An Introduction to

AAA+ INPUT METHOD EDITOR

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CONTENTS

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1. Introduction to "Input Method Editors"

With the advent of Unicode encoding for the scripts of the world, the restrictions imposed by ASCII encoding have been overcome. Unicode encoding envisages to provide code-points for all the necessary characters of all the scripts of the world. The superficial differences in the shapes of letters are taken care by corresponding glyphs. The ultimate units of a script are its 'characters'. Thus in Devanagari, both श्या and श्या stand for the same Unicode string of four characters. The difference in their shapes is a matter of difference in superficial glyph shapes. Table 1 explains various concepts that we will be using in this manual.

Table 1: Concepts

	A	B	C
	Term	Definition	Explanation
1	Character	A character defined in Unicode Standard 4.0	A Character is an abstract unit and is not the same as a 'letter', 'glyph', or 'symbol'. Lists of the characters in world's scripts are available at: www.unicode.org.
2	QWERTY Key	A key on a computer keyboard by pressing which (with or without the 'shift' key pre-pressed), a visible letter/symbol appears on the computer screen	Provided on a computer
3	Input String	A sequence of one or more *QWERTY* keystrokes	Entered by the user
4	Output	This could be (1) a string of one or more characters, (2) a computer file containing a larger amount of simple text or hypertext (such as an HTML document)	Stored in the computer memory or a computer medium such as a hard drive
5	In-Out Process	The process of converting an *Input String* into *Output*	Done by an IME
6	Glyph	The representation of *Output text* on the computer screen and/or printout	This is by done various pieces of software on the computer including the Font
7	IME	Input Method Editor (software that performs *In-Out* Process)	Many IMEs are provided in Windows XP. AAA+ is another IME but with more qualitative and quantitative advantages.
8	Font	Software that perfoms the final function of generating *Glyphs* corresponding to Unicode characters	In the present software we consider only Unicode compliant UTF-8 OTF fonts. Several fonts are preloaded in Windows XP. Some Unicode compliant OTF fonts are available commercially and freely. Some more are supplied freely with AAA+.
9	Equation List	A table of *Input Strings* and the corresponding *Outputs* used in AAA+. This list has the Input Strings listed in left-most column and the corresponding Outputs in column 2 and optionally in column 3.	Equation Lists are kept at the appropriate locations in a BaseFile. This list has to be prepared by the user. However, fully-functional Equation Lists for various scripts are provided by AAA+ in corresponding BaseFiles supplied with the software. Users can redefine these Lists or make new Equation Lists on their own by strictly following the procedures given later.
10	BaseFile	A Basefile is a text file that forms the input for the "a3dbldr.exe" program in AAA+	This is highly structured text file. Its composition is explained later.

There are altogether 3 files and 2 programs that are crucial for building the necessary IME in this software. They are listed below.

Table 2: Files

	A		B	C
	File		Description	Location
1	ABC.txt	Prepared by the user	This is the BaseFile for a given equation table. The 'ABC' part of the file name is hypothetical. One such BaseFile for each script is supplied alongwith AAA+. Users can make their own BaseFiles following certain principles explained later.	Wherever the user keeps it. For example: C:\UTFfile\ABC.txt
2	ABC.data and ABC.a3d	Generated by the program	Both these files are automtically generated by running the program called "a3dbldr.exe". If the Equation List in the Base File has 3 columns, then both "ABC.data" and "ABC.a3d" are automatically generated. If the Equation List in the Base File has 2 columns, then only "ABC.data" is automatically generated.	These two files will be placed by the program in the same directory where the input "ABC.txt" file is located.

Table 3: Programs

|	A	B	C
	File	Description	Location
1	a3dbldr.exe	This is the main program that generates the files "ABC.data" and "ABC.a3d" from the file "ABC.utf".	C:\Program Files\ILCAA\AAAPlus\tools\a3dbldr.exe
2	autoconf.cmd	This program perfoms various automated actions of Registering.	C:\Program Files\ILCAA\AAAPlus\tools\autoconf.cmd

2. THE "LANGUAGE BAR"

2.1. What is "Language Bar":

Before installing AAA+ on WindowsXP, one must invoke the "Language Bar" (=LB). The software for invoking the LB is inherently present in every WindowsXP. However, if only one input method is used (as in the case of typical English WindowsXP), the LB does not overtly appear on the desktop. When it actually appears on the desktop, it looks somewhat similar to the following:

The above LB lists "EN English (United States)". It means that, besides the English (United States) input method, there is at least one more input method on the computer. If the "EN English (United States)" portion is clicked, it might change to the following:
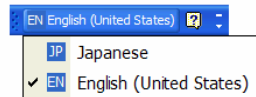
The above LB shows that there are two input methods (Japanese and English) currently available on the machine .

Sometimes the LB is in a 'minimized' condition. Then it will not appear independently on the desktop but will appear as a part of the "start" bar right at the bottom of the desktop as shown below:

If the "EN" portion of the minimized LB is clicked on, then one of the drop down menus will appear:

Then, if one chooses either the "Show the Language bar" option (in the left panel) or the "Restore the Language bar" (in the right panel), then the full LB will appear somewhere on the top of the desktop.

