Getting introduced to URE

Agenda

- Introduction
  - Who am I ?
  - What is the URE ?
- Creating a first application
  - How it works
  - The difficult points
- Eclipse integration
  - Presentation
  - Efforts needed

Who am I ?

- OpenOffice.org community member
  - For ~2 years
  - FR and API projects
- Happy Google Summer of coder 2005
  - Started the integration
  - Discovered the community
- Interested in UNO
  - Converted some friends to UNO
  - Created some docs about UNO & URE
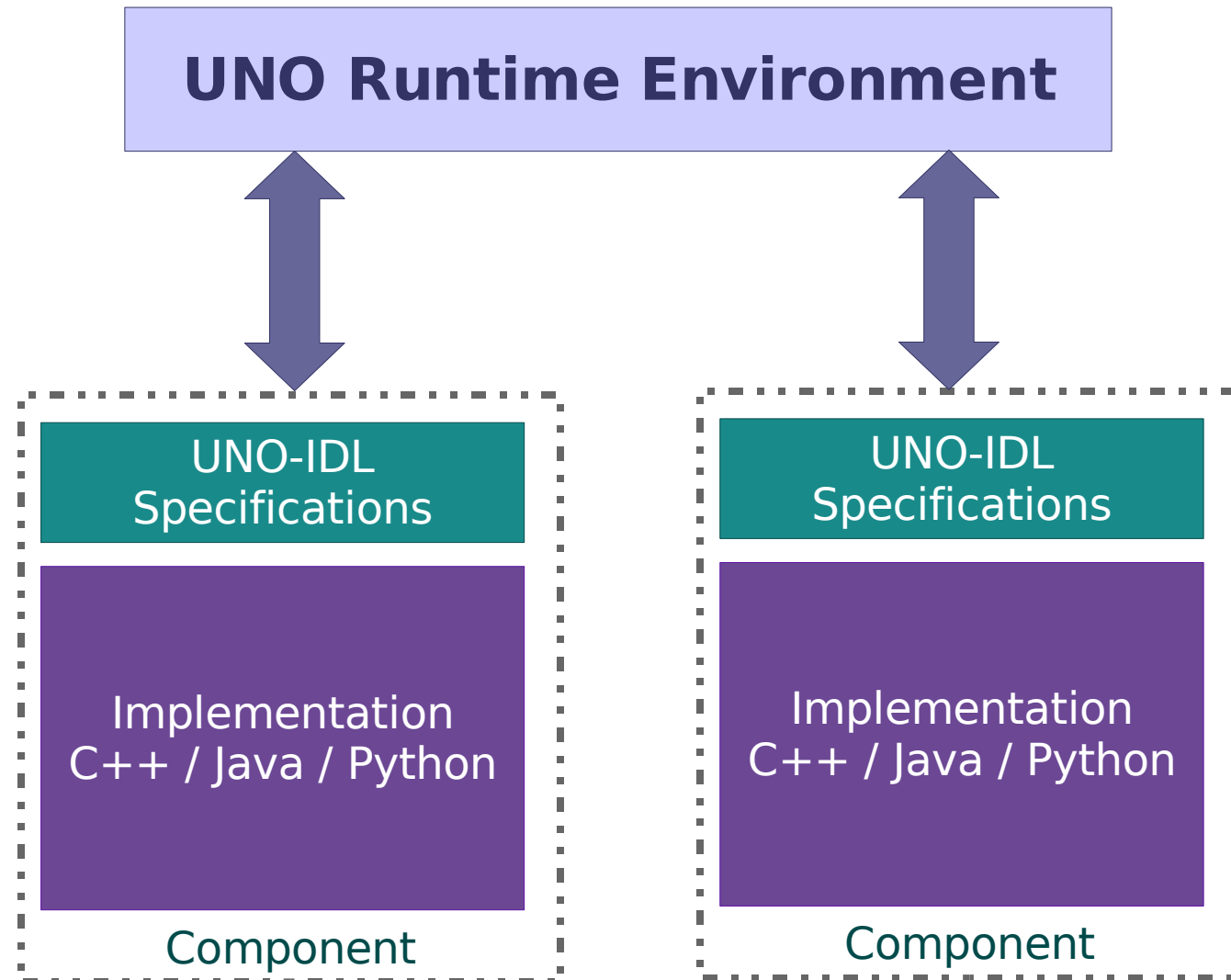
What is the URE ?

