Robotics Service Bus - Tasks #880
Implement timeline-ish formatting style

02/15/2012 10:20 AM - J. Moringen

Status:	Resolved		**Start date:**	02/15/2012
Priority:	Normal		**Due date:**	
Assignee:	J. Moringen		**% Done:**	100%
Category:	Common Lisp Tools		**Estimated time:**	0.00 hour
Target version:	rsb-0.7			

Description

It would be cool to have a formatting style producing a timeline-like view similar to the following:

```
Scope                    ↓now     ↓-1 s    ↓-2 s    ↓-3 s    ↓-4 s
/audio/card0/            |▯                              |
/nao/audio/all/          |▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯ ▯|
/nao/odometry/           |▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯·▯▯▯▯▯▯▯▯▯▯▯▯▯▯|
/nao/proprioception/     |···· ··· ··· ······ ····· ····· ····· ····· ····· ··|
/nao/system/battery/     |                   ·              |
/nao/system/cpumemory/   |·  ·   ·   ·   ·   ·   ·   ·     |
/nao/system/modules/     |·      ·     ·      ·       ·     |
/nao/system/temperatures/|     ·      ·      ·       ·      |
/nao/vision/top/         |▯▯▯▯▯ ∞▯▯▯▯▯▯▯▯ ∞▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯ ∞▯▯▯▯▯▯▯▯▯▯|
```

Associated revisions

Revision 1cefb7a5 - 02/22/2012 01:59 PM - J. Moringen

Removed support for :self in formatting/delegating-mixin.lisp

refs #873, #880

- formatting/protocol.lisp (delegate): new generic function; delegate
    to a sub-style of a formatting style
- formatting/delegating-mixin.lisp (delegating-mixin): the sub-styles
    initarg is no longer required
    (delegating-mixin::sub-styles): added initarg
    (shared-initialize :after delegating-mixin t): removed; special
    initialization is no longer required
    (setf style-sub-styles :around sequence delegating-mixin): removed;
    special setter behavior is no longer required
    (delegate t delegating-mixin t): new method; delegate to sub-style
    (format-event t delegating-mixin t): call `delegate' method
- formatting/event-style-compact.lisp (define-compact-style): define a
    method on `format-header'
- formatting/package.lisp (package :rsb.formatting): added exported
    symbol delegate

Revision 8d5ed391 - 03/19/2012 02:22 PM - J. Moringen

Added format-header in formatting/protocol.lisp

refs #873, #880

- formatting/protocol.lisp (format-header): new generic function;
    format a header for a thing onto a formatting target

- formatting/columns-mixin.lisp (format-header columns-mixin t): use
  `format-header' for individual columns
- formatting/columns.lisp (basic-column): new class; superclass for
  column classes
  (format-header basic-column t): new method; format column name as
  header
  (define-simple-column): add superclass `basic-column'
- formatting/quantity-column.lisp (format-header quantity-column t):
  new method; print column name and, later, unit, if available
- formatting/package.lisp (package rsb.formatting): added exported
  symbols format-header and basic-column

Revision 4ef5150a - 03/19/2012 02:22 PM - J. Moringen

Added grouping-mixin in formatting/grouping-mixin.lisp
  refs #873, #880
- formatting/grouping-mixin.lisp: new file; contains
  `grouping-mixin' mixin class
- formatting/protocol.lisp (make-sub-style-entry): new generic
  function; create a sub-style entry for a style
- formatting/package.lisp (package rsb.formatting): added exported
  symbols make-sub-style-entry, grouping-mixin, style-key and
  style-test
- cl-rsb-formatting.asd (system cl-rsb-formatting): added file
  formatting/grouping-mixin.lisp

Revision 495cf5de - 03/22/2012 04:30 AM - J. Moringen

Added class column-constant in formatting/columns.lisp
refs #873, #880
- formatting/columns.lisp (column-constant): new class; emit constant
  value
  (format-event t column-constant t): new method; emit the value
- formatting/package.lisp (package rsb.formatting): added exported
  symbols column-constant, column-value and column-formatter

Revision 327f4e8c - 03/28/2012 03:07 PM - J. Moringen

Updated initarg blacklist in formatting/help.lisp
refs #873, #880
- formatting/help.lisp (make-style-help-string): added initargs
  sort-predicate and sort-key to blacklist

Revision 51cca974 - 03/28/2012 03:07 PM - J. Moringen

Improved sub-style-for in formatting/sub-style-grouping-mixin.lisp
refs #873, #880
- formatting/sub-style-grouping-mixin.lisp
  (sub-style-for sub-style-grouping-mixin t): after adding the
  sub-style, retry the next method instead of initiating a new call to
  `sub-style-for'

