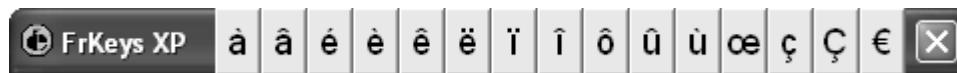




for Windows 2000 and Windows XP

Typing accents in Windows made easy



Description

- FrKeys is a program to facilitate the typing of foreign characters while using Windows. It stays in the foreground and can be used with all Windows applications—an ideal utility for language students and teachers.
- Frequently used sets of characters can be stored and called up quickly when needed
- Characters can be assigned to keys on the keyboard for mouse-free operation
- Mathematical and other symbols can also be typed
- A large-text facility is suitable for children and the visually impaired.

Compatibility

- Requires Windows 2000 or Windows XP. (A Windows 95 version is also available).
- Network compatible

Obtaining FrKeys

See www.frkeys.com for details of how to obtain FrKeys.

1 Introduction

This section describes what FrKeys can do, and its limitations.

1.1 Capabilities

FrKeys makes it easy to type accents into applications for Microsoft Windows. With FrKeys you can:

- Select accents to be displayed on buttons
- Assign commonly used accents to keys on the keyboard
- Save and recall commonly-used selections of accents (for example, you can have a selection for each language that you write in).
- Select accents in many ways: by appearance, by name, by code number...
- Make use of 1000s of accents with Unicode support
- Choose different fonts

1.2 Limitations

FrKeys makes it easier to type in accents in Windows. It works like an extension of your keyboard, giving you a way to type characters that aren't there on your existing keyboard. Windows (in the Windows 2000 and Windows XP versions) contains support for 1000s of accents covering hundreds of languages, and FrKeys makes it easy to use them. However there are some things that it can't do:

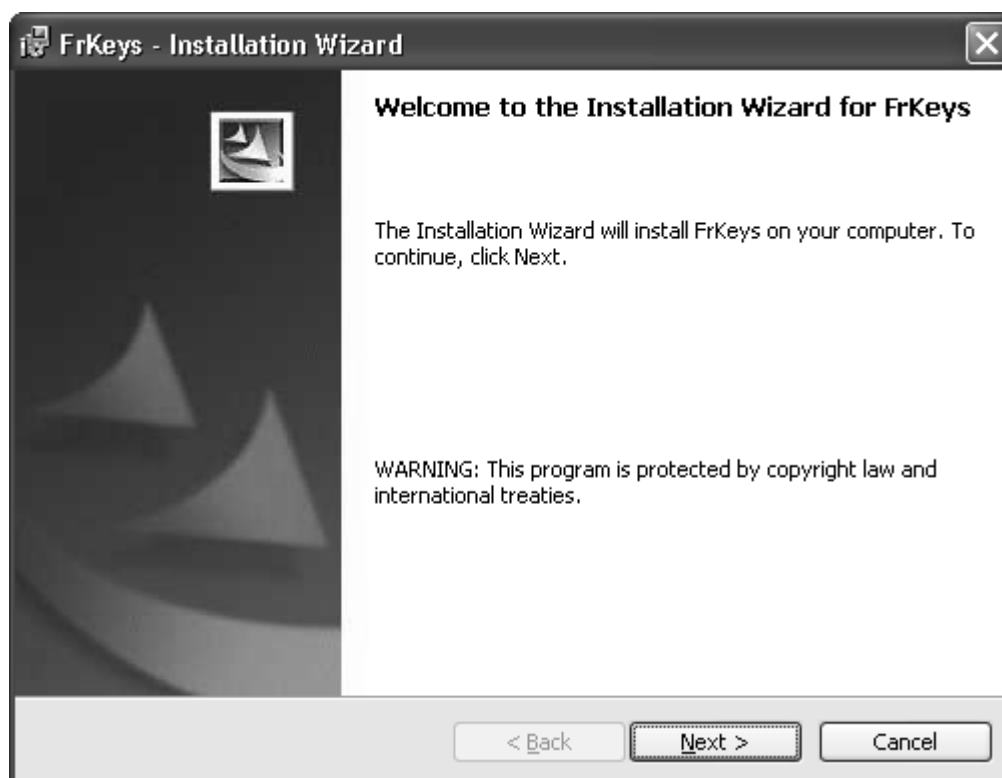
- The accents you use must be present in a font on your system. Fortunately modern versions of Windows come with fonts that contain 1000s of accents and symbols, covering virtually all languages in common use today.
- For some languages it's necessary to enable support in Windows for that language—see [Installing Languages](#) (section 7.1).
- Some older applications may not have support for Unicode. These applications will only be able to use the basic Windows set of accents (which nonetheless cater for the majority of Western European languages).

2 Getting started

This section describes how to install FrKeys and start typing accents with it.

2.1 Installing FrKeys

- Start up the computer
- Put the CD in the drive
- Click on the 'Start' button and choose 'Run...'
- Type 'D:SETUP' and click on 'OK'. You may need to replace "D" with the letter of your CD drive.
- Follow the instructions given on screen to install the program.



2.2 Running FrKeys



To run the program, double-click on the  logo on the desktop. The FrKeys window will appear:



2.3 Typing accents


- The FrKeys window will stay in front of other windows on the screen
- Run the program that you want to type accents in (for example, Microsoft Word)
- To type a character, simply click on the corresponding button.
- For example, if you are typing the word “fiancée”, type “fianc”, then click on the button containing “é”, and then type the final “e”.
- To type a capital letter, hold down the ‘Shift’ key while clicking on the appropriate button.

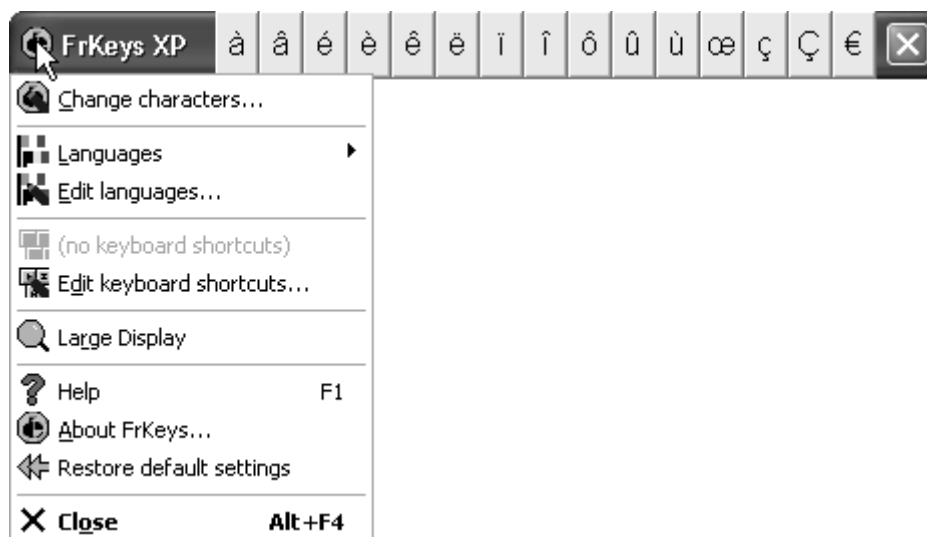
2.4 Typing accents in web pages

If you are writing a web page, and need to type accents into an HTML document, hold down the Control key while clicking on the button. Instead of inserting the accent directly (e.g. “é”), this will insert an HTML entity for the accent (e.g. “é”).

When the web page is viewed, the correct accent (“é”) is shown in the web browser. This method of using accents in web pages often works with more people’s web browsers than just inserting the accents directly.

2.5 Using the FrKeys menu

To bring up the FrKeys menu, click on the  logo to the left of the ‘FrKeys XP’ title. The menu will appear:



The following items are in the menu:

Change Characters...

Allows you to change the selection of characters displayed in the buttons.

Languages

Allows you to choose from the languages that FrKeys already knows about.

Edit languages...

Allows you to add more languages to FrKeys or modify the existing ones.

Enable keyboard shortcuts

Turns on keyboard shortcuts, if there are any for the selected language.

Edit keyboard shortcuts...

Allows you to modify the keyboard shortcuts currently available.

Large display

Makes the FrKeys window larger (or smaller again).

About FrKeys...

Displays information about the FrKeys program.

Restore default settings


Restores all of the FrKeys settings to the state they were in when the program was installed.