- What is UNO ?
  - OpenOffice.org component model
  - Distributed objects
  - Cross-languages calls (through bridges)
  - API Specification & Implementation separated
- And the URE ?
  - Subset of OpenOffice.org
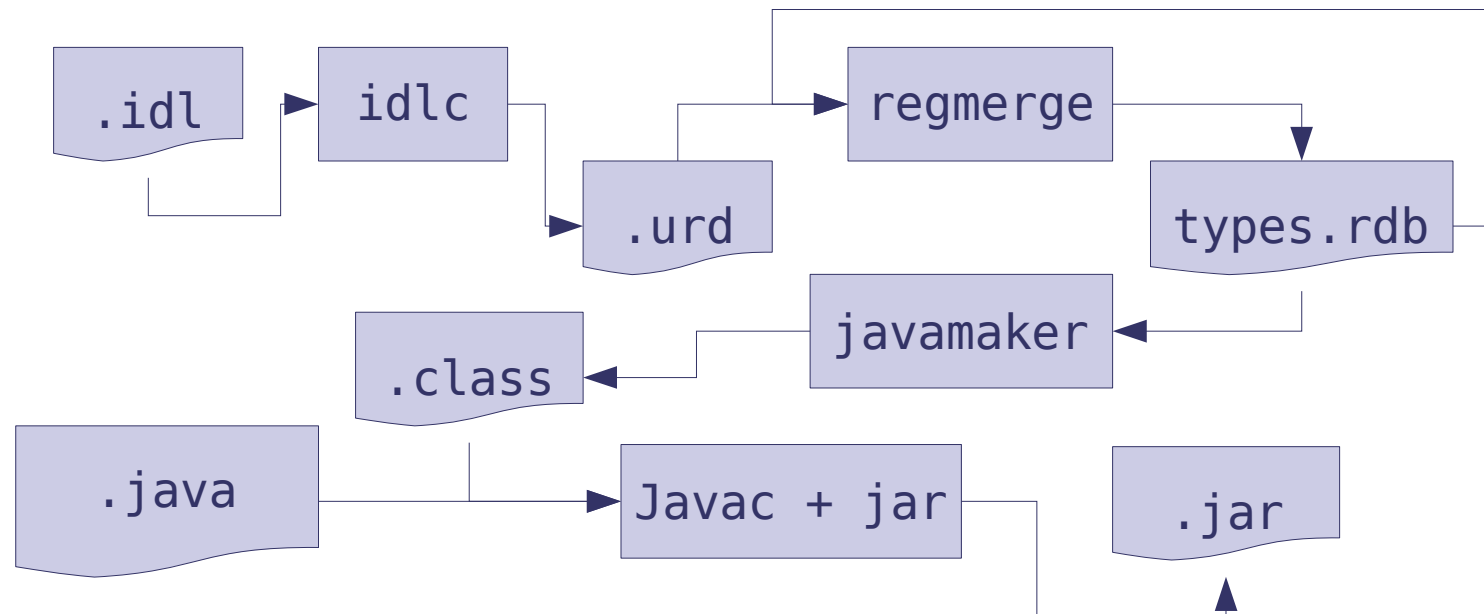 - Giving UNO features to another application

How it works

- Specification & Implementation

UNO Runtime Environment

Component
- UNO-IDL Specifications
- Implementation C++ / Java / Python

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How it works

- SDK tools
  - *idlc*: UNO-IDL file compilation
  - *regmerge*: merging urd files into a rdb file
  - *javamaker*: Java types definitions generation

```
.idl  →  idlc  →  regmerge
              →  .urd  →  types.rdb
                      javamaker
        .class  ←
.java  →  Javac + jar  →  .jar
```

The difficult points

- Learning UNO
  - Specifications & Implementation not easy
  - No major problem for people knowing CORBA, ICE...
- Tutorials for real beginners
  - Explaining main new concepts:
    - Implementation
    - Proxy objects
    - The build chain
  - How to create a new component from scratch

Eclipse integration

- Started by a Google Summer of Code 2005
  - Step 1: creating a general component
- Continued during the 2006 year
  - Step 2: making better code
    - o Code refactoring
    - o Code documentation to complete
    - o Writing plugin developer documentation
  - Step 3: building the component
    - o Generating an implementation skeleton
    - o Generating services.rdb
    - o Running a URE application from Run command

Eclipse Integration

Presentation

Eclipse integration

- Efforts needed
  - Step 3: Fully integrate uno-skeletonmaker
    - Adding new wizard to create Calc, chart addins
    - Adding wizards to create all kind of IDL types
    - Removing the "New IDL file" wizard
  - Step 4: Adding other languages
    - C++, Python
    - French, German...
    - Writing more user and developer docs

Bibliography

- UDK project   http://udk.openoffice.org/

- API project   http://api.openoffice.org/

- OpenOffice.org Developer's Guide
  - Chapter 3 – Professional UNO
  - Chapter 4 – Writing UNO components

- OpenOffice.org Coding Guidelines
  - tools.openoffice.org/CodingGuidelines.sxw

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Questions & Answers

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