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PENSMITH Tablet Manager Help System

Menu Access - General

The tablet manager, K_TM.EXE, menus conform to the standard WINDOWS operation.   For example, to access the FILE menu, type ALT-F or point to the FILE menu name and click.   Use the cursor keys to select an entry or point to it and click.

To dismiss a menu, press the ESC key or click outside the menu.

When a menu or menu item is not available for selection, it is "grayed out" (displayed in light gray instead of black).

File Menu

The FILE menu provides the following:

Load a template definition (.TAB) file.
<div align="center">OPEN</div>

Clear a template definition from memory.
<div align="center">NEW</div>

Save a template definition.
<div align="center">SAVE</div>

Save a template definition to a different file name.
<div align="center">SAVE AS</div>

Quit the tablet manager.
<div align="center">EXIT</div>

File Menu Open

OPEN will load a template definition file.   The default file extension is .TAB.

If a template definition file is already loaded in memory, the template manager prompts you as to whether you want to replace the current template, or merge the new template with the current template.

Merge refers to the ability for a second template to redefine a portion of the currently loaded template. For example, if a portion of the main template were blank, there could be several template definition files each giving the blank area a different meaning.

After the template definition file is loaded, the tablet manager prompts for the location of the template on the tablet surface.

When a template definition file is loaded, several tablet manager menu functions become available. When the template is cleared (FILE menu CLEAR) those functions are unavailable, and are "grayed out." The menu functions are:

FILE menu	NEW, SAVE, and SAVE AS
MACRO menu	TEMPLATE MACROS
SETUP menu	RELOCATE TEMPLATE

Template definition files (.TAB files) are either purchased or created using the tools and examples found in the **\KURTA\WIN_BLDR** sub-directory.

File Menu New

NEW clears any template definition files currently in memory.   This releases system memory for other activities.

If the template currently in memory, has been modified (with the MACROS menu TEMPLATE MACROS function), you are reminded to save any changes before they are lost.

File Menu Save

SAVE stores the template which is currently in memory.   Use this function after editing the template, if the changes are to be made permanent.

The current template will be written to the same template definition file from which it was loaded.

This menu item is "grayed out" if the currently loaded template has not been changed (with the MACROS menu TEMPLATE MACROS function).

See also: SAVE AS

File Menu Save As

The SAVE AS function performs the same operation as the SAVE function, except you are prompted to specify a new file name to which the template is saved.

If you specify a file name which already exists, you will be prompted whether you want to overwrite the file or not.

File Menu Exit

EXIT terminates the template manager.   This is the same as selecting CLOSE from the system menu.

After the template manager is closed, the tablet still operates correctly.   However, **macros and templates stop working**.

The tablet manager is intended to be left running all the time.   There should be no need to ever EXIT the tablet manager.   You will normally leave the tablet manager running as an icon on the bottom of the screen.   To make the tablet manager an icon, click on the down arrow in the upper left corner of its window, or select MINIMIZE in the SYSTEM menu (type ALT-SPACE N) in the upper left corner of its window.

Edit Menu

The EDIT menu provides the ability to add, change, and delete macros.   Three types of macros are supported:

Button Macros

F-KEY Macros

Template Macros

Edit Button Macros

The BUTTON MACROS menu item allows macros to be programmed for each of the sixteen possible pointing device buttons.

The MACROS menu and the SETUP BUTTONS menu **both** allow programming the pointing device buttons.   The SETUP menu BUTTONS function is the more general and less frequently used function.   It allows assigning a number of functions to pointing device buttons.   For example, in addition to programming button macros, the SETUP menu allows changing which button is to be treated as the left mouse button.

To record a macro, point to the button number to be entered or changed (in the dialog box).   The I-Beam cursor appears in the edit box above.   Enter or edit the macro.   If multiple macros are to be edited, do not press ENTER.

To edit a second macro, point to the button number of the next button to edit.   The first macro will automatically be put back in the list, below, and the new macro will be pulled from the list and displayed in the edit box above.   In this way, all macro edits can be completed in one session.

When finished editing button macros, press the ENTER key or select the OK box.   The edited macros, as displayed in the list box, are written to the WIN.INI file.   The macros are read by the template manager on startup and become available each time WINDOWS is started.

A macro may contain any alphabetic or numeric character as well as special key names surrounded by the "<" and ">" characters. For example:

  123<ENTER>

When played, the above macro generates the same as typing the numbers 1, 2, and 3 followed by pressing the ENTER key.

A list of the possible key names is given in <u>KEY NAMES</u> help topic.

The <u>MACRO TIPS</u> topic contains some additional information and samples regarding macros and possible pitfalls.

