Finger-writing recognition application
SoftStylus

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指書

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Content

SoftStylus application Installation

The application is ready to run immediately when installed. No driver installation, system rebooting or screen/touchpad calibration is required. During the installation, you have a possibility to select the installation language (Figure 1).
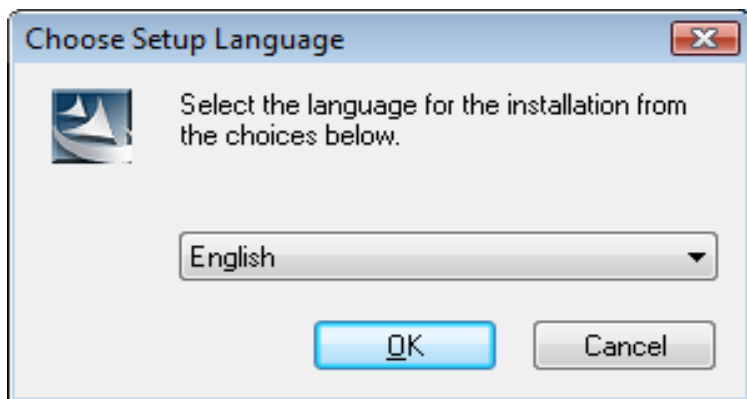

Figure 1   Installation language selection dialog box

During the installation you shall read and accept SoftStylus user license agreement (Figure 2).
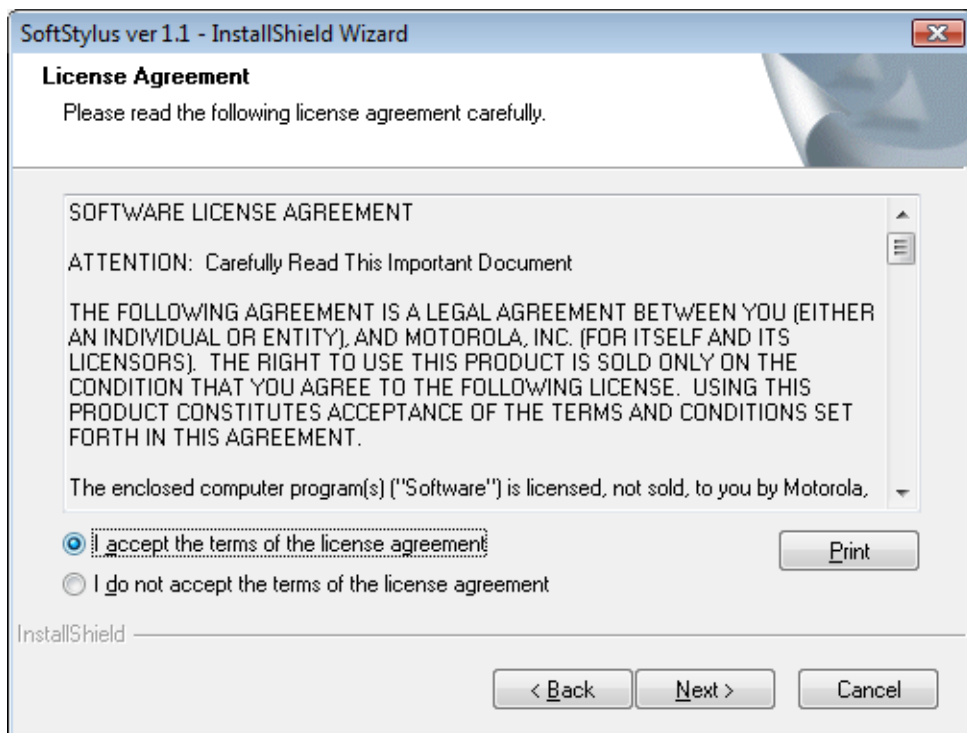

Figure 2   User license agreement dialog

Specify the target path where SoftStylus application will be installed and the program folder (Figure 3).
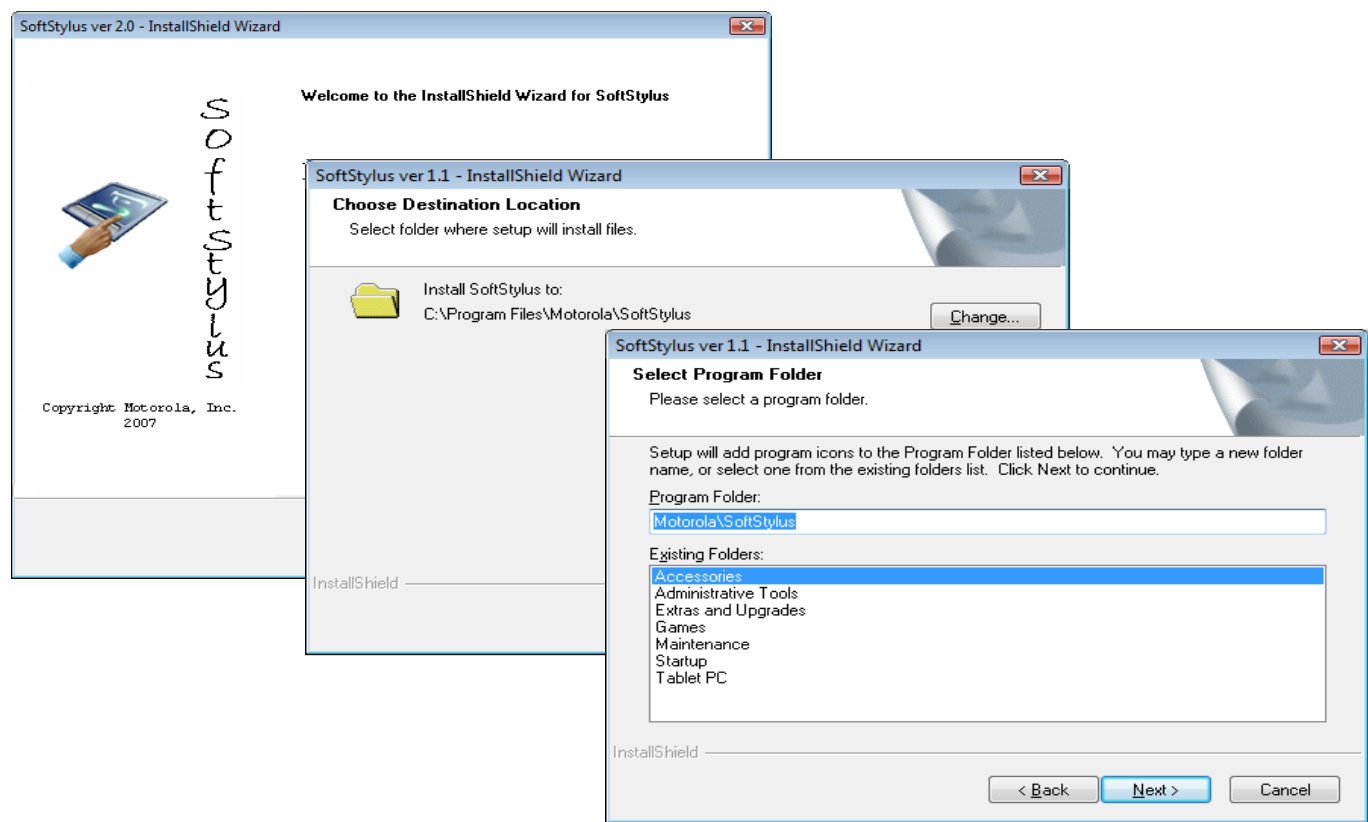

Figure 3   Installation path dialog

If you have an older version of SoftStylus application installed then you will be prompted to uninstall it first (Figure 4).

