

adaptTo()

APACHE SLING & FRIENDS TECH MEETUP
10-12 SEPTEMBER 2018

A better developer experience
M. Chromiński, K. Panek, Cognifide



Developer Experience



Experience



<https://www.pexels.com/photo/man-standing-937546/>



Developer Experience



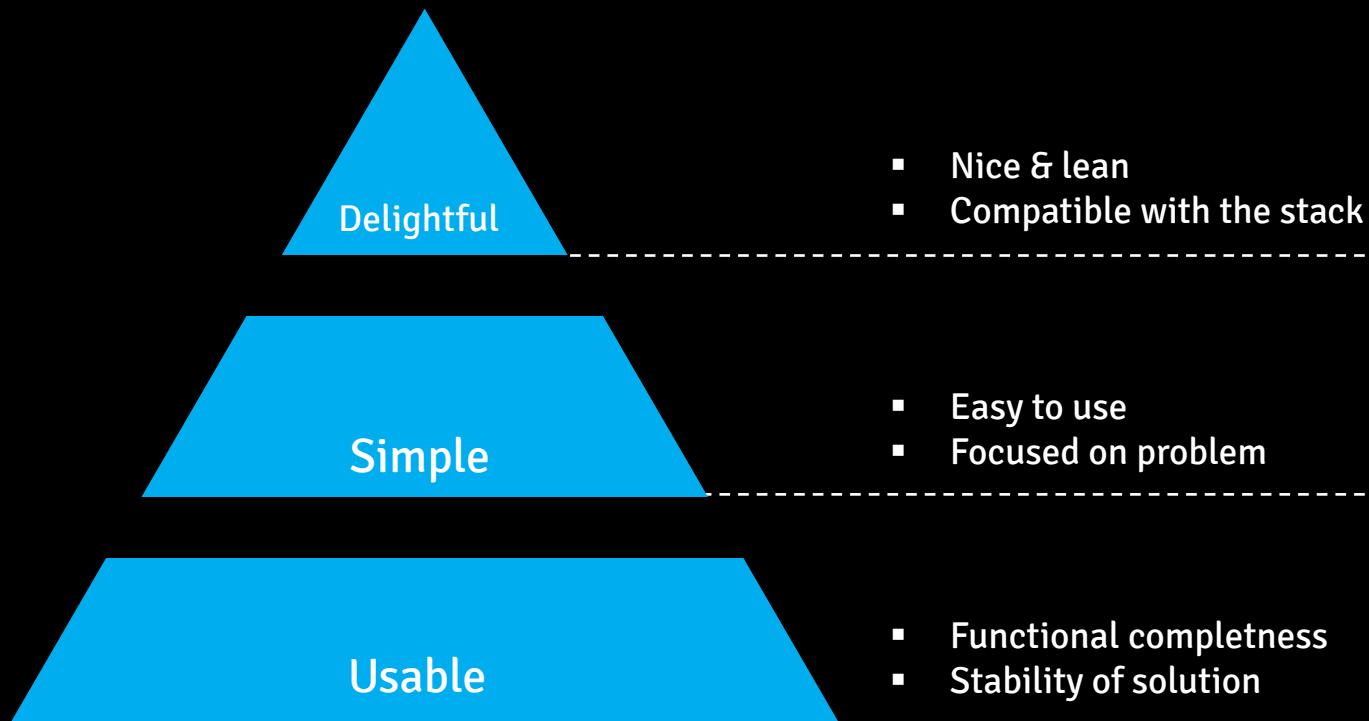
Developer Experience



Developer Experience



Developer's hierarchy of needs



Developer Experience on Assembly Lines

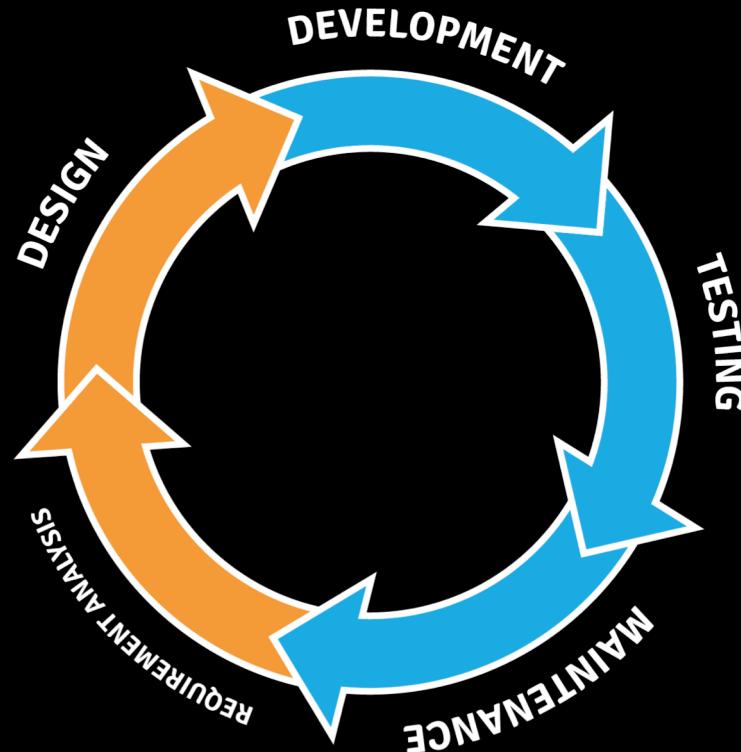


https://upload.wikimedia.org/wikipedia/commons/2/29/Ford_assembly_line_-_1913.jpg

