

D2I – D3.P3

MetaBJTool – Metaquery evaluation package

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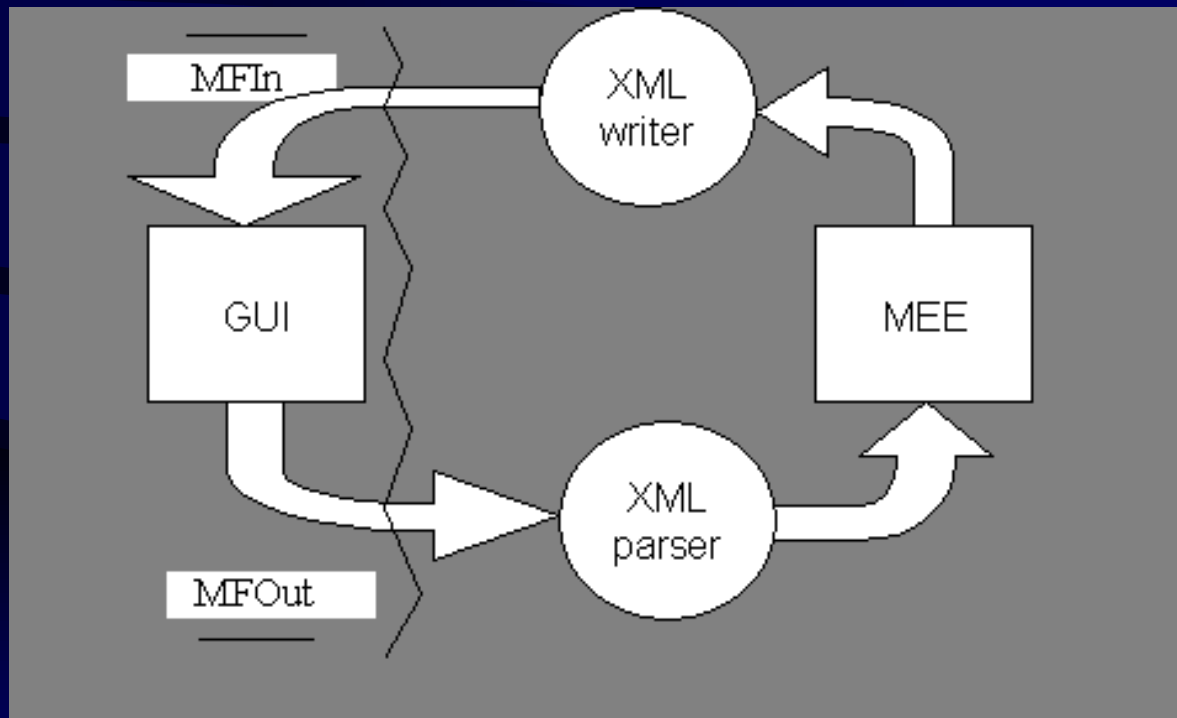
Metarules

$P(X, Y) \leftarrow Q(X, Z), R(Z, K)$

student(name, grade) \leftarrow
student-cs(name, course, ...),
course(course, age,)

- Coupled with quality indices (support, confidence)

Prototype Overview



MIFIn example

```
<?xml version="1.0" encoding="UTF-8" ?>
- <metaquery xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="MIFIn.xsd" support="xx.xx" confidence="xx.xx">
- <head>
  - <metaatom name="P">
    <variable name="X" />
    <variable name="Y" />
  </metaatom>
</head>
- <body>
  - <metaatom name="Q">
    <variable name="X" />
    <variable name="Z" />
  </metaatom>
  - <metaatom name="R">
    <variable name="Z" />
    <variable name="K" />
  </metaatom>
</body>
</metaquery>
```

$P(X, Y) \leftarrow Q(X, Z), R(Z, K)$

Prototype Internals

- Overlap Stage
 - Instantiation Stage
 - Indices Estimate Stage
 - Indices Evaluate Stage
-
- Interface: Java RMI + XML

Instantiation

$P(X, Y) \leftarrow Q(X, Z), R(Z, K)$

student(name, grade) \leftarrow
student-cs(name, course, ...),
course(course, age,)



- Overlapping constraints
- Type constraints

Indices estimate

- Estimate an upper bound value on the support index in order to early filter instantiated rules
- Caches join size information