

4.19 Modular Infotech Pvt. Ltd

Introduction

Modular Infotech Pvt. Ltd. is a joint venture company between Modular Systems, Pune and TVS Electronics, Chennai. Modular Infotech Pvt. Ltd. is continuing the business of Modular Systems.

The new company shares the same vision and carries out the same mission as Modular Systems, which was giving high technology computer based Indian language solutions. The promoters of Modular InfoTech have a conviction that if computerization has to reach the masses, it has to be through Indian languages as a vehicle of communication. Modular Systems was established in 1983 by a group of engineers having a strong R & D background. The company was located in Pune. In the beginning, the company was developing hardware and software based solutions.

In the initial year of the company, Modular Systems was awarded a design and development project from Bharat Dynamics Ltd. The project consisted of developing an automatic card tester for the missile electronics. The card testing involved testing of analog and digital waveforms within very tight tolerances. The project was successfully completed in time and was approved by the German collaborating agency.

Modular Systems made pioneering efforts in developing a totally indigenous CRT based phototypesetter. After a development effort of about two years their effort resulted in a completely digital phototypesetter PTS100. This was the first phototypesetter totally developed in India using digital techniques without any external collaboration. It consisted of microprocessor based front-end data entry terminal with multilingual editing facility. The phototypesetting engine was CRT based requiring digitized typefaces. Its operation consisted of three microprocessors controlling various subassemblies such as stepper motors, font memory, interfacing unit for communication with the front-end and interpretation of composing commands. Typesetting programs for all Indian languages were developed taking into account different composition rules of each language. Modular Systems was the first to develop in-house facility to digitize and rasterize Indian language typefaces.

Modular Systems also realized the requirement for an Indian language word processor to work on DOS platform. A package known as Shabda Sagar was developed which has command structure similar to the most popular word processor WordStar.

Modular Systems have also been the pioneers in the design and development of a Computerized Numerically Controlled (CNC) PCB drilling machine Autodrill-356. This machine was also developed totally indigenously without any external collaboration. The Autodrill-356 was substantially cheaper than its imported counterpart. This machine had a PC front-end, used CCD camera for scanning and had a high speed drilling head. It accepted input in a number of formats supported by various PCB design packages.

Modular InfoTech A pioneer in Indian Language software solutions. It has the widest range of solutions and has been serving the professional circle for last 18- years. Modular Infotech has worked in all Indian language scripts. It has the largest library of typefaces. Modular-software are used in various co-operative sectors, newspaper and various government organizations. Modular-fonts are also used by various portals and has a good support via its dealers network.

Ankur Office

India's first, unique, innovative, path breaking, truly & highly cost effective **Multilingual Office Suite** with look and feel in Indian language designed by Modular InfoTech, Pune.

Ankur Office is a Complete Multilingual Office Suite with user interface in all Indian languages. User Interface Screens, Menus, Messages, Hints, Helps etc. are in all local language as well as in English. In addition to Hindi or English, user can select languages like Assamese, Bengali, Gujrati, Hindi, Kannada, Malayalam, Oriya, Punjabi, Tamil, Telugu & English as User Interface language along with English.

A lot of in-depth study was done by interacting with various cross-section of society and Government bodies to arrive at rich features which are offered as part of Ankur Multilingual Office Suite. Ankur Office is not dependent on any other office suite package.

List of features which makes Ankur Office the unique and complete Multilingual Office Suite are:

Language support: Assamese, Bengali, Gujrati, Hindi, Kannada, Konkani, Malayalam, Marathi, Oriya, Punjabi, Tamil, Telugu & English.

Localization: Help, Manual, Screens, Menu, Hints & alert messages are available in English as well as in Indian languages.

Language Change: Toggle between Indian languages and English at any time by pressing only one key.

Font support: Modular, ISFOC (CDAC), Tamil 99, KGP & Bilingual.

Keyboard Support: Support to all popular Keyboard Layouts e.g. Modular, Phonetic, Inspirit, Typewriter, Tamil99, KGP, Godrej, Remington, Roma etc. User can make own custom Keyboard Layout as per requirement.

Data Exchange: Facility allows users to convert other vender font formats such as ISFOC, Akruiti, Akshar, Anu, APS, Tam 99, Chitralkha, ITR, Kruti, Nai Dunia, Shivaji, Prakashak, Baraha, KGP, Winkey, Panchari, Thoolika etc.

File Format Support: Import/Export facility for MS-Word, MS-Excel, RTF, HTML, XML, ISCII 7 bit, ISCII 8 bit, RTF, TEXT, PCISCII, ASCII, Shree-Lipi editor, iLeap, Lotus 123, Paradox (DB), Comma Separated Value (CSV), MS-Access (MDB), Database (DBF), Quattro (WQ2), SQL, Acrobat Reader (PDF), Microstar format, SPSS etc.

Learn Typing: Keyboard tutor facility to learn Indian language typing.

Typing facility: Typing facility in English as well as in all Indian languages. Type as you spell by using "Phonetic" keyboard for all languages.

Fast Printing: Fast printing facility on dot matrix printers for language.

e-Mail in Indian Language: Users can compose their messages in English as well as any Indian language.

Patrika: Multilingual Word-processing software.

Talika: Multilingual Spreadsheet software.

Sadarika: Multilingual Presentation software.

Sandeshika: Multilingual E-Mailing software.

Sampark Suchi: Multilingual Address Book.

Avantika: Multilingual Web Browser.

Keyboard Layout: Keyboard layouts generating software & support for every keyboard layout that is popular in every Indian State.

Script processor: This facility allows users to use all Indian language fonts in MS-Word, MS-Excel & MS-PowerPoint.

Fonts: High quality TTF fonts for all Indian languages including Diacritical English, Indian Symbol fonts & Web fonts.

Official Language Dictionary: Official language dictionary is available with software and user can also create user dictionary as per his / her requirements.

Spell Checker: Spell checker for Indian languages.

Dindarshika: Multilingual Personal Organizer.

Database Manager: Database creating and maintaining software.

Label Maker: Multilingual Mailing Label Software.

Chitrangan: Multilingual Drawing and Painting Software.

Aalekhan: Multilingual chart drawing tool.

Madhurika: Audio and Video Media Player.

Screensaver: Variety of eye-catching Screensaver.

Clipart: High quality Indian cultural Clipart specially designed for Indian customers.

Clipart browser: Clipart Browser.

Wallpapers: Wallpapers to redesign and decorate the Desk Top screen.

Clock & Calendar: With Indian Language user interface & various background effects/skins.

1. Patrika: Word Processing software

Patrika is a Multilingual Word Processor. It is available in English along with all Indian languages. It supports most of the desired features that are currently available in any popular or non-popular

word processor. It is an excellent tool to create documents, tables, mail merge, letters, faxes, flyers, circulars, invitations, posters etc.

Document information: Complete document information i.e. lines, paragraphs, words, characters, pages etc.

File Compatibility : Import & Export utility to use documents of other window based packages in Patrika & vice versa in formats like MS-Word (DOC), RTF, TEXT, 7 bit ISCII, 8 bit ISCII, PCISCII, Shree-Lipi editor, HTML, Microstar's format, iLeap etc.

Character attributes : User can define character attributes like bold, italics, underline, superscript, subscript, coloring of fonts.

Find & Replace : User can use find & replace option for Indian languages.

Date & Time : insert date & time in Indian languages in 12 formats.

Sorting : To sort Paragraph & Table Data as per Indian Language rules.

Spellchecker : On line spell checking facility in Indian Languages & English.

Dictionary : On line Hindi Official dictionary.

Paragraph attributes : User can specify line spacing, indentation, left justify, right justify, center justify, justifications, bullets.

Page Numbering : User can insert page number in header/footer.

Tables Insert : User can insert tables in Patrika document.

Table Attributes : Changes the table cells' attributes like font, color, font style, background color etc. Along with that one can insert row or column.

Table Autoformat : More than 40 predefined style is there for table.

Conversion of number to word(s) : Facility to convert numbers to words up to 99 corers 99 lacs 99 thousand 99 hundred ninety nine in Indian languages.

Page Header & Footer : You can specify page header & footer on odd pages / even pages/ 1st & last page.

Mail Merge in Indian language : Mail Merge facility in Indian language data in DBF/EDB (Ms-Access), DB formats.

Indian cultural Clipart : high quality cultural Clipart.

Bullet & numbering facility : User can insert bullets in document.

DMP Printing : Built-in fast printing facility for Indian language.

Preview : User can see the Preview & decide the no. of pages to print or change the formatting in any require.

Text Styling using ROOPA : In built text styler to give effects like 3D text, Condensation, Expansion, Shadow, Forward/Reverse Slant, Rotation & Out Line to Text etc.

Import of pictures in various file formats : Large Variety of import graphics in WMF, BMP, TIFF, GIF & JPG format. Facility to import Picture in various Windows based applications

E-mail facility in Indian languages : Send e-mails in any of 13 Indian languages apart from English in different formats namely Patrika Document, RTF, Text, ISCII (DOS), HTML, JPG & Bitmap. User can send Multiple documents editing Facility to send Indian language E-mail.

Format painter : facility is provided.

HTML format support in Indian languages : Publish Patrika documents on the World Wide Web by exporting them in HTML format.

Transliteration Facility : User can transliterate text from one Indian language to another language.

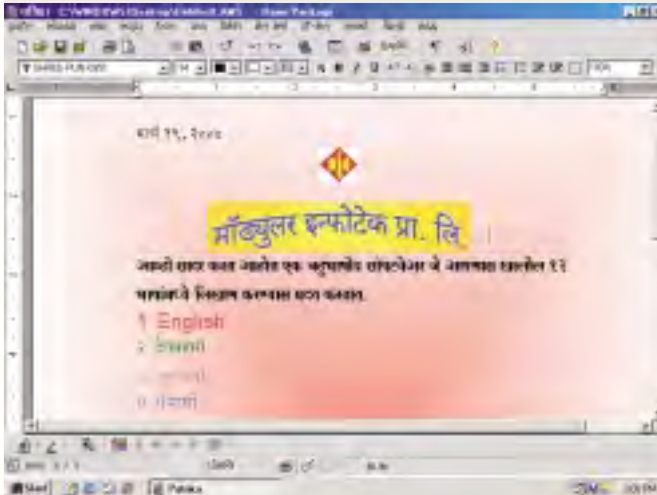
Keyboard Shortcuts : Define Keyboard Shortcuts for repetitive words to reduce re-typing of same text again & again.

Typing & Menu language selection : User can select typing & menu language like Hindi, Marathi, Tamil, Malayalam etc.

Help : On line help in Hindi, Marathi & English.

