

Foreign Language Character Input.Doc

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Abstract: This document explains how to enter foreign language characters while using a US-English keyboard hardware. It focuses on European languages.

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1 European Languages

1.1 If You Use the Language Lab

For Western Languages, currently, we still use the binary keyboard shortcuts (see Appendix 4.2; a 1-page overview chart is in the language lab). We hope to have support for mnemonic keys installed shortly.

We currently do not support non-western languages, but hope to have installed support for Japanese shortly.

1.2 If You Own the Box

1.2.1 OS-level European Multi-language Support

1.2.1.1 System-wide Keyboard Shortcuts

1.2.1.1.1 Mac OS X

Use the Option Key together with one of 5 possible modifier keys, release the keys, and then press a character to add an accent to this character:

Option Key Combination	then	Result
	o	
Option + ¹ e	ó	acute accent
Option + i	ô	circumflex
Option + n	õ	tilde
Option + `	ò	grave accent
Option + u	ö	Umlaut
Option + c		cedilla
Option + ?	¿	
Option + !	¡	

For a more complete chart, see the appendix 4.1.

1.2.1.1.2 Win XP

1.2.1.1.2.1 *Dead Keys and Mnemonic Shortcuts*

With the "US (International)"-keyboard layout installed and selected,² use one of the "dead" (= will not produce a character until followed by one which cannot be modified by an accent) modifier keys (may include SHIFT), release, then press a character to add an accent to this character:

Press	then press	Result
` (accent grave)	the letter	à
' (apostrophe)	the letter	á
^ (caret)-	the letter	â

¹ "+" denotes: Press key before the plus-sign, and while holding it press the key after the plus-sign.

² As opposed to the default "US"-keyboard layout. On how to install a layout, see 1.2.1.2.1.2.

~ (tilde)	the letter	ã
" (colon)	the letter	ä
CTRL+@	a or A	å
CTRL+&	a or A	æ
CTRL+&	o or O	œ
CTRL+, (comma)	c or C	ç
CTRL+' (apostrophe)	d or D	ð
CTRL+ /	o or O	ø
ALT+CTRL+?		ı
ALT+CTRL+!		ı
CTRL+&	S	ß

1.2.1.1.2.2 ALT Key

With the "US (International)"-keyboard layout installed and selected³, you can get special characters by using the right ALT key (sometimes combined with the SHIFT key) (With the Standard US keyboard, combine right ALT and right CTRL keys (plus SHIFT key).

Alt+Shift ¹ £ ÷
 Alt ¡ ² ³ ¤ ? ¼ ½ ¾ ' ' ¥ ×
 Shift ~ ! @ # \$ % ^ & * () _ +
 (none) ` 1 2 3 4 5 6 7 8 9 0 - =
 Alt+Shift Ä Å É Þ Ü Ú Í Ó Ö Ì
 Alt ä å é ® þ ü ú í ó ö " "
 Shift Q W E R T Y U I O P { } |
 (none) q w e r t y u i o p [] \

Alt+Shift Á Š Đ Ø ° °
 Alt á ß ð ø ´
 Shift A S D F G H J K L : "
 (none) a s d f g h j k l ; '

Alt+Shift Æ ¤ Ñ Ç
 Alt æ © ñ µ ç ı
 Shift Z X C V B N M < > ?
 (none) z x c v b n m , . /

³ As opposed to the default "US"-keyboard layout. On how to install a layout, see 1.2.1.2.1.2.

With the “US (International)”-keyboard layout installed and selected,⁴ you can still use the left ALT key together with the 4-digit character code number. To enter an IBM ANSI character, hold down alt and type the 3-digit ANSI code (see charts in Appendix 4.2) on your numeric keypad (make sure NUMLOCK is on).

1.2.1.2 Foreign Language Keyboard Layouts

1.2.1.2.1 Activating and Selecting

1.2.1.2.1.1 *Mac OS X*

Go to:  / System Preferences / International



Figure 1: Mac OS X: System Preferences: International

Select Language Tab:

⁴ As opposed to the default “US”-keyboard layout. On how to install a layout, see 1.2.1.2.1.2.

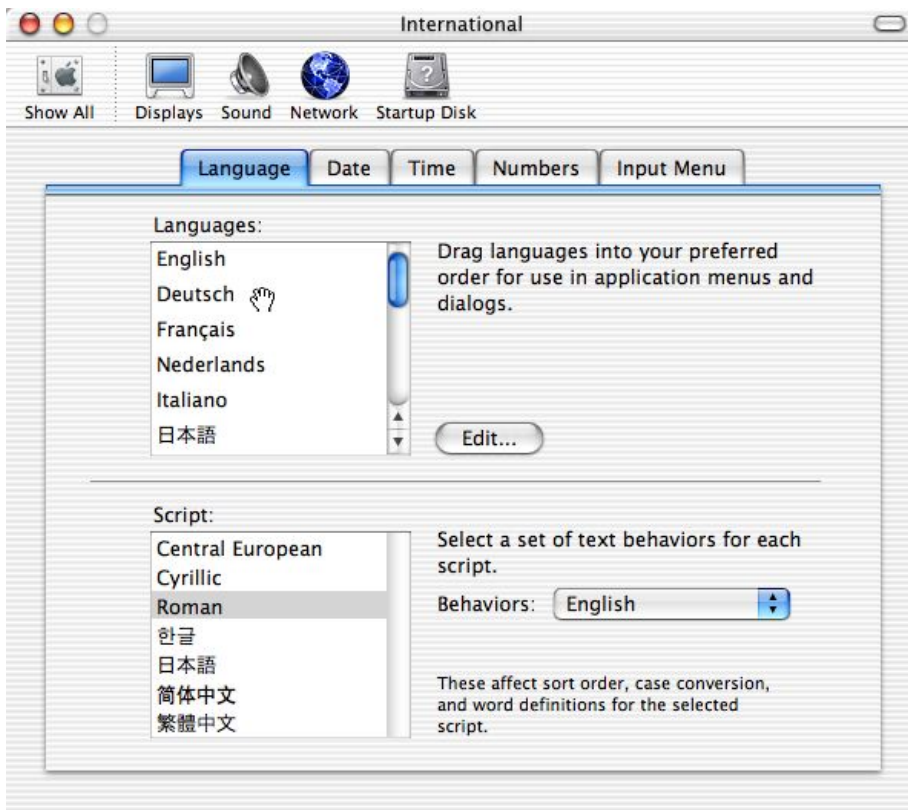


Figure 2: Mac OS X: System Preferences: International: Language
Select Tab "Input menu": Check a keyboard layout to make it available



Figure 3: Mac OS X: System Preferences: International: Language: Input Menu

1.2.1.2.1.2 Win XP

Go to: Control Panel / Regional and Language Options / Languages Tab / Text Services etc.
Details: Add Keyboard Layouts here.