After product uninstallation you have to run the setup.exe again to start SoftStylus installation. When you reinstall SoftStylus over the older version the license will not be updated. It is recommended to install the product in the same location to preserve the license.
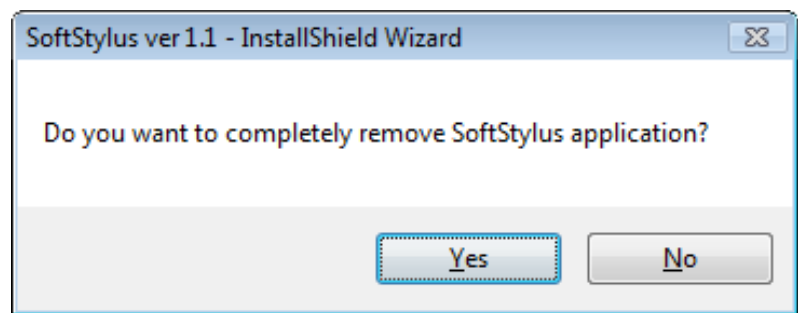

Figure 4   Prompt to uninstall the previous version of SoftStylus

Select options to create a shortcut on the desktop and run the application right after installation completes (Figure 5).
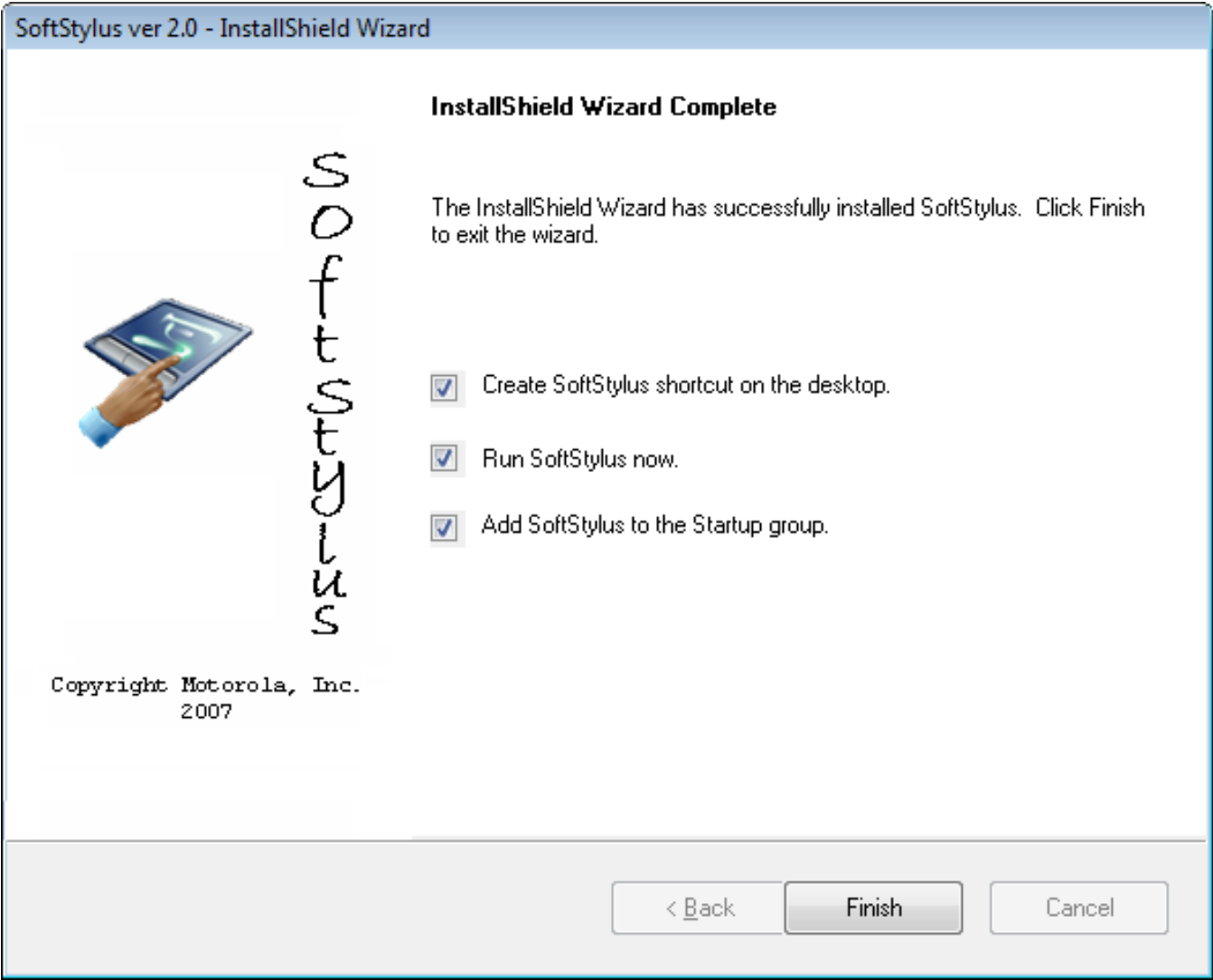

Figure 5   Post-installation configuration features

Activation

Run the application as a standard Windows application by double-clicking the application icon in the Windows Explorer window. SoftStylus application toolbar is visible on the desktop when the application is active (Figure 6).

Figure 6 SoftStylus application toolbar

In this state, the application is loaded, but not yet active. You may access application settings by clicking on the "Start Finger Writing" button - the most left icon on the toolbar (Figure 7).

Figure 7 The "Start Finger Writing" button

When you click on the "Start Finger Writing" button the recognition window appears on the desktop. The recognition window is semi-transparent by default. When the recognition window is visible the touchpad device driver is switched into absolute coordinate mode and unable to control the mouse pointer anymore. To restore control on the mouse pointer you have to close the recognition window by either clicking on the same button again or by the hot-key combination ("Ctrl+S" by default).
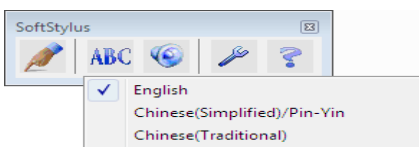

Figure 8 Selection of the current recognition language

You may change SoftStylus recognition language by selecting any language available in the list (Figure 8).

(NOTE: Modification of this setting will not affect the keyboard driver settings. For example, you will be able to type in English on the keypad, but the touchpad input will be recognized as Simplified Chinese hieroglyphics.)

Start Finger Writing

When you click on "Start Finger Writing", the main SoftStylus window appears on the screen.