Tips for the day, FAQ, Online Keyboard tutor for all languages

Manual : On line user guide



2. Talika : Spreadsheet Software

Talika is a Multilingual Spreadsheet Software that has the capabilities of data formatting in tabular format, Analytical functions, Filtering data, importing and exporting files to and from various other spreadsheets or databases, column wise sorting of data in a sheet.

File Compatibility : Import & Export utility to use spreadsheets of other windows based packages in Talika & vice versa in formats like MS-Excel (XLS), Lotus 123, Paradox (DB), Comma Separated Value (CSV), MS-Access (MDB), Database (DBF), Quattro (WQ2), SQL, HTML, TEXT, XML, RTF, Acrobat Reader (PDF), SPSS, ASCII etc.

Find & Replace : User can use find & replace text throughout sheet or selected area for English & Indian languages.

Filters : User can apply different types of filters like Auto filter, Advance filter etc. to spreadsheet.

Series : User can use fill series option for filling the predefined or custom series in English as well as in Indian languages. User can generate custom series.

Comment : User can add comment to individual cell in Indian language as well as in English.

Picture : User can insert different types of picture format like TIFE, BMP, JPG, GIF, and PCX in a cell. User can also insert Picture form Clipart.

Formula : User can insert formula in a cell. Recursive formulae can also be inserted.

Auto Calculate : Calculates all the formulae in a sheet if any of the parameter value of formula is changed.

Format Cell : For applying format to cell like font, Border, Text Rotation angle, Font color etc.

Undo/Redo : Multiple undo & redo operations can be performed.

Hyperlink : User can insert hyperlink to a cell.

Sorting : To sort column data as per Indian Language rules.

Sheet information : Complete Sheet information i.e. Type, Location, Size, Subject, Author etc.

Text Styling using ROOPA: In built text styler to give effects like 3D Text, Condensation, Expansion, Shadow, Forward/Reverse Slant, Rotation & Out Line to Text etc.

Merge and Split Cell : Multiple cells can be merged and treated as one cell. Merged cells can be split from one cell to multiple cells using split cell.

Page Header & Footer : User can specify page header & footer. Page number in any format, Fit To Page, Print Graphics etc.

Date & Time : insert date & time in Indian languages in 12 formats.

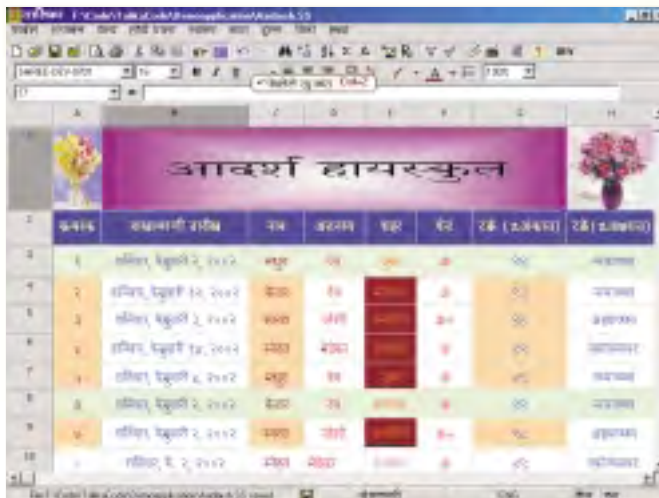
Transliteration Facility : User can transliterate text from one Indian language to another language.

Typing & Menu language selection : User can select typing & menu language like Hindi, Marathi, Tamil, Malayalam etc.

Conversion of number to word(s) : Facility to convert numbers to words up to 99 corers 99 lacs 99 thousand 99 hundred ninety nine in Indian languages.

Help : On line help in Hindi, Marathi & English, Tips of the day, FAQ, Online Keyboard tutor etc.

Manual : On line user guide.



3. Sadarika: Presentation software

Sadarika is Presentation Software for slide and presentations with capabilities of full screen slide show. It gives a pleasure to an end user to prepare presentation slides on his/her PC in Indian language.

Slide Layouts: Supports 11 different slide layouts.

Transition effects: User can apply more than 100 Transition Effects to slide.

Text animation Effects: User can apply more than 60 Text Animation effects.

Background Effects: User can apply different fascinating background effects.

Slide Sorter: By using this utility user can view all the slides in presentation at one glance.

Slide navigation during slide view as well as slide show:

While running a slide show if user want to see some slides again or terminate in between or run it again from the beginning. You can also navigate slides in slide show.

Pack & go facility: User can pack entire presentation and moving it to another PC. This is helpful when user intent to run show on computer that doesn't have Sadarika installed.

Insert Picture: You can insert pictures with various file formats like (. BMP,.JPG,.TIF,GIF,.PCX) etc.

Inserting and formatting charts: You can insert different 2-D as well as 3-D charts.

Insert AutoShapes : You can insert various basic shapes and block arrows into your presentation. You

can also apply different shadow effects as well as outline and fill effects for the inserted shape.

Tables Insert: User can insert tables in Sadarika Presentation.

Insert Textbox: You can insert an as many textbox objects as you want in your presentation.

Date & Time : Insert date & time in Indian languages in 12 formats.

Table Attributes: Changes the table cells' attributes like font, color, font style, background color etc. along with that one can insert row or column.

Table Autoformat: More than 40 predefined style is there for table.

Inserting pictures of various file formats: Large Variety of import graphics in WMF, BMP, TIFF, GIF & JPG format.

Text Styling using ROOPA: In built text styler to give effects like 3D Text, Condensation, Expansion, Shadow, Forward/Reverse Slant, Rotation & Out Line to Text etc.

Header/Footer and Slide Number: You can insert Header / Footer and slide number in English as well as in Indian Languages.

Find & Replace : User can use Find & Replace option for Indian languages for the selected textbox.

Bullet & numbering facility: Apply bullets or numbering for the selected textbox.

Sorting: To sort the text in the selected textbox & Table Data as per Indian Language rules.

Undo/Redo: User can Undo/Redo all slide level as well as individual object level actions.

Character attributes: User can define character attributes like bold, italics, underline, superscript, subscript, coloring of fonts.

Paragraph attributes User can specify line spacing, indentation, left justify, right justify, center justify, justifications, bullets.

Replace fonts: This option allows you to change a particular font of all textboxes on the current slide to some other font.

Auto save : Auto Save facility will save the user from re-doing work if Power goes or any other problem occurs before saving the presentation.

Format painter : Facility is provided.

Change Capitalization: This option easily allows you to change the capitalization of the selected text like Uppercase, Lowercase, Sentence Case, title Case, Toggle case.

Different Slide level operations: Cut / Copy / Paste entire slide, Duplicate slide, Goto specific Slide, Duplicate slide, Delete slide, display next slide, display previous slide etc.

Setup Show: With this utility you can set different options to customize your show before presenting it.

Animation Preview: With this option you can see the preview of the current slide with all set transition as well as a Animation effect.

Conversion of number to word(s) : Facility to convert numbers to words up to 99 corers 99 lacs 99 thousand 99 hundred ninety nine in Indian languages.

Transliteration Facilitates : Transliteration from one Indian language to another Indian language.

Typing & Menu language selection: User can select typing & menu language like Hindi, Marathi, Tamil, Malayalam etc.

Help : On line help in English & Hindi, Tips of the day, FAQ, Online Keyboard tutor etc.

Manual : On line user guide



4. Database Manager - Database creating and maintaining software

Database Manager is Complete Database Management software. It can handle the complexities of Indian Languages such as sorting, filtering, restructuring etc. In addition to creating customized databases the user can take advantage of the pre-defined database templates by using the Database Wizard.

- Wizard driven software.
- Indexing & sorting as per Indian language.
- Predefined Database templates.
- Filter database & create new database out of filtered data.
- Variety of printing options.
- Fast printing for language Printers.
- User can create various database file(s) using various templates, provided within the package.
- Data created in editor can be used in Label maker for printing single label in multiple quantities or multiple labels in multiple quantities.
- Import file(s) from MS-Access.
- This database can be also used in Patrika Word Processor for mail merge purpose.

5. Label Maker - Mailing Label Software

Label Maker exposes you to the power of easy working with Labels. Used for printing labels, rotary cards, addressing envelopes, and producing mass mailings using Database records, the potential uses of this software are infinite.

- This package is useful for printing labels and for producing mass labels using Indian language/ English database created through Database Manager.
- Wizard driven software.
- Database connectivity with Database Manager.
- Predefined Label templates.
- Variety of printing options.

- Fast printing facility for language Printers.

6. Dindarshika – Personal Organizer

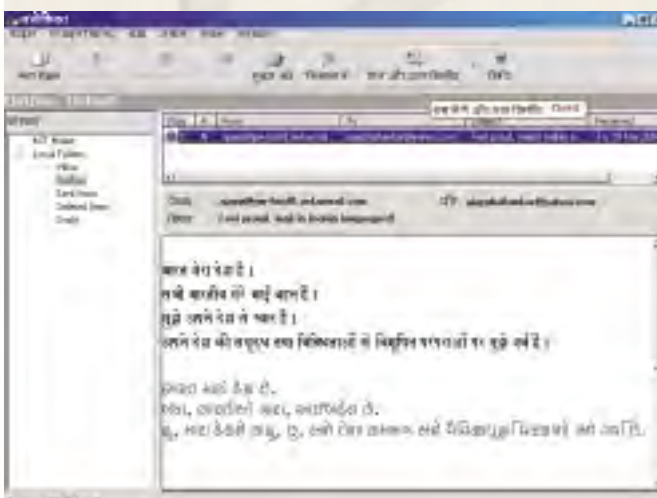
Dindarshika is the complete Multilingual Personal Organizer which takes care of all daily activities right from managing appointments to maintaining office/personal address book to scheduling timely tasks to organizing calendar.

- User can store day-to-day tasks.
- Automatic updation of tasks.
- Task with different categories like Current, Future, Complete & Overdue.
- Facility to store Addresses.
- Reminders of appointments, anniversaries, birthdays etc.
- Password protection for different users.
- User can store Personal information like Name, Address, tel. etc.
- Multiple users addition facility.
- Generate various reports.

7. Sandeshika – e-Mail Client Software

Sandeshika is Multilingual e-mail sending software. A program with Indian language Interface for maintaining your personal e-mail account in Indian language, with unique feature of E-mailing in different 11 Indian languages.

- Send and receive e-mails in English and 12 Indian languages.



- Access Address Book created in Dindarshika.
- Support to EMA, TXT format.
- User can view their mails in Indian language on any PC without help of Ankur Office.

