12, select "ADI digitizer (Real Mode)" and press ENTER.
3. Next, you are prompted for the hexadecimal interrupt code (INT0XXh)<79>. Press ENTER to accept the default of 79 and return to the configuration menu.
4. If you are running AutoCAD release 11, select "Exit To Main Menu" and press ENTER. If you are running AutoCAD release 12, select "Exit To Drawing Editor" and press ENTER.
5. Type "Y" to save configuration changes and press ENTER.

The configuration is now complete; you are now ready to use your Summagraphics tablet with AutoCAD.

## Chapter 2: Summagraphics Tablet Driver/Mouse Emulator

### 2.1 MM/SummaSketch Format Driver

TABLET.COM enables a SummaSketch Series tablet to emulate a Microsoft Mouse. Use when your application's setup menu includes a listing for TABLET.COM or Microsoft® Mouse (MOUSE.COM), and your tablet is configured for use with a four-button cursor or stylus (MM/SummaSketch format).

#### 2.1.1 Installing The MM/SummaSketch Format Driver

Copy the file TABLET.COM from the drivers/utilities disk to your hard drive, and run the driver before starting your application.

Command Syntax: TABLET [com port] [stylus/cursor] [tracking] [other options]

Parameter	Permissible Values	Description
[com port]	/1 (default)	Indicates tablet is connected to serial port 1 of computer.
	/2	Indicates tablet is connected to serial port 2 of computer.
	/3	Indicates tablet is connected to serial port 3 of computer. (IBM PS/2 only)
	/4	Indicates tablet is connected to serial port 4 of computer. (IBM PS/2 only)
	/BAxxxx	Selects serial port with a base address of xxxx (address must be in hexadecimal).
	/Ix	Selects serial port with IRQ line number x (2-7).
	/OFF	Disables driver.
[stylus/cursor]	/CP	Selects two-button stylus.
	/C3	Selects three-button stylus.
	/C4 (default)	Selects four-button cursor.

*Note: Refer to Appendix D for TABLET.COM button mapping, tracking, and memory location options.*

#### Examples

For a SummaSketch with a four-button cursor connected to Com 2: TABLET /2 /C4

#### Sample Batch File

```
TABLET /2 /C4           installs driver
DOSSHELL                runs the DOSSHELL environment
```

#### 2.1.1.1 Running The Driver From CONFIG.SYS

Another way to install the driver is by including TABLET.SYS as a device driver in the CONFIG.SYS file. In doing so, the system automatically installs the driver each time you boot or turn on the system.

#### Line Syntax

DEVICE=TABLET.SYS [com port][stylus/cursor][tracking][other options]

Note that the command options are the same as those for running TABLET.COM from the DOS prompt or a batch file. Most of the command line arguments described for TABLET.COM also work for TABLET.SYS. The exceptions are the /OFF command and the memory location options /U, /E, and /H.

**Example**

For a SummaSketch with a four-button cursor attached to Com 2: DEVICE=TABLET.SYS /2 /C4

**2.2 UIOF/Microgrid Format Drivers**

TABLETMG.COM enables a SummaSketch Series tablet to emulate a Microsoft Mouse. Use when your application's setup menu includes a listing for TABLETMG.COM or Microsoft® Mouse (MOUSE.COM), and your tablet is configured for use with a sixteen-button cursor (UIOF/Microgrid format).

**2.2.1 Installing the TABLETMG.COM Driver**

Copy the file TABLETMG.COM from the Drivers/Utilities disk to your hard drive, and run the driver before starting your application.

Command Syntax: TABLETMG [com port] [stylus/cursor] [tracking] [other options]

Parameter	Permissible Values	Description
[com port]	/1 (default)	Indicates tablet is connected to serial port 1 of computer.
	/2	Indicates tablet is connected to serial port 2 of computer.
	/3	Indicates tablet is connected to serial port 3 of computer. (IBM PS/2 only)
	/4	Indicates tablet is connected to serial port 4 of computer. (IBM PS/2 only)
	/BAxxxx	Selects serial port with a base address of xxxx (address must be in hexadecimal).
	/Ix	Selects serial port with IRQ line number x (2-7).
	/OFF	Disables driver.
[stylus/cursor]	/CP	Selects two-button stylus.
	/C3	Selects three-button stylus.
	/C4	Selects four-button cursor.
	/C16 (default)	Selects 16-button cursor.

