

adaptTo()

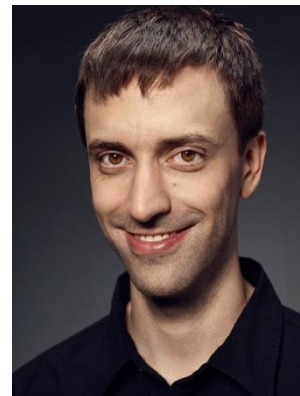
APACHE SLING & FRIENDS TECH MEETUP
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Apache Sling NoSQL Resource Provider

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About the Speaker

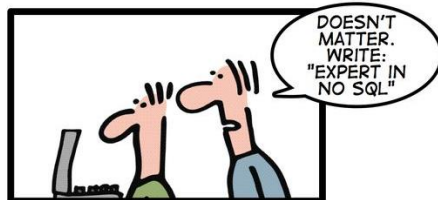
- AEM Developer
- Apache Sling Committer
- CTO of pro!vision GmbH



<http://www.pro-vision.de>

Leverage the NoSQL boom

HOW TO WRITE A CV



Leverage the NoSQL boom

<http://geek-and-poke.com/>

- Goal: Lightweight read/write integration of NoSQL document stores in Apache Sling
- Examples:



Sling Resource Provider

- Most used: JCR Resource Provider with Jackrabbit/Oak underneath
- Via custom resource providers any data can be mapped in Sling Resource Tree
- Multiple resource providers possible

NoSQL Resource Provider Requirements



- Map resources to JSON documents
- Value maps with primitive data types, Calendar and Binary
- Navigate the Resource Tree
- Sling CRUD “Transaction handling”
- Resource notifications via OSGi events

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Implement it only once
→ Generic No SQL Provider

What's implemented already

- Generic NoSQL Provider
- Couchbase NoSQL Provider  Couchbase
- MongoDB NoSQL Provider  mongoDB
- Integration Tests
- NoSQL Launchpad Example

Resource as JSON in NoSQL

```
{  
  "path": "/content/mytest/node1",  
  "parentPath": "/content/mytest",  
  "data": {  
    "jcr:primaryType": "nt:unstructured",  
    "stringProp": "value1",  
    "stringArrayProp": [ "value1", "value2" ],  
    "doubleProp": 3.555,  
    "booleanProp": true,  
    "integerProp": 25,  
    "calendarProp": "{{calendar}}2015-09-15T01:02:27.965+0200",  
    "dateProp": "{{calendar}}1970-01-01T01:00:10.000+0100",  
    "binaryProp": "{{bytes}}AQIDBAUG"  
  }  
}
```

- Demo with NoSQL Launchpad

Concurrent Access

- No support for concurrency/clustering built-in to use a shared NoSQL store
- Concurrent read: should work fine
- Concurrent write: funny things may happen
 - e.g. overwriting changes, inconsistencies
 - If you take care of the content structure it still may work well – e.g. SoCo scenario with threaded comments – resources are never removed or moved, only added with a timestamped content path

Query Support

- Can be implemented optionally by each NoSQL resource provider
- No support in generic provider
- No query abstraction layer (yet?)

Sling NoSQL documentation

<http://sling.apache.org/documentation/bundles/nosql-resource-providers.html>

Source Code

<https://github.com/apache/sling/tree/trunk/contrib/nosql>