

Easy Learning Guide for Computing in Dzongkha Using Dzongkha Unicode Tools

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Systems Requirements: Hardware and Software

Hardware

1. Computer and processor: personal computer with an Intel Pentium 233-MHz or faster processor (Pentium III recommended)
2. Memory: 128 MB RAM or greater.
3. a) Hard disk (for office 2003): 260 MB of available hard disk space; optional installation files cache (recommended) requires an additional 250 MB of available hard-disk space.
b) Hard disk (for word 2003): 150 MB of available hard-disk space; optional installation files cache (recommended) requires an additional 200 MB of available hard-disk space.
4. Drive: CD-ROM or DVD drive.
5. Display: Super VGA (800x600) or higher resolution monitor.

Software

1. Operating System: Microsoft Windows 2000 with Service Pack 3 (SP3), Windows XP, or later.
2. Office Suite: Office 2003 Professional Edition or individual office packages (Office Word 2003 only). The "Professional" edition of Office 2003 is not required unless someone needs to use the premium applications included in the Professional edition (e.g, Access).

Others needed resources are available via download from the DIT website (or on CD):

- a. Unicode Dzongkha fonts.
- b. Standard Dzongkha keyboard.
- c. Converter from legacy Dzongkha formats to Unicode.

What You Can Do with Dzongkha Unicode Tools?

What you can do?

1. You can create Dzongkha document in Word, accounting in Excel, databases in Access and publishing documents in Publisher.
2. You can create Dzongkha text messages and email to another person over a network using MS Outlook.
3. You can create web pages and view them on browsers such as Internet Explorer and Mozilla.
4. You can convert legacy documents formats (Word Perfect, Jamyang, Gelong Rinchen, Druk 98, etc) into Unicode.
5. You can share, import and export Dzongkha documents from one platform to another platform (e.g, from PC to Apple computer)
6. You can create Dzongkha text files using latest version of Note Pad available in Win XP.

What you cannot do?

1. You can not do mathematical computation with Dzongkha numerals in Excel.
2. You cannot name the documents files using Dzongkha (document files should be saved using English file names).
3. There is no support for querying the database objects created in Dzongkha.

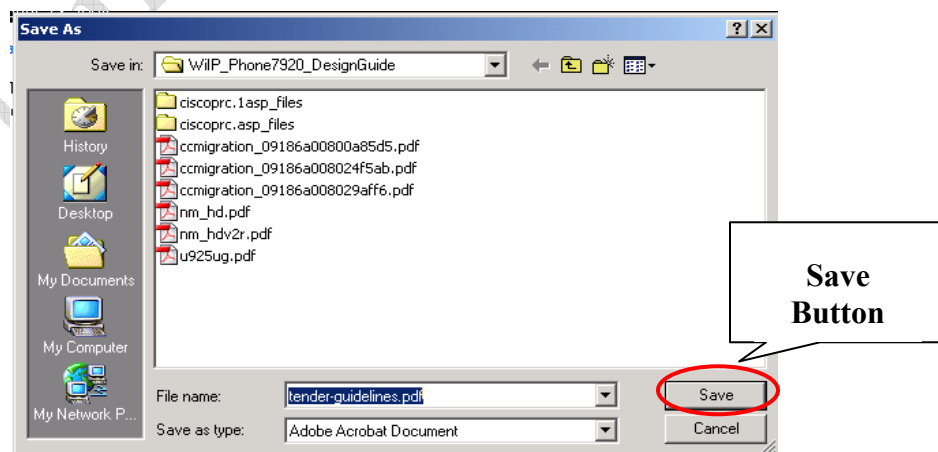
Lesson 1: How-To Install Dzongkha Unicode Fonts

Step-By-Step:

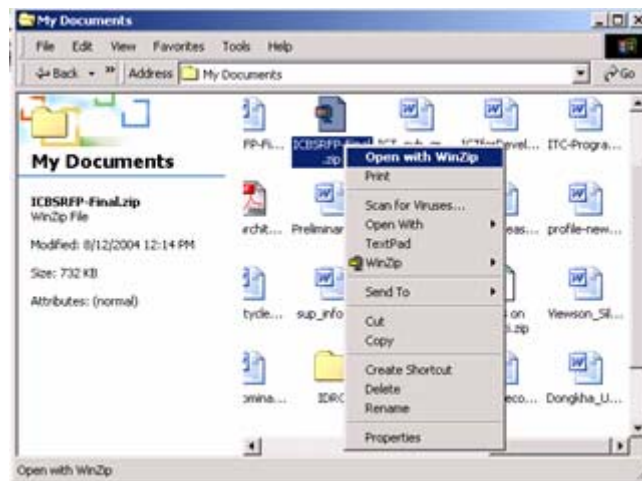
1. a) Right click on the download hyperlink and click “Save Link As” on the pop-up menu.



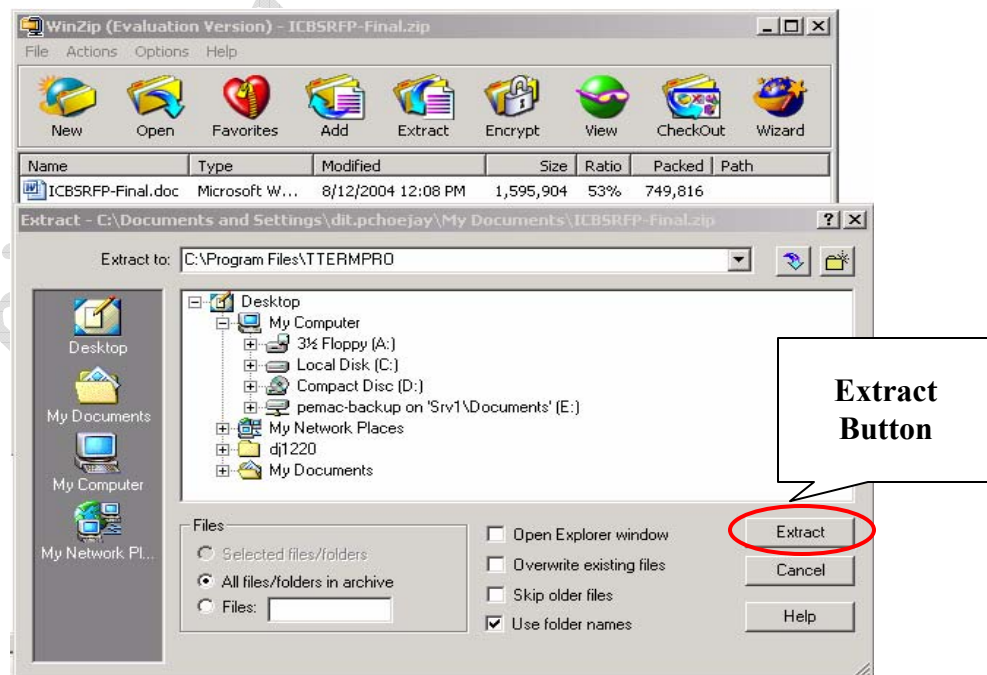
b) A dialogue box will pop up where you can choose a directory or folder to save the files. Choose the folder of your choice and click “Save” button.



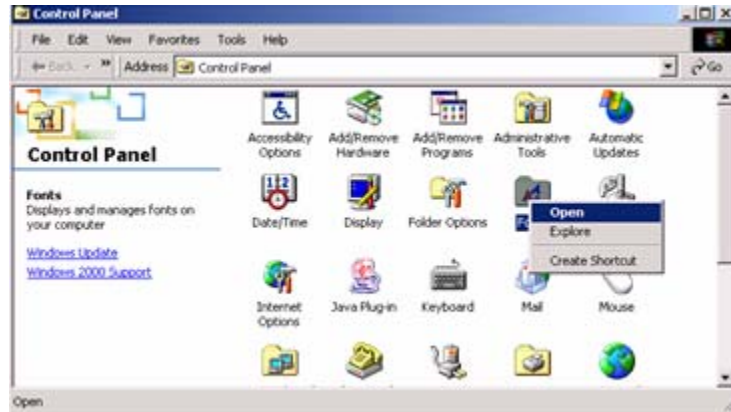
2. a) If the downloaded files are “ZIP” files, then open the files with the ZIP program.