You may start drawing, but before that make sure that a target application window (Excel window in the sample below) has a focus (the window's title is highlighted) (Figure 9) by clicking on it or using the hot key combination "Alt-Tab" to send focus to the target application.
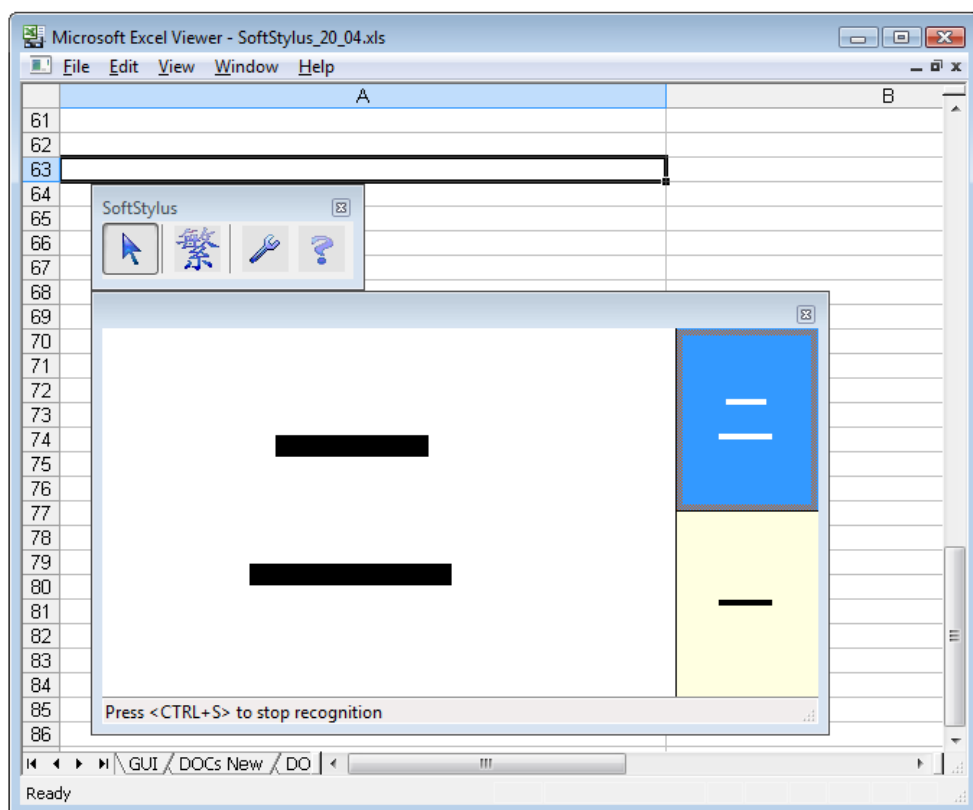

Figure 9   Main SoftStylus window over an Excel worksheet. Excel is the target application and has focus

While SoftStylus application is shown on the screen, any touchpad input will be redirected to the recognition engine. You can use a mouse or a mouse stick to move the mouse pointer over the screen.

The recognition engine always generates a number of alternative symbols in response to any input data. The most likely symbol is shown on the main screen at the first position (on the left or at the top). You may use the browse keys (see "Hot keys") to select another symbol from the alternatives list.

Supported languages

All supported languages are listed below. You can change the current recognition language either by clicking on the language icon in the toolbar or by pressing the language hot-key (see Hot Key). You may draw any symbol from any language, irrespective of the system language setting, but the recognizer output will contain symbols for the selected language only, or nothing (if the recognition fails).

English

Set this language to enter any English characters. This language is case sensitive: to switch between UPPER and LOWER case use "Caps Lock" and "Shift" keys on the keyboard.
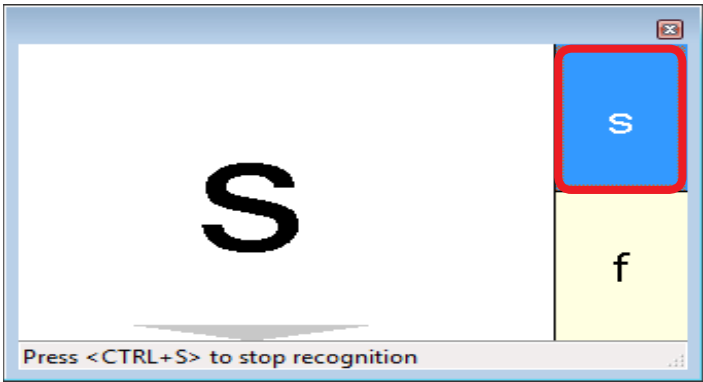

Figure 10 The recognition window in the "English" input mode

Simplified Chinese

SoftStylus application supports more than 13,000 Simplified Chinese symbols.

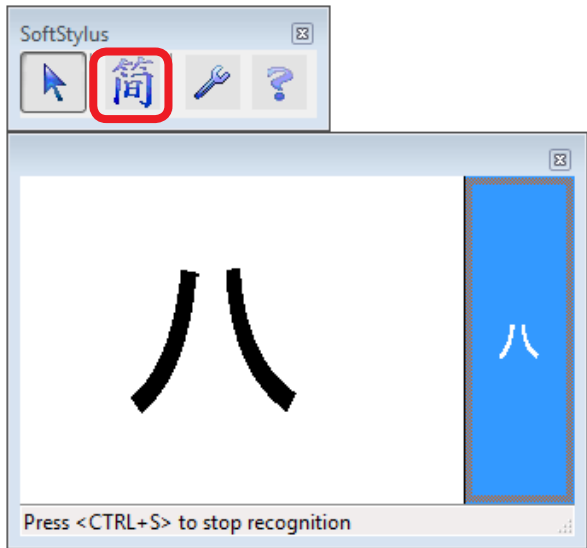Figure 11 The recognition window in the "Simplified Chinese" input mode

Traditional Chinese

SoftStylus application can recognize more than 13000 symbols. Application supports more than 1000 popular Simplified Chinese symbols in addition to Traditional Chinese in this mode. You may enter these symbols without switching the language.
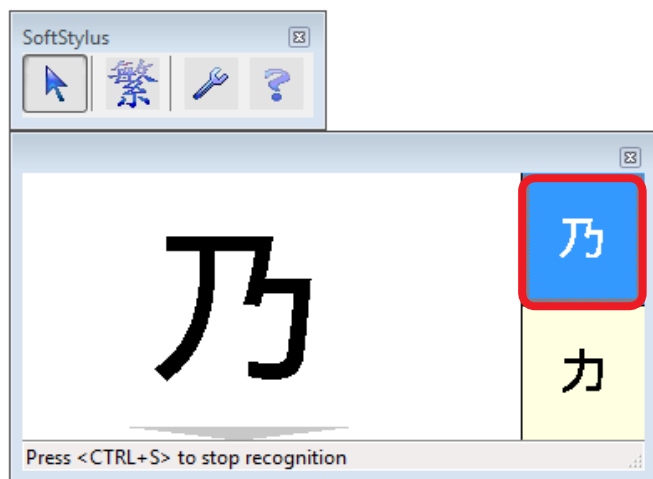

Figure 12   The recognition window in the "Traditional Chinese" input mode

Properties

This menu item provides access to the "Properties" dialog. The dialog has four tabs: "General", "Hot keys", "Recognition" and "Appearance".

