



Easy Bangla Typing for MS-Word !



WELCOME to Ekushey 2.2c, the easiest and most powerful 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 **ঢ**, **ত** & **এ** with the same key! Sort Bangla text! Ekushey is more flexible, powerful, compatible and easier to use than any other software for MS-Word.

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1. UNICODE® Bangladesh Keyboard Layout

~ “	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	- -	+ =	 \	↩ Smart Backspace
Tab ← →	Q উ	W ঊ	E ঋ	R ঌ	T ট	Y ছ	U জ	I ঝ	O ঞ	P গ	{ [}]		
Caps Lock	A ঐ	S ও	D ঔ	F ঐ	G ঐ	H ঐ	J খ	K খ	L থ	:	"	:	↵ Enter	
↑ Shift	Z জ	X খ	C চ	V ব	B ব	N ন	M ম	শ শ	< ,	> .	? /		↑ Shift	
Ctrl Join	Alt	Alt												Ctrl Join

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):

কেউ = [কে] [ক] [Link] [ঊ]
আমিও = [Link] [া] [ি] [ম] [ও]

(B) Phonetic Input Method (UNICODE standard)

For more accurate typing use *phonetic* order, the order you speak.

This also saves a keypress for [ৌ] and [ৌ]:

বৌ = [ব] [ৌ]

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

কেউ = [ক] [ে..] [ঊ]
আমিও = [া] [ম] [ি..] [ৌ]

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:

বই = [ব] [ি..] [ি..]

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:

ক্ষ = [স] [Link] [ক] [Link] [র] [ঙ]

(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:

ক্ষ = [স] [ক] [Join] [র] [Join] [ঙ]
উজ্জ্বল = [ঙ] [জ] [জ] [ব] [Join] [Join] [ল]

More advanced ways are also available that can speed up the typing of conjuncts.

e.g. Using the [⌣] key, equal to [র] Join, or [Join2 (Ctrl+Join)], equal to [Join] [Join]

ক্ষ = [স] [ক] [Join] [⌣] [ঙ]
উজ্জ্বল = [ঙ] [জ] [জ] [ব] [Join2] [ল]

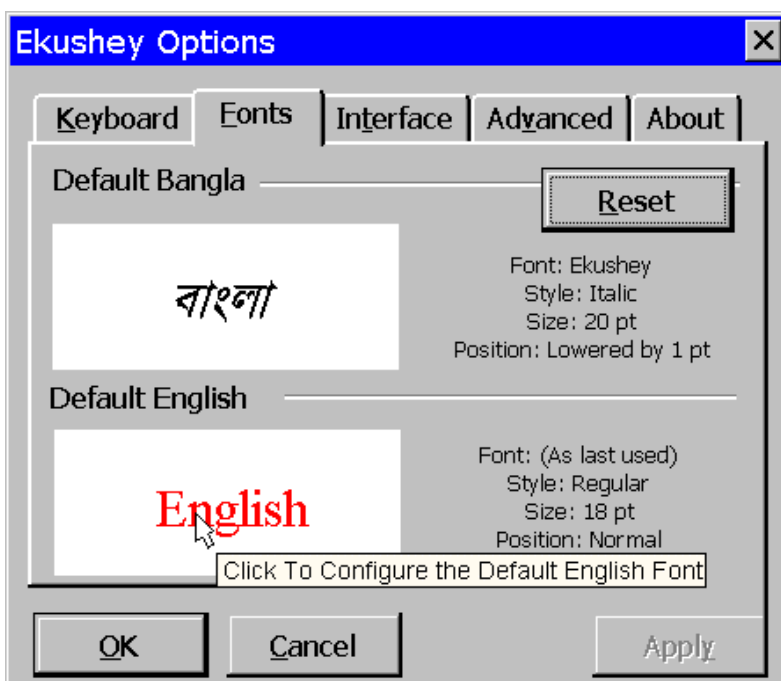
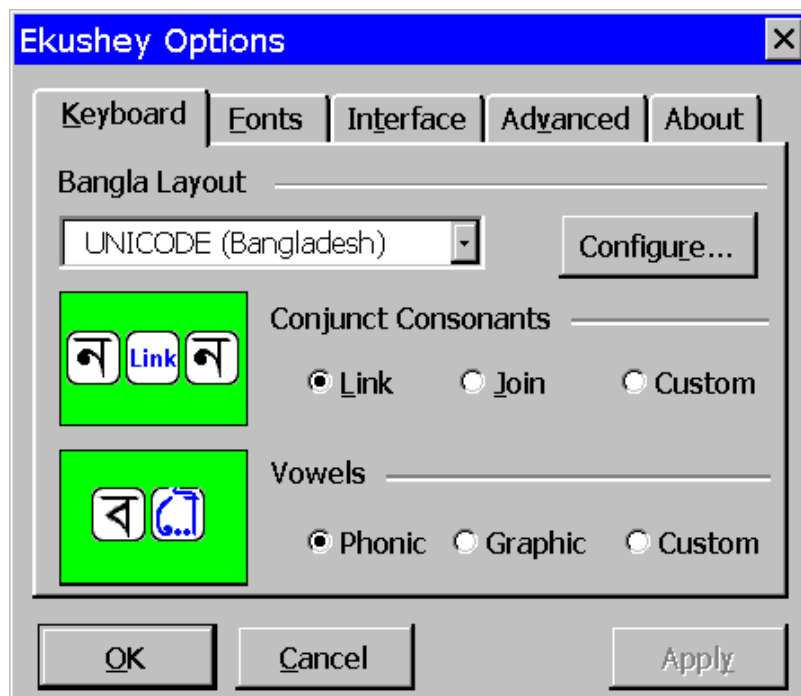
4. Configuring Ekushey