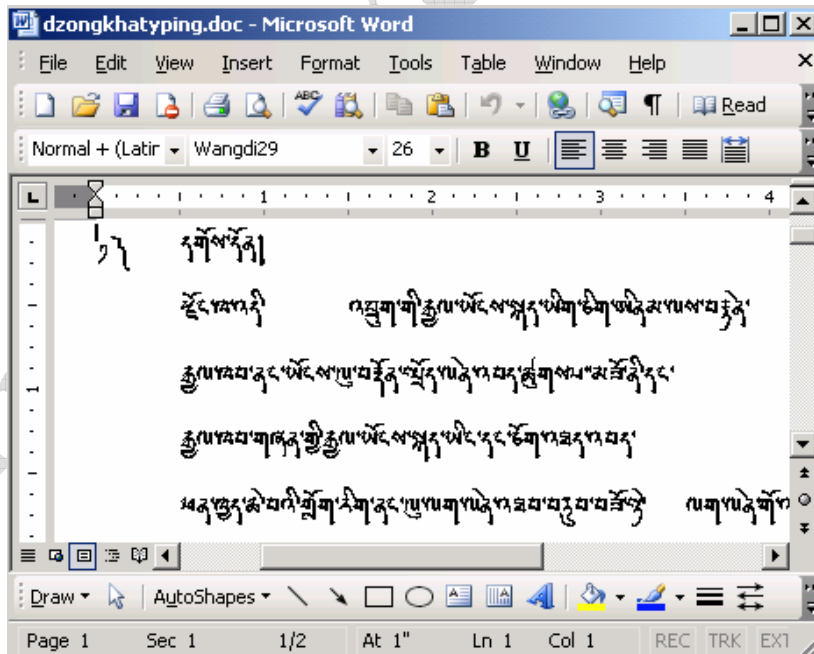
b) Now, you extract the files in the same directory and folder.



3. a) Copy and paste the Dzongkha Unicode Fonts in the Fonts Folder either by opening the “Control Panel” and the “Fonts” folder or C:\WINNT\System32\ Fonts” folder.



b) Finally, you have successfully installed the fonts and it is now ready to be used in “Windows 2003 Office” applications.



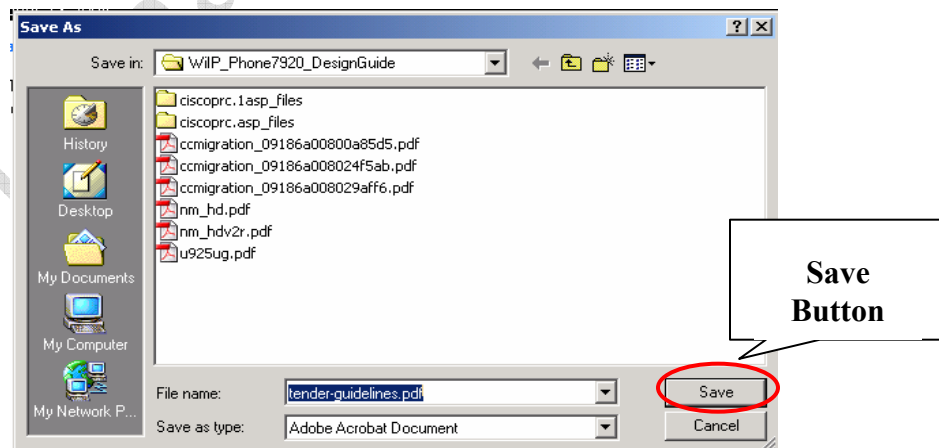
Lesson 2: How-To Install and Configure Keyboard Driver

Step-By-Step:

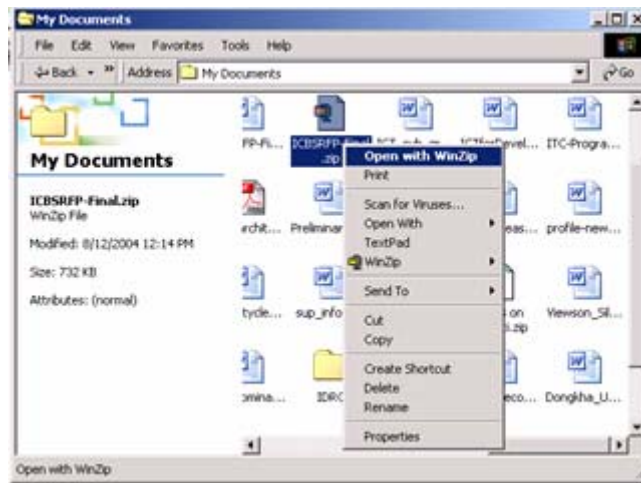
1. a) Right click on the download hyperlink and click “Save Link As” on the pop-up menu.



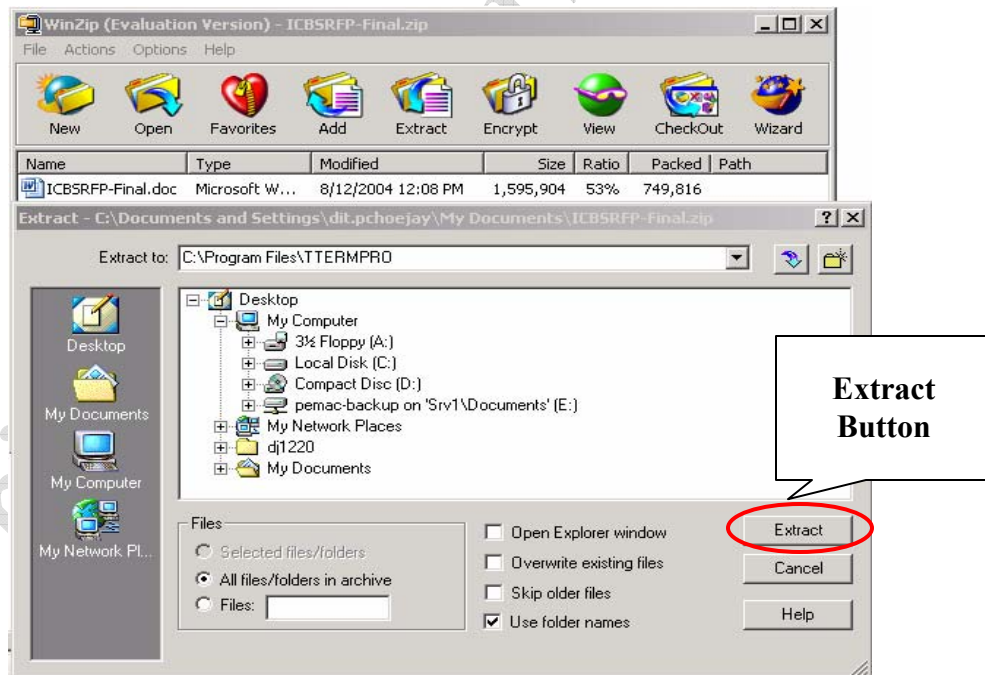
- b) A dialogue box will pop up where you can choose a directory or folder to save the files. Choose the folder of your choice and click “Save” button.