*Note: Refer to appendix D for TABLETMG.COM button mapping, tracking, and memory location options.*

**Example**

For a SummaSketch with a sixteen button cursor attached to Com 2: TABLETMG /2 /C16

**Sample Batch File**

```
TABLETMG /2 /C16           installs driver
DOSHELL                   runs the DOSSHELL environment
```

**2.2.1.1 Running The Driver From CONFIG.SYS**

Another way to install the driver is by including TABLETMG.SYS as a device driver in the CONFIG.SYS file. In doing so, the system automatically installs the driver each time you boot or turn on the system.

**Line Syntax**

DEVICE=TABLETMG.SYS [com port][stylus/cursor][tracking][other options]



### 2.2.1.1 Running The Driver from CONFIG.SYS (cont.)

Note that the command options are the same as those for running TABLETMG.COM from the DOS prompt or a batch file. Most of the command line arguments described for TABLETMG.COM also work for TABLETMG.SYS. The exceptions are the /OFF command and the memory location options /U, /E, and /HI.

#### Example

For a SummaSketch with a 16-button cursor attached to Com 2:  
DEVICE=TABLETMG.SYS /2 /C16

## Chapter 3: Windows Driver - (WINTAB Compliant)

### 3.1 Installing The Windows Drivers

Below are instructions for installing MM/SummaSketch or UIOF/Microgrid format drivers for Microsoft Windows. Windows must be installed on your system before you can install the Summagraphics Windows drivers.

The Windows drivers require 250 kilobytes of free hard disk space. Before installing the driver, check for free disk space by issuing the "DIR" command on the target drive. DOS will respond with "nnn bytes free". If there is insufficient disk space, remove or move enough files to accommodate the driver, then run the install program.

1. Insert the Summagraphics Drivers/Utilities diskette into your A: drive. At the DOS prompt, type:  
A:[ENTER]
2. Change to the WINDVR directory by typing: CD \WINDVR [ENTER]
3. Next, run the INSTALL program by typing: INSTALL [ENTER]

The INSTALL program installs the driver and the SUMMA.EXE control panel program onto your computer. The INSTALL program prompts you for the following information:

- the hard drive where Windows is installed
- the name of the Windows directory
- whether you want to save (by renaming) the previous version of the drivers or remove them
- the serial communications port to which your graphics tablet is connected

INSTALL then creates a subdirectory called "SUMMA" under the Windows directory, copies the drivers, and starts the Windows SETUP program.

4. In the Windows SETUP program, at the System Information screen, use the up/down arrow keys to highlight the "MOUSE" line and press [ENTER].
5. Use the up/down arrow keys to select "Other(Requires disk provided by a hardware manufacturer)" and press [ENTER].
6. Type the full pathname of the "SUMMA" subdirectory under your Windows directory, e.g.,  
C:\WINDOWS\SUMMA [ENTER]
7. Use the up/down arrow keys to select the appropriate driver and press [ENTER].
  - Select "SummaSketch WinTab Driver" if you are using a four-button cursor or stylus, or if you have previously configured your tablet for the MM/SummaSketch format.
  - Select "Summagraphics UIOF WinTab Driver" if you are using a 16-button cursor, or if you have previously configured your tablet for the UIOF/Microgrid format.

*Note: Some Windows 3.0 installations may experience an anomaly with the Windows Setup program. After entering the pathname to the "SUMMA" directory, the Windows Setup program may respond with a second prompt for the location to the driver and an erroneous pathname.*

*Example: C:\WINDOWS\SUMMA\SUMMA*

*To continue, simply backspace over the erroneous pathname and re-enter the proper pathname.*

*Example: C:\WINDOWS\SUMMA [ENTER]*

8. At the System Information screen, confirm that the correct driver is shown on the "MOUSE" line. Then, use the up/down arrow keys to highlight "Accept The Configuration Shown Above" and press [ENTER].

### 3.1 Installing The Windows Drivers (cont.)

*Note: If you are reinstalling the driver, an anomaly with the Windows 3.1 Setup program may occur. After selecting the required driver, the Setup program will prompt you again for the location of the driver. To continue, simply re-enter the driver pathname.*

*Example: C:\WINDOWS\SUMMA [ENTER]*

9. Install the Summagraphics Control Panel icon in one of the program manager groups so that it is easily accessible:
  - Run Windows.
  - Open the Windows Program Manager.
  - Under the FILE pop-down menu, select "New".
  - The "New Program Object" dialog box appears. Select "Program Item", then click on OK.
  - The "Program Item properties" dialog box appears. Type "SUMMA" in the "Description" box. Next, enter the path name for the Summagraphics Control Panel in the "Command Line" box and click on "OK". For example, if Windows is installed on your C: drive, in a directory called WINDOWS, you would type: C:\WINDOWS\SUMMA.EXEThe SUMMA icon should appear in the current group's window.
10. To run the control panel, click on the "SUMMA" icon.
11. If you wish to switch from the UIOF format driver to the MM format driver or vice versa, follow these steps:
  - Exit from Windows.
  - Change to the Windows directory at the DOS prompt.
  - Type "setup" at the DOS prompt.
  - Select the appropriate driver from the displayed list of mouse devices. When the Setup program prompts you to "Accept the configuration shown above", confirm that the desired driver is shown on the mouse line and press [ENTER] to accept the configuration.

