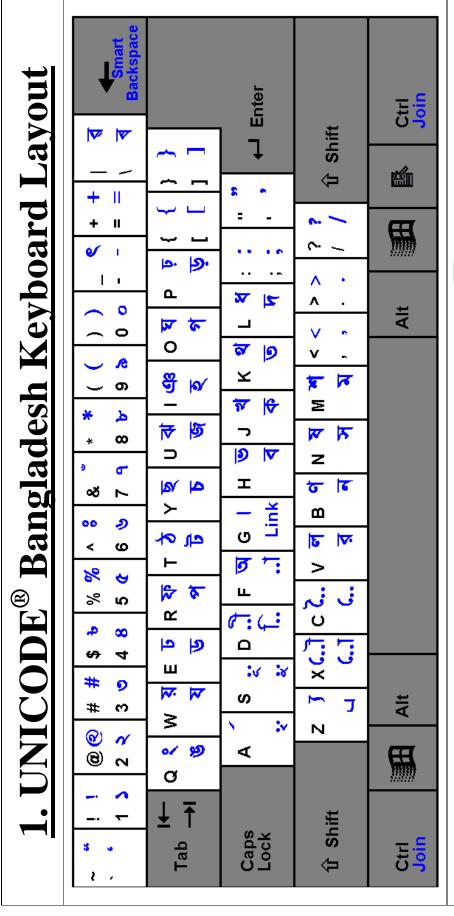


Easy Bangla Typing for MS-Word!



Bangla typing software yet produced! Prepare yourself for international standard UNICODE[®] Bangla typing. Fully integrated into the popular Word-processing software, Microsoft[®] Word 97/2000/XP, Ekushey really understands what you are typing. Type **C**, **T** & **Q** with the same key! Sort Bangla text! Ekushey is more flexible, powerful, compatible and easier to use than any other software for MS-Word.

1. UNICODE® Bangladesh Keyboard Layout	1
2. Typing Vowels	
3. Typing Consonant Conjuncts	
4. Configuring Ekushey	
5. Transliteration	
6. Sorting Bangla	8
7. Extra Features	
8. Alternative Keyboard Layouts	11
9. Font Compatibility	
A1. Conjunct Consonant Forms Supported	



To switch between Bangla and English, press the F6 key. To get '\', type either Space g or g Space.

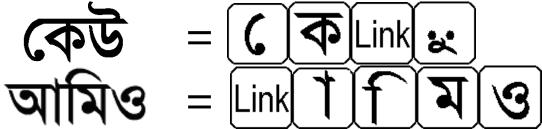
To build conjunct consonants, type the 'Link' key between the letters.

(The European - 102 Key - Version differs only as regards the single and double quotes keys)

2. Typing Vowels

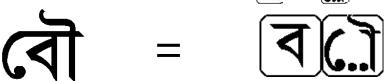
(A) Graphic Input Method (with Link)

For older typists, Ekushey supports graphical typing (with the Link key):



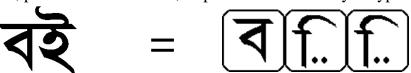
(B) Phonetic Input Method (UNICODE standard)

For more accurate typing use *phonetic* order, the order you speak. This also saves a keypress for and ::



For initial vowels, or two in a row you don't need the 'Link' key:

To type the full form of a vowel when the short form is grammatically feasible, press the vowel twice, or press 'Link' before you type it:



3. Typing Conjunct Consonants

(A) With "Link"

To those familiar with the older generation of Bangla typing system, this method will need no introduction. Press 'Link' between the characters you wish to join together:



(B) With "Join"

Ekushey offers another option for typing conjuncts, that may suit you better. First type the component consonants, then to press the 'Join' key to join them together:





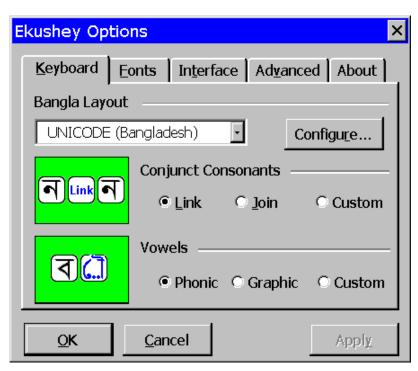
4. Configuring Ekushey

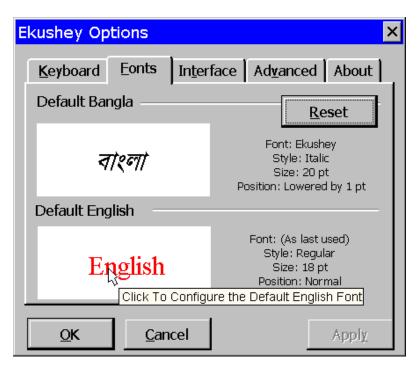
Ekushey installs with a default set of options that should suit most users, but it is easily changed if you wish to adjust how you use Ekushey. There are four categories of options: Keyboard (*shown right*), Fonts, Interface & Advanced.