2.2. Setting up of "Language Bar" and IME (Input Method Editor):
As mentioned above, if there is only one input method (the usual case with English WindowsXP) on the computer, then the LB does not appear automatically on the desktop. In that case, the LB has to be invoked before installing the AAA+ program. Follow the steps[1] listed below:

Click on the button "Start" located in the bottom left corner of the desktop. The following panel will appear. Locate the button "Control Panel" in the right list on the panel.
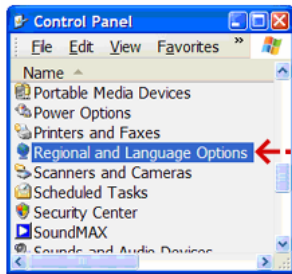
      Panel 2.1:

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[1] Various instructions in this document are very basic. Experienced users of WindowsXP will know which explanation to skip.
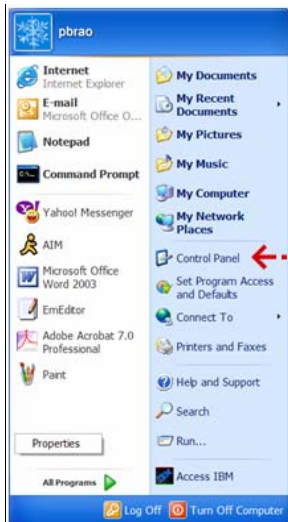
Click on the button "Control Panel".
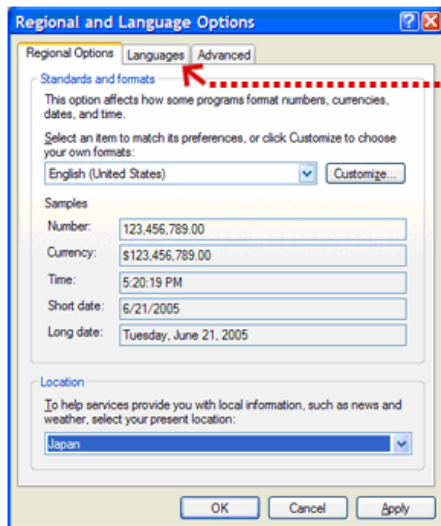
The following panel will appear:

Panel 2.2:

Locate the button "Regional and Language Options" in the above panel and double-click on it.
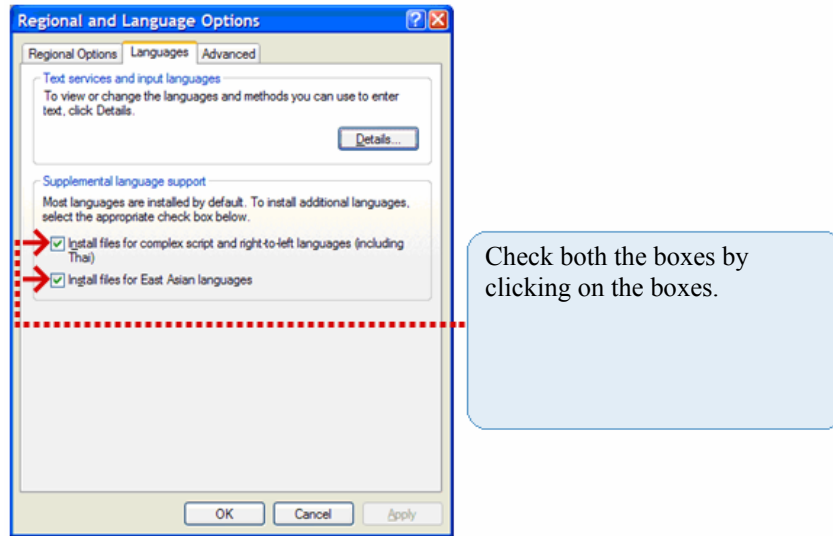
The following panel will appear:

Panel 2.3:

Click on the "Languages" Tab located in the top line.

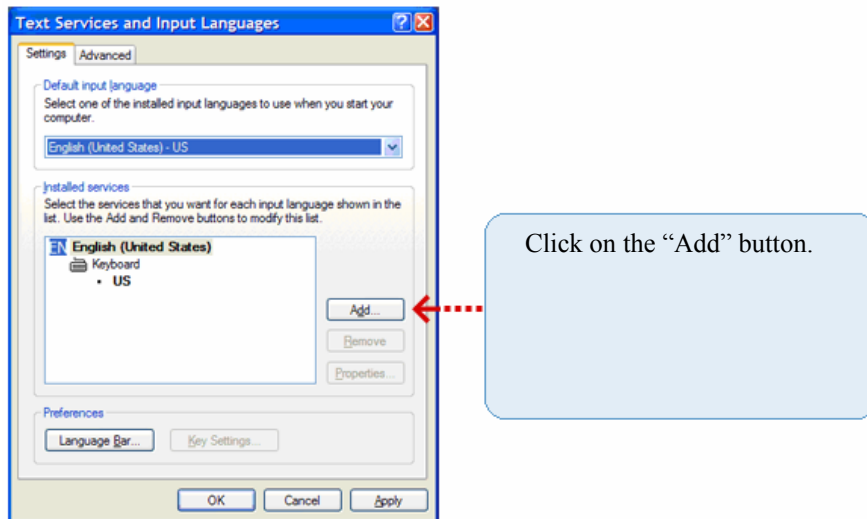The following panel will appear:

Panel 2.4:

Check both the boxes by clicking on the boxes.

Notice the two options (preceded by box mark □) given somewhere in the centre of the panel. They are the following:
□Install files for complex script and right-to-left languages (including Thai)
□Install files for East Asian languages
Check both the boxes (by clicking on the boxes). A check mark ✓will appear in the boxes.
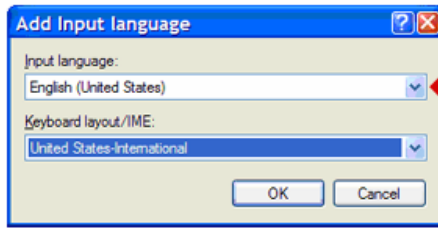Then press on the button "Apply" at the bottom right corner. Then press "OK" button.

Then click on "Details" button. The following panel will appear:
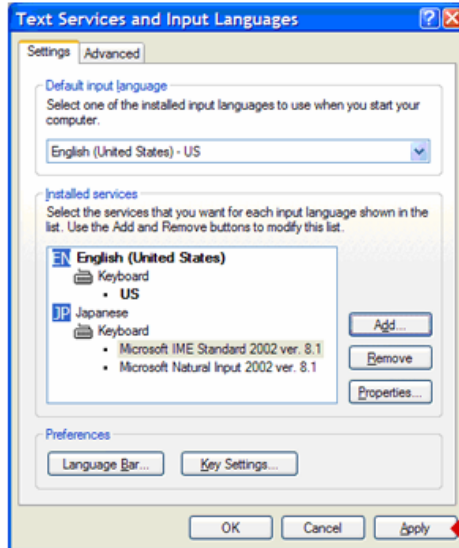
Panel 2.5:

Click on the "Add" button.

