



Research Squirrel Engineers

Linked Pipes



@ Linked Pasts 7 - Ghent - **A Short Summary!**

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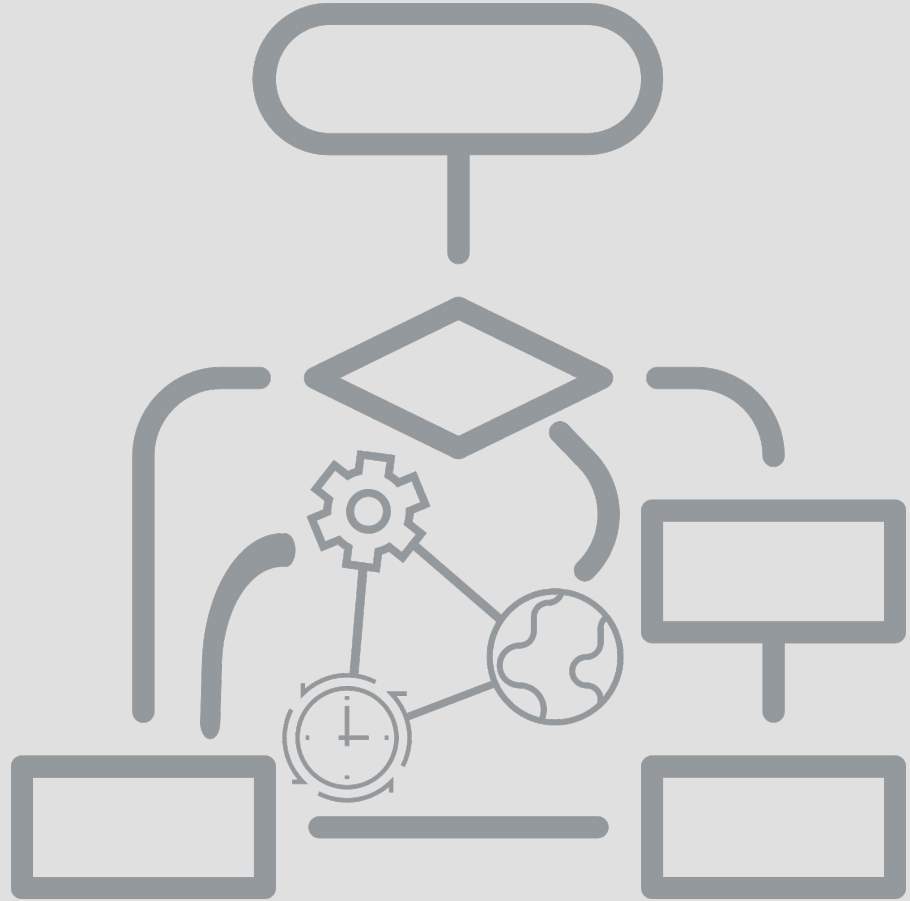
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Linked Pipes ~ The Idea



Linked Pipes?

- Workflows exist in Linked Data and we would like to visualise them using
 - ... **Ontologies**
 - the Provenance Ontology (PROV-O)
 - the Dataflow Ontology (DFD)
 - ... and using a **Linked-Pipe-Viewer**.
- Workflows are not necessarily published in Linked Data, but we would like to document them, e.g. for a research publication.



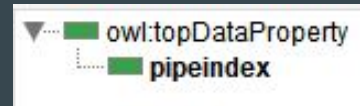
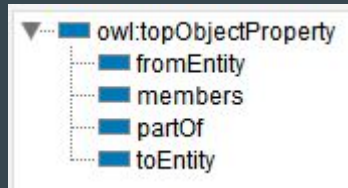
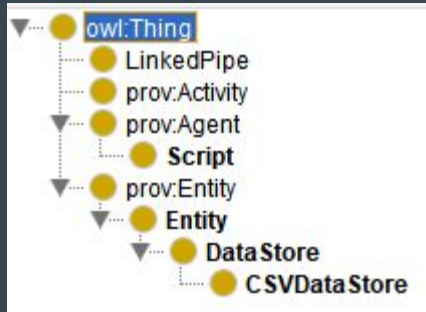
Citable Tools published via Wikidata ⇒ Enter your Tools!

- Why **Wikidata**? easy to use and part of the LOD Cloud!
- Wikidata Project: Linked Pipes
 - https://www.wikidata.org/wiki/Wikidata:WikiProject_LinkedPipes
- How to create a “Linked Pipe Tool”?
 - used by (P1535) Linked Pipes (Q73897190)
 - <https://w.wiki/4WsG>



The draft Linked Pipes Ontology ⇒ Help us!

