

## Robotics Service Bus - Tasks #304

### Wildcard Mechanism for Converter Selection

05/19/2011 03:52 PM - S. Wrede

<b>Status:</b>	Resolved	<b>Start date:</b>	05/19/2011
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	J. Wienke	<b>% Done:</b>	60%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	0.3		
<b>Description</b>			
This will be useful for			
- writing introspection/logging tools			
- implementation of generic converters (e.g. generic ProtocolBuffer converter)			
<b>Affects</b>			
- Java (Johannes)			
- C++ (Jan)			
- Python (Jan)			

#### Associated revisions

##### Revision 8728a652 - 06/07/2011 09:01 PM - J. Moringen

Improved flexibility in converter selection mechanism

refs #304

- src/CMakeLists.txt: added files  
src/rsb/converter/ConverterSelectionStrategy.h,  
src/rsb/converter/PredicateConverterList.h,  
src/rsb/converter/RegexConverterPredicate.cpp,  
src/rsb/converter/RegexConverterPredicate.h and  
src/rsb/converter/UnambiguousConverterMap.h
- src/rsb/converter/ConverterSelectionStrategy.h: new file; contains  
ConverterSelectionStrategy interface which has been lifted from  
UnambiguousConverterMap
- src/rsb/converter/PredicateConverterList.h: new file; contains an  
implementation of ConverterSelectionStrategy that uses predicates  
and a chain of responsibility
- src/rsb/converter/RegexConverterPredicate.{h,cpp}: new files; a  
converter predicate based on regular expression matching against the  
query string
- src/rsb/converter/UnambiguousConverterMap.h: implements  
ConverterSelectionStrategy
- test/CMakeLists.txt: added files  
test/rsb/converter/PredicateConverterListTest.cpp and  
test/rsb/converter/RegexConverterPredicateTest.cpp
- test/rsb/converter/PredicateConverterListTest.cpp: new file; unit  
test for PredicateConverterList
- test/rsb/converter/RegexConverterPredicateTest.cpp: new file; unit  
test for RegexConverterPredicate

##### Revision a29fc96b - 06/07/2011 09:34 PM - J. Moringen

Added missing RSB\_EXPORT in src/rsb/converter/RegexConverterPredicate.h

refs #304

- src/rsb/converter/RegexConverterPredicate.h: added RSB\_EXPORT for

class RegexConverterPredicate

#### **Revision 7fa3afd5 - 06/08/2011 07:08 PM - J. Moringen**

Added PredicateConverterList in rsb/transport/converter.py

refs #304

- rsb/transport/converter.py: added class ConverterSelectionStrategy which basically acts as an interface for converter selection; added class PredicateConverterList which selects converters based on predicate on wire-schema names and data-type names
- test/convertertest.py: added minimalistic test for PredicateConverterList

#### **Revision 997d499d - 06/08/2011 07:43 PM - J. Moringen**

Fixed errors in PredicateConverterList in rsb/transport/converter.py

refs #304

- rsb/transport/converter.py: fixed some errors in ConverterSelectionStrategy
- test/convertertest.py: added proper tests for PredicateConverterList.getConverterFor{WireSchema,DataType}

## **History**

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### **#1 - 05/23/2011 05:41 PM - J. Moringen**

- Target version set to 0.3

### **#2 - 05/23/2011 05:43 PM - J. Moringen**

- Subject changed from converter selection with wildcard mechanism to ease introspection and implementation of generic converters to Wildcard Mechanism for Converter Selection

### **#3 - 06/07/2011 10:28 AM - J. Moringen**

- Status changed from New to In Progress

- Assignee set to J. Moringen

### **#4 - 06/07/2011 11:38 PM - J. Moringen**

- % Done changed from 0 to 40

### **#5 - 06/08/2011 06:23 PM - J. Moringen**

- Description updated

### **#6 - 06/08/2011 07:51 PM - J. Moringen**

- % Done changed from 40 to 60

### **#7 - 06/08/2011 07:51 PM - J. Moringen**

- Assignee changed from J. Moringen to J. Wienke

### **#8 - 06/09/2011 12:26 PM - J. Moringen**

- Status changed from In Progress to Resolved

Converter mechanism will be revised anyway. Java implementation can wait until then.