The following panel will appear:

Panel 2.6:

Under "Input language" option and "Keyboard layout/IME" option, choose "Japanese".

Then the following display will appear[2].
Panel 2.7:

Click on the "Apply" button. Then click on the "OK" button.

Restart the computer.

When it restarts, a "Language Bar" will appear (usually on the top right side of the Desktop). It will look like the following:

EN English (United States)

With the above step, invocation of the "Language Bar" and "IME" is complete.
Now you are ready to install the "AAA+" system on your computer.

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[2] Though a couple of other IMEs for complex Asian scripts are available in Windows XP, the "Japanese" option gives optimal facility to the user. When the user chooses the "Install Files for Asian Languages", Japanese and Chinese script engines get loaded into the system. Also choosing this option is mandatory for invoking the "Language Bar".
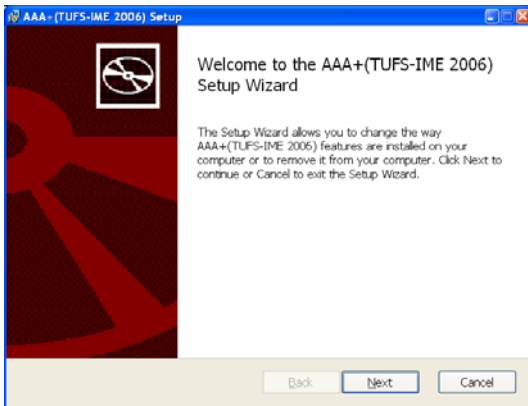
3. INSTALLATING AND USING "AAA+" ON YOUR COMPUTER

3.1. Installing:

By now you have setup your computer to receive the "AAA+" program. Now you need to install the "AAA+" program on your computer. The "AAA+" program is included in the enclosed CD. Insert the CD in your computer and explore it. You will get the following menu:
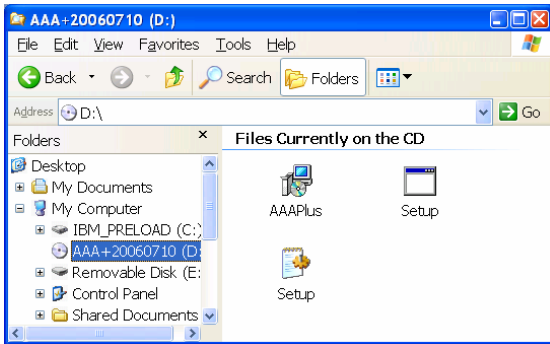
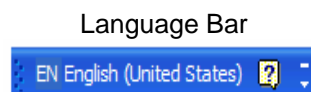Click on the AAAPlus Icon. The following Menu will appear:

Click on the button "Next". Then a window asking you to "accept the terms of licence agreement" will appear. After choosing the "I accept …" square, click on "Next" button. Then by pressing the "Next" button, "Install" button or the "Finish" button in the successive windows, you will succeed in installing AAA+ on your computer.

After AAA+ is installed, retart the computer.

3.2. USING THE "AAA+(TUFS-IME 2005)" OPTION IN THE LANGUAGE BAR

You have so far installed the "Language Bar" and "AAA+ software" on your computer. Now, after restarting your computer, the language bar will appear somewhere on the top right side of the desktop. Optionally it may appear as a part of the bottom bar (with "start"menu). Read the instructions about it in §2.1.
The Language Bar will look like this:

Language Bar

Locate it and click on "EN English". The following drop-down menu will appear:

Panel 3.1: Language Bar Expanded showing Japanese and English labels
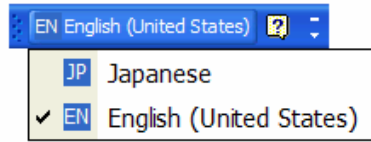
Click on "Japanese" button (the button with the keyboard icon to its left). Then the Language Bar will change to:

Panel 3.2: Language Bar Expanded showing AAA+ Keyboard within "Japanese Keyboard Option"
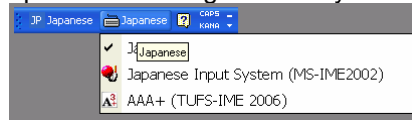
Click on "AAA+ (TUFS-IME 2006)" line. Then the language bar will change. Notice that "AAA+ (TUFS-IME 2006" line will now appear as a part of the blue language bar.

Simultaneously, for the first time "AAA+ Bar" will appear somewhere at the bottom of the screen. The AAA+Bar will look like:

Panel 3.3: "Language Bar" and "AAA+ Bar"
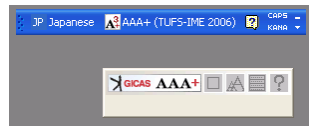
Panel 3.4: AAA+ Bar Explained
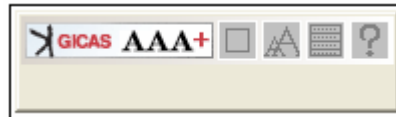
The AAA+ Bar contains the following buttons:

1. The On/Off button: When the AAA+Bar appears first on the screen, this button will be in grey or red colour. Click once or more on the button till it turns green. When the button turns green the AAA+ inputting system is activated.
2. The Zoom On/Off button: This is toggle button. By clicking on this button you can magnify the "Predictive Choice Window".
3. "Main-Menu Button": The use of this button is explained below.
4. Question button: Clicking on this will display the contents of the Help file called: **AAA_Plus_man.htm** which is located in the path: **C:\Program Files\ILCAA\AAAPlus\ime**

3.2.1. Main-Menu Window:
A sample display that appears when you click on the of the " Main-Menu Window Button" is given below:

In the display above:

The symbol ● in front of "telugu" means that "telugu" is the current 'Layout-Group' that is selected and is active.
The symbol ► after "devanagari" means that there are more than one Layouts in the "devanagari" Layout-Group (in this case there are four layouts). The four Layouts get displayed if the "devanagari" Layout-Group is clicked on as shown below:
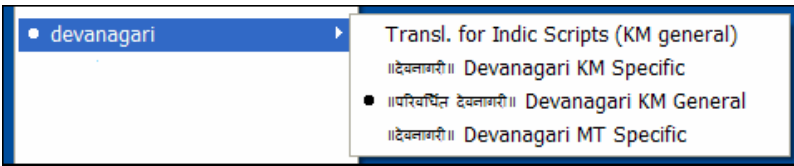
Then the user can choose one of the four Layouts. After the choice, the Layout name will get the ● symbol on its left and the Layout name will also appear at the bottom of the AAA+ Bar as shown below:

AAA+ Bar with the Layout Name displayed

A further descripton of some sample Layout-Groups and Layouts is given below:

Script Locales Section		
Name displayed in the menu	**Stands for**	**Contains**
thai	Thai Layout-Group	One Layout
tamil	Tamil Layout-Group	One Layout
● telugu	Telugu Layout-Group	One Layout
devanagari　　　　►	Devanagari Layout-Group	Four Layouts: 　　Transl. for Indic Scripts (KM general) 　　Devanagari KM Specific 　　Devanagari KM General 　　Devanagari MT Specific
bengali	Bengali Layout-Group	One Layout

The Main-Menu Window contains some other items which are explained below:

	Other Sections	If selected:
1	Property	Displays Information about Copyright, Server and Client of AAA+
2	Show Partial Information	Displays unparsed html text or simple text from Column 3 of the Output listed in the concerned BaseFile
3	Show Extensive Information	Displays parsed html text or simple text from Column 3 of the Input-Output table in the concerned BaseFile.
4	Show Input Keystrokes	Displays the 'Predictive Choice' keystrokes that are available for an inputted keystroke (these are picked up from Column 1 of Input-Output table in the concerned BaseFile.
5	Zoom	Zooms the 'Predictive Choice Window'
6	Help	Displays the contents of the Help file called: **AAA_Plus_man.htm**. It is located in the path: **C:\Program Files\ILCAA\AAAPlus\ime**

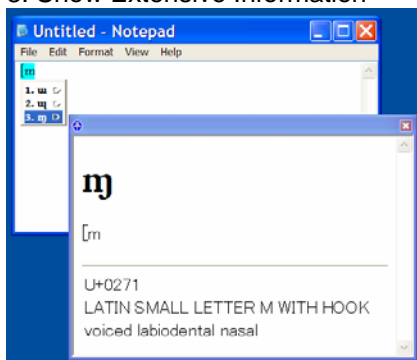Sample displays of the above sections are given below:
1. "Property" Window:
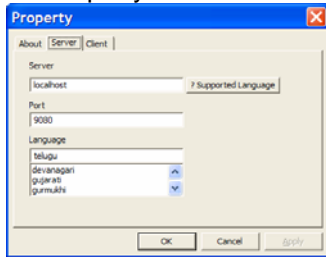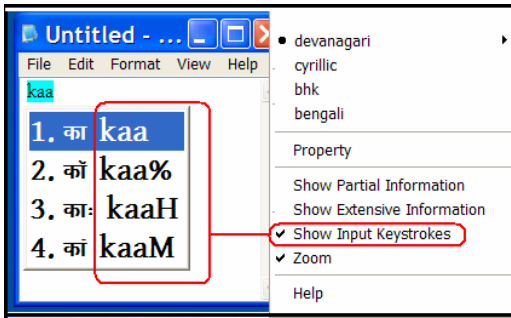

2. "Show-Partial-Information" Window:
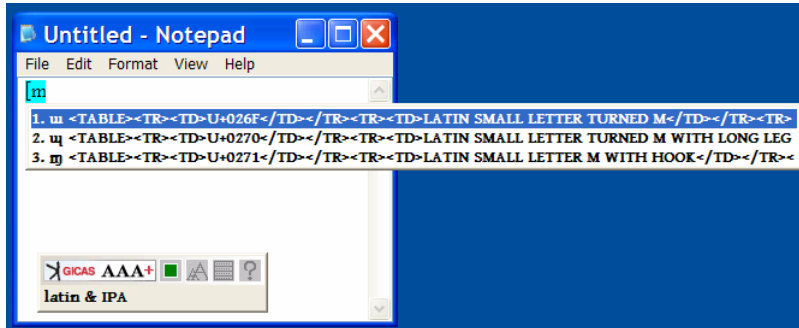

3. Show Extensive Information

4. "Show-Input-Keystrokes" Window:
If the "Show Input Keystrokes" option is chosen, then the Predictive Choice Window (the one containing four lines numbered 1 to 4) will contain the keystrokes necessary for getting the resective outputs (for instance, "kaa", "kaa%"). This is shown below:

The following Panel depicts what happens if the aove choice is not made:
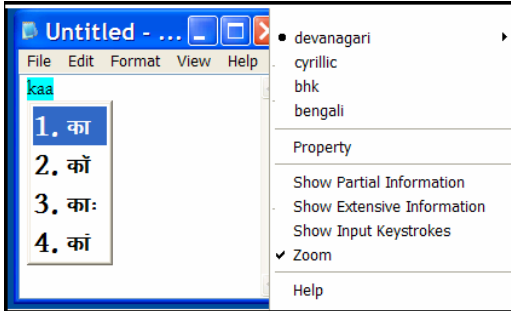
Notice in the above panel, the "Predictive Choice Window" does not show the input keystrokes.

Select the script of your choice and you are now ready to enter text in that script.

3.2.2. Inputting Text:

To input text using AAA+, you need to open a text editor. The text editor is the 'Receiving Application' (=RA). An RA is usually displayed as a window or a slot in a window. For instance, "Notepad" is an RA which is displayed as a window. On the other hand, the address slot where you type in text in a browser is a window slot that receives text (so also, the slot in a search engine).

The 'Predictive Choice Window' (=PCW) is a window opened by AAA+ showing various choices available to the user after one or more keystrokes are inputted.