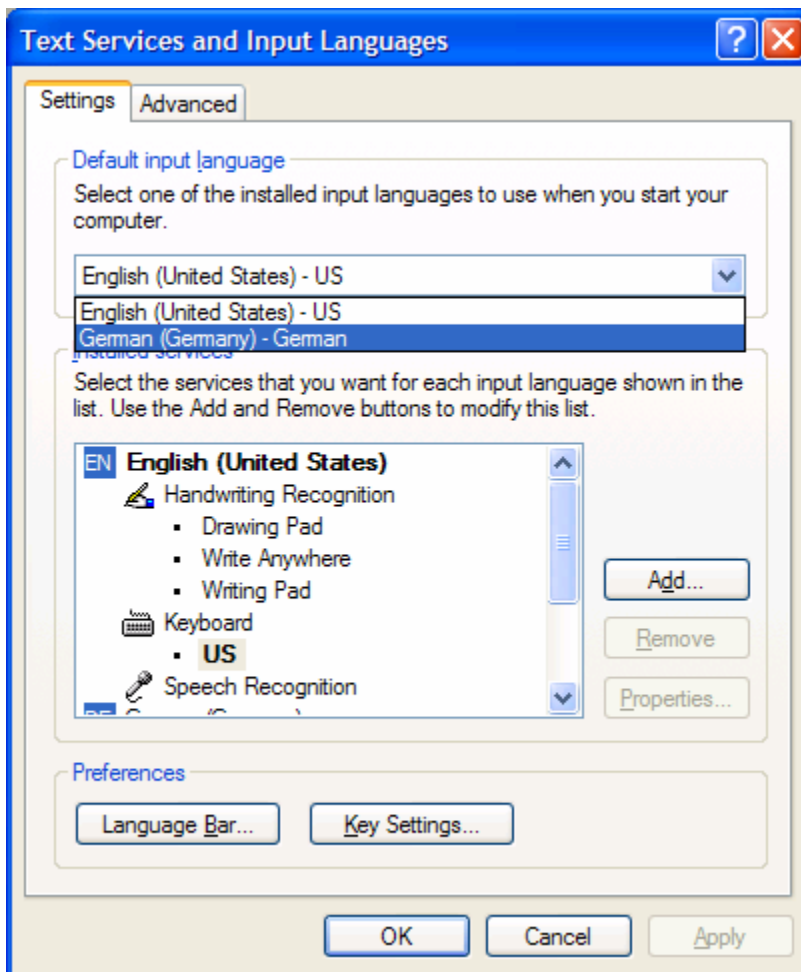


Figure 4: Win XP: Text Services: Input Languages

To be able to use the “Language bar” , make sure that under the “Advanced” tab, “Turn off advanced text services” is unchecked.

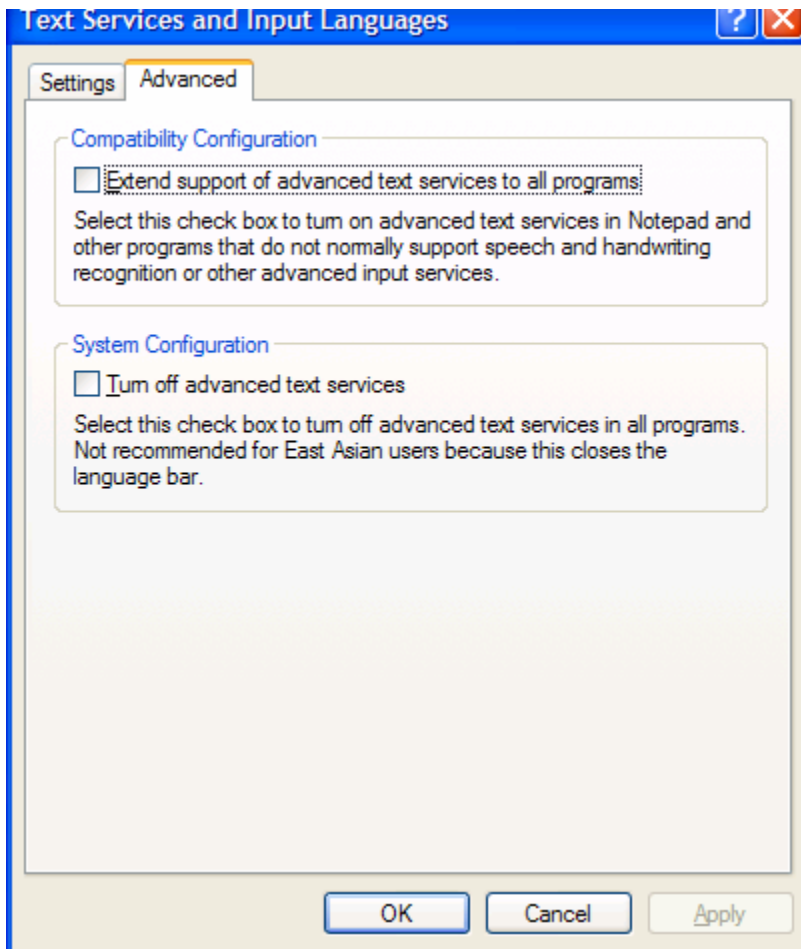


Figure 5: Win XP: Text Services: Advanced Text Services

The following Flash movie shows how to install the US (International) – Keyboard layout (which greatly facilitates input of foreign language character through keyboard shortcuts).



Figure 6: Movie: How to install US (International) Keyboard Layout

1.2.1.2.2 Switching

1.2.1.2.2.1 Mac OS X:

Go to: Flag Menu and select the keyboard layout you want to use.



Figure 7: Mac OS X Flag menu for Keyboard Layout and other Input Methods

Alternatively, use the Keyboard Shortcut: Command-space or command – option – space.