8. Sampark Suchi - Multilingual Address Book

Sampark Suchi is a multilingual Address Book, which provided you with a convenient place to store contact information.

- Store e-mail addresses, home & work addresses, telephone numbers, fax numbers, personal information such as birthdays, anniversaries etc.
- Facility to add personal/family pictures along with the contact information.
- You can store individual & business internet addresses and link directly to them by using Internet explorer or Avantika.
- You can create Groups of contacts to make it easy to send e-mails.
- Import names from other address books using the CSV file format.

9. Exchange Utility

Exchange utility can be used to convert jobs composed in one font format to another. The font formats covered not only include the native Modular font format like Shree-Lipi but also all the popular font formats of other Indian language vendors also such as ISFOC, AkruTi, APS etc.

In this, exchange utility works on 2 base parameters one is file format (which is standard file copied on Clipboard) & second is font used in that file. In that context, Modular supports following fonts for respective languages & for respective competition vendors namely Font formats:

- **Devnagari** – AkruTi, AkruTi Freedom, AkruTi 2000, Akshar, APS, APS Bilingual, Chitralkha, ISFOC, ISFOC Bilingual, ISFOC Web, ITR Swadeshi 2.0, Kruti, Nai Dunia, Shivaji, AkruTi Office Bilingual, AkruTi Bilingual, etc.
- **Gujarati** – AkruTi, ISFOC, Chitralkha
- **Bengali** – ISFOC, Prakashak, Monotype

- **Assamese** – Prakashak, Monotype
- **Oriya** – Akruti 95, Akruti 98, Akruti 99, ISFOC, ISFOC Bilingual, ISFOC Web
- **Tamil** – Bilingual Tam 99, Monolingual Tam 99, Indoword, ISFOC, Anu, Monotype, Tam 99
- **Telugu** – ISFOC
- **Kannada** – Akruti, Baraha, Chitralkha, ISFOC, KGP, Prakashak, Winkey
- **Malayalam** – ISFOC, Panchari, Thoolika

10. Official Language Dictionary

Official language dictionary is available with software and user can also create user dictionary as per his/her requirements. It is being supplied as an independent package, where user can get the information about appropriate English word and the actual meaning of that as per Official Language Dictionary.

On the office desk, official dictionary is always need to search the commonly used official words and phrases. If we could get it in the desired language then it would be really a useful tool. The Official Language Dictionary is designed for the same purpose. The finest thing is that it is currently available with Hindi, Marathi, Kannada, and Oriya languages. This means that for a particular word you can search its equivalent official word in these five Indian languages.

11. Avantika - Web Browser

Avantika is Multilingual Web Site Surfing Software. It is extend to reach different segments and unknown information through web site browser.

- Save as HTML, TXT format
- User can create & maintain favorite sites
- Easy Indian language user interface

12. Chitrangan - Drawing and Painting Software

User can draw different predefined shapes or shapes of users choice with pencil. User can also fill different colors, insert text in picture, etc.

- Painting & 2D Designing software with Menu's in English as well as in 11 Indian languages.

- Save as Modular own format & *.BMP format.
- Draw picture and save it as wallpaper for desktop.
- Enter text in different languages.
- Set custom color using RGB combination.

13. Aalekhan – Chart Tool

Aalekhan is software for drawing 2D & 3D charts for representing various types of data in various situations.

- Providing variety of Chart types in two-dimensional and three-dimensional view.
- Facility to format each part of the chart viz. Chart dimensions, background, legends, grid lines etc.
- Facility to save the chart as in image.
- Scaling of chart is provided i.e. size of the fonts, legends etc.

14. Madhurika – Media Player Software

Users can listen to their choice of music and see video CD's of their choice using this package.

- Support for 5 different skins.
- Support for various formats namely *.AVI, *.MPEG, *.DAT, *.MP3, *.WAV, *.MPG, *.MPA, *.ASF, *.MOV, *.QT etc.

15. Clipart

Users can use high quality Clipart that are specially designed by Modular keeping in mind rich heritage of India. Clipart browser is also supplied with this so that user can select an appropriate Clipart of their choice. Clipart are available in BMP & in TIFF format.

Indian Cultural Clipart & Clipart Browser

- All Clipart are supplied in BMP and in TIFF format.
- Clipart browser is also supplied and users can view the Clipart and the browser menus are also supplied in English as well as in 11 Indian languages.
- Indian Cultural Clipart that are supplied in this software can be used or inserted in all the

applications as mentioned above. Plus they can be also used/inserted in MS Office, Star Office, Lotus Smart Suite, Corel Office, Page Maker, Adobe Photo Shop, etc.

16. Screensaver

We have developed more than 15 amazing screensavers, like Keliscope, Balls, Anupam, Magnify, Plasma, Shotiles, Shree, Extrude, Spirals etc which involve different animation effects and lot of Graphics.

17. Wallpaper

Specially designed variety of wallpapers for Indian environment is also supplied to decorate user's PC Desk Top.

18. Clock & Calendar

Clock and Calendar with Indian language user interface and analog/digital clock with calendar.

• Import/ Export Facilities

Patrika – Word processing software

Import/Export facility for MS-Word, RTF, HTML, ISCII 7 bit, ISCII 8 bit, PC ISCII, TEXT, Shree-Lipi editor, iLeap & Microstar format.

Talika – Spreadsheet software

Import/Export facility for MS-Excel, Lotus 123, XML, RTF, TEXT, Acrobat Reader (PDF), HTML, Comma Separated Value (CSV), MS-Access (MDB), Database (DBF), Quattro (WQ2), ASCII, SQL, SPSS & Paradox (DB).

Sandeshika – e-mail client.

It supports to HTML & TXT format.

Sampark Suchi - Address Book.

Import/Export facility for Windows address book (WAB) & Comma Separated Value (CSV).

Madhurika – Media Player.

It supports to MP3, WAV, AVI, MPEG, DAT, MPG, MPA, ASF, MOV & QT.

• Fonts

Support Multiple formats: We have provided

following high quality TTF fonts for all Indian languages including Diacritical English, Indian Symbol fonts & Web fonts.

- Devnagari – 14 with English Numerals & 14 with Devnagari Numerals.
- Gujarati – 14 with English Numerals & 14 with Gujarati Numerals.
- Punjabi – 14 with English Numerals & 14 with Punjabi Numerals.
- Bengali – 14 with English Numerals & 14 with Bengali Numerals.
- Assamese – 14 with English Numerals & 14 with Assamese Numerals.
- Oriya – 14 with English Numerals & 14 with Oriya Numerals.
- Tamil – 14 with English Numerals, 14 with Tamil Numerals.
- Tam 99 - 8 Monolingual, 8 Bilingual.
- Telugu – 14 with English Numerals & 14 with Telugu Numerals.
- Kannada – 14 with English Numerals & 14 with Kannada Numerals.
- Malayalam – 14 with English Numerals.
- Diacritical English – 2
- Indian Symbol fonts – 10
- Web Fonts - We have provided 2 web fonts for all languages, one Normal font and one Bold font.
- For ISFOC layout:
 - For Malayalam – Monolingual – 4 fonts, Bilingual – 4 fonts
 - For Dev - Monolingual – 4 fonts, Bilingual – 4 fonts
- For KGP layout: 2 fonts
- Help Utilities

Online Help

All Ankur Office Applications come with a Complete on-line reference tool. You can get help by selecting the Help option from Help menu or by pressing F1.

Help is available in Hindi, Marathi & English.

Online User Guide

All Ankur Office Applications come with a Complete on-line user guide. You can get details of any Ankur Office application by selecting the User Guide option from Help menu.

Frequently Asked Questions

If you have any problem while using any application then you can also check for any solution for your problem in the FAQ section where the answers to the Frequently Asked Questions of the user are given.

Shortcut Keys

Shortcut Keys help you effectively in increasing your speed while working with the application. You can use these shortcut keys to directly perform that particular function instead of going from the normal menu option. All Ankur Office Applications provide this option of Shortcut Keys Guide.

Manual

User Manual for complete software, Clipart Manual & Font Manual are supplied in the CD in PDF format.

- **Keyboard Layouts**

We are providing more than 126 keyboard layouts. User can make own custom Keyboard Layout as per requirement.

- Type as you spell “Phonetic” keyboard for all languages, which enables the user to type, as he would have typed in English.
- Facility to create keyboard layout as per user’s choice and use it in all applications of Ankur Office.

We are providing following language wise Keyboard Layouts.

1. **Devnagri** : Modular, Abitr, Akruiti, Akshar, Apple, Asterix, Compset, Crtronic, Devyani, Doe, Eng, Godrej, Godrej1, Indica, Inscript, Itr, K_P_Rao, Mtnk, Naiduniya, Network, Newroma, Phonetic, Rajya, Raming, Raming2, Roma, Script, Script1, Srg, Typewrit.

2. **Gujrati** : Modular, Akshar, Asterix, Crtronic, Doe, Eng, Inscript, Itr, Mtnk, Newroma, Phonetic, Raming, Raming1, Raming2, Roma, Sropt, Typewrit.

3. **Punjabi** : Modular, Crtronic, Doe, Eng, Godrej, Inscript, Itr, Newroma, Phonetic, Raming, Roma, Typewrit.

4. **Bengali** : Modular, Akadami, Akruiti, Bijoy, Crtronic, Doe, Eng, Godrej, Indica, Inscript, Itr, Newroma, Phonetic, Roma, Suneet, Webel.

5. **Oriya** : Modular, Crtronic, Doe, Eng, Inscript, Newroma, Phonetic, Roma.

6. **Tamil** : Modular, Doe, Eng, Indoword, Inscript, Itr, Mono, Newroma, Patrika, Phonet86, Phonetic, Phonscr, Prkshak, Raming, Raming1, Roma, Spatha, Tamil99, Tscii, Typewrit.

7. **Kannada**: Modular, Asterix, Avenue, Brinda, Crtronic, Doe, Eng, Godrej, Indica, Inscript, Itr, K_P_Rao, Kgpm, Kgpnew, Newroma, Phonetic, Roma, Sonata, Srg, Surabhi, Typewrit, Vss.

8. **Telugu** : Modular, Apple, Crtronic, Doe, Eng, Godrej, Indica, Inscript, Itr, Micro, Mono, Newroma, Phonetic, Prakash, Roma, Typewrit, Vision.

9. **Malayalam** : Modular, Avenue, Crtronic, Doe, Eng, Indica, Inscript, Ismeng, Itr, K_P_Rao, Kergovt, Newroma, Panchari, Phonetic, Roma, Typewrit.

10. **Diacritical** : Modular

11. **Assamese** : Modular, Akadami, Akruiti, Bijoy, Crtronic, Doe, Eng, Godrej, Indica, Inscript, Itr, Newroma, Phonetic, Roma, Suneet, Webel.