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 Bangla typing. To switch between the two, just press the F6 key (in the middle of the top row of keys on your keyboard).

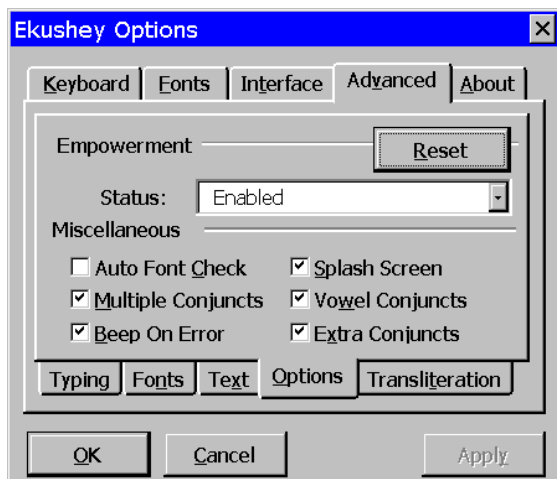
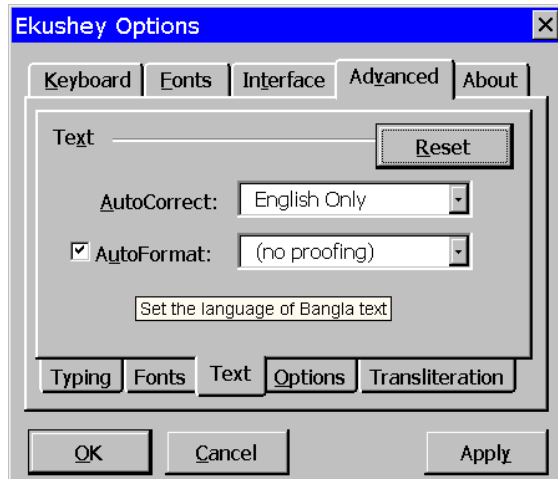
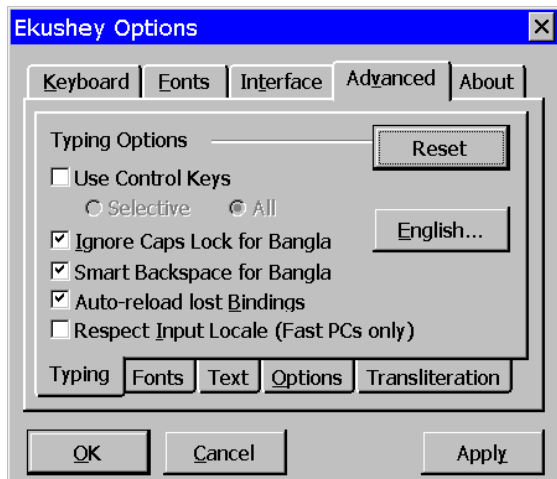


Interface

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.