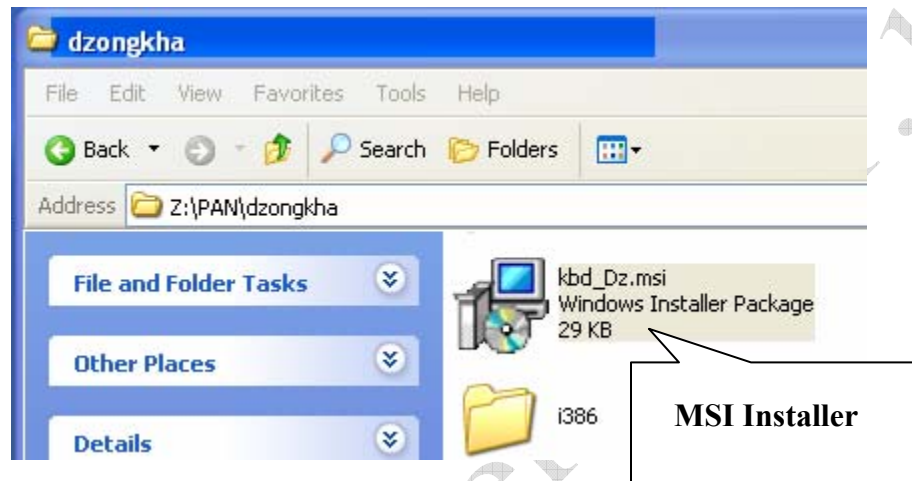
2. a) If the downloaded files are “ZIP” files, then open the files with the ZIP program.



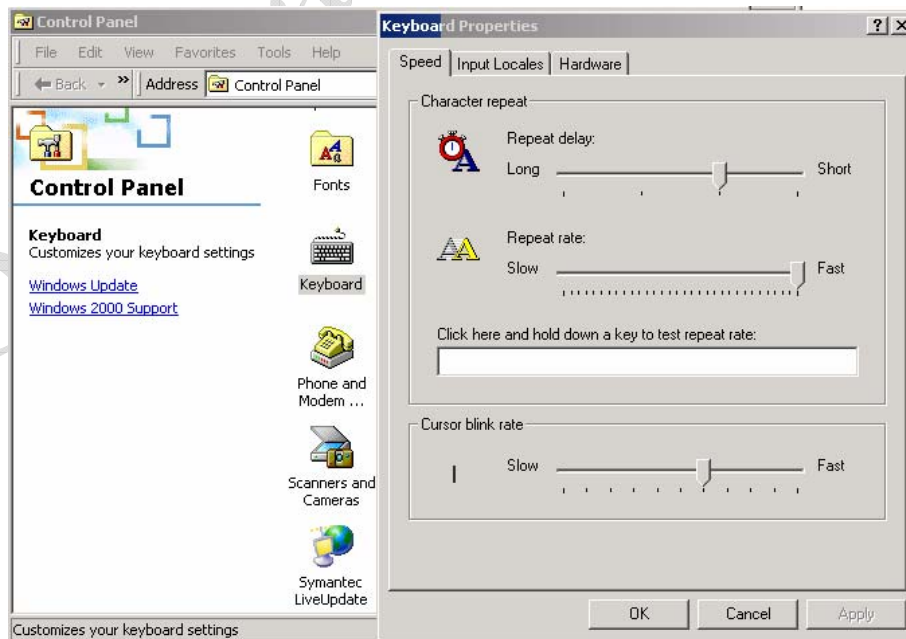
b) Now, you extract the files in the same directory and folder.



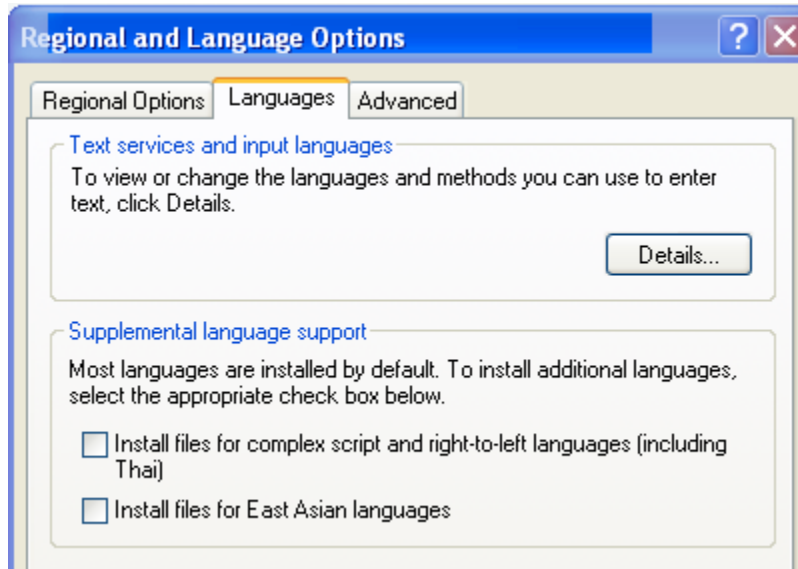
3. a) Double click on the Microsoft Installer with file extension “.MSI” to install the keyboard driver. The keyboard dynamic link libraries called “kbd_Dz.DLL” will get installed in “C:\WINNT\System32\” folder in Win2K and “C:\Windows\system32\” in XP. (Note: Do not use the older version of keyboard software called BHUT.DLL)



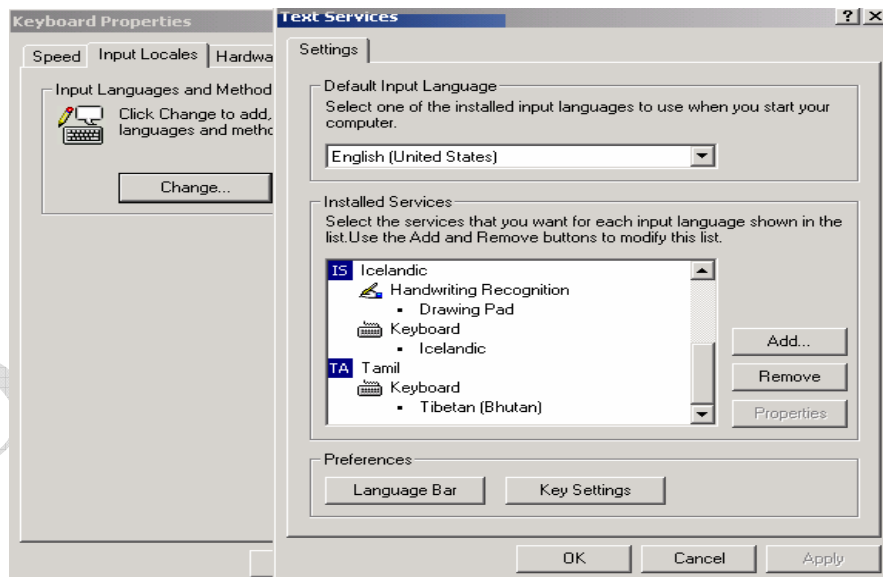
b.1). For Win2K: To use Dzongkha Keyboard, open the “Control Panel” and either open the “Keyboard” or the “Regional Options” icon.



b.2) For XP: Open “Control Panel”, “Date, Time, Languages and Regional Options” and pick a task “Add other languages”.



