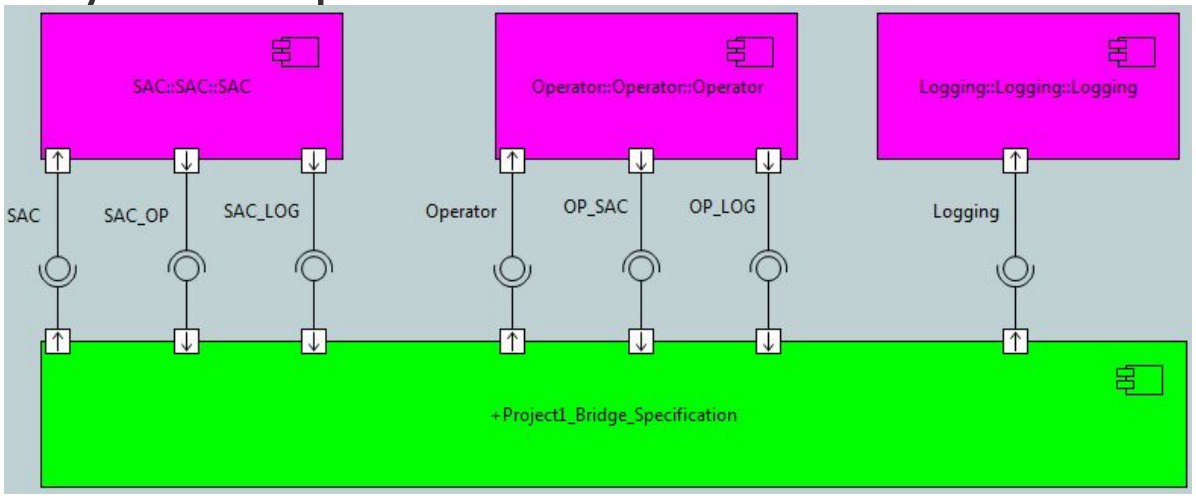
Deployments



October 2018

Overview

- 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

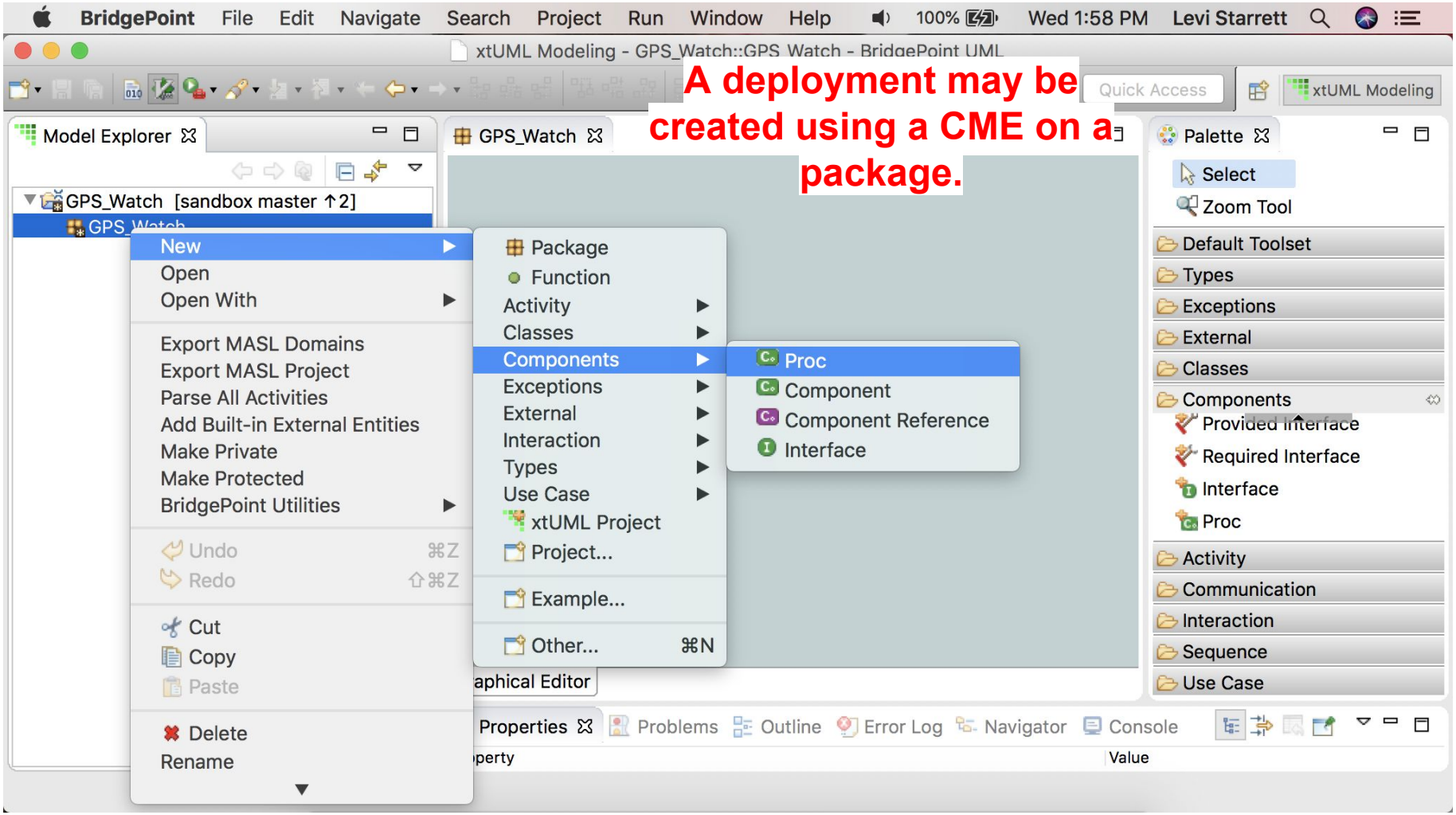


- *There is a need for a new xtUML element (or set of elements) to more naturally represent bridging the iUML/MASL way*