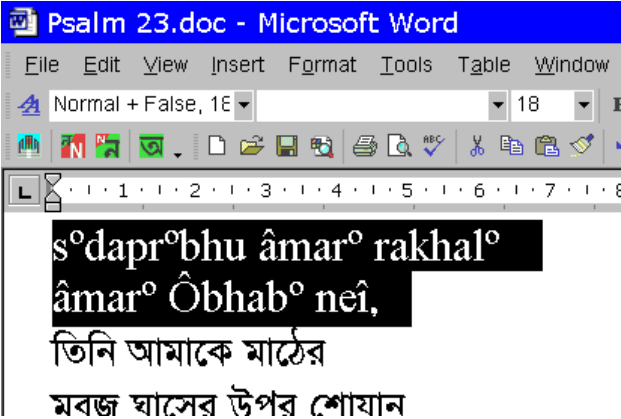
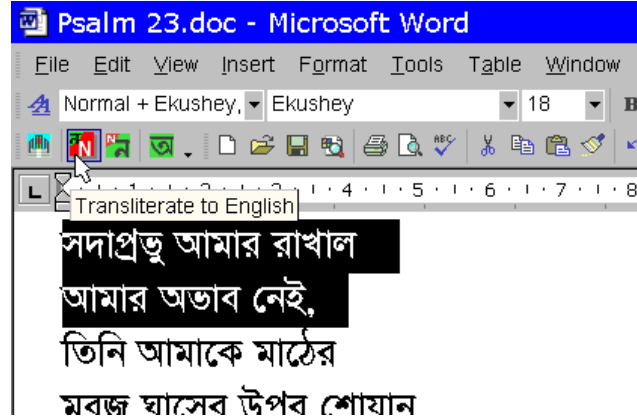
Advanced Options

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)

Ekushey' 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 Transliteration	English Pronunciation
s, š, S, sb, šb	sh
th, Th	t+h (Separate sounds)
oYa	w

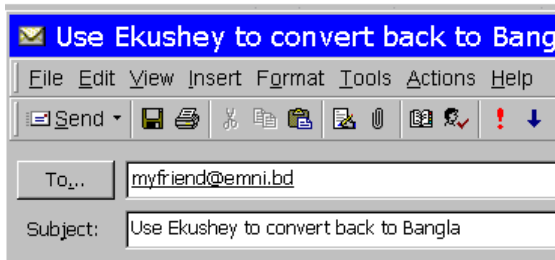
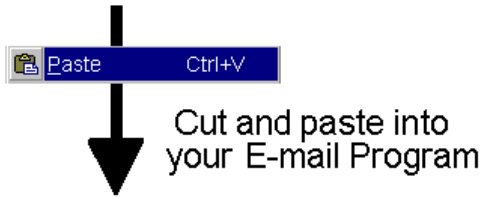
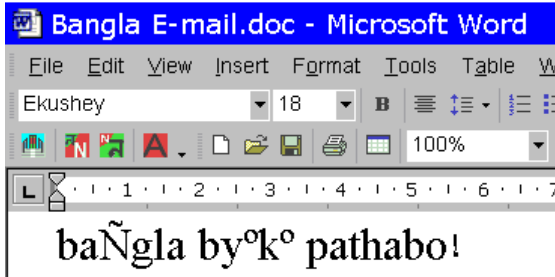
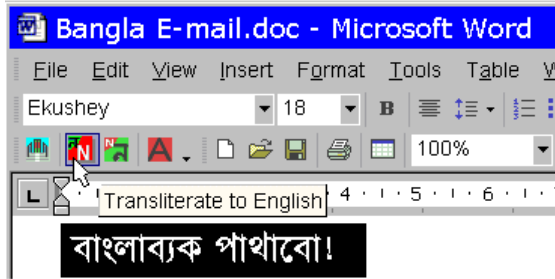
The mapping explained above is contained in the file `phonetic.21m`, which loads by default, but Ekushey comes with two other such transliteration files:

- `bang-tex.21m` - Converts Bangla documents into the format used by Anshuman Pandey's Bengali for T_EX package.
- `sorting.21m` - Converts Bangla documents into a form that can be easily sorted (explained in the next section).

