CONNECTING MEDIA
SOLUTIONS BEYOND DRUPAL
MIRO DIETIKER
miro_dietiker

MD Systems - Founder
Initiative Leader
Switzerland
CONNECTING MEDIA

- What is Content management?
- Landscape by example
- Media types
- Available solutions
- Digital asset management
- Drupal 8 only
INTRO
INTRO - Evolution

In Drupal 8 we evolved...

➢ File
➢ Contrib File Entity
➢ Contrib Media
➢ 8.4 Media in Core
➢ 8.6 Media in Core with Library

https://dri.es/an-update-on-the-media-initiative-for-drupal-8-4-8-5
The results of the State of Drupal 2016 survey show the importance of the Media Initiative for content authors.

https://dri.es/state-of-drupal-presentation-may-2016
Super easy vegetarian pasta bake

A wholesome pasta bake is the ultimate comfort food. This delicious bake is super quick to prepare and an ideal midweek meal for all the family.

Skip the spirits with delicious mocktails

VIEW ARTICLE
INTRO - Best practices

Experience from...

➢ Module maintenance
➢ Building distributions
➢ Site Building
➢ Custom development
➢ Operation
➢ Training, coaching, consulting
INTRO - Core 8.6 Status

Stable
- Media
- Well supported

Experimental
- Library
- minimal
- In transition

Sources
- File
- Image
- Audio
- Video
- Remote video
  - Youtube
  - Vimeo
BASICS - What is Media?

➢ Away from Files
➢ Entity
  ○ Source (type)
  ○ Fields
    ■ File, Filename, ID
    ■ Entity Reference
    ■ Remote identifier

➢ Any type of media “content”
BASICS - Local VS Connected / Remote

➢ LOCAL
  ○ Any type of Media inside Drupal

➢ CONNECTED / REMOTE
  ○ Benefit from SaaS providers
  ○ Specialized in a specific media type
  ○ Out of the box
  ○ Remotely managed

➢ MIXED REALITY
BASICS - Media Lifecycle

- Upload
- Processing
- Storage - Original + Metadata
- Placement
- Formatting - View modes / Derivatives
- Delivery
BASICS - Implications of Decoupling a provider

➢ Adds complexity
➢ Dependency
  ○ Ownership
  ○ Lock-in
  ○ API Changes
➢ Drupal Expectations
➢ Provide extra value
BASICS - Implications - User expectations

Needs

**truly deep integrations**

- Support expectations
- Through the lifecycle
- Or experience limitations
BASICS - Implications - Drupal expectations

- Availability - API
- Speed - Caching
- Accounts
  - Authenticate
  - Permissions
- Entity
  - Types
  - Fields
- Multilingual
- Revisioning

- Views
  - List - Paging
  - Filter
- Placement - Usage
- View modes - formatter
  - Responsive
- Form modes - widgets
- Image Derivatives
- (Personalization)
- (Content Moderation)
BY EXAMPLE
Nextcloud - Protecting your data

Building self-hosted products that allow you to be productive without losing control

Learn more
BY EXAMPLE - What if we connect Nextcloud

- Media Licensing
- Authentication
  - Global key
  - Per-user key
- Less site building

Many Challenges

Metadata
- Browser
- Extraction from assets
- Thumbnail
- Predefined metadata structure
BY EXAMPLE - What if we connect Nextcloud

➡️ User specific permissions
➡️ Image derivative mapping
➡️ Cropping
➡️ Usage report
➡️ Metadata updates

Wish it was fully featured AND API first!
CONCEPTS
CONCEPTS

- Metadata replication
- Usage tracking
- Placement - WYSIWYG
- Browsing
- Expiration
CONCEPTS - Metadata replication

- Fields based
- Mapping configuration
- Replicate on save

- Metadata Updates?
  - (delta)
  - Changes?
CONCEPTS - Placement

➢ WYSIWYG
➢ Field - Entity Reference Media
➢ Entity type - Paragraphs
Module: Linkit

https://www.drupal.org/project/linkit

- Managed link
  - Stop alias based links that break!
- Matcher / Browser
- Patch: Field support
  https://www.drupal.org/project/link_attributes/issues/2939514
- 8.x: 25,095 - August 26, 2018 - 7.x: 58,467
  Total: 84,235
Matchers defines how different data can be queried and displayed in the autocomplete suggestion list. Multiple matchers of the same type can be used at the same time to granulate the suggestions. The order of the added matchers defines in which order the suggestions will be presented.

