OpenOffice.org
Extensions Infrastructure

What it is –
What it can –
What is planned

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StarOffice/OpenOffice.org

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About the speaker

- started working on the project in 1997
- one of three initial developers who have started to develop the first version of UNO
- today – technical lead at Sun Microsystems and responsible for programmability capabilities in StarOffice/OpenOffice.org
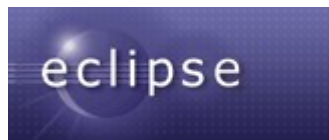- project lead of the api.openoffice.org project

Excursion to other Applications

- Extension Support – YES
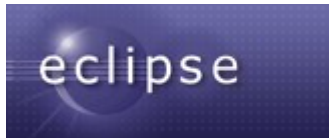 - > Easy and smooth (e.g. drag and drop)
  - > Huge extension base

- Extension Support – YES
  - > Complete platform to build applications on top of it Rich Client Platfrom (RCP)
  - > Growing extension (modules/plugin) base

- Extension Support – YES
  - > Complete platform to build applications on top of it (RCP)
  - > Solid extension (plugin) base

Excursion to other Applications

Common Features

- Versioning
  - > version number and unique identifiers
- Dependencies
  - > to a specific application version
  - > to other extensions or modules/plugins
- Online Update
  - > manually update checks
  - > automatically checks

What makes extensions interesting?

- User view
  - > Adjust the applications to personal needs
  - > Extend the applications with new functionality
  - > Easy to update

- Developer view
  - > Easy start with the project
  - > No core knowledge required
  - > Early feeling of success ➜ motivating
  - > Encapsulated working area ➜ programming against stable, documented API's
  - > Reuse of existing functionality
  - > Integration of connectors/interfaces to other applications

Extensions in OpenOffice.org (StarOffice)

What it is

- Script/Macro Libraries
  - > Basic, Python, Java, JavaScript

- Functional enhancements ➔ UNO components
  - > Completely new functions with new IDL type definitions
  - > Implementation of special Service Provider Interfaces
    - − Calc Add-Ins, Add-Ons, Filter
    - − ... and more

- Non code content
  - > Templates
  - > Gallery items

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Extensions in OpenOffice.org (StarOffice)

Extension Package Format (since OO.org 2.0.4)

- Zip container (.oxt)
  - > Formerly .uno.pkg and .zip

- META-INF/manifest.xml
  - > Content description
  - > Description of installable items

- description.xml
  - > License
  - > Dependencies

- Content

Extensions in OpenOffice.org (StarOffice)

Extension Package Format (since OO.org 2.0.4)

Content of an example oxt extension package:

SOCalculatorAddon.oxt

SOCalculatorAddon.uno.jar
description.xml
Addons.xcu
ProtocolHandler.xcu
calculator_16.bmp
calculator_26.bmp
registration/license_en-US.txt
registration/license_en-GB.txt
registration/license_de.txt
META-INF/manifest.xml

Extensions in OpenOffice.org (StarOffice)

Simple License Feature (since OO.org 2.0.4)

- Accept or reject ➜ install or do nothing

- Simply display the content of the license file without any formatting

- Plain UTF8 format

- Support of localized license files
  - > Matching algorithm to find the best fitting license
  - > Vendor has to define a default as fallback if the matching algorithm failed