Bangla E-mails

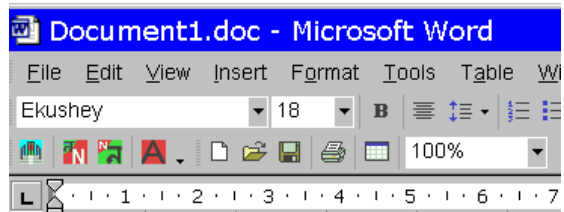
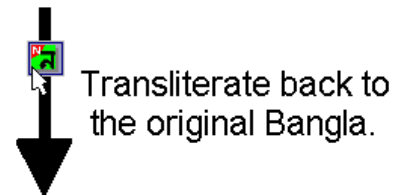
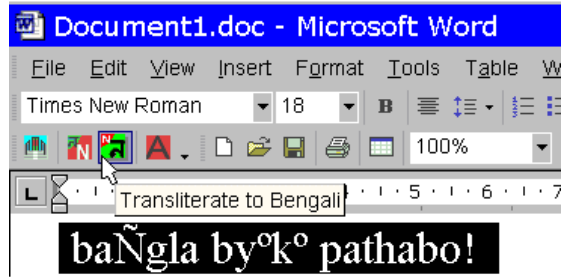
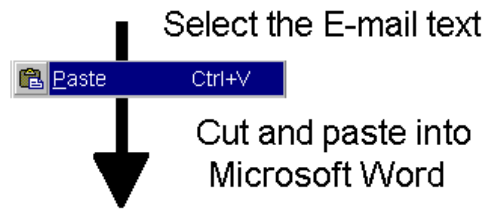
The transliteration feature is useful for typing real Bangla into software that expects input as simple text. e.g. Sending Bangla E-mails as plain text instead of HTML format is *much* more efficient; they will send & receive about 10 times as fast. To send and receive Bangla via E-mail in plain text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

Sending




Send as normal.

Receiving



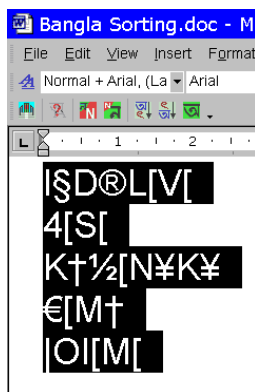
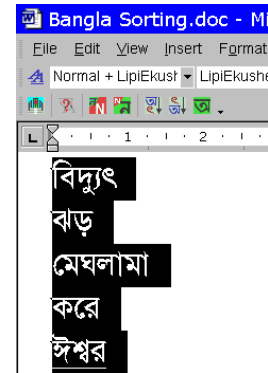
Enjoy !

6. Sorting Bangla

Word offers a powerful range of options to users wishing to  Sort... 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:

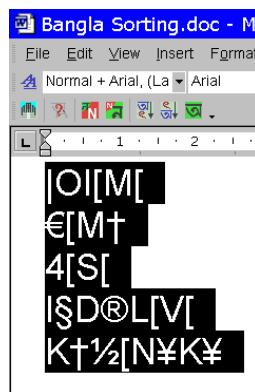
 = Sort Ascending  = Sort Descending

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:






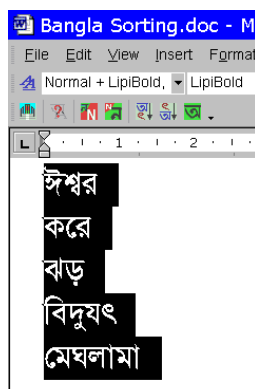
1. Convert to Sortable English script

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.