[+ Add matcher]

**MATCHERS**

<table>
<thead>
<tr>
<th>MATCHER</th>
<th>OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td><img src="edit.png" alt="Edit" /></td>
</tr>
<tr>
<td>Media</td>
<td><img src="edit.png" alt="Edit" /></td>
</tr>
</tbody>
</table>

**Content**
- Metadata: by [node:author] | [node:created:medium]
- Bundle filter: None
- Group by bundle: No
- Include unpublished: Yes

**Media**
- Metadata: by [media:author] | [media:created:medium]
- Bundle filter: Document
- Group by bundle: No

[Save]
Module: Entity Usage

https://www.drupal.org/project/entity_usage

- Pluggable tracking
  - Entity References
  - Link field
  - Entity Embed
  - Linkit, ...

- 8.x: 1,429 - August 26, 2018
<table>
<thead>
<tr>
<th>ENTITY</th>
<th>TYPE</th>
<th>LANGUAGE</th>
<th>FIELD NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foo bar page</td>
<td>Content</td>
<td>English</td>
<td>Related pages</td>
<td>Published</td>
</tr>
<tr>
<td>Sample page created in CATALAN</td>
<td>Content</td>
<td>Catalan</td>
<td>Related pages</td>
<td>Published</td>
</tr>
<tr>
<td>Example page created in FRENCH</td>
<td>Content</td>
<td>French</td>
<td>Related pages</td>
<td>Published</td>
</tr>
<tr>
<td>Ea Magna Paulatim</td>
<td>Content</td>
<td>English</td>
<td>Related pages</td>
<td>Published</td>
</tr>
<tr>
<td>Persto Similis Venio</td>
<td>Content</td>
<td>English</td>
<td>Related pages</td>
<td>Published</td>
</tr>
</tbody>
</table>
CONCEPTS - Selection

➢ Core 8.6
  ○ Basic, hardcoded

➢ Module: Media Entity Browser
  https://www.drupal.org/project/media_entity_browser
  ○ Highly
    ■ Extensible
    ■ Configurable
  ○ 8.x:4,852 - August 26, 2018
<table>
<thead>
<tr>
<th>Media name</th>
<th>Bundle</th>
<th>Status</th>
<th>Folder</th>
<th>Tags</th>
<th>Sort by</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>drupal-8-logo-padding.png</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
<tr>
<td>md-systems.svg</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
<tr>
<td>User</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pencil-square-o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>linux</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
<tr>
<td>newspaper-o</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
<tr>
<td>file-pdf-o</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
<tr>
<td>home</td>
<td>Any</td>
<td>True</td>
<td>Any</td>
<td></td>
<td>Created</td>
<td>Desc</td>
</tr>
</tbody>
</table>

- User: 1. December 2017, 16:35
- pencil-square-o: 26. June 2017, 18:29
- newspaper-o: 29. December 2017, 16:56
- home: 26. June 2017, 18:26

- drupal: 19. January 2018, 10:30
- user-times: 26. June 2017, 18:43
CONCEPTS - Upload

➢ (Core)

➢ Module: DropzoneJS

https://www.drupal.org/project/dropzonejs
https://www.dropzonejs.com/

○ 8.x:18,219 - August 26, 2018

○ Client side image resize
File upload *

Drag and drop images here to upload

or

Select files
Module: Media Expire

https://www.drupal.org/project/media_expire

- Part of Thunder
- 8.x:810 - August 26, 2018
TYPES - Picture

- JPG, PNG, GIF
- Tag `<img src`
- Tag `<figure> <img />`
- `<figcaption />`
- Image styles
  - derivatives
- Responsive img styles
- Lazy Loading

- Image toolkit
  - GD
  - Imagemagick
- Image effect
  - Cropping
  - Other Effects
- Image
Module: Crop API
https://www.drupal.org/project/crop
- 8.x: 28,047 - August 26, 2018

Module: Focal Point
https://www.drupal.org/project/focal_point

Module: Image Widget Crop
https://www.drupal.org/project/image_widget_crop

Module: Automated Crop
https://www.drupal.org/project/automated_crop
Module: Blazy
https://www.drupal.org/project/blazy
- Image lazy loading
- 8.x:17,888 - August 26, 2018

