

# Tweak Your CMDI Forms to the Max

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# Introduction 1



- Rob Zeeman
- Software engineer @ KNAW Humanities Cluster
  - Department of Digital Infrastructure
  - Team Structured data
- Front-end developer
- Survey apps, editors for crowdsourcing

# Introduction 2

- Coping with the flexibility of CMDI profiles
  - Arbil
  - CMDI Maker
  - COMEDI
  - ...
- CLARIAH CMDI Forms (CCF)

# CCF Editor: Basic Principles

- One editor for multiple profiles
- High usability
  - Flexible layout
  - Language versions
  - In-editor validation
- Applicable within existing infrastructures
  - Workflow
  - Branding

# CCF Editor: Tweaking

The layout of a form for creating CMDI metadata records is defined by:

- The CMDI profile (fields, constraints)
- The CMDI record (in case of mutations)

The CCF Editor uses a third element:

- The tweak file

# CCF Editor: Tweaking

The tweak file contains extra information for the editor, to add elements and functionality, like:

- Human readable field labels
- Flexible field order
- Configurable field types and field sizes
- Default and fallback values
- External vocabularies
- Additional validation

# CCF Editor: Tweaking

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ComponentSpec isProfile="true" CMDVersion="1.2" CMDOriginalVersion="1.1" xsi:noNamespaceSchemaLocation="https://
  <Header>
    <ID>clarin.eu:cr1:p_1440426460262</ID>
    <Name>MeertensCollection</Name>
    <Description>Information on a collection at the Meertens Institute.</Description>
    <Status>development</Status>
  </Header>
  <Component name="MeertensCollection" CardinalityMin="1" CardinalityMax="1">
    <Component name="CoreCollectionInformation" ComponentRef="clarin.eu:cr1:c_1440426460261" CardinalityMin=
      <Element name="creator" ConceptLink="http://purl.org/dc/terms/creator" ValueScheme="string" Cardinal
      <Element name="title" ConceptLink="http://purl.org/dc/terms/title" ValueScheme="string" CardinalityM
      <Element name="description" ConceptLink="http://purl.org/dc/terms/description" ValueScheme="string"
      <Element name="created" ConceptLink="http://purl.org/dc/terms/created" ValueScheme="string" Cardinal
      <Element name="rights" ConceptLink="http://purl.org/dc/terms/rights" CardinalityMin="0" CardinalityM
        <ValueScheme>
          <Vocabulary>
            <enumeration>
              <item ConceptLink="" AppInfo="">Open Access Creative Commons Zero Waiver</item>
              <item ConceptLink="" AppInfo="">Open Access</item>
              <item ConceptLink="" AppInfo="">Restricted Access</item>
              <item ConceptLink="" AppInfo="">Other Access</item>
            </enumeration>
          </Vocabulary>
        </ValueScheme>
      </Element>
```

# CCF Editor: Tweaking

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ComponentSpec xmlns:clariah="http://www.clariah.eu/" xmlns:cue="http://www.clarin.eu/cmd/cues/1">
  <Header>
    <ID>clarin.eu:cr1:p_1440426460262</ID>
  </Header>
  <Component name="MeertensCollection">
    <clariah:label xml:lang="nl">Meertens collectie</clariah:label>
    <Component name="CoreCollectionInformation">
      <clariah:label xml:lang="nl">Core-collectie informatie</clariah:label>
      <Element name="creator">
        <clariah:label xml:lang="nl">Auteur</clariah:label>
      </Element>
      <Element name="title" cue:displayOrder="2">
        <clariah:label xml:lang="nl">Titel</clariah:label>
      </Element>
      <Element name="description" CardinalityMin="1" cue:inputWidth="80" cue:inputHeight="5">
        <clariah:label xml:lang="nl">Beschrijving</clariah:label>
      </Element>
      <Element name="language">
        <clariah:label xml:lang="nl">Taal</clariah:label>
        <ValueScheme>
          <Vocabulary URI="https://hdl.handle.net/11459/CLAVAS_810f8d2a-6723-3ba6-2e57-41d6d3844816">
          </Vocabulary>
        </ValueScheme>
      </Element>
      <Element name="collectionID" cue:displayOrder="1">
        <clariah:label xml:lang="nl">Collectie ID</clariah:label>
      </Element>
    </Component>
  </Component>
</ComponentSpec>
```

