BridgePoint & Papyrus-RT
xtUML and UML-RT
Agenda

Introduction and Summary

- BridgePoint xtUML
- Papyrus-RT
- Capsules
- Running Models
- Model Compilers

not shown: xtUML generated code integrated with Papyrus-RT generated code and running the GPS Watch example
What xtUML looks like... Components
... looks like. Class Diagrams
... State Diagrams

1. stopped
   entry/
   // reset
   self.time = 0;
   send UI::setTime(time: self.time);

   select one trackLog related by self->TrackLog[R4];
   trackLog.clearTrackPoints();
   trackLog.clearLapMarkers();
   trackLog.clearHeartRateSamples();

   // notify the UI of this change
   generate Display_A2:refresh() to Display class;

   unrelate self from trackLog across R4;
   delete object instance trackLog;

2. running
   entry/

3. paused
   entry/

WorkoutTimer1: startStopPressed/...

WorkoutTimer2: lapResetPressed/...

WorkoutTimer3: tick/...
Papyrus-RT Top Capsule
Heart Rate Monitor State Machine
... executing the models.
Design Strategy

- Incremental, Always Advancing, Never Broken

- Tool Layers:
  - Application
  - Semantic
  - Technology

- Semantic Steps

onefact.net/blog
Model compilers generate code.

Application Models

Optimized Code

Translation Engine

Marking Data

Rules & Templates

C

C++

Java

SystemC

VHDL

MISRA

...
Models

- xtUML Model Libraries
- UML Standards
- Model Patterns
- Methodology
- Components
- Classes
- State Diagrams
Training and Consulting

- xtUML Basic Modeling
- On-Site Consulting and Knowledge Transfer
- BridgePoint Tool Training
- Process Integration Courses
- Model Compiler Training
- Executable UML Debugging
- Project “Jump Start” (making a successful first project)