

User Manual

(Please read this Manual with Adobe Acrobat)

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Pothana2000 and Vemana Fonts, and accompanying keyboard locale were created by K.Desikachary of Winnipeg, Manitoba, Canada. These fonts are both released under General Public License (GPL). You use this software at your own risk, and I am not responsible for any inconvenience, damage and/or loss arising from the use of this software. I want to acknowledge the artistry and help of Dr. Mantha Lakshmana Murthy of Austin, Texas, USA, on whose drawings the Vemana font is based.
- K. Desikachary

This is the user manual for the Pothana2000 font, usable under Win2000 and upwards. The web pages and emails composed in this font display correctly under Win9x environments, provided this font and USP10.dll are installed in those environments. The current version of Pothana2000 is 1.3, which includes 14 new Telugu characters approved by the Unicode consortium to be included in Unicode version 5.1. In addition, it solves a bug that existed in version 1.2 of the font, and also greatly optimizes the placement of త ఒత్తు.

1. What this Package Contains:

a) A keyman5.0 driver from Taveltusoft Software.

I have licensed this from Tavultesoft Corporation by paying them a fee. This license enables me to bundle a runtime version of this driver with my fonts. Note that the Keyman5.0 is not under GPL, hence the keyboard driver created using it is also not under GPL. Since the Pothana2000 and Vemana fonts are entirely my creations, I can only place these fonts, not the keyboard driver, under GPL. This driver must be installed for the Telugu keyboard that I have defined to work properly.

b) Pothana2000 and Vemana fonts and this user manual.

2. How to Install:

2.1 In Win 95, 98 and ME Environments

If you are using Windows 95, 98 or ME, download the package containing this manual and the font. Extract the contents of this package to a directory of your choice using winzip, and install the Pothana2000 and Vemana fonts on your system through Control Panel. Then obtain the USP10.dll from Microsoft as explained in the next section. If you are using Win95, copy this dll to your desktop, and to your windows system directory if you are using Win98 or ME. Note that These windows environments are not fully compatible with Unicode, so you can only view web pages created using these fonts in these environments, but you cannot create such pages using this font in these environments (however, read below).

However, you can download a Unicode text editor called YUDIT (<http://www.yudit.org>), that enables you to create documents in these fonts even in pre-2000 Windows environments. Also, Keyman6.0 from Tavultesoft Corporation (<http://www.tavultesoft.com>) has plugins available that enable you to create Telugu documents using these fonts in pre-2000 Windows environments.

2.2 In Win 2000

In Win2000 you can create documents using the Pothana2000 and Vemana fonts. To do this, you have to download Pothana2k.exe package. After downloading, if you double click on Pothana2k.exe file, it will install the Tavultesoft Keyboard package and the Telugu locale driver on your computer. It should also install the Pothana2000 font on your system. If it did not, explicitly extract the contents of the

Pothana2k.exe package to a folder using Winzip, and install the Pothana2000 and Vemana fonts by double clicking the Fonts icon in your control panel. If you don't know how to use control panel, please read your Windows User Manual.

After installing these fonts, install Indic language support through the control panel. To do this, double click on "Regional Options" icon in the control panel. This opens up a window, in the lower part of which you will see Indic as a selectable option. Enable this option by clicking your mouse in the check box next to it. Next click on the "Input Locales" tab at the top of the window and install an input local either for Hindi or Sanskrit, and save all your settings. This completes the installation.

Another item you must have for Telugu text processing is a recent version of the USP10.dll (Unicode Script Processor). When you install Win2000, a default version of this file is loaded into your \winnt\system32 directory. But this default version cannot handle Telugu processing. So, you *have to* get a more advanced version of USP10.dll from Microsoft. If you search in Google using the string Pothana2000, you will get many hits, some of which tell you how to install Pothana2000 in various environments, and also how to get USP10.dll.

