



**CSUN 2008**  
**2008-03-14, Los Angeles**

# **OpenOffice.org & IAccessible2**

**Malte Timmermann**  
Technical Architect  
StarOffice/OpenOffice.org  
Sun Microsystems



# About the Speaker

- Technical Architect in StarOffice/OpenOffice.org Development
- Working on StarOffice since 1991
  - > Accessibility
  - > Security
  - > Architecture and Performance
  - > Sun ODF Plugin for MS Office
  - > Past: EditEngine, VCL, Help System, BasicIDE, ...
- Member of the OASIS OpenDocument Accessibility Subcommittee
- <http://blogs.sun.com/malte>

# Agenda

- The role of Accessibility APIs for OOO
- OpenOffice.org Accessibility API
- AT Support for OpenOffice.org
- Status IAccessible2 for OpenOffice.org

# The role of Accessibility APIs for OOo

- Accessibility API very important for OpenOffice.org (OOo)
- OOo doesn't use the system's standard widgets, so a lot of the old tricks from (Windows) AT don't work
- Some special API is needed for accessing the document anyway
  - > For some “standard” applications, AT accesses the document information via the application specific API
  - > This only works for the specific application, but doesn't help for OOo
  - > AT vendors are not much interested in doing the same for OOo :(

# The role of Accessibility APIs for OOO

- With standard Accessibility APIs, AT doesn't have to “special case” for certain applications
  - > When an AT supports one Office suite via that API, it automatically has support for other Office suites implementing that API
  - > Customizations for certain applications are only needed for convenience features or for improving efficiency of certain work flows

# The role of Accessibility APIs for OOO

- For OOO Accessibility, we had to decide which Accessibility API to use
- The only usable existing APIs in 2001 have been the Java and the GNOME Accessibility API
  - > MSAA was not an option, because it was incomplete, and didn't help on other platforms
  - > We specified our own Accessibility API, to be able to bridge it to different platform Accessibility APIs

# OpenOffice.org Accessibility API

- Derived from Java and GNOME Accessibility
  - > To support multiple platforms
- Used for UI and for document representation
  - > Made enhancements for exposing the document content, which also led to improvements in Java and GNOME APIs
- Bridged to Java Accessibility and GNOME ATK
  - > AT doesn't have to know anything about OpenOffice.org or about that new Accessibility API
  - > Currently working on support for the Mac OS X Accessibility Framework!

# AT Support for OpenOffice.org

- GNOME
  - > Good support for OOo because of GNOME's well defined Accessibility framework
- Windows
  - > Most AT Vendors don't care much about support for OOo :(
  - > Some AT vendors support Java
    - > This way, they automatically support OOo via the Java Access Bridge for Windows, but this support is in most cases not sufficient for working with OOo
  - > No AT vendor supports the OOo Accessibility API directly
  - > Overall status on Windows: AT support for OOo is not sufficient



# AT Support for OpenOffice.org

- A new hope: “IAccessible2”
  - > It is derived from OOo Accessibility API!
  - > IAccessible2 fills the gaps from things not covered by MSAA
    - > It's not a completely new API, where AT vendors would hesitate to support it
    - > Only additional interfaces to MSAA, so AT vendors can make use of it where needed, without needing to change all old MSAA based implementations
  - > IAccessible2 will help getting better AT support for OOo!
    - > Since they not only implement it for OOo, but for many different applications

# Status IAccessible2 for OpenOffice.org

- IBM already has IAccessible2 implemented in Lotus Symphony, which is based on OOo 1.1 code
  - > They plan to contribute this for OOo :)
  - > OOo already received some of the contributions
- Unfortunately the contributions are in a condition that we can't easily integrate them
  - > Patches are based on a very old code base (OOo 1.1)
  - > Our engineers are working with IBM's engineers on solving the issues and help to migrate that code to OOo 3.0 code base
  - > IAccessible2 probably won't make it into OOo 3.0, but into 3.x



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**Malte Timmermann**

Malte.Timmermann@sun.com

<http://blogs.sun.com/malte>