- **Transliteration Facility**

User can transliterate text from one Indian language to another. This feature is useful while working with languages whose scripts you are not familiar with. User can also transliterate text from Diacritical English (English text with accent marks) to Indian language and vice-versa.

Samhita – A Toolkit for Windows Applications Development

Samhita is Modular's toolkit for application developers who cater to the development of applications in Indian languages on Windows platform for their clients.

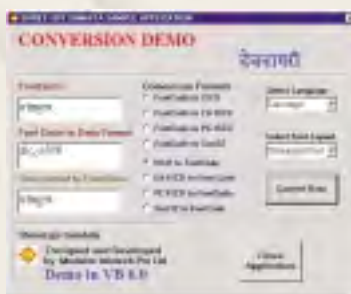
Samhita can be integrated with any applications developed in VC++, Visual Basic, Visual Foxpro, Borland Delphi, Power Builder etc.

It supports API calls to easily integrate Indian languages with your applications. These calls enable typing Indian languages in any Windows based applications, sorting data on Indian language strings, transliterating names from English to Indian languages and vice-versa etc.

Hence, software developers can very easily develop user friendly applications, which give an excellent Indian language interface to users who are more comfortable with their mother tongue than English.

Samhita has the following API calls:

- Script processor activation and set up to enable Indian language typing in edit boxes, combo boxes, list boxes or any other component you want to have on the screen in you application.
- Keyboard tutor activation, so that your application users can have a keyboard tutor in the software developed by you, for ease of Indian language typing.
- Calls to transliterate name data from English to Indian language and vice versa.
- Calls to convert data from font-codes to ISCII or Unicode and vice versa and to facilitate sorting on Indian language fields.
- High speed dot matrix draft printing on epon compatible DMP printers.



- Specific API calls for conversion of number in figures to number in words in Indian languages

and various date and time formats to use in your applications write dates in Indian languages in various formats.

- Indian language alerts and message boxes are supported.
- Along with these API calls many other supporting facilities are provided to develop good Indian language applications.

These include:

1. Two fonts of the Indian language with English numerals and the same two fonts with local language numerals.
2. Two bilingual fonts with English and Indian language support with English numerals in the same font. These fonts can be used if you want to have English and language data in the same field.
3. Various popular keyboard layouts (including Phonetic, typewriter and Inscript) for the Indian language.
4. A Keyboard generator to develop your own keyboard layout.
5. Standard dictionary for transliteration and official language dictionary for some languages.
6. Facility to create your own user dictionary and populate the same.
7. Sample applications for reference in various front-ends.
8. PDF manuals explaining all the API calls in detail.
9. Unlimited e-mail support from engineers from Modular Infotech Pvt Ltd, Pune.

Some Unique Key Features

1. Support for Monolingual or Bilingual fonts.
2. Indian Language Composition.
3. Indian Language Conversion.
4. Transliteration engine (Phonetic Conversion from English to any Indian Language and vice versa).
5. Dot Matrix Printing support. (Epson compatible DMP Printers).

6. Can be used with Front-end tools such as VC++, VB, Delphi, Developer2000, Visual FoxPro, Magic, PowerBuilder.

Shree-Lipi 6.0

Feature specifications

Packages

Shree-Lipi 6.0 contains various packages. **Pearl, Gem, Gold** and **Sapphire** are multilingual packages. There are also language special packages, which give more stress on a particular script, while still supporting the other scripts. These multilingual packages are: **Dev Ratna** for Hindi and Marathi, **Gurjari** for Gujarati, **Gurumukhi** for Punjabi, **Banga Ratna** for Bengali, **Ashamiya Manik** for Assamese, **Utkal** for Oriya, **Tamil Vairam** for Tamil, **Kannada Ratna** for Kannada, **Telugu Ratna** for Telugu, **Kairali** for Malayalam and **DG** for Devanagari and Gujarati. The packages contain the following:

- Modular monolingual Fonts
- Modular bilingual Fonts
- ITR Fonts in select packages
- Keyboard handlers for Devnagari (Hindi, Marathi, Konkani), Gujarati, Punjabi, Assamese, Oriya, Tamil, Kannada, Telugu, Malayalam, Sanskrit, Arabic, Russian with many font layouts supported in most of the scripts. Supports many keyboard layouts for all Windows supported Unicode fonts.
- Exchange utility to do conversions of text and RTF files from and to many font formats for all the supported scripts
- Spellcheckers for Bengali, Hindi, Marathi, Gujarati, Oriya, Tamil, Kannada, Telugu
- PageMaker Plugin to support Find / Replace, Sorting, creation of back index and font format conversion for Bengali and other Indian scripts.
- Localized Patrika word processor for the Indian scripts
- Avishkar Font Styler
- Roopa Text Styler

- Roopa 3D Text Styler giving lot of 3D effects
- Language server with utilities like phonetic transliteration, sorting, Indian language date / time and number in words
- Official language dictionaries (Language to English and vice versa) for Bengali, Hindi, Marathi, Oriya, Kannada
- DOS utilities like DOS editor, Conversion of DOS files to Windows formats, Mirror printing on non PostScript printers, fast DMP printing for proof checking
- Hindi-English meanings dictionary
- Database Manager and Label Maker for Bengali and other Indian languages
- Database converter to convert data base files from and to many formats for Bengali and other Indian languages
- Office enhancements to give sorting, number to words conversion and Indian language data and time insertion in MSWord, and MS Excel
- Font Layout Manager – utility to find correct font layout of any installed font, useful for conversions
- Keyboard generator using which, you can generate your own keyboard layouts
- Attractive wall papers
- Innovative screen savers
- Modular Font Manager to install / remove fonts easily
- Symbol font Previewer to find out the required symbol from the symbol fonts supported
- API for application developers for setting the script, conversion to and from ISCII etc.
- Modular Clipart – 1500
- ITR Clipart – 3500 with select packages
- Pratima Clipart –with select packages
- Operating Systems supported: Win 95 / 98 / ME, Win NT / 2000 / XP / 2003

Highlights and new additions

- Packages contain Devnagari ISFOC layout fonts, Bengali Transparent fonts, Tamil Tam99 layout fonts, Kannada KGP layout fonts, Malayalam ISFOC layout fonts.
- New fonts introduced in most of the scripts.
- Typing and conversion support for Bangla Akademi Transparent fonts, Indica fonts
- Official language dictionaries for some of the scripts
- Spell checkers for Hindi, Marathi, Gujarati, Bengali, Oriya, Tamil, Kannada, and Telugu.
- Support for ISCII and Unicode conversion in Exchange utility
- PageMaker Plugin with back Index creation and sorting
- Roopa 3D to give 3D effects to your text. Supports TIFF, JPG, PSD formats. Very useful for giving good text effects on your web pages.
- Hindi meaning dictionary
- Database converter
- Font layout manager
- 550 attractive Wall papers
- 11 Innovative Screen savers
- Symbol Font Previewer

Detailed Specifications

Modular monolingual Fonts

Different Shree-Lipi packages support different number of fonts. The total fonts per script are listed below. Package wise details are given separately.

- English: 396
- Devnagari: 632
- Gujarati: 314
- Punjabi: 75
- Bengali: 59
- Assamese: 59

- Oriya: 81
- Tamil: 290
- Kannada: 241
- Telugu: 202
- Malayalam: 229
- Symbol: 53
- Diacritical English: 14
- Sanskrit: 5, plus 1 Vedic anuswar font
- Arabic: 2
- Sindhi: 7
- Russian: 5
- Sinhalese: 18

Modular bilingual Fonts

4 Modular bilingual fonts are supplied for Devnagari, Gujarati, Punjabi, Bengali, Assamese, Oriya, Tamil, Kannada, Telugu and Malayalam. These fonts are supported with all the packages.

ITR Fonts in select packages

Different Shree-Lipi packages support different number of ITR fonts. Some of the packages do not contain any ITR fonts. The total fonts per script are listed below. Package wise details are given separately.

- English: 60
- Devnagari: 296
- Gujarati: 185
- Punjabi: 113
- Bengali: 131
- Assamese: 131
- Oriya: 50
- Tamil: 82
- Kannada: 59
- Telugu: 67
- Malayalam: 87

Keyboard handlers (MS_SCR32, MS_SCRPT – main Shree-Lipi application)

- Supports the following **scripts**: Devnagari (Hindi, Marathi, Konkani), Gujarati, Punjabi, Assamese, Oriya, Tamil, Kannada, Telugu, Malayalam, Sanskrit, Arabic, and Russian.

- Supports many **font layouts** in most of the scripts. The font layouts supported are as follows
Devnagari: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual), Akruiti monolingual, APS monolingual, Indica, ISFOC bilingual, ISFOC monolingual, ITR Swadesh 2.0 monolingual, Shree-Lipi Bharati, Unicode.
Gujarati: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual), Akruiti monolingual, ISFOC monolingual, Unicode.
Punjabi: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual).

Bengali: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Bangla Akademi 2001/2004, Indica, Monotype, Prakashak.

Assamese: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Bangla Akademi, Indica, Monotype, Prakashak.

Oriya: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Akruiti (95), Akruiti (98), Akruiti (99).

Tamil: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual), Anu, IDS, Indoword, ISFOC (monolingual), Monotype, Tamil99 (bilingual), Tamil99 (monolingual), Unicode.

Kannada: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual), ISFOC (monolingual), KGP / Nudi monolingual, Prakashak, Unicode.

Telugu: Shree-Lipi 4/5/6 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual),

Suchika 2/3 (bilingual), Anu 4.0, Anu, ISFOC monolingual, Shree-Lipi Vedic, Unicode.

Malayalam: Shree-Lipi 6 (monolingual), Shree-Lipi 4/5 (monolingual), Suchika 4/5/6 (bilingual), Shree-Lipi 2/3 (monolingual), Suchika 2/3 (bilingual), ISFOC (bilingual), ISFOC (monolingual), Panchari, Thoolika.

Sanskrit: Shree-Lipi 4/5/6 (monolingual), Shree-Lipi 2/3 (monolingual).

Diacritical: Shree-Lipi 4/5/6 (monolingual), Shree-Lipi 2/3 (monolingual).

Sindhi: Shree-Lipi 4/5/6 (monolingual), Shree-Lipi 2/3 (monolingual).

Arabic: Shree-Lipi 4/5/6 (monolingual), Shree-Lipi 2/3 (monolingual).

Sinhala: Shree-Lipi 4/5/6 (monolingual), Shree-Lipi 2/3 (monolingual).