Text Window (RA) and Predictive Choice Window:
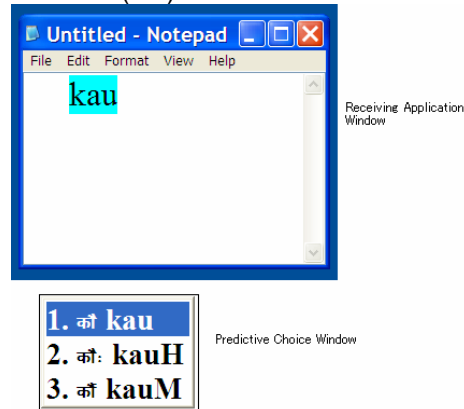
The above panel shows the two windows separately. In the RA, the keystrokes kau are visible and highlighted in green. In the PCW, the first line (the line "1. कौ kau") is also highlighted in blue. This letters kau highlighted in green in RA represent the corresponding keystrokes about which a choice has to be made in the PCW. Due to the choices available to the programme (from its BaseFile), the PCW gave a list of three choices available once the three keys were inputted. Users now has the following options:

1. They can press the 'Enter' key and the corresponding Devanagari string (कौ)will be transferred into the RA.
2. Or they can scroll down to choices 2 (कौः kauH) to 3 (काँ kauM)in the PCW by using the 'Down Key' on the keyboard (the key marked↓). Or later, they can scroll up by using the 'Up Key'.
3. Once a choice is made, the 'Enter' key can be pressed and the corresponding 'string' of Devanagari will be transferred into the RA.

Once the chosen 'string' of the target script is transferred into the RA, the PCW closes showing that the selection is over and the cursor in the RA waits for the next keystroke.

It should be emphasized here that the availability of any number of choices (3 choices in the above case) is entirely dependent upon how the 'Equation List' that feeds the 'In-Out Process' (see Rows 5 and 9 of Table 1: Concepts) is defined in the BaseFile. In the layout called "Devanagari KM General", the BaseFile contained a list of three choices (in Column 1 of its [Phrase]). They are: **kau, kauH, kauM.** Hence these 3 choices appear in the PCW. Defining the Equation Lists is the crux of the whole IME as explained in the next section.

4. Processing of a BaseFile : Modifying them or creating new ones:

A BaseFile is the foundation for a Layout. In other words, each Layout originates from a distinct BaseFile. However, as explained earlier, a BaseFile is a pure text file in UTF-8 encoding. AAA+ system during its operation requires several binary files. For this purpose a BaseFile has to be converted into corresponding binary file(s). Depending upon the number of columns listed under the item **"Phrase"** in a BaseFile, we generate one or two binary files as explained below:

In the BaseFile (e.g., **ABC.txt**) if the **"Phrase"** part has	the binary file(s) generated:
2 columns of data	ABC.data
3 columns of data	ABC.data
	ABC.a3d

These binary files are generated from the BaseFile by processing the BaseFile through an executable program called: **a3dbldr.exe**.

AAA+ has provided several Layouts (with the necessary .data and .a3d files located in the proper directories). For each of the Layout Groups, one original sample BaseFile is also provided in a separate folder.
If you either modify the BaseFile or create a new BaseFile, you need to process the resulting modified or new BaseFile by means of the executable program called **a3dbldr.exe**.

4.1. The BaseFile:
This is a text file (pure unformatted UTF-8 text) that you have to prepare first and store in a specified directory. Several BaseFiles are included in this software. Its structure is explained below.

The function of this file is to supply the appropriate output for a given input (In-Out Process explained in Table 1). For instance, by defining properly, when you press the "a" key on the keyboard, this program may return the Devanagari character अ back. Thus this system takes the 'Input-String' "a" and returns the 'Output' अ to the user. This is just an example. You can assign and reassign any "Input-String" to any "Output" (however, following certain restrictions).

Valid Candidates for 'Input-string':
The Input-string has to be one or more QWERTY key-strokes from the keyboard of the computer. Following are all the QWERTY keys on an English Keyboard that are valid for this program:

```
qwertyuiop[]\asdfghjkl;'zxcvbnm,./`1234567890=
QWERTYUIOP{}|ASDFGHJKL:"ZXCVBNM<>?~!@#$%^&*()_+
```

The above is a complete list of all the lower-case and capital (=shift) letters that are obtained by pressing the relevant key on the keyboard once. Though the 'Space' key gives the 'space' output, it is not a valid QWERTY key in the context defined here. No other key is considered as a valid input. Any keystroke that is not listed by the user as a potential input-string (in Column 1) will not be recognized by the program when it runs. The maximum number of QWERTY-key-strokes that are allowed as one input-string is 32.

What can be the 'Output'?
In the BaseFile, you can define the output in ways: (1) as a string one or more Unicode characters or as the contents of another text file.

14

The output is the string of one or more characters in the desired script (Devanagari, Telugu, Tamil etc.). It can be as short as one character or as long as a sequence of 20 characters. Please note that a Unicode 'character' is different from a glyph as explained in Table 1. A character is also different from the Indian concept of 'Akshara'. For example, one Devanagari Akshara such as स्त्री is composed of four Unicode characters 's', 't', 'r', 'i'.

One/many to one/many correspondence between Input-string and Output-string:
It is clear from the above that all the four possible correspondences between input-strings and output-strings are available in the program.

Input string	Output string
one	one
one	many
many	one
many	many

Choice of the any of the above options is in the hands of the user (with certain restrictions).

Structure of a BaseFile:
Following is a line-by-line description of the contents of the BaseFile.
"¶" stands for a "Carriage Return". This symbol is explicitly shown here just to illustrate the point that you need to press "Enter" key once at the place where the ¶ symbol stands. You don't have to insert the ¶ symbol there.

Similarly, the symbol "→" stands for a "Tab" -- Press the "Tab" key once.