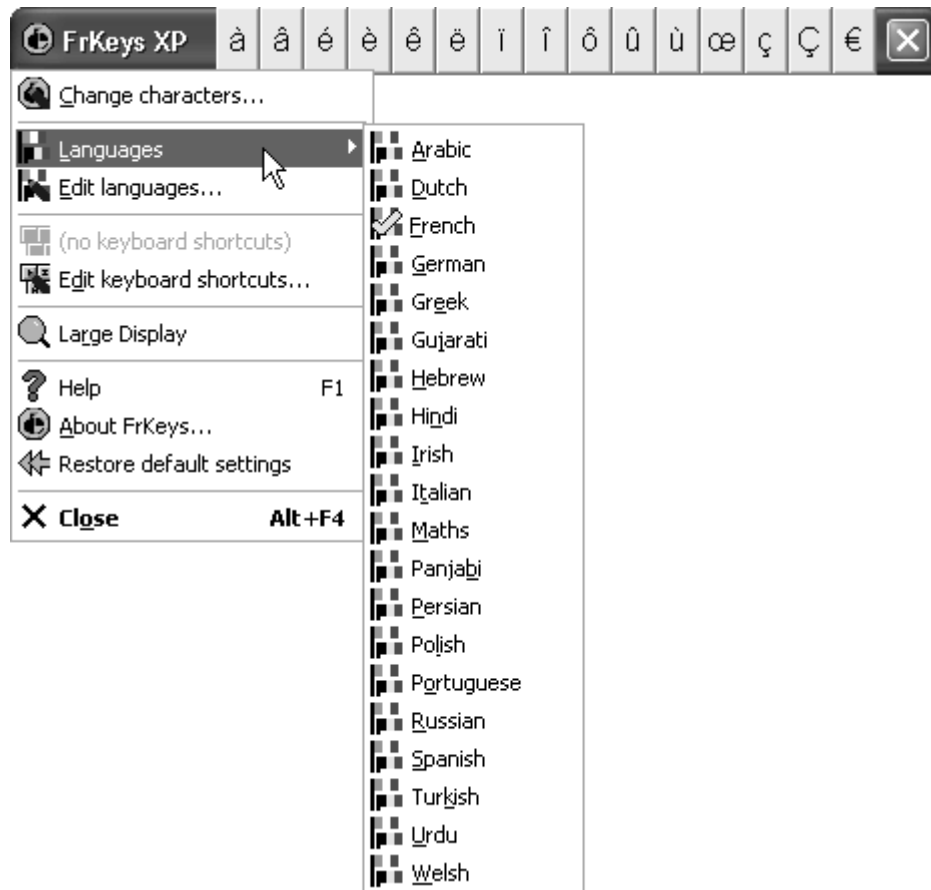
Close

Choose this option when you have finished using FrKeys.

2.6 Changing language

When FrKeys first starts it has a selection of accents suitable for writing in the French language. To change to another language:

- Click on the  logo to the left of the 'FrKeys XP' title
- Choose 'Languages' from the menu that appears:

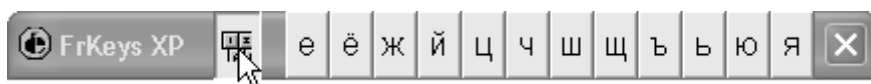


- Click on the name of the language you wish to use

2.7 Typing in other alphabets


For languages that use the Latin alphabet (the alphabet you're reading now!), all the extra characters needed for the language will appear in the FrKeys window. However, for some languages (such as Russian, Greek and Hindi), where an entirely different alphabet is used, it wouldn't be very convenient to have to use the mouse for every single letter! Therefore for those languages, FrKeys lets you use the keyboard to type most of the letters.

When you've selected a language such as Russian, click on the Enable Keyboard Shortcuts button:




This switches the keyboard to typing in Russian. When you want to type in English again, click the button again to unpress it.

2.8 Resizing the window

- To make the FrKeys window larger, click once on the  logo and choose 'Large display'.
- The size of the FrKeys window will also change when you change the Display settings in the Control Panel.
- When you quit the program, your choice is remembered

2.9 Restoring the default settings


If you have changed any of the settings, and want to restore them to their original values:

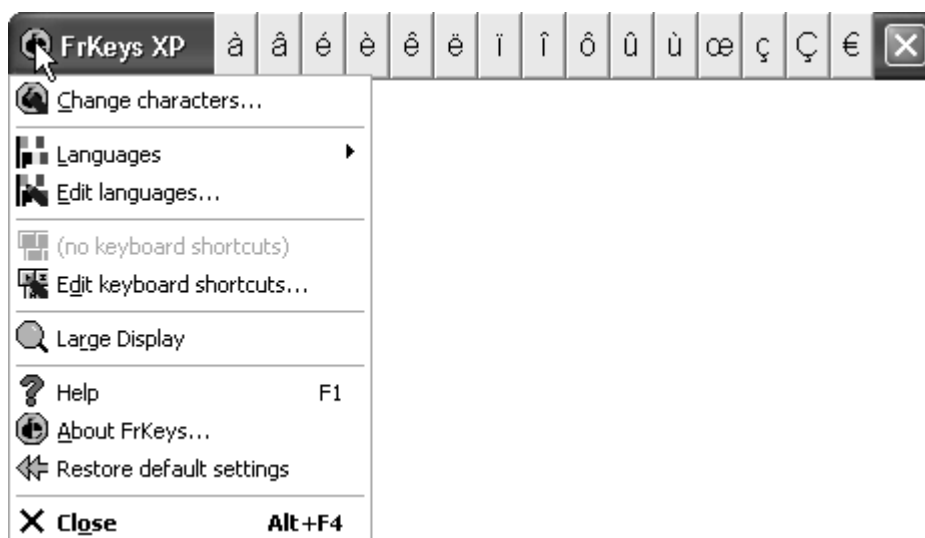
- Click on the  logo
- Click on 'Restore Default Settings' from the FrKeys menu.
- A window will appear asking you to confirm that you want to restore the default settings. Click 'Yes' to restore the default settings.

3 Choosing accents

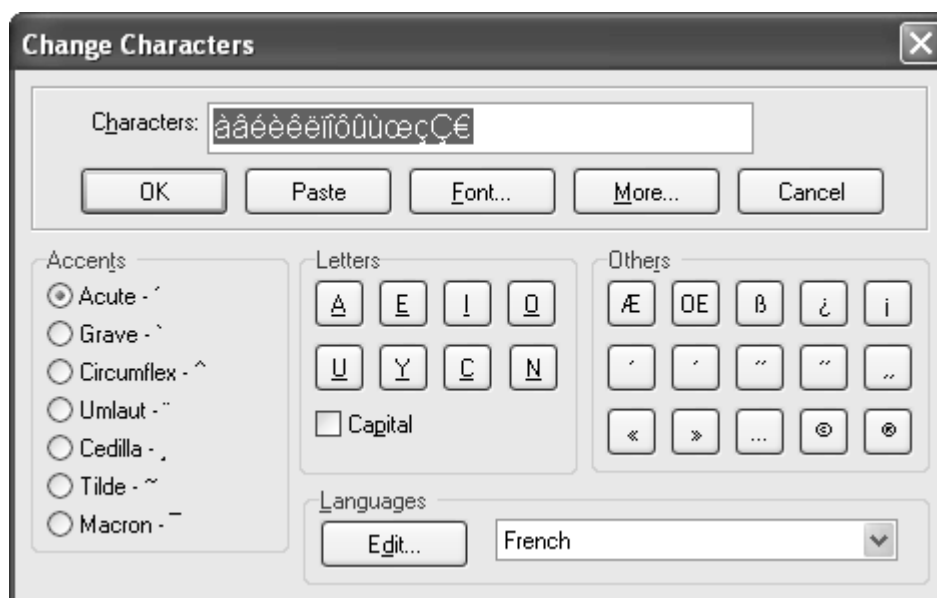
This section describes how to choose the characters that are displayed in the buttons of the FrKeys window.

3.1 Changing the characters available

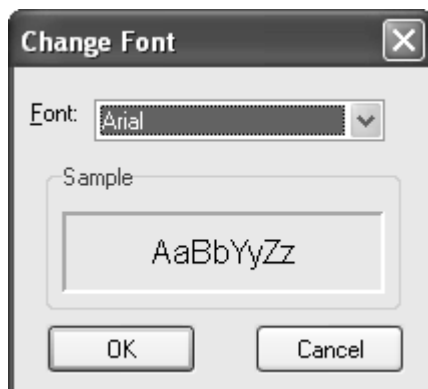
- Click once on the  logo:



- Select 'Change characters...' from the menu:



- To select a character, click on the accent (for example Acute -'), on 'Capital' if necessary, and then on the button for the letter (for example E)
- To change the font, click on the 'Font...' button, click on the down-arrow next to the font name, choose a font from the list and click on 'OK':

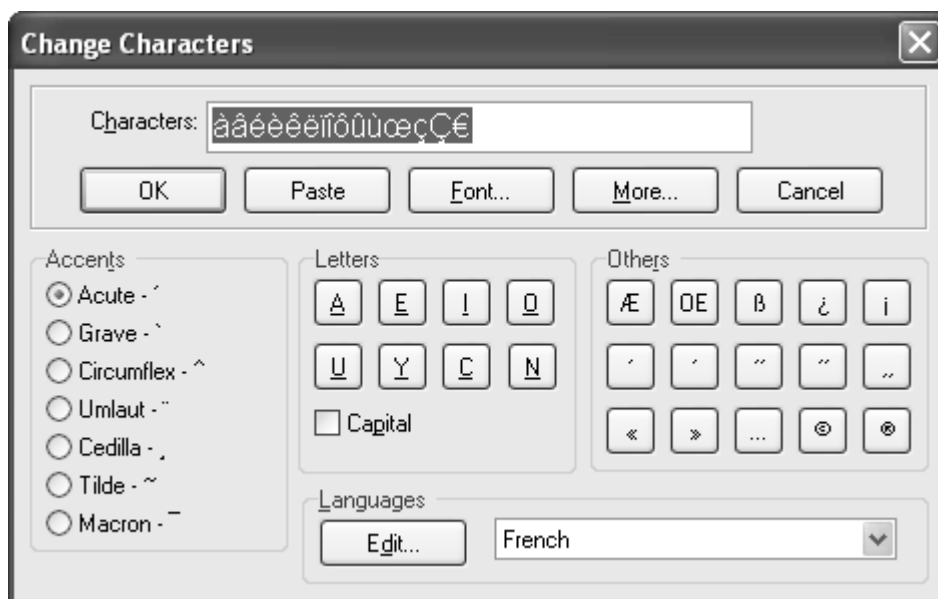


- When you have finished, click on 'OK'

3.2 The *Change Characters* window

This window allows you to choose the accents that will be displayed as buttons in the FrKeys window. To display this window, select 'Change characters' from the FrKeys menu.

The Change Characters window contains the following elements:



Characters

These are the characters that will be displayed as buttons in the FrKeys window.