- Supports many **keyboard layouts** in most of the scripts. The keyboards named Eng, Phonetic, Roma and Newroma follow the English keyboard layout and are very easy for novices to learn. The Inscript keyboards are the government recommended standard layouts. Typewrit, Godrej, Ramington etc. layouts are similar to typewriter layouts. The details of keyboard layouts supported are as follows:

Devnagari: Modular, Abitr, Akruiti, Doe, Akshar, Apple, Asterix, Compset, Crtronic, Devyani, Godrej, Godrej1, Indica, Itr, K_P_Rao, Mtnk, Raming, Raming2, Roma, Script, Script1, Srg, Eng, Naidunia, Typewrit, Network, Rajya, Newroma, Inscript, Phonetic.

Gujarati: Modular, Inscript, Akshar, Asterix, Crtronic, Doe, Itr, Mtnk, Raming, Raming1, Raming2, Roma, Script, Eng, Typewrit, Newroma, Phonetic.

Punjabi: Modular, Inscript, Doe, Raming, Crtronic, Roma, Itr, Eng, Typewrit, Newroma, Godrej, Phonetic.

Bengali: Modular, Itr, Akadami, Akruiti, Bijoy, Crtronic, Doe, Godrej, Indica, Suneet, Roma, Inscript, Newroma, Webel, Phonetic, Eng.

Assamese: Modular, Itr, Akadami, Akruti, Bijoy, Crtronic, Doe, Godrej, Indica, Suneet, Roma, Inscript, Newroma, Webel, Phonetic, Eng.

Oriya: Modular, Doe, Roma, Crtronic, Inscript, Phonetic, Newroma, Eng.

Tamil: Modular, Tscii, Doe, Indoword, Mono, Patrika, Prkshak, Roma, Itr, Phonscr, Raming, Typewrit, Tamil99, Eng, Phonet86, Spatha, Newroma, Inscript, Raming1, Phonetic.

Kannada: Modular, Eng, Surabhi, Asterix, Avenue, Brinda, Crtronic, Doe, Godrej, Indica, Itr, K_P_Rao, Sonata, Vss, Roma, Srg, Typewrit, Inscript, Kgpnew, Newroma, Kgp, Phonetic.

Telugu: Modular, Apple, Crtronic, Doe, Indica, Micro, Mono, Prakash, Roma, Vision, Godrej, Itr, Inscript, Eng, Typewrit, Newroma, Phonetic.

Malayalam: Modular, Avenue, Crtronic, Doe, Indica, K_P_Rao, Panchari, Roma, Itr, Eng, Ismeng, Phonetic, Typewri1, Kergovt, Newroma, Typewrit, Inscript

Sanskrit: Modular, Akruti, Doe, Indica.

Sindhi: Modular, Eng.

Arabic: Modular, Eng, Phonetic.

Sinhala: Modular, Vjsekara

- **Applications supported:** User can do typing in Indian languages most of the Windows applications. Applications supported are as follows:

3D Max, Adobe Illustrator, Adobe FrameMaker, Adobe InDesign 1.0, Adobe PhotoShop 4/5, Delphi 2/3/4/5/6, Dreamweaver, Freehand, Insciber, Intellidraw, Lotus SmartSuite 96, MS Access 7/97/2000/XP/2003, MS Publisher 95, MS Word 7/97/2000/XP/2003, MS Works, PageMaker 6/6.5/7/Story Editor, Visual FoxPro 5 Ankur Smaranika, CorelDraw 6/7/8/9/10/11, Corel WordPerfect 8.0, Flash 4, Internet Explorer, MS Excel 97/2000/XP/2003, MS FrontPage 2000/XP/2003, MS Publisher 2000/XP, MS WordPad, Netscape Navigator, Outlook Express, Paradox, Power Point 97/2000/XP/2003, PostDeko, Star Office 5/6, Open Office,

Scala Multimedia MM200, AutoCAD R13/2000, Adobe InDesign 2.0 Quark Express Director, Lotus Freelance

- You can do typing in all Shree-Lipi supported keyboard layouts for all Windows supported **Unicode fonts**.
- **Hyphenation support** for Tamil, Kannada, Telugu and Malayalam.
- Choice of **Activation Key**.
- Facility to **change the font automatically** on change of script in MS Word, MS WordPad, PageMaker.
- It is possible to invoke a **Floating Keyboard Tutor**, which helps you find a key in case you do not know language typing.

Exchange utility

- Do conversions of text and RTF files from and to many font formats for all the supported scripts
- Can be used for data copied on clipboard also
- Multiple files can be converted at a time
- Supports conversion of ISCII and Unicode data also.
- The following font formats are supported for the respective languages
- **Devnagari** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, Ankur 1.0, ITR 2.0/3.0/4.0/5.0, Akruti (monolingual, bilingual), Akruti Freedom, Akruti 2000, Akruti Office Bilingual, Chitralkha, Indica, ISFOC (monolingual, bilingual), ISFOC Web (monolingual, bilingual), ITR Swadeshi 2.0 (monolingual, bilingual), Kruti, Nai Dunia, Shivaji, Shusha, Akshar, APS(monolingual, bilingual), Shree-Lipi Bharati, ISCII, PCISCII, EAISCII, Unicode.
- **Gujarati** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, Akruti, ISFOC (monolingual), Chitralkha, ISCII, PCISCII, EAISCII, Unicode
- **Punjabi** - Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, Indica, ISCII, PCISCII, EAISCII, Unicode

- **Bengali** – Shree-Lipi 1/2/3/4/5/6, Suchika 4/5/6, ITR 2/3/4/5, Ankur 1.0, ISFOC, Prakashak, Monotype, Bangla Akademi, ISCII, PCISCII, EAISCII, Unicode
- **Assamese** – Shree-Lipi 1/2/3/4/5/6, Suchika 4/5/6, ITR 2/3/4/5, Ankur 1.0, Prakashak, Monotype, ISCII, PCISCII, EAISCII, Unicode
- **Oriya** – Shree-Lipi 1/2/3/4/5/6, Suchika 4/5/6, ITR 2/3/4/5, Ankur 1.0, Akruti 95, Akruti 98, Akruti 99, ISFOC, ISFOC Bilingual, ISFOC Web, ISCII, PCISCII, EAISCII, Unicode
- **Tamil** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, Bilingual Tam 99, Monolingual Tam 99, Indoword, ISFOC, Anu, Monotype, Tam 99, ISCII, PCISCII, EAISCII, Unicode
- **Kannada** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, Akruti, Baraha, Chitralakha, ISFOC, KGP, Prakashak, Winkey, ISCII, PCISCII, EAISCII, Unicode
- **Telugu** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, ISFOC, ISCII, PCISCII, EAISCII, Unicode
- **Malayalam** – Shree-Lipi 1/2/3/4/5/6, Suchika 2/3/4/5/6, ITR 2/3/4/5, Ankur 1.0, ISFOC (monolingual, bilingual), Panchari, Thoolika, ISCII, PCISCII, EAISCII, Unicode
- **Sanskrit** - Shree-Lipi 1/2/3/4/5/6, Ankur 1.0, ISCII, PCISCII, EAISCII
- **Diacritical** - Shree-Lipi 2/3/4/5/6

Spellcheckers

Multilingual Spell checker is a new tool given with Shree-Lipi which does spell checking on a word level basis. It provides dictionaries for languages like Hindi, Marathi, Gujarati, Bengali, Oriya, Kannada, Tamil, Telugu and English.

Features of Spell Checker

- Simple to use.
- Available for Hindi, Marathi, Gujarati, Bengali, Oriya, Kannada, Tamil, Telugu and English languages.

- Checks unsure spelling.
- Gives alternate spelling choices for misspelled words. Word choices will be from both typographically and phonetically similar words.
- Has option of User dictionary.

PageMaker Plugin

- **Find / Replace in Indian languages directly in PageMaker:** This facility can be used for Indian languages to search the given text and / or replace it with some other text in the open publication.
- **Sorting of text as per Indian language rules:** This option is used for sorting the text. Sorting of data can be done in either ascending or descending order according to the Indian language rules.
- **Creation of back index with Indian language sort order:** This facility is used for creating back-index. The word(s) found with the help of this facility is searched for in the open publication. If it is found on any of the pages in the publication then it is added in the appendix under its corresponding consonant entry along with the page numbers.
- **Font formats conversion for Indian scripts:** If you have a PageMaker job created in a font format, convert it with ease to other font format. This facility is used to convert the jobs from Shree-Lipi format to other formats like Isfoc, Akruti, APS and others or vice versa.
- **Spell Checker:** This option facilitates Indian language spell checking for the open publication.

Patrika

Patrika is a Multilingual Word Processor. It is available in English along with 11 regional Indian languages including Marathi. It supports most of the desired features that are currently available in any popular or non-popular word processor. It is an excellent tool to create documents, letters, faxes, flyers, circulars, invitations, posters etc.

- **File Compatibility Import & Export utility** to use documents of other window based packages in Patrika & vice versa in formats like MS-Word (DOC), RTF, TEXT, ISCII, PCISCII, Shree-Lipi editor, HTML, Microstar's format, iLeap etc.

- **Character attributes:** User can define character attributes like bold, italics, underline, superscript, subscript, coloring of fonts.
- **Document information:** Complete document information i.e. lines, paragraphs, words, characters, pages etc.
- **Find & Replace:** User can use Find & Replace option for Indian languages.
- **Auto save :** Auto Save facility will save the user from re-doing work if Power goes or any other problem occurs before saving the document
- **Keyboard Shortcuts :** Define Keyboard Shortcuts for repetitive words to reduce re-typing of same text again & again.
- **Date & Time :** insert date & time in Indian languages in 12 formats.
- **Sorting :** To sort Paragraph & Table Data as per Indian Language rules.
- **Spellchecker :** On line spell checking facility for document.
- **Dictionary :** On line Hindi dictionary
- **Paragraph attributes** User can specify line spacing, indentation, left justify, right justify, center justify, justifications, bullets.
- **Page Numbering :** User can insert page number in header/footer.
- **Tables Insert:** User can insert tables in Patrika document.
- **Table Attributes:** Changes the table cells' attributes like font, color, font style, background color etc. Along with that one can insert row or column
- **Table Autoformat:** More than 40 predefined style is there for table.
- **Conversion of number to word(s) :** Facility to convert numbers to words up to 99 crores 99 lakh 99 thousand 99 hundred ninety nine in Indian languages.
- **Page Header & Footer :** You can specify page header & footer on odd pages / even pages/ 1st & last page.
- **Mail Merge in Indian language :** Mail Merge facility in Indian language data in DBF/EDB (Ms-Access), DB formats.
- **Indian cultural Clipart :** import high quality cultural Clipart.
- **Bullet & numbering facility.**
- **DMP Printing** Built-in fast printing facility.
- **Preview :** User can see the Preview & decide the no. of pages to print or change the formatting in any require.
- **Text Styling using ROOPA:** In-built Text Styler to give effects like Condensation, Expansion, Shadow, Forward/Reverse Slant, Rotation & Out Line to Text etc.
- **Import of pictures in various file formats:** Large Variety of import graphics in WMF, BMP, TIFF, GIF & JPG format. Facility to import Picture in various Windows based applications
- **E-mail facility in Indian languages :** Send e-mails in any of 11 Indian languages apart from English in different formats namely Patrika Document, RTF, Text, ISCII (DOS), HTML, JPG & Bitmap. User can send Multiple documents editing Facility to send Indian language E-mail
- **HTML format support in Indian languages :** Publish Patrika documents on the World Wide Web by exporting them in HTML format.
- **Transliteration Facilitates :** Transliteration from one Indian language to another language.
- **Typing & Menu language selection :** User can select typing & menu language like Hindi, Marathi, Tamil, Malayalam etc.