Line in the BaseFile	Explanation
## AAA(TUFS-IME) Unit Table and Extentional Dictionary Source. Format=ASTI2005¶	This is an essential header line. Do not touch this line.
## This is a sample of source that integrate IIIM unit table and AAA detail information dictionary .¶	You can insert any comment or memo here. It will be for your own reference and will be ignored by the program during compilation.
	Empty line. Do not touch this line.
[unit:Description]¶	Unit description line. Do not touch this line
Locale Name:XYZ¶	This gives the locale name which will appears as the 'Layout-Group Name' in the Main-Menu-Window. For instance, XYZ given in this line will appear as the 'Layout-Group Name'.
Layout Name:‖परिवर्धित देवनागरी‖ Devanagari KM General¶	This gives the name of individual 'metascript' and will appear as the specific "Layout Name" both in the sub-window of the 'Layout-Group Name' as well as the bottom of the AAA+ Language Bar.
MaxCodes:20¶	When you select 'Show Input Keystrokes' option in the Menu Window, the inputted keystrokes will appear in the 'Predictive Choice Window'. Here '32' stands for the maximum number of key-strokes that can be displayed in that window. You can enter any number here.
¶	Empty line. Do not touch this line.
[unit:Function_Key]¶	Unit description line. Do not touch this line
PageUp:[<^P¶	Do not touch this line
PageDown:]>^N¶	Do not touch this line
BackSpace:^H^/¶	Do not touch this line
ClearAll:^A¶	Do not touch this line
¶	Empty line. Do not touch this line.
[unit:Options]¶	Unit description line. Do not touch this line
KeyByKey_Mode:ON¶	The 'incremental search' displayed in 'Predictive Choice Window' can be turned 'ON' or 'OFF' here.
HelpInfo_Mode:OFF¶	Need not be changed. The function of this key is available elsewhere.
AutoSelect_Mode:ON¶	When this mode is 'ON', in case the predictive incremental search is complete and the final choice is available, it is automatically transferred into the 'text' window from the 'Predictive Choice Window'.

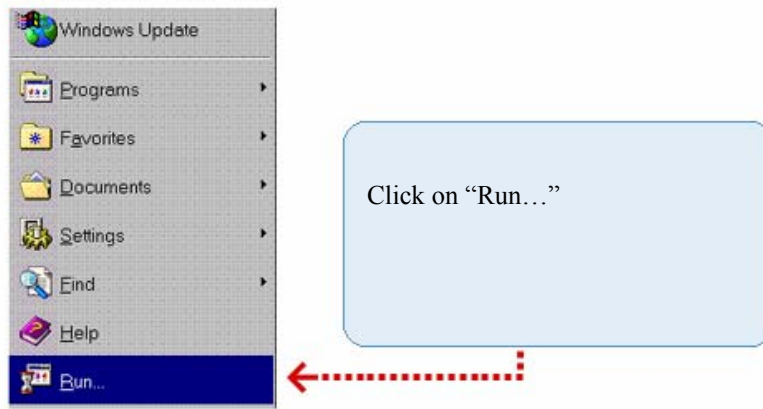|	
KeyPrompt_Mode:ON¶	Need not be changed.
SelectKey_Mode:None¶	Here the user can select the following choices: Number, Upper, Lower, None. This selection is reflected in the 'Bullets' that are displayed in the 'Predictive Choice Window' against the predicted choices. The choices and the corresponding displays are: Number: 1, 2, 3, 4, 5, 6, 7, 8, 9 Upper: A, B, C, D, E, F, G, H, I Lower: a, b, c, d, e, f, g, h, i None:
¶	Empty line. Do not touch this line.
[Phrase]¶	The text data is divided into three columns. The third column is optional. Each column is separated from the other column by a Tab. Similarly, if there is a third column, it is separated from the second column by a Tab. We use the following names for each of the three columns (under both the headings): The first column is called 'Key-column'; the second column is called the 'Word-column'; the third column is called the 'EI-column'. Data is entered in a row and in a column. Each column is separated by a Tab. There are some restrictions on the number of bytes that can be entered in different columns. A cell in the Key-column can contain a maxium of 32 QWERTY key strokes. A cell in the Word-column can contain a maximum of 254 bytes. A cell in the EI-column can contain a maxium of 4000 bytes.
a→अ¶	1 keystroke in column 1 corresponding to 1 character in column 2
aa→आ¶	2 keystroke in Col. 1 corresponding to 1 character in Col. 2
i→इ¶	1 keystroke in column 1 corresponding to 1 character in column 2
ii→ई	2 keystroke in Col. 1 corresponding to 1 character in Col. 2
^→ऋ	1 keystroke in column 1 corresponding to 1 character in column 2
^^→ॠ	2 keystroke in Col. 1 corresponding to 1 character in Col. 2
aM→अं	2 keystroke in Col. 1 corresponding to 2characters in Col. 2
aaM→आं	3 keystroke in Col. 1 corresponding to 2 characters in Col. 2
!8→वागर्थाविव संपृक्तौ वागर्थप्रतिपत्तये । !9→जगतः पितरौ वन्दे पार्वतीपरमेश्वरौ ॥	In each of these 2 lines the first column contains 2 keystrokes. The second column contains a long string of Devanagari characters
[m→ɱ→\<TABLE>\<TR>\<TD>U+0271\</TD>\<>TR\<>TD>LATIN SMALL LETTER M WITH HOOK\</TD>\</TR\<>... [m→ɯ→\<TABLE>\<TR>\<TD>U+026F\</TD ... LATIN SMALL LETTER TURNED M \</TD>\</TR\<>... [m→ɰ→\<TABLE>\<TR>\<TD>U+0270\</TD ... LATIN SMALL LETTER TURNED M WITH LONG LEG \</TD>\</TR\<>...	In each of these 3 lines the first column contains 2 keystrokes. The second column contains 1 Latin IPA character. The third column contains HTML-tagged text. This text will be displayed either as partial information or as interpreted HTML text in a browser window (depending upon the option chosen in the "Main Menu".

Processing a BaseFile:

After you modified an existing BaseFile or created a new BaseFile, you need to process it get the corresponding binary file(s). The following steps describe the process.

