

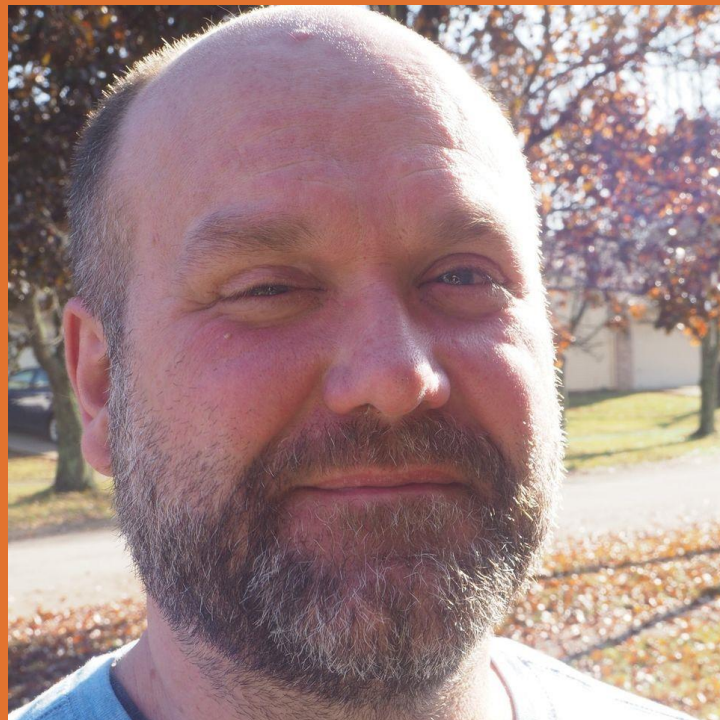


Flexible Metadata with Allinson Flex

— In Hyrax and Friends —

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Insert Self Deprecation Slide Here

Who is this clown?

Rob Kaufman

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<https://www.notch8.com>

Founder of Notch8 - An App
Development Consultancy since 2007

This Deck

<http://bit.ly/samvera2020>



How We'll Spend This Time





What is Metadata

How would you describe metadata?



What do We Mean by Metadata Profile

List of Classes, Mappings, Properties and Contexts

Portable

Reusable

Editable and Versionable

Validatable



Brainstorm Classes and Properties



M3 - Machine-readable Metadata Modeling

Shared, community developed approach to representing metadata models

Included developers, metadata analysts, hyrax implementers, non-hyrax implementers

Not application specific

Created a specification and schema to validate profiles against

<https://github.com/samvera-labs/houndstooth>

[https://wiki.lyrasis.org/display/samvera/Machine-readable+Metadata+Modeling+Specification+\(M3\)+Working+Group](https://wiki.lyrasis.org/display/samvera/Machine-readable+Metadata+Modeling+Specification+(M3)+Working+Group)

YAML

YAML Ain't Markup Language

Space delimited (in 2s)

Not as efficient to parse

anchors and aliases

Comments

key:

- child: "value"

JSON

JavaScript Object Notation

Fast, Widely Available Parsing

Curly Braces and Quotes

Is a subset of YAML

```
{"key":[{"child":"value"}]}
```



Anatomy of an M3 Profile

profile:

administrative information
about the metadata profile/data
model being defined by the file

mappings:

definition of the mappings to
different services or target
schemas referenced

classes:

definition of classes* used

properties:

definition of properties* used

A Short But Complete Example



m3_version: "1.0.beta2"

profile:

responsibility: <https://indiana.edu/>

responsibility_statement: Indiana University

date_modified: "2019-07-28"

type: concept

version: 0.1

classes:

FlexibleMetadata:

display_label: "Flexible Metadata Example"

contexts:

- "flexible_context"

contexts:

flexible_context:

display_label: "Flexible Metadata Example"

continues ->

properties:

title:

display_label:

default: "Title"

FlexibleMetadata: "Title for Work Type"

flexible_context: "Title in Context"

property_uri: <http://purl.org/dc/terms/title>

available_on:

class:

- FlexibleMetadata

context:

- flexible_context

cardinality:

minimum: 1

index_documentation: "Title should be indexed as searchable and displayable."

indexing: [

"_tesim",

"_ssm"

]



Let's Make A Profile

Anatomy of a Property

Properties tend to be the most numerous part of a profiles

And the most voluminous

Properties specify which classes and contexts they appear on

They link mappings to editable data

properties:

- property_name
- display_label
- definition
- usage_guidelines
- requirement
- controlled_values
- sample_value
- property_uri
- available_on
- range
- data_type
- syntax
- cardinality
- index_documentation
- indexing
- validations
- mapping



A Short But Complete Example Again



m3_version: "1.0.beta2"

profile:

responsibility: <https://indiana.edu/>

responsibility_statement: Indiana University

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type: concept

version: 0.1

classes:

FlexibleMetadata:

display_label: "Flexible Metadata Example"

contexts:

- "flexible_context"

contexts:

flexible_context:

display_label: "Flexible Metadata Example"

continues ->

properties:

title:

display_label:

default: "Title"

FlexibleMetadata: "Title for Work Type"

flexible_context: "Title in Context"

property_uri: <http://purl.org/dc/terms/title>

available_on:

class:

- FlexibleMetadata

context:

- flexible_context

cardinality:

minimum: 1

index_documentation: "Title should be indexed as searchable and displayable."

indexing: [

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]



Add Some Properties



Contexts

Not part of the M3 specification (yet)

Allows attributes in a M3 profile to have different behaviors depending on their context, otherwise a profile would be globally opinionated about attributes in any given application

Mapped to Admin Sets currently



Time for a Break



Demo



Installing Allinson Flex - Presteps

```
rails _5.2.4.3_ new flex_demo -m  
https://raw.githubusercontent.com/samvera/hyrax/v2.9.0/template.rb -T -d postgresql  
  
cd flex_demo
```

Add Dockerfile, docker-compose.yml, config/fedora.yml and config/database.yml

Copied all files in solr/config to solr/conf and removed solr/config
Install <https://github.com/samvera/hydra-role-management>

Add a user to the seeds file



Installing Allinson Flex

https://github.com/samvera-labs/allinson_flex

Specific to our docker environment

Rob will almost always type “dc” instead of “docker-compose”

```
git checkout main
dc up web # start the server
dc exec web bash # in another tab
dc exec web rails db:migrate db:seed # these run in container
pumactl restart -p 1 # restart rails process
dc down -v # remove everything to start over
```

User: hyrax@example.com / testing123



Time for a Break



Allinson Flex Code Walkthrough

Please ask questions as we go!

Model

Service and Schema

Form

Actor

Indexer

Controller

Presenter

Helper

View

React Editor

Dynamic Schema Models



Next Steps

- Validations
- Column Ordering
- Valkyrie Support
- In App Defined Work Types
- Performance Optimizations
- Contexts for Collections
- Your ideas ???

Questions?



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