OK

Click here when you have chosen the characters that you want.

Paste

Click here to add an accent that you have copied from another program to the list displayed by FrKeys.

More

Click here to select from a wide variety of accents and special characters. See the next section for details of the More Characters window.

Cancel

Click here to close the Change Characters window without making any changes.

Accents

Select one of these accents to be placed above or below a letter.

Letters

Click on one of these buttons to add a letter (with the selected accent) to the current characters. For example to add an 'e acute', select 'acute' from Accents, and click on the 'E' button. Not all accents are available with all letters. For example, it is not possible to have a letter 'n' with a circumflex accent. When a letter is not available with the accent that is currently selected, its button will be disabled, and will appear in grey.

Capital

If 'Capital' is selected when one of the Letters buttons is clicked, a capital letter will be added instead of a lower case letter.

Others

These buttons give a selection of useful characters. Click on a button to add its character to the currently selected characters.

Languages

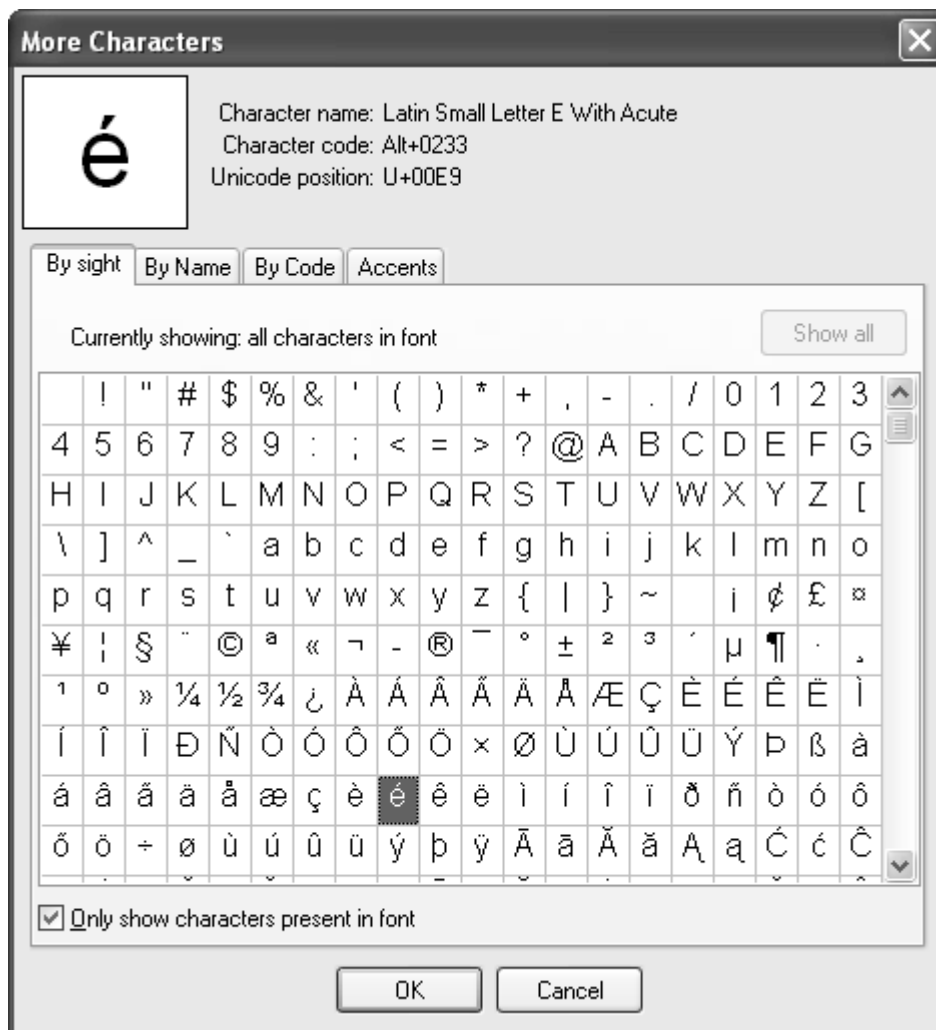
Here you can select (or edit) a set of characters that is already defined—either one you have set up yourself, or one that came with FrKeys. See Languages (section 5) for more details.

3.3 The *More Characters* window

This window allows you to select from the 1000s of characters that are available. You can select characters in a variety of ways—by their name, by what they look like, by choosing a base letter and accents, or (if you know it) by entering the character's code.

To display the More Characters window, click on the 'More...' button in the Change Characters window.

At the top of the window are the following elements:



Character

This shows a large version of the character that is currently selected. You can double-click on this character to display a list of the fonts that contain this character.

Character name

This displays the Unicode name of the character that is currently selected (for example, “Latin Small Letter E With Acute”).

Character code

For characters that are part of the basic Windows character set, this displays the character’s code. If the character is a Unicode-only character, a message is displayed to this effect. Some older applications may not be able to handle Unicode-only characters.

Unicode position

This displays the character’s Unicode code point. If you need to describe a specific character to someone, this is a good, unambiguous way to refer to it.

‘Character not in font’ message

A message is displayed if the character that is currently selected does not exist in the current font. If this is the case, the character may not display correctly—though sometimes Windows will substitute the correct character from another font instead. If the character does not display correctly, choose a different font. You can discover which fonts contain the character by double-clicking on the large image of the character in the top-left hand corner of the window.

You can choose characters in the following ways:

By sight

This tab displays a grid with all the characters in the font. To choose a character, simply click on it.

By name

This tab displays a list with the Unicode names of all the characters in the font. To choose a character, click on its name. If you enter some text for “Character” and click “Search”, only characters matching that text will be shown. Click “Show all” to go back to showing all characters.

By code

If you know the code for a character (perhaps because you are used to typing in an Alt code for it, or because someone has given you the Unicode code point of the character) you can select the character here by typing in the code.

Accents

Here you can select a character by selecting a base letter (for example “e”) and choosing which accents to combine it with—for example, “acute” and “circumflex”. Letters can also be joined together here (for example O plus E to make Œ). Not all combinations of accents and letters are possible (the accents that are not possible will turn grey so you cannot select them); and of the ones that are possible not all are present in every font. (See ‘Character’ above for how to find out which fonts contain a character.)

By turning off **Only show characters present in font** you can cause the “by sight” and “by name” characters to display characters that don’t exist in the current font. This can be useful if you do not know which font contains the character you want.

A message will be displayed if you select a character that is not present in the current font. (Windows can sometimes still display the character by substituting a character from another font, but not always). If this happens you can double-click on the large character in the top-left hand corner to display the fonts that are installed on your system that contain this character (if any). The standard Windows fonts Tahoma, Lucida Sans Unicode and Arial contain a very good selection of characters, covering most languages in common use.

3.4 Notes about choosing accents


- You can add gaps between buttons by typing a space (‘ ’) into the ‘Characters’ box.
- Remember, even if you don’t include the capital version of a letter in your selection, you can always type it by holding down Shift while clicking on button with the lower-case version of the letter.

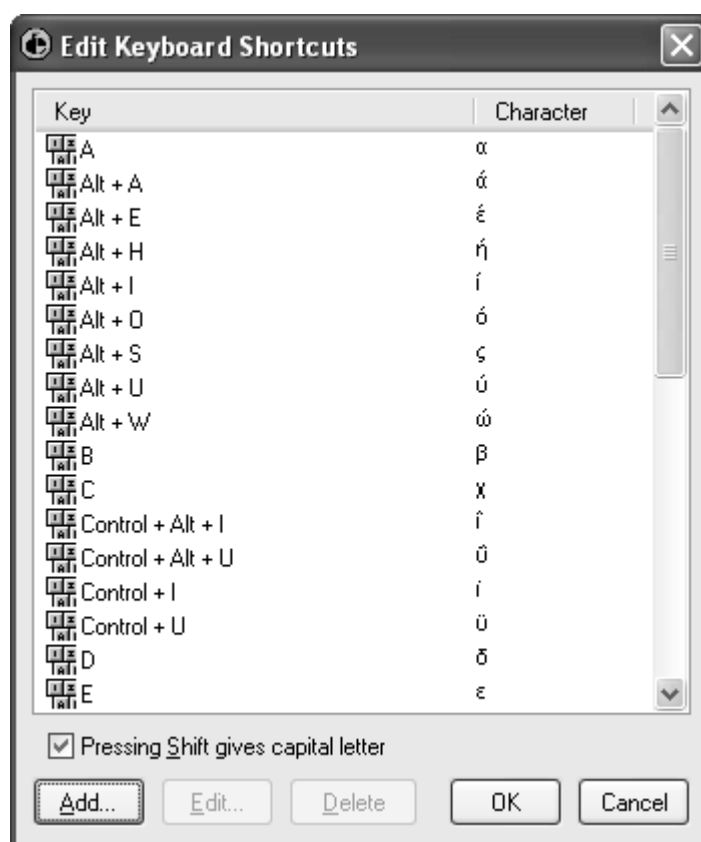
4 Keyboard shortcuts

This section describes how to assign a character to a key (or combination of keys, such as Ctrl+E) on the keyboard, so that when you press that key (or combination), the accent is typed in.