Avishkar Font Styler

A special font styler, which supports various degrees of condensation, expansion, forward slant, reverse slant, fattening, thinning, outlining, graded outlining. You can attach more than 180 aesthetically designed serifs to the characters of some fonts. The serif modification feature is available for Devanagri, Gujarati and Tamil. Envelope transformations are also possible on each character. The style chosen can be previewed on the screen.

Roopa Text Styler

Roopa is a 'Text Styling' package, which allows you to give different 'effects' and 'styles' to a text string entered. Various envelope effects, multiple shadows, extrusions, shaded outlines, color shading etc. are provided. Roopa gives you readymade styles at a click of mouse, which you can get from a more expensive package after a lot of effort. You can copy the output on Clipboard or store it as a Metafile or Encapsulated Postscript file. Complex characters in few of the Modular Special fonts can be printed through Roopa. Frames from Modular Special Fonts of required size can be composed with utmost ease with Roopa.

Roopa 3D Text Styler

Roopa 3D is a new tool to give a 3D appearance to Text, Shapes, Brush-strokes, Frames etc. It is text styling software.

The supported effects are

- Simple Embossing Effect with background.
- Pillow Embossing Effect of the background.
- Simple quick 3D Effect.
- Quick 3D effect with Palette colors.
- Proper 3D Rendered Effect with color-gradients, textures, bitmaps and images superimposed.
- Glass Effect with various glass internals with given Transparency.
- Marble Surface Effect with various marble-skins.
- Granite Stone Surface Effect with various granite-skins.
- Wooden Surface Effect with various wood-skins.
- Metal Surface Effect. Preset styles are also available.
- Shaded Palette Effect - A large variety of palettes are supplied.
- Depth-Variied Palette Effect - A large variety of palettes are supplied.
- Envelop Distortion Effect.
- Outline Effect, with variable outline thickness.
- Mirror Image Effect for right-to-left scripts.
- Encircling frames are available.
- Encircling halo effect.

Language server

- Phonetic transliteration from English to Indian script: Phonetic Transliteration utility is developed to allow Shree-Lipi users to key in Indian languages phonetically using the characters of the standard English keyboard.
- Sorting as per Indian language rules: This option is available for Microsoft Word, Adobe PageMaker and CorelDraw etc. Sorting option is applicable to all supported Indian languages. Selected text is sorted among the lines. Sorting of text can also be done for plain text (data which does not give font information for e.g. data which is saved as .txt).
- Get Indian language date / time: This unique facility allows the user to insert date and time in his job file in any supported Indian language. On selecting this option, the current date and time is displayed in the selected language in various predefined formats. If you click on the 'Copy to Clipboard' button, the selected date/time format gets copied onto the clipboard. You can now paste the same in any Windows application.
- Convert number in figures to number in words: As the name suggests, this utility can be used to convert numerals into words. If you have typed the numerals to be converted in some application, (say MsWord), you can copy them onto the clipboard and then paste them in this utility by clicking on the 'Paste from Clipboard' option. Otherwise, you can simply type the numerals in the box provided. The corresponding word conversion is displayed in the script specified. It can be copied onto the clipboard by clicking on the 'Copy to Clipboard' option. By selecting the Paste option in any Windows application, you can paste the converted number.
- Hyphenation: The option is available for Microsoft Word, Adobe PageMaker etc. Hyphenation option is applicable to South Indian languages viz. Tamil, Malayalam, Kannada and

Telugu. The hyphenation utility can also be used for hyphenating plain text (data which does not give font information for e.g. data which is saved as .txt).

Official language dictionaries

Dictionaries of official terms used from Language to English and vice versa. Dictionaries are available for Bengali, Hindi, Marathi, Oriya, and Kannada. This utility has been designed to search the desired word or phrase in official language dictionary as well as user dictionary. 'Add' option allows the user to add multiple meanings for a word or phrase. The new meaning will be added to the user dictionary. 'Delete' options allows word deletion from user dictionary. One cannot delete the word from official dictionary. If user has to modify an existing word available in the user dictionary then he can use 'Edit' option. The user can not directly modify a word available in the official dictionary. The modified word will be stored into the user dictionary.

DOS Utilities

- DOS editor.
- Conversion of DOS files to Windows formats (.WRI and .CLP).
- Mirror printing on non PostScript printers.
- Fast DMP printing for proof checking.
- Import of editor files from other vendors into Modular editor format or Windows readable format.

Hindi-English meanings dictionary

Database Manager

Database Manager is Complete Database Management software. It can handle the complexities of Indian Languages such as sorting, filtering, restructuring etc. In addition to creating customized databases the user can take advantage of the pre-defined database templates by using the Database Wizard.

- Wizard driven software.
- Indexing & sorting as per Indian language.
- Predefined Database templates.

- Filter database & create new database out of filtered data.
- Variety of printing options.
- Fast printing for language Printers.
- User can create various database files using different templates provided within the package.
- Data created in editor can be used in Label maker for printing single label in multiple quantities or multiple labels in multiple quantities.
- Import file(s) from MS-Access.
- This database can be also used in Patrika Word Processor for mail merge purpose.

Label Maker

Label Maker exposes you to the power of easy working with Labels. Used for printing labels, rotary cards, addressing envelopes, and producing mass mailings using Database records. The potential uses of this software are infinite.

- This package is useful for printing labels and for producing mass labels using Indian language / English database created through Database Manager.
- Wizard driven software.
- Database connectivity with Database Manager.
- Predefined Label templates.
- Variety of printing options.
- Fast printing facility for language Printers.

Database converter

Database Converter is a utility developed to support conversion of Indian Language databases. Through Database Converter User can convert data from one font-code/format to another.

It is basically for users who want to migrate data created in Shree-Lipi, ISCII, PCISCII, 7BitISCII, ISFOC, Akruiti, Indica, Bangla Akademi, Tamil99, Indoword, KGP/Nudi, Anu, Panchari, Thoolika font format to different font format. It supports the databases like Microsoft Access, FoxPro, dBase, Paradox and many others.

Office enhancements

This facility can be used to give support for the following directly in MSWord and MS Excel.

- **Sorting as per Indian language rules:** The sorting option is applicable to all supported Indian languages. Sorting of data can be done in ascending or descending order according to the Indian language rules. By default the sorting is done in ascending order.
- **Number to words conversion:** Using this option you can convert the selected number to word(s). The number is converted to word(s) according to the selected script.
- **Indian language date and time insertion:** On selecting this option from the Shree-Lipi Utilities, you can insert the Date & Time according to selected script at the current cursor position.
- **Find and Replace:** On selecting this option, a dialog box will appear on the screen. The Find/Replace activity starts from the current cursor position. You can choose the direction of Find/Replace from the 'Direction' box.
- **Custom Sort:** Using custom sort, user can sort the data in ascending or descending order as per the language rules. The data will be sorted as per sort order in custom sort file and then one can go to application and paste that sorted data.
- **Copy Text :**
Copy Text To Dreamweaver: This option is used to Copy Word file (.doc) data and paste it into Dreamweaver.
Copy Text To Notepad, Wordpad: For the user of Windows 98 operating System who wants to copy and paste his/her data from Word (.doc) file to Notepad or Wordpad.
- **Hyphenation:** Hyphenation option is applicable to South Indian languages viz. Tamil, Malayalam, Kannada and Telugu.
- **AutoCorrect Settings:** This is the last menu item in the Shree-Lipi Utilities menu. When you click on '**Language AutoCorrect Settings**' option, the AutoCorrect settings from 'AutoCorrect|Tools'

menu and Spelling settings from 'Options|Tools' menu are disabled. When you click on '**English AutoCorrect Settings**' option the previously disabled, AutoCorrect and Spelling settings are enabled.

Font Layout Manager

This is a utility to find the correct font layout of any installed font. This utility is very useful for conversions if you have job created in a particular font, but do not know which font layout it is.

Font Layout information is required while converting data in other font formats through applications like Exchange Utility and PageMaker Plugin.

In Conversion utilities, while converting formatted data, the font of the text to be converted is used for identifying the Language (English, Devnagari, Gujarati, Punjabi, Bengali, Oriya, Tamil, Kannada, Telugu, Malayalam, Assamese, Sanskrit) and Layout (Shree-Lipi, ISFOC, AkruTi, Tamil99, KGP/Nudi, Anu, Indica and many others). This information is used for applying font to data after conversion. If font cannot be identified then conversion will result in garbage output.

Keyboard generator

This is a utility to modify the existing keyboard given along with Shree-Lipi or to generate new keyboard layout. This gives the user, flexibility in using the keyboard for typing in Indian languages.

Wall papers

Wallpapers are decorative seamless tiles, which can give pleasing effect to the desktop screen. A separate installer is given for installing these Wallpapers. The installer allows you to copy from Shree-Lipi CD to the designated folder on user's PC. It also allows you to modify these copied tiles by varying their image attributes such as brightness, contrast, gray shades, smoothening, color palettes, giving negative colors etc.

Screen savers

User now has the option of installing Screen Savers given with Shree-Lipi. By default all the screen savers are installed to the windows system folder.

Modular Font Manager

Modular Font Manager is designed for managing fonts on a system. The utility allows installation of fonts in both True Type and Type 1 formats. The fonts can be installed from CD media or from any existing font directory on the user machine. An option to install monolingual and bilingual fonts is also provided. Along with Modular fonts, ITR and Bahar fonts can also be installed. The utility also allows permanent and temporary deletion of installed fonts of all categories on the system.

