



Accessible UNIX[®] Productivity Applications

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What is Important?

“Accessibility is about enabling people with disabilities to participate in substantial life activities that include work and the use of services, products, and information.”

If that is your definition, then what is interesting isn't the desktop or the AT – it is what application you can use; it is what you can actually accomplish!

Accessible Applications Being Show Today

- StarOffice/OpenOffice.org: complete office suite that reads/writes Microsoft Office files
- Evolution e-mail and calendar application
- Mozilla web browser
- Adobe System's Adobe Reader – PDF viewer
- Oracle Corporation's accessible "Toy Store" demo based on Oracle's ADF UIX tools and built with their accessible JDeveloper IDE

StarOffice 7 & OpenOffice.org

1.1 (twins separated at birth...)

- Some history: Purchase of Star Division GmbH, creation of the OpenOffice.org community
- Components of StarOffice (and OpenOffice.org):
 - Writer: full-featured word processor
 - Calc: powerful spreadsheet
 - Impress: slide presentation package (we're using it now)
 - Draw: drawing application supports many image formats
 - Base: programmable database system
 - Equation editor: supports MathML
- Ships with Sun Solaris and many Linux distros
- Available on Windows – bundled by Sony & others

StarOffice Writer key features

- Reads/writes MS-Word, RTF, text, HTML, DocBook, Palm, Pocket Word, and Word Perfect file formats
- Native file format is XML – completely open!
- Export to PDF
- Create complex documents, embed charts, spreadsheets, etc. within the document
- Full style-sheet support
- Automatic spelling correction
- Supported languages: English, German, French, Italian, Spanish, Swedish, Simplified & Traditional Chinese, Japanese, Korean

StarOffice Calc key features

- Reads/writes MS-Excel, dBASE, SYLK, Lotus 1-2-3, DIF, Pocket Excel, HTML file formats
- Native file format is XML – completely open!
- Export to PDF
- Create 3-D charts & graphs
- Multiple sheets per file
- Large library of functions, including Database, Financial, Logical, Mathematical, and Statistical
- Supported languages: English, German, French, Italian, Spanish, Swedish, Simplified & Traditional Chinese, Japanese, Korean

StarOffice Impress key features

- Reads/writes MS-PowerPoint files
- Native file format is XML – completely open!
- Export to PDF, HTML, and Macromedia Flash
- Large library of transition, animation & 3-D effects
- Built-in spell checker
- Supported languages: English, German, French, Italian, Spanish, Swedish, Simplified & Traditional Chinese, Japanese, Korean

StarOffice Draw key features

- Reads/writes AutoCAD, EPS, Pict, SVG, Bitmap, GIF, JPEG, Photoshop, TIFF, & PhotoCD files
- Native file format is XML – completely open!
- Export to PDF, HTML, and Macromedia Flash
- Vector and bitmap image manipulation tools
- 3-D effects
- Built-in spell checker
- Supported languages: English, German, French, Italian, Spanish, Swedish, Simplified & Traditional Chinese, Japanese, Korean

StarOffice 7 Accessibility

- For people with mild physical disabilities:
 - Full keyboard accessibility of the desktop (no mouse needed)
- For people with mild to medium visual impairments:
 - Full support for the selected theme of the desktop (including large print, high/low contrast)
- Support for Assistive Technologies:
 - Implements the Java Accessibility API
 - Works with Gnopernicus & GOK on JDS
 - [Works with JAWS & ZoomText on Windows too!]

Accessibility Demo on JDS

- Theme support & keyboard navigation:
 - Launching with high-contrast on JDS
 - Driving the spreadsheet from the keyboard
- Reading documents with speech & Braille:
 - StarOffice 7 through the Gnopernicus screen reader/magnifier
- Entering text with a single-switch device:
 - StarOffice 7 through the GOK dynamic on-screen keyboard

Why StarOffice/OpenOffice.org Accessibility is Important

- It ships with every copy of Solaris 10 (over 830,000 registered systems in 40 days!)
- It ships with most GNU/Linux distributions (millions of these shipped!)
- All Sony PCs sold outside of the U.S.
- 240 million students worldwide through a \$6 billion donation from Sun
- Affordable access to Microsoft Office documents

How to get StarOffice 7?