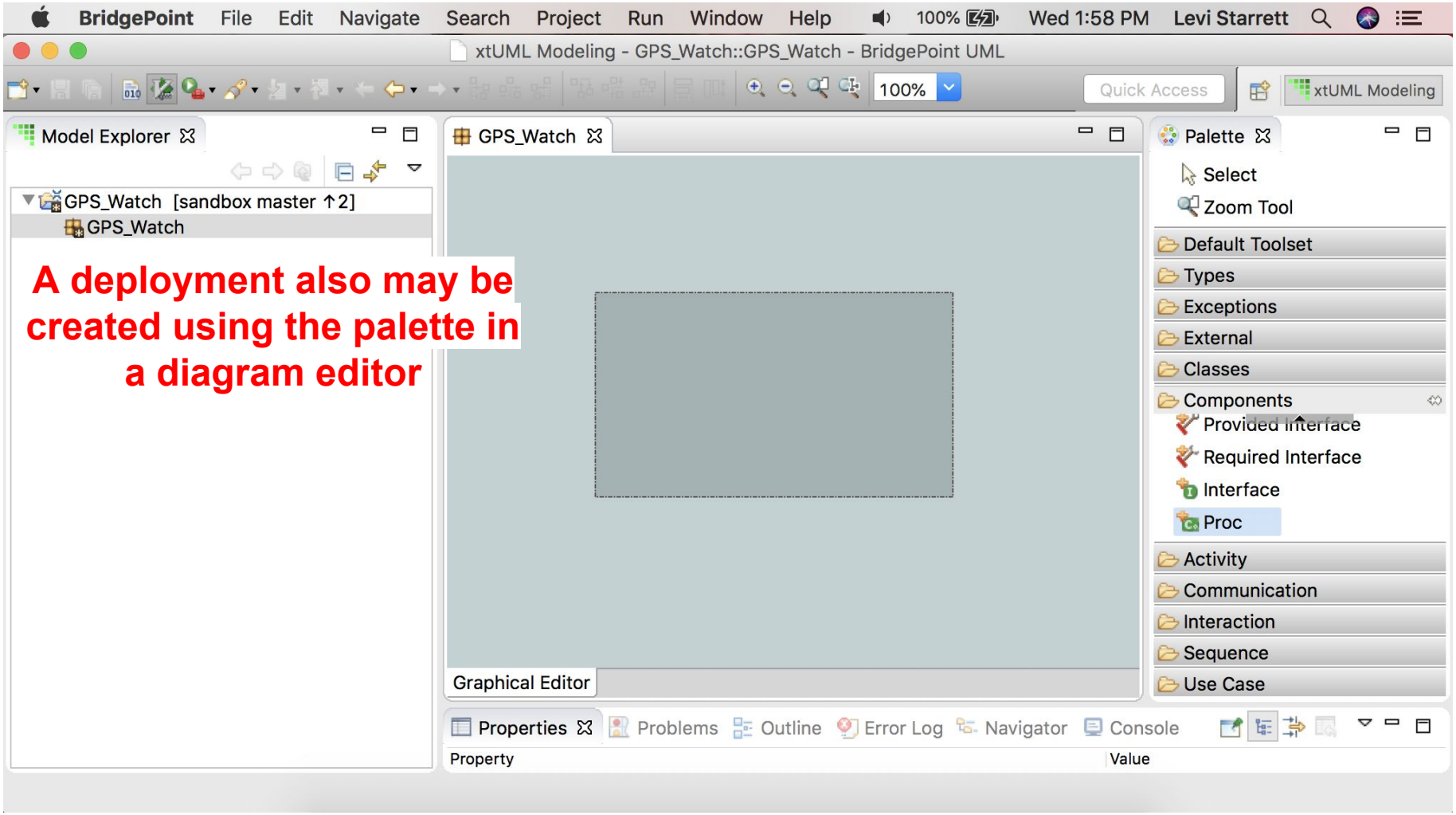
Terminology

- **Deployment** - A newly introduced xtUML element which captures the configuration of an executable system made up of one or more components
- **MASL project** - Contains many project domain definitions; defined in a ".prj" file; represented in xtUML by a Deployment
- **Domain** - An encapsulated set of data and behavior definitions; exposes behavior through public services; requires services through terminators; defined in a ".int" or ".mod" file; represented in xtUML as a component
- **Terminator** - A named group of services within a deployment which corresponds to a required port on one of the deployed components
- **Terminator Service** - An action body declared within a terminator which overrides the implementation of a corresponding required interface message