Symbol font Previewer

Symbol Font Previewer is a tool to view the individual symbols in an installed Shree-Lipi symbol font on Windows 95 and above. With Symbol Font Previewer you can:

- View individual characters i.e. symbols.
- Preview both TrueType and Type1 symbol fonts.
- Copy individual symbols to clipboard as metafile, for use in applications of your choice.
- Copy individual symbols to clipboard as character, for use in applications of your choice.
- Save individual symbols to RTF file or Enhanced metafile.

API for application developers

This is a toolkit based on Shree-Lipi script processing engine. This API – Application Program Interface has been designed for software developers for developing Indian language applications. Indian language Sorting is also supported through these APIs. It also has conversion routines to convert data to/from ISCII/PCSICII/EAISCII.

Modular Clipart

User gets about 1500 Indian cultural clipart images with every package of Shree-Lipi.

ITR Clipart

User gets about 3500 Indian cultural clipart images designed by ITR with select packages.

Pratima Clipart

User gets about 2700 Black & white and color Indian

cultural clipart images with select packages of Shree-Lipi.

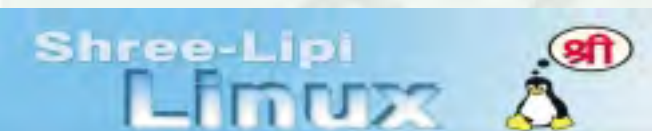
Operating Systems supported

Shree-Lipi works with the following operating systems

- Win 95 / 98 / ME
- Win NT / 2000 / XP / 2003

Shree-Lipi Linux

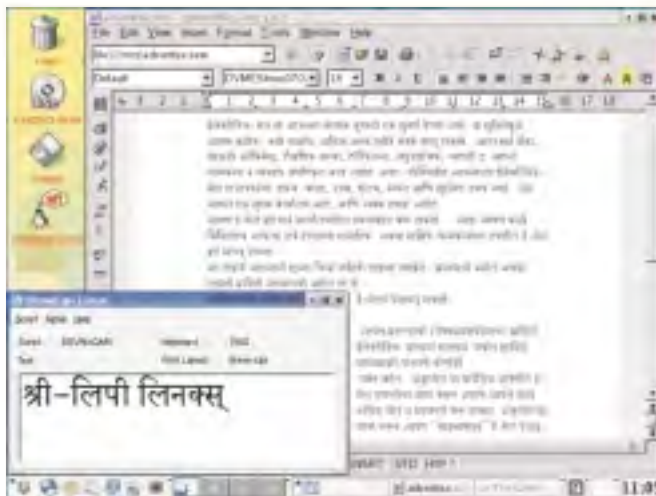
Introduction



Shree-Lipi Linux is multilingual script processor software with the primary focus on providing facility of working with Indian Languages on Linux. Since Indian language scripts are not supported readily on Linux operating system, which is fast gaining popularity among OS being used. Shree-Lipi Linux provides this facility in the form of Shree-Lipi keyboard handler, which is a prime application along with quality fonts for Indian Languages.

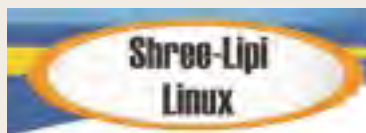
Features

- Enables you to work in 8 Indian Languages - Devnagari, Kannada, Tamil, Telugu, Gujarati, Punjabi, Bengali and Malayalam on Linux.
- Works with almost all Xwindow applications. (OpenOffice, Star Office, Ximian Evolution, GEdit, KEdit, KOffice, KBabel, Kate,...).
- Works on all major distributions of Linux.
- Most popular Keyboard Layouts supported (Modular, Phonetic (Eng), Inscript, etc.).
- Easy Graphical Installation.
- Multi User enabled.
- Simple User Friendly Interface.
- Single key Toggle between English and Indian Language.
- Two Fonts supplied with each Script.



Areas OF Applications

- A product for Printers, Publishers, Advertising Agencies, Newspapers, Office Users and other professionals who are in some way or the other engaged in publishing or development in Indian languages on Linux.
- Can be used as Indian language tool in Govt. sector, PSU, Co-op sectors, Office users, Corporate Sector.



WebSamhita – A Toolkit for making interactive web sites

WebSamhita is a toolkit for making web sites in Indian languages.

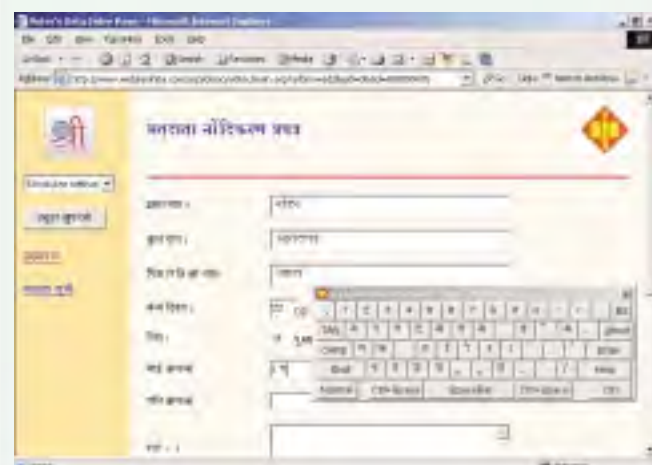
Web sites, which are also commonly referred to as dot coms consist of published documents. These documents can be either HTML or some server side page (ASP/ JSP / Servlet) Sites can be developed in English language or any language supported by OS by making use of Web Authoring tools such as MS FrontPage, Macromedia DreamWeaver, HomeSite and so on. For Server side coding, the tools and IDE used vary with the scripting language itself.

Internet has become a significant medium of interaction, information and entertainment and hence the development of applications for Internet is on the rise. Most of the Internet developers are already viewing Indian languages as a lucrative business as majority of the Indian population

understand and communicate in their own regional language and not English. WebSamhita aids development of Indian language applications for Internet. Using WebSamhita, it is possible to develop Mail Servers, Chat Servers, Calendars, Message Boards, Discussion Forums and e-Commerce applications.

Facilities for User Interaction

Indian languages have evolved from phonetics and incorporate lot of complexities, which are difficult for a developer to understand. These complexities arise from the way the characters are composed. Component Based Technology allows for hiding the complexities inside the component and making the user interface easy. Only the portion of the component required to make the component functional is published to the outside world. WebSamhita makes use of CBT to provide the composing in Indian languages. By making use of the components provided in WebSamhita, it is possible to create static or dynamic interactive HTML pages, i.e. pages in which the user is required to key in something in Indian languages. The most prominent browsers currently being used worldwide are Netscape and Microsoft Internet Explorer (MSIE). WebSamhita provides Plug-ins for Netscape and ActiveX controls for MSIE. These components provide support for all Indian languages including Hindi, Marathi, Gujarati, Punjabi, Bengali, Oriya, Assamese, Tamil, Kannada, Telugu and Malayalam. WebSamhita also provides functional interfaces to control. For typing, the user can choose any keyboard layout from a wide range of keyboard layouts available along with the package. Also some



functional interface has been provided to control the aesthetics and the properties of the components using Scripting languages such as JavaScript or VB Script.

Keyboard Tutor

WebSamhita provides a keyboard tutor, which acts as an aid in typing in Indian languages. It is possible to click on the tutor and type in the component that has active focus.

Client Side conversion

Text written in Indian languages cannot be sorted automatically like English. This is because it is nearly impossible to incorporate all the possible combinations of characters in the ASCII range available. Because of this discrepancy, if sorting is required the text written in font codes must be converted to ISCII (Indian Standard Code for Information Interchange). ISCII, developed by DOE (Department Of Electronics) is supposed to be language independent. Once the text is in ISCII, then theoretically it can be converted to any language. The components provided in WebSamhita provide the conversion automatically. In fact the user has a choice of extracting the default text in ISCII codes or Font Codes. Font Codes are useful in cases when you don't need the facility as in the case of Addresses or Narration. ISCII codes are mandatory if you want sorting according to the Indian languages as in cases of Names of people, places, states and so on. There are no APIs involved as the components have the intelligence of doing the necessary conversion. Support is also given for conversion to and from Unicode.

Client Side Alerts

WebSamhita also provides you the facility of having alerts, prompts and confirmation boxes in Indian languages. This has been incorporated in WebSamhita keeping in view the fact that these JavaScript functions are used most frequently and they do not support Indian languages. Without Indian language alerts, the method is to fetch a WebPage, which contains the necessary information, from server. This method is very costly as compared to the JavaScript alerts. WebSamhita alerts / prompts

/ confirms have the same Syntax as the JavaScript functions and are no different in functionality.

Installer Utilities

If a site has been developed using external tools and components, it may not come up properly, if the external components are deleted or removed from the system. To cater to this, WebSamhita provides installer utilities for installing the various files in the client's machine. This installer validates whether the required files are present in the client's machine and if not present automatically downloads the file from the site. These installers are in the form of Plugins for Netscape and Automation Server for MSIE.

Dynamic Fonts

Dynamic fonts are special kind of fonts, which are automatically downloaded on the client's machine whenever the site is visited. Dynamic fonts are required to view text composed in Indian languages since composing requires special vendor specific fonts. Dynamic fonts can be used for developing web sites, which do not have user interaction in the form of composing in Indian languages. These dynamic fonts can be used both in the case of static and dynamic web pages.

Download Size

The size of the download required for making WebSamhita is around 250KB. Once downloaded, the components reside on the client's machine and are not required to be downloaded from next time onwards.

Server Side APIs for Conversion

Server side conversion APIs are provided as an **optional part** of WebSamhita in the form of Java Package for Servlets and JSP and COM automation servers for ASP. These APIs are required for converting a set of records to Font codes or ISCII codes. Consider the case when a query has been fired from the client side, which returns a Result Set. The Result set might contain an ISCII Column to which Fonts cannot be applied directly. The ISCII codes have to be converted to Font Codes. This can be accomplished at the server side by using the server side APIs. To use the server side APIs in Servlets, one has to import the Java package and create an

instance of appropriate object and give call to the public functions. To use the server side APIs in ASP, it is mandatory that the Conversion Automation Manager be registered on the server side. Once registered, it is possible to give calls to the public functions of the Automation Server.

System requirements

On the client side, WebSamhita works on a machine with any Windows version such as Win 95 / 98 / Me / NT / 2000 / XP. The components can be kept on Unix / Linux / NT / 2000 / XP based server and can be accessed on the client side.