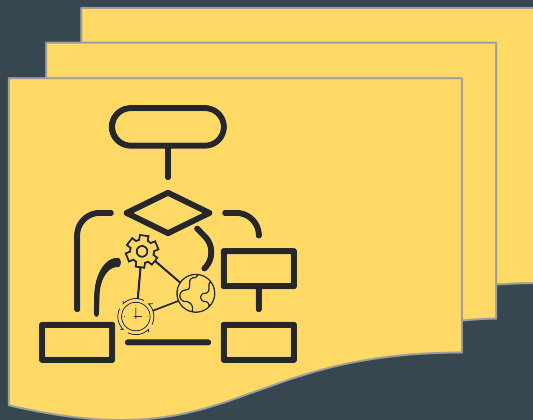
- Extension of DFD and PROV-O
 - <https://chrdebru.github.io/ontologies/dfd/index-en.html>
 - <https://www.w3.org/TR/prov-o/>




<https://github.com/Research-Squirrel-Engineers/LinkedPipes/blob/master/docs/ontologydraft.ttl>

Linked Pipes Registry

- Pipes should be reusable and combinable once defined as RDF
- A **Linked Pipe Registry** might help in sharing work- and dataflows
 - A registry file in a git repository which links to Pipe RDF files published elsewhere save (possibly Zenodo, etc.)
 - Visualisation of these pipes on demand in JavaScript in a viewer



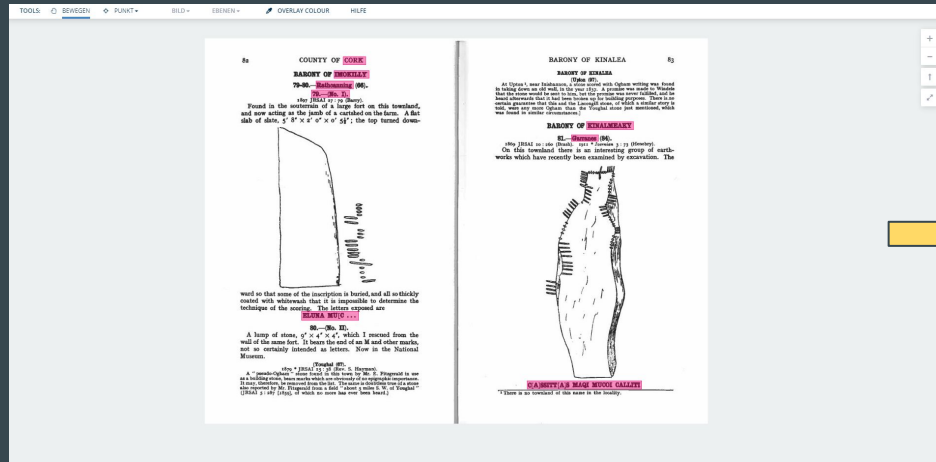
Example Pipe: Text -> Recogito Townland Annotation -> QGIS Map



Item Discussion

Corpus Inscriptionum Insularum Celticarum Vol.1 (Q70256237)

