Developer Tools

Objectives:

- Explain the features and UI elements of the AEM developer tools
- Install a package in AEM
- Create, build, and download packages
- Describe AEM as a Cloud Service Project's content package structure
- Create an immutable package
- Create a mutable package

Development Consoles for AEM

Several consoles are available in AEM for development and administration:

- CRXDE Lite
- Web Console
- Package Manager

Full access to these consoles is only available locally

Each console is limited or removed in shared environments
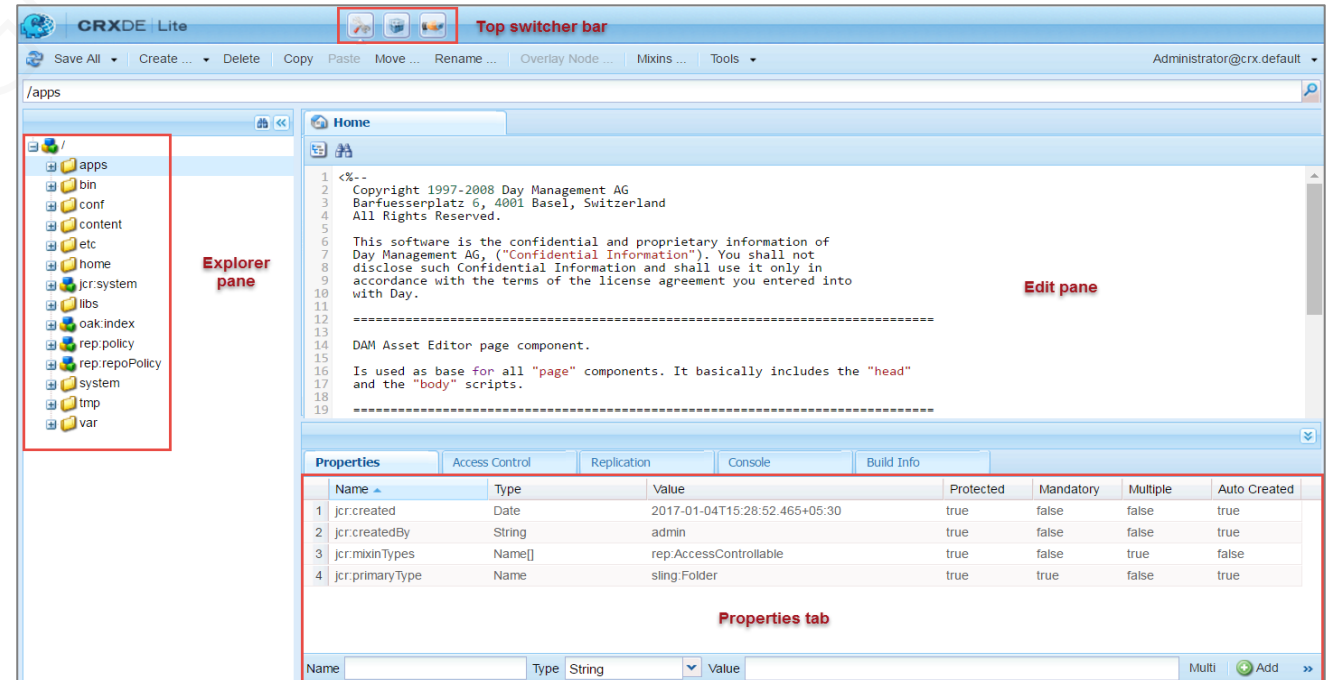
CRXDE Lite

AEM > Tools > General > CRXDE Lite

- Console for quick access to the JCR
- Not recommended for full development
- Create/edit nodes and properties

When to use CRXDE Lite:

- Operations debugging
- Overlays from /libs
- Code/content validation
- Product training

http://localhost:4502/crx/de

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Web Console

Consoles for Managing the OSGi container

- Configuration – configurations for Java components

- Bundles – manage all bundles in the OSGi container
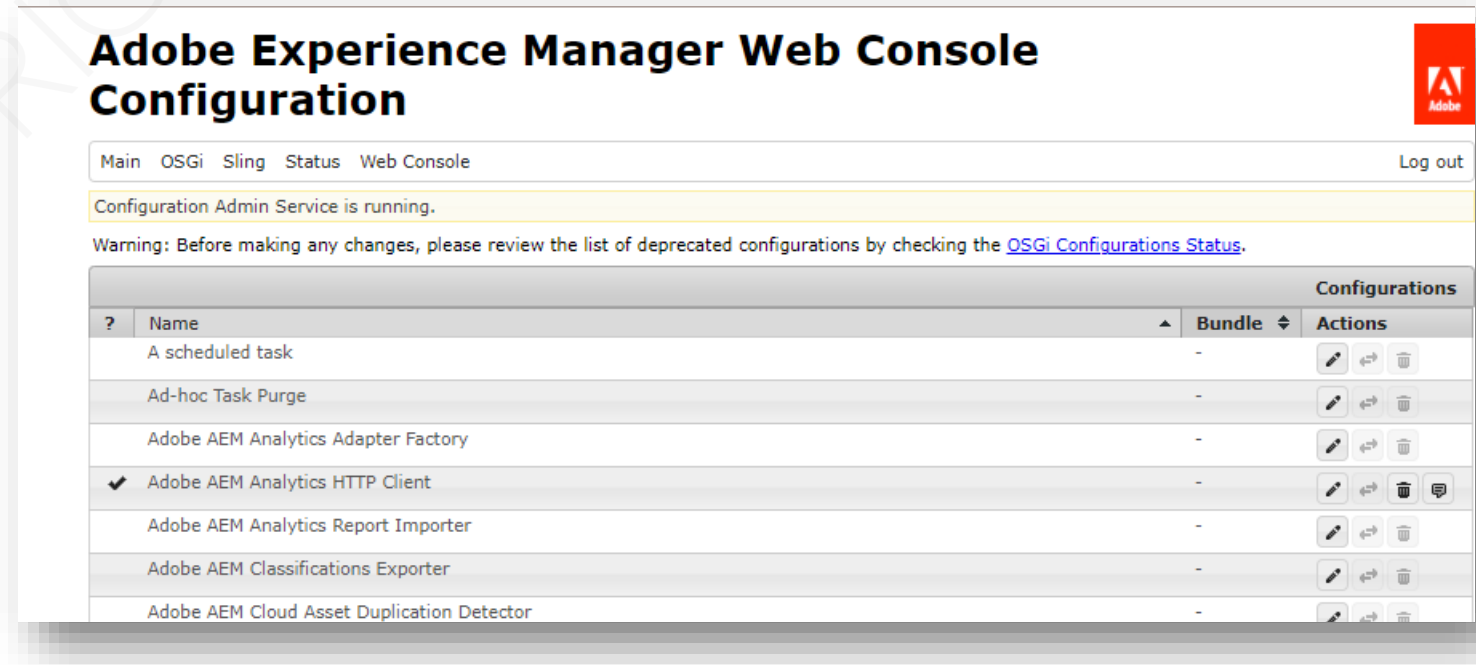
- Components – Java classes for

Status Consoles

- Status output for everything

Other Consoles

- JMX

- Crypto support

- HTTP Service

- Many more tools…

http://localhost:4502/system/console

Adobe Experience Manager Web Console Configuration

| Main | OSGi | Sling | Status | Web Console | | | Log out |

Configuration Admin Service is running.

Warning: Before making any changes, please review the list of deprecated configurations by checking the OSGi Configurations Status.

			Configurations
?	**Name**	**Bundle ▲ ⬍**	**Actions**
	A scheduled task	-	✏ ↩ 🗑
	Ad-hoc Task Purge	-	✏ ↩ 🗑
	Adobe AEM Analytics Adapter Factory	-	✏ ↩ 🗑
✔	Adobe AEM Analytics HTTP Client	-	✏ ↩ 🗑 💬
	Adobe AEM Analytics Report Importer	-	✏ ↩ 🗑
	Adobe AEM Classifications Exporter	-	✏ ↩ 🗑
	Adobe AEM Cloud Asset Duplication Detector	-	✏ ↩ 🗑

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Content Packages

Folder structure that contains JCR node and property data

Content packages are zip files that contains two main parts:

- jcr_root – subsets of the JCR tree as serialized nodes and properties
- META-INF/vault/filter.xml - determines what to import/export with this package

Content package Uses:

- A common standard for installation to the JCR
- Maven build artifacts for an AEM project
- Transfer content between Services
- Hotfixes, feature packs, and service packs (6.5 and lower only)
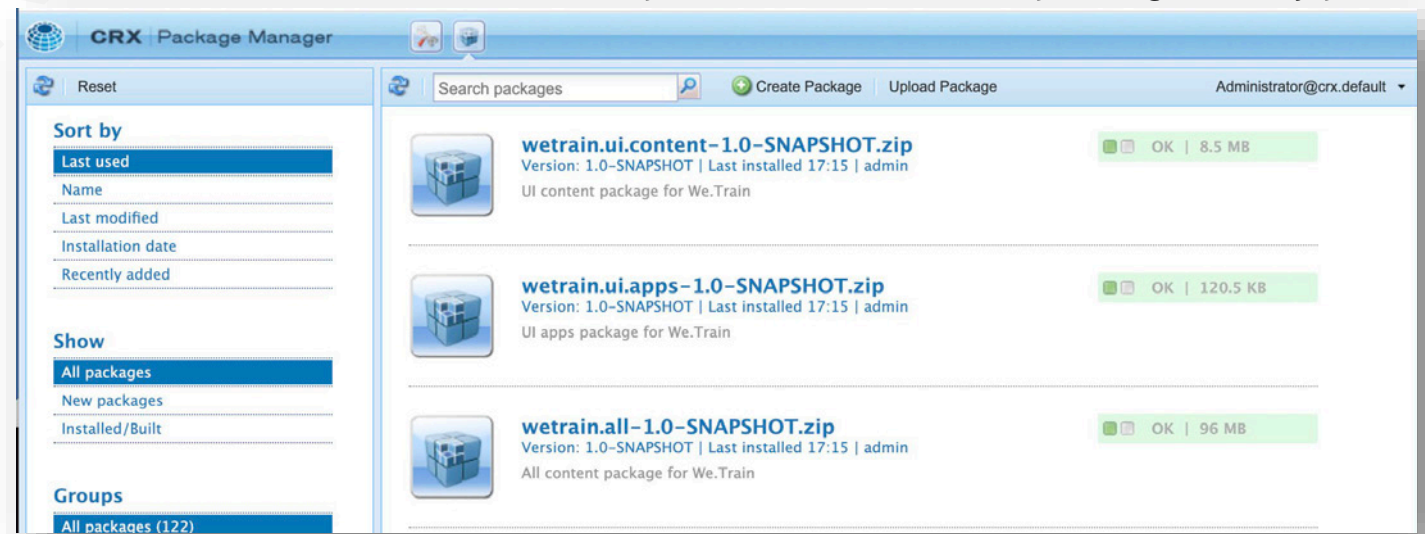
Package Manager

AEM Projects are installed via Package Manager

AEM > Tools > Deployment > Packages

- Upload and install content into AEM

- Download content locally (.zip)

- Replicate content packages to publish

Most actions available via cURL

http://localhost:4502/crx/packmgr/index.jsp

Content Separation

Experience Manager requires a separation of **content** and **code**

- Allows the cloud service to be auto-updated

Content is considered mutable

- Mutable examples – configurations, pages, experience fragments, assets etc
- /content, /conf, /home, /var are all considered runtime-writable

Code is considered immutable

- Immutable examples – components, clientlibs, and so on
- /apps – Customer immutable code
- /libs – Adobe's immutable code

Cloud Manager pipeline will fail if not separated properly

- No separation validation on local quickstart

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Creating And Building New Packages