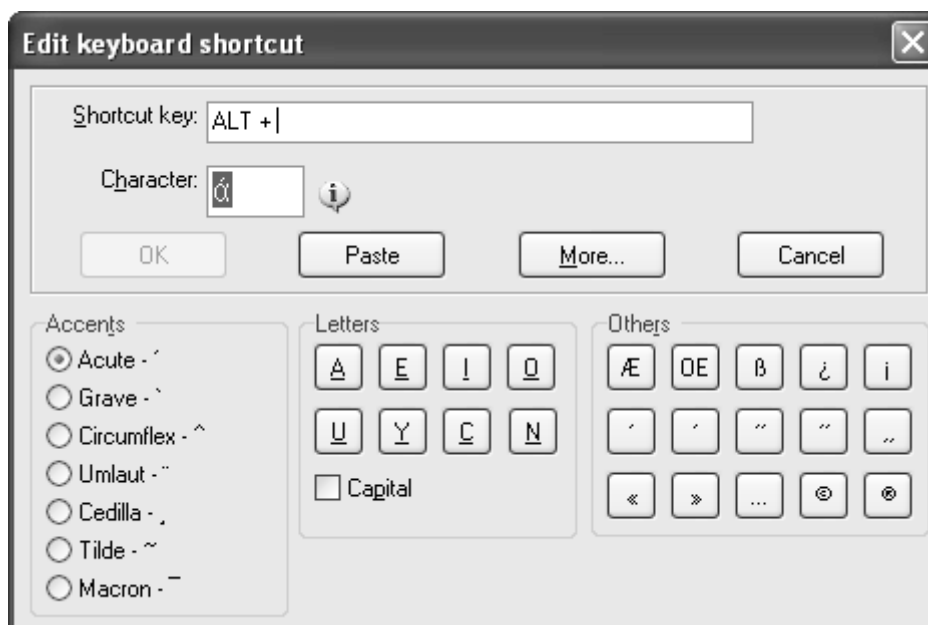
4.1 Adding keyboard shortcuts

To assign an accent to a key (for example, Ctrl+E for 'é'):

- Click once on the  logo
- Select 'Edit keyboard shortcuts...'
- A list of the currently defined keyboard shortcuts will appear:



- Click 'Add...'. The 'Edit Keyboard Shortcut window will appear:



- Press the key (or combination of keys) that you want to associate with a character. For our example, press Ctrl+E.
- Select an accent (for example Acute) and click on a letter (for example 'E').
- Click OK to close the Edit Keyboard Shortcut window.
- Click OK to close the Edit Keyboard Shortcuts window.

Now when you are typing you should be able to press Ctrl+E to type an 'é'. For example, to type 'fiancé', type 'fianc' and then press Ctrl+E. (That is, hold down the 'Ctrl' key while pressing 'E').

4.2 Enabling and disabling keyboard shortcuts

When keyboard shortcuts are defined, an extra button appears in the FrKeys window:



This button allows you to turn the keyboard shortcuts on and off. When this button is pressed down, keyboard shortcuts are enabled, and pressing a key that is assigned to a character will type that character. When this button is unpressed (in the 'up' position), the key will have its normal effect.

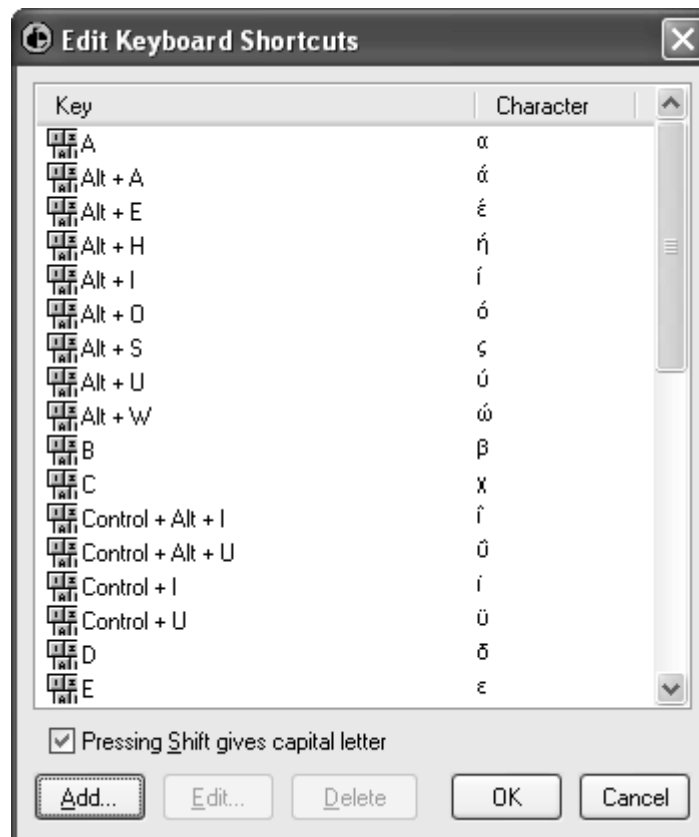
This allows you to assign a character to a letter key (for example the 'E' key might type the Greek letter epsilon) or to a key that normally does something else (for example Ctrl+C which is normally 'copy' could be assigned to 'ç')—without losing the key's original function. When you want to type the character, ensure that the keyboard shortcuts button is pressed. When you want to use the key's normal behaviour, click on the keyboard shortcuts button again to unpress it.

4.3 The *Edit Keyboard Shortcuts* window

This window allows you to see what keyboard shortcuts are defined, and to add, modify and delete keyboard shortcuts.

To display the Edit Keyboard Shortcuts window, select 'Edit keyboard shortcuts...' from the FrKeys menu.

The Edit Keyboard Shortcuts window contains the following elements:



Key/Character list

This shows all the keyboard shortcuts that are currently defined. It is empty if no keys have been associated with characters yet.

Pressing Shift gives capital letter

To save adding keyboard shortcuts for both lower case and capital letters (for example, Ctrl+E for 'é' and Shift+Ctrl+E for 'É'), FrKeys can automatically give you the capital letter when you press Shift. If you want this to happen, tick this box. Some languages (such as Persian and Hindi) do not have capital letters; for these languages it may be more useful to turn this option off.

Add

Click 'Add' to add a new keyboard shortcut.

Edit

Select a keyboard shortcut from the list, and click 'Edit' to modify an existing keyboard shortcut.

Delete

Select one or more keyboard shortcuts from the list, and click 'Delete' to remove them.

OK

Click 'OK' when you have finished changing the keyboard shortcuts.

Cancel

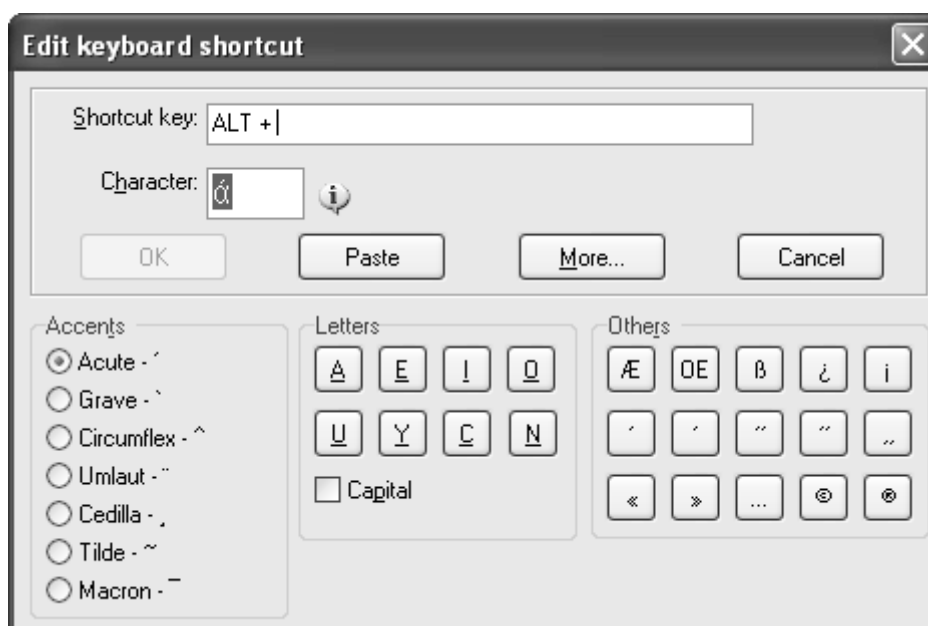
Click 'Cancel' to close the Edit Keyboard Shortcuts window without making any changes.

4.4 The *Edit Keyboard Shortcut* window

This window allows you to enter a new keyboard shortcut, or to modify an existing one.

To display the Edit Keyboard Shortcut window, click 'Add' or 'Edit' in the Edit Keyboard Shortcuts window.

The Edit Keyboard Shortcuts window is based on the Change Characters window, with the following extra element:





Shortcut key

This is where you enter the key you wish to associate with a character. To select a key, simply press the key you desire. You can use any letter, number or punctuation key on the keyboard, or any function key. You can also use any of those keys with Shift, Ctrl or Alt (or any combination of those keys).

4.5 Notes about keyboard shortcuts

- The keyboard shortcuts only work when they are enabled—that is, when the button with a picture of some keys is pressed down. When it is not pressed, the keys work as normal—this allows you to type the character that key would normally have typed, or access functions in your program that the key would normally have accessed.

Enabled:   α á ß γ ð

Disabled:   α á ß γ ð

- On some keyboards the right-hand 'Alt' key (sometimes labelled 'Alt Gr') works as a combination of the Ctrl and Alt keys: pressing RightAlt+A is the same as pressing Alt+A.
- Keyboard shortcuts are always turned off when you have any of the FrKeys settings windows open, to avoid confusion.