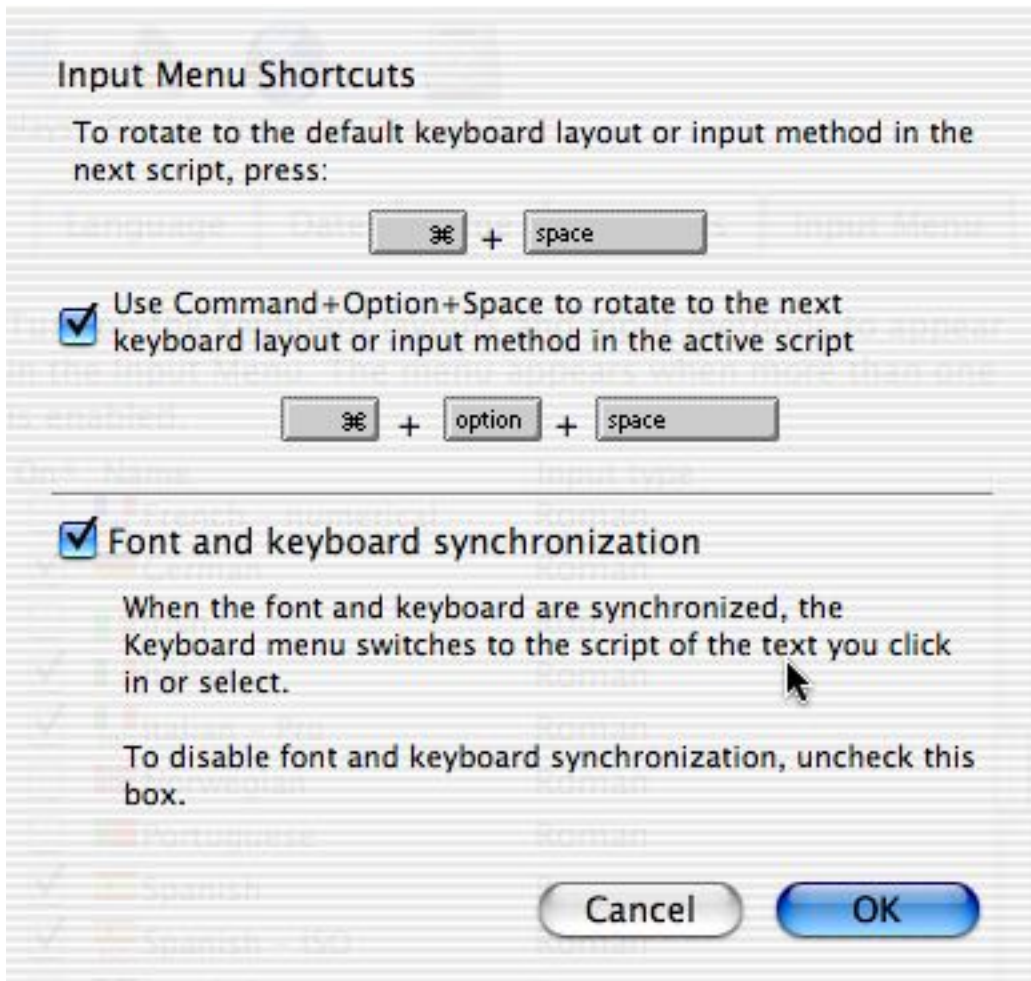


Figure 8: Win XP: Input Menu Switching Shortcuts

Hint:

- ❖ Don't be misled by the Flag menu, selecting a language just changes the keyboard layout. It does not enable proofing for this language.

1.2.1.2.2.2 Win XP

To switch with the mouse, use the "Language Bar".

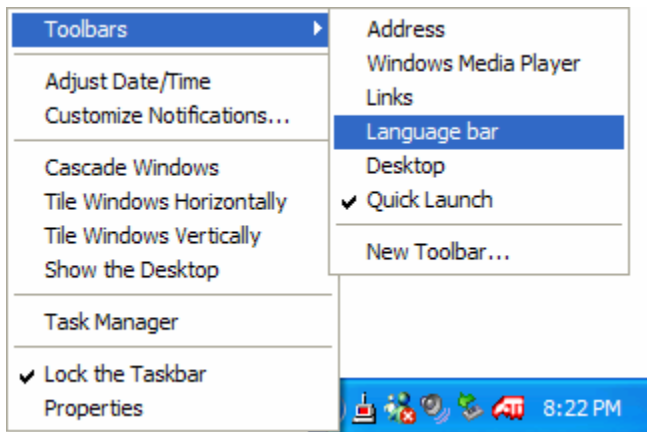


Figure 9: WinXP: Show the Language Bar

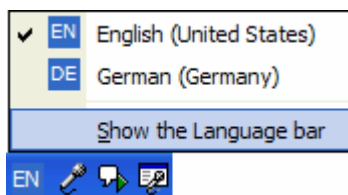
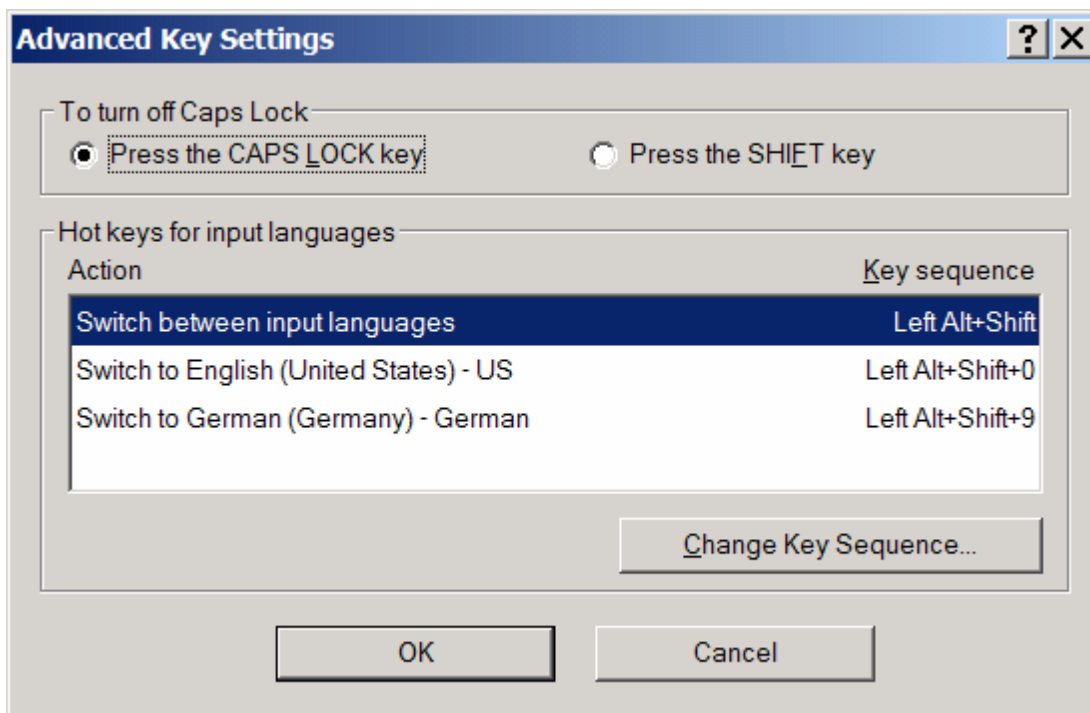


Figure 10: WinXP: Language Bar

To switch with the Keyboard, use the Windows default key combination: alt - shift or control – shift. You can change this setting under Text Services and Input Languages / Key Settings.



