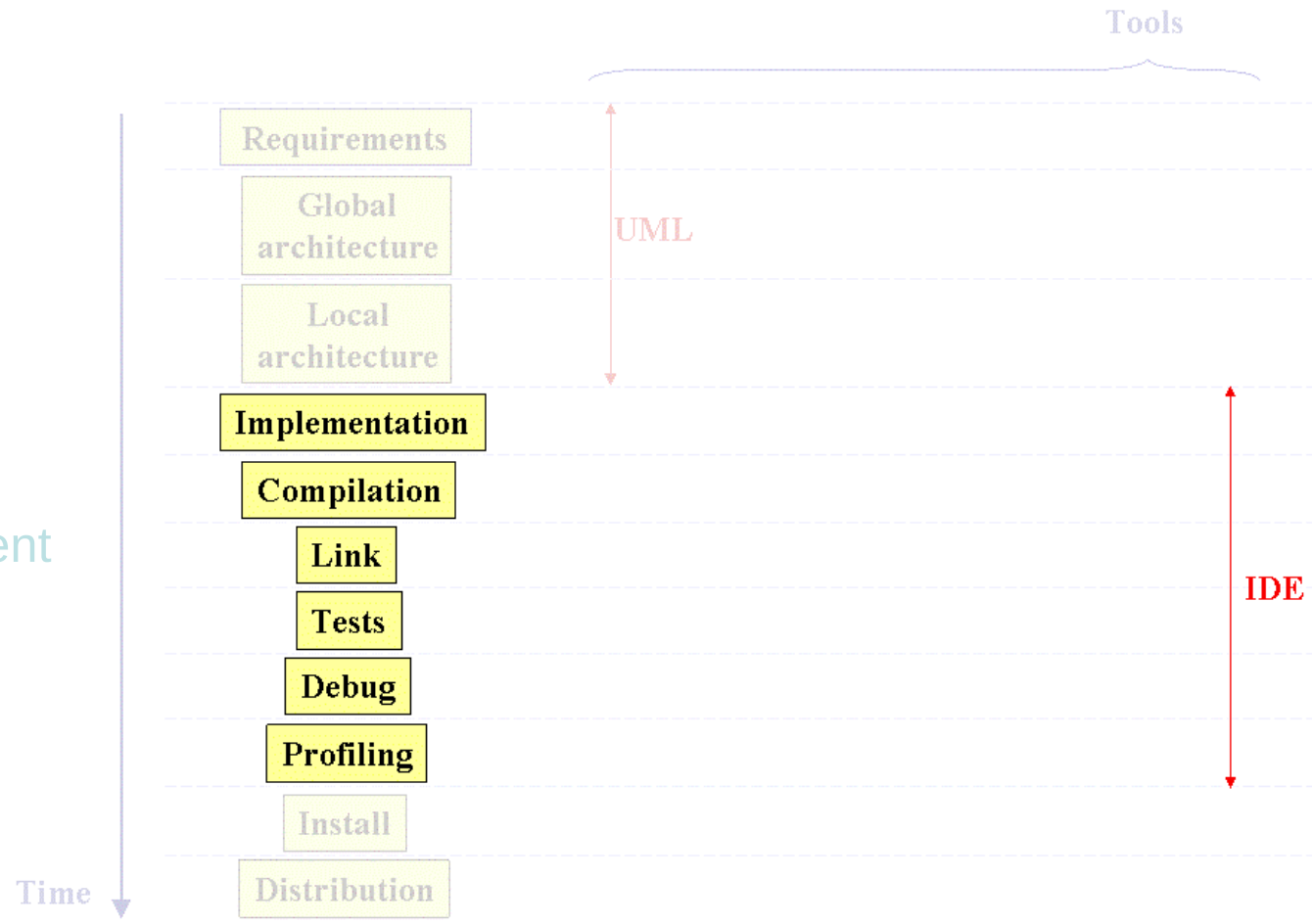


IDE's for Java, C++, C

David Rey - DREAM

IDE

- Introduction
- Analysis/Design
- Build
- Tests
- Debug
- Profiling
- Project management
- Documentation
- Versioning system
- **IDE**
- GForge
- Conclusion



Overview

- Introduction about IDE's
 - What is an IDE
 - IDE's examples for java
 - IDE's examples for C++
 - Eclipse & Visual studio examples: overview
- Eclipse demo
 - Project “hello world”
 - Editing facilities
 - Other development tools
- Visual Studio C++ demo
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What is an IDE

- IDE = Integrated Development Environment
- IDE = EDI (Environnement de Développement Intégré) in French
- Typical integrated development tools :
 - editor (with auto-indent, auto-completion, colorization, ...) ;
 - version control ;
 - compiler/builder ;
 - documentation extractor ;
 - debugger ;
 - testing tools ;
 - refactoring tools.
- Generally language specific
(C/C++ specific IDE, java specific IDE, not yet good ones for Fortran)

IDE's examples - Java

- Eclipse (<http://www.eclipse.org>)
- JBuilder (<http://www.borland.com/us/products/jbuilder/index.html> - free for personal and non-commercial use)
- NetBeans (<http://www.netbeans.org/>)
- JCreator (<http://www.jcreator.com/>)
- ...

IDE's examples – C/C++

- Visual C++ - Windows only - com. license (<http://msdn.microsoft.com/visualc>)
- C++ Builder - com. license (<http://www.borland.com/us/products/cbuilder/index.html>)
- Eclipse(CDT)/EasyEclipse (<http://www.easyeclipse.org/site/home/>)
- Quincy (<http://www.codecutter.net/tools/quincy/>)
- Anjuta (<http://anjuta.sourceforge.net/>)
- KDevelop (<http://www.kdevelop.org/>)
- Code::Block (<http://www.codeblocks.org/>)
- BVRDE (<http://bvrde.sourceforge.net/>)
- RHIDE (<http://www.rhide.com/>)
- ...

Eclipse software

- Foundation: <http://www.eclipse.org>
- Downloads at <http://www.eclipse.org/downloads/index.php>
- Common Public License (CPL):
 - <http://www.eclipse.org/legal/cpl-v10.html>
 - royalty free source code / world wide redistribution rights
- Supported languages: Java, C++, python, ...
- Supported platforms: Linux, Windows, ... (java software)
- Many tutorials on the web
 - A good one (in French):
<http://www.jmdoudoux.fr/java/dejae/indexavecframes.htm>

Visual Studio software

- Homepage: <http://msdn.microsoft.com/vstudio/default.aspx>
- Supported languages: Visual Basic, C#, C++, J#
- Commercial Microsoft license
- Supported platform: Windows

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Conclusion

IDE's:

- Exist for many platforms and programming languages
 - Java (e.g., Eclipse), C/C++ (e.g., Visual Studio)
 - Linux (e.g., Eclipse), Windows (e.g., Eclipse, Visual Studio)
- Are useful for beginners as well as for experts
- Are time consuming in the beginning
 - Learning curve
 - Several tools need configuring
- Save time when often used:
 - Powerful editing mode
 - CVS/SVN
 - Easy compiling/building/running, related to source files
 - Easy refactoring
- Still evolving...