Keyboard

At the top of this screen is a drop down list of the layouts you have recently used.

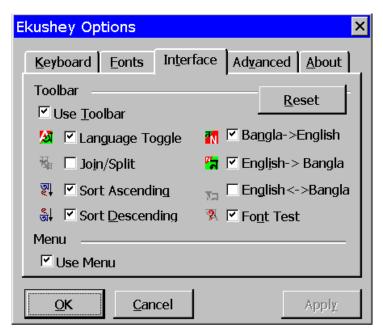
Choose between the Link & Join methods for typing conjuncts and the Phonic & Graphic input methods for typing vowels.





Default Fonts

The **Fonts** configuration screen displays the default styles for English and typing. Bangla To switch between the two, just press the F6 key (in the middle of the top row of keys on your keyboard).

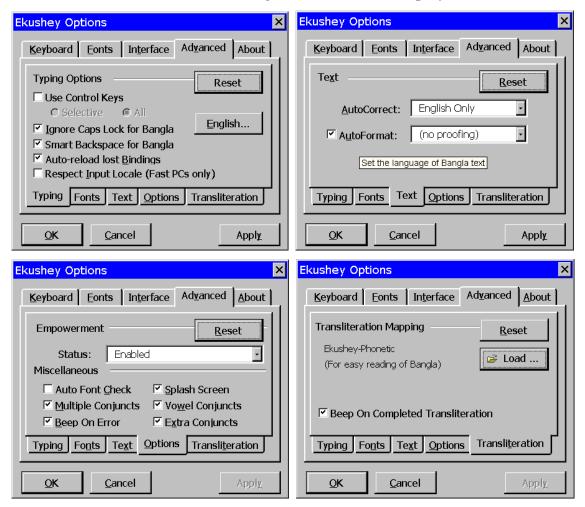


Interface

By default Ekushey installs its own toolbar and sub menu (at the top of the Word Tools menu). You can turn off one or other of these of but not both – (otherwise you'd have problems finding the configuration screen!) You can also choose the composition of the toolbar.

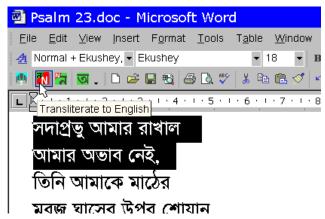
Advanced Options

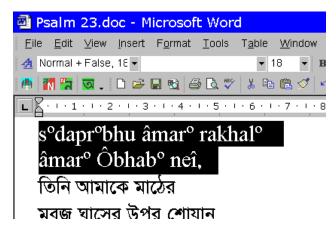
Ekushey is flexible and easily customised. Novice users need not concern themselves with the advanced settings, which are all set up by default.



5. Transliteration (English ←→ Bangla)

Ekushev' transliteration feature allows for easy conversion from Bengali text to an English equivalent and then back to the original Bengali. Just select the text that you would like to convert to English and click on the (Transliterate to English) icon:





The selected text is converted into English text according to transliteration rules. This creates a phonetic version, to help non-readers of Bangla to pronounce the file. Like English, Bangla is not a phonetic language, so perfect transliteration is not possible, but English speakers can improve the accuracy of their reading by the following notes:

• The vowel 'o' is sometimes not pronounced, is sometimes pronounced 'Oh' and sometimes pronounced 'a'... but when it occurs after a cluster of consonants at the end of a word it is pronounced 'Oh'

Bangla	English		
Transliteration	Pronunciation		
s, š, S, sb, šb	sh		
th, Th	t+h		
	(Separate		
	sounds)		
oYa	W		

The mapping explained above is contained in the file phonetic.21m, which loads by default, but Ekushey comes with two other such transliteration files:

bang-tex.21m

- Converts Bangla documents into the format used by Anshuman Pandey's Bengali for TEX package.

