

Raiya Marathi Vikas Sanstha Fonts report (Scope of Testing)

Fonts:

- Yashomudra (N, B, NI, BI), Yashomudra Light (N, NI), Yashomudra Medium (N, NI), Yashomudra Semi bold (N, NI)
- Yashovenu (N, B, NI, BI), Yashovenu Light (N, NI), Yashovenu Medium (N, NI), Yashovenu Semi bold (N, NI)

Platforms:

Following Operating Systems, Editors and Browsers combinations were used for testing:

- **MS Office :** Includes MS Word, MS Excel, MS Power point, MS Outlook
- **Open Office:** Includes OO Writer, OO Calc, OO Impress
- **Libre Office:** Includes Libre Writer, Libre Calc, Libre Impress
- **Browsers:** Chrome 40.0.2214.69

OS	OS Default Editor	MS Office	Open Office	Libre Office	Mail Client	Browser	JDK 1.6 Application	JDK 1.7 Application
Win XP SP3 (32 bit)	Notepad, WordPad	MS Office 2003	OO 3.3	Libre Office 3.4.4	-	IE 6 (32 bit), Firefox 32, Chrome 34	Y	Y
Win Vista (32 Bit)	Notepad, WordPad	MS Office 2007 (32 bit)	OO 3.3	Libre Office 3.4.4	-	IE 7 (32 bit), Firefox 32, Chrome 34	Y	Y
Win Vista (64 bit)	Notepad, WordPad	MS Office 2007 (64 bit)	OO 3.3	Libre Office 3.4.4	-	IE 8 (64 bit), Firefox 32, Chrome 34	Y	Y
Win 7 Pro (32 Bit)	Notepad, WordPad	MS Office 2010 (32 bit)	OO 3.3	Libre Office 3.4.4	Thunder-bird 20	IE 9 (32 bit), Firefox 32, Chrome 34	Y	Y
Win 7 Pro (64 bit)	Notepad, WordPad	MS Office 2010 (64 bit)	OO 3.3	Libre Office 3.4.4	Thunder-bird 20	IE 10 (32/64 bit), Firefox 32, Chrome 34	Y	Y

Win 8.1 Pro (32 Bit)	Notepad, WordPad	MS Office 2013 (32 bit)	OO 4.1.1	Libre Office 4.3.4	Windows Live Mail, Thunderbird 20	IE 11 (32 bit), Firefox 32, Chrome 34	Y	Y
Win 8.1 Pro (64 bit)	Notepad, WordPad	MS Office 2013 (64 bit)	OO 4.1.1	Libre Office 4.3.4	Windows Live Mail, Thunderbird 20	IE 11 (32/64 bit), Firefox 32, Chrome 34	Y	Y
Fedora 14 / 20 (32 bit)	GEEdit	-	OO 3.3	Libre Office 3.4.4	Thunderbird 20	Firefox 32, Chrome 34	Y	Y
Fedora 14 / 20 (64 bit)	GEEdit	-	OO 4.1.1	Libre Office 4.3.4	Thunderbird 20	Firefox 32, Chrome 34	Y	Y
Ubuntu 14.04 (32 bit)	GEEdit	-	OO 3.3	Libre Office 3.4.4	Thunderbird 20	Firefox 32, Chrome 34	Y	Y
Ubuntu 14.04 (64 bit)	GEEdit	-	OO 4.1.1	Libre Office 4.3.4	Thunderbird 20	Firefox 32, Chrome 34	Y	Y

While testing the fonts, following things have been verified:

1. Font Naming Convention

GIST has a policy of font naming which differs from product to product. Hence internal as well as external font name were tested as per the specification provided. Internal font name was checked using Windows Font viewer. e.g. - Yashomudra Bold Italic

2. Font Version

The version of the font was checked by opening the font in Windows font viewer.

Yashomudra (All weights): Ver-2.00

Yashovenu (All weights): Ver-2.01

3. Copyright information

Copyright information was checked as per the requirement specification document.

e.g. - Copyright (c) 2015, RAJYA MARARTHI VIKAS SANSTHA, DEVANAGARI-OPEN TYPE-YASHOMUDRA-BOLD. Unicode 7.0

4. Font Embedding Property

Embedding property of a font was checked using Microsoft font property tool for all various embedding settings as below:-

- Installable embedding allowed
- Editable embedding allowed
- Print & preview embedding allowed
- Restricted license embedding.

5. Font listing in different editors

We've checked Font name listing in Font dialogue box of different editors. Sometimes font name properly display in notepad but not in other applications.

e.g. - Various font weights weren't being listed in Fedora 14 (32 bit) with Open Office 3.2.1

6. Test Data

For font testing we have created/collected language specific test data. This test data contains following things:-

- Basic characters set (consonant/vowel/matras/numerals/currency) as per the language
- Barakhadi
- Different valid conjuncts
- language specific behavior of some of combination e.g. ZWJ or ZWNJ
- Word list/paragraphs

For creating such kind of test data we have taken help of language knowing people/linguists.

7. Testing

We've carried out manual testing of fonts, where focus is on its storage & display on various editors. We've undertaken following things during testing:-

- **Installation/Uninstallation of Fonts**

We've checked installation as well as uninstallation of fonts on various Windows as well as Linux platforms. Sometimes system restart is required for proper registration and deletion of font. After successful installation of fonts we've checked for the first five points mentioned above.

- **Unicode Compliance for Display & Storage**

Fonts were tested for supported Unicode version as mentioned in specification document (i.e. - Unicode 7.0). To check the specific Unicode version compliance we test the font for inclusion of all the character set of that particular version. We also check whether the proper glyph is assigned to the correct Unicode values. To check the Unicode values of all characters we use Babel pad application. We also check for the normalization issues in fonts.

Reference: <http://www.unicode.org/charts/>

- **Font rendering**

Following things we check under this heading:-

- Minimum and maximum point size
- Height and width of character
- Kern spaces between two characters
- Display of Ascender and Descender
- Height matching of Indian language and English text.
- Support of Indian language numerals.
- All weights provided in Font like Normal, Bold, Italic & Bold Italic.
- Positioning Issues of Matras (e.g.- 'T' Matra)
- Various Glyphs of Maharashtra Varnamala Shashan Nirnay.
- Newly added Glyphs (which were provided by font team).

- **Test Environment Caveats**

- In spite of all these, rendering of fonts depends on the USP10.dll of underlying O.S. and platforms. Where notepad and IE shares the USP.dll of underlying O.S. and MS Office uses its own. And this may affect the rendering in particular fonts.
- If Operating system does not have inbuilt support for a particular language display of characters/ rendering of conjuncts may not be proper. E.g. Windows XP does not have support of Odia hence rendering of conjuncts is not proper.
- Before start of Unicode compliant font testing make it sure that operating system is Indian Language enable.