

# DAML Rules Phase II

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# *Announcing...*

## *Phase II of DAML Rules effort*

- Time has come for agreement & push on rules in DAML
  - As a KR to layer above DAML+OIL/OWL
  - For use in DAML-S, DAML-Sec, application scenarios
  - W3C thinking hard about rules now
- RuleML as point of departure?
  - Already has connections to DAML+OIL.  $\exists$  early versions of:
    - Description Logic Programs KR theory: expressive intersection, expressive combination of LP with DL
    - DAML+OIL syntax for RuleML ( $\exists$  direct RDF syntax too)
    - Applications experience of RuleML, e.g., in Services

# *Overview of RuleML*

- RuleML Initiative (2000--)
  - Dozens of institutions, researchers; esp in US, EU
  - Mission: Enable semantic exchange of rules/facts between most commercially important rule systems
  - Standards specification: 1<sup>st</sup> version 2001; fairly stable now
  - A number of tools and demo applications
  - Successful Workshop on Rules at ISWC was mostly about RuleML / LP
  - Can itself use a “home” institutionally.
- Initial Core: Horn Logic Programs KR
- ...Webized (in markup)... and with expressive extensions

# *Overview of RuleML, Continued*

- Fully Declarative KR (not simply Prolog!)
  - Well-established logic with model theory
  - Available algorithms and implementations
  - Close connection to relational DB's; core SQL is Horn LP
- Intent: Abstract graph syntax
  - First encoded in XML, then RDF, then DAML+OIL
- Expressive Extensions incrementally
  - Non-monotonicity: Negation as failure; Courteous
  - Procedural Attachments: actions/effecting, tests/sensing
  - Events cf. OPS5/Event-Condition-Action

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# Action Plans

- Look for setting up of mailing list on Rules for DAMLers
- Please get involved
  - YOUR suggestions and feedback
  - Think about where you can use rules
  - Build tools, use tools
  - Get more educated about rules and RuleML, tools
    - Look soon for info pointers via mailing list, DAML website
    - Can start with <http://www.mit.edu/~bgrosof> and <http://www.dfki.de/ruleml>
- DAML-EU Joint Committee focus
- Coordinate with W3C (and possibly Oasis too)
- Contacts: Benjamin Grosf, Mike Dean