### 3.2 Modifying Driver Defaults With The Control Panel

The control panel allows you to modify the default driver parameters. The control panel window contains three utilities - Tablet Information, Features, and Setup.

- Tablet Information utility - Displays information about the tablet being used. A "Units" pop-down menu allows you to view tablet information in different formats.
- Features utility - Displays the transducer being used. To change transducer type, click on the accompanying button.
- Setup utility - Provides fields for changing the following tablet parameters: tracking mode, button assignments, and tracking area. After making changes, click on one of the buttons located at the right-hand side of the window, to save or cancel your changes.

#### 3.2.1 Modifying The Tracking Mode

You may select either of two tracking modes:

Relative mode - Changes the tablet to relative tracking (like a mouse). It also activates the "Sensitivity" control. To modify the sensitivity, use the arrow buttons or type in a new value. The higher the number in the "Sensitivity" box, the faster the screen pointer moves.

### 3.2.1 Modifying The Tracking Mode (cont.)

Absolute mode - - Changes the tablet to absolute tracking. The "Sensitivity" field deactivates and will have no effect on tracking when in absolute mode.

### 3.2.2 Modifying The Button Assignments

There is one check box and two pop down menus under the "Button Assignments" heading:

Default Check Box - - Indicates if the button assignments are defaults.

Button Menu - - Lists the buttons on your stylus or cursor.

Button Function menu - - Lists the functions assigned to each stylus or cursor button.

When the default box is checked, the button assignments are predetermined by the driver. Below is a listing of the default stylus/cursor buttons and their functions.

#### Default Four-Button Cursor Functions

Button	Function (mouse button)
yellow	left click
white	left double click
blue	right double click
green	right click

#### Default 16-Button Cursor Functions

Button	Function (mouse button)
1	left click
2	right click
3	left double-click
C	right double-click
others	[none]

#### Default Two- and Three-Button Stylus Functions

Two-Button Stylus	Three-Button Stylus	Function (mouse button)
tip button	tip button	left click
barrel button	----	right click
---	lower barrel button	left double-click
---	upper barrel button	right click

To modify the default button assignments:

- Click on the default check box until the "X" disappears.
- Use the Buttons Menu to choose the button you wish to redefine.
- Use the Button Functions Menu to assign a function to the selected button.
- Leave the default check box unchecked unless you wish to return to the default settings.

### 3.2.3 Modifying The Tablet Active Area

There are two ways to modify the tablet active area, either by entering information in the numeric fields or by using the on-screen graphics.

#### 3.2.3.1 Using The "Tracking Area" Numeric Fields

**Whole Tablet Check Box** - - Click on this button to map the entire tablet to the screen. *When his button is activated, the remaining tracking area controls are nonoperative.*

**Preserve Aspect Ratio Button** - - Click on this button to modify the current tablet active area so that it has the same aspect ratio as the computer screen. Aspect ratio is the ratio between the horizontal and vertical dimensions of your computer screen. The dimensions of the tablet active area you define must have the same aspect ratio as your computer screen or circles drawn on the tablet will appear as ovals on the screen and vice versa.

*Note: Aspect ratio cannot be guaranteed in a Windows environment because pixel shapes may vary from monitor to monitor, causing graphics to be distorted. You may need to make adjustments to your system to ensure proper aspect ratio.*

**Units Menu** - - Specifies the measurement system used to display tablet information: metric or US.

**Width and Height Controls** - - These fields define the size of the tablet active area. Use the arrow buttons or enter a value from your keyboard.

**Margin Controls** - - These fields define the position of the active area on the tablet. Use the arrow buttons or enter a value from your keyboard.

#### 3.2.3.2 Using the On-Screen Graphic

The tracking area box in the lower right-hand corner of the tracking area panel represents the entire tablet active area. The shaded area within this box represents the current user-defined active area. Position the screen pointer inside of the tracking area box and click. Two things happen: the screen pointer changes from an arrow to a cross hair, and the entire tracking box becomes shaded.