sorting.21m

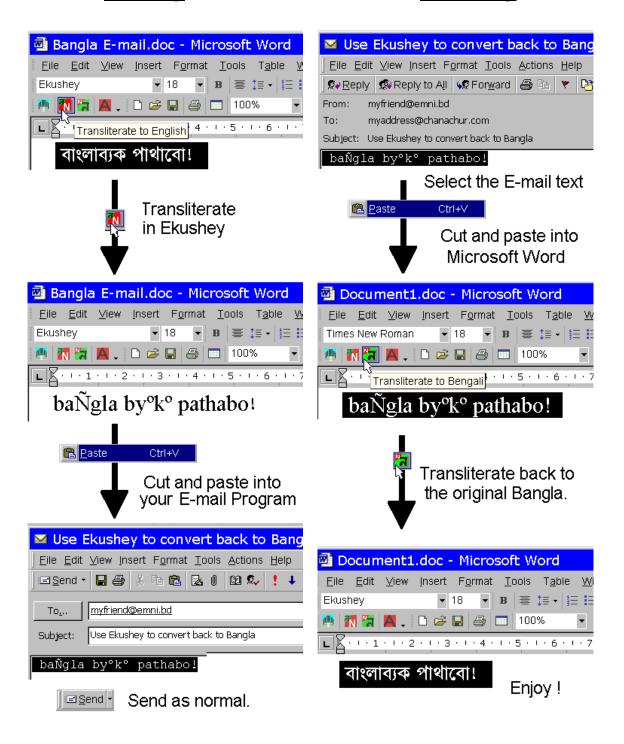
- Converts Bangla documents into a form that can be easily sorted (explained in the next section).

Bangla E-mails

The transliteration feature is useful for typing real Bangla into software that expects input as simple text. e.g. Sending Bangla E-mails as plain text instead of HTML format is *much* more efficient; they will send & receive about 10 times as fast. To send and receive Bangla via E-mail in plain text format:

Sending

Receiving



6. Sorting Bangla

Word offers a powerful range of options to users wishing to English text. However, this feature is intended for scripts that use the Roman alphabet, so is unusable with Bangla text. The problems of interpreting conjunct consonants, and the writing order of vowels are significant difficulties for the sorting of Bangla text. However, Ekushey is equipped with the following two sort buttons:







Select the text as shown on the right and click on one of these buttons and you will see Ekushey automatically perform the following three steps which sort the text for you:



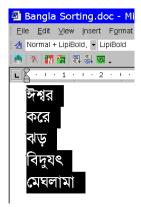
1. Convert to Sortable English script

Converting Bangla to English characters with the mapping 'sorting.21m' transliterates from Bengali in such a way that the new words (although they look strange) sort correctly under MS-Word's sorting function.



2. Sort With MS-Word

Use Word's Sort... function, to rearrange these words, either in ascending () or descending () order.



3. Transliterate back into Bangla

Ekushey's *Transliterate to English* function (will recreate the original Bengali text from the English words, now sorted correctly.

7. Extra Features

Apart from doing smaller things such as making an automatic choice of Ecca (((/)) - which some other typing systems do, Ekushey does a lot more to help you type Bangla. Since it is resident within Microsoft Word, it knows much more about what you are typing than other typing systems. It communicates with Microsoft Word to control how this program behaves. For example:

Auto-Correct

Word's *AutoCorrect* feature is useful to improve the accuracy of your English typing, but since it does not understand Bangla it corrupts Bangla typing. If you type documents in both languages you may have given up using it because you are tired of turning it off whenever you switch between English and Bangla. With Ekushey, this is no problem – if the Autocorrect option is set to 'English Only' then Ekushey does the rest.

Language Formatting

In a similar way, you can set up Ekushey to format the language of what you type depending upon the font you use. This informs Word not to try to spell-check it with an English dictionary or to apply rules of English grammar.

Smart Backspace

In Word, Backspace deletes one English character and Control+Backspace one English word. Unfortunately, Word does not understand Bangla, so these usually delete half a character or half a word. If you use Ekushey's *Smart Backspace* option then both of these commands work correctly.

