

User Manual

(Please read this Manual with Adobe Acrobat)

Created By K.Desikachary, dated March 2, 2001, Revised Sep 27,2003

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Pothana2000 Font, and accompanying keyboard locale were created by K.Desikachary of Winnipeg, Manitoba, Canada. The Pothana2000 font is now 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 - 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 the font was extensively redesigned and optimized and now conforms favorably to point sizes of the Times New Roman font. The internal structures were optimized resulting in the current font file size of 177 KB versus 259KB taken by version 1.0 of the Pothana2000 font.

1. What this Package Contains:

a) A keyman5.0 driver from Tavultusoft Software.

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

b) Pothana2000 font 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 font 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 Pothana2000 font 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 this font, even in pre-2000 Windows environments. Also, Keyman6.0 from Tavultusoft Corporation (<http://www.tavultusoft.com>) has plugins available that enable you to create Telugu documents using this font in pre-2000 Windows environments.

2.2 In Win 2000

In Win2000 you can create documents using the Pothana2000 font. To do this, you have to download Pothana2k.exe package. After downloading, if you double click on Pothana2k.exe file, it will install the Tavultusoft 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 font 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 Pothana2000 font, 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 by downloading Voltsupplementalfiles.exe from the following link: <http://download.microsoft.com/download/Typography/Update/2.00/W98NT42KMeXP/EN-US/Voltsupplementalfiles.exe> .

When you unzip Voltsupplementalfiles.exe, you will get usp10.dll and some other files. You can throw away the other files and just use ups10.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 a better looking font. 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 font conforms to universally accepted Unicode standard, hence documents created in this font 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, as opposed to the Pothana fonts that are available under Win9x environments.

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

At present, the following programs are capable of processing Pothana2000 font in Win2000 environment:

- a) Notepad - can compose documents in Pothana2000
- b) Wordpad - can compose documents in Pothana2000. You can hand code HTML pages containing text in Pothana2000 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 font 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 Pothana2000 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 15 or 16 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) 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 Compose Text in Pothana2000

At the outset, Navigate to Start -> Programs-> TAVULTESOF Keyboard Manager and click on keyboard driver. 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 15-16 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	ఊ	ఋ	ౠ	ఊ	ఋ
A	S	D	F	G	H	J	K	L	:	"	
ఆ	శ	ఢ	ఁ	ఘ	హ	ఝ	ఞ	శ	:	"	
Z	X	C	V	B	N	M	<	>	?		
ఢ	క్ష	చ	జ్ఞ	భ	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 స ద ం ర ె జ క ల ; '
z x c v b n m , . / \
డ ష చ వ బ న మ , . / \
/

(With Right ALT - top to bottom)

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

q r u i o []
ృ ౄ ె ే ై []
a l ; '
౉ ొ { }

/

ృ

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

There are additional guninatham (i.e., vowel) markers which can be accessed by pressing SHIFT Right ALT and the relevant Vowel keys. But (at least on my keyboard) I have trouble displaying these chars sometimes, so I have not given them here. This keyboard design relegates the Guninatham markers 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 [] { }) To compose text, you phonetically type the language. It is very easy, and I will make it clear by giving some examples:

Guninatham forms:

Rule: enter the Vowel right after a consonant or a cluster of consonants, to get the corresponding guninatham form: examples:

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 ఓ -> కౌ, క ఓ -> కౌ, క ఔ -> కౌ,

క ం -> కం, క ు -> కు, క ః => కః, క ఌ -> కఌ and so on for other consonants

Complex forms:

భ ర్ణ త ఋ హ ర ఙ -> భర్తహరి

వ స ె త ె వ ఐ క ె య మ ఉ -> వస్తైకృము

చ న ె ద ె ర ఐ ః -> చన్దైః

శ ఆ ర ె జ ె గ ఐ ః -> శార్దైః

వ ఆ ర ె ష ె ణ ఏ య ఉ ె డ ఉ -> వార్షేయుడు

మ ఔ ద ె గ ల ె య ఉ ె డ ఉ -> మౌద్గల్యుడు

ధ ఆ ర ె ష ె ట ె య మ ఉ -> ధార్షము; శ ఇ ష ె ట ె ల ఆ -> శిష్టా

ఆ ర ె ద ె ర ె స ఆ ర్ ద ె ర ె క ె ల ఇ న ె న ె -> ఆర్దంసార్దంక్లిన్నం