*Note: If you do not define the active area within approximately seven seconds, the cross hair changes back to an arrow and it is necessary to click inside the tracking area box again.*

To define the active area:

- Position your cursor on the lower left corner of the active area you wish to define and click.
- Position your cursor on the upper right corner of the active area you wish to define and click.
- Click on "Test" to test the new active area. The new active area does not take effect until you click on "Test" or "OK".

*Note: To aid in defining your active area, cut a piece of scrap paper to the size of the active area you wish to define, position it on your tablet, and secure with tape. Now, follow steps 1-3 above to define the active area.*

**Part III:  
Summagraphics Utilities**

# Chapter 1: Resetting The Tablet (MMRST And UIOFRST)

## 1.1 MMRST Command

The MMRST command resets a tablet that is configured for MM/SummaSketch format and has a four-button cursor or stylus attached.

Command Syntax: MMRST [options]

Options	Description
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
/N	selects no parity configuration
? or /H	displays help screen

### Notes

- When using the BA option (Base Address), all four digits must be specified. (Example: for COM 1 - /BA03F8)
- This program transmits in the MM/SummaSketch default serial communication configuration: 9600 baud, 8 data bits, odd parity, and 1 stop bit.
- Use the /BA switch only when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with switch ? or /H.

### Example

To reset an MM/SummaSketch format tablet connected to Com 2, type: MMRST /2

## 1.2 UIOFRST Command

The UIOFRST command resets a tablet that is configured for UIOF/Microgrid format and has a sixteen-button cursor attached.

Command syntax: UIOFRST [options]

Options	Description
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
/N	selects no parity configuration
? or /H	displays help screen

### Notes

- When using the BA option (Base Address), all four digits must be specified. (Example: for COM 1 - /BA03F8)
- This program transmits in the UIOF/Microgrid default serial communication configuration: 9600 baud, 7 data bits, even parity, and 2 stop bits.
- Use the /BA switch only when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with switch ? or /H.

### Example

To reset a UIOF/Microgrid format tablet connected to Com 2, type: UIOFRST /2



## Chapter 2: Testing The Tablet (MMTEST)

### 2.1 MMTEST Tablet Test Utility

The MMTEST utility verifies that your MM/SummaSketch or UIOF/Microgrid format tablet is working properly.

Command syntax: MMTEST [options]

Options	Description
/M(default)	selects MM format configuration when tablet is configured for MM format or has four-button cursor or stylus attached.
/U	selects UIOF format configuration when tablet is configured for UIOF format or has a 16-button cursor attached.
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
/x	selects serial port with IRQ line number x (2-7)
/N	selects no parity configuration
? or /H	displays help screen

#### Notes

- When using the BA option (Base Address), all four digits must be specified. (Example: for COM 1 - /BA03F8)
- Use the /BA switch only when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with the ? or /H switch.

#### Test Results

After running MMTEST, you should see X,Y coordinate data streaming on the screen. The data is in the following format: XXXXXX,YYYYYY,F,P, where X is the X coordinate data and Y is the Y coordinate data. F is the number of the cursor/stylus button being pressed (1,2,3, or 4). P is proximity: 0 is in proximity; 1 is out of proximity.

Move the cursor/stylus around on the tablet surface. You should see the X,Y coordinates changing. Press each of the cursor/stylus buttons one at a time. You should see the F field changing accordingly. Lift the cursor/stylus a few inches off the tablet surface. You should see the P field change from 0 to 1.

If the tablet performs all of these tasks, then it is operating properly. If not, refer to "Appendix A: What To Do If A Problem Arises", in the back of this manual.

#### Exiting MMTEST

To exit MMTEST, type: <Ctrl> X

## Chapter 3: Changing Tablet Formats (MM.COM, UIOF.COM, SEND.COM)

### 3.1 MM Tablet Configuration Utility

The MM Utility configures a tablet to MM/SummaSketch format, regardless of the cursor/stylus being used.

Command syntax: MM [options]

Options	Description
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
? or /H	displays help screen

#### Notes

- When using the BA option (Base Address), all four digits must be specified. (Example: for COM 1 - /BA03F8)
- Use the /BA switch only when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with the ? or /H switch.

#### Example

To configure a tablet on Com 2 for MM/SummaSketch format, type: MM /2

### 3.2 UIOF Tablet Configuration Utility

The UIOF tablet configuration utility configures a tablet for the UIOF/Microgrid format regardless of the stylus/cursor being used.

Command syntax: UIOF [options]

Options	Description
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
? or /H	displays help screen

#### Notes

- When using the BA option (Base Address), all four digits must be specified. (Example: for COM 1 - /BA03F8)
- Use the /BA switch only when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with the ? or /H switch.