Edit F-KEY Macros

The F-KEYS MACROS menu item allows macros to be programmed for each of the twenty three possible F-KEYS.   The actual number of F-KEYS on a tablet varies based on the model and size of the tablet.

To record a macro, pull down the EDIT menu, select F-KEY MACROS, and click on the F-KEY number to be entered or changed (in the dialog box).   The I-Beam cursor appears in the edit box above.   Enter or edit the macro.   If multiple macros are to be edited, do not press ENTER.

To edit a second macro, click on the F-KEY number of the next F-KEY to edit.   The first macro will automatically be put back in the list, below, and the new macro will be pulled from the list and displayed in the edit box above.   In this way, all macro edits can be completed in one session.

When finished editing F-KEYS macros, press the ENTER key or select the OK box.   The edited macros, as displayed in the list box, are written to the WIN.INI file.   The macros are automatically read by the template manager on startup and become available each time WINDOWS is started.

A macro may contain any alphabetic or numeric character as well as special key names surrounded by the "<" and ">" characters. For example:

      123<ENTER>

When played, the above macro generates the same as typing the numbers 1, 2, and 3 followed by pressing the ENTER key.

A list of the possible key names is given in <u>KEY NAMES</u> help topic.

The <u>MACRO TIPS</u> topic contains some additional information and samples regarding macros and possible pitfalls.

Edit Template Macros

The TEMPLATE MACROS menu function allows editing template macros.   The template .TAB file must have been loaded, see the FILE menu OPEN function.   This EDIT function will not create a template, but it can be used to display and/or change a template.

Once this menu item is selected, a dialog appears requesting the entry of the template position which is to be edited.   Click on the macro to be edited (in the dialog box not on the tablet).   The I-Beam cursor appears in the edit box above.   Enter or edit the macro.   If multiple macros are to be edited, do not press ENTER.

To edit a second macro, click on the F-KEY number of the next F-KEY to edit.   The first macro will automatically be put back in the list, below, and the new macro will be pulled from the list and displayed in the edit box above.   In this way, all macro edits can be completed in one session.

When finished editing F-KEYS macros, press the ENTER key or select the OK box.   The edited macros, as displayed in the list box, are written to the WIN.INI file.   The macros are automatically read by the template manager on startup and become available each time WINDOWS is started.

A macro may contain any alphabetic or numeric character as well as special key names surrounded by the "<" and ">" characters. For example:

123<ENTER>

When played, the above macro generates the same as typing the numbers 1, 2, and 3 followed by pressing the ENTER key.

A list of the possible key names is given in KEY NAMES help topic.

The MACRO TIPS topic contains some additional information and samples regarding macros and possible pitfalls.

Valid Key Names

All the following standard ASCII characters are allowed in macros:

     aAbBcCdDeEfFgGhHiIjJkKlLmMnNoOpPqQrRsStTuUvVwWxXyYzZ
     1234567890
     `~!@#$%^&*()_-=+|[]{};:',.<>/?

The following standard ASCII codes must be preceded by the back slash (**"\"**) character:

     <>\"

A technical note: the recorded ASCII codes play back as WMCHAR messages, not as WM_KEYDOWN and WM_KEYUP messages.   Logically this is like the difference between ASCII codes and keyboard scan codes.   It is possible to force PENSMITH to playback the WM_KEYDOWN and WM_KEYUP messages.   This is called the virtual key, or VK, method .   To play the virtual key format of the ASCII letter "A"", precede the letter with the virtual key command (e.g. **<VK>**) or use the short hand form of simply enclosing the ASCII letter with the "less-than" and "greater-than" symbols: "<" and ">".   For example the following examples send the virtual key format of the letter "B".

     <VK>B
     <VK>b
     <B>
     <b>

The following commands generate either ASCII or the virtual key format as shown:

Command	VK	ASC	Default	Action
<ADD>	Y	N	VK	Ten key pad plus key

<ALT> Precedes a single character.   Equivalent to press Alt, type a character, and release the Alt key.   In general, use the <ALTDN> form.   The <ALT> form is still supported for backward compatibility, but its use should be avoided in new macros and templates.

