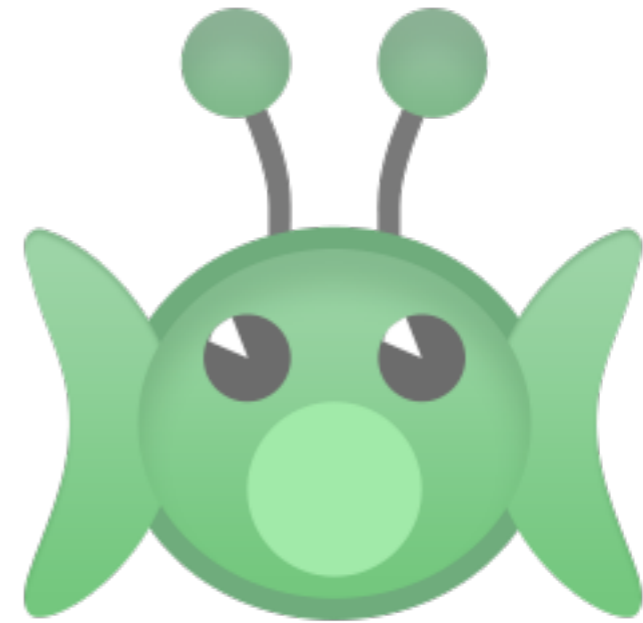


Plug-in-Entwicklung für die IntelliJ Platform

Yann Cébron (JetBrains)

IntelliJ - was??!



Verfügbare IDEs - JetBrains



In Entwicklung - JetBrains



C/C++

Q2/2015



DB/SQL

Q3/2015

IDEs - Third Party



Cursive Closure



IntelliJ goes Server



The screenshot shows the IntelliJ IDEA IDE interface. The top toolbar includes icons for GroovyBuilder.java, a search icon, and buttons for Code, Annotate, and History. The main editor displays the GroovyBuilder.java file with the following code snippet:

```
for (CompilerMessage message : parser.getCompilerMessages(chunk.representat...eT
| context.processMessage(message);
}

if (!myForStubs) {
| updateDependencies(context, toComp
}

return hasFilesToCompileForNextRound
}

catch (Excepti
| throw new Pr
}

finally {
| if (start >
| LOG.debug(
| ceof PsiD
| ceof PsiE
| = ((PsiE
| n.getType...
```

A search window titled "Usages of PsiDeclarationStatement (com.intellij.psi) in revision 337b5a3 — done, found 486 usages" is open. It shows a tree view with "java-impl" expanded to "IntroduceVariableBase.java". The search results list two usages:

- 873: PsiDeclarationStatement declaration = JavaPsiFacade.getInstance(project).getElementFa
- 924: declaration = (PsiDeclarationStatement) RefactoringUtil.putStatementInLoopBody(declarat

A context menu is open over the search results, with the following options:

- Go to declaration
- Find usages
- View hierarchy
- Leave a comment

The "Go to declaration" option is selected, and a tooltip for the declaration is shown:

```
com.intellij.psi
public interface PsiElement
extends UserDataHolder, Iconable

The common base interface for all elements of the PSI tree.

Please see IntelliJ IDEA Architectural Overview for high-level overview.
```

Summa summarum...

- 12 IDEs
- Plattformen: JVM, Web, Android, iOS, C/C++, Python, Go, Database/SQL, Language DSL, ...
- > 1200 Plugins <http://plugins.jetbrains.com>

IntelliJ Platform



IntelliJ Platform - High Level

- 2009
- Apache 2 License
- IDE/Developer Tooling
- **keine** Rich Client Platform (RCP)