You can use Recovery Console to replace usp10.dll. If you have no recovery console installed on your computer, follow instructions in Windows2000 help to do it, then restart computer in recovery mode and copy usp10.dll into windows system directory (\winnt\system32). Under recovery console you see very restricted set of directories, so be sure to copy new version into the same directory (under different name) before restart. Also make a backup copy of old version.

- If you don't want to replace your original USP10.dll, you can copy the new dll directly to the directory where the application's (such as Notepad, Wordpad, IE5.5) executable resides. Most applications will pick it up from there instead of the Windows system directory. This way you enable the new Uniscribe only for selected applications and leave your system intact, and it's easy to do.

2.3 In Win XP Professional

Microsoft started fully supporting Telugu script in Win XP Professional, hence delivers the right version of usp10.dll with this operating system. They also provide a font named Gautami. However, in my opinion, their keyboard locale is totally unusable and the Gautami font doesn't look great. The advantage of installing Pothana2k package in this environment is that it provides a QWERTY-like keyboard input locale and also better looking fonts. The procedure to install Pothana2k.exe is the same as described above, except that you don't have to install usp10.dll as XP professional comes with the right version of it..

3. Usability of Pothana2000

The Pothana2000 and Vemana fonts conform to universally accepted Unicode standard, hence documents created in these fonts will satisfy the requirements of all programs that support Unicode standard. Although only a few programs support this standard at present, this is how all programs communicate in future, and newer versions of many programs will certainly support Unicode. So, standards conformity is the main strength of Pothana2000 and Vemana fonts, as opposed to the Pothana fonts that are available under Win9x environments. Since Pothana2000 and Vemana conform to the same standard, whatever I mention for Pothana2000 will apply equally well to Vemana also.

You can compose emails and Web pages in Pothana2000 font in Win2000 environment, and these are readable in Win9x environments provided you also install these fonts and compatible USP10.dll in those environments.

At present, the following programs are capable of processing Pothana2000 and Vemana fonts in Win2000 environment:

- a) Notepad - can compose documents in these fonts

b) Wordpad - can compose documents in Pothana2000 font. You can hand code HTML pages containing text in these fonts and HTML tags in a Roman font. This is how I have created Telugu pages on my web site. When you do this, the Telugu text may look ill-spaced in Notepad, but will display alright in browser5.5. Note that pre-5.5 versions of Internet Explorer (IE) may not have support for Indic scripts. You are advised to upgrade to IE5.5 to view pages composed in Indic scripts.

c) Outlook - can handle Pothana2000 admirably well. In fact, it can be used as an Editor compose your Telugu documents.

d) Word - The current North American version of Word cannot handle Indic languages well. You can see Telugu chars in Word2000, but context logic that produces guninths and ottulu does not work. Also, char spacing is incorrect in Word.

e) Word XP – Word XP has solved the problems that existed in Word2000. So, you can beneficially use Pothana2000 font to produce documents using all the formatting features of Word XP. The best way to Pothana2000 in WordXP is to create a text style by setting default and complex fonts to Pothana2000 in appropriate size. For running text, a 11 or 12 pt. size is recommended. For headings and titles, you can use larger point sizes. Also, make sure that you turn off all the formatting defaults such as replace regular quotes by smart quotes, capitalize first char etc., in the AutoFormat option under Format menu.

f) OpenOffice - Free Software Foundations's Open Office Version 2 can compose Telugu documents in Pothana2000, provided you install proper USP10.dll and my Telugu Locale on your Windows Computer. There are still some bugs in OpenOffice, but these can be easily worked around. I haven't tested OpenOffice with Pothana2000 in non-Windows environments. If you do not see Pothana2000 as selectable font in open office after you have installed it, Please do the following: Go to