General

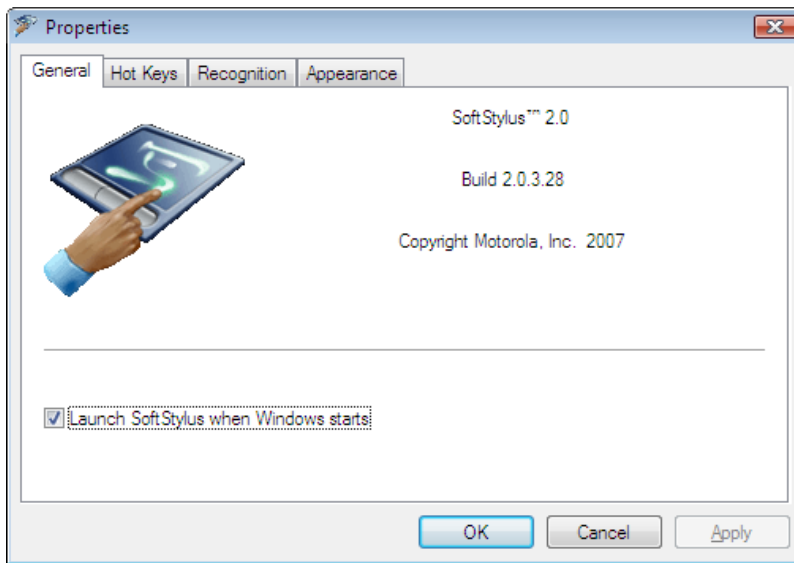The "General" tab is shown in Figure 15.

Figure 15   "General" tab dialog layout

The "General" tab describes the software title, build number and copyright information. Through this tab you can also enable or diable the feature "Lauch SoftStylus when Windows starts". If this feature is checked, the SoftStylus wull be automatically launched when the Windows OS starts.

Hot keys

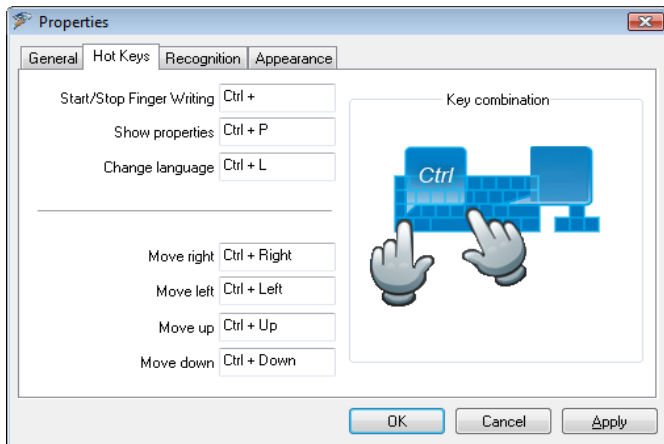The "Hot keys" tab is shown in Figure 16.

Figure 16   The "Hot Keys" tab dialog

Hot keys consist of two groups – general hot keys and browse hot keys. General hot keys are:

- Start/stop Finger Writing – Show or hide the main SoftStylus application window.
- Show properties page – provides quick access to SoftStylus properties dialog.
- Change language - select the next recognition language from the list of supported languages.

Browse hot keys are used to change the selected symbol in the recognition window. The currently selected symbol will be shown in the main window, colored in the list of alternatives and copied to the current edit position of the target application.

It is recommended that you select a hot key as a combination of the "Ctrl" key plus any other key. SoftStylus application has default hot key assignments. These can be changed in the "Hot keys" dialog after the application installation.

It is also recommended that you verify the hot key combinations used in SoftStylus application with each target application you are going to use to make sure there will be no conflicts or side effects. SoftStylus application is transparent for keyboard input— each hot key will be processed by SoftStylus application and then sent to the target application.

Note: the "Show properties page" hot key and the "Change language" hot key only work when the finger writing mode starts.

Recognition

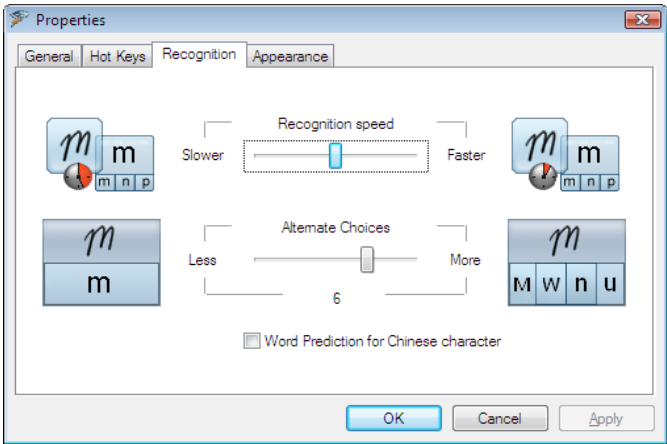The "Recognition" tab is shown in Figure 17.

Figure 17   The "Recognition" tab dialog

Through this tab you may modify the following application settings:

- Recognition speed – the slider control has "Faster" and "Slower" options. This slider allows you to modify the delay interval between the moment when you finish drawing and the moment when input data is sent to the recognition engine. Experienced users may decrease this delay to 0 seconds. By default the delay value is set to 1 seconds.

- Characters per page – the slider control sets the maximiun number of places for alternative characters to be shown in the main window. By default it is set to six (Figure 18).

Figure 18   The default value of "characters per page" is 6

- Word prediction – if the check box is on, the word prediction feature is enabled; if it is off, this feature is disabled.

In Chinese, there are lots of characters always combining to express a meaning, and Chinese characters are harder to write. The "word prediction" feature will help you to save time and energy.

The current release of SoftStylus application supports this feature only for Simplified and Traditional Chinese languages.

"Word prediction" combined with the "user adaptation" feature are designed to improve the overall input speed but you may need some practice to achieve better result first.

The line with "predicted" words are displayed above (in default layout) the line with alternatives (Figure 19) and separated by double-line border.
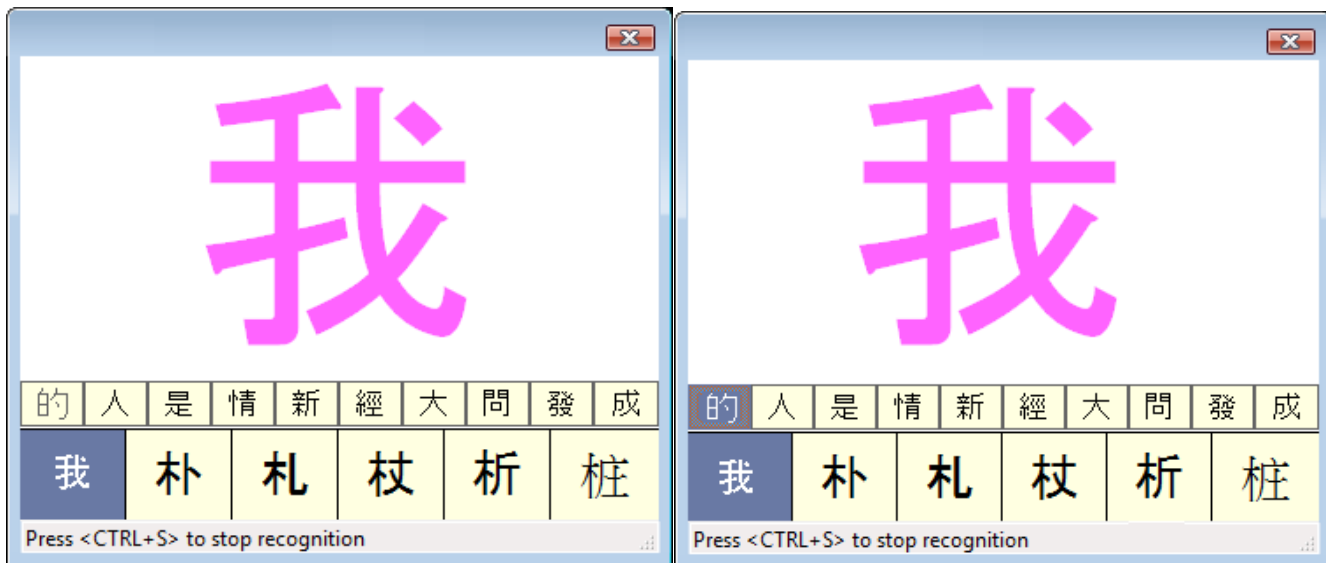