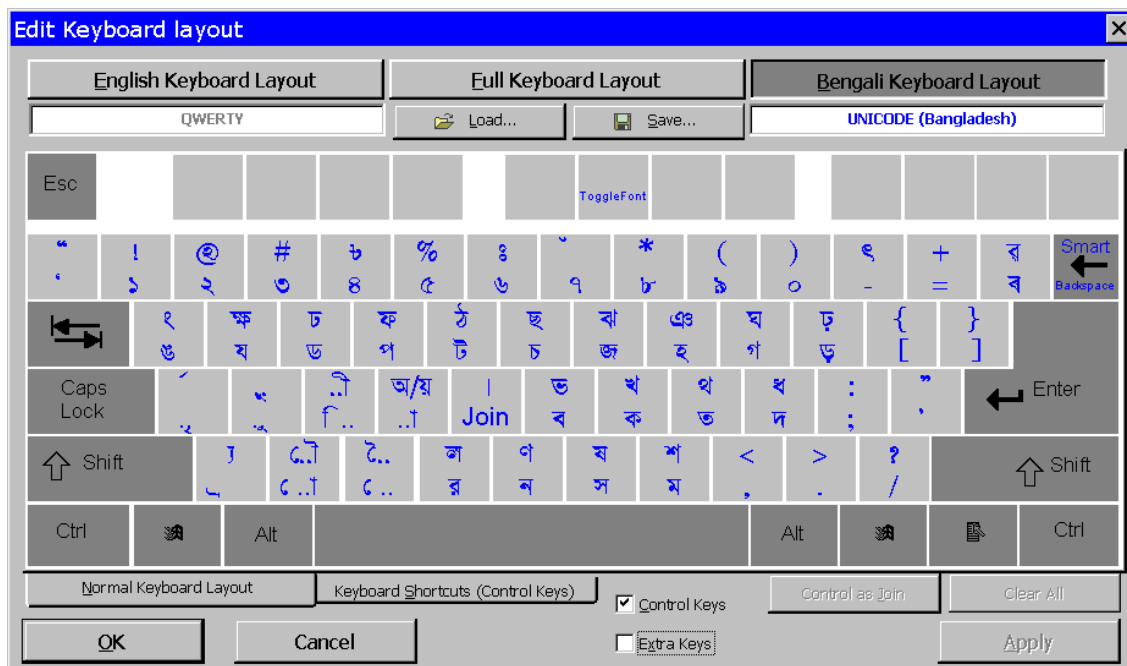
Further details

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.

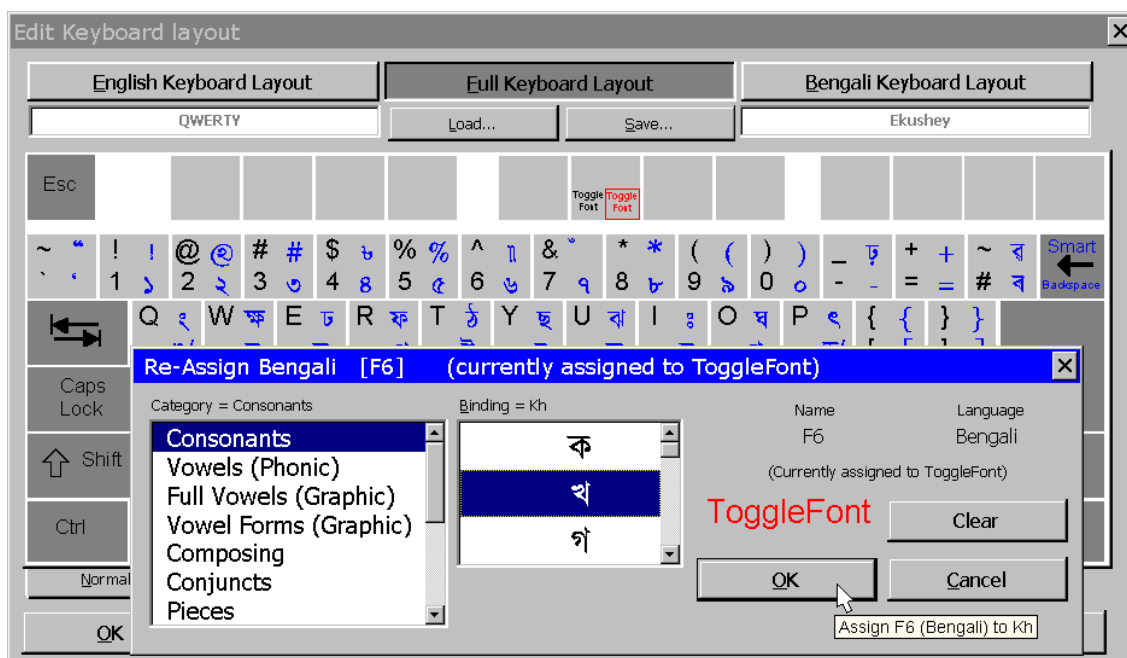
This file is intended to get you started. If you require more details, consult the **Ekushey Frequently Asked Questions** file, **EKFAQ220.htm**, either on the web or from your start menu (if you've installed Ekushey). This contains answers many more detailed questions about using, installing and troubleshooting 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:



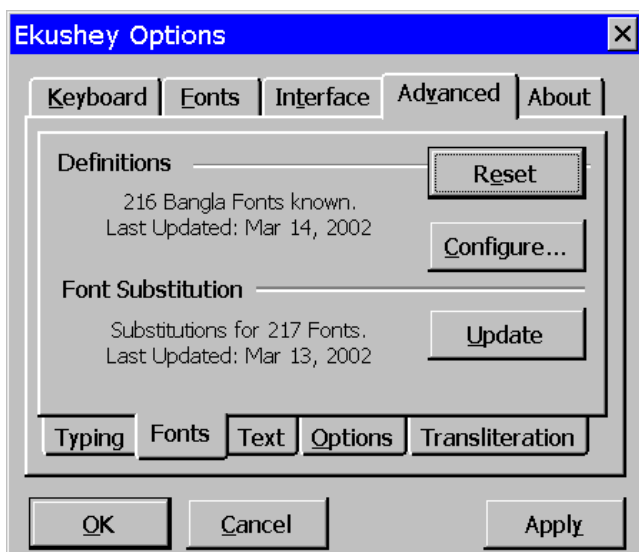
Most popular layouts are already created and saved to file. Click the ‘Load...’ button and select the layout file you require, and just ‘Apply’ it to start typing.



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.