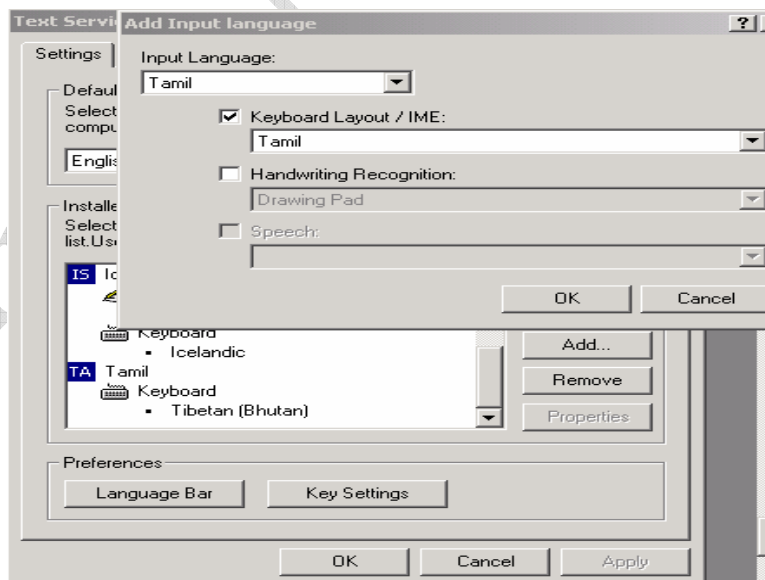
c.1) For Win2K: Click on the “Input Locales” and “Change” tabs.



c.2) For XP: Click on “Details” tab to open the language “Settings”

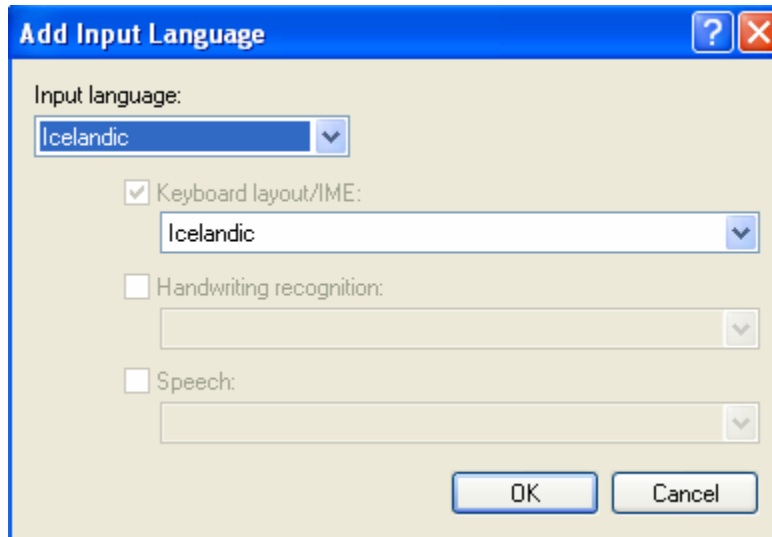


d.1) For Win2K: Click on “Add” tab and select the “Input language”, the “Keyboard Layout” or “Input Method” is dimmed by default. It means that for specific language, specific keyboard layout is selected. Press “OK”.



d.2) For Win2K: Highlight the keyboard under “Tamil” Language and click “Add” to add the “Dzongkha” keyboard layout.

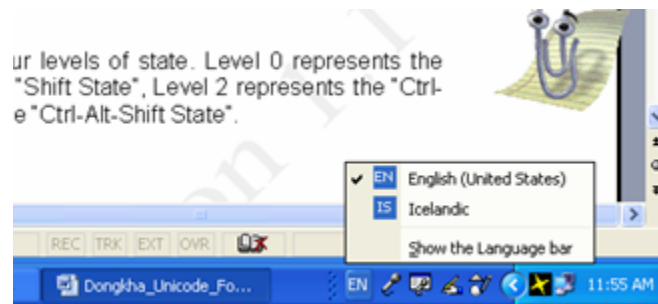
d.3) For XP: Click on the “Add” tab and select the “Input Language”. The “Keyboard Layout” is dimmed by default. It means that for specific language, by default specific keyboard is selected. Press OK.



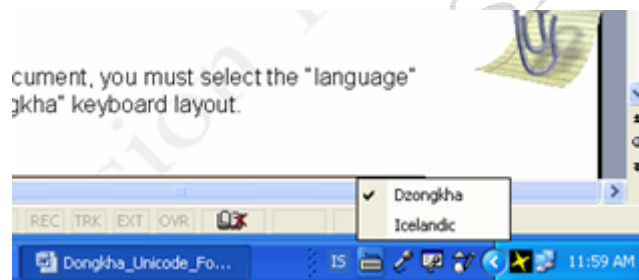
d.4) For XP: Highlight the keyboard under “Icelandic” Language and click “Add” to add the “Dzongkha” keyboard layout.



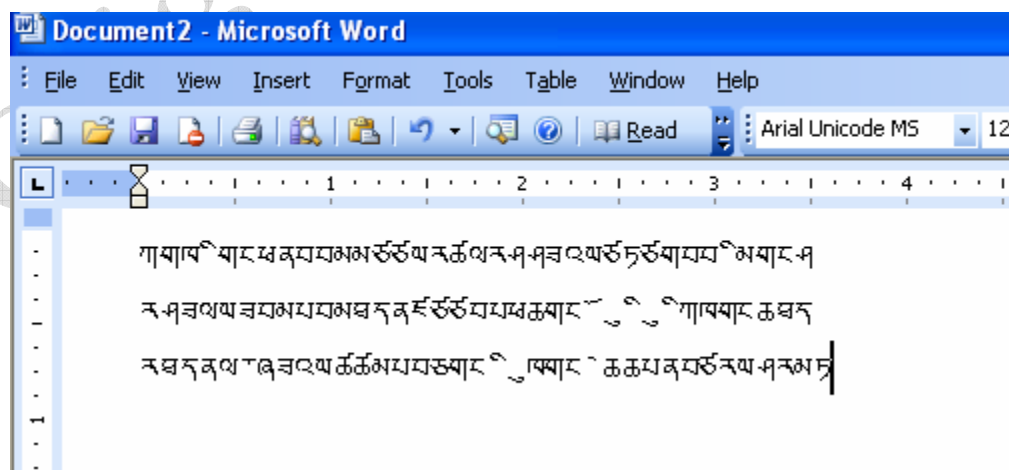
e) For Win2K and XP: Click “Apply” to make the changes effective. Once you are done with Keyboard configuration, “Input Language Bar Settings” will appear on the Status Bar.



f) Before you begin typing text in word document, you must select the “language” that you added and from there select the “Dzongkha” keyboard layout.



g) If you have successfully done the above steps, you are now ready to use the Dzongkha keyboard. Type blah blah blah..... on the word document window.



ALT + CTRL State

~	1	2	3	4	5	6	7	8	9	0	-	=	Backspace
Tab	=	™		◌̇	◌̈	◌̉	◌̊	×	xx	ox	[]	\
Caps	२	Б	᳚	᳛	◌̋	◌̌	◌̍	◌̎	◌̏	◌̐	;	'	Return
Shift		◌̑	×	᳜	᳝	᳞	᳟	᳠	,	.	/		Shift
Control		Alt										Alt	Control

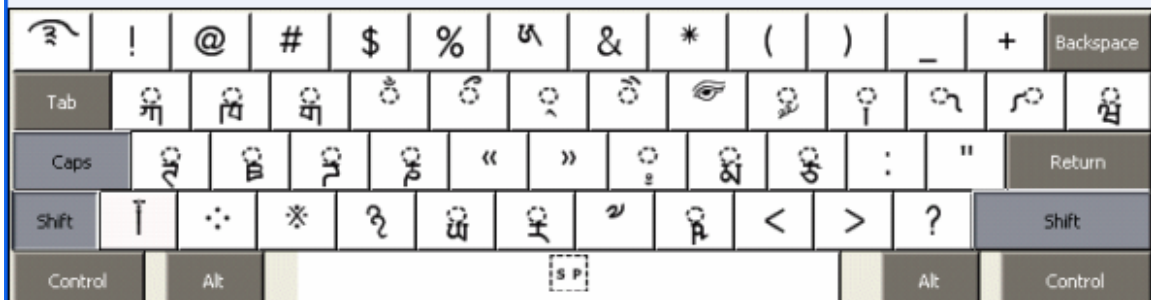
ALT+ CTRL + Shift State

~	!	@	#	\$	%	^	&	*	()	_	+	Backspace
Tab				◌̇				◌̈	◌̉	◌̊	◌̋	◌̌	◌̍
Caps	᳚	᳛	᳜	᳝	◌̋	◌̌	◌̍	◌̎	◌̏	◌̐	:	"	Return
Shift		◌̑	*	᳜	᳝	᳞	᳟	᳠	<	>	?		Shift
Control		Alt										Alt	Control