Create and build packages in your browser

Packages can be downloaded as *.zip files

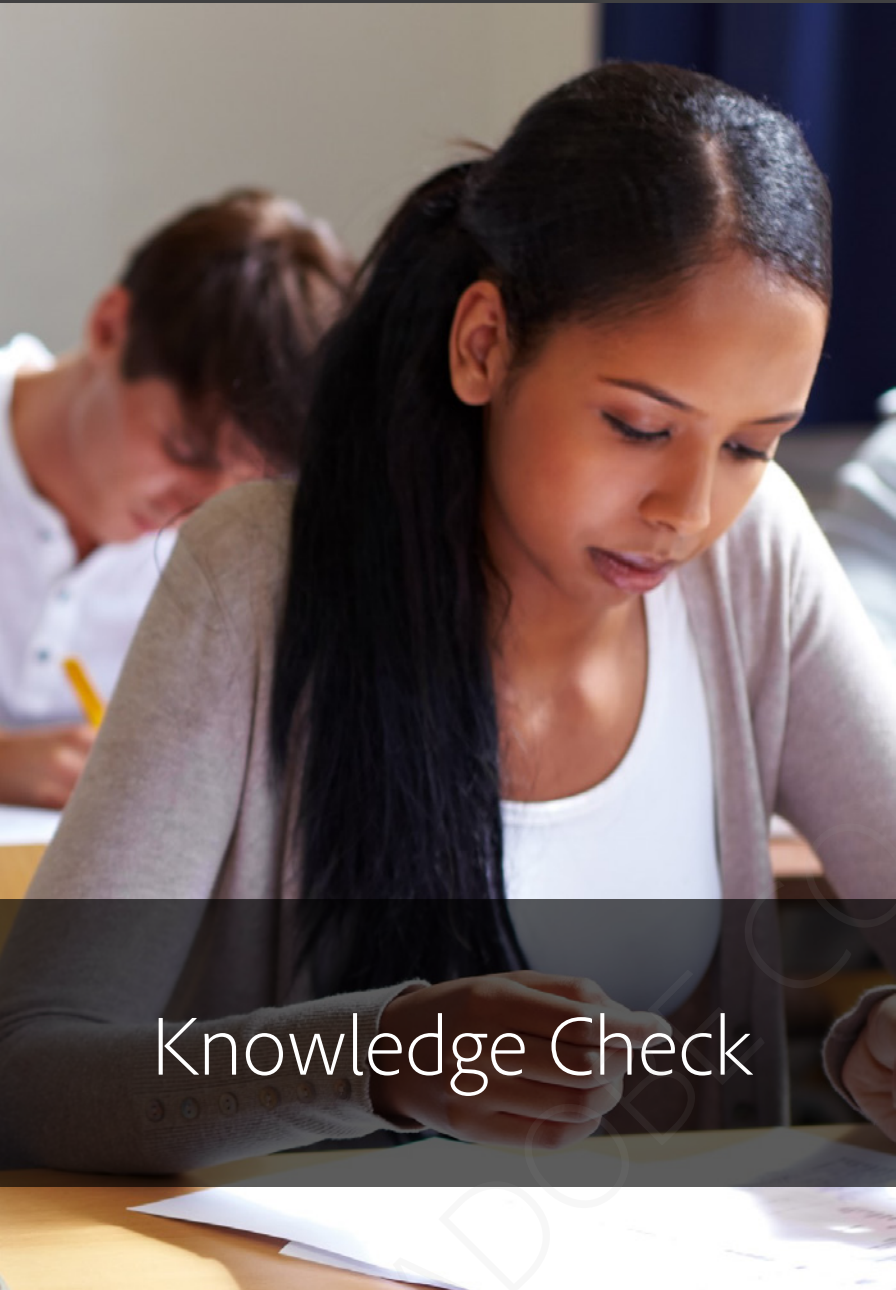Immutable package can only be installed locally

Which tool can you use to create and build packages from your local author environment? Select one answer.