Benefits of using WebSamhita

Has the backup of an Organization, which has been in the fore for 2 decades

Light Weight

Unmatched features support

Updates available easily

Compatibility

Above all unparalleled support

Note: Evaluation Copy of WebSamhita is available free of cost and can be downloaded after registering yourself at www.websamhita.com

DEV BHARATI

Dev Bharati is a complete Hindi Solution on PC Windows platform. It consists of the following items:

- Keyboard handler for Hindi script with Inscript and phonetic layout.
- 3 pairs of Hindi TTF fonts in Standard layout with English Numerals.
- 3 pairs of Hindi TTF fonts in Standard layout with Hindi Numerals.
- 3 pairs of Hindi-English Bilingual fonts.
- Conversion Utility between Standard font codes, ISCII and Unicode.
- Sorting utility.
- One pair of Dynamic font and matching TTF font.

It is felt that this is a complete Hindi language solution package for an application of a reasonable complexity. I will attempt to explain the role of each of the above component.

Keyboard Handler: Unlike Roman script, there is no one-to-one correspondence between the key pressed and the appearance of the glyph on the screen. This is because of formation of half characters and conjunct characters, conjunct matras etc. in Hindi. Also matras may combine to form conjunct matras. All these require a software to intercept the character code entered via keyboard and perform 'composition' as per the rules of language and substitute the entered code by the resulting composed code. Quite often it is necessary to provide intermediate characters so that the operator gets a proper feedback. These intermediate characters have to be erased when the final character glyph is formed.

A program called 'keyboard handler' handles all of these functions. Different manufacturers have called it by names like 'script processor', 'language engine' etc. with minor variations in functionality.

Fonts: Fonts are software which describe the shapes of the individual glyphs. The descriptions of the glyphs are stored in the form of outlines. It also contains a lot of information that 'instructs' or 'hints' the rasterizer of the OS for rendering it at smaller point sizes. As the characters are coded in the outline form, the resultant glyphs are scalable. Simple linear transformations (such as slanting, condensation, expansion etc.) are also possible.

An application addresses the glyphs by the character codes. Different manufacturers have followed their own mapping between code-to-glyph layout. This resulted in situations where a Hindi document entered in the software of one manufacturer does not read in the software of another manufacturer, causing frustration to the users. To avoid this a Standard layout was worked out by a Consortium of Font manufacturers, Under MAIT with participation of MIT. The fonts that are supplied, are in the Standard layout.

Bilingual Fonts: Why do we need a bilingual (Hindi-English) font? Many of the Windows controls do not take more than one font. These components

are heavily used in applications such as data bases. It is also needed to have two scripts in one field of a database. In such a condition, it is necessary to use 'Bilingual fonts'. As the glyphs of two scripts (mostly English and one Indian language) are contained in one font, the font change within the field is avoided. The switching between scripts is done by the keyboard handler.

Conversion Utility: A conversion utility is provided which converts text between the Font-Codes, ISCII and Unicode.

Sorting Utility: A sorting utility is provided which by default sorts the text data as per ISCII order. An additional facility is also provided to the user to specify his own sorting-order.

Dynamic Fonts: Why do we need a 'Dynamic Font'. When we buy a PC and install the Windows on it, we get a few English fonts which are built in the Windows package. Hence whenever we try to view an English document or a web page, we are able to see the contents of the page even if the exact font in which the document is prepared is not available on our PC. The OS automatically substitutes the font with the closest font available. This is fine for English.

When we view a web page entered in Hindi (or any other Indian language) we do not have a Hindi font on our PC to view it. Even if we have some Hindi font, its layout may not be the same as the one with which the web page is made. To take care of this some of the web sites used to offer TTF fonts for downloading before the customers start to view the document. This caused unnecessary accumulation of stray fonts on the PC. To avoid this the 'Dynamic fonts' were introduced. The web page designer ensures that whenever a customer downloads the web page a dynamic font is automatically downloaded along with the HTML text and the font is wiped out immediately after the session of viewing is over (hence the name dynamic font). Dynamic Font is not stored on the hard disk of the client.

Web Browsers like Internet explorer were not designed for Asian Scripts, with the result that it does not handle characters having zero width (such

as matras, vattus, pulli etc) properly. It misbehaves when the text containing the zero-width character is highlighted. To avoid this behavior and also for proper rendering of characters on screen, the source TTF fonts from which the dynamic fonts are derived, have to be specially tuned for shapes and character widths. As the width of the characters of dynamic fonts are tempered, the web page contents made from the normal (untuned) TTF fonts will not justify properly when dynamic fonts are used for viewing. It is therefore necessary to enter the contents of web page using the tuned TTF fonts. These fonts are also available in Dev Bharati.

The font formats for the Dynamic fonts are quite different from those of the source TTF fonts. The dynamic fonts are available in two popular formats: EOT format supported by Microsoft- IE and PFR format supported by Bitstream Inc. In spite of the fact that the renderer of the PFR font format is far superior to that of EOT format, the EOT format is mostly used by the web page designers. It is necessary to embed the URL (of the site from where the EOT font is downloaded) of the hosting site in the Dynamic font. Hence the Dynamic font in EOT format is locked to the site and can not be copied by another user. It is however possible for a third party user to compose the web page using the tuned TTF fonts and write a 'script' instructing that the dynamic fonts to read the document be downloaded from another site on which the dynamic fonts are hosted.

Conclusion: On the whole it can be concluded that Dev Bharati will satisfy the needs of a majority of the Hindi software users and will serve as a simple development tool to the budding developer.

Spell Checker

Modular Infotech is in Indian language business for the past 21 years, and has been continuously working on various utilities, so that, users find use of Indian languages on computers a pleasure. After a long research, Modular is announcing the launch of spellcheckers for 8 languages - Marathi, Hindi, Gujarati, Bengali, Oriya, Kannada, Tamil, Telugu and English. These Spellcheckers use disk-based dictionaries and language rules to check and correct

misspellings in documents. Spell checking is done at word level.

Modular has spent about 250 man-months on this project. In addition, language experts were consulted for implementation of every language. In many languages, consultancy was taken from various Language Resource Centers set up by Ministry of Communication and Information Technology, Government of India (Tamil : Anna University, Telugu : Hyderabad Central University). It has to be noted that the programmers implementing these spellcheckers are the native speakers of these languages.

What are the Key Features?

Following is a list of unique features:

Main dictionary

Main dictionary is the Soul of Spellchecker. The language dictionaries are generated after taking help of experts in respective languages. The programmers and experts form the language rules together. The rules allow checking of basic word and its various inflections. Thus number of words getting passed by such rule based Spellchecker is much larger than the spellchecker based on word lists alone. The process of checking wrong words is an on-going process and Modular is committed to update its dictionaries continuously.

Number of words in each language

The number of words in the main dictionaries varies from language to language and range from 1 lac to 5 lac. Marathi dictionary, for example, contains about 3.5 lac words.

High-speed spell checking

- Suggestions are sorted by the degree of closeness with the misspelled word.
- Ability to use multiple dictionaries (main dictionary and user dictionary) at the same time.

User Dictionary creation

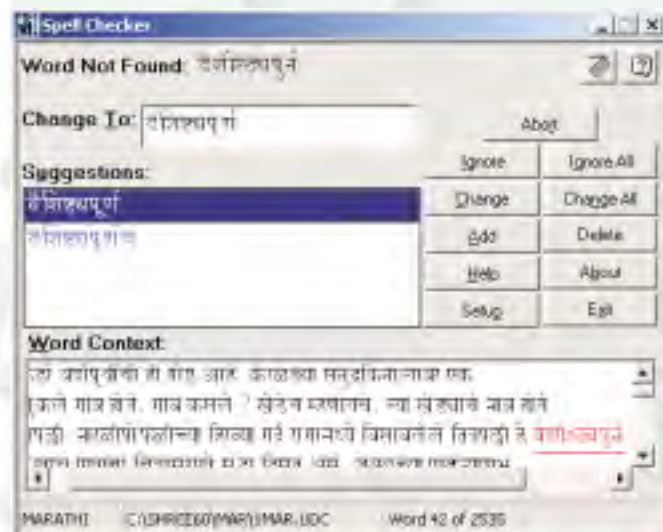
- Supports additional user dictionary creation using one's own preference. All you need is to use the user dictionary editor for that.

- The dictionaries created are ready to be used with Spellchecker.

Correction

Spellchecker detects one typographical and a number of typical errors.

- All the incorrect words typed by the user are trapped, and relevant suggestions given if the user's mistakes are like :
 - Insertion of an extra 'Akshar'.
 - Deletion of any 'Akshar' from a word.
 - Replacement of any 'Akshar' with another one.
 - Exposition of any two 'Akshars' in any place of the word.



- Any mistake of 'hrasva' or 'deergha' or other similar errors are being trapped.
- The Spellchecker gives a number of suggestions, and most often, the most appropriate suggestion appears at the top. The user is given an option to select any one of those.
- An interesting feature called 'User Dictionary' is provided to the users. A user can put all those required words into this dictionary, which he/she doesn't want to be obstructed. Thus all words in the dictionary are specific to that user's requirement and are not obstructed when the user runs the Spellchecker.

- e) User is given option to edit the dictionary at any time. Facility to merge the dictionaries is also provided.
- f) Highly customizable behavior is implemented i.e. user can select the language for spell checking at any time. One can choose whether he/she wants to get suggestions from user dictionary or not. Any obstructed word can be added in user dictionary using setup options.

Text Statistics

- a) Number of misspelled words out of the whole document is always shown on status bar while spell checking is in progress.
- b) The data selected can be either in RTF format or in text format. The user is given option to select the required format.

Text control integration

- a) Real-time underlining of misspelled words is done.
- b) User can quickly choose correction for the underlined misspelled words with only two mouse clicks.

Multiple Indian languages support

8 Indian languages are supported by spellchecker along with English. These are Marathi, Hindi, Gujarati, Bengali, Oriya, Kannada, Tamil, Telugu and English. A unique feature of the spellchecker software is that the document to be spell checked can contain any mix of these languages.

How to use Spellchecker?

One can use Spellchecker software as a standalone application. In this type, user has to select the data from the word processor, copy it on to clipboard and start Spellchecker. Spellchecker provides setup for user dictionary settings, language settings, text format settings etc.

Another way of using Spellchecker is through Patrika – Modular’s word processor. The spell check option is provided in Tools Menu.

PageMaker Plug-in is the technique using which, a special menu namely ‘Shree-Lipi Utilities’ gets added

in PageMaker. Spellchecker option is provided in Shree-Lipi Utilities.

The Release

These spellcheckers are being released along with the latest version (6.0) of Shree-Lipi, Modular Infotech’s most popular multilingual package and Ankur Office, the Indian language Office Suite.

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Website : <http://www.modular-infotech.com/html/product1.html>