#### Example

To configure a tablet on Com 2 for UIOF/Microgrid format, type: UIOF /2

### 3.3 SEND Tablet Configuration Utility

The SEND tablet configuration utility sends a string of commands to SummaSketch tablets to modify the default tablet settings.

Command syntax: SEND [options]/Cx...

Options	Description
/1(default)	selects serial port 1 (PC, XT, AT, PS/2)
/2	selects serial port 2 (PC, XT, AT, PS/2)
/3	selects serial port 3 (PS/2 only)
/4	selects serial port 4 (PS/2 only)
/5	selects serial port 5 (PS/2 only)
/6	selects serial port 6 (PS/2 only)
/7	selects serial port 7 (PS/2 only)
/8	selects serial port 8 (PS/2 only)
/M(default)	selects MM format serial configuration
/U	selects UIOF format serial configuration
/BAxxxx	selects serial port with base address of xxxx (address must be in hexadecimal)
/Cxxx...	transmit command characters "xxx..." until carriage return (required options)
? or /H	displays help screen

### 3.3 SEND Tablet Configuration Utility (cont.)

- SEND.COM can transmit at various baud rates and parities, and can transmit commands from an ASCII file. For further information, refer to SEND.DOC, or invoke SEND.COM with the "Help" option (example: SEND /?)
- When using the BA option (Base Address) all four digits must be specified (example: for Com 1 - /BA03F8).
- Option /C must be the last option on the command line. There is no space between the /C switch and the commands that follow.
- To transmit ASCII control characters, precede a printable ASCII character with "^" (examples: ESC = ^[, NULL = ^@, BELL = ^G)
- The /BA option should only be used when the serial port is located at a non-standard address within the computer.
- A summary of command line switches is always available by starting the program with the /? or /H options.

#### Examples

To configure a tablet on Com 1, transmitting in MM format to ASCII format output, type: SEND /1 /Cza  
To configure a tablet on Com 2, transmitting in MM format to binary format, type: SEND /2 /Czb  
To configure a tablet on Com 1, transmitting in UIOF format to stream mode, type: SEND /1 /U /C^[M0

**Part IV:  
Appendices**

# Appendix A: What To Do If A Problem Arises

## A.1 If You Have A Problem...

You should have no problems with your SummaSketch. However, if a problem arises, first ensure that you have installed the tablet as described in this manual. Then, follow the checklist below.

Problem	Solution
The power/prox light is not on.	<ol style="list-style-type: none"> <li>1. Check that the power switch is in the ON position.</li> <li>2. Check that the power supply is plugged into the interface cable.</li> <li>3. Check that the power supply is plugged into a working electrical outlet.</li> <li>4. Check that the I/O cable is plugged into the proper jack on the back of the tablet.</li> </ol>
The screen cursor doesn't move when I move the stylus/cursor.	<ol style="list-style-type: none"> <li>1. Check that the application is configured for the proper stylus/cursor.</li> <li>2. Reset the tablet and restart the application.</li> </ol>
The buttons on the stylus/cursor don't work.	<ol style="list-style-type: none"> <li>1. Check that the application is configured for the proper tablet driver.</li> <li>2. Run MMTEST to check if the buttons are working properly.</li> </ol>

If the problem persists, it is probably in the configuration of the application software. Contact the application developer or your local dealer for assistance. If you discover that you have a tablet problem, contact our Sales Support Groups at one of the numbers listed below.

**Sales & Service**  
Summagraphics Corporation  
60 Silvermine Road  
Seymour, Connecticut 06483 U.S.A.  
Tel: 203-881-5400  
Tel: 800-729-7866  
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**Intertec Sales & Service**  
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Peripheral Solutions (s) Pte. Ltd.  
11A Jalan Mesin #04-00  
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Sales & Service  
New Systems S.A.  
Parana 597, 5to Piso  
Oficinas 34-35  
1017 Buenos Aires, Argentina  
Tel: 54-1-49-6026  
Fax: 54-1-49-2463

When contacting us by mail, please fill in the Software Change Request form supplied at the back of this book. When contacting us by phone, please have ready the information requested in the Software Change Request form. This will speed the process. Do not return a unit without first obtaining a Return Authorization Number and instructions from our Customer Service Department.