Step 1: Opening a "DOS window"

(Click on the "Start" button located at the bottom-left most part of the screen. When the "Start" window opens, locate the button named "Run" situated somewhere in the bottom right side of that window) as in the following picture:
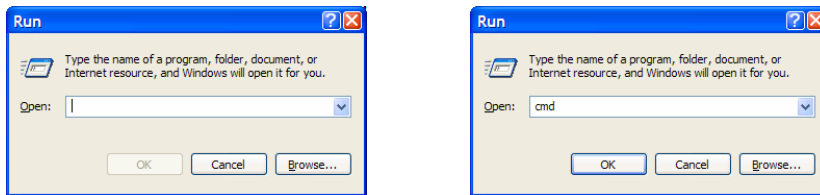
Panel 4.1:

Click on "Run…"
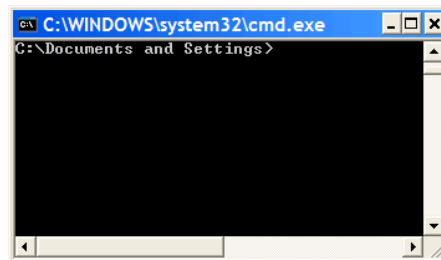
Click on "Run".

A window that is on the left side below will appear. Locate the slot that says "Open:" Enter the word   cmd   in that slot (as shown in the right side picture below). Click the "OK" button.

Panel 4.2:

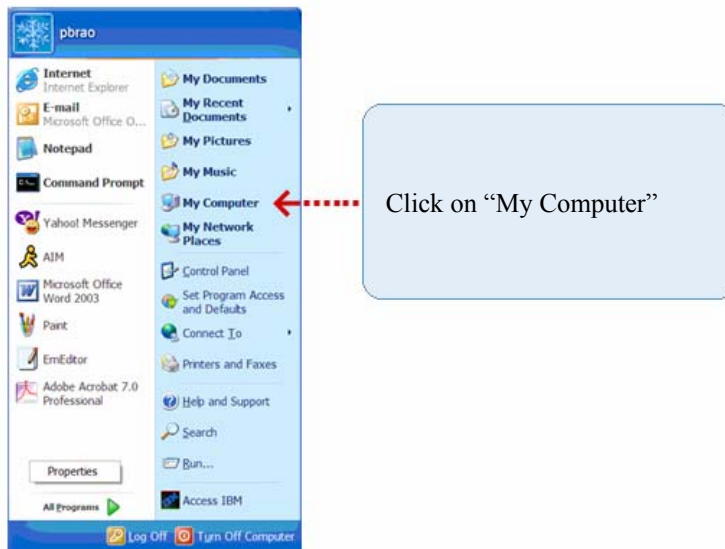The following window will appear. It is called the "DOS window" or "Command Line Window":

Panel 4.3:

You will notice the line "C:\Documents and Settings> " in the top of the panel. This indicates the current folder. The list of folders here may be different on your computer depending upon in which folder you are working.

Keep this window open. You will use it later.

Step 2: Running the program called: "a3dbldr.exe" :

Click on "Start" button. The Following Panel will appear.
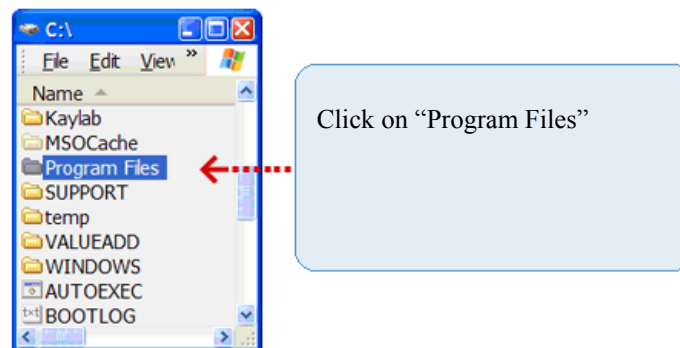
Panel 4.4:

Locate the button "My Computer" in the right hand side list. Click on it. The following panel will appear:

Panel 4.5:

Depending upon the contents of your computer, the list of items might vary. However, you will find the item called "(C:)" Local disk. This is the icon for the Hard Drive C. Click on it. The following panel will appear:

Panel 4.6:

Again, depending upon the contents of the "C:" drive on your computer, the list will vary. However, the Folder by name "Program Files" will be there. Double click on it. The following panel wil appear:

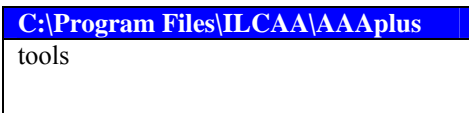Panel 4.7:

C:\Program Files

18

ILCAA

Again, depending upon the contents of the "Program Files" folder on your computer, the list will vary. However, you will notice the folder by name "ILCAA". Locate it and double click on it. The following sub-folders will appear:

Panel 4.8:

C:\Program Files\ILCAA
AAAplus

Double click the "AAAplus" sub-folder. The following panel will appear:

Panel 4.9:

C:\Program Files\ILCAA\AAAplus
tools

Double click on "tools"

The following panel will appear:

Panel 4.:

C:\Program Files\ILCAA\AAAplus\tools
a3dbldr.exe

Now you are ready to execute the "a3dbldr" program. Earlier you opened the "DOS Window" (=Panel 4.3) e still remaining on your desktop or as a minimized icon at the bottom of the screen. Click on it. Then you will have the following two windows on the desktop:

Panel 4.10

C:\Program Files\ILCAA\AAAplus\tools
a3dbldr.exe

Panel 4.:

Click the mouse on 'a3dbldr' on the top window [=Panel 4.11ove and while holding the mouse clicked down, drag it into the 'DOS' window [=Panel 4.3nd release it there. Panel 4.3ll change to Panel 4.3A. Then you will get the following display in 'DOS' window:

Panel 4.3A

C:\ Command Prompt
C:\Documents and Settings>"C\Program Files\ILCAA\AAAPlus\tools\a3dbldr.exe"

Keep both Panel 4.3 and Panel 4.3AA open. Do not close them.