- Available through fine retailers:
 - Amazon.com, CompUSA, Fry's Electronics, Staples, Circuit City, Best Buy, Micro Center, OfficeMax and Office Depot
- Available direct from Sun:
 - <http://www.sun.com/software/star/staroffice/get>
- Download OpenOffice.org instead, from:
 - <http://download.openoffice.org/>

Evolution features & function

- “Look-alike” for Microsoft Outlook, without viruses
- Works in your existing mail & calendar environment:
 - IMAP, POP, SMTP, Authenticated SMTP
 - Works with Sun Java System Calendar and Messaging Servers
 - Works with Lotus Notes servers
 - Works with Microsoft Exchange server w/3rd party connector
 - Import Pine, Netscape, Elm, iCalendar and import file format of Idif, ics, vcf, gcrd, mbox and Outlook Express mailboxes
- Multiple account management
- Synchronizes with Palm handheld devices

Evolution Accessibility

- For people with mild physical disabilities:
 - Keyboard accessibility of the UI & content
- For people with mild to medium visual impairments:
 - Support for the selected theme of the desktop
- Support for Assistive Technologies:
 - Implements the GNOME Accessibility API
 - Works with *Gnopernicus* & *GOK*

Evolution Accessibility Demos

- Theme support & keyboard navigation:
 - Launching with high-contrast on JDS
- Speech & Braille use of calendar and mail:
 - Using Evolution with the Gnopernicus screen reader/magnifier
- Mail and calendar from a single switch:
 - Using Evolution with GOK

Why Evolution Accessibility is Important

- It ships with every copy of Solaris 10 (over 830,000 registered systems in 40 days!)
- It ships with most GNU/Linux distributions (millions of these shipped!)
- In many organizations (and almost all large ones) shared calendars are very important
- More and more e-mail is HTML e-mail, with Office document attachments – more cumbersome without a graphical e-mail client

Mozilla features & function

- World-class browser (and also does e-mail too)
- Tabbed browsing support
- Popup ad blocker
- “Find as you type” jumps to links from the keyboard
- Compose web pages

Mozilla Accessibility

- For people with mild physical disabilities:
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 - Works with *Gnopernicus* & *GOK*

Mozilla Accessibility Demos

- Theme support & keyboard navigation:
 - Launching with high-contrast on JDS
- Speech & Braille web browsing:
 - The <http://www.sun.com/> website through the Gnopernicus screen reader/magnifier
- Web browsing with a single-switch device:
 - The <http://www.sun.com/> website using GOK

Why Mozilla Accessibility is Important

- Mozilla ships with every copy of Solaris 10 (over 830,000 registered systems in 40 days!) and with most GNU/Linux distros (millions of these shipped!)
- The Internet is now a critical path to information & services
- Mozilla is the only graphical web browser that fully addresses Section 508 § 1194.21 (a):

When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.

Accessible Adobe Reader UNIX

- Forthcoming version 7 release
- Same core as Adobe Reader 7 for Windows
- Exposes accessibility information via GNOME Accessibility Architecture
- Uses the text caret for document reading & navigation
- Uses TAB to navigate forms

Adobe Reader Accessibility Demo

- Pete DeVasto, Senior Accessibility Quality Engineer
- Sun Java Desktop System Release 3 beta
 - Using the Gnopernicus screen reader/magnifier with software speech and the BAUM Braille display
- Reading sample PDF documents and forms

Why Adobe Reader Accessibility is Important

- Adobe Reader 7 will ship with future versions of the Sun Java Desktop System (version 5 is already part of Solaris and Sun's Linux)
- PDF is one of the standard document formats of business and the Internet
- PDF Forms are increasingly used in business and education – if people with disabilities are to participate in these functions, they need access!

Oracle's "Toy Store" – Built with Accessible Components

- An example, accessible, Oracle database GUI
- Built using Oracle's ADF UIX (Application Development Framework: User Interface in XML)
 - Like Java Swing, lots of accessibility "comes for free" to the developer: tabs are automatically labeled, skipnav is automatically inserted, etc.
- "Toy Store" example built using Oracle's accessible JDeveloper IDE (shown here last year)
- Two blind employees of Oracle have used JDeveloper exclusively for several years, one of them on UNIX with Gnopernicus!

Oracle's "Toy Store" Accessibility Demo

- Web application front end to Oracle database back end via Java 2 Enterprise Edition & Java Server Faces™
- Accessibility to this Web application via any accessible browser
 - Using the Gnopernicus screen reader/magnifier with software speech and the BAUM Braille display
- Our demo: accessible Mozilla on the Sun Java Desktop System

Why Oracle Tools and GUI Accessibility is Important

- Oracle is the largest database vendor in the world; their database powers the largest portion of the Internet's database web sites, and is used by most of the Fortune 1000 companies
- Software development is one of the very attractive employment options open to people with disabilities
- UNIX systems remain the most popular place for database software development (and the most able to handle large database loads)

In Summary...

- We said: “Accessibility is about enabling people with disabilities to participate in substantial life activities that include work and the use of services, products, and information.”
- Now on UNIX, people with disabilities can:
 - Create and exchange word processing documents, spreadsheets and presentations (with folks on Windows)
 - Browse the World Wide Web
 - Read & write e-mail, and maintain a shared calendar
 - Develop, test, deploy, and use database applications
 - Soon read PDF documents and fill out PDF forms
- This is available on Solaris 10 – a free download!



Accessibility Team

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