- Control flag for user and shared mode
  - > User mode ➜ every user has to accept the license
  - > Shared mode ➜ only one person has to accept the license when installed in the shared layer
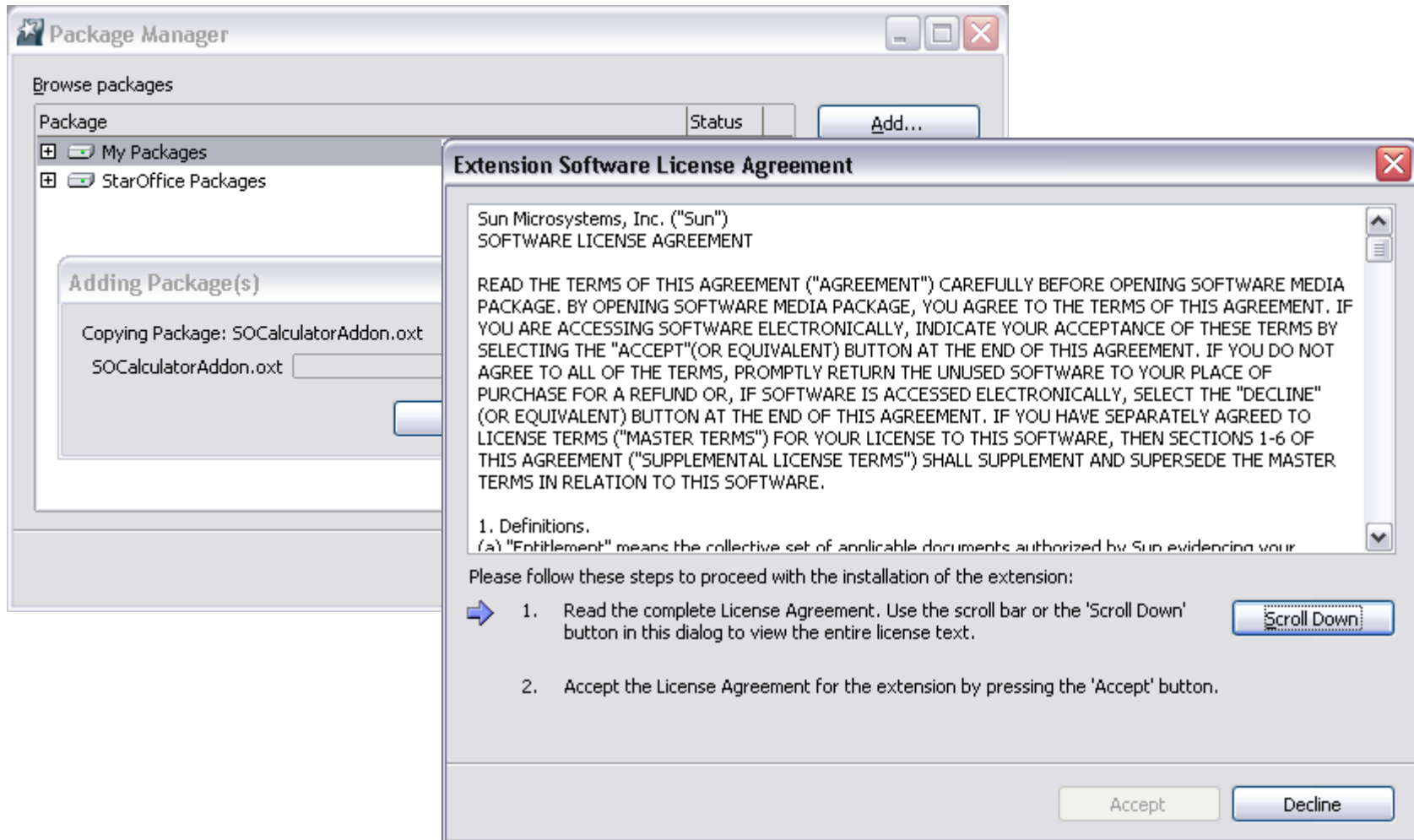
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Extensions in OpenOffice.org (StarOffice)

