



adaptTo()

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Dynamic Media Support in wcm.io Media Handler

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About the Speaker

- AEM Developer
- Apache Sling PMC
- Apache Member

diva^e

<https://diva-e.com/>



Stefan Seifert



PRO!VISION
SOFTWARE CRAFTSMANSHIP

About Dynamic Media

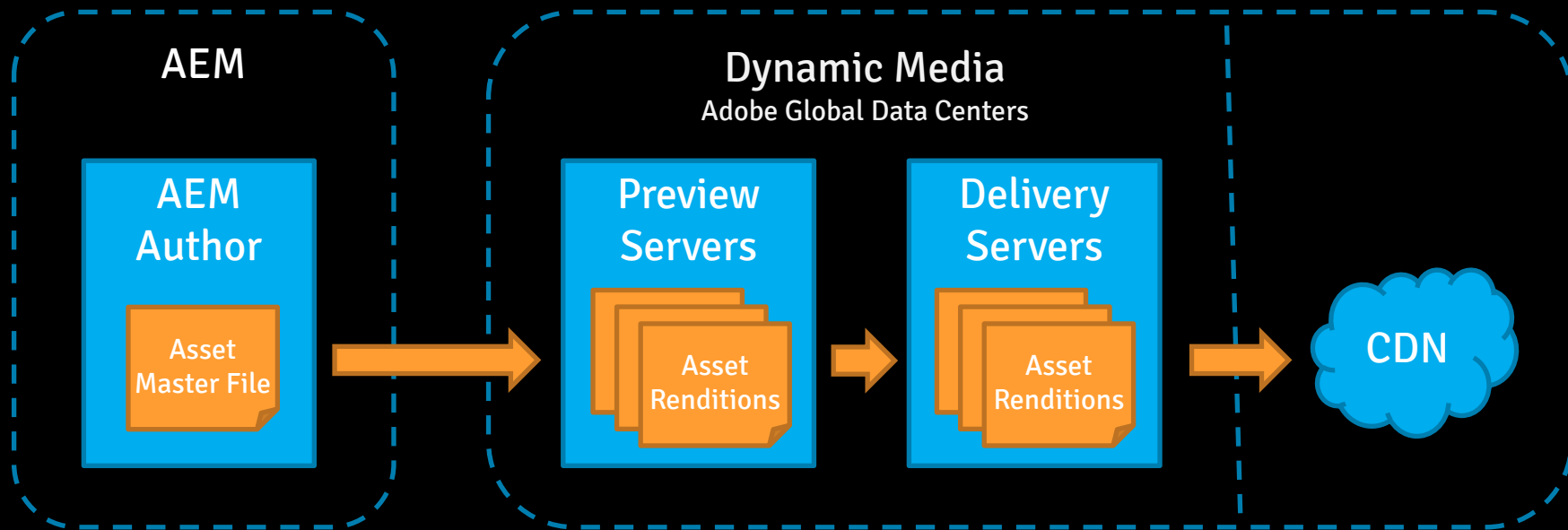
What is Dynamic Media?

- Formerly known as Scene 7
- Rich Media Content Serving Service
 - Dynamic Imaging
 - Dynamic Video
 - Dynamic Delivery (CDN)
 - Hotspots / Personalization and more

Dynamic Media and AEM

- Integration mode “**Dynamic Media – Scene 7**”
 - Works with AEMaaCS and AEM 6.5
 - Uses Dynamic Media Classic as Cloud Service
 - Old “Hybrid” mode should no longer be used
- Licensed separately

Dynamic Media – Scene 7 Mode



Dynamic Media Features

- Dynamic Rendition Generation
- Photoshop-like Image Manipulation via URL
- AI-based Smart Cropping
- Smart Imaging based on Target Devices
- Video Support
- Global CDN, HTTP/2 delivery

Use Dynamic Media in AEM

- Cloud Configuration with DM Credentials
- OOTB Dynamic Media Components
 - A bit outdated, based on DM Viewers
- Core Components
- wcm.io Media Handler
- Use directly

OOTB Dynamic Media Components

A large, shaggy Highland cow with long, wavy fur and prominent curved horns stands in a grassy field. The cow is facing right. The background shows a line of trees under a clear sky. The entire image is overlaid with a semi-transparent blue filter.