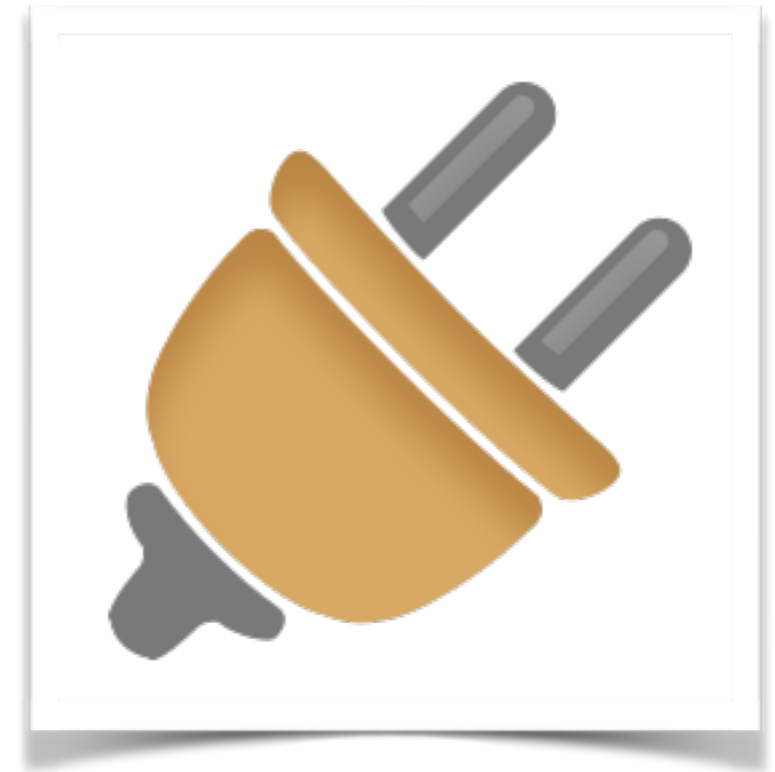
IntelliJ Platform - Was ist drin?

- DI-Infrastruktur (PicoContainer)
- VirtualFileSystem
- PSI (Program Structure Interface)
- Editor
- Action-System
- UI Komponenten (Swing)

IntelliJ Platform - Was kann ich machen?

- Plugins
- Standalone-IDE
- „Core“ (z.B. Upsource, Kotlin Compiler)

Plugins

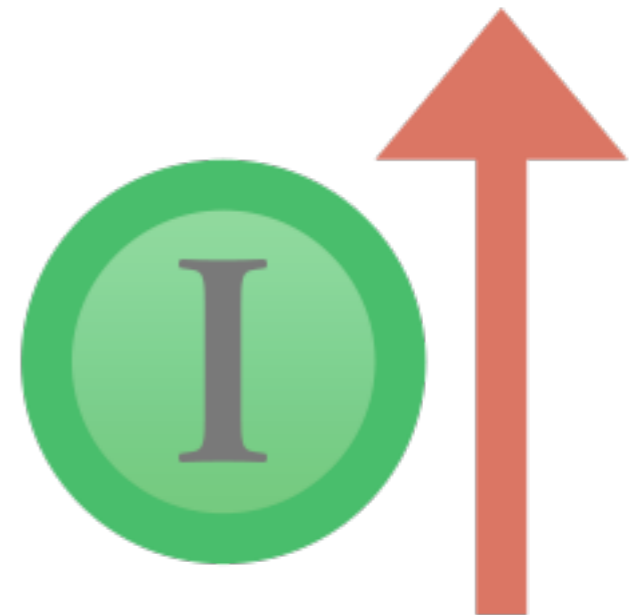


Plugins - Typologie

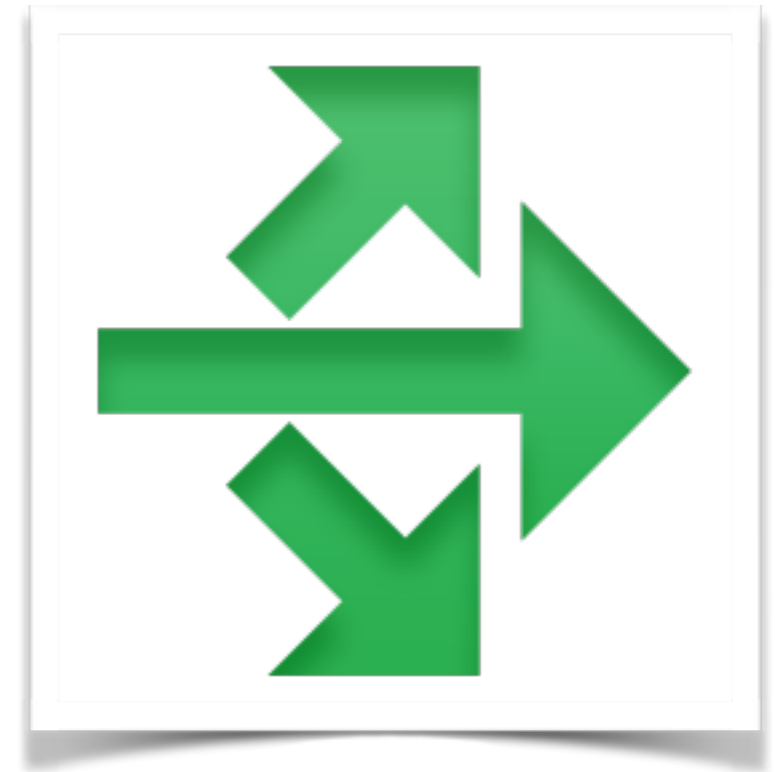
- Sprache
- Framework
- IDE-internes Tool
- Projekt-/Firmenspezifisch