Module: Lazyloader
https://www.drupal.org/project/lazyloader
- 8.x:357 - August 26, 2018 - 7.x:3,890
  Total:4,247
➢ DAM - More Later
  ○ Bynder
  ○ Elvis
  ○ ...
TYPE - Graphics

➢ SVG
  ○ Tag `<img`

➢ Inline SVG
  ○ Tag `<svg`
  ○ CSS control
Module: Font Awesome Icons
https://www.drupal.org/project/fontawesome
  ○ Font | SVG
  ○ Icon Browser
  ○ Best Practice: Media bundle
    ■ Entity Usage

Module: FA Menu Icons
https://www.drupal.org/project/fontawesome_menu_icons
TYPE - Video

➢ Tag `<video`
➢ Core 8.5 Video
  ○ Local storage
➢ Core 8.6 Remote video
  ○ oEmbed based
Module: Video.js

https://www.drupal.org/project/videojs

- HTML5 Video Player
- 8.x: 909 - August 26, 2018 - 7.x: 14,283
  Total: 15,362

Module: JWPlayer

- 8.x: 224 - August 26, 2018 - 7.x: 3,856
  Total: 4,080
Module: Video Embed

- [https://www.drupal.org/project/video_embed_field](https://www.drupal.org/project/video_embed_field)
- [https://www.drupal.org/project/video_embed_html5](https://www.drupal.org/project/video_embed_html5)
- Field
- Reference
- Metadata fetch / update
- Youtube, Vimeo, more

8.x: **40,715** - August 26, 2018 - 7.x: 62,472
Total: 103,187
Module: Brightcove

https://www.drupal.org/project/brightcove

- 8.x: 240 - August 26, 2018 - 7.x: 2,009
  Total: 2,281
TYPE - Audio

➢ Core 8.6 local
➢ Tag <audio
➢ Local audio
➢ (Module: Remote audio)
Module: Soundcloud
https://www.drupal.org/project/soundcloudfield
- Feature: Field
- 8.x: 735 - August 26, 2018 - 7.x: 3,678
Total: 4,432
GALLERY PARADOXON
Select your flavor...

- Multivalue field
- Media type
- Content type
- Paragraph
- (Paragraph library)
Module: Slick

https://www.drupal.org/project/slick

- “the last carousel you’ll ever need”
- 8.x:15,204 - August 26, 2018 - 7.x:23,802
  Total 39,006
Module: Flex Slider

https://www.drupal.org/project/flexslider

- 8.x: 5,785 - August 26, 2018 - 7.x: 109,748
  Total 115,533
Twitter

➤ Module: Media Entity Twitter

https://www.drupal.org/project/media_entity_twitter

- Link field
- Formatter: Twitter embed
- 8.x: **5,761** - August 26, 2018
Instagram

Module: Media Entity Instagram
https://www.drupal.org/project/media_entity_instagram
- Link field
- Formatter: Instagram embed
- 8.x: **5,585** - August 26, 2018

**TYPE - Social**
TYPE - Maps

➤ Google Maps
  ○ Module: Simple Google Maps
  https://www.drupal.org/project/simple_gmap

Many more...
TYPE - Polls

➢ Core Module Poll
➢ Riddle Marketplace

https://www.drupal.org/project/riddle_marketplace
https://www.riddle.com/

○ “Quizzes”
○ Part of Thunder
Module: H5P

https://www.drupal.org/project/h5p

- "Create and Share Rich Content and Applications"
- 8.x: 694 - August 26, 2018 - 7.x: 3,735
  Total: 4,435
Fill in the correct berries

Strawberries and [ ] berries are mixed with [ ] and oatmeal [ ] to make this delicious smoothie.

Show solutions

Insert the missing words in this text about berries found in Norwegian forests and mountainous regions.

Bilberries (Vaccinium myrtillus), also known as blue [ ] berries are edible, nearly black berries found in nutrient-poor soils.

Red currant (Ribes rubrum) are red translucent berries with a diameter of 8–10 mm, and are closely related to its black colored relative [ ] currant.