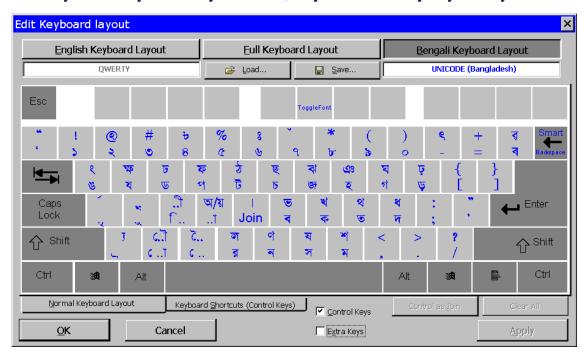
Further details

Ekushey has a few other options, which are largely self-explanatory, concerning the range of conjuncts used, use of Microsoft Word-specific formatting to enlarge the range of conjuncts available.

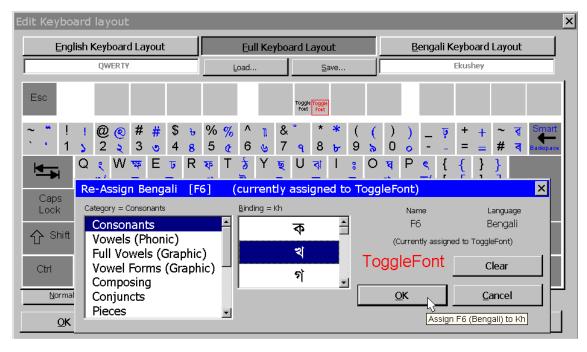
This file is intended to get you started. If you require more details, consult the **Ekushey Frequently Asked Questions** file, **EKFAQ220.htm**, either on the web or from your start menu (if you've installed Ekushey). This contains answers many more detailed questions about using, installing and troubleshooting Ekushey. Should you require any further support, please E-mail Altruists International on 21@altruists.org.

8. Alternative Keyboard Layouts

Ekushey has a Keyboard Layout editor, so you can use any keyboard you like:



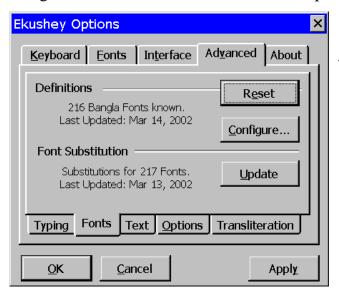
Most popular layouts are already created and saved to file. Click the 'Load...' button and select the layout file you require, and just 'Apply' it to start typing.



To modify a layout, drop and drag the keys to the correct places, or click on a key to make a new assignment (as shown above). The editor is easy for novices to use and yet offers advanced users powerful functionality such as modifying the English layout and even re-assigning the function keys and/or control Keys.

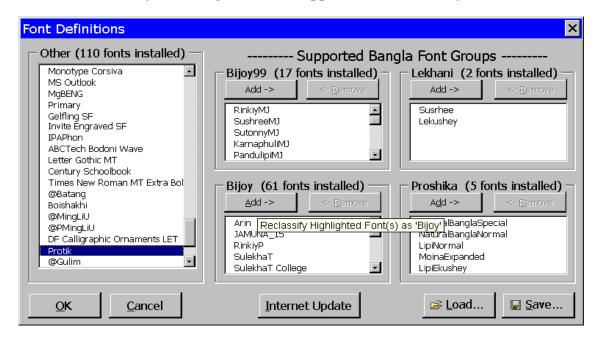
9. Font Compatibility

Font *in*compatibility has been a big problem for Bangla IT from the very beginning. Bangla typing programs typically use separate proprietary formats, causing problems as soon as files move between different systems; files in a Bangla font are not readable unless the recipient also has that font installed.



Ekushey uses Microsoft Office's font substitution feature to tackle this problem. This means that if you open a document in a Bangla font that is not present on your system, it displays with a compatible Bangla one. Ekushey installs 5 fonts, including support for the 4 most popular groups in Bangladesh. This allows you to read and print documents written in well over 200 of the most popular fonts.

Keeping Ekushey up to date is as easy as clicking on the '<u>Internet Update</u>' button. This contacts <u>www.altruists.org</u> to download and install details of the latest fonts, so they are recognized and supported automatically.



Advanced may wish to manage their fonts manually may do so as shown above. Fonts can be reassigned to any of the supported groups, and the settings can be imported and exported to a text file so you can easy set up multiple computers.

