

CIDOC CRM Insight

(Re-)visiting a CIDOC CRM teaching tool

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What is CIDOC CRM Insight

- Tool built as part of my bachelor thesis
- Focus on it being a digital teaching/learning tool
- Slight gamified elements for engagement

Old version from 2024



Technical details

- Built using Angular (TypeScript) since that's the framework I am most familiar with
- In the old version, the CIDOC CRM definitions were hardcoded as a JSON, generated from one of the XML definition files
- In the new version, everything is directly parsed from the XML definition files (still as JSON, but on the fly, so more flexible)
- Graph visualization using Cytoscape.js, which was one of the more mature graph visualization libraries at the time, and still is
 - Large plugin ecosystem, which I used for automatic layouting and styling
 - Lacking TypeScript support though
 - But since it's flexible and I don't have any CIDOC CRM graphs with 100k nodes, it's fine for now

Structure of a level / scenario

A level consists of a set of task groups, which consist of a set of tasks. Tasks are the smallest unit, and concern themselves with whether a specific CIDOC CRM class or property has been created by the user.

```
{ // A level / scenario
  "name": "Winkelmann seeing Laocoön",
  "description": "Johann-Joachim Winkelmann (a German Scholar) has seen the so-called Laocoön Group [...]",
  "taskGroups": [ /* more on this later */ ],
  "difficulty": "Challenging" // Just a text field, not used for any logic, just a reference for the user
}
```

```
{ // A task group within a level / scenario
  "name": "Winkelmann's birth & death",
  "description": "<em>Johann-Joachim Winkelmann</em> was <em>born</em> <em>1717</em> in <em>Stendal</em> as child of <em>Martin Wir",
  "elements": [
    { "id": "E21", "label": "Johann-Joachim Winkelmann" },
    { "id": "E67", "label": "Winkelmann's birth" },
    { "id": "P98", "domain": { "id": "E21", "label": "Johann-Joachim Winkelmann" }, range: { "id": "E67", "label": "Winkelmann's b"
  ],
}
```

Main goals of the project

- Web-based for cross-platform accessibility
- Explorability of the CIDOC CRM classes and properties
- Automatic graph generation to aid visual understanding

What happened?

- Should have presented at the CIDOC CRM SIG meeting in Paris
 - Cancelled due to sudden illness
- Moved on to different projects and work

So the project collected dust for a while...

**Too focused on it being a tool for the thesis,
rather than a tool for the community.**

What's my plan

- Update the code base
- Allow for selection of different CIDOC CRM versions (including extensions)
- Editor for people to create their own scenarios
- Import and export of scenarios as XML and JSON
- Allow embedding the tool in websites via iframe with predefined data (as a quick visualization tool)

Long term:

**Get the project to a point where it can be freely used,
and open source the code base.**

Why bother?

- I still think it has potential as a teaching tool
 - it just needs some more work to get there
- It was a fun project to work on

But also...

- Because having this project finished, would allow for new projects being built on top of it
 - Which I can then base my next thesis on

Thank you for your attention!

Questions? Suggestions? Feedback?