You got 2 of 3 blanks correct.
TYPE - Generic widgets

oEmbed

Module: Simple oEmbed
https://www.drupal.org/project/soembed
https://oembed.com
- 8.x:25 - August 26, 2018 - 7.x:332
  Total:357

(Core - only base class)

Others?
➤ Tag `<iframe>, `<script`
➤ Text field
  ○ Text format “code” without WYSIWYG
➤ Any widget provider
➤ Example: Typeform
  ○ [https://www.typeform.com/](https://www.typeform.com/)
  ○ “Turning data collection into an experience”
CONCEPTS

- Storage
- Asset separation
- Infrastructure
STACK - Storage - Module: Flysystem

https://www.drupal.org/project/flysystem

8.x: 683 - August 26, 2018

➢ “Local”
➢ Stream wrapper
  ○ path based magic

FEATURES

➢ Ftp (Requires ftp extension)
➢ Sftp
➢ Dropbox
➢ Zip (through ZipArchive)
➢ Rackspace Cloud Files
➢ Amazon Web Services - S3
➢ Openstack Swift

Example path: ‘local-example://path/to/folder
Module: S3 File System
https://www.drupal.org/project/s3fs
- 8.x: 1,592 - August 26, 2018 - 7.x: 3,285

Module: Remote stream wrapper
https://www.drupal.org/project/remote_stream_wrapper_widget
- 8.x: 126 - August 26, 2018
STACK - Asset separation

➢ Module: CDN
https://www.drupal.org/project/cdn

➢ Asset domain

➢ “Origin Pull” CDNs = transparent
STACK - Infrastructure

➤ DNS
  ○ Https termination / certificate
  ○ Example: CloudFlare
    ■ Image optimization
    ■ No bandwidth cost
  ○ Can be used with a subdomain
    ■ CDN

➤ Mount driver
DAM - Elvis

➢ Module: Media Elvis
https://www.drupal.org/project/media_elvis
  ○ Woodwing Elvis

➢ Basic integration
  ○ Local delivery
  ○ Media contrib
  ○ Images only
  ○ Full text search
  ○ Paging
  ○ Folder filter
  ○ Metadata mapping
  ○ Thunder integration
Digital Asset Management

In today’s publishing and digital marketing world you need to create the right visuals fast. And whether it’s a unique editorial image, a banner ad for a new campaign or the latest product shots, it needs to be beautiful, on-brand and useable for any channel.

Elvis DAM helps you to create incredible assets, and enables creatives to collaborate more effectively. All files are stored in a single location, giving you maximum control over when and where assets are used. Being an open platform with unlimited scalability, Elvis DAM is an
<table>
<thead>
<tr>
<th>LABEL</th>
<th>MACHINE NAME</th>
<th>FIELD TYPE</th>
<th>OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copyright</td>
<td>field_cipher</td>
<td>Text (plain)</td>
<td>Edit</td>
</tr>
<tr>
<td>Description</td>
<td>field_description</td>
<td>Text (formatted, long)</td>
<td>Edit</td>
</tr>
<tr>
<td>Elvis remote id</td>
<td>field_elvis_remote_id</td>
<td>Text (plain)</td>
<td>Edit</td>
</tr>
<tr>
<td>Image</td>
<td>field_image</td>
<td>Image</td>
<td>Edit</td>
</tr>
<tr>
<td>Tags</td>
<td>field_tags</td>
<td>Entity reference</td>
<td>Edit</td>
</tr>
</tbody>
</table>
Edit **Elvis media image** media bundle

**Label**

Elvis media image

Machine name: elvis_media_image

The human-readable name of this media bundle.

**Description**

Describe this media bundle. The text will be displayed on the Add new media page.

**Type provider**

Elvis Media Image

Media type provider plugin that is responsible for additional logic related to this media.

**TYPE PROVIDER CONFIGURATION**

Field with source Information

- **Image**

Field on media entity that stores image file. You can create a bundle without selecting a value for this dropdown initially. This dropdown can be populated after adding fields to the bundle.

**FIELD MAPPING**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Remote ID</th>
<th>Title</th>
<th>Name</th>
<th>Filename</th>
<th>Asset path</th>
<th>Tags</th>
<th>Copyright owner</th>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote ID</td>
<td>Elvis remote id</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
<td></td>
<td>Skip field</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
<td>Skip field</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filename</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset path</td>
<td></td>
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<td>Skip field</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tags</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copyright owner</td>
<td></td>
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<tr>
<td>Width</td>
<td></td>
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<td>Skip field</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td></td>
<td></td>
<td>Skip field</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UCI Mountain Bike World Championships, 5-9. September 2018, Lenzerheide

ATHERTON Rachel_Downhill_Elite_Woman_WM_by_Piotr_Staron.jpg

ATHERTON Rachel_Downhill_Elite_Woman_WM_by_Piotr_Staron IMG_6830.jpg

The name of this media.