# Appendix B: MM/SummaSketch Format Command Summary

Command	ASCII	Command	ASCII
Autobaud	<SP>		
Axis Update Mode: command	G	10 lppm	f
value	<SP> to <DEL>	400 lpi	g
		500 lpi	h
Code Check	x	20 lppm	i
		1000 lpi	j
Coordinate System: absolute	F	40 lppm	q
relative	E	2000 lpi	s
		2032 lpi	u
Echo	k	2540 lpi (12 x 12 only)	v
Increment Mode: command	I	Resume Transmission (XON)	<CTRL>Q
increment value	<SP> to <DEL>	Self Test	t
		Send Model ID	<ENQ>
Origin: upper left	b	Send Test Results	w
lower left	c	Send Configuration	a
Report Modes: Point Mode	B	Stop Transmission (XOFF)	<CTRL>S
Remote Request Mode: mode command	D	Tablet Identifier: zero	0 (zero)
trigger command	P	one	1
Stream Mode	@	z Commands: Autobaud	z<SP><SP>
Switch Stream Mode	A	ASCII BCD report format	za
Report Rate: 110 rps	Q	binary report format	zb
50 rps	R	8 data bits, no parity	z8
10 rps	S	8 data bits, odd parity	z9
2 rps	T	increment confirmation	zi
Reset	<Nul>	firmware identification	z?
Resolution, Definable: command	r	transducer identification:	zt
X axis res., low byte	Hex 00 to FF	UIOF format select	zu
X axis res., high byte	Hex 00 to 17	16-button cursor enable	z6
Y axis res., low byte	Hex 00 to FF	disable reset	zr
Y axis res., high byte	Hex 00 to 17	enable x filter, 15:1	zx
		enable y filter, 3:1	zy
		enable w filter, 7:1	zw
		clear all filters	ze
		display filter status	zq
Resolution, Predefined: 1 lpi	l		
2 lpi	n		
4 lpi	p		
100 lpi	d		
200 lpi	e		



# Appendix C: UJOF/Microgrid Format Command Summary

Command	ASCII	Command	ASCII
ASCII delineator where {b} can be an ASCII character	<ESC>D{b}	Redefine Reset	<ESC>r{b}
Code Check	<ESC>x	Resume Transmission (XON)	<CTRL>Q
Self Test	<ESC>t	Diagnostic	<ESC>U0
Coordinate System:		Enable Tablet ID	<ESC>T1
absolute	<ESC>M5	Disable Tablet ID	<ESC>T0
relative	<ESC>M4	Mode Change to MM (1812 only)	<ESC> z1
Increment Mode:		Clear All Filters	<ESC>f0
command	<ESC>I{bbb}	Enable 15:1 Filter	<ESC>f1
where {bbb}, the increment value, can be from 000 to 225		Enable 3:1 Filter	<ESC>f2
Send Configuration	<ESC>a	Enable 7:1 Filter	<ESC>f3
NOP (no operation)	<CR>	Display Filter Status	<ESC>f9
Send Tablet ID	<ENQ>	Baud Rate:	<ESC>B{b}
Origin:		19.2K	<ESC>B0
lower left corner	<ESC>F0	9600	<ESC>B1
user-defined	<ESC>F1	4800	<ESC>B2
center	<ESC>F2	2400	<ESC>B3
upper left corner	<ESC>F3	1200	<ESC>B4
Report Format:		600	<ESC>B5
binary	<ESC>MB	300	<ESC>B6
ASCII BCD	<ESC>MA	150	<ESC>B7
Report Modes:		110	<ESC>B8
Point Mode	<ESC>M1	Parity:	<ESC>p{b}
Remote Request Mode:		Parity None	<ESC>p0
mode command	<ESC>M3	Parity Odd	<ESC>p1
trigger command	<ESC>G	Parity Even	<ESC>p2
Stream Mode	<ESC>M0	Decimal Enable	<ESC>d1
Switch Stream Mode	<ESC>M2	Decimal Disable	<ESC>d0
Enable Stylus	<ESC>MS	Report Rate:	
Enable Four-Button Cursor	<ESC>MC	1 rps	<ESC>R0
Enable/Disable <CR> in ASCII formats	<ESC>MR	2 rps	<ESC>R1
Enable/Disable <LF> in ASCII formats	<ESC>ML	5 rps	<ESC>R2
		10 rps	<ESC>R3
		30 rps	<ESC>R4
		60 rps	<ESC>R5
		75 rps	<ESC>R6

Command	ASCII
80 rps	<ESC>R7
Resolution, Definable:	
X axis	<ESC>PX[bbbb]
Y axis	<ESC>PY[bbbb]
where [bbbb] is any number from 0000 to 1016	
Resolution, Predefined:	
1 lpi	<ESC>C8
2 lpi	<ESC>C9
4 lpi	<ESC>CA
100 lpi	<ESC>C7
200 lpi	<ESC>C0
10 lpm	<ESC>C1
400 lpi	<ESC>C6
500 lpi	<ESC>C4
20 lpm	<ESC>C5
1000 lpi	<ESC>C2
40 lpm	<ESC>C3
2000 lpi	<ESC>CS or
<ESC>Cs	
2032 lpi	<ESC>CB
2540	<ESC>CD (1201 only)