5 Languages—storing your selection of characters

5.1 Languages—Storing frequently used combinations of accents

- FrKeys can store frequently used sets of keys so that they can be called up with a few mouse clicks. Typically this is used to store the accents used for different languages—but you can use it for any combination you use frequently!
- FrKeys comes with predefined languages for:
 - Arabic (section 6.2)
 - Bengali (section 6.3) (only with Windows XP service pack 2 or later)
 - Dutch
 - French
 - German
 - Greek (section 6.4)
 - Gujarati (section 6.5) (only with Windows XP or later)
 - Hebrew (section 6.6)
 - Hindi (section 6.7)
 - Irish
 - Italian
 - Maths
 - Panjabi (section 6.8) (only with Windows XP or later)
 - Persian (section 6.9)
 - Polish
 - Portuguese
 - Russian (section 6.10)
 - Spanish
 - Turkish
 - Urdu (section 6.11)
 - Welsh

5.2 Calling up a language

- Click the right mouse button on one of the buttons in the FrKeys window:

Languages

This box lists all the languages that are currently known to FrKeys. It also shows what characters are associated with that language, what font they will be displayed in, and how many keyboard shortcuts are defined for the language.

Add

To add a language (or any selection of your own characters), click on the 'Add...' button.

Edit

To modify the characters for a language: select the language from the list, and click on 'Edit...'

Delete

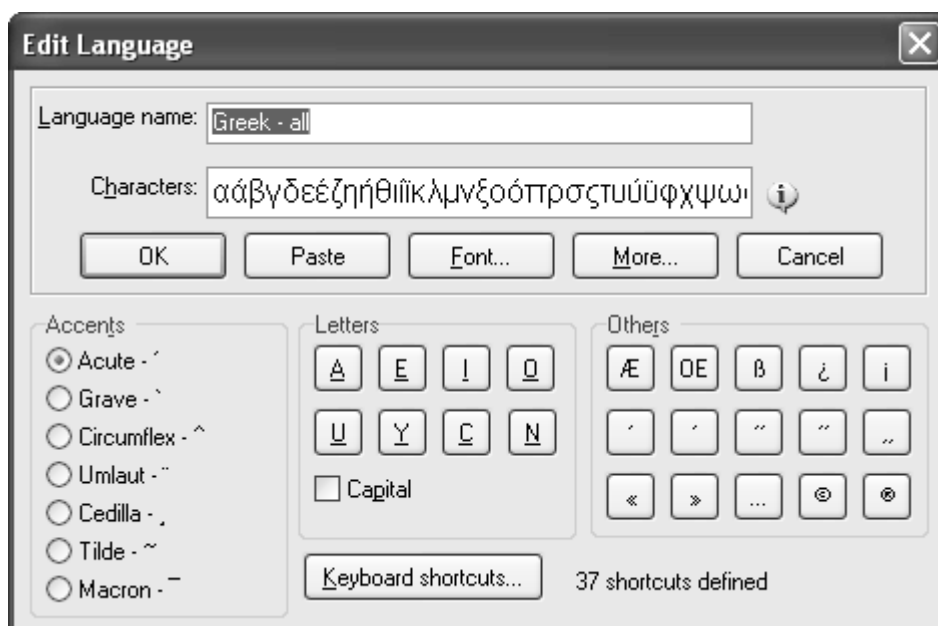
To delete a language, select it from the list and click on 'Delete'.

5.4 The *Edit Language* window

The Edit Language window allows you to change the characters, font and keyboard shortcuts associated with a language.

To open the Edit Language window, click 'Add' or 'Edit' in the Edit Languages window.

The Edit Language window is based on the Change Characters window with the following extra elements:



Language name

Here you can enter a name for the language.

Keyboard shortcuts

Click on this button to edit the keyboard shortcuts associated with the language.

5.5 Notes about languages

It is worth bearing the following points in mind when working with several languages stored in FrKeys:

- You can restore the original languages that were installed with FrKeys by choosing 'Restore default settings' from the FrKeys menu. This will undo any changes you have made (including removing any languages you have added), and restore the languages to their original state.

- If you make changes to the language that is currently selected, those changes will not be reflected in the current characters, font or keyboard shortcuts, until you select the language again.
- If you have a language selected, and make changes to the current characters, font or keyboard shortcuts, those changes will not be stored with the selected language, so next time the language is selected those changes will be undone.

6 Writing in other alphabets

This section gives advice on writing in languages that use an alphabet other than the Latin alphabet (in which this document is written). First there is an general overview of typing in other alphabets; following that there are notes on each of the individual languages concerned.

6.1 Overview

When a language with a different alphabet is selected, FrKeys makes the keys on the keyboard type letters in that alphabet. It only does this when keyboard shortcuts are enabled.

In general, the letters are mapped *phonetically*: to get a letter in the other alphabet that makes a certain sound, press the key whose letter makes a similar sound in English. For example, the Russian letter 'п' (which occurs, for example, at the start of 'Petrograd') can be typed by pressing 'p'.

Sometimes more than one letter in the other alphabet will be close to one English letter. In that case, it may be necessary to use combinations of the Shift, Control and Alt keys to access all the letters in the other alphabet. This is especially true when the alphabet contains more letters than the Latin alphabet.

Sometimes there will be a letter in the other alphabet that has no equivalent in English. In that case, the letter will appear as a button in the FrKeys window, and that letter can be typed by clicking it. The letter will also be assigned to a key on the keyboard (usually a letter or symbol that does not occur in that alphabet), but in these cases it will be necessary to refer to the Edit Keyboard Shortcuts window, or the following sections, to find out which letter goes with which key.

6.2 Arabic

As with all languages, most of the Arabic letters are placed on the key whose English letter corresponds most closely. Where there are two letters that are similar to one English letter, one of them will be obtained by pressing Shift. As well as the Arabic letters, some letters from other languages (such as Persian) are available on the keyboard, for use in loan words.

Letter shaping

Each Arabic letter can have several forms, depending on its position within the word. Fortunately Windows knows about this, and automatically chooses the correct form of each letter as you type it, in almost all cases.

For the few cases where Windows does not choose correctly, the FrKeys window has buttons marked JOIN and NO JOIN. These type characters that are invisible, but cause the surrounding characters to be drawn in their 'joined' or 'unjoined' forms when they would otherwise be unjoined or joined respectively.

Vowel marks

Vowel marks—which are not always used in written Arabic—may be obtained by pressing the Control key with a vowel, after the letter to which the vowel mark is attached. Press Shift+Control for tanweens. (For those vowels whose keys are not assigned to any other letters, you can also type the vowel mark without pressing Control).

Press '-' for a join-extender (tatweel/kashida). This can be used to 'stretch out' a word, for use in a title or to make it clearer to a learner which letters are present.

See the section about Microsoft Word for information about typing in Arabic in Microsoft Word.

Examples

Word	Keys
مسلم (Muslim)	M, S, L, M
مُسْلِم (Muslim, with vowel marks)	M, U, S, O, L, I, M
مُسْلِم (Muslim, with vowel marks and kashidas)	M, U, -, S, O, -, L, I, -, M
اسلام (Islam)	A, S, L, M
قرآن (Qur'an)	Q, R, E, N
ليبيا (Libya)	L, Y, B, Y, A
قطر (Qatar)	Q, Shift+T, R
عمان (Oman)	E, M, A, N

Keyboard shortcuts

Key	Character
A	ا
Shift+A	آ
Alt+A	إ
Shift+Alt+A	أ
Ctrl+A	-
Shift+Ctrl+A	=
Ctrl+Alt+A	'
B	ب
Shift+B	ث
C	ج
D	د
Shift+D	ذ
Ctrl+D	ڈ
E	ع
F	ف
G	غ
Shift+G	گ
H	ه
Shift+H	ح
Ctrl+H	ھ
Alt+H	ہ
Shift+Alt+H	ہ
I	-
Shift+I	=
Ctrl+I	-
Shift+Ctrl+I	=

Key	Character
J	ج
Shift+J	ژ
K	ك
L	ل
M	م
N	ن
Ctrl+N	ں
O	°
Ctrl+O	°
P	پ
Q	ق
R	ر
Ctrl+R	ڑ
S	س
Shift+S	ص
Alt+S	ش
T	ت
Shift+T	ط
Alt+T	ة
Ctrl+T	ٹ
U	°
Shift+U	°
Ctrl+U	°
Shift+Ctrl+U	°
V	ذ
Shift+V	ظ

Key	Character
W	و
Alt+W	ؤ
Ctrl+W	”
X	خ
Y	ي
Alt+Y	ئ
Shift+Y	ى
Ctrl+Y	ے
Shift+Ctrl+Y	ئے
Z	ز
Shift+Z	ظ
-	-
'	ء
0	•
1	١
2	٢
3	٣
4	٤
5	٥
6	٦
7	٧
8	٨
9	٩
,	،
;	؛
Shift+/,	؟

6.3 Bengali

Bengali is only available in Windows XP. In order to type in Bengali, you must have Windows XP Service Pack 2 installed. You must also have support for Indic languages installed. For instructions on how to install these, see [Installing Languages](#) (section 7.1). You will generally need to use the 'Vrinda' font.

The Bengali support in FrKeys is similar to the other Indic languages—see [Indic Languages](#) (section 6.12) for details.