Extension Package Format (since OO.org 2.0.4)
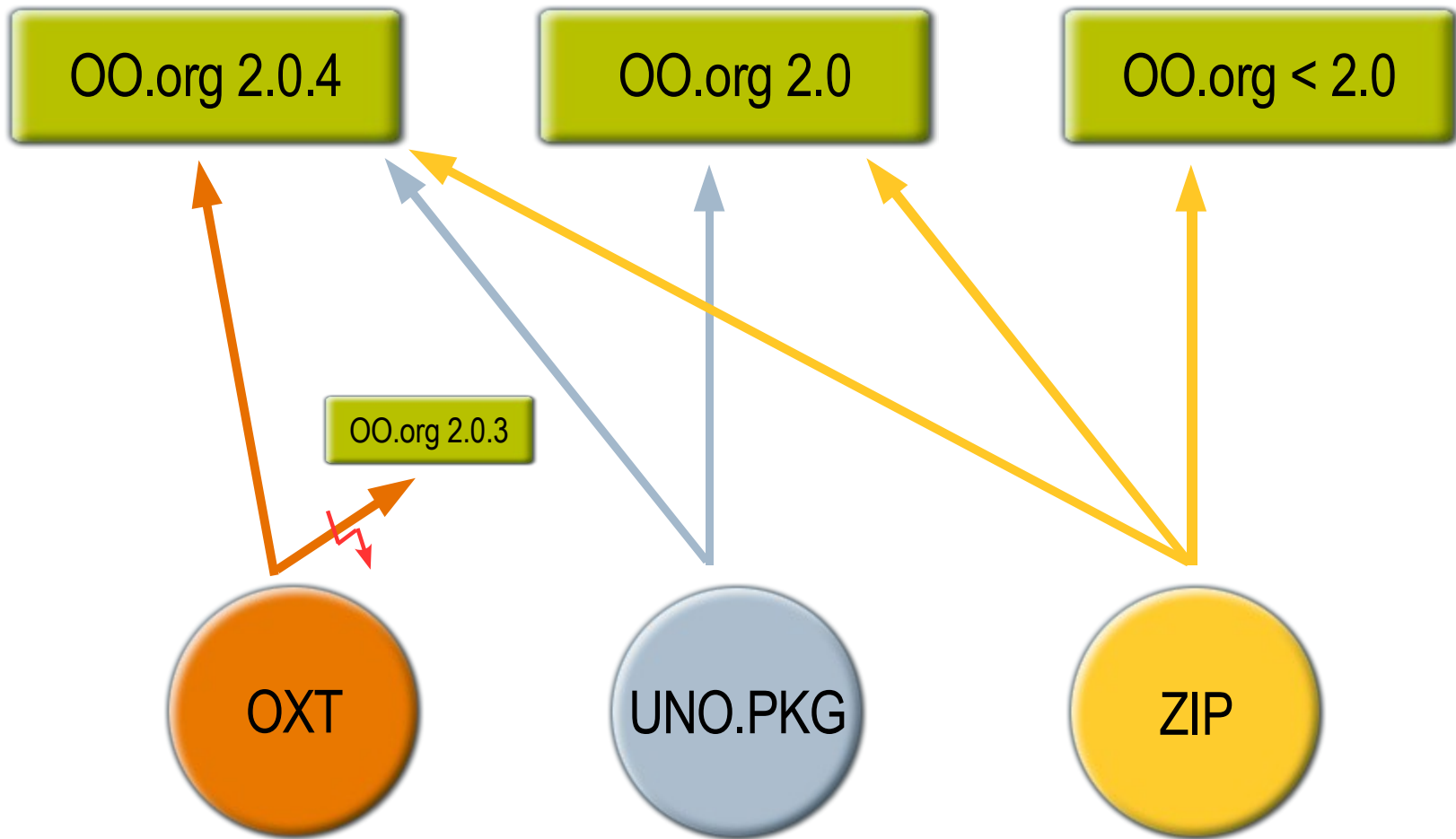
Example Content of a description.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<description xmlns="http://openoffice.org/extensions/description/2006"
   xmlns:xlink="http://www.w3.org/1999/xlink">
   <registration>
      <simple-license  accept-by="admin" default-license-id="de">
         <license-text xlink:href="registration/license_de.txt" lang="de" license-id="de"/>
         <license-text xlink:href="registration/license_en-US.txt" lang="en-US"/>
         <license-text xlink:href="registration/license_en-GB.txt" lang="en-GB"/>
      </simple-license>
   </registration>
</description>
```

Extensions in OpenOffice.org (StarOffice)

Extensions in OpenOffice.org (StarOffice)

OO.org 2.0.4　　OO.org 2.0　　OO.org < 2.0

OO.org 2.0.3

OXT　　UNO.PKG　　ZIP

Extensions in OpenOffice.org (StarOffice)

What is planned in the future

- OpenOffice.org 2.1
  - > Online update for extensions
    - – Searching for updates
  - > Unique identifiers and versioning for extension packages
  - > Real dependencies on demand
  - > System integration
    - – mime type registration
    - – double click on oxt file to install
  - > renaming of "Package Manager" to "Extension Manager"
  - > Improved toolkit
    - – New controls

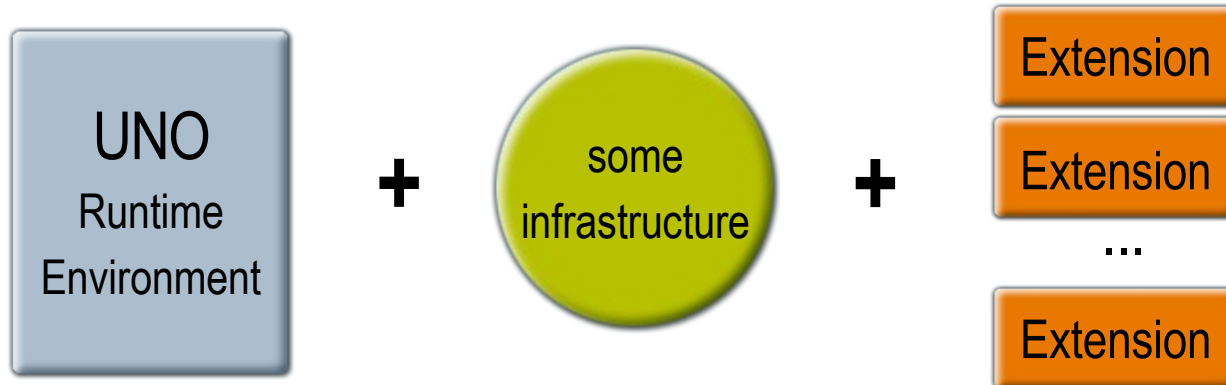# Extensions in OpenOffice.org (StarOffice)

What is planned in the future

- Later
  - > Redesign of the extension manager UI (simplification)
  - > Signing of extension packages (encryption?)
  - > Automatic notification for updates
  - > Support of extension options in the Tools ➜ Options dialog
    - – New category Extensions + single entry per extension
  - > Extendable help
    - – Smooth integration of extension help in the existing help system
  - > Localization support (maybe earlier)
    - – New resource framework – especially for the usage with the toolkit
  - > Extended license framework on demand
    - – interface (hook) to support existing license frameworks

Vision

... you remember the keyword RCP (Rich Client Platform)

- OpenOffice as a collection of extension packages

UNO Runtime Environment **+** some infrastructure **+** Extension Extension ... Extension

- Easy update for small parts of the office
- Small deployments possible (e.g. writer only)

Join the extension project

- to get more info about the ongoing work
- visit the project extensions.openoffice.org
- subscribe to the mailing list dev@extensions.openoffice.org
- subscribe to the mailing list dev@api.openoffice.org
- give feedback
- get started

OpenOffice.org
Extensions Infrastructure

Questions?

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