Appendix 1 Conjunct Consonant Forms Supported

Letters	Conjunct(s)1	Conjunct(s) ²	Letters	Conjunct(s)1	Conjunct(s)2
কক	₹	₹	ঙখ	®	%
কতর	ক্ত	ক্ত	ঙগ	ञ	39
কন	ক	ক্র	ঙঘ	জ্ঞ	७४८
কব	ক্	₹ <u></u>	ঙ্ম	জ্ঞা	@2
ক্ম	কু	ঝু	ঙকর	ন্ত্রক	<u> জন্ত</u>
ক্য	ক্য	ক্য	ঙঘর	স্থ	७९
কর	ক্র	ক্র	ঙকষ	ভ ক্ষ	@X
কল	ক্ল	ক্ল	চচ	₹	फ
কষ	ক্ষ	**	চছ	矮 *	क्र्
কস	ক্স	अ	<u>চ</u> ন্দ্ৰ	ট্ শঃ	ल्ड
কত	ক্ত	<u>&</u>	চয	চ্য	চ্য
কষণ	***	**	চছব	쪛	क्र्यू
ক্ষম	ক্ষ্	क्रू	চছর	逐	PE
খয	খ্য	খ্য	জজ	জ্জ	জ্জ
গউ	છ	®	জঝ	জ্ব	জ্ব
গগ	ঙ্গ	প্ত	জঞ	<u>ড</u>	জ
গদ	গদ	৽৸	জব	জ্ব	জ্ব
গধ	প্ধ	%	জয	জ্য	জ্য
গন	গ্	ฎ	জর	জ্ব	জু
গ্র	গাু	গ্ম	জজব	জ্জ্ব	জ্জ
গ্য	भु	গ্য	ব্য	*3	**
গল	ផ្ល	ฎ	ঞ্ছ	જ્	&
গর	গ্ৰ	গ্ৰ	এঞ্জ	89	89
ঘন	য়	য়ু	ঞ্ঝ	এ্ব	%
ঘর	য্ৰ	ঘ্ৰ	টট	ট	ថ្ង
ঙক	ঙ্ক,ঙ্ক	ষ্ক,ঙ্ক	টব	টু	Þ

Letters	Conjunct(s)1	Conjunct(s) ²	Letters	Conjunct(s)1	Conjunct(s) ²
টম	ট্ম	ট্র	দব	দ্ব	দ্ব
টর	টু	Ĵ	দম	দ্ম	দ্ম
ঠয	र्ग	र्ग	দয	দ্য	দ্য
ডড	ডড	ড্ড	দভর	দ্র	I
ডর	ড্র	ড	দর	7	দ্র
ডয	ড্য	ড্য	ধব	ধব, ধ্ব	ধ্
<i>চ</i> য	ট্য	ট্য	ধ্য	ধা	ধ্য
ণট	ন্ট	্ট *	ধ্য	ধ্য	ধ্য
ণঠ	Ý	ð	ধর	ধ্ৰ	ধ
ণড	જુ	ন্ত	নট	<i>ন</i> ট	ন্ট
পন	ព្	গ্	ন্ড	ख	ভ
ণব	প্ব	পু	নত	ন্ত	⊗
ণয	ণ্য	ণ্য	নতউ	छ	₹
ণডর	9	শু	নথ	ङ्	₹
তত	ত্ত	ভ	ন্দ	न्म	<u>~</u>
তথ	খ	খ	নধ	ন	ন্ধ
তব	তৃ	\$	নন	ন্ন	ন্ন,ন্দ
তম	ত্ম	ত্ম	নব	ন্ব,ন্ব	নু,ন্ব
তয	ত্য	ত্য	ন্ম	ন্ম	ন্ম
তর	ত্র	ত্র	ন্য	ন্য	ন্য
ততব	ত্ত্ব	\$	নটর	ন্ট	1 3
থব	থ	থু	ন্ডর	ভ	ন্ত
থয	থ্য	থ্য	নতর	ন্ত্র	<u> 3</u>
দগ	দগ	ক ক	নদর	ন্দ্ৰ	-মূ
দঘ	দঘ	प्रदा *	নধর	ব্র	ব্র
দদ	m	ष	পত	প্ত	প্ত
দধ	ন্ধ	দ্বা	পট	প্ট	পট় *
দভ	দ্ভ	দ্ভ	পপ	\$	প্প