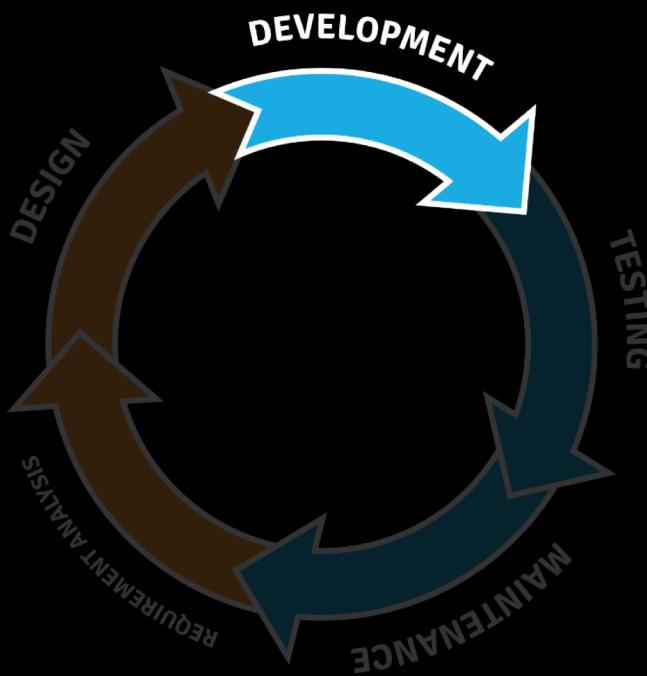


DX while building Sling based applications

Software Development Life Cycle

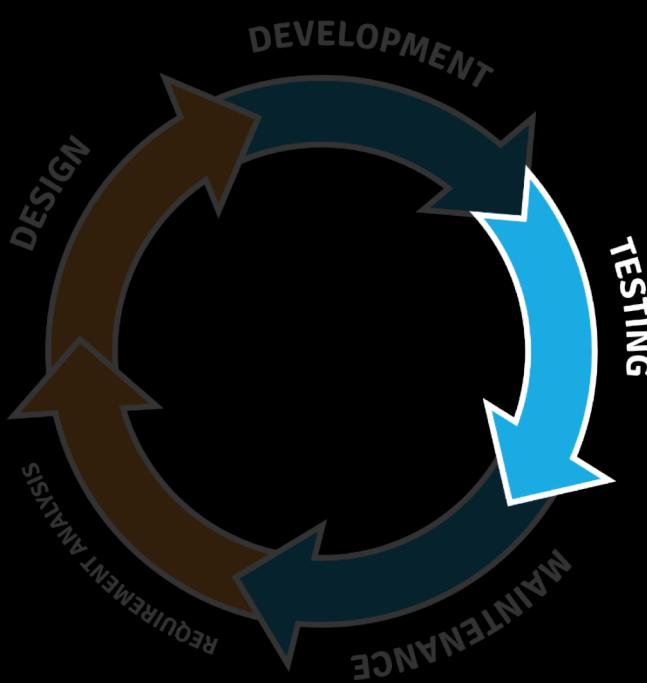


Development: typical activities



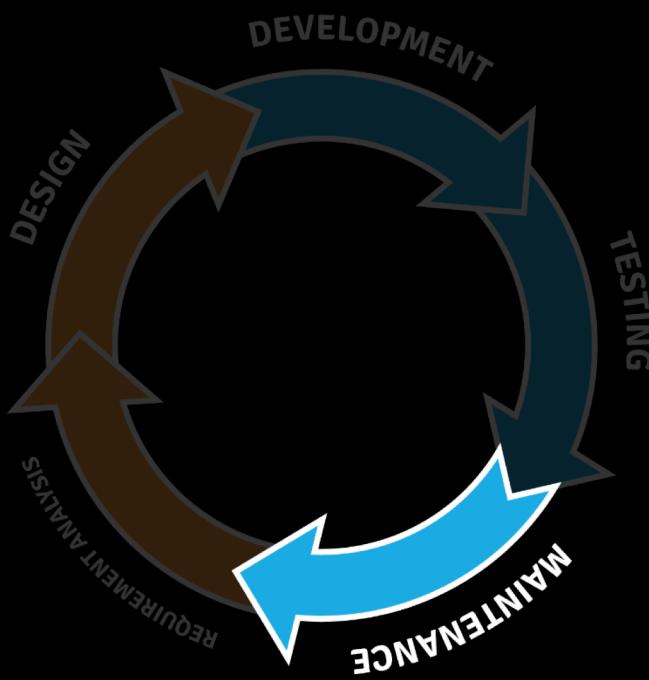
- Environment setup
- Application setup
- Code development
- Application build

Testing: typical activities



- Manual testing
- Unit testing
- Functional testing
- Regression testing
- Static code analysis

Maintenance: typical activities

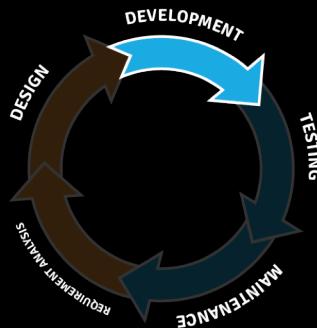


- Diagnostic & monitoring
- Issue reproduction
- Troubleshooting



Improvements

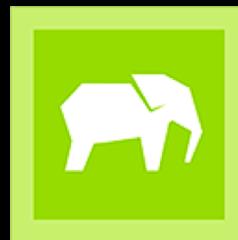
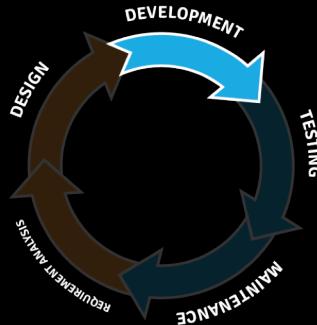
Environment setup: expectations



- Minimal time to run application
- Minimal manual steps
- Fast & reproducible environment
- Environment as a code



Environment setup powered by Gradle



Gradle
AEM Plugin

- No virtualization → Native AEM performance
- Environment as a code → Easily maintainable
- Gradle based → Basic software prerequisites (JDK only)

<https://github.com/Cognifide/gradle-aem-plugin>



Environment setup: demo

<https://youtu.be/7VG5AjpKZyo>



Environment setup powered by Gradle

localhost:5502/crx/packmgr/index.jsp

CRX | Package Manager

Sort by: Last used

Show: All packages

Groups: All packages (165)