Caps State

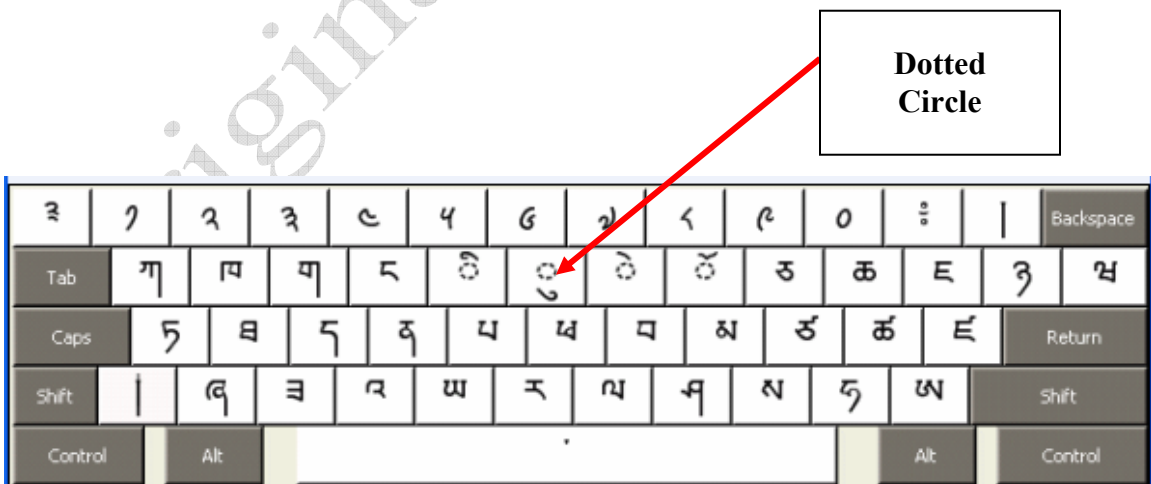
~	1	2	3	4	5	6	7	8	9	0	-	=	Backspace
Tab	=	™	᳚	◌̇	◌̈	◌̉	◌̊	×	xx	ox	[]	\
Caps	२	Б	᳚	᳛	◌̋	◌̌	◌̍	◌̎	◌̏	◌̐	;	'	Return
Shift		◌̑	×	᳜	᳝	᳞	᳟	᳠	,	.	/		Shift
Control		Alt										Alt	Control

Caps + Shift state



3) The Keyboard Layout Design is nothing but a graphical mapping of “set of Dzongkha characters” onto the “Keys” on the Keyboard. Therefore, it is important for any users to clearly understand and identify the “Keys” for each Dzongkha characters that can be achieved by using different levels of “Keyboard State”.

4) The dotted circle above and below specific Dzongkha character denotes that, when you type characters, it can accept a single character or a group of characters above or below it. This is nothing but stacking of characters above or below the base characters.



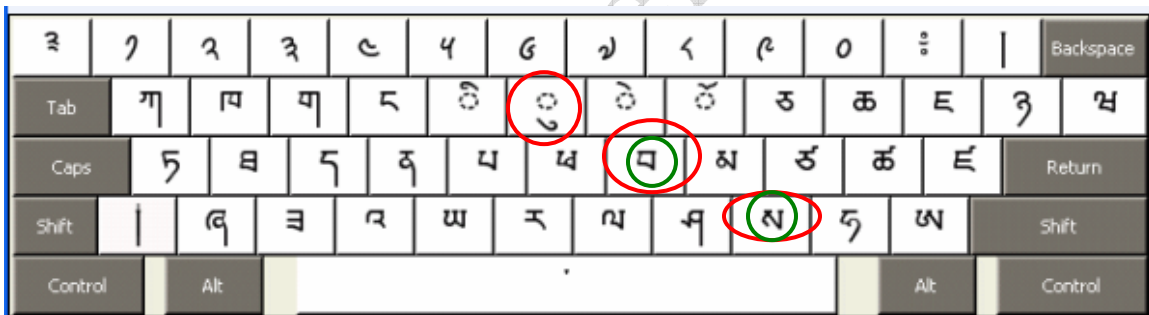
5. Say for example, if you want to type a word **ಸುಖ** then you will have to press the following keys:

◻ + ⌘ + **Shift** ಃ + **Shift** ಃ +
Shift ಃ + ◻ + ⌘

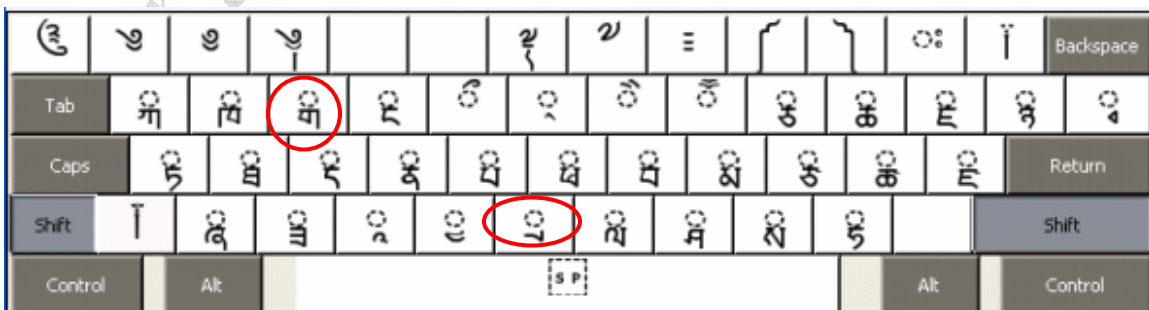
The above keys are equivalent to following keys:

- a) **J** and **<**, keys on the Normal State,
- b) **Shift E** + **Shift B** on the Shift State and **Y** key on the Normal State,
- c) **J** and **<**, keys on the Normal State.

Unshift State



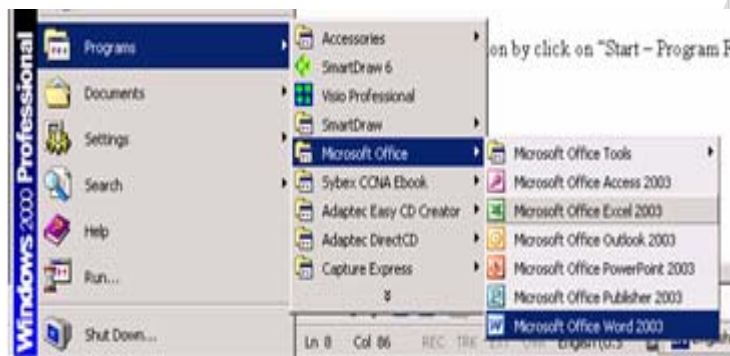
Shift State



Lesson 4: How-To Create Dzongkha Word Document

Step-By-Step:

1. Click on “Start – Program Files – Microsoft Office – Microsoft Office Word 2003” to open MS Word application. Choose “blank” document to create a document from the scratch.



2. Change the Input Method to “Dzongkha” and choose the Dzongkha font called “Wandi29” on the Formatting Toolbar. If you are using old version keyboard driver, choose “Tibetan (Bhutan)” as your “Input Method”.



3. Set the “Font Size” to 24 Points, Dzongkha text at 12 Points of font size appears to be very small to be read legibly.