Book of Ogham Inscriptions by R. A. S. Macalister

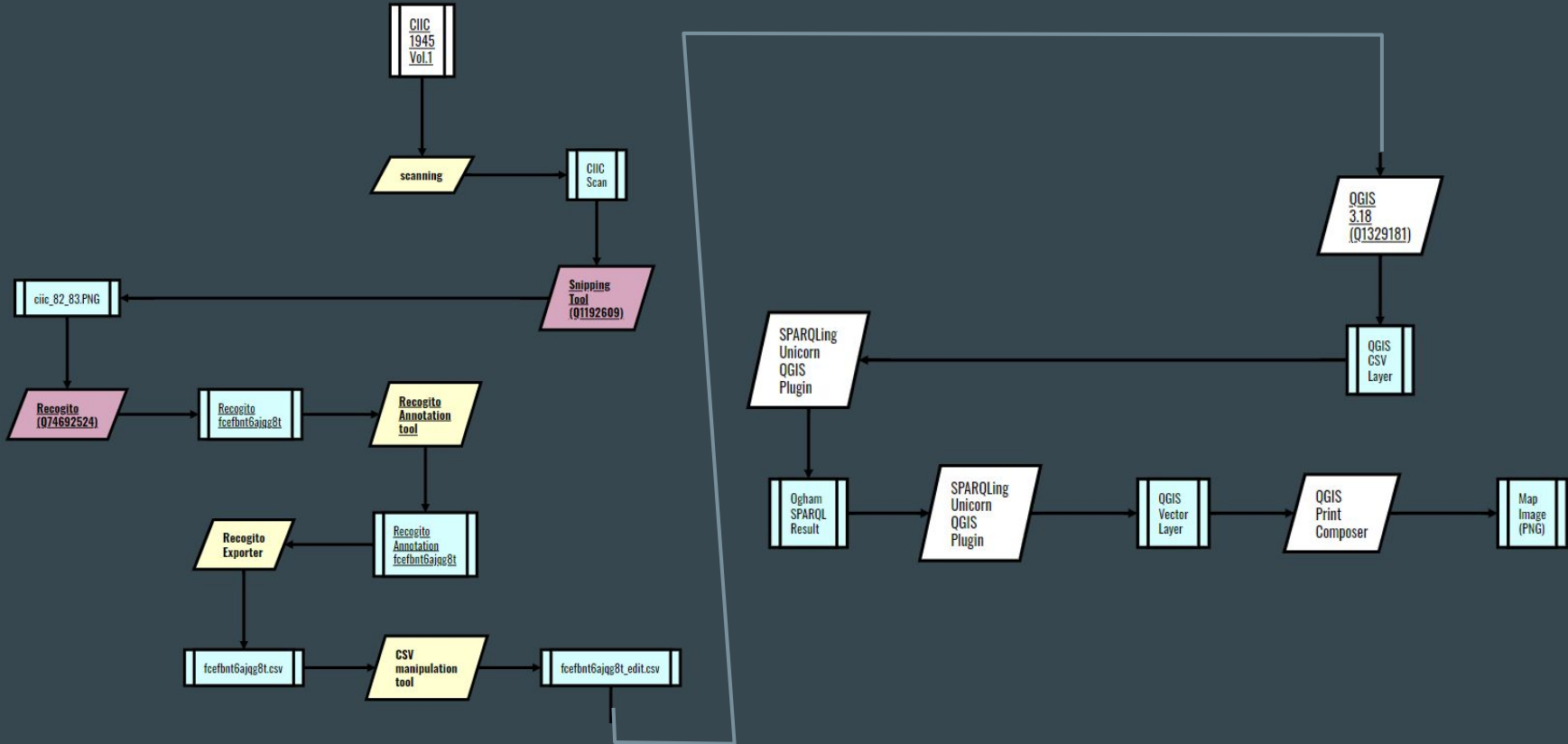


<https://recogito.pelagios.org/document/fcefbnt6ajqg8t>



Townlands / Ogham Site of Macalister (1945) pp. 82-83

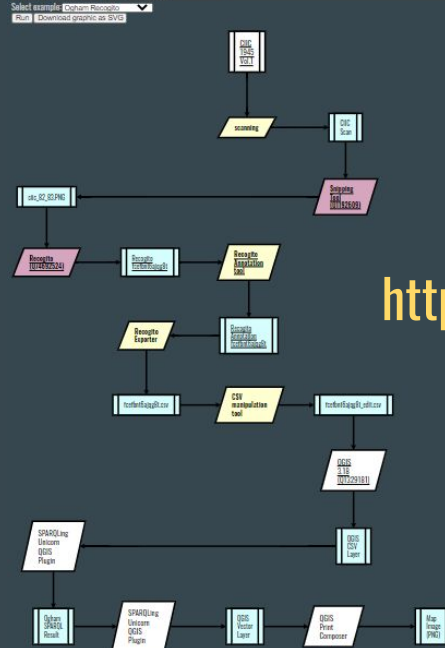
The resulting Linked Pipe



The Linked Pipe in the Web-Viewer

Linked Pipes Viewer [based on [flowchart.js](#)]