1.2.1.2.3 Visualizing

1.2.1.2.3.1 Mac OS X: Keycaps

Go to: Macintosh Harddrive / Applications / Utilities / KeyCaps.



If you change the input language in the Flag menu, this onscreen keyboard will reflect it.

You can use KeyCaps either to produce characters and paste them into your text or just to have a visual representation of the keyboard.

1.2.1.2.3.2 Win XP: On Screen Keyboard

Go to: -R, type: osk.



Figure 11: WinXP: On Screen Keyboard

OSK's layout also reflects the currently selected keyboard layout. In addition, it inputs the character into the previously active application, e.g. the word-document you are typing, without the need to resort to the clipboard.

1.4.2 → Win·XP:·OSK.exe:·TBA¶

Go: Win-R, type: osk.¶

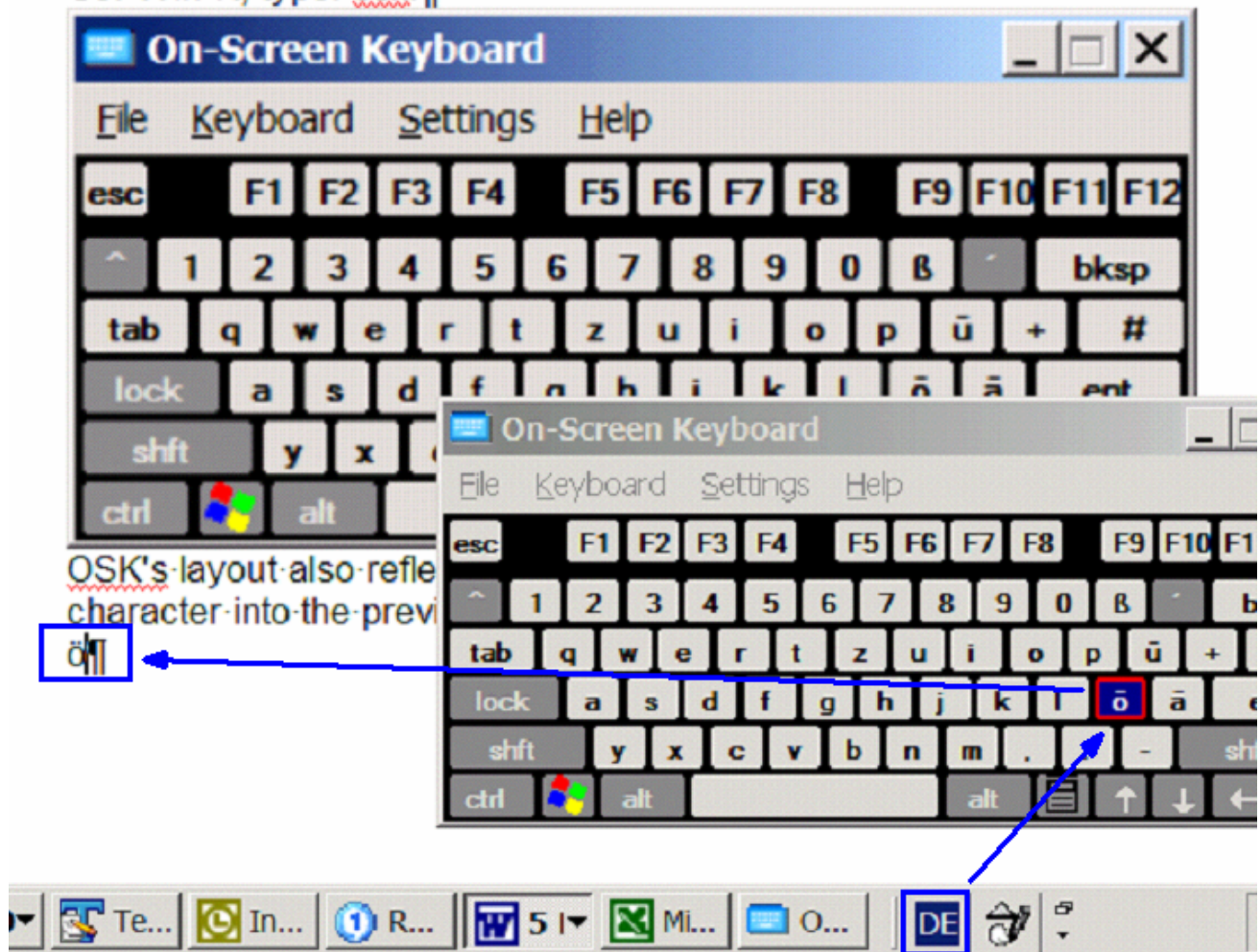


Figure 12: WinXP: OSK Demo

1.2.1.3 Using Character Palettes

1.2.1.3.1 Mac OS X

Go to: Flag Menu / Show Character Palette to look up character codes and insert Unicode characters into certain applications.

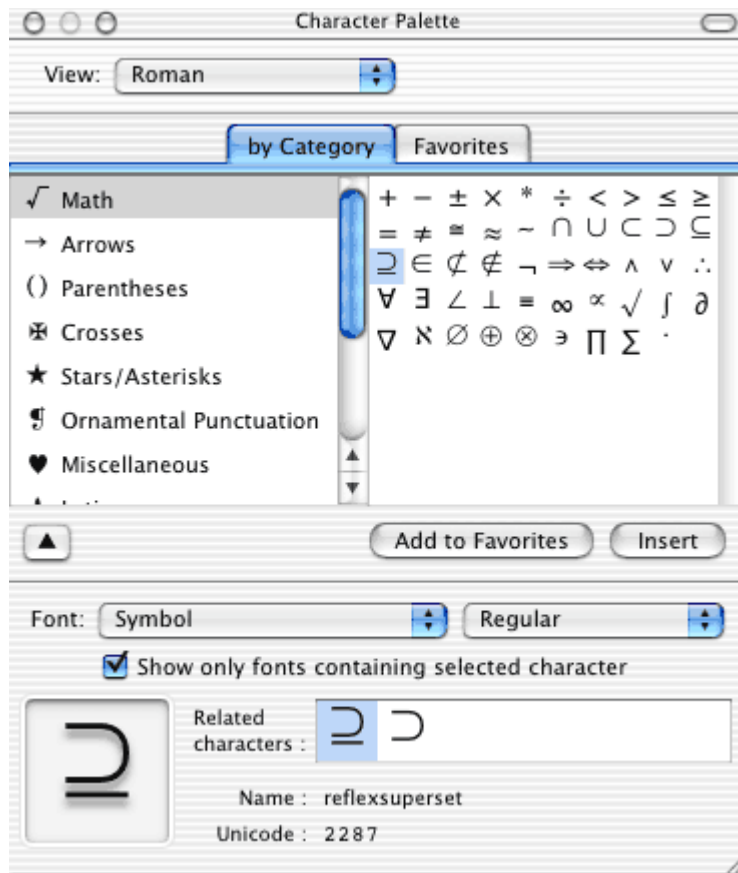


Figure 13: MAC OS X Character Palette

1.2.1.3.2 Win XP

Go to: Start / All Programs / Accessories / System Tools / Character Map.