- example-1.0.0-SNAPSHOT.zip (4.4 MB)
- com.neva.felix.webconsole.plugins.search-1.2.0.zip (5.9 MB)
- aem-groovy-console-12.0.0.zip (6.6 MB)
- acs-aem-commons-content-3.17.0.zip (11.4 MB)
- org.jetbrains.kotlin.osgi-bundle-1.2.51.zip (3.1 MB)

localhost:5503/crx/packmgr/index.jsp

CRX | Package Manager

Sort by: Last used

Show: All packages

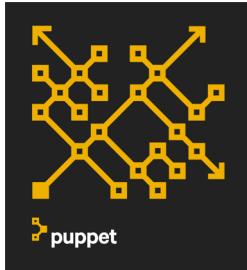
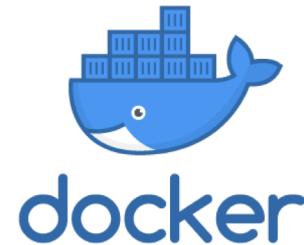
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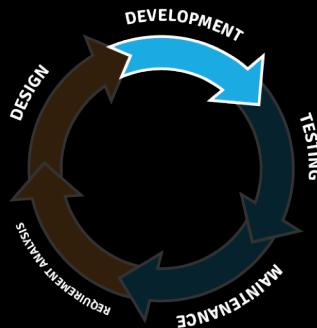
Environment setup: alternatives



HashiCorp
Vagrant



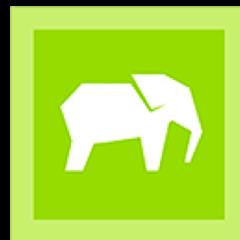
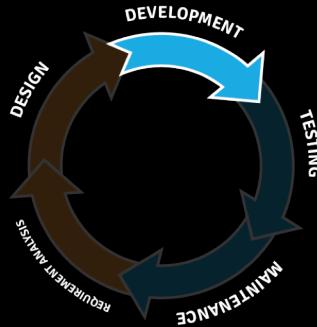
Application build: expectations



- Quick build time
- Intelligent & interactive
- Perfectly integrated
- Well customizable



Application build powered by Gradle



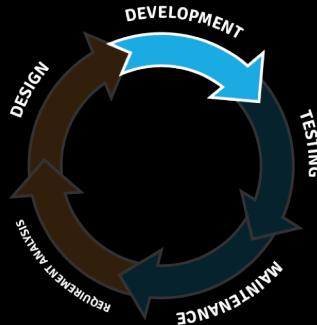
Gradle
AEM Plugin

- Incremental build → 2-3x faster comparing to Maven
- Instance health checking → Notifications when up&running
- Automated dependencies deployment → Self-sufficient dev

<https://github.com/Cognifide/gradle-aem-plugin>



Application build powered by Gradle



Gradle
AEM Plugin

- Very useful for building AEM applications
- **Optionally** useful to set up AEM environments

<https://github.com/Cognifide/gradle-aem-plugin>



Application build: demo

<https://youtu.be/sEUn2-uxlog>



Application build: alternatives

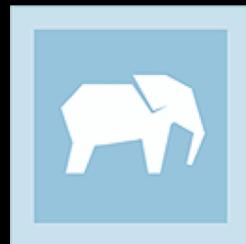
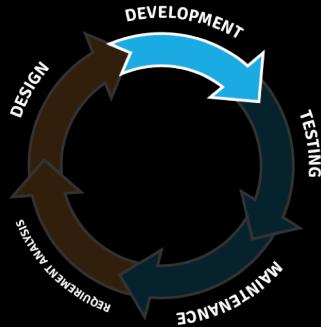
*Maven*TM



Gradle plugin CQ Package



Gradle for Sling - now available



Gradle
Sling Plugin

- Fork of Gradle AEM Plugin that includes **all** it's features

<https://github.com/Cognifide/gradle-sling-plugin>



Gradle for Sling - all-in-one demo:

The image shows two screenshots illustrating the "all-in-one" nature of the Gradle for Sling demo. On the left, a GitHub repository page for 'gradle-sling-single' is displayed, showing a single commit from 'pun-ky' titled 'Workaround'. On the right, a screenshot of a Sling package manager interface shows a package named 'sample' with version '1.0.0-SNAPSHOT'. A large blue arrow points from the GitHub repository towards the package manager interface, indicating the integration between the two.