Command	VK	ASC	Default	Action
<ALTDN>	Y	N	VK	Left Alt key press
<ALTUP>	Y	N	VK	Left Alt key release
<BACKSPACE>	Y	Y	ASCII	Backspace key
<BS>	Y	Y	ASCII	Backspace key
<CANCEL>	Y	Y	ASCII	Ctrl Break
<CAPSLOCK>	Y	N	VK	Capslock key
<CLEAR>	Y	N	VK	No equivalent keyboard key
<CR>	Y	Y	ASCII	Enter key
<CTRLDN>	Y	N	VK	Left Ctrl key press
<CTRLUP>	Y	N	VK	Left Ctrl key release
<DECIMAL>	Y	N	VK	Ten key pad period key
<DEL>	Y	N	VK	Delete key
<DELETE>	Y	N	VK	Delete key
<DIVIDE>	Y	N	VK	Ten key pad slash key
<DOWN>	Y	N	VK	Cursor down
<END>	Y	N	VK	End key
<ENTER>	Y	Y	ASCII	Enter key
<ESC>	Y	N	VK	Escape key
<EXECUTE>	Y	N	VK	No equivalent keyboard key
<F1>	Y	N	VK	F1 F-Key
<F2>	Y	N	VK	F2 F-Key
<F3>	Y	N	VK	F3 F-Key

				F4 thru F13 etc.
<F14>	Y	N	VK	F14 F-Key
<F15>	Y	N	VK	F15 F-Key
<F16>	Y	N	VK	F16 F-Key
<HELP>	Y	N	VK	No equivalent keyboard key
<HOME>	Y	N	VK	Home key
<INSERT>	Y	N	VK	Insert key
<INS>	Y	N	VK	Insert key
<LEFT>	Y	N	VK	Cursor left key
<MINUS>	Y	N	VK	Ten key pad minus key
<MULTIPLY>	Y	N	VK	Ten key pad asterisk key
<NUMPAD0>	Y	N	VK	Ten key pad 0
<NUMPAD1>	Y	N	VK	Ten key pad 1
<NUMPAD2>	Y	N	VK	Ten key pad 2
				3 thru 7 etc.
<NUMPAD8>	Y	N	VK	Ten key pad 8
<NUMPAD9>	Y	N	VK	Ten key pad 9
<PAGEDOWN>	Y	N	VK	Page Down key
<PAGEUP>	Y	N	VK	Page Up key
<PAUSE>	Y	N	VK	Pause key
<PGDN>	Y	N	VK	Page Down key
<PGUP>	Y	N	VK	Page Up key
<PLUS>	Y	N	VK	Ten key pad plus key
<POINT>	Y	N	VK	Ten key pad period key
<PRTSC>	Y	N	VK	No equivalent keyboard key
<RECORDER>				Launch the Recorder pgm
<RECORDER+name>				Launch the Recorder pgm and play a macro by **name**
<RETURN>	Y	Y	ASCII	Enter key
<RIGHT>	Y	N	VK	Cursor right
<SELECT>	Y	N	VK	No equivalent keyboard key
<SEPARATE>	Y	N	VK	No equivalent keyboard key
<SHIFTDN>	Y	N	VK	Left Shift key press
<SHIFTUP>	Y	N	VK	Left Shift key release
<SPACE>	Y	Y	ASCII	Space Bar
<STAR>	Y	N	VK	Ten key pad asterisk key
<SUBTRACT>	Y	N	VK	Ten key pad minus key
<TAB>	Y	Y	ASCII	Tab key
<TEMPO>				Launch the Tempo pgm
<TEMPO+name>				Launch the Tempo pgm and play a macro by **name**
<UP>	Y	N	VK	No equivalent keyboard key

<VK> Play the following character in its Virtual Key format instead of its ASCII format.

Macro Recording Tips

Practice is required to become proficient in using macros with WINDOWS.   Application programs differ in the way they interface with the keyboard.   Because PENSMITH macros generate keyboard equivalent codes, the techniques will necessarily vary from application program to application program.

A common difference is whether the application   program expects keyboard key codes or ASCII codes. he key codes are as received from the keyboard   hardware, and the ASCII codes are the translated odes used by most programs.   The   PENSMITH macros   generate ASCII codes unless explicitly directed otherwise by use of the <VK> command.   For example a recorded an ENTER by itself produces the ASCII code for carriage return, whereas a <VK><ENTER> produces the keyboard key code for the ENTER key.   It is not   possible to predict which code the application program is testing for.   Therefore, record macros assuming the <VK> is unnecessary, and add the <VK> when the macro doesn't produce the correct result.

When testing macros, if a particular code just won't work, remember, there are multiple ways to get most things done.   For example, to select menu, it is possible to type ALT-SPACE (to access the system menu) followed by CURSOR-RIGHT keys until the desired menu is displayed.   It is also possible to type ALT-n, where "n" is the underlined letter in the menu name.   Likewise, to select an item on a menu, either cursor keys or the item speed key will access the item.

Sometimes it is required to add an <ENTER> command after a selection.   Even when the ENTER key isn't required when performing the same function from the keyboard.