# CCF Editor: Tweaking

## CLARIAH CMDI Forms

Rob Zeeman

**Meertens collectie**

**Core-collectie informatie**

**Collectie ID \***

**Titel \***  
 nl

**Beschrijving**  

nl

**Taal**  

dut

Dutch Sign Language

Dutton World Speedwords

Dutch

nl

**Inventory** ☒

**OK**

# CCF Editor: Demo

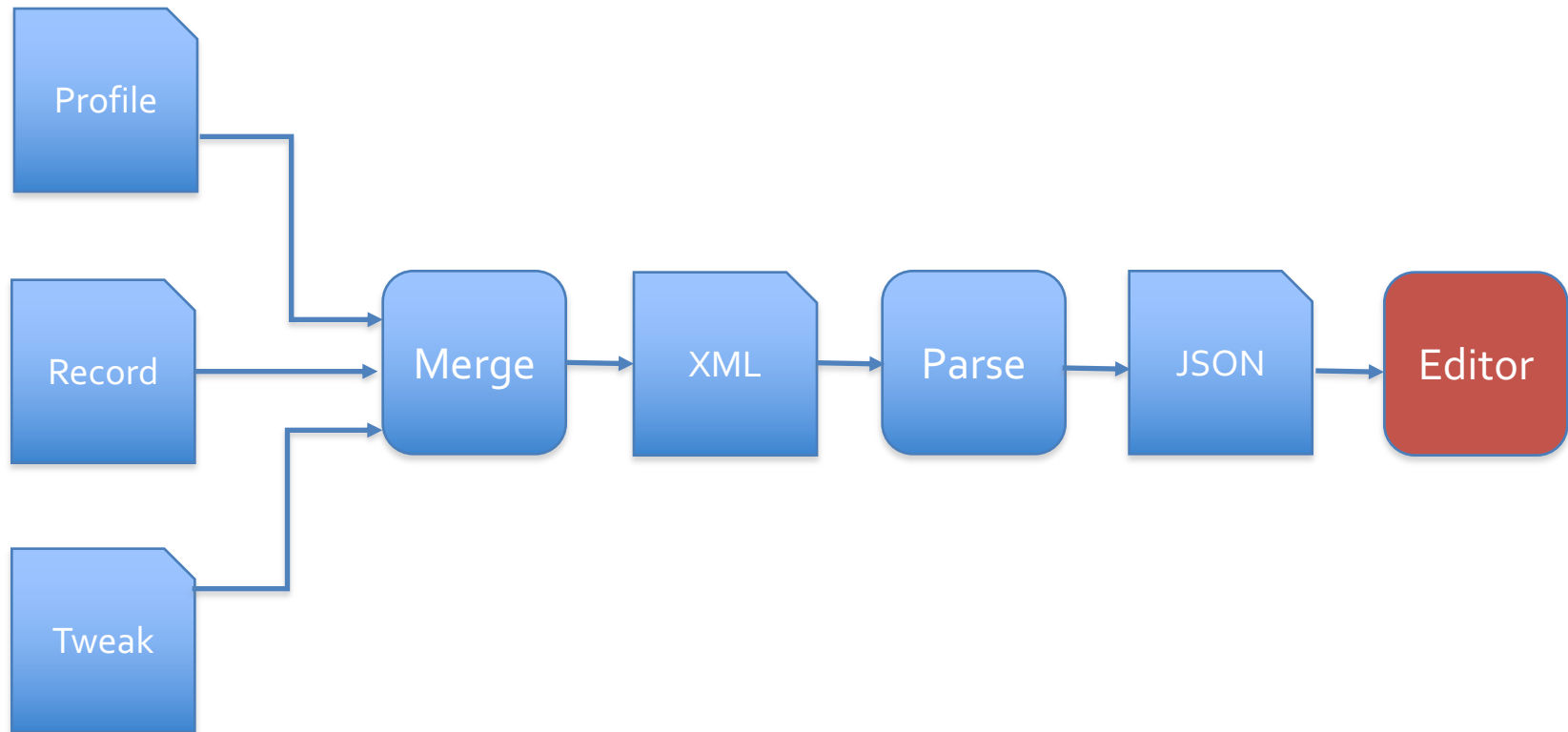
- You are all invited to visit our demo at the poster session later this day!

The screenshot displays the CCF Editor interface. At the top, there is a tab labeled 'Inhoud' with a close button. Below this, a section titled 'Informatie resource' contains a search bar with the text 'Bladeren...' and 'pisa.jpg', and a status indicator 'Uploading...'. The form includes several fields: 'Inventaris ID \*' with a plus button, 'Beschrijving \*' with a dropdown menu set to 'nl' and a plus button, 'Medium' with a dropdown menu, and 'Doosnummer' with a plus button. Below these fields, there is a section titled 'Medium' with a dropdown menu. At the bottom, there is a section titled 'Omvang' with a close button, and a field for 'Aantal \*'.

# CCF Editor: Components

- Server-side
  - CCF Parser (pluggable PHP class)
  - CCF RecordBuilder (idem)
  - XSLT for merging CMDI profiles and tweaks
- Client side
  - CCF FormBuilder (Javascript, JQuery plugin)
  - CSS for styling

# CCF Editor: Components



# CCF Editor: Components

- The CCF Editor can be incorporated in any web application that's based on PHP and Javascript.
- In the first official release of the CCF Editor a small host application will be added, for testing and eventually production.

# CCF Editor: CMDI support

- CMDI 1.1 support  
(attributes to be completed)
- CMDI 1.2 support
  - Autoderivation rules, like *now*, *fileSize*, *fileModification*, *default* and *fallback*
  - Cues for tools, like *displayOrder*, *hide*, *resource*, *inputWidth* and *inputHeight*

# Status

- Test version ready
- Pluggable version in development for
  - MI FLAT, the digital archive of the Meertens Institute
  - Timbuctoo, an open source repository system of Huygens ING
- <https://www.huygens.knaw.nl/timbuctoo/>
- First production version ready early 2019

# Conclusions

- The CLARIAH CMDI Forms application provides a new CMDI editing environment for records based on arbitrary profiles, but with extensive possibilities, based on CMDI 1.2 features and some extensions, to tweak the profile information for a maximum user-friendly editing experience.
- In addition to this CCF can be embedded in other environments.

# Future work

- Conditional validation
- Tabulation
- Wizard for creating tweak files
- Follow the progress on GitHub  
<https://github.com/knaw-huc/clariah-cmdi-forms>