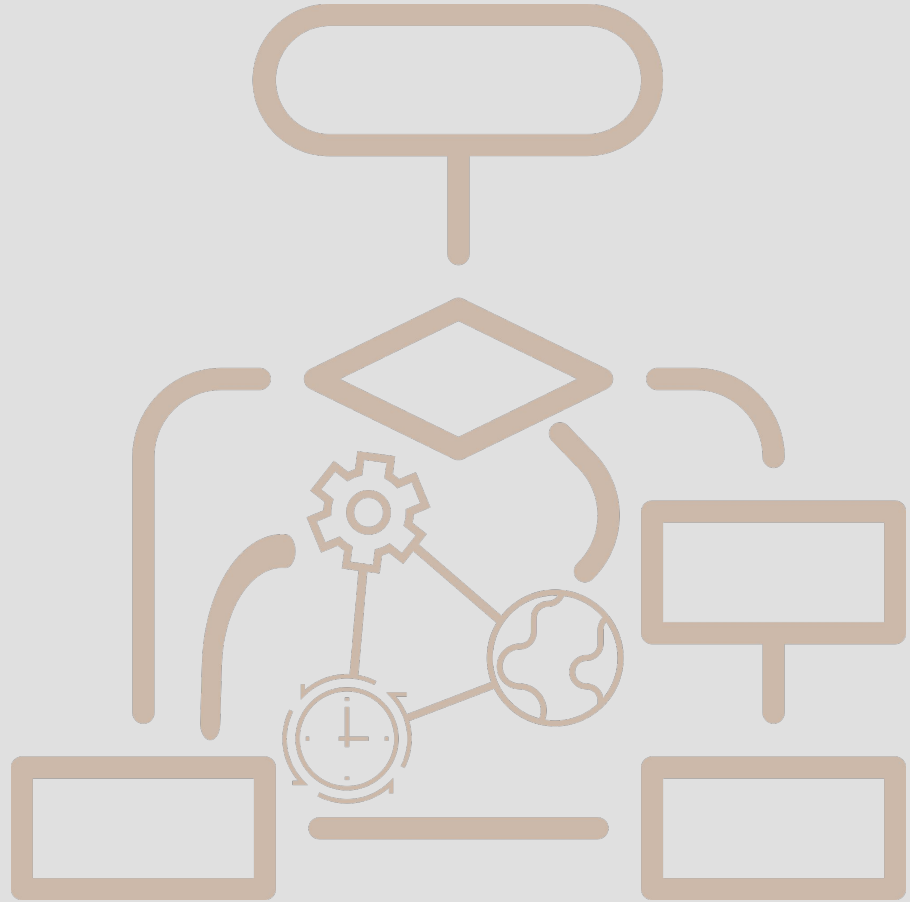
```
book=>subrouteLine: C11C 2945 Vol. 1\dataurl:https://www.sd15data.org/vol1/0/9256337  
pdf=>subrouteLine: C11C Scan\data  
imgurl=>subrouteLine: C11C 32 39 PNG\data  
rcog1to828=>subrouteLine: Rcog1to 4c0fntba1qg81\data:urlhttps://rcog1to-pa1qlogos.org/document/4c0fntba1qg81  
rcog1to8281=>subrouteLine: Rcog1to 4a0fntba1qg81\data:https://rcog1to-pa1qlogos.org/document/4c0fntba1qg81  
csv828=>subrouteLine: 4c0fntba1qg81.csv\data  
csv828bnd=>subrouteLine: 4c0fntba1qg81_bndt.csv\data  
qgis1=>subrouteLine: qgis1 Vector\data  
qgis1result=>subrouteLine: qgis1 SPANQ Result\data  
qgisvectorlayer=>subrouteLine: QGIS Vector Layer\data  
img=>subrouteLine: Map Image (PNG) data
```



<http://viewer.linkedpipes.xyz>

Linked Pipes

@ Linked Pasts 7

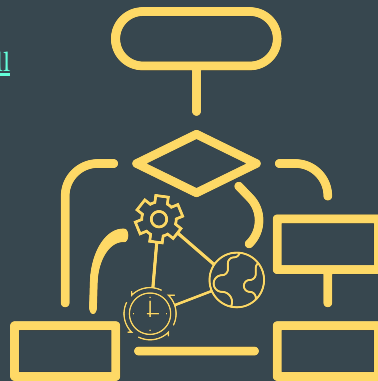


Linked Pipes @ Linked Pasts 7

- Discussions
 - Purpose and granularity of individual Linked Pipes
 - Connections/combinations of different Linked Pipes
 - Technical things
 - Relation to other Linked Data vocabularies describing software and data flows
 - Definition of the elements of a Linked Pipe element
- Technical Developments
 - Linked Pipes Ontology
 - Linked Pipes Viewer
- **Results**
 - **Linked Pipes are still an important project to enable reproducibility**
 - **we need (to build up) an active community!**
 - **we need more Linked Pipe examples!**

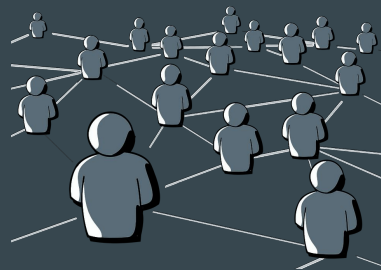
Linked Pipes: Next Steps

- Join one of the Linked Pipes “*Working Groups*”
 - Frontend/Backend-Development **Help us!**
 - <https://github.com/Research-Squirrel-Engineers/LinkedPipes/tree/master/docs>
 - Ontology-Design **Help us!**
 - Wikidata Tool Entries: **Add your Tool!**
 - Case Studies: **Create your Linked Pipe!**
 - **and send it to us!** info@linkedpipes.xyz
 - LP-Registry: **Enter your Linked Pipe!**
 - <https://github.com/Research-Squirrel-Engineers/LinkedPipes/blob/master/LinkedPipesRegistry.ttl>
 - Drafting Working Paper **Help us!**
 - <https://hackmd.io/LUPyJBmmSAaHOYKK3qsuIlg?both>



Linked Pipes: Next Steps

- We will join the **Pelagios Network Annotation Activities**
 - Activity Co-ordinators: Anne Chen & Elton Barker



Thx!

Any Questions?

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<http://linkedpipes.xyz>