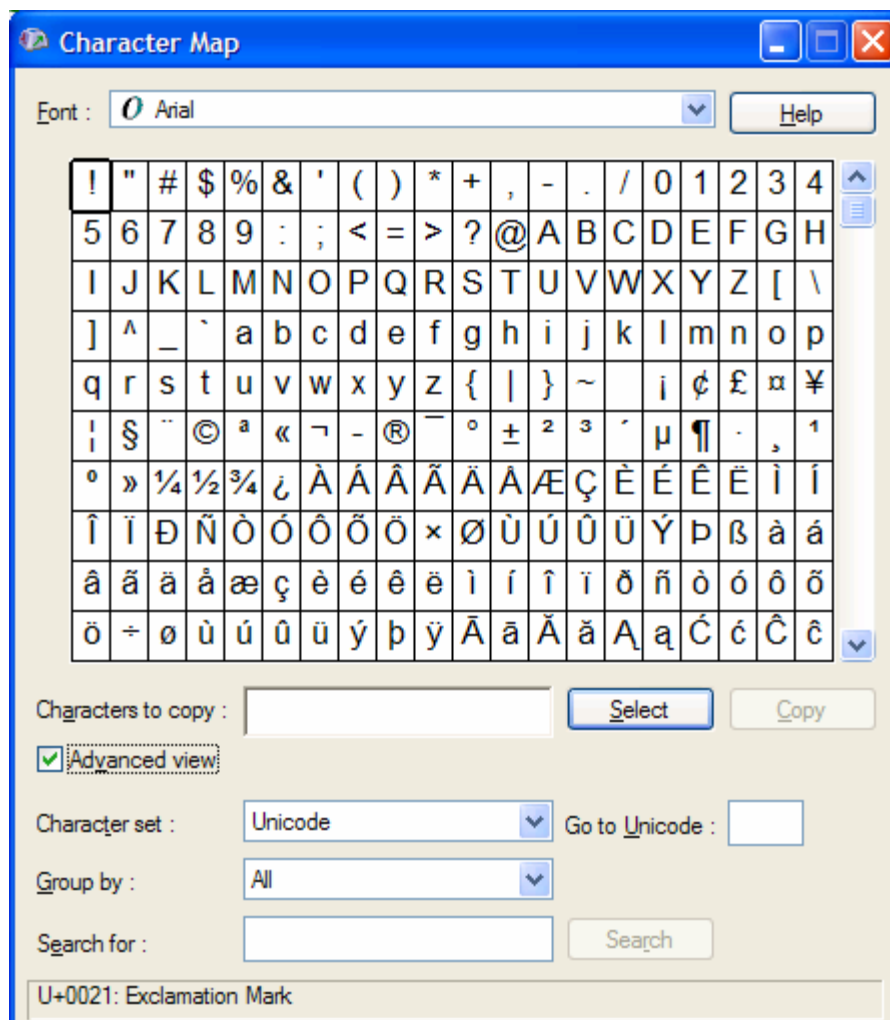


Figure 14: WinXP Character Palette

1.2.2 Application-level Support

1.2.2.1 MS-Office

1.2.2.1.1 Input Method Editors for East-Asian Languages

TBA.

1.2.2.1.2 Word

1.2.2.1.2.1 Default keyboard shortcuts

MS-Word: How to insert international characters with shortcut keys on a standard English keyboard	
To insert	Press
à, è, ì, ò, ù À, Ê, Î, Ò, Ù	CTRL+` (ACCENT GRAVE), the letter
á, é, í, ó, ú, ý	CTRL+' (APOSTROPHE), the letter

Á, É, Í, Ó, Ú, Ý	
â, ê, î, ô, û Â, Ê, Î, Ô, Û	CTRL+SHIFT+^ (CARET), the letter
ã, ñ, õ Ã, Ñ, Õ	CTRL+SHIFT+~ (TILDE), the letter
ä, ë, ï, ö, ü, ÿ Ä, Ë, Ì, Ö, Ü, ÿ	CTRL+SHIFT+: (COLON), the letter
å, Å	CTRL+SHIFT+@, a or A
æ, Æ	CTRL+SHIFT+&, a or A
œ, Œ	CTRL+SHIFT+&, o or O
ç, Ç	CTRL+, (COMMA), c or C
ı	ALT+CTRL+SHIFT+?
ı	ALT+CTRL+SHIFT+!
ß	CTRL+SHIFT+&, s

1.2.2.1.2.2 Customizing your keyboard shortcuts

Go to: Tools / Customize / Keyboard. In the left option list, select "Common Symbols".