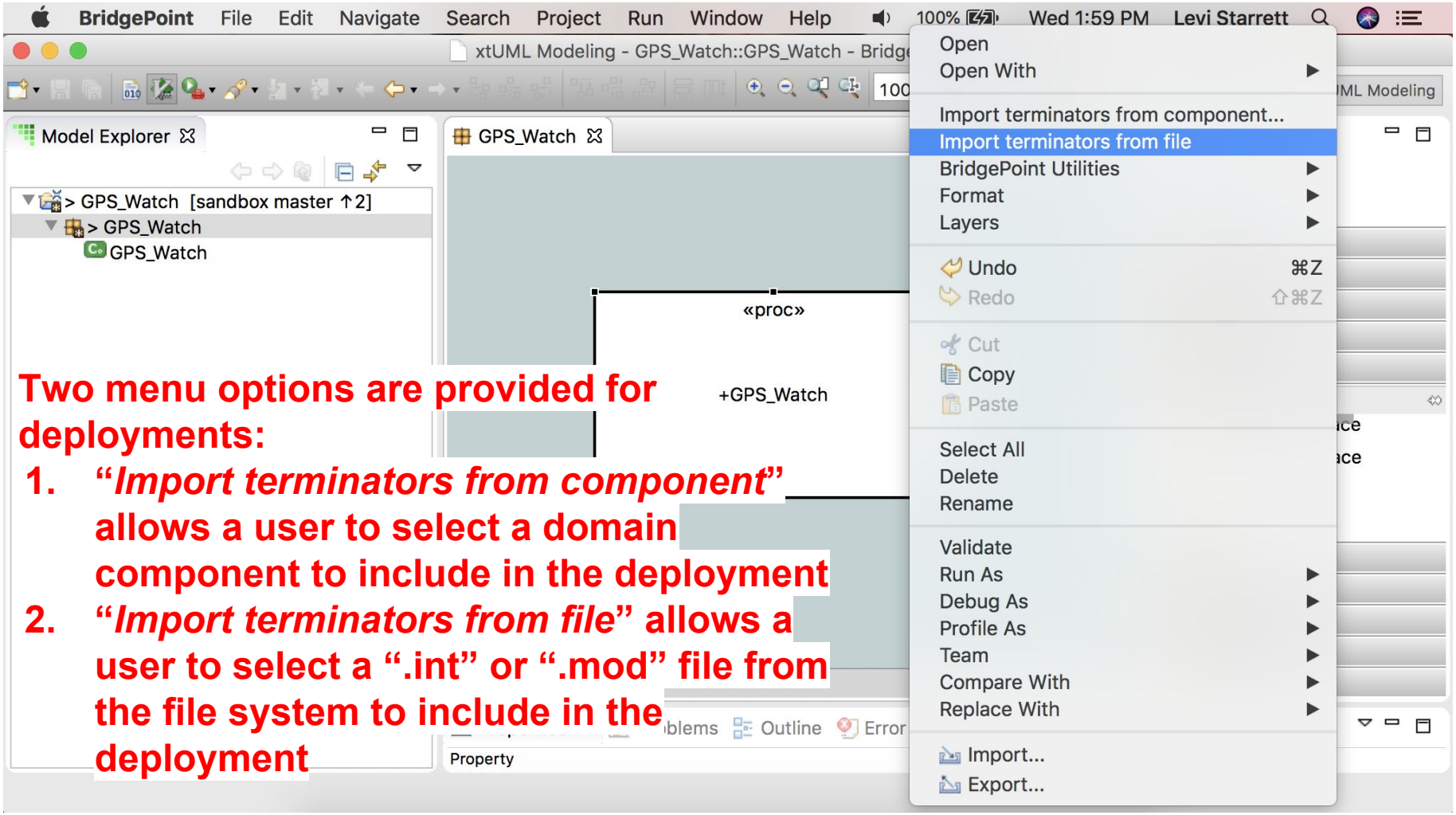
Prototyping



Prototyping (cont)