Keyboard shortcuts

Key	Character
A	অ
Shift+A	আ
Alt+A	া
Shift+Alt+A	আ
B	ব
Alt+B	ভ
C	চ
Alt+C	ছ
D	দ
Shift+D	ড
Alt+D	ধ
Shift+Alt+D	ঢ
Alt+E	ে
Shift+Alt+E	এ
G	গ
Alt+G	ঘ
Ctrl+G	ঙ
H	হ
Shift+H	ঃ
I	ি
Shift+I	ই
Alt+I	ঐ
Shift+Alt+I	ঈ
Ctrl+I	ৌ
Shift+Ctrl+I	ঐ
J	জ
Alt+J	ঝ

Key	Character
K	ক
Alt+K	খ
L	ল
Ctrl+L	্ল
Shift+Ctrl+L	ল
Ctrl+Alt+L	ল্ল
Shift+Ctrl+Alt+L	ল্ল
M	ম
N	ন
Shift+N	ণ
Alt+O	ো
Shift+Alt+O	ও
P	প
Shift+P	ফ
R	র
Shift+R	ৱ
Alt+R	ৱ
Ctrl+R	ৱ
Shift+Ctrl+R	ৱ
Ctrl+Alt+R	ৱ
Shift+Ctrl+Alt+R	ৱ
S	স
Shift+S	ষ
Alt+S	শ
T	ত
Shift+T	ট
Alt+T	থ

Key	Character
Shift+Alt+T	ঠ
U	ু
Shift+U	উ
Alt+U	ূ
Shift+Alt+U	ঊ
Ctrl+U	ৌ
Shift+Ctrl+U	ঊ
Ctrl+Alt+U	ঊ
Y	য
Shift+Y	য়
Ctrl+Y	য়
-	ং
'	ং
Shift+'	ং
/	ং
0	ং
1	ং
2	ং
3	ং
4	ং
5	ং
6	ং
7	ং
8	ং
9	ং

6.4 Greek

As with all languages, most of the Greek letters are placed on the key whose English letter corresponds most closely. To add the *tonos* accent to a vowel, hold down Alt while pressing the vowel key; for the *dialytika* (diaeresis) hold down Ctrl.

Examples

Word	Keys
Ακρόπολη (Acropolis)	Shift+A, K, R, Alt+O, P, O, L, H
Παρθενόν (Parthenon)	Shift+P, A, R, Q, E, N, Alt+O, N
Δελφοί (Delphi)	Shift+D, E, L, F, O, Alt+I
Ζεός (Zeus)	Shift+Z, E, U, Alt+S
Αθήνα (Athens)	Shift+A, Q, Alt+H, N, A

Keyboard shortcuts

Key	Character	Key	Character	Key	Character
A	α	Ctrl+I	ϊ	V	ς
Alt+A	ά	Ctrl+Alt+I	ί	T	τ
B	β	K	κ	U	υ
G	γ	L	λ	Alt+U	ύ
D	δ	M	μ	Ctrl+U	ύ
E	ε	N	ν	Ctrl+Alt+U	ύ
Alt+E	έ	X	ξ	F	φ
Z	ζ	O	ο	C	χ
H	η	Alt+O	ό	J	ψ
Alt+H	ή	P	π	W	ω
Q	θ	R	ρ	Alt+W	ώ
I	ι	S	σ		
Alt+I	ί	Alt+S	ς		

6.5 Gujarati

Gujarati is only available in Windows XP. In order to type in Gujarati, you must have support for Indic languages installed, see Installing Languages (section 7.1). You will generally need to use the 'Shruti' font.

The Gujarati support in FrKeys is similar to the other Indic languages—see Indic Languages (section 6.12) for details.

Keyboard shortcuts

Key	Character
A	અ
Shift+A	ઁ
Alt+A	ઠ
Shift+Alt+A	ઁઠ
B	બ
Alt+B	ભ
C	ચ
Alt+C	ઞ
D	દ
Shift+D	ઢ
Alt+D	ઢ
Shift+Alt+D	ઢઢ
Alt+E	ઠ
Shift+Alt+E	ઠઠ
Ctrl+E	ઠ
Shift+Ctrl+E	ઠઠ
G	ગ
Alt+G	ઘ
Ctrl+G	ઘ
H	હ
Shift+H	ઘ
I	ઠ
Shift+I	ઠ
Alt+I	ઠ
Shift+Alt+I	ઠઠ
Ctrl+I	ઠ

Key	Character
Shift+Ctrl+I	ઠ
J	જ
Alt+J	ઝ
K	ક
Alt+K	ખ
L	લ
Shift+L	લ
M	મ
N	ન
Shift+N	ણ
Alt+O	ઠ
Shift+Alt+O	ઠઠ
Ctrl+O	ઠ
Shift+Ctrl+O	ઠઠ
P	પ
Shift+P	ફ
R	ર
Ctrl+R	ર
Shift+Ctrl+R	ર
Ctrl+Alt+R	ર
Shift+Ctrl+Alt+R	ર
S	સ
Shift+S	ષ
Alt+S	શ
T	ત
Shift+T	ટ

Key	Character
Alt+T	ટ
Shift+Alt+T	ઠ
U	ઠ
Shift+U	ઠ
Alt+U	ઠ
Shift+Alt+U	ઠઠ
Ctrl+U	ઠ
Shift+Ctrl+U	ઠઠ
V	વ
Y	ય
Ctrl+Y	ઠ
-	ઠ
'	ઠ
Shift+'	ઠ
/	ઠ
0	ઠ
1	ઠ
2	ઠ
3	ઠ
4	ઠ
5	ઠ
6	ઠ
7	ઠ
8	ઠ
9	ઠ

6.6 Hebrew

As with all languages, most of the Hebrew letters are placed on the key whose English letter corresponds most closely. When there are two letters (or letter forms) that are similar to one English letter, one of them will be obtained by holding down Shift. In particular, the ‘final’ versions of Kaf, Mem, Nun etc. are obtained with the Shift key.

Vowel marks (*niqqud*)

Vowel marks (*niqqud*)—which are not always used in written Hebrew—may be obtained using the vowel keys and ‘w’. Roughly speaking, a short vowel mark is obtained by pressing the vowel key on its own; long vowels are obtained with Shift; and ‘interrupted’ (*hataf*) vowels with Alt. For full details see the table below.

Other marks

The ‘dagesh’ is obtained from the ‘C’ key. The ‘sin dot’ and ‘shin dot’ are obtained with ‘Alt+S’ and ‘Shift+Alt+S’ respectively.

Examples

Word	Keys
יום כפור (Yom Kippur)	Y, V, Shift+M, , K, P, V, R
חנוכה (Hannukah)	Shift+H, N, V, K, H
יום כפור (Yom Kippur, with niqqud)	Y, V, Shift+O, Shift+M, , K, C, I, P, C, V, C, R
חנוכה (Hannukah, with niqqud)	Shift+H, Alt+O, N, V, C, K, C, O, H
תורה (Torah)	Shift+T, V, R, H
כשר (Kosher)	K, Shift+S, R
תל אביב (Tel Aviv)	Shift+T, L, , J, B, Y, B

Keyboard shortcuts

Key	Character
A	.
Alt+A	װ
B	ב
C	װ
D	ד
E	װ
Alt+E	װ
Shift+E	װ
A	.
F	פ
Alt+F	ף
G	ג
H	ה
Shift+H	ח
I	.

Key	Character
J	װ
Shift+J	װ
K	כ
Shift+K	ך
L	ל
M	מ
Shift+M	ם
N	נ
Shift+N	ן
O	.
Alt+O	װ
Shift+O	װ
P	פ
Shift+P	ף
Q	ק

Key	Character
R	ר
S	ס
Shift+S	ש
Alt+S	Sin dot
Shift+Alt+S	Shin dot
T	ט
Shift+T	ת
U	װ
V	ו
W	.
X	ז
Shift+X	ץ
Y	י
Z	ז

6.7 Hindi

In order to type in Hindi, you must have support for Indic languages installed, see [Installing Languages](#) (section 7.1). You will generally need to use the 'Mangal' font.

The Hindi support in FrKeys is similar to the other Indic languages—see [Indic Languages](#) (section 6.12) for details.

Examples

Word	Keys
हिन्दी (Hindi)	[H], [I], [N], [-], [D], [Alt+[I]]
कलकत्ता (Calcutta)	[K], [L], [K], [T], [-], [T], [Alt+[A]]
बंबई (Bombay)	[B], [Shift+[']], [B], [Shift+[Alt+[I]]]
दीवाली (Diwali)	[D], [Alt+[I]], [V], [Alt+[A]], [L], [Alt+[I]]
कृष्णा (Krishna)	[K], [Ctrl+[R]], [Shift+[S]], [-], [Shift+[N]], [Alt+[A]]

Keyboard shortcuts

Key	Character
A	अ
Shift+A	आ
Alt+A	ा
Shift+Alt+A	आ
B	ब
Alt+B	भ
C	च
Alt+C	छ
D	द
Shift+D	ड
Alt+D	ध
Shift+Alt+D	ढ
Ctrl+D	ड
E	े
Shift+E	ऐ
Alt+E	े
Shift+Alt+E	ए
Ctrl+E	ँ
Shift+Ctrl+E	ँ
F	फ
G	ग
Alt+G	घ
Shift+Alt+G	ग
Ctrl+G	ङ
H	ह
Shift+H	ः
I	ि
Shift+I	इ
Alt+I	ी
Shift+Alt+I	ई
Ctrl+I	ँ
Shift+Ctrl+I	ऐ
J	ज

Key	Character
Alt+J	झ
K	क
Alt+K	ख
Shift+Alt+K	ख
L	ल
Shift+L	ळ
Alt+L	ळ
Shift+Alt+L	ळ
Ctrl+L	ॠ
Shift+Ctrl+L	ॠ
Ctrl+Alt+L	ॠ
Shift+Ctrl+Alt+L	ॠ
M	म
N	न
Shift+N	ण
Ctrl+N	ॡ
O	ो
Shift+O	औ
Alt+O	ो
Shift+Alt+O	ओ
Ctrl+O	ँ
Shift+Ctrl+O	ँ
P	प
Shift+P	फ
Q	क
R	र
Shift+R	ॠ
Alt+R	ॠ
Ctrl+R	ॠ
Shift+Ctrl+R	ॠ
Ctrl+Alt+R	ॠ
Shift+Ctrl+Alt+R	ॠ
S	स

Key	Character
Shift+S	ष
Alt+S	श
T	त
Shift+T	ट
Alt+T	थ
Shift+Alt+T	ठ
U	ु
Shift+U	उ
Alt+U	ू
Shift+Alt+U	ऊ
Ctrl+U	ौ
Shift+Ctrl+U	औ
V	व
Y	य
Shift+Y	ॠ
Ctrl+Y	अ
Z	ॠ
Z	ॠ
-	ॠ
'	ँ
Shift+'	ँ
/	ॠ
0	ॠ
1	ॠ
2	ॠ
3	ॠ
4	ॠ
5	ॠ
6	ॠ
7	ॠ
8	ॠ
9	ॠ

6.8 Panjabi

Panjabi is only available in Windows XP. In order to type in Panjabi, you must have support for Indic languages installed, see Installing Languages (section 7.1). You will generally need to use the 'Raavi' font.