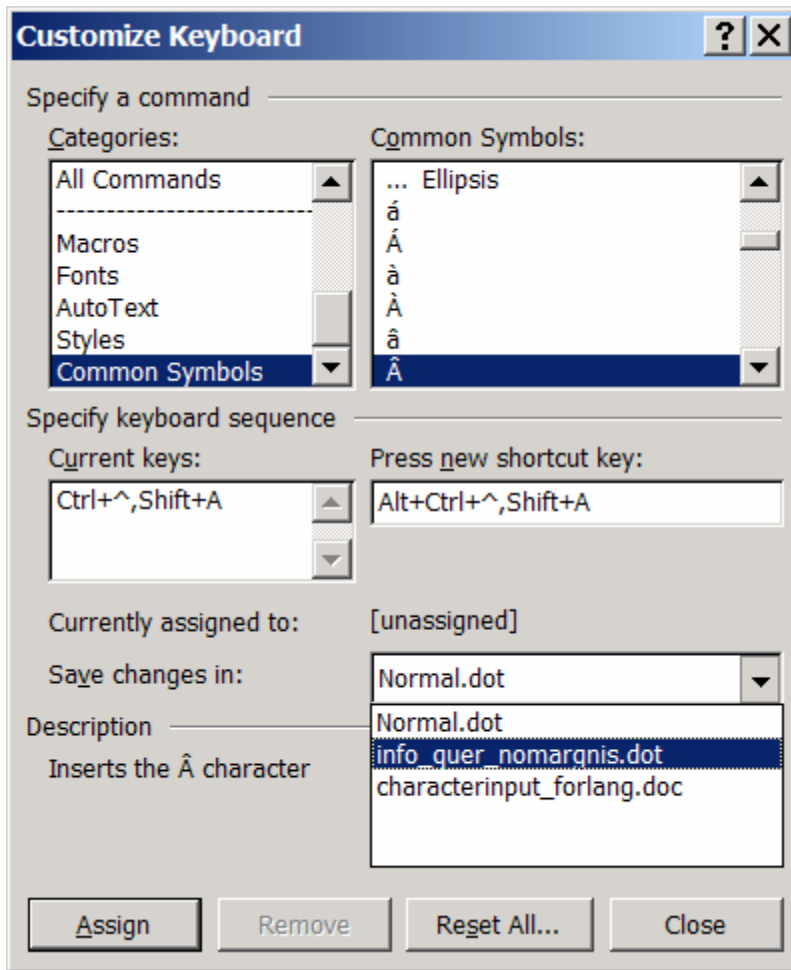


Figure 15: Word: Customize your keyboard shortcuts dialogue

Here you can get an overview of current keyboard shortcuts as well as assign new ones. Save such (and other) customizations) is your personal document-template to take with you (e.g. on a USB flash drive) and load wherever you run Word.

1.2.2.1.2.3 Symbol Palette

Go to: Insert / Symbol:

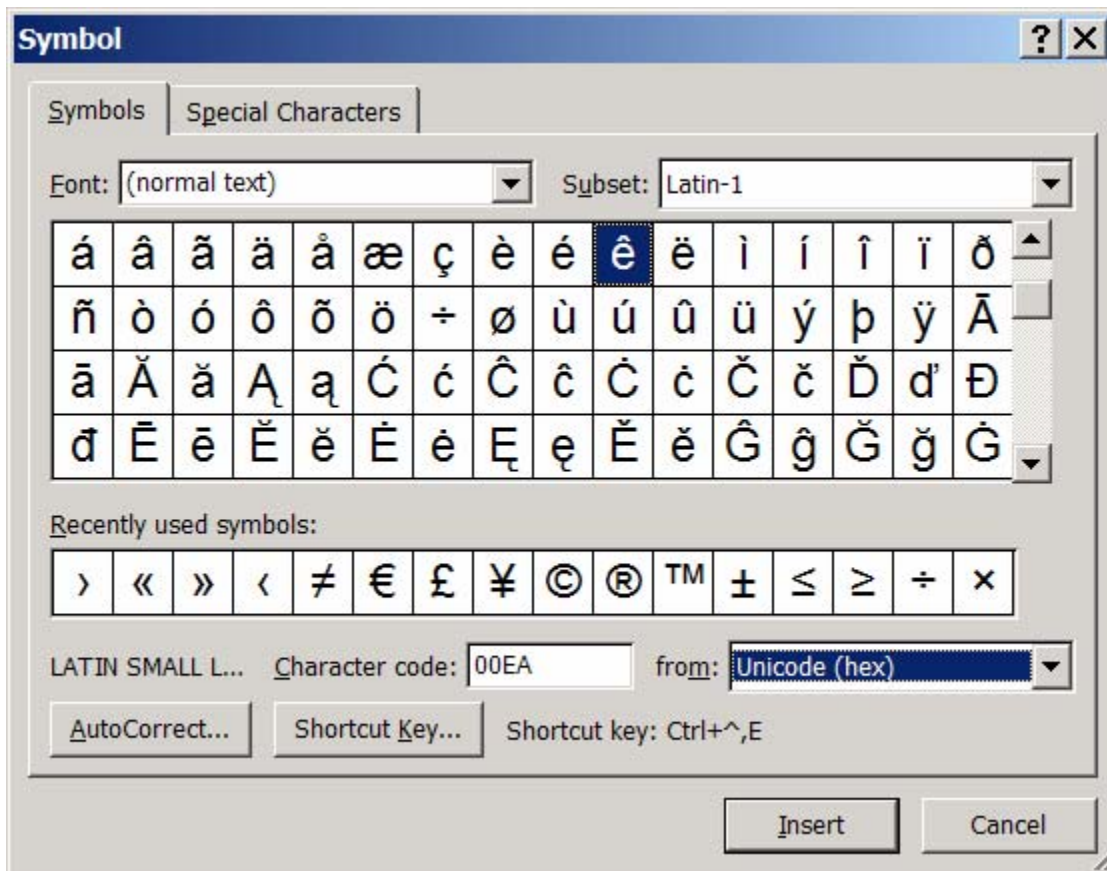


Figure 16: Word: Insert Symbol Dialogue – Symbol Palette

2 Non-European Languages

2.1 If you use the Language Lab

Use the Flag menu of supporting applications to change the keyboard layout to Arabic or bring up the input method editors for East-Asian languages. Language entries that the application does not support will appear grayed out in the Flag menu



Figure 17: MAC OS X Flag Menu

2.1.1 Arabic

While only Computer 3 has an Arabic keyboard, you can switch the keyboard layout to Arabic

through the Flag menu of any supporting application if you want to type Arabic text, e.g. in Mellel.

Remember to also change the font to one that can display Arabic characters.

2.1.2 East-Asian Languages

Upon switching to an East-Asian language, a submenu for this language will appear to the right of the Flag menu, the so called Pencil menu, denoted by the icon . Consult this menu for important language-specific settings.

2.1.2.1 Chinese

Through the Flag menu of any supporting application, you can switch the input method to either traditional or simplified  简体中文 Chinese.

Note that you can switch the Pencil Menu for Chinese between English and Chinese:



Figure 18: Pencil Menu Chinese in Chinese

Notable Pencil Menu items include:

- ❖ "ABC Standard" or Pinyin is one common input method you can choose. This input method editor is based on phonetics: The Pinyin phonetic transcription system transcribes the standard Mandarin pronunciation of the character. Based on the sounds you type on a roman keyboard, followed by a space, a selection palette will offer a variety of Chinese characters which start with that sound. Select the desired character and press enter to insert it.
- ❖ Show Associated Words: After you successfully entered a Chinese character, the selection palette reappears with a list of characters that form words or phrases that begin with the character you entered.
- ❖ Show/Hide Operation Palette: offers shortcuts to common Pencil menu items.