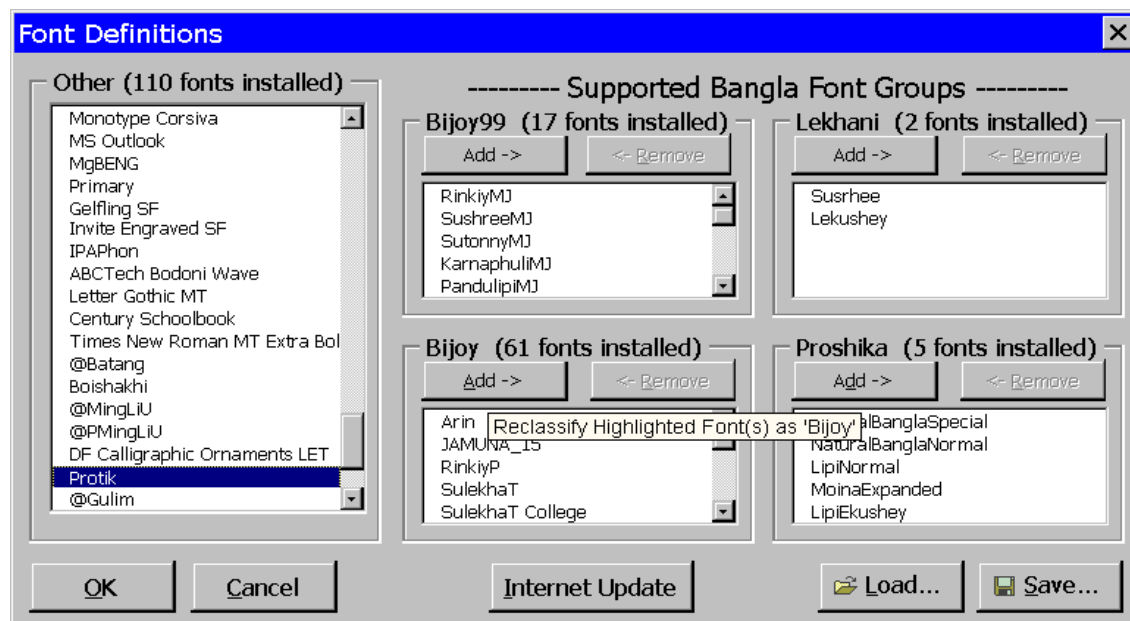
9. Font Compatibility

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 'Internet Update' button. This contacts www.altruists.org 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	ক্	ক্ক	ঙখ	ঙ্খ	ঙ্খ
কতর	ক্‌ত্‌	ক্ক‌ত্‌	ঙগ	ঙ্‌গ	ঙ্‌গ
কন	ক্‌ন	ক্ক‌ন	ঙঘ	ঙ্‌ঘ	ঙ্‌ঘ
কব	ক্‌ব	ক্ক‌ব	ঙম	ঙ্‌ম	ঙ্‌ম
কম	ক্‌ম	ক্ক‌ম	ঙকর	ঙ্‌ক‌র	ঙ্‌ক‌র
কয	ক্‌য	ক্ক‌য	ঙঘর	ঙ্‌ঘ‌র	ঙ্‌ঘ‌র
কর	ক্‌র	ক্ক‌র	ঙকষ	ঙ্‌ক‌ষ	ঙ্‌ক‌ষ
কল	ক্‌ল	ক্ক‌ল	চচ	চ্‌চ *	চ্‌চ
কষ	ক্‌ষ	ক্ক‌ষ	চছ	চ্‌ছ *	চ্‌ছ
কস	ক্‌স	ক্ক‌স	চঞ	চ্‌ঞ	চ্‌ঞ
কত	ক্‌ত	ক্ক‌ত	চয	চ্‌য	চ্‌য
কষণ	ক্‌ষণ	ক্ক‌ষণ	চছব	চ্‌ছ‌ব	চ্‌ছ‌ব
কষম	ক্‌ষম	ক্ক‌ষ‌ম	চছর	চ্‌ছ‌র	চ্‌ছ‌র
খয	খ্‌য	খ্‌য	জজ	জ্‌জ	জ্‌জ
গউ	গ্‌উ	গ্‌উ	জঝ	জ্‌ঝ	জ্‌ঝ
গগ	গ্‌গ	গ্‌গ	জঞ	জ্‌ঞ	জ্‌ঞ
গদ	গ্‌দ	গ্‌দ	জব	জ্‌ব	জ্‌ব
গধ	গ্‌ধ	গ্‌ধ	জয	জ্‌য	জ্‌য
গন	গ্‌ন	গ্‌ন	জর	জ্‌র	জ্‌র
গম	গ্‌ম	গ্‌ম	জজব	জ্‌জ‌ব	জ্‌জ‌ব
গয	গ্‌য	গ্‌য	ঞচ	ঞ্‌চ	ঞ্‌চ
গল	গ্‌ল	গ্‌ল	ঞছ	ঞ্‌ছ	ঞ্‌ছ
গর	গ্‌র	গ্‌র	ঞজ	ঞ্‌জ	ঞ্‌জ
ঘন	ঘ্‌ন	ঘ্‌ন	ঞঝ	ঞ্‌ঝ	ঞ্‌ঝ
ঘর	ঘ্‌র	ঘ্‌র	টট	ট্‌ট	ট্‌ট
ঙক	ক্‌, ক্‌ক	ক্ক‌, ক্ক‌ক	টব	ট্‌ব	ট্‌ব

Letters	Conjunct(s) ¹	Conjunct(s) ²	Letters	Conjunct(s) ¹	Conjunct(s) ²
টম	ট্ম	ট্ম	দব	দ্ব	দ্ব
টর	ট্র	ট্র	দম	দ্ম	দ্ম
ঠয	ঠ্য	ঠ্য	দয	দ্য	দ্য
ডড	ডড	ডড	দভর	দ্ব	দ্ব
ডর	ড্র	ড্র	দর	দ্র	দ্র
ডয	ড্য	ড্য	ধব	ধব, ধ্ব	ধ্ব
ঢয	ঢ্য	ঢ্য	ধম	ধ্ম	ধ্ম
ণট	ণ্ট	ণ্ট*	ধয	ধ্য	ধ্য
ণঠ	ণ্ঠ	ণ্ঠ	ধর	ধ্র	ধ্র
ণড	ণ্ড	ণ্ড	নট	ন্ট	ন্ট
ণন	ণ্ন	ণ্ন	নড	ন্ড	ন্ড
ণব	ণ্ব	ণ্ব	নত	ন্ত	ন্ত
ণয	ণ্য	ণ্য	নতউ	ন্তু	ন্তু
ণডর	ণ্ড্র	ণ্ড্র	নথ	ন্থ	ন্থ
তত	ত্ত	ত্ত	নদ	ন্দ	ন্দ
তথ	ত্থ	ত্থ	নধ	ন্ধ	ন্ধ
তব	ত্ব	ত্ব	নন	ন্ন	ন্ন, ন্ন
তম	ত্ম	ত্ম	নব	ন্ব, ন্ব, ন্ব	ন্ব
তয	ত্য	ত্য	নম	ন্ম	ন্ম
তর	ত্র	ত্র	নয	ন্য়	ন্য়
ততব	ত্ব	ত্ব	নটর	ন্ট্র	ন্ট্র
থব	থ্ব	থ্ব	নডর	ন্ড্র	ন্ড্র
থয	থ্য	থ্য	নতর	ন্ত্র	ন্ত্র
দগ	দগ	দগ*	নদর	ন্দ্র	ন্দ্র
দঘ	দঘ	দঘ*	নধর	ন্ধ্র	ন্ধ্র
দদ	দ্দ	দ্দ	পত	প্ত	প্ত
দধ	দধ	দধ*	পট	প্ট	প্ট*
দভ	দ্ব	দ্ব	পপ	প্প	প্প