Tools->Options->Language Settings->Languages

Check the "Enabled for Asian Languages" and "Enabled for complex text layout (CTL)"

g) Creating Telugu pdf Files: If you have full version of Adobe Acrobat, you can create Telugu pdf files, using Pothana2000 font. However, Adobe acrobat5.0 doesn't produce good-looking output. A far superior utility is a freeware named pdf995 from <http://www.download.com>. This installs as a virtual printer, and when you print to it, it prompts for a "save as" file name. Respond to this prompt by entering a file name with extension pdf (ex., mydoc.pdf, pothanadoc.pdf etc.). The advantage of pdf files is that they are readable on systems that don't have Pothana2000 font and usp10.dll installed. However, you must install the read-only version of Acrobat on your computer to read pdf files. This is not a problem, because read-only version of Acrobat is freely downloadable from Adobe Corp's website <http://www.adobe.com>

4. How to Upgrade Existing Installation of Pothana2000

If you have an existing installation of Pothana2000 and Vemana fonts along with the Tavultesoft keyman runtime, proceed as follows to upgrade it:

- a) Extract contents of the pothana2k package to folder using winzip utility
- b) Delete existing Pothana2000, Vemana fonts from your fonts folder
- c) Install the extracted Pothana2000 and Vemana fonts into your fonts folder
- d) Navigate to All Programs/Tavultesoft Keyman and click on keyman configuration.
- e) Deinstall telugu.kmn keyboard driver and install the extracted telugu2006.kmn driver in its place.
- f) Activate the keyman so that the diamond shaped icon appears at the bottom right side of the screen
- g). Click on this icon and activate Te locale and type normally.

5. How to Compose Text in Pothana2000

At he outset, Navigate to Start -> Programs-> Tavultesoft Keyboard Manager and click on keyboard driver (i.e, on keyman). This will put a small icon on the right hand bottom of the screen (near where the time is displayed). If you then click on this icon, you will see the Telugu keyboard identified by a small

icon Te as one of the selectable items. Click on this and then select Pothana2000 font in notepad or WordPad or Outlook Express or Word XP in required size to compose text in Telugu (use 12-14 pt size for running text and bigger sizes for headings).

If it is not working (i.e., if you still see English chars when you input from keyboard), the reason is that Te icon is unchecked. By clicking on this Icon again make sure it is checked. To make further progress, you have to know keyboard mapping, which is given below:

Keyboard Mapping for Pathana2000

(Note: You must have installed Pothana2000 in order to see this properly)

(Shifted - top to bottom)

~	!	@	#	\$	%	^	&	*	()	_	+
~	!	@	#	\$	%	^	&	*	()	_	+

Q	W	E	R	T	Y	U	I	O	P	{	}
ఋ	ౠ	ఏ	ఐ	ఊ	ఋ	ౠ	ఋ	ౠ	ఋ	ౠ	ఋ

A	S	D	F	G	H	J	K	L	:	"
ఆ	ఇ	ధ	ఁ	ఘ	ఙ	ఞ	ట	థ	:	"

Z	X	C	V	B	N	M	<	>	?	
ఢ	ణ	ఛ	ఞ	ట	ణ	జ	<	>	?	

(unshifted - top to bottom)

‘ 1 2 3 4 5 6 7 8 9 0 - =
` 1 2 3 4 5 6 7 8 9 0 - =

q w e r t y u i o p [] \
ఋ త ఎ ర ట య ఉ ఇ ఒ ప ఔ ః \
\

a s d f g h j k l ; '
అ న ద ం గ ి జ క ల ; '

z x c v b n m , . /
డ ష చ వ బ న మ , . /

(With Right ALT - top to bottom, only mapped keys are shown)

1 2 3 4 5 6 7 8 9 0
౧ ౨ ౩ ౪ ౫ ౬ ౭ ౮ ౯ ౦

q r e y u i o [] \
ృ ౄ ె ే య ి ై [] ః

a J l ; ' /

ౌ జ్ఞ్ణ { } ౭

c

ఛ

(With Shift Right ALT - top to bottom, Only mapped keys are shown)

1	2	3	4	5	6	7	8	9	0
౧	।	౪	౫	-	౭	౮	౯		
	e	u	i	o	[
	ే	ూ	ి	ో	ా				
		।	;	'					
		౪	{	}					

In addition, Right ALT , and Right ALT . are mapped to ZWJ (zero width joiner) and ZWNJ (zero width non-joiner), respectively.

