Runmodes and Configs for Fun and Profit

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Huh?

- Short Intro on how to use custom runmodes together with sling:OsgiConfig to easily manage different configurations and environments.

- Info based on real-world usage of these features in CQ 5.4

  - Sling trunk might have added features (e.g. save-back of configs)

Runmodes

- CQ - author or publish (Do NOT remove!)

- Multiple additional custom runmodes possible

- Suggested Use

  - Environment: local, dev, test, prod

  - Location: berlin, basel, timbuktu

  - Company: acme, partner, customer

  - Special system type: importer

Setting runmodes

- Via JVM Options (recommended)

  - Usually via CQ_JVM_OPTS in start script

    - `-Dsling.run.modes=author,dev,berlin`

- Via Sling Properties

  - File `launchpad/sling.properties`

    - `sling.run.modes=author,dev,berlin`

Steps

(as seen on South Park ;)

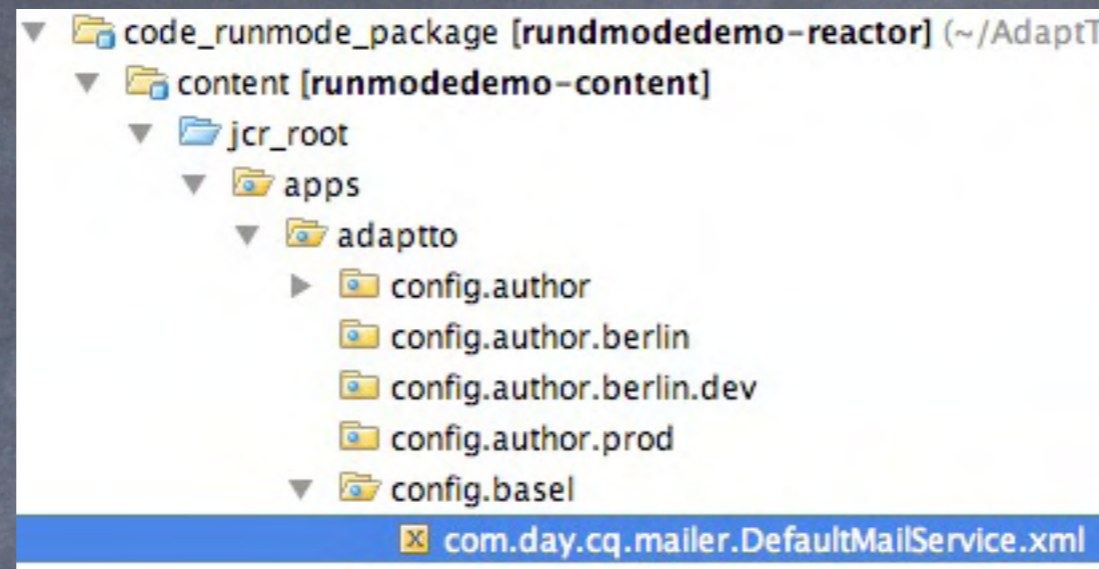# 1) sling:OsgiConfig

Day CQ Mail Service   ✕

The mail service can be used to send emails.

SMTP server host name	The mailer uses this SMTP server to send messages (smtp.host)
SMTP server port	25 Port number to use to connect to the SMTP server (smtp.port)
SMTP user	The user for authentication through SMTP (smtp.user)
SMTP password	The password for authentication through SMTP (smtp.password)
"From" address	The email address to use in the "From:" field of messages sent by the mailer (from.address)
SMTP use SSL	☐ If enabled, an SSL connection is set up. (smtp.ssl)
Debug email	☐ If enabled, interactions with the SMTP server are dumped to the operating system terminal that runs Sling (debug.email)

Configuration Information

Persistent Identity (PID)	com.day.cq.mailer.DefaultMailService
Configuration Binding	Unbound or new configuration

Save   Reset   Abort

2) Runmode-aware config


```xml
<?xml version="1.0" encoding="UTF-8"?>
<jcr:root xmlns:sling="http://sling.apache.org/jcr/sling/1.0"
          xmlns:jcr="http://www.jcp.org/jcr/1.0"

          jcr:primaryType="sling:OsgiConfig"

          smtp.host="{String}basel-mailrelay.example.com"
          smtp.port="{String}465"
          smtp.user="{String}john.doe"
          smtp.password="{String}secret"
          from.address="{String}noreply@example.com"
          smtp.ssl="{Boolean}true"
          debug.email="{Boolean}false"
/>
```

3) Profit

Naming Config Locations

- /apps/adaptto/config/

  - All Systems, runmode-independent

- /apps/adaptto/config.berlin/

  - Systems with berlin runmode

- /apps/adaptto/config.dev.berlin/

  - Systems with berlin AND dev runmode

Example - Instances

Instance	Runmodes		
	Type	Environment	Location
#1	author	dev	berlin
#2	author	prod	basel
#3	author	prod	berlin

Example - Configs

- Different mailserver configs per location

    - config.basel/
      com.day.cq.mailer.DefaultMailService.xml

    - config.berlin/
      com.day.cq.mailer.DefaultMailService.xml

- En-/Disabling debugging per environment

    - config.prod/
      com.day.cq.wcm.core.impl.WCMDebugFilter.xml

    - config.dev/
      com.day.cq.wcm.core.impl.WCMDebugFilter.xml

Hints & Suggestions 1/2

- Partial configs not supported

- Config with most matching runmodes wins

- Always set all properties to avoid confusion

- Use a type indicator (e.g. {Boolean}, {String}, etc.) in every property

- /apps wins over /libs (as always)

- KISS principle ("Keep it simple, stupid!")

Hints & Suggestions 2/2

- JCR installer keeps a digest. Thus you can't reinstall an identical config as just before.

- Config for same component at `config.dev.berlin` and `config.berlin.author` put on system with dev, berlin and author runmodes

  - JCR installer gives them the same priority, so do this only if you want one of them randomly applied ;)

Questions?