The Panjabi support in FrKeys is similar to the other Indic languages—see Indic Languages (section 6.12) for details.

Keyboard shortcuts

Key	Character	Key	Character	Key	Character
A	ਅ	Alt+I	ੀ	Alt+T	ਥ
Shift+A	ਐ	Shift+Alt+I	ਈ	Shift+Alt+T	ਠ
Alt+A	ਾ	Ctrl+I	ੈ	U	ੁ
Shift+Alt+A	ਆ	Shift+Ctrl+I	ਐ	Shift+U	ਊ
B	ਬ	J	ਜ	Alt+U	ੂ
Alt+B	ਭ	Alt+J	ਝ	Shift+Alt+U	ਊ
C	ਚ	K	ਕ	Ctrl+U	ੌ
Alt+C	ਛ	Alt+K	ਖ	Shift+Ctrl+U	ਐ
D	ਦ	Shift+Alt+K	ਖ਼	V	ਵ
Shift+D	ਡ	L	ਲ	Y	ਯ
Alt+D	ਧ	Shift+L	ਲ਼	Ctrl+Y	ਝ
Shift+Alt+D	ਢ	M	ਮ	Z	ਜ਼
E	ੲ	N	ਨ	Z	ਜ਼
Shift+E	ੲ	Shift+N	ਣ	-	ੰ
Shift+Alt+E	ੲ	Shift+Alt+O	ਓ	/	ੰ
Ctrl+E	ੇ	Ctrl+O	ੇ	0	ੰ
Shift+Ctrl+E	ੇ	Shift+Ctrl+O	ਓ	1	ੰ
F	ਫ	P	ਪ	2	ੰ
G	ਗ	Shift+P	ਫ਼	3	ੰ
Alt+G	ਘ	R	ਰ	4	ੰ
Shift+Alt+G	ਗ਼	Shift+R	ਰ਼	5	ੰ
Ctrl+G	ਙ	S	ਸ	6	ੰ
H	ਹ	Alt+S	ਸ਼	7	ੰ
I	ਿ	T	ਤ	8	ੰ
Shift+I	ਇ	Shift+T	ਟ	9	ੰ

6.9 Persian (Farsi)

The Persian keys are based on the keys for Arabic. The additional letters that are used in Persian, but not commonly used in Arabic, are already present in the Arabic keyboard shortcuts. The only differences are that the Farsi versions of the letters Keh and Yeh are on the K and Y keys respectively.

Not all fonts that support Arabic support all the characters and ligatures required for Persian. The 'Tahoma' font has good support for Persian.

Examples

Word	Keys
فارسی (Farsi)	F, A, R, S, Y
شاه (Shah)	Alt+S, A, H
کباب (Kebab)	K, B, A, B
کاروان (Caravan)	K, A, R, W, A, N

Keyboard shortcuts

Key	Character
A	ا
Shift+A	آ
Alt+A	اِ
Shift+Alt+A	آ
Ctrl+A	-
Shift+Ctrl+A	=
Ctrl+Alt+A	'
B	ب
Shift+B	ث
C	ج
D	د
Shift+D	ض
Ctrl+D	ڈ
E	ع
F	ف
G	غ
Shift+G	گ
H	ه
Shift+H	ح
Ctrl+H	ھ
Alt+H	ہ
Shift+Alt+H	ھ
I	-
Shift+I	=
Ctrl+I	-
Shift+Ctrl+I	=

Key	Character
J	ج
Shift+J	ژ
K	ک
L	ل
M	م
N	ن
Ctrl+N	ں
O	°
Ctrl+O	°
P	پ
Q	قی
R	ر
Ctrl+R	ڑ
S	س
Shift+S	ص
Alt+S	ش
T	ت
Shift+T	ط
Alt+T	ة
Ctrl+T	ٹ
U	°
Shift+U	°
Ctrl+U	°
Shift+Ctrl+U	°
V	ذ
Shift+V	ظ

Key	Character
W	و
Alt+W	ؤ
Ctrl+W	”
X	خ
Y	ی
Alt+Y	ئ
Shift+Y	ی
Ctrl+Y	ے
Shift+Ctrl+Y	ئے
Z	ز
Shift+Z	ظ
-	-
'	ء
0	•
1	۱
2	۲
3	۳
4	۴
5	۵
6	۶
7	۷
8	۸
9	۹
,	،
;	؛
Shift+/,	؟

6.10 Russian

As with all languages, most of the Russian letters are placed on the key whose English letter corresponds most closely. Where more than one Russian letter corresponds to one English letter, the Alt key is used to distinguish between them. The mapping between the Latin and Cyrillic alphabets is fairly straightforward; see the table below for full details.

Examples

Word	Keys
гласност (glasnost)	G, L, A, S, N, O, S, T
перестройка (perestroika)	P, Alt+E, R, Alt+E, S, T, R, O, I, K, A
Петроград (Petrograd—St Petersburg)	P, Alt+E, T, R, O, G, R, A, D
Кремлин (Kremlin)	K, R, Alt+E, M, L, I, N
Ленин (Lenin)	L, Alt+E, N, I, N

Keyboard shortcuts

Key	Character	Key	Character	Key	Character
A	а	J	й	T	т
Alt+A	я	K	к	U	у
B	б	L	л	Alt+U	ю
C	щ	M	м	V	в
D	д	N	н	W	ш
E	э	O	о	X	ц
Alt+E	е	Alt+O	ё	Alt+X	ч
F	ф	P	п	Y	ы
G	г	Q	ж	Z	з
H	х	R	р	[ъ
I	и	S	с]	ь

6.11 Urdu

The Urdu keys are based on the keys for Arabic and Persian. The additional letters that are used in Urdu, but not commonly used in Arabic or Persian, are already present in the Arabic keyboard shortcuts, and are obtained by pressing the 'Ctrl' key in combination with various letters.

Not all fonts that support Arabic support all the characters and ligatures required for Urdu. The 'Tahoma' font has good support for Urdu.

Examples

Word	Keys
خاکی (Khaki)	X, A, K, Y
بالٹی (Balti)	B, A, L, Ctrl+T, Y
پردہ (Purdah)	P, R, D, H
بازار (Bazaar)	B, A, Z, A, R
پنکھا (Punkah)	P, N, K, Ctrl+H, A
پاکستان (Pakistan)	P, A, K, S, T, A, N

Keyboard shortcuts

Key	Character
A	ا
Shift+A	آ
Alt+A	اِ
Shift+Alt+A	آ
Ctrl+A	-
Shift+Ctrl+A	=
Ctrl+Alt+A	'
B	ب
Shift+B	ث
C	ج
D	د
Shift+D	ض
Ctrl+D	ڈ
E	ع
F	ف
G	غ
Shift+G	گ
H	ه
Shift+H	ح
Ctrl+H	ھ
Alt+H	ہ
Shift+Alt+H	ھ
I	-
Shift+I	=
Ctrl+I	-
Shift+Ctrl+I	=

Key	Character
J	ج
Shift+J	ژ
K	ک
L	ل
M	م
N	ن
Ctrl+N	ں
O	°
Ctrl+O	°
P	پ
Q	قی
R	ر
Ctrl+R	ڑ
S	س
Shift+S	ص
Alt+S	ش
T	ت
Shift+T	ط
Alt+T	ة
Ctrl+T	ٹ
U	°
Shift+U	°
Ctrl+U	°
Shift+Ctrl+U	°
V	ذ
Shift+V	ظ

Key	Character
W	و
Alt+W	ؤ
Ctrl+W	”
X	خ
Y	ی
Alt+Y	ئ
Shift+Y	ی
Ctrl+Y	ے
Shift+Ctrl+Y	ئے
Z	ز
Shift+Z	ظ
-	-
'	ء
0	•
1	۱
2	۲
3	۳
4	۴
5	۵
6	۶
7	۷
8	۸
9	۹
,	،
;	؛
Shift+/,	؟

6.12 Indic Languages

As with all languages, most of the Indic letters are placed on the key whose English letter corresponds most closely. Though the Indic writing systems are in some ways the most complicated that FrKeys supports, they map in a fairly logical way to the English keyboard, and so should be easy to learn. Combinations of Shift, Ctrl and Alt are used to distinguish between several letters and symbols that are similar to one English letter.

Consonant variations

Aspirated consonants (typically transliterated to the Latin alphabet with an 'h') are obtained by pressing the letter with Alt.

Retroflex ('cerebral') consonants (typically transliterated to the Latin alphabet with a double consonant or a dot underneath the consonant) are obtained by pressing the letter with Shift. (For aspirated retroflex consonants, press both Shift and Alt with the letter key.)

Other consonant forms are obtained in some cases using the Ctrl key.

Vowels

The independent (standalone) forms of vowels are obtained by pressing the Shift key with the appropriate letter; the corresponding attached (*maatras*) form is obtained without the Shift key.