Revision 3bf01fdd - 04/10/2012 08:55 PM - J. Moringen

Added protocol and mixin in formatting/temporal-bounds-mixin.lisp

refs #880

- formatting/types.lisp (timestamp/unix/nsec): new type; used by
  temporal bounds protocol
  (time-spec/variable): likewise
  (time-spec/operator): likewise
  (time-spec): likewise
  (time-spec-p): new function; helper for type `time-spec'
  (bounds-spec): new type; used by temporal bounds protocol
- formatting/protocol.lisp (lower-bound): new generic function; part
  of temporal bounds protocol
  (setf lower-bound): likewise
  (upper-bound): likewise
  (setf upper-bounds): likewise
  (bounds): likewise
  (bounds/expanded): likewise
  (range/expanded): likewise
- formatting/temporal-bounds-mixin.lisp: new file; contains
  `temporal-bounds-mixin' mixin class
- formatting/package.lisp (package rsb.formatting): added exported
  symbols timestamp/unix/nsec, time-spec, bounds-spec, lower-bound,
  upper-bound, bounds, bounds/expanded, range/expanded and
  temporal-bounds-mixin
- cl-rsb-formatting.asd (system cl-rsb-formatting): added file
  formatting/temporal-bounds-mixin.lisp

Revision 8996123f - 04/10/2012 08:55 PM - J. Moringen

Added collects? protocol function in formatting/protocol.lisp

refs #880

- formatting/protocol.lisp (collects?): new generic function;
  determine whether a things collects data or formats events
  immediately
- formatting/periodic-printing-mixin.lisp
  (collects? periodic-printing-mixin): new method; indicate that
  instances collect events before producing output
- formatting/quantity-column.lisp (collects? quantity-column):
  likewise
  (format-event :around t quantity-column t): new method; delegate
  non-trigger events to `update!'
  (format-event t quantity-column t): new method; required for
  dispatch; should not get called
- formatting/event-style-statistics.lisp
  (statistics-columns-mixin::quantities): removed; no longer needed
  for dispatching
  (setf style-columns :after t statistics-columns-mixin): likewise
  (format-event :around t statistics-columns-mixin t): use `collects?'
  and `format-event' for dispatching
- formatting/package.lisp (package rsb.formatting): added exported
  symbol collects?

Revision 38882677 - 04/10/2012 08:55 PM - J. Moringen

Added timeline stuff in formatting/{,event-style-}timeline.lisp

fixes #880

- formatting/util.lisp (timestamp->unix/nsecs): new function; utility
  function
- formatting/timeline.lisp: new file; contains a timeline column
- formatting/event-style-timeline.lisp: new file; contains two
  timeline-based event formatting styles
- cl-rsb-formatting.asd (system cl-rsb-formatting): added file
  formatting/timeline.lisp
  (system connection cl-rsb-formatting-and-cl-rsb-stats): added file
  formatting/event-style-monitor.lisp
- CMakeLists.txt: added test cases for timeline styles

Revision e8943081 - 04/10/2012 08:55 PM - J. Moringen

Fixed deps of formatting/timeline.lisp in cl-rsb-formatting.asd

refs #880

- cl-rsb-formatting.asd (system cl-rsb-formatting): removed file
  formatting/timeline.lisp
  (system connection cl-rsb-formatting-and-cl-rsb-stats): added file
  formatting/timeline.lisp

History

#1 - 02/15/2012 10:23 AM - J. Wienke

Actually we have exactly this as a python gui tool ;)

#2 - 02/15/2012 10:23 AM - J. Wienke

project:rsbeventvis

#3 - 02/15/2012 11:15 AM - J. Moringen

Johannes Wienke wrote:

> *project:rsbeventvis*

Yes, I know that project. Writing "It would be cool" is just my kind of humor.

Seriously though:

- The graphical event visualization has rather heavy dependencies (in my opinion)
- It is inconvenient to obtain another tool in order to inspect a system (in my opinion)
- In my tests, the graphical event visualization died under heavy load and produced quite some load itself
- In my tests, the graphical event visualization died on unexpected payload types
- The described formatting style could be modularly integrated into other styles
  (like the column-based statistics style or the scope monitor scope)

#4 - 02/15/2012 11:23 AM - J. Wienke

Sure, bugs are expected. This is a very first version and phillip will continue to work on it when he's back from holidays.

Apart from the dependencies, I am sure there are more visualization and interaction possibilities with a graphical tool. But these are not implemented right now.

#5 - 03/02/2012 07:15 PM - J. Moringen

- Target version set to rsb-0.7

#6 - 03/22/2012 04:31 AM - J. Moringen

- % Done changed from 50 to 80

#7 - 04/10/2012 08:58 PM - J. Moringen

- Status changed from In Progress to Resolved

- % Done changed from 80 to 100

Applied in changeset r3537.