

## RSBag - Tasks #520

### Serialize RSB events including meta-data

08/23/2011 10:48 AM - J. Moringen

<b>Status:</b>	Resolved	<b>Start date:</b>	08/23/2011
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	J. Moringen	<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	0.5		
<b>Description</b>			
<b>Related issues:</b>			
Related to Robotics Service Bus - Bug # 375: Fragmentation: Do not transmit f...		<b>Resolved</b>	<b>06/20/2011</b>

#### Associated revisions

##### Revision d88afebe - 08/23/2011 02:18 PM - J. Moringen

Integrated channel transform mechanism

refs #520

- src/protocol.lisp (%make-channel): added parameter transform; updated documentation string  
(%make-channel-transform): new generic function; create an associated transform for a channel
- src/channel.lisp (channel::transform): new slot; stores the transform of a channel  
(entry channel integer): added keyword parameter transform; apply transform if non-nil  
(self entry t channel local-time:timestamp): likewise
- src/bag.lisp (shared-initialize :after bag t): make a channel transform when making a channel  
(self bag-channel list bag string): added keyword parameter transform; pass transform to `%make-channel`  
(%make-channel bag string t list): added transform parameter; pass transform to created channel  
(%make-channel-transform): new method; create a channel transform based on the type property of the channel meta-data
- src/synchronized-bag.lisp  
(%make-channel synchronized-bag string list t): added transform parameter
- src/package.lisp (package rsbag): added used package rsbag.transform
- src/backend/tidelog/file.lisp  
(put-channel file integer string list): apply `encode-type` to channel type prior to serialization  
(make-channel): apply `decode-type` to channel type  
(encode-type): convert channel type to a serializable form  
(decode-type): decode channel type from serializable form
- src/backend/tidelog/package.lisp (package rsbag.backend.tidelog): added used package split-sequence
- cl-rsbg.asd (system cl-rsbg): added system dependency on split-sequence

##### Revision 9264e415 - 08/23/2011 02:18 PM - J. Moringen

Added RSB event (de)serialization in src/transform/rsb-event.lisp

refs #520

- src/transform/rsb-event.lisp: new file; contains a transform that (de)serializes RSB events
- src/transform/package.lisp (package rsbag.transform): added used package iterate
- cl-rsbag.asd (system cl-rsbag): added defsystem dependency on cl-protobuf; added rsb-serialization module with data directory and file src/transform/rsb-event.lisp; added dependency of module rsb on module rsb-serialization

#### **Revision 97662b30 - 08/23/2011 04:44 PM - J. Moringen**

Added participant-converter in src/protocol.lisp

refs #520

- src/protocol.lisp (participant-converter): new generic function; return the converter used by a participant for a given wire-type (participant-converter :around t t): new method; signal an error if the next method does not produce a result
- src/participant.lisp (participant-converter t t): new method; try to obtain a requested converter from the connectors of a participant
- src/package.lisp (package rsb): added exported symbol participant-converter

#### **Revision 6c9a2ed7 - 08/23/2011 04:44 PM - J. Moringen**

Fixed %make-channel-transform in src/bag.lisp

refs #520

- src/bag.lisp (%make-channel-transform bag string list): use `make-transform' correctly

#### **Revision 6f9db3a3 - 08/23/2011 04:44 PM - J. Moringen**

Added channel transform construction in src/rsb/construction.lisp

refs #520

- src/rsb/construction.lisp (events->bag listener bag): added keyword parameter wire-schema; use wire-schema parameter to construct a channel transform (define-make-listener-method): removed (events->bag uri bag): extract and process wire-schema URI option (events->bag string bag): delegate to URI-specialized method
- src/rsb/package.lisp (package rsbag.rsb): added used package rsbag.transform

#### **Revision 5e1ac011 - 08/23/2011 04:44 PM - J. Moringen**

Fixed channel transform construction

refs #520

- src/bag.lisp (%make-channel-transform bag string list): removed special case for RSB-specific transform
- src/transform/protocol.lisp (make-transform): &rest args do not have to be keyword arguments anymore (make-transform symbol): likewise
- src/transform/rsb-event.lisp (toplevel): removed leftover optimize

declamation

(make-transform eql :rsb-event): new method; handle arguments and delegate to `find-transform-class`

- src/rsb/construction.lisp (events->bag listener bag): convert wire-schema argument to keyword

### Revision cd7ed8e4 - 08/23/2011 04:44 PM - J. Moringen

Added channel meta-data in src/{util,channel}.lisp

fixes #520

- src/util.lisp: new file; contains utilities used in the cl-rsbag system
- src/channel.lisp (channel): added superclass plist-meta-data-mixin (channel::meta-data): added reader channel-meta-data
- src/bag.lisp (%make-channel bag string t list): pass meta-data to constructed channel instance
- src/package.lisp (package rsbag): added exported symbol meta-data-count, meta-data-keys, meta-data-values, meta-data-plist, meta-data-alist and channel-meta-data
- src/rsb/package.lisp (package rsbag.rsb): added shadowing imports rsbag symbols meta-data-count, meta-data-keys, meta-data-values, meta-data-plist and meta-data-alist
- cl-rsbag.asd (system cl-rsbag): added file src/util.lisp

## History

---

### #1 - 08/23/2011 04:47 PM - J. Moringen

- Status changed from *In Progress* to *Resolved*
- % Done changed from 60 to 100

Applied in changeset r56.

### #2 - 10/27/2011 08:27 PM - J. Moringen

- Target version changed from *rsb-0.10* to *0.5*