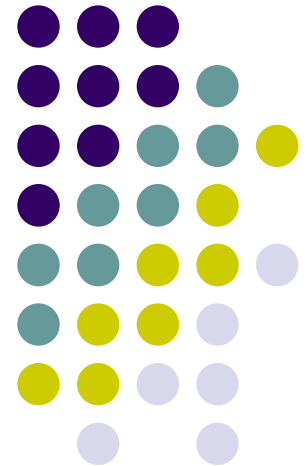


# Advanced Aspects and New Trends in XML (and Related) Technologies

RNDr. Irena Holubová, Ph.D.

[holubova@ksi.mff.cuni.cz](mailto:holubova@ksi.mff.cuni.cz)

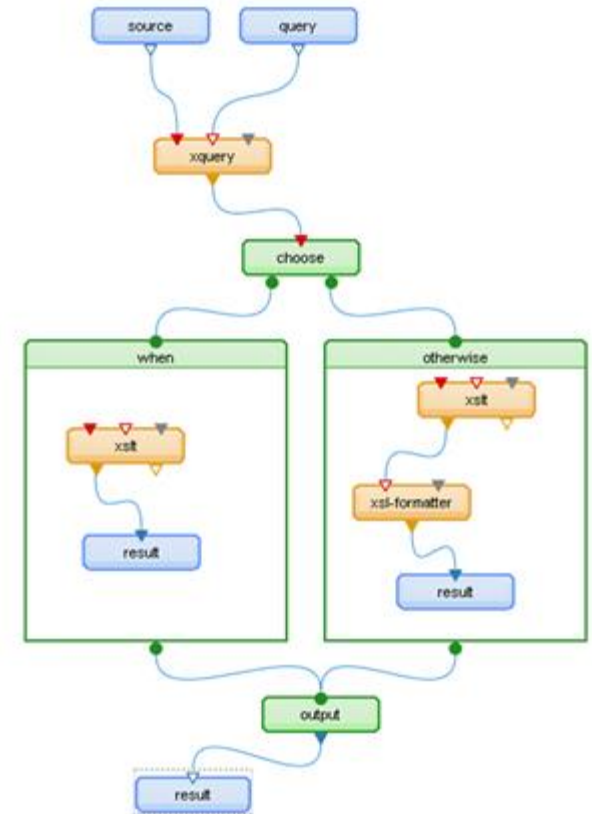
Labs 4. XProc



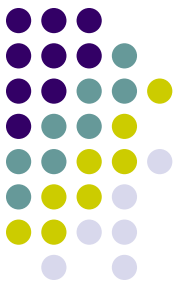
# EMC XProc Designer



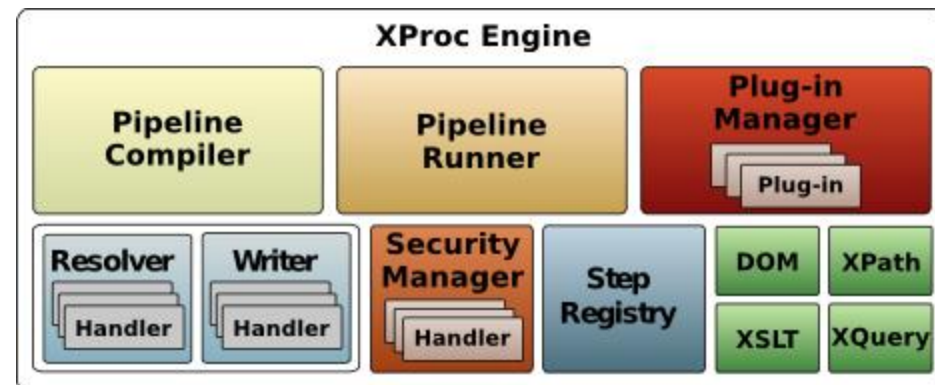
- Graphical tool for designing XProc pipelines
- **Web based application**
  - Demo or downloadable Web Application Archive
- Running in any Google Web Toolkit compatible browser with a JavaScript Engine
  - Recommended: FireFox, Google Chrome, IE7+
- Features:
  - Drag and Drop design
  - Validation of pipelines
  - Execution of pipelines
    - Embedded **EMC Documentum XProc Engine**
  - Support for W3C XProc specification



# EMC Documentum XProc Engine



- XProc processor implementation
- Written in Java
- Can be used as an embedded component or a standalone application (command line)
- Requirements / limitations:
  - `p:xs1t` – requires Saxon plug-in for XSLT 2.0 processing
  - `p:xquery` – XQuery support only with EMC Documentum xDB plug-in
  - `p:xs1-formatter` – requires the Apache FOP processor plug-in
  - Only XPath 1.0 supported





# Typical Steps

1. Design a pipeline using XProc Designer
2. Test it using embedded XProc Engine
  - Provide bindings for input / output ports
    - e.g., input XML data
  - Set parameters
  - ...
3. Use XProc Engine with the tested XProc script within your application
  - Example: `calumet -i source=doc.xml -o result=out.xml pipeline.xpl`
    - Apply `pipeline.xpl` to the input document `doc.xml` and write the results to `out.xml`



# References

- Basic information:  
<https://community.emc.com/docs/DOC-4382>
  - Few limitations
- Download: [https://developer-content.emc.com/developer/devcenters/contentmanagement/xproc\\_designer/designer-20100308-1450.zip](https://developer-content.emc.com/developer/devcenters/contentmanagement/xproc_designer/designer-20100308-1450.zip)
- XProc Pipeline Processing Engine:  
<https://community.emc.com/docs/DOC-4242>



# Task

- Create an XProc pipeline which performs a set of XML operations with the XML data from the previous task
  - e.g., XSTL transformation into two separate XML files and their XML Schema validation