Macros involving the shift keys (ALT, SHIFT, and CTRL) require a pair of complementary codes, an <xxxxDN> and an <xxxxUP> code.   The first code, <ALTDN>, for example, causes all following codes up to the complementary <ALTUP> code to be interpreted as if the ALT key were being pressed while they are played back.   Failure to follow an <xxxxDN> code with its corresponding <xxxxUP> code will produce a peculiar situation in which Windows will act as though the key represented by the <xxxxDN> code were being pressed and held down, contrary to the actual state of the keyboard.   Fortunately, this is easily remedied by actually pressing and releasing the key in question.

Examples:

> Correct: <CTRLDN><G><CTRLUP>
> Incorrect: <SHIFTDN><G>

For further examples, refer to the KURTA Windows Template Builder files included on your distribution disk.

Don't forget the quote string.   Macro strings which are enclosed in double quotes (e.g. "Now is the time") are played back identically.   Without the double quotes, the embedded spaces are not played back.

Setup Menu

The "Setup" menu provides the options needed to configure the tablet:

Setup Buttons

The BUTTONS menu item is used to configure the pointing device buttons.   Each of the pointing device buttons may be assigned a function.   The functions include:

Left Mouse   Same action as pressing the left button of a mouse.
Right Mouse   Same as the right mouse button.
Middle Mouse   Same as the middle mouse button.
Double Click   Use this with any of the three mouse buttons above
                   to cause the button to do a double click.
Pick   Causes the driver and template manager to play the
                   template macro where the pointing device is pointing.
Macro   Causes the macro stored with this button to be played.

To change a button definition, select the buttons entry.   Notice the macro is copied to the edit window so it can be modified.   Change the macro or any of the check boxes (left mouse etc.) and click the **CHANGE** check box.   If needed click **UNDO** to remove the change.

Select **OK** when finished changing the button definitions.   Because the new button definitions are saved in the WIN.INI file, which takes time, it is best to make all the button changes then click OK once.

Note that it is possible to assign multiple functions to a button.   For example it is possible to have a single pointing device button cause multiple mouse buttons.

It is also possible to assign the Left Mouse and Template Pick to the same button.   This way, if the button is pressed while the pointing device is over a tablet active (screen pointing) area it performs a screen pick, if the pointing device is over a macro area, it plays the selected template macro.

Setup Hardware

The Hardware Menu allows the driver to be configured for the computer hardware.   Use this menu to configure:

Com Port	Select COM1, COM2, COM3, or COM4
Baud Rate	Select the tablet speed (usually 9600)
Tablet Size	Select the actual tablet size
Tablet Resolution	Select the tablet resolution

Notes:

Upon starting WINDOWS, the driver always defaults to assuming an 8 1/2 X 11 tablet on COM1 at 9600 baud configured for 200 ppi resolution.   When the Template Manager (K_TM.EXE) is run, it begins by reading the actual configuration from the WIN.INI file and sending that information to the driver.   For this reason, the Template Manager is automatically loaded into memory each time WINDOWS is started (except for the very first time).

For information about how to setup each of the tablets select one of the following:

IS/ONE switches	IS/ONE
SERIES ONE switches	SERIES ONE
XGT setup	XGT
XLC setup	XLC

IS/ONE SWITCHES

The following documents how to configure the IS/ONE for both 200 and 1000 PPI resolutions both at 9600 baud.   Kurta supports both resolutions, but usually recommends 200 PPI.   Set the switches, turn the tablet off and then on again, then use the K_TM SETUP menu, HARDWARE item to configure for either resolution.

To run the IS/ONE at 200 points per inch resolution set the switches as follows:

Switch A:

Switch	Setting	Effect
1,2,3	UP,DN,DN	Auto Increment Mode
4,5	UP,UP	Full menu operation
6,7,8	UP,UP,DN	9600 Baud

Switch B:

Switch	Setting	Effect
1,2,3	DN,DN,UP	Format 1
4	DN	7 Data Bits
5,6	UP,DN	Odd parity
7,8	UP,DN	50 packets per second data rate

Switch C:

Switch	Setting	Effect
1,2,3	DN,UP,DN	200 Points per inch resolution
4	DN	Ignore CTS
5,6	DN,DN	Kurta tablet type where X & Y specify the tablet size as follows:
		Size:
7,8	DN,UP	8 1/2 X 11
	UP,DN	12 X 12
	UP,UP	12 X 17

To run the IS/ONE at 1000 points per inch resolution set the switches as follows:

Switch A:

Switch	Setting	Effect
1,2,3	UP,DN,DN	Auto Increment Mode
4,5	UP,UP	Full menu operation
6,7,8	UP,UP,DN	9600 Baud

Switch B:

Switch	Setting	Effect

1,2,3	DN,UP,DN	Format 2
4	UP	8 Data Bits
5,6	DN,DN	No parity
7,8	UP,DN	50 packets per second data rate

Switch C:

Switch	Setting	Effect
1,2,3	UP,UP,DN	1000 Points per inch resolution
4	DN	Ignore CTS
5,6,7,8	DN,DN,X,Y	Kurta tablet type where X & Y specify the tablet size as follows:

X   Y   Size:
DN,UP   8 1/2 X 11
UP,DN   12 X 12
UP,UP   12 X 17

The recommended switch settings for the Kurta IS/ONE (at 200 PPI) are also the factory default except for Switch A   positions 1, 2, and 3 where we recommend Auto Increment mode.   The driver will operate correctly with in either the AUTO mode (factory default) or the AUTO INCREMENT mode (which is slightly more efficient).   The recommended switch settings are as follows:

SERIES ONE Switches

To run the SERIES ONE at 200 points per inch resolution and 9600 baud set the switches as follows:

Mode/Baud Switch

Switch	Setting	Effect
1,2	OFF,OFF	Auto mode
3,4	OFF, ON	9600 Baud

Program Switch

Switch	Setting	Effect
1,2	OFF,OFF	Format 1
3	OFF	High baud rate
4	OFF	200 PPI resolution
5	OFF	Not remote mode
6,7	OFF,OFF	Normal menu operation
8	ON	Origin in lower left corner

XLC Setup

The XLC should be setup to operate as follows:

> **9600 baud**
> **Kurta format 2B (XLC format 68)**
> **8 Data bits and no parity**
> **Auto Increment mode**
> **Kurta XLC, IS/THREE command set**
> **1000 PPI resolution**
> **50 Packets per second data rate**

The XLC setup disk comes with a personality file named PENSMITH.XPR which contains the correct personality for use with PENSMITH.

XGT Setup

The XGT should be setup to operate as follows:

       9600 baud
       XGT format 194
       8 Data bits and no parity
       Auto mode
       Increment modifier with an increment of 5
       Kurta XGT, IS/ONE command set
       1000 PPI resolution
       50 Packets per second data rate

To configure the XGT P1 key, select the following XGT Logo Menu Strip keys:

       ALT, F3, F2, F6, P1, P1, ALT, F6

Setup Hardware Port

The CONNECTION item under the SETUP HARDWARE menu allows the selection of a communications port, COM1 thru COM4, depending on where the KURTA tablet is installed.   Default: COM1.

COM3 and COM4 are for use with PS/2 computers only.

Setup Hardware Baud Rate

The BAUD RATE item under the SETUP HARDWARE menu allows the selection of various data transmission speeds, e.g., 2400, 4800, 9600.   Default: 9600.

Setup Hardware Tablet Size

The SIZE item under the SETUP HARDWARE menu allows the selection of the tablet size, e.g.,6x9, 8.5x11, 12x12 or 12x17.   Default: 8.5x11.

Setup Hardware Resolution

The RESOLUTION item under the SETUP HARDWARE menu allows the selection of either 200 points per inch (default) or 1000 points per inch.

The 200 points per inch selection assumes Kurta format 1, while the 1000 points per inch choice assumes either format 2 (for the IS/ONE) or format 2B (for the XLC).   The XGT always uses 200 points per inch.

It may be of interest to know that the screen resolution is so much lower than either the 200 or the 1000 points per inch choices that it is common to use 200 because it takes less processing overhead.

Setup Startup

The STARTUP item under the SETUP menu is used to specify a Template Definition File (.TAB) name which the Template Manager (K_TM) will load automatically each time it is run (started).

Use this to load the desired template automatically, or use the FILE OPEN menu to manually load the Template Definition file each time WINDOWS is begun.

The WIN.INI file is updated to contain the name of the file to load.   To undo this change, and not autoload a template, click **No Autoload** and **OK**.

Setup Template Location

After loading a Template Definition file with the FILE OPEN menu, use this menu item to click in the location of the template on the tablet surface.

To begin, place the template under the tablet surface protector, select the SETUP TEMPLATE LOCATION menu item   and follow the five steps in the dialogue box to click in the location of each corner of the template.

Be sure the template is square on the tablet surface and not crooked.

The template should have marks where the click in points are located.

Note: After clicking the first point, the screen cursor temporarily disappears.

Setup Tablet Active Area(s)

Use this menu item to specify the size and location of the active tablet area or areas.   A tablet active area is a rectangular area on the tablet surface which is mapped to the screen.   Movement of the pointing device within a tablet active area, moves the screen cursor correspondingly.