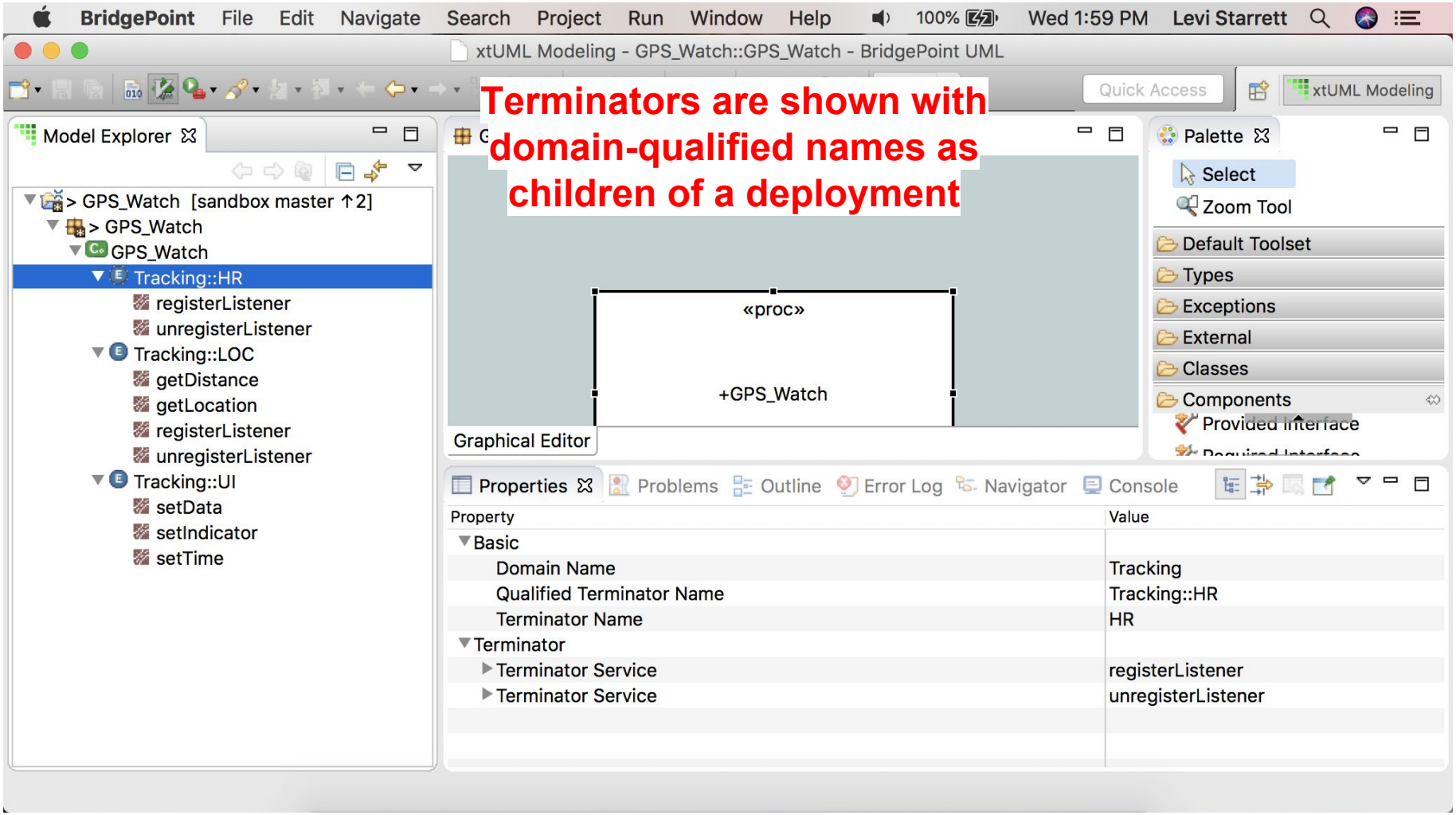
Prototyping (cont)