DEMO

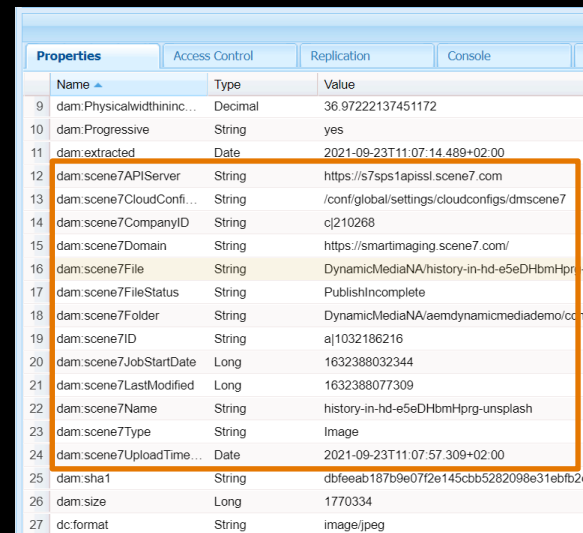
Basic Dynamic Media Concepts

Image and Video Profiles

- Control processing on **asset upload**
 - Pixel Cropping
 - Smart Cropping (AI)
 - Videos in different resolutions/bitrates
- Assigned to **asset folders**

What happens on Asset Upload

- Automatic Upload to Dynamic Media
 - Generate renditions
 - Apply Smart Cropping
 - Initially “unpublished” on DM
- S7 metadata in Asset metadata
 - Replicated to publish instances



Properties				Access Control	Replication	Console
Name	Type	Value				
9	dam:Physicalwidthininc...	Decimal	36.97222137451172			
10	dam:Progressive	String	yes			
11	dam:extracted	Date	2021-09-23T11:07:14.489+02:00			
12	dam:scene7APIServer	String	https://s7sps1apissl.scene7.com			
13	dam:scene7CloudConf...	String	/conf/global/settings/cloudconfigs/dmscene7			
14	dam:scene7CompanyID	String	cj210268			
15	dam:scene7Domain	String	https://smartimaging.scene7.com/			
16	dam:scene7File	String	DynamicMediaNA/history-in-hd-e5eDHbmtHpr			
17	dam:scene7FileStatus	String	PublishIncomplete			
18	dam:scene7Folder	String	DynamicMediaNA/aemdynamicmediademomoc			
19	dam:scene7ID	String	a1032186216			
20	dam:scene7JobStartDate	Long	1632388032344			
21	dam:scene7LastModified	Long	1632388077309			
22	dam:scene7Name	String	history-in-hd-e5eDHbmtHprg-unsplash			
23	dam:scene7Type	String	Image			
24	dam:scene7UploadTime...	Date	2021-09-23T11:07:57.309+02:00			
25	dam:sha1	String	dbfeeab187b9e07f2e145cbb5282098e31ebfb2			
26	dam:size	Long	1770334			
27	dc:format	String	image/jpeg			

Image Serving and Content Delivery

- `/is/image`
 - Dynamic image renditions
 - Image Manipulation
- `/is/content`
 - Static content – download files, SVGs, animated GIFs, small video files

Basic Syntax

/is/image/<Catalog>/<Object><Modifiers>

Examples

/is/image/**Catalog1**/**Img1**

Object name
dam:scene7File Property

/is/image/Catalog1/**Img1**?**wid=300**&**op_sharpen=1**&**qlt=90**

Resize
width=300px

Sharpen
image

Quality 90%

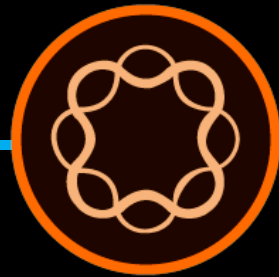
[Command Reference](#)

- **Predefined set of image manipulation params**
 - E.g. resize and sharpening
- **Replaces modifiers in URL with macro name**