This option produces a dialog box which is divided into two major activities: "Tablet Active Area(s)" and the "Tablet Active Area Editor".

"Tablet Active Area(s)" allows the selection of a tablet active area to edit.   Up to ten areas can be defined and listed in this list box.   Note, as entries are added to this list, they are not made active by the driver until the **OK** box is selected.

The Tablet Active Area Editor portion (lower half) of the dialog box is used to add, delete, or modify an active area.

To use this editor, first select an area from the list above, or enter a new area name in the   area name field.   To enable typing in the area name field point to the area name field and click, the I beam cursor will appear, and typing is enabled.

After the area name is selected or entered, the area location and size must be specified.   There are two techniques supported; typed in (digital coordinates) and clicked in coordinates using a pointing device.

ADDING AN AREA DIGITALLY

To type in the coordinates, TAB to or click on each of the following fields and enter the desired coordinate:

Lower Left Corner: X and Y   specify the lower left corner of the
                                tablet active area.
Upper Right Corner: X and Y   specify the upper right corner of the
                                tablet active area.

Then select either **ADD**, **CHANGE**, or **DELETE**, and, if done making modifications to the list of active areas, click **OK**.

Note: the location and size values are in tablet units.   If the tablet is setup for 200 points per inch, then the   location of X = 1000 is five inches to the right of the left edge of the tablet.   Also, the origin for X and Y is the lower left corner of the tablet.

ADDING AN AREA USING THE POINTING DEVICE
After clicking or typing the area name, click either: <u>LOCATE PROPORTIONAL</u> or <u>LOCATE</u>.   Use LOCATE PROPORTIONAL   when the tablet area proportions are to be equal to   the screen proportions. Use LOCATE to define a tablet active area which can be any rectangular shape.   Because either active area is mapped to the full screen, objects traced in an active area which is not proportional will be distorted on the screen.

In either case, a dialog box will display to prompt for the points describing the area.   When OK is clicked, the dialog box disappears and the area is added to the list of active areas.   Note that the list is not made active until the OK box next to the list box is checked.

SCALING TIPS

This option provides several options for controlling the size and shape of an active area.   The relationship of the active area to the screen has the effect of scaling tablet movements to screen movements.

For example, using a relatively small area of the tablet to the entire screen provides fast operation but not very precise control.   Choosing a larger area of the tablet provides a little slower response but better control.

It may be preferred to define two active areas; one small area for low precision work and one large area for precision freehand or tracing work.   By the way, we provide for up to ten active areas, not because you will need ten, but because it allows for more than enough.

Note: Be sure the tablet size is configured correctly in the SETUP HARDWARE menu item or an error may occur when clicking in the active area size.

XGT SCALING

The XGT digitizer has built in scaling functions which are controlled by the XGT Logo Menu Strip.   It might help to think of PENSMITH scaling as software scaling and XGT scaling as hardware scaling. Both types of scaling have their advantages.

The XGT scaling can redefine the active screen as well as the active tablet area.

The XGT scaling can easily be toggled on and off with one click on the XGT Logo Menu Strip.

It is easier to duplicate PENSMITH scaling because they can be entered digitally (typed coordinates) whereas the XGT scaling must be clicked in.

PENSMITH scaling allows multiple tablet active areas.

PENSMITH scaling provides the LOCATE PROPORTIONAL capability to match the aspect ratio of the tablet with that of the screen.

It is important to know that PENSMITH can tell if you turn on XGT scaling.   To avoid double scaling, PENSMITH turns off its scaling if you turn on XGT scaling.

Setup Tablet Active Area - Locate

The LOCATE option, of the TABLET ACTIVE AREAS menu item dialog box, allows the use of a pointing device to define the location and size of a tablet active area.

LOCATE displays a blank screen with a prompt to click on the Upper Right corner of the active area on the tablet.   Point to and click the spot on the tablet surface where you want the upper right corner of the new active area to be.   The prompt changes to ask for the Lower Left corner.   Point to and click in the lower left corner.   A dialog appears giving three choices.   Select OK if you want to keep the area you defined.   Select No if you want to redefine the area.   And, select CANCEL if you want to exit the scaling function without changing the scaling.

If you clicked OK the area is added to the list of areas in the dialog box.   The area is not actually made active until the **OK** box next, to the active area list box, is clicked.

The active area defined by this process is mapped to the entire screen.   Therefore, if the area is not the same shape as the screen, objects drawn on the tablet will be distorted on the screen.   If this is desired, great.   If not, use the LOCATE PROPORTIONAL option which forces the tablet area to match the proportions (known as aspect ratio) of the screen.

