



**adaptTo()**

EUROPE'S LEADING AEM DEVELOPER CONFERENCE

25<sup>th</sup> – 27<sup>th</sup> SEPTEMBER 2023

**ACS Content Sync**

Yegor Kozlov

# Why do I need Content Sync?

- CRX Package Manager requires escalated access
- There are challenges to set up incremental updates.
- Installing a package resets version history.

- AEMaaCloudCS compatible, e.g. you can sync <https://author-xxxxx.adobeaeemcloud.com> from <https://author-yyyyy.adobeaeemcloud.com>
- Sync any authorable content like Pages, Assets, Tags, XFs, CFs, etc..
- Support for incremental updates

# How does Content Sync Work?

- Fetch the catalog of resources from the source instance
  - /content/path1 lastModified1
  - /content/path2 lastModified2
  - /content/path3 lastModified3
- Compare it with the local state, compute the delta and synchronizes it via Sling JSON Export/Import.

# JSON Export/Import Mechanics

Request: page.infinity.json

Sling Content Importer API

```
{
  "jcr:primaryType": "cq:PageContent",
  "jcr:mixinTypes": [
    "cq:LiveRelationship",
    "mix:versionable"
  ],
  "jcr:createdBy": "admin",
  "jcr:title": "Magazine",
  "jcr:versionHistory": "e5b69fe5-9e4d-42e6",
  "cq:template": "/conf/wknd/settings/wcm/t",
  "cq:lastRolledout": "2020-09-30T17:38:21.",
  "jcr:predecessors": [
    "aala715d-3ccb-4f6c-ad55-927bfe1fcea"
  ],
  "jcr:created": "2023-07-03T11:58:33.909+0",
  "cq:lastModified": "2020-09-30T17:38:06.7",
  "jcr:description": "Read articles about a",
  "jcr:baseVersion": "aala715d-3ccb-4f6c-ad",
  "jcr:isCheckedOut": true,
}
```

# What can I sync?

- Any authorable content
  - Pages
  - Assets
  - Experience Fragments
  - Content Fragments
  - Tags
  - /conf/\* data like templates, CF models, etc.



# How many HTTP calls does Content Sync make?

- Ballpark estimation is  $O(N)$  where  $N$  is the number of content resources (cq:Page, dam:Asset, etc.)
- e.g., it takes an HTTP call to sync a cq:Page resource, so to sync a tree of  $N$  cq:Page nodes the tool will make minimum  $N$  HTTP calls.



# Live Demo



# Pluggable Update Strategy

- The default algorithm is based on the `cq:lastModified/jcr:lastModified` timestamp
- Users can plug in their custom strategies by implementing `com.adobe.acs.commons.contentsync.UpdateStrategy` interface

- <https://adobe-consulting-services.github.io/acs-aem-commons/features/contentstsync/index.html>
- <https://github.com/Adobe-Consulting-Services/acs-aem-commons>
  - since v6.2.0