/is/image/Catalog1/Img1?**wid=300&op_sharpen=1&qlt=90**

/is/image/Catalog1/Img1?**\$MyPreset\$**

Core Components and Dynamic Media



- Dynamic Media Support since 2.13
- **Image** component
- Image Presets and Smart Cropping



DEMO



- **Dynamic Media Support not easy reusable in custom components**
- **Preset or Smart Cropping needs to be assigned for each asset reference and content page**

wcm.io Media Handler and Dynamic Media



- Adds image handling “aspect” to any component
- Responsive media formats
- wcm.io Core Components with wcm.io Handler Support

<https://wcm.io/handler/media/>

<https://wcm.io/wcm/core-components/>

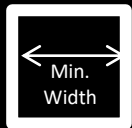
See also: adaptTo() Talk 2019



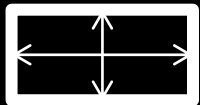
<https://adapt.to/2019/en/schedule/assets-and-links-in-aem-projects.html>



16:9 Landscape



1:1 Square, min. 500px width



Exactly 1000 x 500 pixel



Download asset (PDF)



DEMO



- **Transparent switching** between DM- and Publish-generated renditions
 - Use fallback for sandboxes, local instances
- **Responsive behavior** via content policies
- **Smart cropping** based on media formats
- Use full power of DM by just **switching it on**

Dynamic Media Tips & Pitfalls

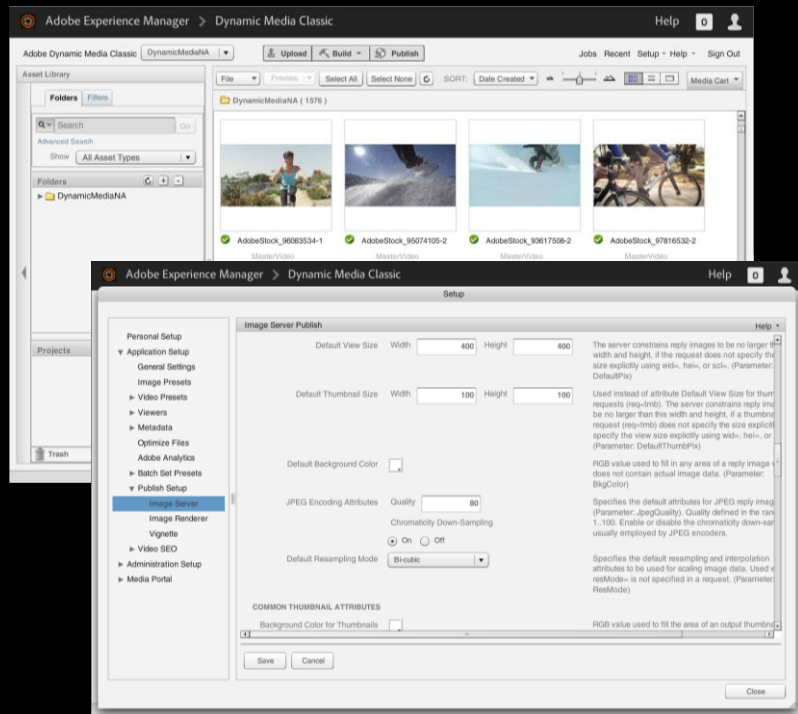
Video Limitations

- Video Smart Crop is great
 - Limited to max. 5min/9000 frames
- Video limits for uploading
 - max. 30 min, max. 15GB/file
- No URI-based API for Videos



No “Configuration as Code”

- Adobe Air Desktop App
- Configuration only possible via UI Dialogs
 - For each Tenant/Catalog



Transfer Assets with Content Packages

- Dynamic Media stores Tenant/Catalog-specific metadata in content
 - Not updated when transferred via content packages
 - Clean up manually
 - “Reprocess Assets”

Not the case when using wcm.io Media Handler

Asset metadata

Properties			Access Control	Replication	Console	Build Info
Name	Type	Value				
dam:Physicalwidthininc...	Decimal	36.97222137451172				
dam:Progressive	String	yes				
dam:extracted	Date	2021-09-23T11:07:14.489+02:00				
dam:scene7APIServer	String	https://s7sps1apissl.scene7.com				
dam:scene7CloudConfi...	String	/config/global/settings/cloudconfigs/dmscene7				
dam:scene7CompanyID	String	cj210268				
dam:scene7Domain	String	https://smartimaging.scene7.com/				
dam:scene7File	String	DynamicMediaNA/history-in-hd-e5eDHbmHprg-unsplash				
dam:scene7FileStatus	String	PublishIncomplete				
dam:scene7Folder	String	DynamicMediaNA/aemdynamicmediademo/content/				
dam:scene7ID	String	aj1032186216				