Github Repository (gradle-sling-single):

- Code: 245 commits
- Issues: 0
- Pull requests: 0
- Projects: 0
- Wiki
- Insights
- Settings
- Branch: master
- New pull request
- Create new file
- Upload files
- Find file
- Clone or download

Sling Package Manager:

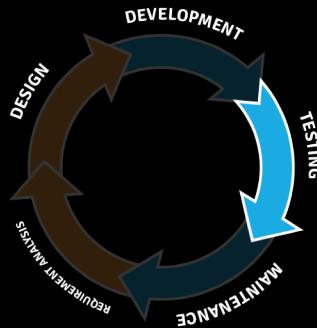
- Search bar: Search
- status group name
- Sample
- com.company.sling sample 1.0.0-SNAPSHOT
 - installed
 - sealed
 - valid
 - created: 2018-08-28 08:18:16 by krystian.panek
 - last modified: 2018-08-28 08:18:16 by admin
 - last unpacked: 2018-08-28 08:18:17 by admin
 - last unwrapped: 2018-08-28 08:18:16 by --
 - last wrapped: -- by --
- /apps/sample
- /content/sample



Gradle for Sling: demo

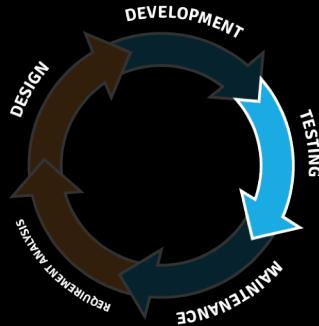
<https://youtu.be/sEUn2-uxlog>

Regression testing: expectations



- Focus on change
- Shield against change by accident
- Test quickly
- Reduce human testing

Regression testing powered by AET



- Configurable website monitoring → Find unwanted changes
- Scalable → Testing all volume platforms
- Various comparators → Testing change wide

<https://github.com/Cognifide/aet>



Regression testing: demo

<https://youtu.be/8Zpn7LGeV98>



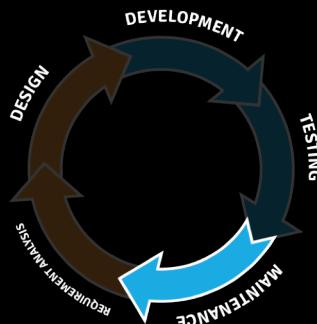
Regression testing: alternatives

✗ **applitools**eyes

vis**wiz**

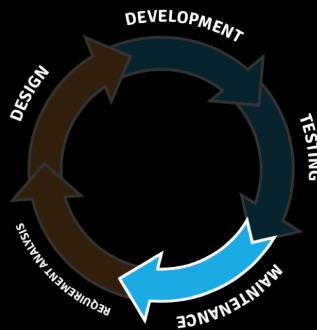
⌚ Visual Review

Troubleshooting: expectations



- Easy way to find source of bug
- Easy issue reproduction
- See actual code instead of just version

Troubleshooting with Search Plugin



Search Web Console Plugin for Apache Felix



- Single JAR to deploy → Immediate way to discover runtime
- Decompile & search → Finding bug root cause
- Assemble OSGi bundles → Debugging at breakpoint

<https://github.com/neva-dev/felix-search-webconsole-plugin>



Troubleshooting: demo

<https://youtu.be/6UH0U5uNvU4>

Troubleshooting: alternatives





Summary



Feedbacks, support and more

GITTER

Better Developer Experience - AdaptTo 2018/Lobby

ALL CONVERSATIONS

Better Developer Exp... ...

Krystian Panek @pun-ky 08:06

Hello! If you want to ask anything about our presentation on AdaptTo 2018, it is a good place to do it. Any feedback appreciated! :)

Links from presentation:

[1] <https://github.com/Cognifide/gradle-aem-plugin>
[2] <https://github.com/Cognifide/gradle-sling-plugin>
[3] <https://github.com/Cognifide/aet>
[4] <https://github.com/neva-dev/felix-search-webconsole-plugin>

PEOPLE

ADD DETAILS

ACTIVITY

We haven't seen any activity yet.

Configure your integrations →

Click here to type a chat message. Supports GitHub flavoured markdown.

ADD A ROOM

<https://gitter.im/better-dx-adaptto2018>

All berries are edible*



<https://images.pexels.com/photos/87818/background-berries-berry-blackberries-87818.jpeg>



Thank you

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