Setup Tablet Active Area - Locate Proportional

The LOCATE PROPORTIONAL option, of the TABLET ACTIVE AREAS menu item dialog box, allows the use of a pointing device to define the location and size of a tablet active area.

LOCATE PROPORTIONAL displays a blank screen with a prompt to click on the Upper Right corner of the active area on the tablet.   Point to and click the spot on the tablet surface where you want the upper right corner of the new active area to be.   The prompt changes to ask for the Lower Left corner.   Point to and click in the lower left corner.   A dialog appears giving three choices.   Select OK if you want to keep the area you defined.   Select No if you want to redefine the area.   And, select CANCEL if you want to exit the scaling function without changing the scaling.

If you clicked OK the area is added to the list of areas in the dialog box.   The area is not actually made active until the **OK** box next, to the active area list box, is clicked.

Setup Out of Bounds Tracking

"Out of Bounds Tracking" toggles on/off.   When this function is enabled, the menu item displays the word OFF and when disabled it displays the word ON.   This indicates that selecting this item will perform the action shown.

When enabled, Out of Bounds Tracking allows the cursor to track (move) even when the pointing device is outside of any active area.   For example, if the pointing device is moved to the right of an active area, vertical movement of the pointing device will cause the screen cursor to move vertically along the right edge of the screen.

When disabled, the screen cursor only moves when the pointing device is within an active area.

Out of Bounds Tracking is useful to find a tablet active area when not using a template.

Diagnostics

If you are having problems with the digitizer, the Diagnostics menu item can be used to determine what Comm port problems exist.

You should never have to use this menu.   If you do experience problems, a technical support representative may ask you to activate one or more of these diagnostics options.

Comm Errors	parity, overrun, and framing errors
Packet Errors	Broken packets
Queue Lockouts	Conflicts with digitizing program access
Drop Data	Received packet contents
Queue Data	Received packets pulled from the packet queue
Queue Data Count	Count of queued packets

Help Menu

The Help Menu provides the following:

     Access to the WINDOWS Help System   <u>Help</u>

     Displays the Tablet Manager About box   <u>About</u>

Help Menu Accesses WINDOWS Help

This menu item pops up the WINDOWS help system.

To learn how to use the WINDOWS help system, use the help menu it displays.

Help Menu About

The ABOUT BOX displays the Version numbers of both the driver and the template manager.   It also displays pertinent copyright information.

Tutorials

Several tutorials are provided to help you get more out of PENSMITH.   They are written as a set of step by step examples.

If questions arise when reading the tutorial, you may find it helpful to refer to the helps on the menus.

Configuring PENSMITH

The PENSMITH installer performed all that was necessary to get the tablet up and running with WINDOWS.   A list of all the steps the installer did is given below:

Copied the following files to the **WINDOWS** directory:
K_TM.EXE	tablet manager
K_HELP.HLP	help file
SAMPLE.TAB	sample template

Copied the following files to the **WINDOWS\SYSTEM** directory:
K_DRIVER.DRV	tablet driver
K_VIRT.386	virtual device driver

Modified the WIN.INI file to add:
load=K_TM.EXE	Causes the tablet mgr to load automatically
[KURTA]	Begin the Kurta parameter section
CommPort=	Com port where tablet is connected
BaudRate=9600	Tablet baud rate
LinesPerInch=	Tablet resolution
TabletSize=	Tablet size
Format=	Tablet packet format
FKEY#01=<F1>	F-KEYS like keyboard
FKEY#02=<F2>	
FKEY#03=<F3>	
FKEY#04 ...FKEY#10	
[KurtaActiveTabletAreas]	Delete this section if found

Modified the SYSTEM.INI file to add:
mouse=K_DRIVER.DRV	Replace the mouse driver
mouse=Kurta Tablet Driver	Boot description
mouse=K_VIRT.386	In the [386Enh] section
[VirtualTablet]	Add this section
Port=n	Com port for tablet

Because they are all considered personal preference, the installer does not change any of the following parameters.   The following are those parameters and references to the description of how to change each:

Pointing device buttons and macros
Scaling
Startup template
F-KEY macros greater than F10

For more information about how to setup each of the Kurta tablets for use with PENSMITH see the following:

General Hardware Configuration
XGT Configuration
XLC Configuration
IS/ONE ConfigurationGT
SERIES ONE ConfigurationGT

Using Scaling

PENSMITH provides the ability to define how much of the tablet is to be mapped to the screen.   This is referred to as scaling. PENSMITH also supports the XGT scaling.

There are several reasons why you will want to redefine the tablet active area.

> **Precision** - If you define a large active area, you get much greater control and precision
> **Speed** - If you define a small active area, you get much greater speed.   That is the screen cursor
moves very fast. You also get less control and precision.