Figure 19 the recognition window with the line of "predicted" words above the line of alternatives

In the above figure, the recognized character "我" means "I". And in the word association, which is below the recognized character, "我的" means "my".

Once entered the "prediction" line the selection will remain in this line, it is not possible to move back to the alternative line. This is done on purpose because symbol from the "alternative" line replaced the symbol in the document while the symbol from the "prediction" line appends to the line in the document.

While using the "word prediction" the main window keeps displaying the first symbol, entered from the touchpad and the line of "alternatives" remains unchanged as well.

The "word prediction" feature may be used together with the Pin-yin mode.

Appearance
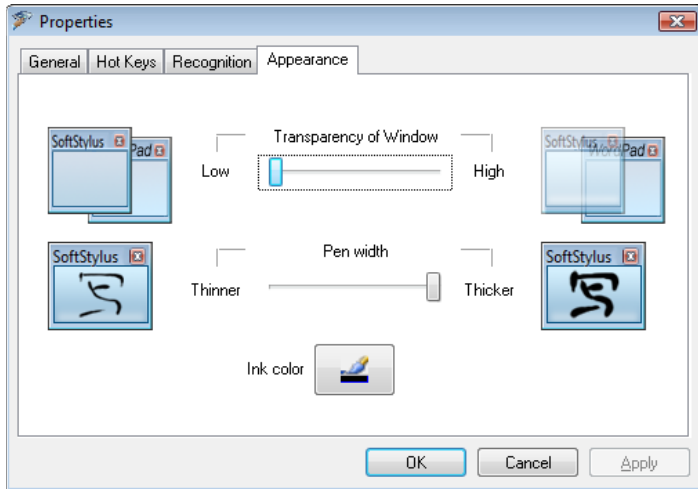
The "Appearance" tab is shown in Figure 20.

Figure 20 The "Appearance" tab dialog

There are three appearance elements available on this tab:

- "Transparency of Window" is the first element on the "Appearance" tab. Using this setting you may modify the application's main window transparency from not transparent to invisible.

In Figure 21 and Figure 22 you can see two screen shots of the same main application window with 90, and 10% transparency, respectively.
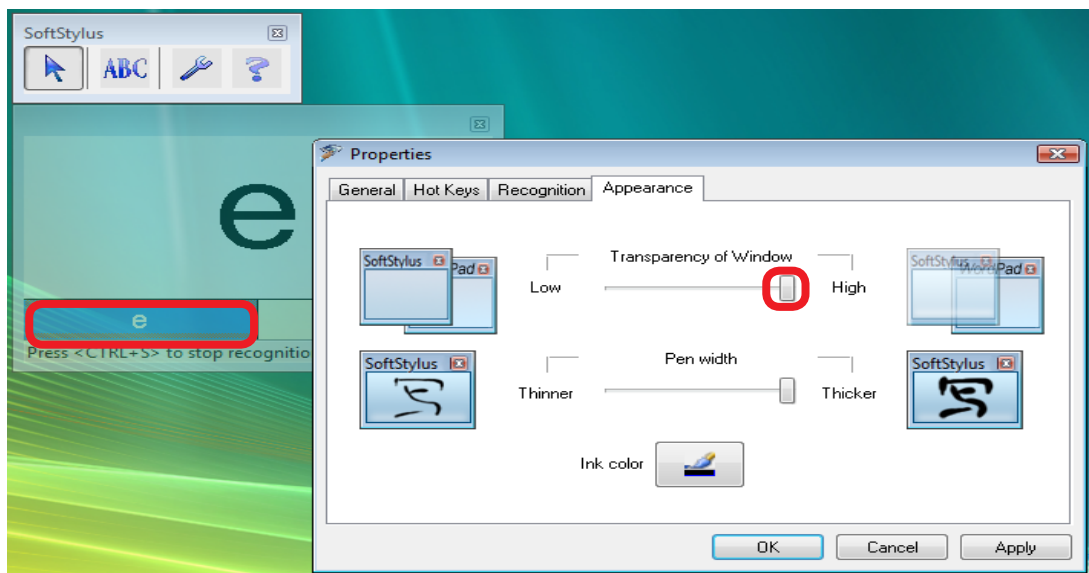

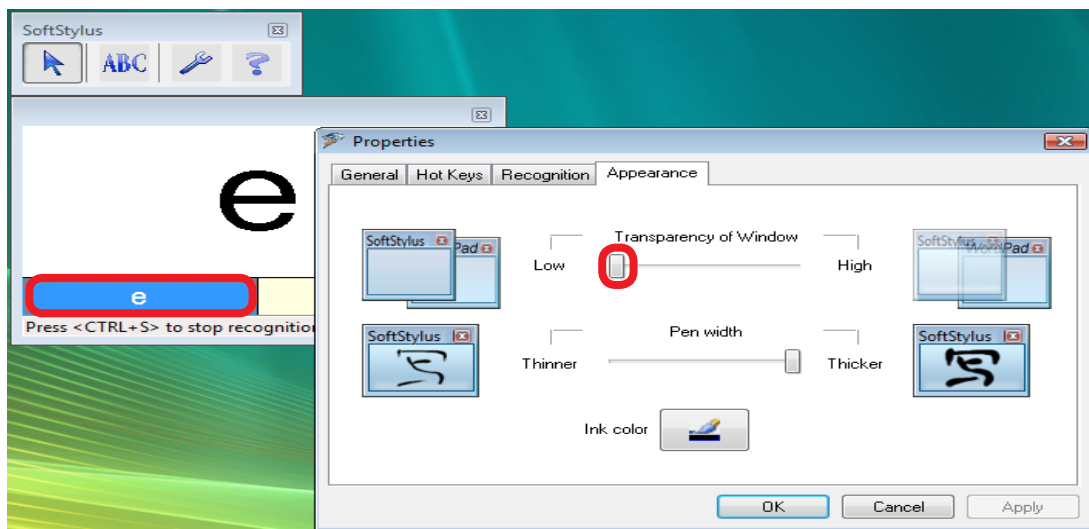Figure 21   Main application window is 90% transparent

Figure 22   Main application window is 10% transparent

NOTE: For text editors with a single-color background, we would recommend increasing transparency; for showy backgrounds it is better to decrease the transparency level.