This keyboard design relegates the Vowel markers (also called matras) to "hard to type" ALT keys, because they are **never** used by the user. To get guninatham forms, you type the consonant and the required vowel right after that, and this gets you appropriate guninatham form - so, you **never** need to access the Vowel markers themselves. These are mapped to the keyboard only because they are defined in Unicode. In my implementation of the keyboard locale, they are never used by the user to compose text.

My keyboard design maps qwerty layout to correspondingly sounding chars in Telugu, and preserves original locations of the numerals and other symbols, except for [] { and }. Note that The Ardha Visarga, dantya ca (Tsa), dantya ja (Dza), modifier (matra) forms of Vocalic LA and LLA and the 8 ancient Telugu fractional symbols were recently approved by the Unicode consortium to be included in Unicode standard 5.1. These are included in the current versions of Pothana2000 and Vemana fonts. Of these, you can only use Tsa, Dza, Ardha Visarga and the ancient Telugu fractional symbols in your text at present, because these are simple characters which do not require special processing. To get guninatham forms of Tsa, Dza and for proper placement of Vacalic La and LLa matras, positioning and substitution lookups should be included in the font and the USP.dll should recognize these and process them properly. These lookups are included in the font at present, but USP10.dll ignores them because it doesn't know about these new characters. It thinks that these characters doesn't belong to Telugu block, so, ignores all lookups defined for these characters. So, you have to wait until USP10.dll catches up with the new Unicode version 5.1 when it is officially announced.

To compose Telugu text, you phonetically type the language. It is very easy, and I will make it clear by giving some examples:

General rule: Type the required vowel :after a consonant or a cluster of consonants, to get the corresponding guninatham form: examples:

a) Simple forms:

క ఆ -> కా, క ఇ -> కి, క ఈ -> కీ, క ఉ -> కు, క ఊ -> కూ, క ఋ -> కృ,

క ఋ -> కౄ, క ఎ -> కె, క ఏ -> కే, క ఒ -> కౌ, క ఓ -> కౌ, క ఔ -> కౌ,

క ం -> కం, క ఁ -> కఁ, క ః => కః, క ౨ -> క౨ క ః -> కః

and so on for other consonants

b) Complex forms:

భ ర్ త ఋ హ ర ఙ ః -> భర్తృహరిః

వ స ి త ి వ ణ క ి య మ ఉ -> వస్తిక్యము

చ న ి ద ి ర ణ ః -> చంద్రైః

శ ఆ ర ి జ ి గ ణ ః -> శార్ఙ్గైః

వ ఆ ర ి ష ి ణ ఏ య ఉ ఁ ఉ ఉ -> వార్షేయుఁడు

మ ఔ ద ి గ ల ి య ఉ ఁ ఉ ఉ -> మౌద్గల్యుఁడు

ధ ఆ ర ి ష ి ట ి య మ ఉ -> ధార్షణ్యము; శ ఇ ష ి ట ి ల ఆ -> శిషా

ఆ ర ి ద ి ర ం స ఆ ర ి ద ి ర ం క ి ల ఇ న ి న ం -> ఆర్ద్రంసార్ద్రంక్లిన్నం

భ ఉ జ ి క ి త ఏ వి ఇ త ి వ భ ఉ గ వ ి య య ః -> భుక్త్యై విశ్వభుగవ్యయః

భ ఉ జ ి క ి త ి వ ఆ -> భుక్త్యైవ

క ః క ప ఇ ః -> కఃకపిః,

త ప ః ఫ ల మ ి -> తపఃఫలమ్,

శ క ి య ఓ ౨ ప ఇ -> శక్యోఽపి