Content Resource (OOTB & Core Components)

Properties			Access Control	Replication	Console	Build Info
Name	Type	Value				
fileReference	String	/content/dam/aemdynamicmediademo/content/kalen-emsley-Bkci_8qcdvQ-unsplash.jpg				
imageServerUrl	String	https://smartimaging.scene7.com/is/image/				
imageserverurl	String	https://smartimaging.scene7.com/is/image/				
jcr:createdBy	String	admin				
jcr:lastModifiedBy	String	admin				
linkTarget	String	_self				
s7ImagePreset	String					
s7PresetType	String	viewer				
s7ViewerPreset	String	/config/global/settings/dam/dm/presets/viewer/Zoom_darkZOOM>false				
s7ViewerPresetPath	String	/DynamicMediaNA/Zoom_darkZOOM>false				
sling:resourceType	String	dam/components/scene7/dynamicmedia				

Asset Bulk Import

- AEMaaCS “Asset Bulk Import” tool
 - Import assets from AWS or Azure Blob Store
 - Massively parallelizes asset processing
 - Includes Dynamic Media processing

<https://experienceleague.adobe.com/docs/experience-manager-cloud-service/assets/manage/add-assets.html?lang=en#bulk-upload>
<https://www.youtube.com/watch?v=pY6A9hzKN2M>

- Ruleset: “mod_rewrite” for DM
- Not as powerful, but very useful
 - Rewrite URIs
 - Send HTTP Headers
 - Stackable

```
<ruleset>
  <!-- Send header for static content suffixed with '?cdh=attachment' -->
  <rule RequestType="static">
    <expression>\?cdh=attachment$</expression>
    <substitution></substitution>
    <header Name="Content-Disposition">attachment</header>
  </rule>

  <!-- Rewrite scaled image URI -->
  <rule RequestType="is">
    <expression>^product/(jpg|png)/scaleWidth/(\d+)/([^\?/]+)$</expression>
    <substitution>$3?wid=$2</substitution>
  </rule>
</ruleset>
```

References

Dynamic Media Classic

- Documentation

<https://experienceleague.adobe.com/docs/dynamic-media-classic/using/intro/introduction.html?lang=en>

- Developer Resources

<https://experienceleague.adobe.com/docs/dynamic-media-developer-resources.html?lang=en>

- Dynamic Media Desktop App

<https://experienceleague.adobe.com/docs/dynamic-media-classic/using/intro/dynamic-media-classic-desktop-app.html?lang=en>

- Showcase

<https://landing.adobe.com/en/na/dynamic-media/ctir-2755/>

Dynamic Media and AEM

- Working with Dynamic Media
 - AEMaaS: <https://experienceleague.adobe.com/docs/experience-manager-cloud-service/assets/dynamicmedia/dynamic-media.html?lang=en>
 - AEM 6.5: <https://experienceleague.adobe.com/docs/experience-manager-65/assets/dynamic/dynamic-media.html>
- Dynamic Media Overview: <https://experienceleague.adobe.com/docs/experience-manager-learn/assets/dynamic-media/dynamic-media-overview-feature-video-use.html>
- Dynamic Media AEM Built-In Components <https://experienceleague.adobe.com/docs/experience-manager-cloud-service/assets/dynamicmedia/adding-dynamic-media-assets-to-pages.html?lang=en>
- Dynamic Media with AEM Sites Core Components <https://experienceleague.adobe.com/docs/experience-manager-learn/assets/dynamic-media/dynamic-media-core-components.html?lang=en>
- wcm.io Media Handler with Dynamic Media Support: <https://wcm.io/handler/media/>
 - Demo project for this talk: <https://github.com/adaptto/2021-aem-dynamic-media>

Questions?