A. Web Console

B. CRXDE Lite

C. Package Manager ✓

D. Package Share

Knowledge Check

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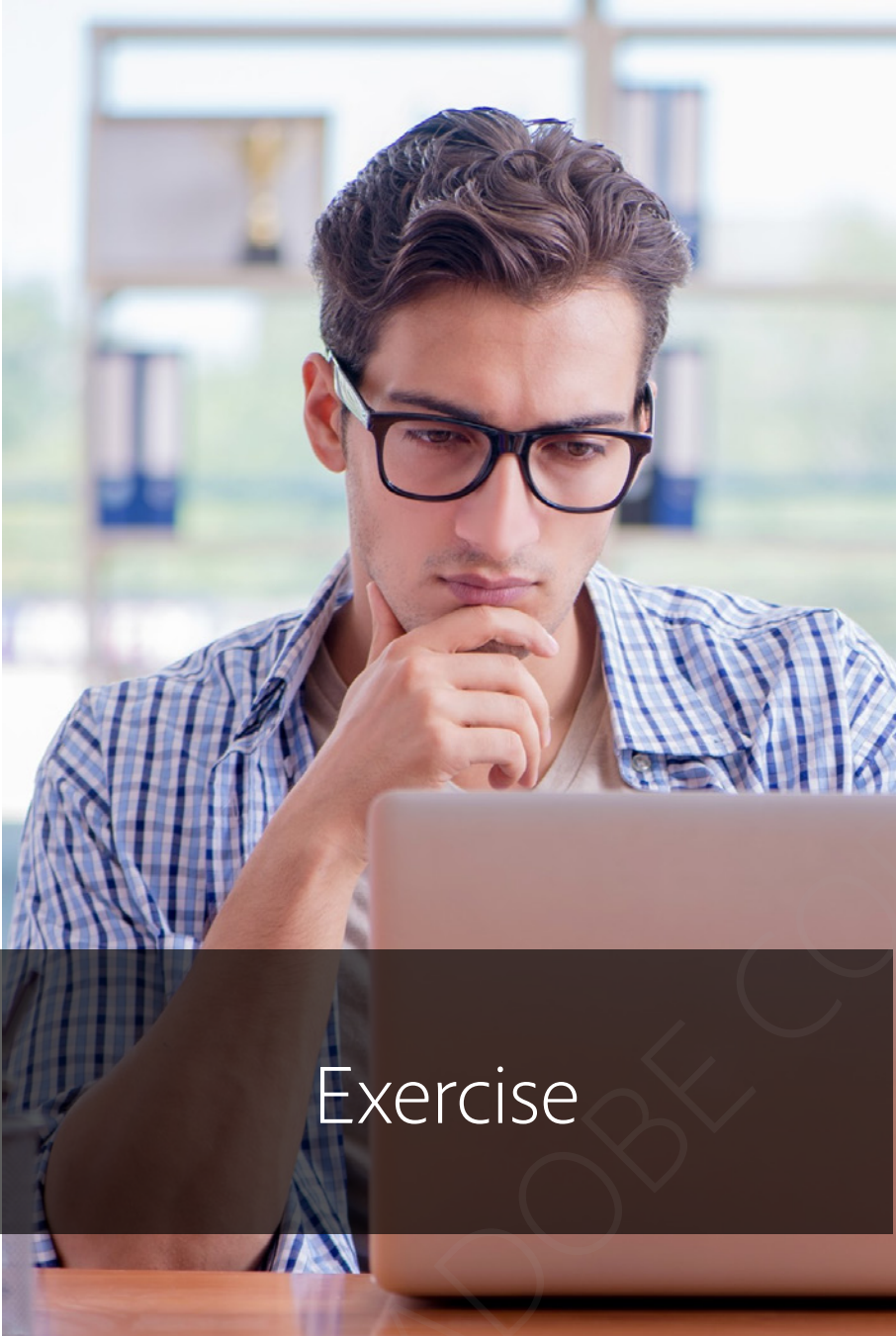
Exercise 1: Install a package

Exercise 2: Create, build, and download packages

Tasks to perform:

1.   Create an immutable package

2.   Create a mutable package

Exercise

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Development consoles available in AEM:

- CRXDE Lite

   o AEM > Tools > General > CRXDE Lite

- Web Console

   o http://localhost:4502/system/console

- Package Manager

   o AEM > Tools > Deployment > Packages

Key takeaways

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References

- Developer Tools:

  o Bookmark/"favorite" these sites for a local author installation (development environment):

  o CRXDE Lite: http://localhost:4502/crx/de/index.jsp

  o Web Console: http://localhost:4502/system/console

  o Package Manager: http://localhost:4502/crx/packmgr/index.jsp

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