Copyright
Verein Bike Weltcup

Image

Alternative text
UCI Mountain Bike World Championships, 5-9. September 2018, Lenzerheide
This text will be used by screen readers, search engines, or when the image cannot be loaded.

Title
Downhill-MTB WM-2018 Lenzerheide
The title is used as a tool tip when the user hovers the mouse over the image.

Tags
Bike
Bike World Championships
Events
Familie
Langlauf
Planoiras
Sommer
Wandern
Winter

Description
UCI Mountain Bike World Championships, 5-9. September 2018, Lenzerheide, Downhill
DAM - Bynder

➢ Module: Bynder
https://www.drupal.org/project/bynder

➢ Unique features
DAM - Bynder - Unique features

- Remote delivery
- Per-user
  - Authentication
  - Search facets
  - Access
- Usage restrictions
  - Indication
  - Review tab
  - License info
- Bynder formatter
- Image, Video, Documents
- Derivatives mapping
- API Caching - speed
- Direct Upload
  - Batch processing
- Updates (Cron)
- Demo module
- Lightning integration
API CONNECTION TEST

The API connection was established successfully.

Test connection

Test connection before saving

Uncheck to allow saving credentials even if connection to Bynder can't be established.

BYNDER IMAGE DERIVATIVES

- mini
- webimage
- thul

Reload derivatives info

Bynder provides "mini", "webimage" and "thul" image sizes by default. Custom derivatives can be configured to better suit specific use-cases. Reload of derivatives can be triggered if any derivatives are missing from the list.
**USAGE RESTRICTION METADATA**

Usage restrictions

Select metaproperty which is responsible for usage restriction. This is used to limit what assets can be used. If the information is not provided we assume royalty free.

**Royalty free restriction level** *

Royalty free

Select metaproperty option for assets that can be used everywhere.

**Web license restriction level** *

Web only

Select metaproperty option for the assets that may be used only online.

**Print license restriction level** *

Print only

Select metaproperty option for the assets that may be used only for print.
Select assets

File upload

Drop files here to upload them

Description

Description text that should be added to assets.

Upload assets
# Bynder usage

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Usage Restriction</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC_0054.JPG</td>
<td>image</td>
<td>Royalty free</td>
<td>Edit</td>
</tr>
<tr>
<td>bitcoin_on_keyboard-100572325-primary.idge.jpg</td>
<td>image</td>
<td>N/A</td>
<td>Edit on Bynder</td>
</tr>
</tbody>
</table>

Usage info is not available yet. Usage restriction level: Royalty free
Bitcoin is a decentralized cryptocurrency and a peer-to-peer payment network introduced on 31 October 2008. It is based on peer-to-peer technology, using a blockchain data structure to generate new bitcoins.

The system works without a central authority or single administrator. It is the first decentralized digital currency. Bitcoins are created by miners using advanced cryptography.

For more information, visit Wikipedia.
Bitcoin is a decentralized digital currency invented by an unidentified programmer, or group of programmers, under the name of Satoshi Nakamoto. Bitcoin was introduced on 31 October 2008 to a cryptography mailing list, and released as open-source software as 2009. The system is peer-to-peer and transactions take place among users directly, without an intermediary. These transactions are verified by network nodes and recorded in a public distributed ledger called the blockchain, which was bitcoin as its store of account. Since the system works without a central repository or single administrator, bitcoin is called the first decentralized digital currency. Bitcoin is the largest of its kind in terms of total market value.

More on Wikipedia.

Text format: Basic HTML

MEDIA ASSETS
Select assets

Save and keep published ▶ Preview ▶ Delete
CONTENT - Repository

➢ When all content becomes “media”

Modules
➢ Contentpool
➢ Drupal Content Sync
➢ Deploy
➢ Contenta CMS

Presentations
➢ TUE 11:30 3.03
➢ THU 14:10 2.07
Thanks!

ANY QUESTIONS?