

Parliament Reification Code Review

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1 Reification Project Changes

Revision 390: “Reification support modifications merged from branch”
dkolas, 2011-07-08 11:14:49 -0400 (Fri, 08 Jul 2011)

```
M Parliament/AdminClient/KbAdmin.cpp
M Parliament/KbCore/DomainRule.cpp
M Parliament/KbCore/FuncPropRule.cpp
M Parliament/KbCore/InvFuncPropRule.cpp
M Parliament/KbCore/InverseOfRule.cpp
M Parliament/KbCore/Jamfile
M Parliament/KbCore/KbInstance.cpp
M Parliament/KbCore/KbInstanceJNI.cpp
M Parliament/KbCore/KbValidation.cpp
M Parliament/KbCore/RangeRule.cpp
A Parliament/KbCore/ReificationIterator.cpp
A Parliament/KbCore/ReificationIteratorJNI.cpp
M Parliament/KbCore/RuleEngine.cpp
A Parliament/KbCore/Statement.cpp
M Parliament/KbCore/StmtIterator.cpp
M Parliament/KbCore/StmtIteratorJNI.cpp
M Parliament/KbCore/SubclassRule.cpp
M Parliament/KbCore/SubpropRule.cpp
M Parliament/KbCore/SymmetricPropRule.cpp
M Parliament/KbCore/TransitivePropRule.cpp
M Parliament/KbCore/UriLib.cpp
M Parliament/KbCore/parliament/DomainRule.h
M Parliament/KbCore/parliament/FuncPropRule.h
M Parliament/KbCore/parliament/InvFuncPropRule.h
M Parliament/KbCore/parliament/InverseOfRule.h
M Parliament/KbCore/parliament/KbInstance.h
M Parliament/KbCore/parliament/MMapMgr.h
M Parliament/KbCore/parliament/NewStmtHandler.h
M Parliament/KbCore/parliament/RangeRule.h
A Parliament/KbCore/parliament/ReificationIterator.h
M Parliament/KbCore/parliament/RuleEngine.h
A Parliament/KbCore/parliament/Statement.h
M Parliament/KbCore/parliament/StmtIterator.h
M Parliament/KbCore/parliament/SubclassRule.h
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M Parliament/KbCore/parliament/SubpropRule.h
M Parliament/KbCore/parliament/SymmetricPropRule.h
M Parliament/KbCore/parliament/TransitivePropRule.h
M Parliament/KbCore/parliament/Types.h
M Parliament/KbCore/parliament/UriLib.h
M Parliament/Test/FixRecordTableTest.cpp
M Parliament/Test/KbInstanceTest.cpp
M Parliament/Test/MMapMgrTest.cpp
M Parliament/Test/RuleEngineTest.cpp
M Parliament/Test/VarRecordTableTest.cpp
M Parliament/build.xml
M Parliament/java/com/bbn/parliament/jni/KbInstance.java
A Parliament/java/com/bbn/parliament/jni/ReificationIterator.java
M Parliament/java/com/bbn/parliament/jni/StmtIterator.java
M Parliament/java/com/bbn/parliament/utilities/DumpDeletedStatements.java
M Parliament/java/com/bbn/parliament/utilities/RdfLoader.java
M Parliament/java/com/bbn/parliament/utilities/StatementHandler.java
M Parliament/javaTest/com/bbn/parliament/jni/JniTest.java
A Parliament/javaTest/com/bbn/parliament/queryoptimization/ReificationTest.java
M Sesame/ParliamentSail/src/com/bbn/parliament/sesame/sail/KbRdfRepository.java
M Sesame/ParliamentSail/src/com/bbn/parliament/sesame/sail/KbRdfSource.java
M Sesame/ParliamentSail/src/com/bbn/parliament/sesame/sail/KbStatement.java
M Sesame/ParliamentSail/src/com/bbn/parliament/sesame/sail/KbStatementIterator.java
M jena/JenaGraph/src/com/bbn/parliament/jena/graph/KbGraph.java
M jena/JenaGraph/src/com/bbn/parliament/jena/graph/KbGraphFactory.java
A jena/JenaGraph/src/com/bbn/parliament/jena/graph/KbReifierTripleMap.java
M jena/JenaGraph/src/com/bbn/parliament/jena/graph/KbTripleIterator.java
A jena/JenaGraph/src/com/bbn/parliament/jena/query/ReifiedTriple.java
M jena/JenaGraph/src/com/bbn/parliament/jena/query/SolverUtil.java
M jena/JenaGraph/src/com/bbn/parliament/jena/query/optimize/AbstractCountTransformation.java
M jena/JenaGraph/src/com/bbn/parliament/jena/query/optimize/OptimizeUtil.java
A jena/JenaGraph/src/com/bbn/parliament/jena/query/optimize/QueryIterReifiedTriplePattern.java
M jena/JenaGraph/src/com/bbn/parliament/jena/query/optimize/ReorderQueryIterTriplePattern.java
M jena/JenaGraph/test/com/bbn/parliament/jena/graph/union/UnionGraphTest.java
A jena/JenaGraph/test/com/bbn/parliament/jena/query/ReificationTest.java
M jena/TemporalIndexProcessor/test/com/bbn/parliament/jena/graph/index/temporal/AbstractTemporalTestClass.java

```

2 Recommendations

- Should we use the term “statement tag” or “statement name”? *Answer: Left as-is, with mixed terminology, for now.*
- In ctors, initialize all member fields, do this in the initializer list (not in the body), and do so in the same order they are declared. (*Effective C++, Item ??*) *Answer: Fixed*
- The virtual mode should be an enum, defined inside the Statement class. *Answer: Fixed*

- Define typedefs for collection types in `KbInstance.h`. *Answer: Fixed*
- In `ReificationIterator.h/cpp`, `m_currentPair` should be initialized to a defined value. *Answer: Fixed*
- Change reification map to use a by-value struct rather than an array on the heap. *Answer: Fixed*
- Statement objects should be passed by reference (often `const`) rather than by value. *Answer: Fixed*
- Should statement and reification iterators be input or forward iterators (see `const` pointer and reference typedefs)? *Answer: Forward*
- On reif iterator, should `m_end` be set to true by one of the ctors? Is `m_end` even needed? Is `isEnd()` over-used? *Answer: `m_end` can be replaced with a simple test on other member fields.*
- Should the reification iterator have two separate ctors, one that takes a statement name and another that takes s/p/o? *Answer: Leave as-is*
- `dumpKbAsNTriples()` adds the `xsd:string` data type even on literals that already have a type. *Answer: Fixed*
- Range rule tests for datatype properties by testing the namespace of the range against XSD. This should be more robust, e.g., testing against the GeoSPARQL and Parliament time namespaces as well. *Answer: Fixed*
- The range rule test should include some negative tests of ranges for datatype properties. *Answer: Fixed*