> **Tracing -** Make the active area match the size of the object you want to trace.   To trace an object, lay it on the digitizer and define an active area which is slightly taller than the object.   The top of the tablet active area is mapped to the top of the screen.   So, you have to leave extra room at the top of the tablet active area for the menu bar on the top of the screen.

Click for more on scaling.

Using Macros

Macros can help you increase your productivity by reducing the number of keystrokes and or pointing device button clicks it takes to do something.   You create a macro by defining what commands and keystrokes you want to be entered into the system when you play the macro.   Macros can be accessed by:

        Pressing a pointing device button
        Clicking on a tablet F-KEY
        Clicking on a template button

Macros that are assigned to pointing device macros can be played them taking your eye off the screen. Kurta sells pointing devices which have up to sixteen buttons.

Tablet F-KEYs have the advantage that you can use them for macros when you have no room for a template and your out of pointing device buttons.

Templates are really great because you can have so many macros and you can label them (or color them) so they are easy to find when you want to play them.   You can make the buttons different sizes on the template so the ones you use a lot are easy to hit.   You may not fully appreciate this until you use a template for awhile, but, because of the tablet's absolute positioning, you can usually hit an often-used template button without looking.

Click to learn:

        All the possible Key Names
        How to create a Pointing Device Button Macros
        How to create an F-Key Macro
        How to Load a Template
        How to Change (Edit) Template Macros
        How to Relocate a Template on the Tablet
        How to Remove a Template from Memory
        More about Template Usage
        Macro Tips

Using Templates

This section describes several important points about templates.

What is a template?

A template is made of two parts: a piece of plastic (or paper), called a surface menu, and a template definition (.TAB) file.

The plastic template is placed on the surface of the tablet, under the surface protector if the tablet has one.   Printed on the template are the graphics that define the location of each template button.   Other information and reminders are usually printed on the template as well.   The number of template buttons (or macros) on a template is totally up to the designer of the template.   The number typically ranges from 20 or 30 to hundreds.

The template definition (.TAB) file is the second part of a template.   It defines the layout of the template to PENSMITH.   It contains all the macros which are played by the template buttons.   Because a tablet is an absolute device, once PENSMITH is told where the template is on the surface of the tablet, PENSMITH is able to relate a click on the tablet surface to a specific macro to play.   The actual playing of the macros is the same whether they are template macros, pointing device or F-KEY macros.

What are the two types of templates?

There are two types of templates: a one layer template, and a two layer template.

A one layer template has printed on its surface: the template macros, and a pointing area or areas.   This type of template is designed to be operated with one pointing device button.   By the way, many find that a pen stylus is ideal for template button picking.   If you point to a template button and click, it is obvious to PENSMITH that you intend to play that macro.   If you point somewhere in a pointing area, PENSMITH tracks your movement with corresponding movement of the screen cursor.   When you click your pointing device (left mouse equivalent button) PENSMITH treats this as a screen pick.

A two layer template typically only has template macros printed on it.   The pointing area is defined by the user and not by the template designer.   You can define any area of the tablet to be the pointing area, even if the pointing area overlaps the template buttons.   To perform a screen pick, you use the pointing device button that is mapped to the left mouse button.   To select a template button to play its macro, use the pointing device button that's mapped to **Template Pick** see <u>Setup Buttons</u>.

Where do you get a template?

PENSMITH comes with a sample template.   The paper part is in the PENSMITH manual and the .TAB file is copied to the WINDOWS directory during the PENSMITH install.

You can build your own template using either the **building block** technique or the **full custom** technique. Both techniques are described fully in the PENSMITH user guide.   It really is much easier than it sounds. Give it a try.

How do you load a template?

Use the PENSMITH tablet manager **FILE** menu **OPEN** to load the .TAB file.   Click for more information on <u>Loading a Template</u>.

How many templates can be loaded?

PENSMITH for WINDOWS allows one template to be active at a time.   However, the template can have

overlays which can be merged.   This is a common technique with templates having add-on symbol libraries.

How do you define the pointing area?

After loading the template definition file, define where you want the pointing area, or areas, to be on the surface of the tablet.   Refer to the description of one and two layer templates above.   Use the PENSMITH tablet manager **SETUP** menu **TABLET ACTIVE AREA(S)** to define where you want the pointing area(s) to be.
For more on pointing areas, <u>Tablet Active Areas:</u>

Where is the template information kept?

Template information is kept in memory, while the system is running.   The template macros can be saved to disk in a .TAB file (see also <u>SAVE AS</u>).

The location of the template in kept in the WIN.INI file in the WINDOWS directory.

<u>See also about macros</u>