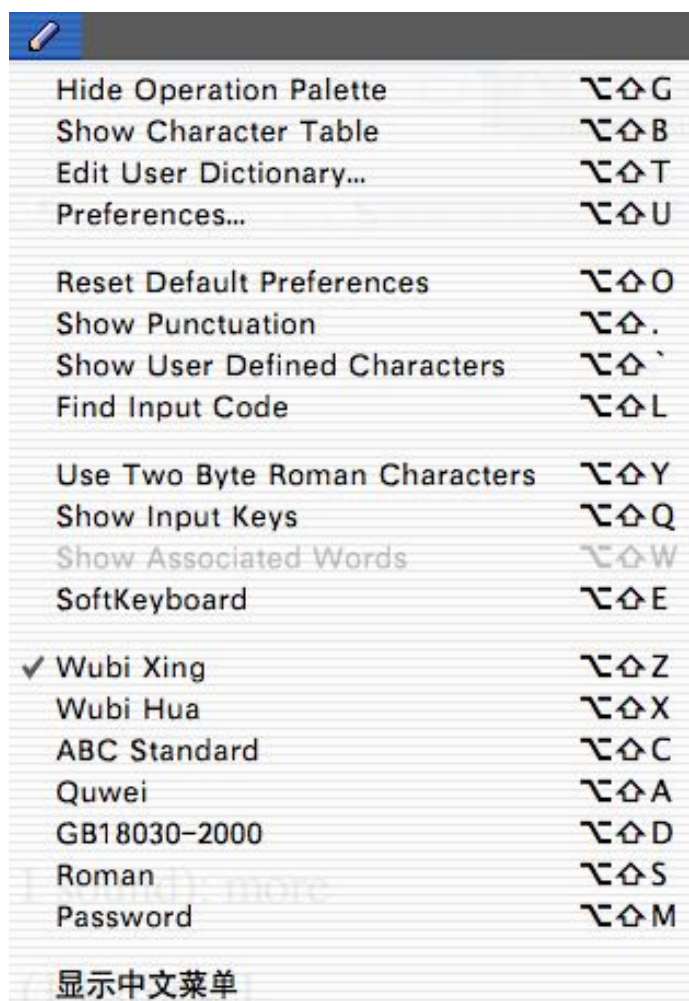


Figure 19: Pencil Menu Chinese in English



Figure 20: A Selection Palette for Chinese

2.1.2.2 Japanese

Through the Flag menu of any supporting application, you can switch the input method to

Japanese  ことえり.

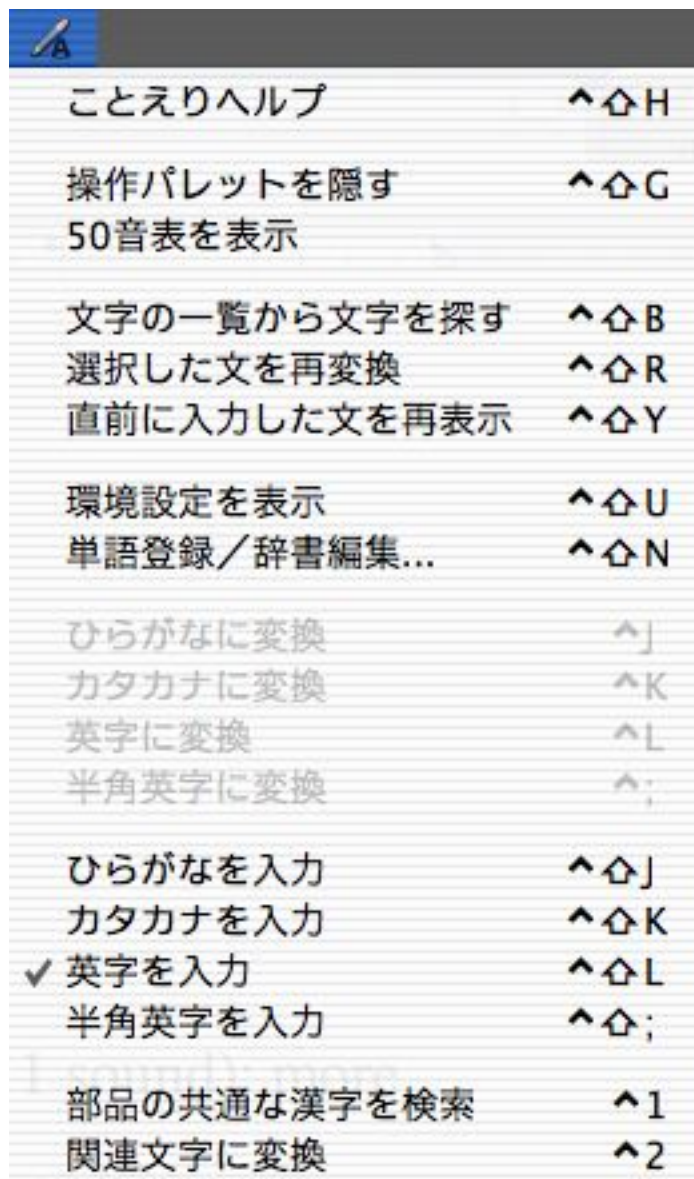


Figure 21: Pencil Menu for Japanese

Notable Pencil Menu items for Japanese include:

- ❖ The 2nd option "Hide/Show Input Palette" (Control – Shift – G) is activated. The Input Palette will be visible: It offers shortcuts to common Pencil menu items.



Figure 22: Input Palette for Japanese

The Input Palette has the following output options:

1. the 1st button from the top left activates: Hiragana, a phonetic alphabet of general use, which is covered in the 1st year of the Japanese language program;

2. the 2nd button from the top left activates Katakana, also a phonetic alphabet that is used for foreign words, sounds, etc., and which is covered in 2nd year of the Japanese language program;
3. the 3rd and 4th buttons activate latin alphabets.

After activating the 1st button (Hiragana), entering `dog = "inu"` on a US-English keyboard gives you the phonetic transcription: いぬ. If you press space after the word, it will turn Hiragana into a Kanji (= Chinese) character that sounds like that: 犬. For homonyms (i.e. if there is more than one Chinese character that sounds like that, e.g.: さく *saku* – 紗区), upon entering space twice, a so-called Selector Palette with Kanji characters appears. Click the character you mean to insert it, hit escape to undo.

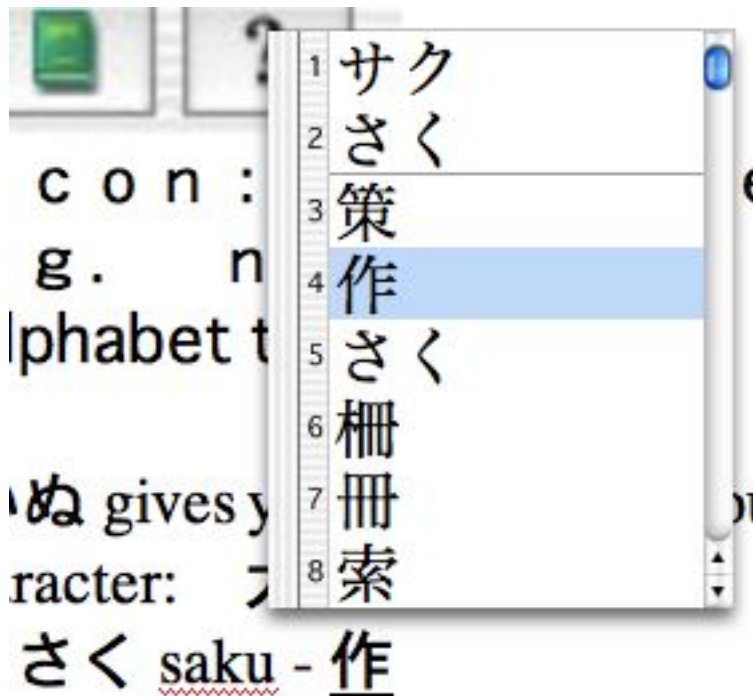


Figure 23: Kanji Selector Palette for Japanese

3 Exercises

See assignment sheet (Hand-out, Blackboard Posting).