4. You are now ready to type Dzongkha text on the “Document Window”.

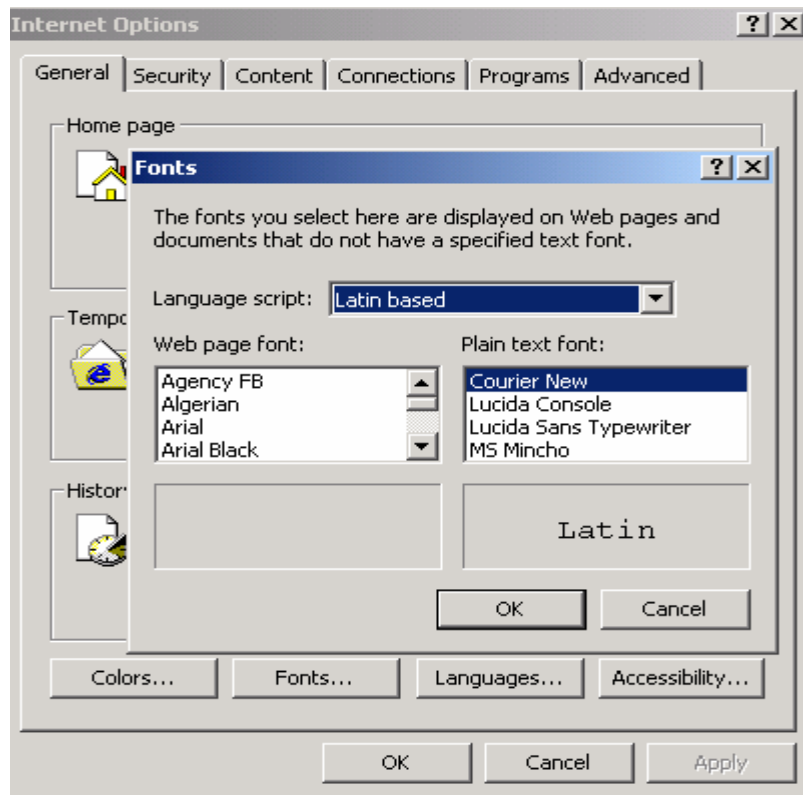
། རྩོམ་པའི་ལྗོངས་ལྟར་།
 རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་
 རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་
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 རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་ རྩོམ་པའི་ ལྗོངས་ལྟར་

5. Save your document file using the English file name. That means you have to revert back to “English mode” from the “Dzongkha mode”. If you happen to save your file using Dzongkha name, it is more likely that your file will get corrupted and may not be able to open later.

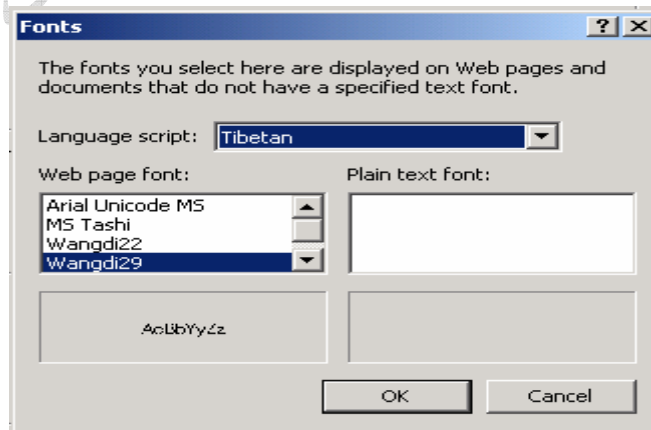
Lesson 5: How-To Set Browser to View Dzongkha Web Pages

Step-By-Step:

a) Open “Internet Explorer” and Click on “Tools – Internet Options - Fonts” tab for setting the web browser to view Dzongkha web pages.



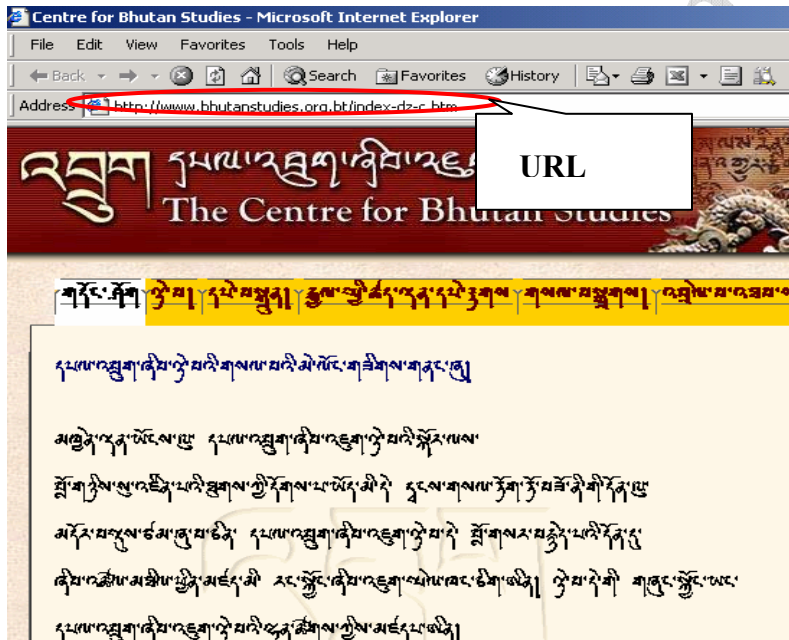
b) Set the language script to “Tibetan” and web page font to “Wangdi29”.



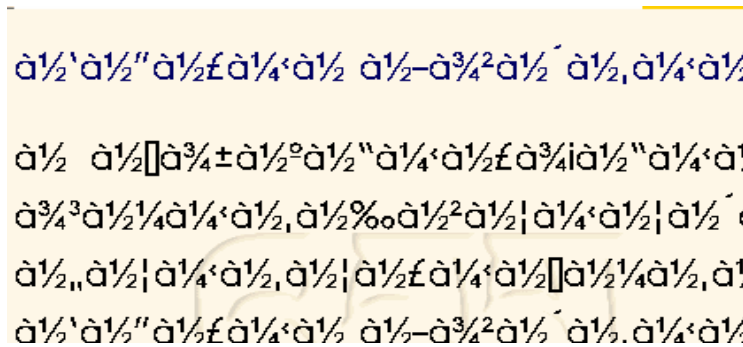
c) Next, click on “View – Encoding – Unicode (UTF-8) to select the encoding model.



d) Type the “Universal Resource Locator (URL)” or web address and press “Enter”.



e) If you don't set the encoding into “UTF-8”, the page displayed will have “Strange Texts”, which is unreadable to viewers.

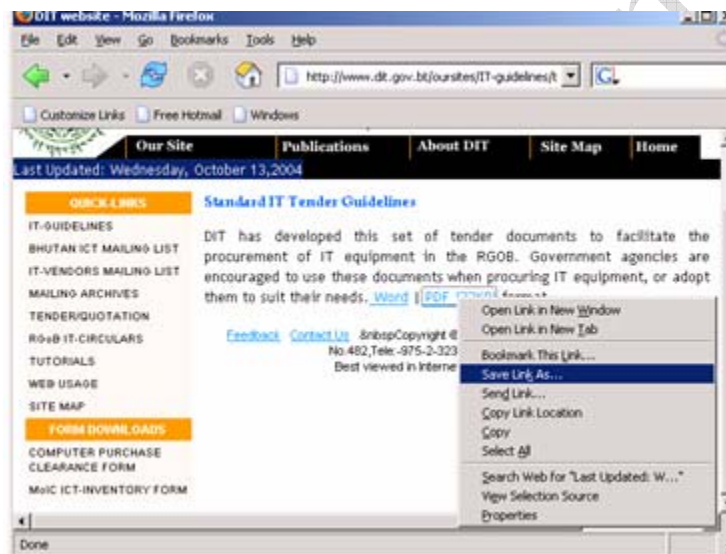


Lesson 6: How-To Use Unicode Converter

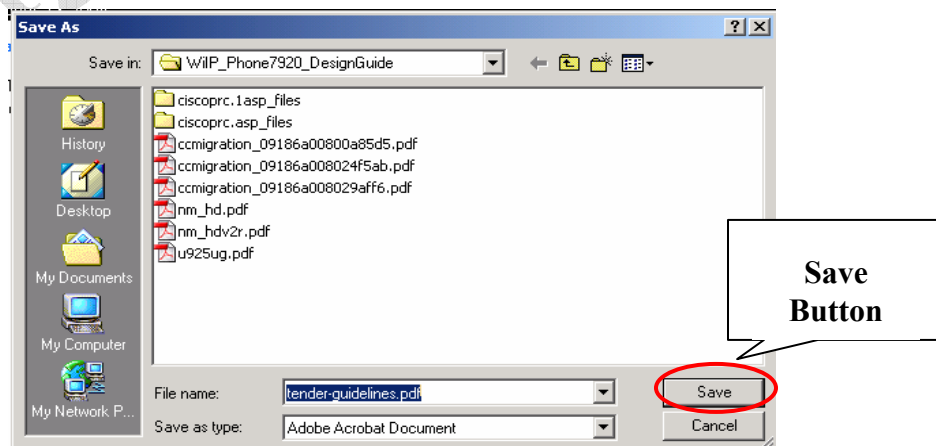
Step-By-Step:

Unicode converters convert legacy documents such as WORDPERFECT (DOS), JAMYANG and KUENSEL 98 into Unicode documents. Once converted to Unicode, you can perform cut, copy, paste and editing operations to the documents. Documents can be imported and exported to other Operating Systems, for example Apple Mackintosh, as well.

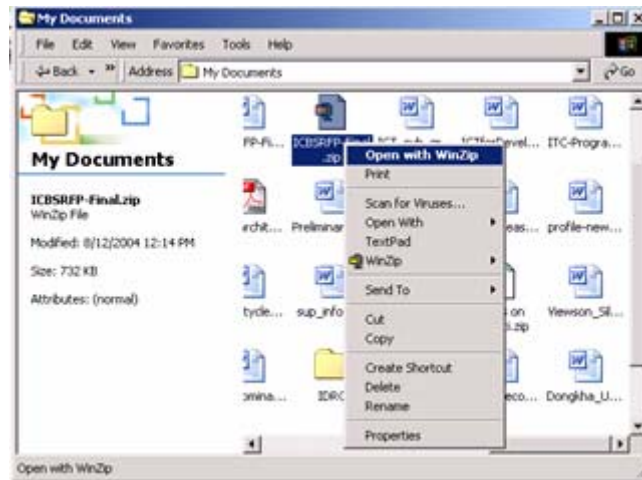
1. Right click on the download hyperlink and click “Save Link As” on the pop-up menu.



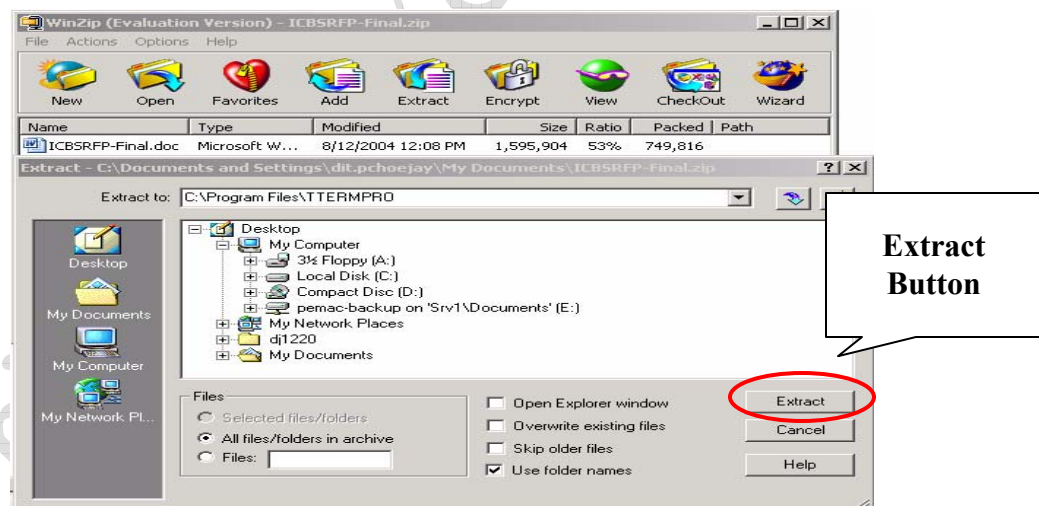
- 2) A dialogue box will pop up where you can choose a directory or folder to save the files. Choose the folder of your choice and click “Save” button.



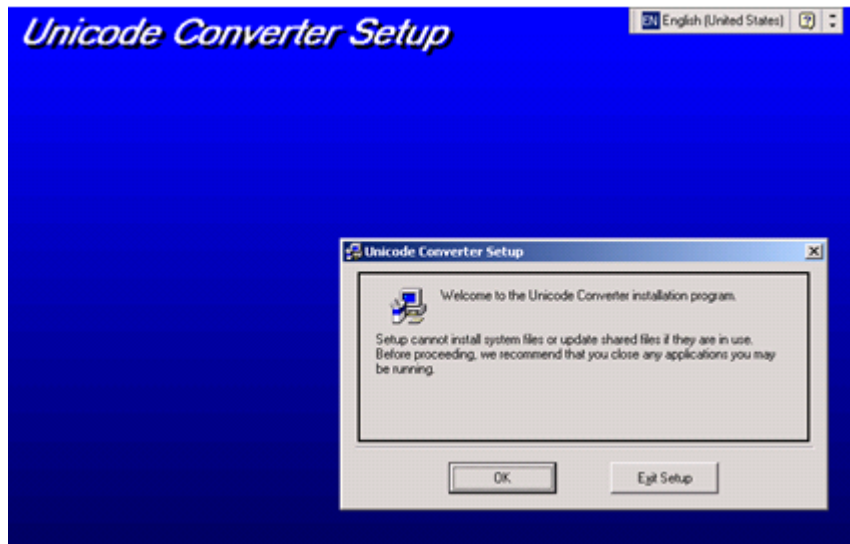
3. If the downloaded files are “ZIP” files, then open the files with the ZIP program.



4. Now, you extract the files in the same directory and folder.



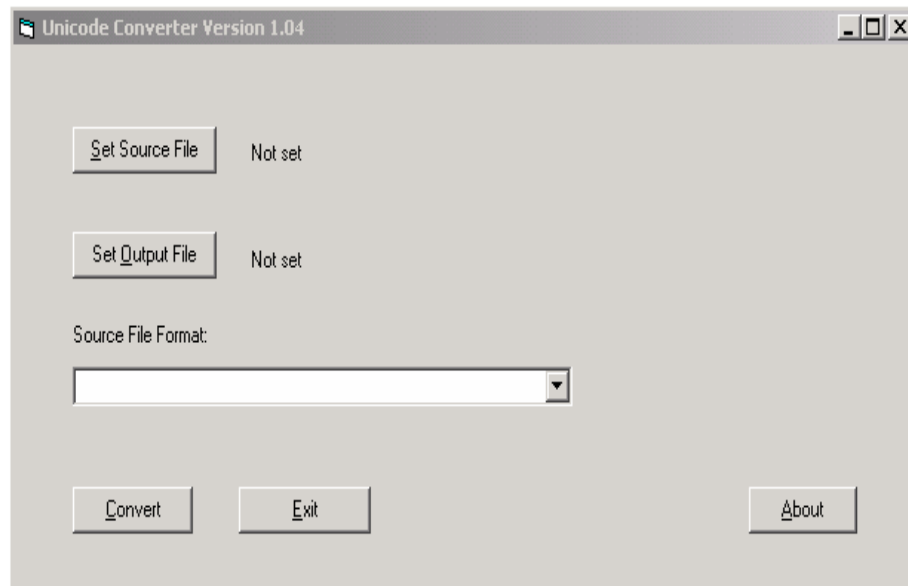
5. Double click on “Setup” file with “.EXE” extension to install the converter.