Short vowels are obtained without the Alt or Ctrl keys. Long vowels are obtained with Alt; nasalised ('*candra*') vowels and 'ai' and 'au' are obtained with Ctrl.

Vocalic consonants

The vocalic forms of 'R' and 'L' are obtained by pressing the appropriate key with Ctrl. As with vowels, hold down Shift for the standalone (non-*maatras*) form, and/or Alt for the long form.

Conjuncts

The Indic scripts have a wide variety of *conjuncts*, or combined letters. These are usually used where two or more consonants are pronounced together without an intervening vowel (as, for example, between the 'n' and 'd' of the word 'Hindi'). Fortunately Windows is capable of forming these conjuncts automatically, so it is not necessary to have a way of typing each combination separately: all that is needed is to type the first consonant of the conjunct, followed by a *virama* (on the '-' key), followed by the next consonant of the conjunct.

7 Languages and Windows

This section gives information about using Microsoft Windows to write in different languages. It gives information on installing support for different languages, and on some of the quirks that you may experience with some pieces of software.

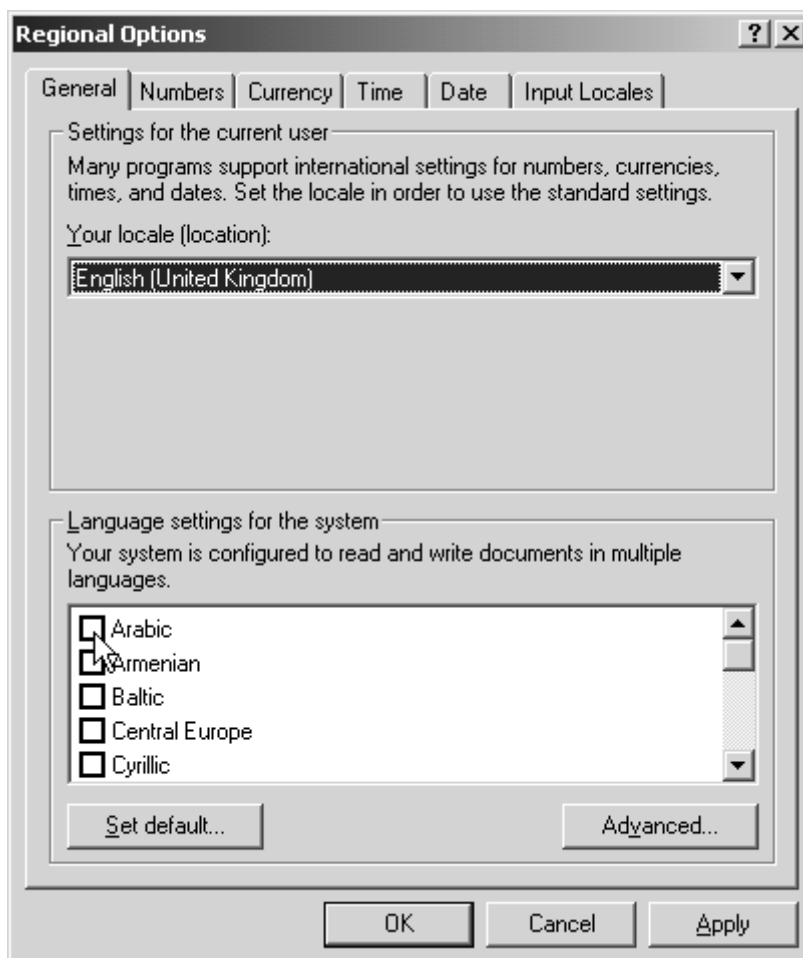
7.1 Installing Languages

The following three sections describe how to install language support in Windows 2000 and Windows XP

7.2 Installing Languages in Windows 2000

This section describes how to install language support in Windows 2000.

1. Click on the Start button
2. Choose 'Settings' then 'Control Panel'.
3. If it is present, choose 'Date, Time, Language and Regional options'.
4. Choose 'Regional Options'.
5. Choose the 'General' tab



6. Under 'Language settings for the system', click on the box(es) corresponding to the language(s) you want to install. You may need to scroll down to see all of the options. For example, to enable

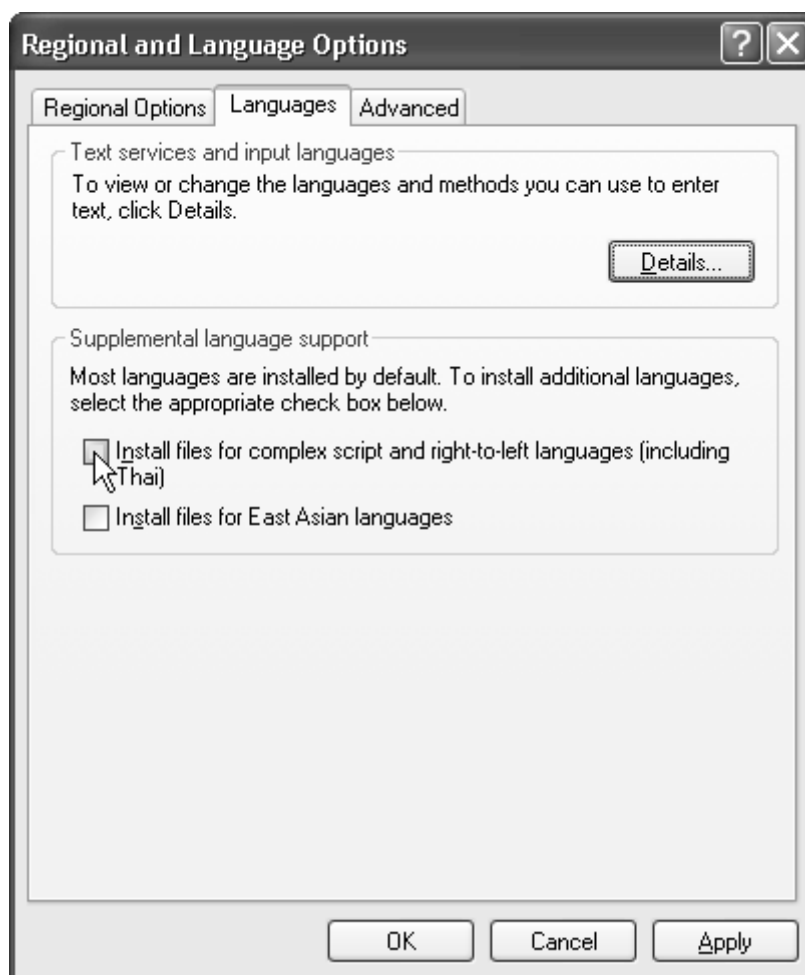
support for Hindi you will need to ensure 'Indic' is selected.

7. A message may appear informing you of how much disk space will be taken up by installing these languages—click OK.
8. Click 'OK' to install the language support. You may need to restart your computer before you can use the new languages.

7.3 Installing Languages in Windows XP

This section describes how to install language support in Windows XP.

1. Click on the Start button
2. Choose 'Control Panel'.
3. If it is present, choose 'Date, Time, Language and Regional options'.
4. Choose 'Regional and Language Options'.
5. Choose the 'Languages' tab



6. Under 'Supplemental Language Support', click on the box corresponding to the language(s) you want to install
7. A message may appear informing you of how much disk space will be taken up by installing these languages—click OK.
8. Click 'OK' to install the language support. You may need to restart your computer before you can use the new languages.

7.4 Installing Service Pack 2 for Windows XP

In order to write in Bengali, you must install Service Pack 2 for Microsoft Windows XP.

See the Microsoft web page, <http://www.microsoft.com/windowsxp/sp2/> for details of how to do this.

7.5 Writing in other alphabets in Microsoft Word

Note the following when writing in other alphabets in Word:

- To write in Word using different alphabets such as those used by Russian and Hindi, you must have Word 2000 or later. (Word XP is suitable).
- Sometimes Microsoft Word has trouble dealing with foreign text - particularly scripts such as Arabic and Hebrew which are written right-to-left, and (in the case of Arabic) where the forms of letters depend on the letters surrounding them. For example, the first time the word “Qur'an” is typed (with keyboard shortcuts enabled), it may not join the letters together correctly; furthermore it may display subsequent words to the right of this word. If this happens, if you type the word twice (“Qur'an Qur'an”) the second (and any later) words will appear correctly—you can then delete the first, incorrect word.
- You can set the main direction of a paragraph as right-to-left by clicking on the ‘Format’ menu, selecting ‘Paragraph’, and choosing the direction as right-to-left.
- When writing in Indic languages, it is necessary to set the font correctly—for example, for Hindi the font must be set to ‘Mangal’. (See the section about the language you’re writing in for full details). It is necessary to use the ‘Format...Font’ window to do this—the ‘Font’ box on the toolbar does not allow it.

7.6 Writing in other alphabets in Outlook

Note the following when writing in other alphabets in Outlook:

- To write in Outlook using different alphabets such as those used by Russian and Hindi, you must have Outlook XP or later.
- However, in earlier versions of Outlook (such as Outlook 2000), you can write your email in another program (such as Notepad), and then copy it from Notepad and paste it into Outlook.
- You may need to choose a suitable Encoding from the ‘Format’ menu in order for your email to be sent correctly and decoded correctly at the other end.
- Because email may pass through many, varied systems between being sent and being received, it’s not always possible to guarantee that anything other than plain, Latin text will be delivered exactly as you wrote it.

8 More information

8.1 For more information about FrKeys, including:

- Ordering information
- Site licence information
- Technical support

Please visit the FrKeys website at: www.frkeys.com

8.2 Trademarks

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