4 Appendix

4.1 Mac OS X Character Charts

This chart of keyboard shortcuts includes punctuation characters:

á	alt-e a	Á	alt-e shift-a	à	alt-` a	À	alt-` shift-a
é	alt-e e	É	alt-e shift-e	è	alt-` e	È	alt-` shift-e
í	alt-e i	Í	alt-e shift-i	ì	alt-` i	Ì	alt-` shift-i
ó	alt-e o	Ó	alt-e shift-o	ò	alt-` o	Ò	alt-` shift-o
ú	alt-e u	Ú	alt-e shift-u	ù	alt-` u	Ù	alt-` shift-u
ä	alt-u a	Ä	alt-u shift-a	â	alt-i a	Â	alt-i shift-a

ë	alt-u e	Ë	alt-u shift-e	ê	alt-i e	Ê	alt-i shift-e
ï	alt-u i	Ï	alt-u shift-i	î	alt-i i	Î	alt-i shift-i
ö	alt-u o	Ö	alt-u shift-o	ô	alt-i o	Ô	alt-i shift-o
ü	alt-u u	Ü	alt-u shift-u	û	alt-i u	Û	alt-i shift-u
ÿ	alt-u y	Ÿ	alt-u shift-y	å	alt-a	Å	alt-shift-a
ã	alt-n a	Ã	alt-n shift-a	ø	alt-o	Ø	alt-shift-o
ñ	alt-n n	Ñ	alt-n shift-n	ç	alt-c	Ç	alt-shift-c
õ	alt-n o	Õ	alt-n shift-o	¿	alt-shift-/	¡	alt-1
ß	alt-s						

4.2 Win XP Character Charts

Keyboard Shortcuts using 4 digit character code number with ALT-Key:

	numeric	shortcut		numeric	shortcut		numeric	shortcut		numeric
á	alt-0225	ctrl-, a	Á	alt-0193	ctrl-, shift-a	à	alt-0224	ctrl-` a	À	alt-0192
é	alt-0233	ctrl-, e	É	alt-0201	ctrl-, shift-e	è	alt-0232	ctrl-` e	È	alt-0200
í	alt-0237	ctrl-, i	Í	alt-0205	ctrl-, shift-i	ì	alt-0236	ctrl-` i	Ì	alt-0204
ó	alt-0243	ctrl-, o	Ó	alt-0211	ctrl-, shift-o	ò	alt-0242	ctrl-` o	Ò	alt-0210
ú	alt-0250	ctrl-, u	Ú	alt-0218	ctrl-, shift-u	ù	alt-0249	ctrl-` u	Ù	alt-0217
ä	alt-0228	ctrl-shift- ; a	Ä	alt-0196	ctrl-shift- ; shift-a	â	alt-0226	ctrl-shift- 6 a	Â	alt-0194
ë	alt-0235	ctrl-shift- ; e	Ë	alt-0203	ctrl-shift- ; shift-e	ê	alt-0234	ctrl-shift- 6 e	Ê	alt-0202
ï	alt-0239	ctrl-shift- ; i	Ï	alt-0207	ctrl-shift- ; shift-i	î	alt-0238	ctrl-shift- 6 i	Î	alt-0206
ö	alt-0246	ctrl-shift- ; o	Ö	alt-0214	ctrl-shift- ; shift-o	ô	alt-0244	ctrl-shift- 6 o	Ô	alt-0212
ü	alt-0252	ctrl-shift- ; u	Ü	alt-0220	ctrl-shift- ; shift-u	û	alt-0251	ctrl-shift- 6 u	Û	alt-0219
ÿ	alt-0255	ctrl-shift- ; y	Ÿ	alt-0159	ctrl-shift- ; shift-y	å	alt-0229	ctrl-shift- 2 a	Å	alt-0197
ã	alt-0227	ctrl-shift- ` a	Ã	alt-0195	ctrl-shift- ` shift-a	ø	alt-0248	ctrl-/ o	Ø	alt-0216
ñ	alt-0241	ctrl-shift- ` n	Ñ	alt-0209	ctrl-shift- ` shift-n	ç	alt-0231	ctrl-shift- ` shift-n	Ç	alt-0199
õ	alt-0245	ctrl-shift- ` o	Õ	alt-0213	ctrl-shift- ` shift-o	¿	alt-0191	alt-ctrl-/	¡	alt-0161

β	alt-0223	ctrl-shift-7 s								
---	----------	----------------	--	--	--	--	--	--	--	--

Keyboard shortcuts using IBM ANSI 3 digit character code number with ALT-key:

128	Ç	144	É	160	á	176	—	192	+	208	-	224	—	240	—
129	ü	145	æ	161	í	177	—	193	-	209	-	225	ß	241	±
130	é	146	Æ	162	ó	178	—	194	-	210	-	226	—	242	—
131	â	147	ô	163	ú	179	—	195	+	211	+	227	¶	243	—
132	ä	148	ö	164	ñ	180	—	196	-	212	+	228	—	244	—
133	à	149	ò	165	Ñ	181	—	197	+	213	+	229	—	245	—
134	å	150	û	166	ª	182	—	198	—	214	+	230	µ	246	÷
135	ç	151	ù	167	º	183	+	199	—	215	+	231	—	247	—
136	ê	152	ÿ	168	¿	184	+	200	+	216	+	232	—	248	°
137	ë	153	Ö	169	—	185	—	201	+	217	+	233	—	249	•
138	è	154	Ü	170	¬	186	—	202	-	218	+	234	—	250	·
139	ï	155	¢	171	—	187	+	203	-	219	—	235	—	251	—
140	î	156	£	172	—	188	+	204	—	220	—	236	—	252	n
141	ì	157	¥	173	¡	189	+	205	-	221	—	237	—	253	—
142	Ä	158	Ʋ	174	´	190	+	206	+	222	—	238	—	254	—
143	Å	159	ƒ	175	ª	191	+	207	-	223	—	239	—	255	—