- Pen Width – the slider control located under the "Transparency of Window" element with "Thinner" and "Thicker" options. This slider allows you to modify the ink's thickness when displaying input data in the main window (Figure 23)
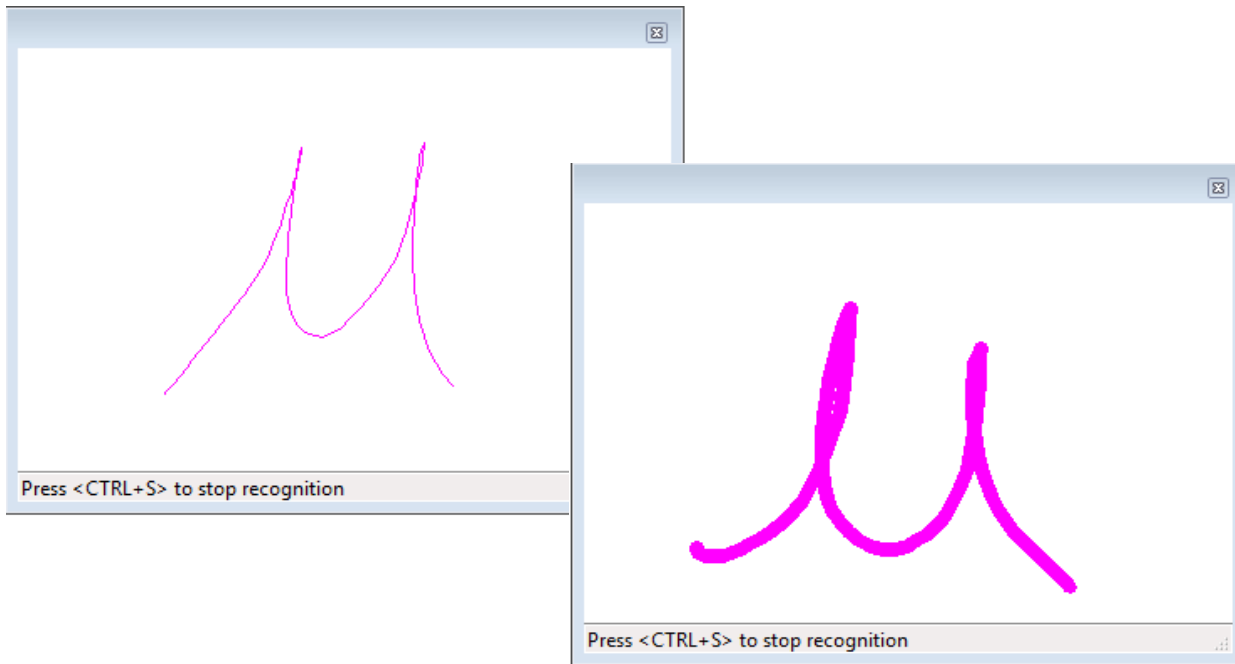
Figure 23   Screenshots of drawing when "Pen width" is "Thin" and "Thick"

- Ink color – standard Windows color selection dialog (Figure 24) to modify the color of the drawing pen.
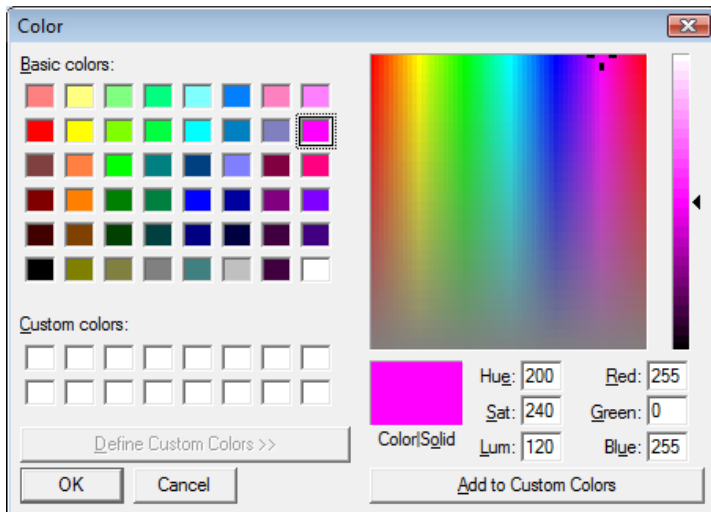
Figure 24   The color picker dialog

Special features
Pin-yin input mode

Pin-yin mode is activated automatically. To enable Pin-yin mode you must select "Simplified Chinese" language (Figure 25).

Figure 25 Select "Simplified Chinese" language to enable Pin-yin input mode

To start working with Pin-yin input mode, draw a Pin-yin syllable (in English) instead of hieroglyphics in the main window (Figure 26).

