

One Fact

Current Projects - October 2018



xtUML



Eclipse Oxygen

- BridgePoint was migrated to Eclipse Oxygen
- Testing still in progress
- JRE update was not performed, but can be done manually



pyrs1 2

- MC-3020 updated to be compatible with the latest release
- MC-Java updated to be compatible with the latest release
 - Server build now takes < 1 hour
 - Local build of the “core” plugin time reduced by roughly 50%
- Reversal of reflexive phrases needed along with some other fixes
- This marks the final step in moving away from the old generator



Range Separator

- Change the separator character used to show range values from: “,” to “..”.

The screenshot shows a software interface with two main panels. The top panel, titled "Shared", contains a graphical editor for a data type. The editor shows the text: «dataType», +volume, and { integer [0..11] }. The bottom panel, titled "Properties", contains a table with two columns: "Property" and "Value". The table is expanded to show the "Range" property, which is further expanded to show "Range", "Maximum", and "Minimum".

Property	Value
▶ Basic	
▼ Data Type	
▶ Data Type	volume
▼ Range	
▼ Range	[0..11]
Maximum	11
Minimum	0

Static Methods

The screenshot shows a software development environment with two main windows. The left window, titled 'Model Explorer', displays a hierarchical tree structure. Under 'HeartRateMonitor', there are two sub-entries: '+HeartRateMonitor' (with a class icon) and 'HeartRateMonitor' (with a package icon). The 'HeartRateMonitor' package is expanded to show its contents: 'HeartRateConstants', 'HeartRateMonitor' (with a class icon), and a list of attributes: 'id', 'recentHeartRate', 'timer', 'current_state', 'initialize', and 'reset'. The right window, titled 'HeartRateMonitor', shows the detailed definition of the '+HeartRateMonitor' class. It includes a class signature with a multiplicity of 1 and a generalization relationship with 'HeartRateMonitor'. Below the signature, the class attributes are listed: 'id:integer', 'recentHeartRate:integer', 'timer:inst_ref<Timer>', and 'current_state:state<State_Mo...'. The methods 'initialize():void' and 'reset():void' are also shown.

```
Model Explorer
```

- GPS_Watch
- HeartRateMonitor
 - HeartRateMonitor
 - +HeartRateMonitor
 - functions
 - HeartRateMonitor
 - HeartRateConstants
 - HeartRateMonitor
 - id
 - recentHeartRate
 - timer
 - current_state
 - initialize
 - reset

```
HeartRateMonitor
```

+HeartRateMonitor
{1,HeartRateMonitor}

id:integer {1}
recentHeartRate:integer
timer:inst_ref<Timer>
current_state:state<State_Mo...

initialize():void
reset():void

OAL Auto Indent

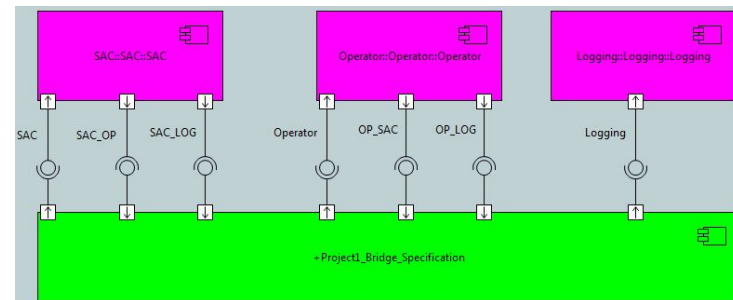
- Automatically indent newly inserted lines at the same indentation level by duplicating the indentation of the previous line.
- When the user inserts a new line and the previous line begins with one of the following OAL statements (case insensitive), an additional level of indentation to the previous line shall be automatically inserted: `if`, `elif`, `else`, `for each`, `while`
- When preference settings are configured to use tabs the OAL editor shall render all tabs using the size of the tab width specified in the preferences.
- Changes to tab width shall not affect existing indentation where spaces were used instead of tabs.

Model Compiler Updates

- In current Engineering builds, [coming in v6.16](#)
 - Simulated time
 - Brought back MC-3020 Persistence
 - State Save
 - Class-specific tracing
 - Tag interface messages safe for interrupts
 - Many bug fixes and enhancements

MASL Deployments

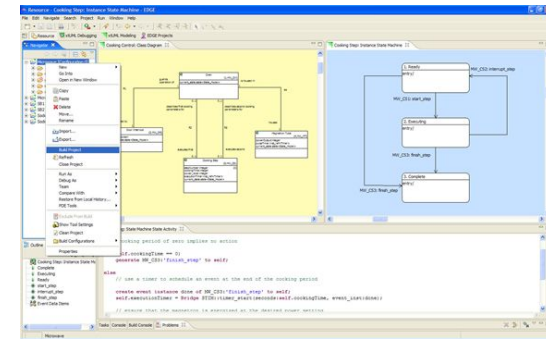
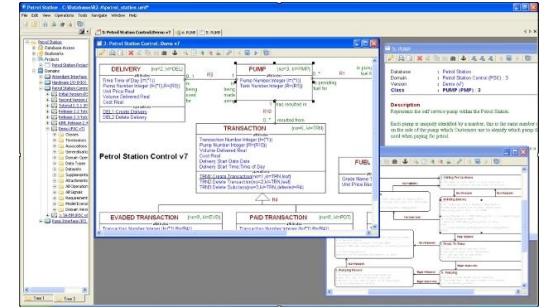
- MASL idiom for system modeling is overly complex
- Bridging convention is difficult to map to xtUML
 - Public domain services exposed to the outside world
 - Terminator services specify dependencies for each domain
 - “Project” terminator services override stubs provided by domains and directly invoke public domain services in visible domains



- There is a need for a new xtUML element (or set of elements) to more naturally represent bridging the iUML/MASL way

ASL Assessment

- Migrate from iUML to a tool chain that is:
 - Modern
 - Commercially supported
 - Viable for long-term development
 - Hosted on Windows
 - Actively developing and moving forward
- Engage a partner for training, consulting in:
 - xtUML modeling
 - Model compiler development
 - Test harness, debugging, automation
 - Migration of models to new tool chain
 - Model-driven workflow definition and deployment



Testing update

- Unit tests
 - ~19000 total unit tests
 - ~3000 new generated tests (m...n)
- Manual tests
 - ~80 test procedures
 - 7 new test procedures
- Oxygen
 - ~300 unit test failures related to the migration to Oxygen
 - Some good bugs caught and fixed
 - To be cleaned up during next release cycle



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