Letters	Conjunct(s) ¹	Conjunct(s) ²	Letters	Conjunct(s) ¹	Conjunct(s) ²
পল	প্প	প্প	যয	য্য	য্য
পন	প্প	প্প	লক	ক্ক	ক্ক
পয়	প্প্য	প্প্য	লগ	গ্গ	গ্গ
পর	প্প্র	প্প্র	লদ	ল্দ*	ল্দ
পস	প্পস*	প্পস*	লপ	প্প	প্প
ফর	ফ্ফ	ফ্ফ	লফ	ফ্ফ	ফ্ফ
ফল	ফ্ফ	ফ্ফ	লব	ব্ব	ব্ব
বজ	জ্জ	জ্জ	লম	ম্ম	ম্ম
বল	ব্ব	ব্ব	লয	ল্য	ল্য
বদ	ব্দ	ব্দ	লন	ন্ন	ন্ন, ন্ন
বধ	ব্ধ	ব্ধ	লফর	ফ্ফ	ফ্ফ
বব	ব্ব, ব্ব	ব্ব, ব্ব	লট	ট্ট	ট্ট
বয	ব্য	ব্য	শউ	উউ	উউ
বর	ব্র	ব্র	শর	র্র	র্র
ভয	ভ্য	ভ্য	শল	ল্ল	ল্ল
ভর	ভ্র	ভ্র	শচ	চ্চ	চ্চ
ভ	ভ্ভ	ভ্ভ	শছ	ছ্ছ	ছ্ছ
মন	ম্ম	ম্ম	শন	ন্ন	ন্ন
মল	ম্ম	ম্ম	শব	ব্ব	ব্ব
মপ	ম্প	ম্প	শম	ম্ম	ম্ম
মফ	ম্ফ	ম্ফ	শয	য্য	য্য
মব	ম্ব, ম্ব	ম্ব, ম্ব	ষক	ক্ক	ক্ক
মত	ম্ত	ম্ত	ষট	ট্ট	ট্ট
মম	ম্ম, ম্ম	ম্ম	ষঠ	ঠঠ	ঠঠ
ময	ম্য	ম্য	ষপ	প্প	প্প
মর	ম্র	ম্র	ষফ	ফ্ফ	ফ্ফ
মপল	ম্প্প	ম্প্প	ষকর	ক্ক	ক্ক
মভর	ম্ভ	ম্ভ	ষটির	ট্ট	ট্ট

Letters	Conjunct(s) ¹	Conjunct(s) ²	Letters	Conjunct(s) ¹	Conjunct(s) ²
ষণ	ষণ	ষণ	সব	স্ব,স্ব	স্ব,স্ব
ষম	ষ্ম	ষ্ম	সম	স্ম	স্ম, স্ম
সয	স্য	স্য	সকর	স্ক	স্ক
সর	স্র	স্র	সপল	স্প	স্প
সক	স্ক	স্ক	হউ	হু	হু
সখ	স্খ	স্খ	হঝ	হ্জ	হ্জ
সট	স্ট	স্ট *	হণ	হ্ণ	হ্ণ
সত	স্ত	স্ত	হন	হ্ন	হ্ন
সথ	স্থ	স্থ	হম	হ্ম	হ্ম
সপ	স্প	স্প	হয	হ্য়	হ্য়
সফ	স্ফ	স্ফ	হর	হ্র	হ্র
সতউ	স্তউ	স্তউ	হল	হ্ল	হ্ল
সতর	স্ত্র	স্ত্র	ড়গ	ড়্গ	ড়্গ *
সন	স্ন	স্ন		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 , , , ,  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  button proceed through the list. To join straight to the second one, use  (on Ekushey keyboard, *Ctrl*+).

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