Figure 26   Start entering Pin-yin syllable

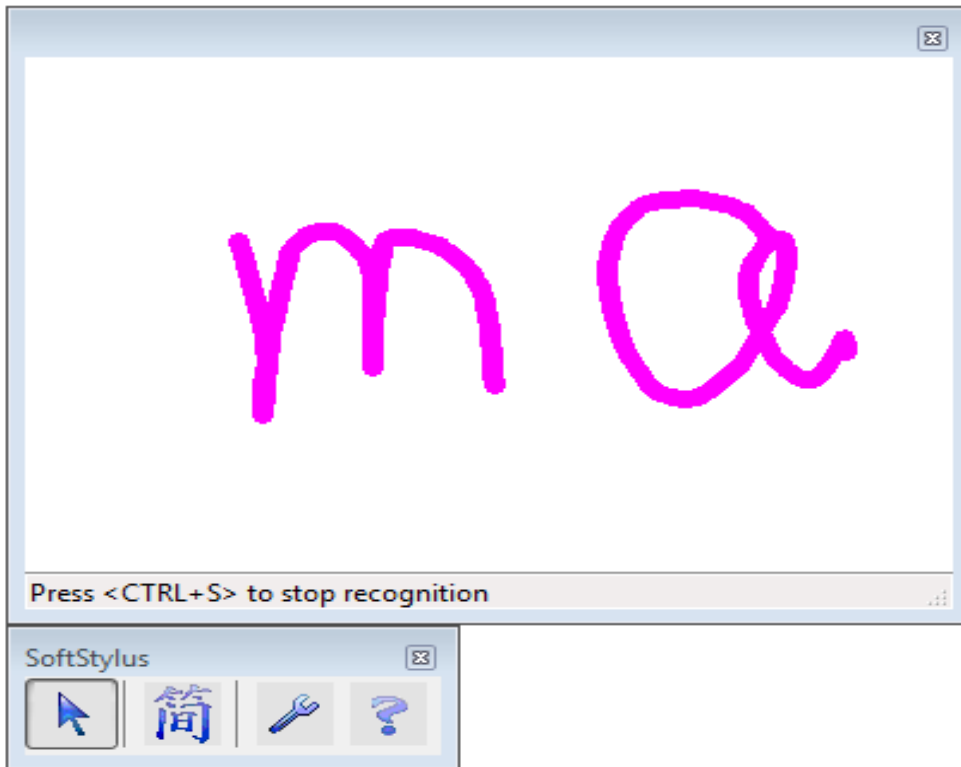SoftStylus will recognize Pin-yin input and automatically switch into Pin-yin mode (Figure 27).
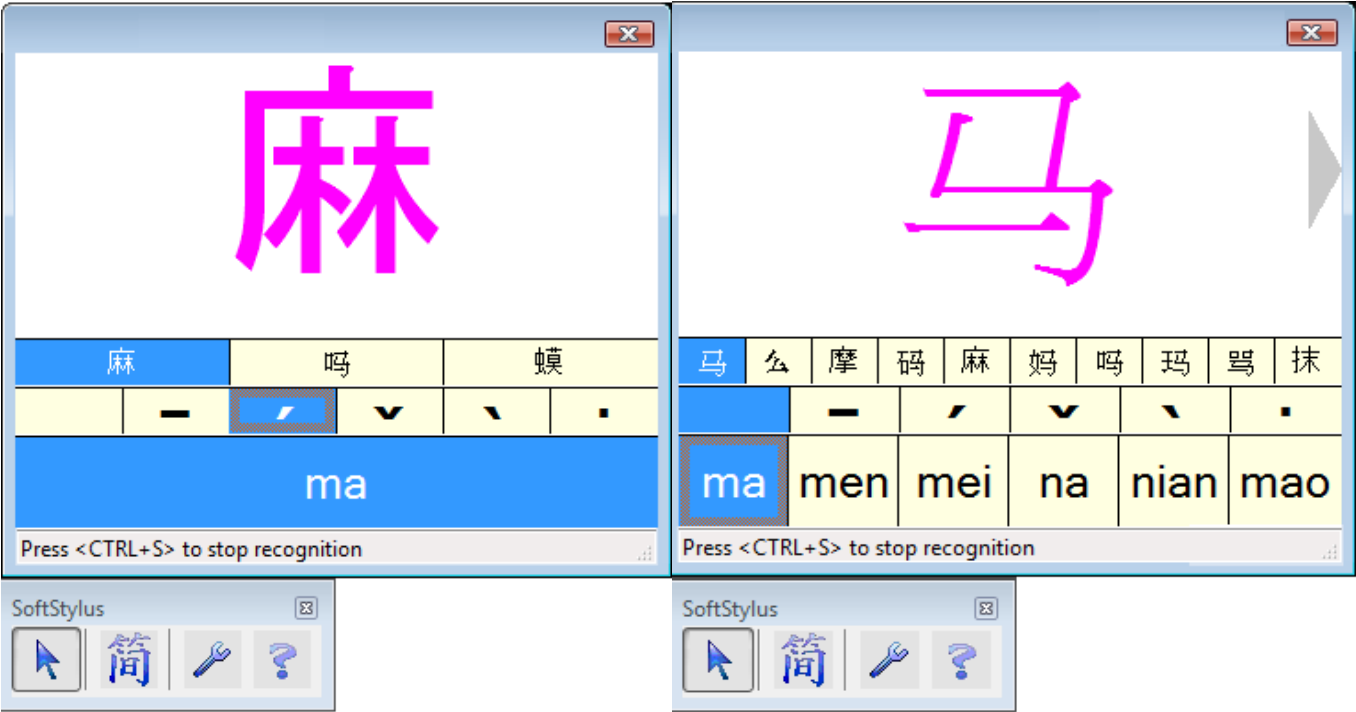

Figure 27 Details of the application main window in Pin-yin input mode

In Pin-yin mode there are two more lines (tones line and filtered characters line) shown in the main window. Use the browse hot keys to select the proper line and character.

To select a hieroglyphic from all the possible alternatives, you may filter out hieroglyphics by tone first and then use the filtered symbols browse hot keys to select the proper symbol.

- Select the next filtered symbol – step right in the list of hieroglyphics (below tones line).
- Select the previous filtered symbol – step left in the list of hieroglyphics (below tones line).

NOTE: " "(empty) tone means "not filtered" and ALL possible characters will be displayed. So the overall number of alternatives for " " tone may be up to 300 symbols. Only a few of them will be shown the main window; use the browse hot keys to access the rest.

NOTE: It does not matter in what order you select the symbol. When the application is switched into Pin-yin mode you may change Pin-yin syllable, tone and symbol at any time and in any order.

NOTE: Navigation in Pin-yin mode is performed by the browse hot keys (Figure 17). All selected positions are highlighted, and the current selection also has an inverse border inside the highlighted box (see the current selected symbol).

As soon as a proper hieroglyphic is selected from the filtered symbols list, you may start drawing the next hieroglyphic or syllable. SoftStylus does not stay in Pin-yin mode but detects it automatically each time the user draws a syllable.

Simplified to Traditional Chinese Mapping

To simplify Chinese symbols input, a special mapping table has been created (Figure 28). More than 2400 symbols of the Traditional Chinese language has been mapped with Simplified Chinese symbols. SoftStylus suppports this feature by default.

丟	丢	們	们	僉	佥	儸	儸	剋	克	勞	劳	台	台	單	单
並	并	倫	伦	僑	侨	儺	傩	剎	刹	勢	势	后	后	哟	哟
乾	干	偉	伟	僕	仆	儷	俪	剛	刚	勛	勋	吒	咤	嗆	呛
亂	乱	側	侧	僥	侥	儼	俨	剝	剥	勘	劢	吳	吴	蕾	啬
亞	亚	偵	侦	僨	偾	兌	兑	剮	剐	勵	励	呐	呐	嗊	呗
佇	伫	偽	伪	價	价	兒	儿	剴	凯	勸	劝	呂	吕	嗎	吗
余	余	傑	杰	儀	仪	兗	兖	創	创	勻	匀	呆	獃	嗚	呜
併	并	傖	伧	儂	侬	內	内	劃	划	甌	瓯	咼	呙	嗩	唢
來	来	傘	伞	億	亿	兩	两	劇	剧	匯	汇	員	员	嘩	哗
侖	仑	備	备	儈	侩	冊	册	劉	刘	匱	匮	唄	呗	嘆	叹
侶	侣	傭	佣	儉	俭	冪	幂	剏	刽	區	区	嗆	呛	嘍	喽
俁	俣	傯	偬	儐	傧	淨	净	劌	刿	協	协	問	问	嘔	呕
係	系	傳	传	儔	俦	凍	冻	劍	剑	卻	却	啞	哑	噴	喷
俔	伣	傴	伛	儕	侪	凜	凛	劑	剂	庫	库	啟	启	嘗	尝
俠	侠	債	债	儘	尽	凱	凯	勁	劲	厭	厌	嗎	呐	嘜	唛
倀	伥	傷	伤	償	偿	別	别	動	动	厲	厉	喎	㖞	嘩	哗
倆	俩	傾	倾	優	优	刪	删	務	务	犀	犀	喚	唤	嘮	唠
倉	仓	僂	偻	儲	储	到	到	勛	勋	參	参	喪	丧	嘯	啸
個	个	僅	仅	儷	俪	則	则	勝	胜	叢	丛	喬	乔	嘰	叽

Figure 28 The fragment of the mapping table

When you have drawn a simplified symbol (that has been mapped to the traditional symbol), you will see the traditional symbol in the recognition window, while in the alternative line you will see the simplified symbol you have drawn (Figure 29).

Figure 29 Example of Simplified to Traditional Chinese mapping

User Adaptation mode

The recognition engine adaptation mode is enabled as default in the software. "Adaptation" is an interactive mode - when you write a symbol and the original predicted symbol is incorrect, you then select a symbol from the alternatives list using browse hot-keys. Then the next time you attempt to write the same symbol, the recognition engine "remembers" the previously selected alternative and selects this one as a predicted symbol. In other words SoftStylus "learns" your way of writing.