Exkurs - Interessante Plugins

- BashSupport
- ANTLRv4
- XText
- Go
- DummyTextGenerator
- Erlang



Deployment



Kompatibilität

- JDK 6 (noch!)
- Target IDE(s)
- IDE-Version

Installation

- plugins.jetbrains.com
- Custom Plugin Server
- JAR/ZIP

Standalone IDEs



Standalone IDE

- Customizing
- Infrastruktur
- Builds: DIY
- Referenz: Android Studio

Wie? Wo? Was?



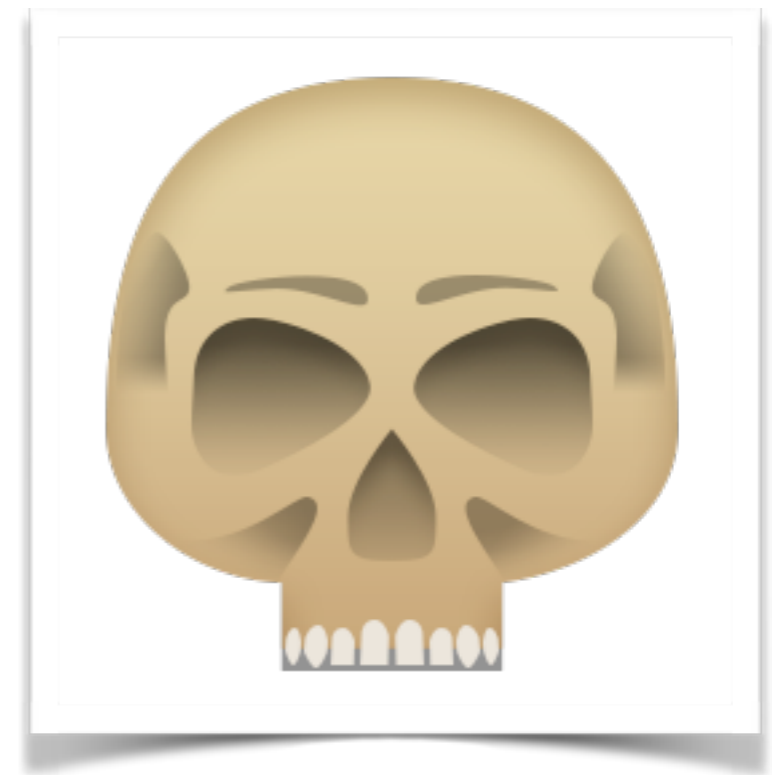
Unterstützung

- jetbrains.org
- Dokumentation
- Forum
- OSS Plugins
- „patch_welcome“
- IDEA Backlog

Tools

- GrammarKit
- PSViewer
- `-Didea.is.internal=true`

Survival Strategies



10 Jahre Plugins

- *Struts 1 (2004)*
- *Struts 2 (2007)*
- *Projektspezifisches XML-Tooling*
- Spring-Framework
- Plugin DevKit
- Struts 2
- TeamCityProtect (JetBrains intern)

Lessons Learned

- Wo? >> Wie?
- *Manager
- RTFS
- Forum
- Ähnliche Plugins

Hector The Inspector

- WolfTheProblemSolver
- InjectedLanguageFormattingTest#testFrankenstein2
- SymlinkHandlingTest#testTransGenderRefresh
- Easter Eggs



Q&A

[@yanncebron](#)