## Appendix D: TABLET.COM & TABLETMG.COM Command Options

### D.1 Cursor/Stylus Button Mapping Options

Command syntax: /CM####

Allows a user-defined mapping of the cursor/stylus buttons. The /CM argument is followed by 1-4 digits that specify which cursor/stylus switches are assigned to standard mouse buttons. Each digit represents the value of a cursor/stylus switch, and its position represents the mouse button that it is assigned to. The first digit after the /CM argument corresponds to the left mouse button, the second digit to the right mouse button, the third digit to the middle mouse button, and the fourth digit corresponds to an emulation of both the left and right mouse buttons being pressed simultaneously.

Example: TABLET /CM2134

The above example shows cursor/stylus switch #2 being mapped to the left mouse button, cursor/stylus switch #1 being mapped to the right mouse button, cursor/stylus switch #3 being mapped to the middle mouse button, and cursor/stylus switch #4 being mapped to both the right and left mouse buttons.

### D.2 Tracking Options

The following options will work only if the application is set up to use a Microsoft Mouse (MOUSE.COM). Applications that are compatible specifically with TABLET.COM should configure tracking automatically or allow you to configure tracking through the application's set up utility. The use of the following options will be overridden by the application.

#### Relative Mode /R

Relative mode is the default setting. There are four relative mode options:

- /S## Sets both horizontal and vertical sensitivity - - Range=0-99, default=50
- /H## Sets only the horizontal sensitivity - - Range=0-99, default=50.
- /V## Sets only the vertical sensitivity - - Range=0-99, default=50.
- /P# This option is the ballistic gain profile. It controls acceleration of the screen cursor. TABLET.COM comes with four built-in ballistic gain profiles: Slow, Moderate, Fast, and Unaccelerated. Specify 1,2,3, or 4 respectively.

#### Absolute Mode /A

Absolute mode maps the tablet's entire active area to the computer screen. Relative mode options (/S, /H, /V, /M) should not be used in Absolute mode.

*Note: Applications accept input from MOUSE.COM as either absolute screen coordinates, or relative mouse units, also referred to as "mickys". Absolute mode works only with those applications that accept input as absolute screen coordinates. To verify that absolute mode is working, position the screen pointer, then lift the cursor/stylus out of the tablet's active area and place it at a different location on the tablet. The screen cursor should snap to a new location. If it does not, then the application works only in relative mode and the absolute mode option will have no effect.*

## Other Options

**/M#** This option overrides an application that changes the mouse cursor for text modes by "locking" the mouse cursor to the default text cursor. To enable locked cursor type **/M1**; to disable locked cursor type **/M0**. The default is **/M0**.

**/N#** This option specifies how many screen updates to skip before actually plotting the cursor. This feature is useful for laptop computers and other systems with slower LCD displays. A small value is recommended because driver performance can be affected. **##** is a number between 0-10. The default is **/N0**.

### Notes

- When selecting a serial port other than 1,2,3, or 4, the **/BA** and **/I** options must be used together.
- When using the **/BA** option, all four digits must be specified (Example: for Com 1 - **/BA03F8**)
- Use the **/BA** and **/I** options only when a non-standard serial address is used in the computer.

## D.3 Memory Location Options **/U**, **/E**, and **/HI**

These options allow you to maximize the amount of memory available for DOS applications programs. The trick is to move most of the **TABLET.COM** driver to a memory location outside of the 640K area used by most applications programs. The **/U** command moves the driver to the upper memory area between 640K and 1 MB. The **/E** command moves the driver into expanded memory. The **/HI** command moves the driver into the high memory area between 1 MB and 1.064 MB.

Your computer system needs to support these options before they can be used. The designated memory must be installed as RAM. To use **/E**, you must have either expanded memory hardware, such as an Intel Above Board, or a software driver, such as **EMM386** or **QEMM** in your machine. To use **/HI**, you must have an 80286, 80386 or 80486 family processor and the **HIMEM.SYS** driver (or equivalent) loaded before installing the mouse driver. MS-DOS 5.0 systems should also have the line **DOS=UMB** in the **CONFIG.SYS** file.

Only **TABLET.COM** can be relocated. **TABLET.SYS** can not be relocated. You cannot relocate **TABLET.COM** into another memory area without first removing the mouse driver by using the **TABLET /OFF** command.