System Tray

If the checkbox is selected then, when you click on the "cross" icon in the toolbar's title line, the application will remain in the memory and just be minimized to the system tray. To close the application and remove it from the system memory you will have to right-click on the application icon in the system tray and then select "Exit" from the pop-up menu (Figure 30).
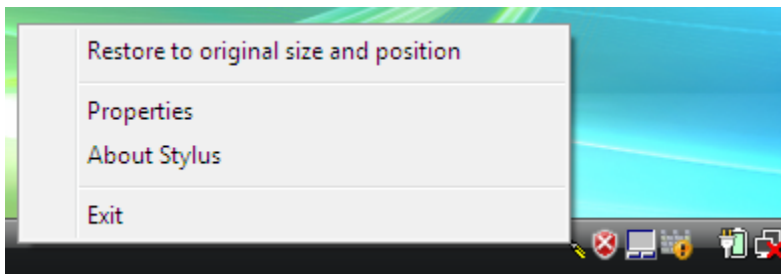

Figure 30 The application icon in the system tray and the pop-up menu

Supported applications

The finger-writing application is designed to be compatible with almost any standard Windows application that is capable of receiving and displaying UNICODE characters. Since SoftStylus uses global hot keys, conflicts with hot keys of other applications are possible. If you experience unexpected behavior when using SoftStylus, please make sure that the target application is capable of showing UNICODE symbols and that there are no conflicts with hot key assignments.

Uninstallation

You may uninstall the application from the "Add / Remove Programs" menu (Figure 31).
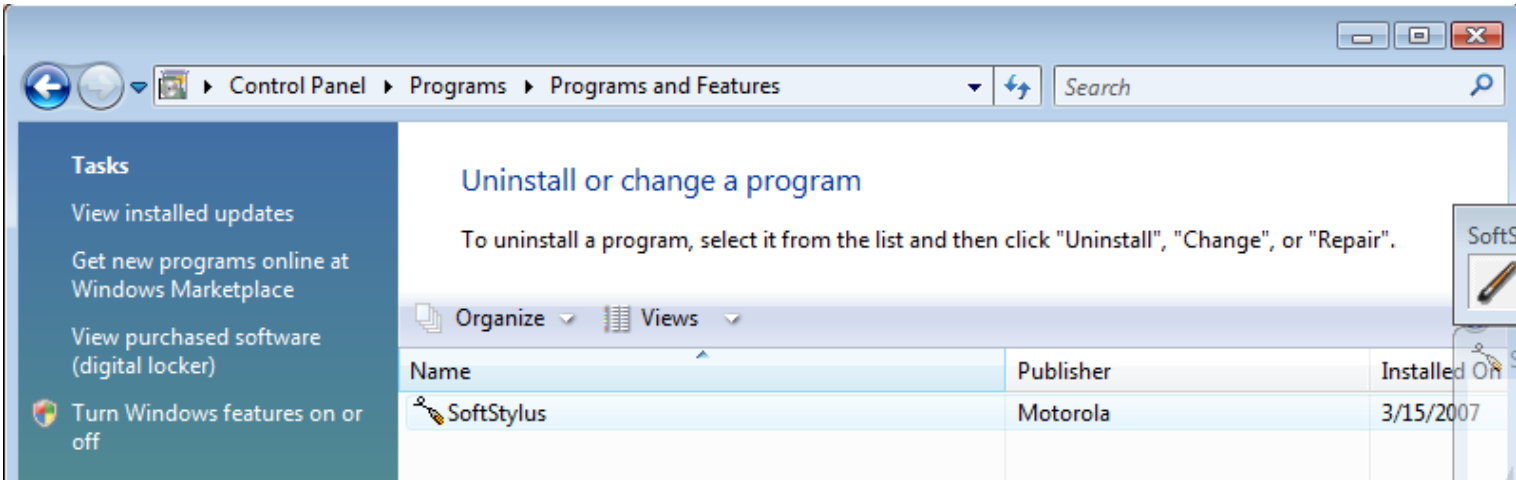
Figure 31 Uninstall SoftStylus from the Add/Remove dialog

You may also uninstall the application from the "Start / Program Files / SoftStylus / Uninstall SoftStylus" folder.
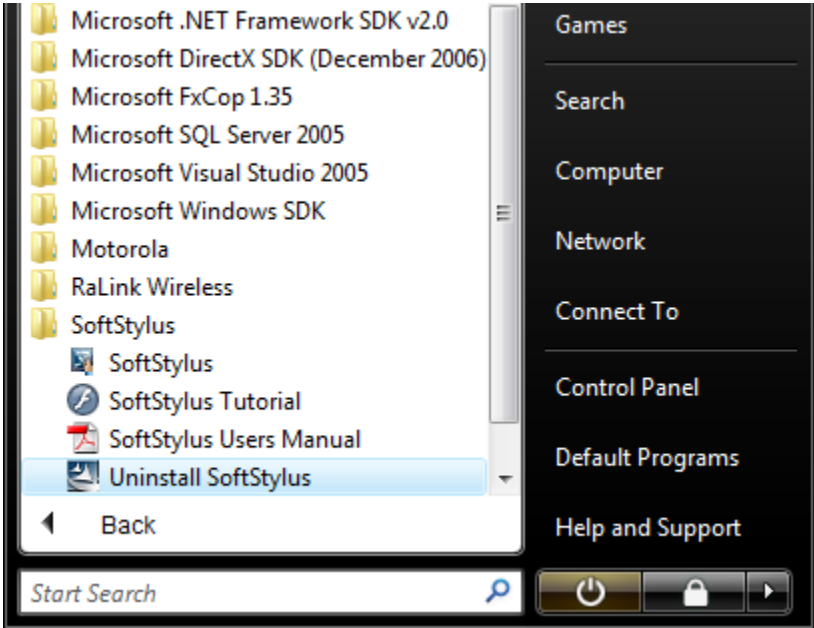

Figure 32   Uninstall SoftStylus from the program folder

You may uninstall the application by launching the setup.exe again. You will see the uninstallation confirmation dialog (Figure 33).
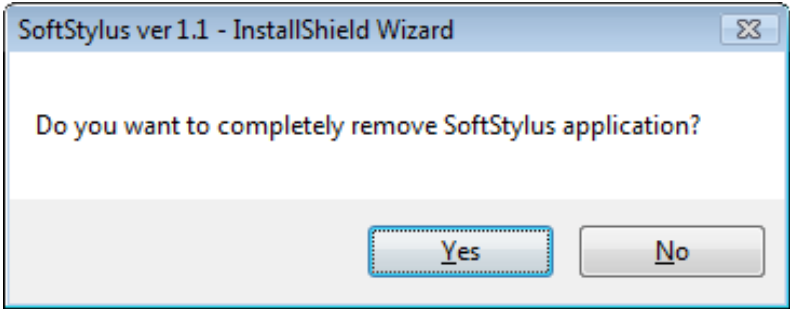

Figure 33 SoftStylus uninstallation confirmation dialog.

THANK YOU, FOR USING SOFTSTYLUS !