Letters	Conjunct(s)1	Conjunct(s) ²	Letters	Conjunct(s)1	Conjunct(s)2
পল	젋	젔	যয	या	য্য
পন	2 A	প্ন	লক	ক্ষ	₹
পয	প্য	প্য	লগ	ন্ধ	লগ
পর	প্ৰ	업	লদ	জ দ *	ল্
পস	প স*	ॐ *	লপ	छ	<i>ল</i> প
ফর	ফ্র	ফ্র	লফ	व्य	ब्युः
ফল	बहु	ङ्ग	লব	ब्ब	ন্ত
বজ	জ	ব্য	লম	ল্ম	লা
বল	র	র	লয	ল্য	ল্য
বদ	ব্দ	₹	ଟଟ	ল্প	ল্ল, ল্ল
বধ	ৰূ	ৰ	লফর	শ্র	न्युः
বব	ব্ব,ব্ব	ৰ্ম,ব্ব	লট	ল্ট	₹
বয	ব্য	ব্য	শউ	®	®
বর	ব্ৰ	ব্ৰ	শর	<u>*</u>	<u>শ</u>
ভয	ভ্য	ভ্য	শল	*	36
ভর	ভ্ৰ	ভ্	শচ	% D	* T
<u>\$</u>	ত্ত্	<u>\$</u>	শছ	× ∑	* ₽
মন	য়	¥	শ্ব	X.	न
মল	ਸ਼	ম্ফ্র	শ্ব	*\$	अ
মপ	म्ब्य	राष्ट्र	শ্ব	»J	भी
মফ	শ্ব	<u>•्र</u> ्फ	শ্য	*17	* IJ
মব	ম্ব,ম্ব	স্ব,মূ	ষক	ক্ষ	ब्क
মভ	म्ड	ख	ষ ট	ষ্ট	छु
মম	ম্ম,ম্ম	ম্ম	ষঠ	र्छ	र्छ
ম্য	ম্য	त्री	ষপ	<u>करु</u>	88≥
মর	ম্	য	ষফ	द्धाः	ळ्
মপল	ਸਕ੍ਰੀ	ब्यु	ষকর	3	<u>জ্ঞ</u>
মভর	ম্ভ	ম্ব	ষটর	ষ্ট্ৰ	\$

Letters	Conjunct(s)1	Conjunct(s) ²	Letters	Conjunct(s)1	Conjunct(s) ²
ষণ	ষ্ণ	ষ্	সব	স্ব,স্ব	স্ব,সৃ
ষম	ঙ্গ	ত্য	সম	স্ম	স্ম, সা
স্য	স্য	স্য	সকর	3	स्कृ
সর	শ্র	শ্র	সপল	<u>क्र</u> ुष्ट्र	284
সক	ক	₹ 7	হউ	ছ	ন্থ
সখ	স্থ	∞ ≉	হ্ঋ	হ	হ া
সট	স্ট	স্ট *	হণ	ञ्च	इ
সত	छ	<i>⊗</i>	হন	ফ	হ্
সথ	ञ्	3 2	হম	শ্বা	শ্ব
সপ	2004	2029	হ্য	হ্য	হ্য
সফ	ক	স্ফ	হ্র	হ্র	2
সতউ	ख	স্ট	হল	2	2
সতর	ন্ত্র	Rg	ড়গ	ড়গ	ড়া *
সন	স্ন	য়		¹⁼ Bijoy Layout fonts	²⁼ PCS (Lipi) Layout fonts

Many of the less common and more obvious conjuncts have been omitted from the above list, although they can be typed with *Ekushey*. Many of the conjunct consonants on this list can be compounded by adding \boxed{J} , $\boxed{\ \ \ \ \ \ \ \ \ \ \ \ \ \ }$, etc

Conjuncts marked '* are enabled on via the 'Enable Extra Conjuncts' option from the configuration screen. They use Word-specific formatting, to offer a letters not usually available in the chosen font, so may not be visible as conjuncts in all other programs.

Those which involve vowels are turned with the 'Vowel Conjuncts' option from the configuration screen.

Where there is more than one conjunct listed, the first one is the only one available unless you choose the 'Multiple Conjunct Forms' option from the configuration screen. In this case, the first one is used by default, and subsequent presses of the Join button proceed through the list. To join straight to the second one, use Join2 (on Ekushey kayboard, Ctrl+Join).

UNICODE is a Registered Trademark of The Unicode Consortium. - http://www.unicode.org/