## Appendix E:

### Configuring Windows and AutoCAD Rel. 12 for Windows

This appendix assumes that you are using a template with AutoCAD. If you are not using a template, you will need to designate a rectangular area within the active area as your screen pointing area.

#### E.1 Configuring the Windows Driver

1. Install the tablet Windows driver as described in Part II, Chapter 3 of this manual.
2. Fasten the AutoCAD template to the tablet.
3. Next, start up Windows. Once in Windows, open the Summagraphics Control Panel and double click on the Setup icon.
4. The Setup dialog box appears. In the "Tracking Area" field of the Setup dialog box, click in the "Whole Tablet" and "Preserve Aspect Ratio" checkboxes so that there are no check marks.
5. Position the screen pointer inside the black/gray box in the lower portion of the Setup dialog box and click. The box will turn completely gray. (For more detailed information on using the Setup utility, refer to Part II, Chapter 3 of this manual.)
6. Digitize the lower left dot on the template's screen pointing area. Next, digitize the upper right dot on the template's screen pointing area. When you are finished digitizing these two points, click the "OK" button to close the dialog box.

#### E.2 Configuring AutoCAD for Windows

1. Install AutoCAD for Windows as explained in the AutoCAD Installation Guide.
2. Start up AutoCAD for Windows. In the Drawing Editor, select "Preferences..." from the "File" popdown menu.
3. In the "Preferences" dialog box, activate the "Save To ACAD.INI" and the "Digitizer/Mouse Arbitrate" radio buttons. Then click the "OK" button to close the dialog box and save changes.
4. Next, select "Configure" from the "File" popdown menu. The current Configuration Screen appears. Press [Enter] until the Configuration Menu appears.
5. Select "Configure Digitizer" from the Configuration Menu.
6. Next, AutoCAD asks if you want to select a different digitizer. Type "Y" for yes then press [ENTER].
7. A screen listing the available digitizer drivers is displayed. Select "WINTAB Compatible Digitizer ADI 4.2 - by Autodesk" and press [ENTER]. AutoCAD then displays a series of prompts. There are an infinite number of possible configurations you can specify at this point. Summagraphics recommends using the configuration listed below. After you have successfully setup the recommended configuration, and are comfortable with it, feel free to try other configurations.

AutoCAD prompt: Do you want to configure your digitizer as a mole?

Response: Type "Y".

AutoCAD prompt: Do you want an audible mole/con

Response: Type "Y" if you like beeps, "N" if not.

AutoCAD prompt: Do you want a visible mole/context state indicator?

Response: Type "Y".

## E.2 Configuring AutoCAD For Windows (cont.)

AutoCAD prompt: Do you want to assign a CURSOR BUTTON to toggle modes?

Response: Type "Y".

AutoCAD prompt: Press any button except the pick button, now.

Response: Press the side button on the stylus, or any button (except the "pick" button) on your 4- or 16- button cursor.

AutoCAD prompt: Do you want to assign a PRIMARY MOLE area?

Response: Type "N".

AutoCAD prompt: Do you want to assign a secondary MOLE area?

Response: Type "Y".

AutoCAD prompt: Enter lower left hand corner now.

Response: Digitize the lower left hand dot on the AutoCAD templates' screen pointing area.

AutoCAD prompt: Enter upper-right hand corner now.

Response: Digitize the upper right hand dot on the AutoCAD templates' screen pointing area.

AutoCAD prompt: Do you want a primary toggle area?

Response: Type "N".

AutoCAD prompt: Do you want a secondary toggle area?

Response: Type "N".

8. At the Configuration menu type [ENTER] twice to save configuration changes and return to the drawing editor.
9. Next, configure your template as you normally would. Refer to your AutoCAD Interface, Installation and Performance Guide or third party template manual for detailed template configuration instructions. When you are finished, the template, mole area, tablet area, and toggle button should be properly configured.

## E.3 Digitizer Mode vs. Mole Mode

Your tablet is initially setup in the "Digitizer" mode. In the "Digitizer" mode you can draw in the graphics area, execute template picks, and operate the cursor buttons. However in the "Digitizer" mode you cannot access the popdown menus, tool palette, or manipulate the window; this requires the "Mole" mode.

To enter in the "Mole" mode press the button that you previously defined as the "Toggle" button. In the "Mole" mode you can draw in the graphics area, execute template picks, access the popdown menus, and tool palette. However the cursor buttons will not have the usual AutoCAD definitions. Instead, the pick button remains the pick button, and the button defined as the toggle button remains a toggle button. All other buttons will produce results that are defined in the Summagraphics Windows control panel.