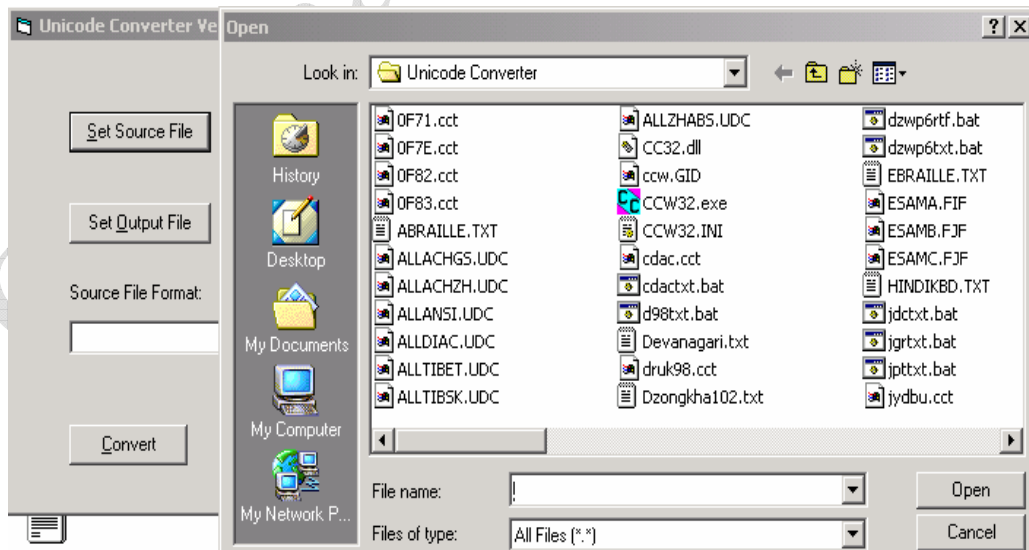
6. Click “OK” to Install the Unicode Converter and follow the setup instructions until you are done.



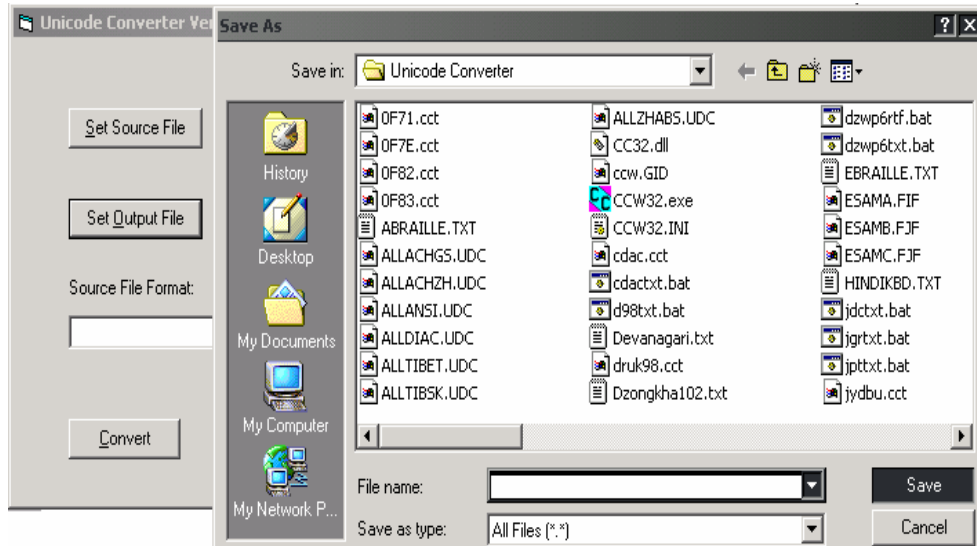
7. Open the directory or folder where you have installed the converter programs. Double click on “Unicode Converter_1.04.EXE” file to run the Converter.



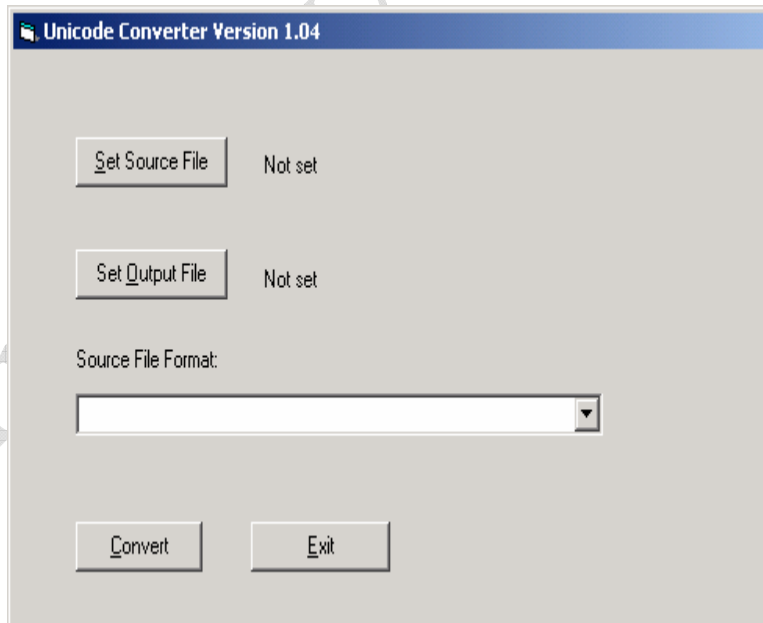
8. Click on the “Set Source File” button to select the source file. This source file is the legacy document that you are going to convert into Unicode.



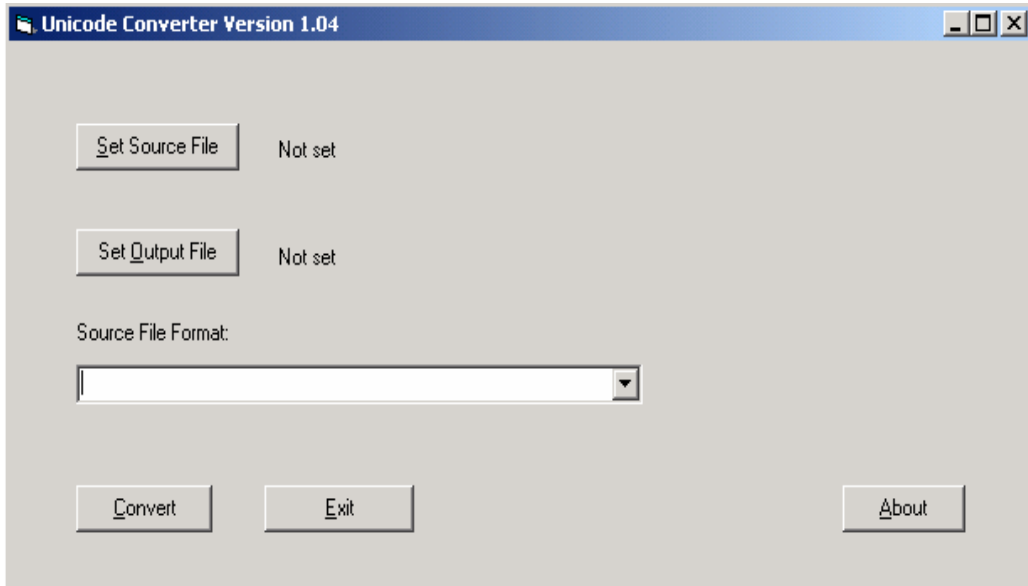
9. Click on the “Set Output File” button to save the source file as a Unicode File.



10. Select the “Source File Format” by click on the “Combo Button”. The source file format may be “WordPerfect”, Gelong Rinchen, Druk 98, Jamyang, etc.



11. Click on the “Convert” button to starting converting the source file into Unicode file.



12. Finally, you are now ready to open the Unicode file that you have converted from the legacy document and perform all document operations such as “Cut, Paste, Copy, Edit, etc.” to make changes to it.