The processed output of the BaseFile has to be kept in one of the "Layout Groups". All the layout files of a particular group are kept in a sub-folder by name 'data'. You need to trace the path to this subfolder.

Suppose you want to keep the processed output of the new BaseFile in the "Devanagari Layout Group". Now, you need to open another copy of the window containing 'iiimf' folder. For this purpose, follow the procedure for opening Panel 4.4 to Panel 4.9. You should get the following Panel 4.9:

Panel 4.9:

C:\Program Files\ILCAA\AAAplus\
server

Double click on the 'server' folder.
The following panel will open:

Panel 4.12:

C:\Program Files\ILCAA\AAAplus\server\
leif

Double click on the "leif" folder.
The following panel will open:

Panel 4.13:

C:\Program Files\ILCAA\AAAplus\server\leif
a3dle

Double click on the "a3dle" folder.
The following panel will open:

Panel 4.14:

C:\Program Files\ILCAA\AAAplus\server\leif\a3dle
unit

Double click on the "unit" folder.
The following panel will open:

Panel 4.15:

C:\Program Files\ILCAA\AAAplus\server\leif\a3dle\unit

devanagari

Double click on the "devanagari" folder. The following panel will open:

Panel 4.16:

C:\Program Files\ILCAA\AAAplus\server\leif\a3dle\unit\devanagari
data

Double click on "data". Something similar to the following panel will appear. It lists all the binary files available in the Devanagari Layout.

Panel 4.17:

C:\Program Files\ILCAA\AAAplus\server\leif\a3dle\unit\devanagari\data
dn_km_gl.a3d
dn_km_gl.data

Now you need to copy into the above folder, the BaseFile (say its name is: ABC.txt) that you want to be processed. Copy the concerned file into the above subfolder. Then Panel 4.17 may change to Panel 4.17a.

Panel 4.17a:

C:\Program Files\ILCAA\AAAplus\server\leif\a3dle\unit\devanagari\data
dn_km_gl.a3d
dn_km_gl.data
ABC.txt

Click on the
Panel 4.3A must be still open. It must look like the following with the cursor blinking right after .exe"

Panel 4.3A

C:\ Command Prompt
C:\Documents and Settings>"C\Program Files\ILCAA\AAAPlus\tools\a3dbldr.exe"_

 Go into that window and insert one space at the end of line. Then it should look like:

Panel 4.3B

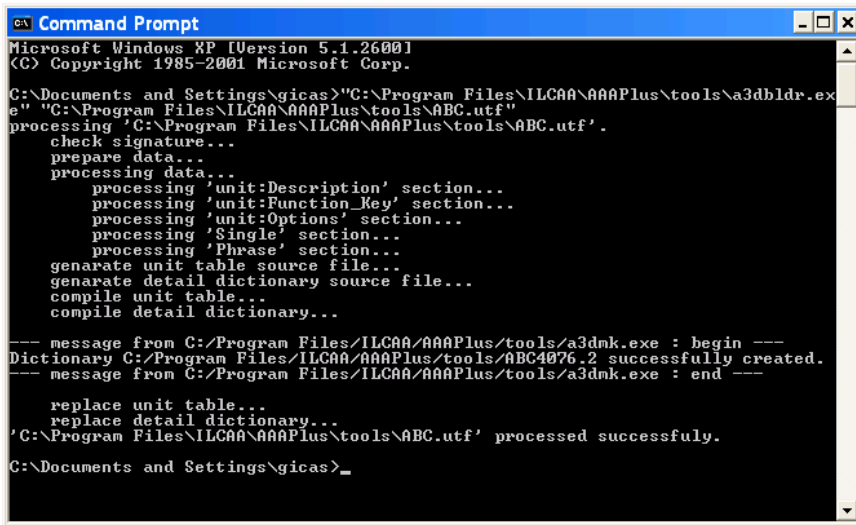| **C:\ Command Prompt** |
| --- |
| C:\Documents and Settings>"C\Program Files\ILCAA\AAAPlus\tools\a3dbldr.exe" _ |
| |

Now drag the file "ABC.txt" from Panel 4.17a into Panel 4.3B. Then Panel 4.3B will change to Panel 4.3C:

Panel 4.3C

C:\ Command Prompt
C:\Documents and Settings>"C\Program Files\ILCAA\AAAPlus\tools\a3dbldr.exe"
"C:\Program Files\ILCAA\AAAplus\server\leif\a3dle\unit\devanagari\data"

Then press "Return". The file will be processed and the Panel 4.3C will change to 4.3D:
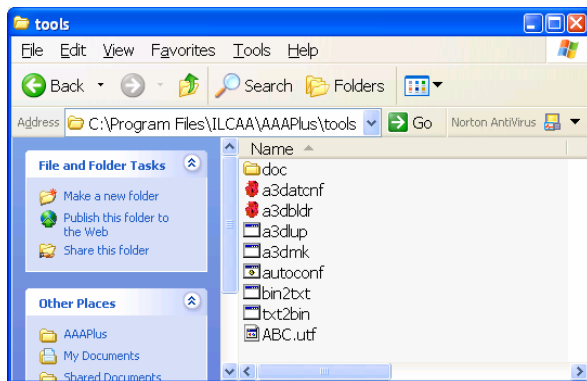
Panel 4.3D

This shows that the concerned binary files for the ABC.txt layout were successfully created. Now you need to register the newly created files.

4.2. Registering the newly created binary files:

For this purpose you need to run the **autoconf.cmd** file. This file resides in the same \tools folder where `a3dbldr.exe` program is present.

Open the **C:\Program Files\ILCAA\AAAPlus\tools** folder. The following window will appear.

Double Click on the **autoconf** file in the above window. The program will execute several steps. It might ask you to respond several times (a maximum of 4 times) and each time, respond by YES.

Then, restart your computer. Now the newly created Layouts will be ready for use.

1. कौ   kau
2. कौः kauH
3. कौं kauM