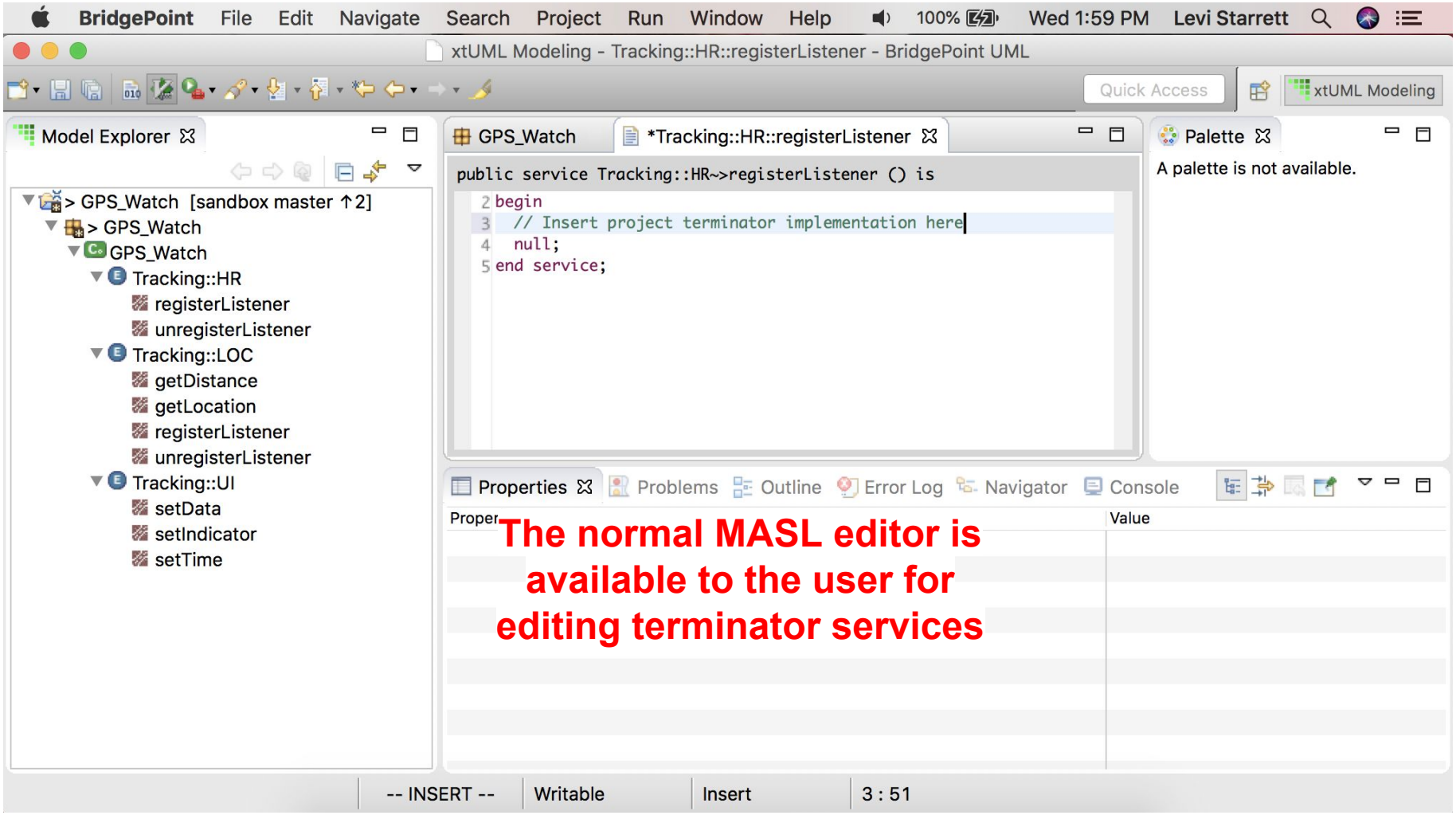
Two menu options are provided for deployments:

1. **"*Import terminators from component*" allows a user to select a domain component to include in the deployment**
2. **"*Import terminators from file*" allows a user to select a ".int" or ".mod" file from the file system to include in the deployment**

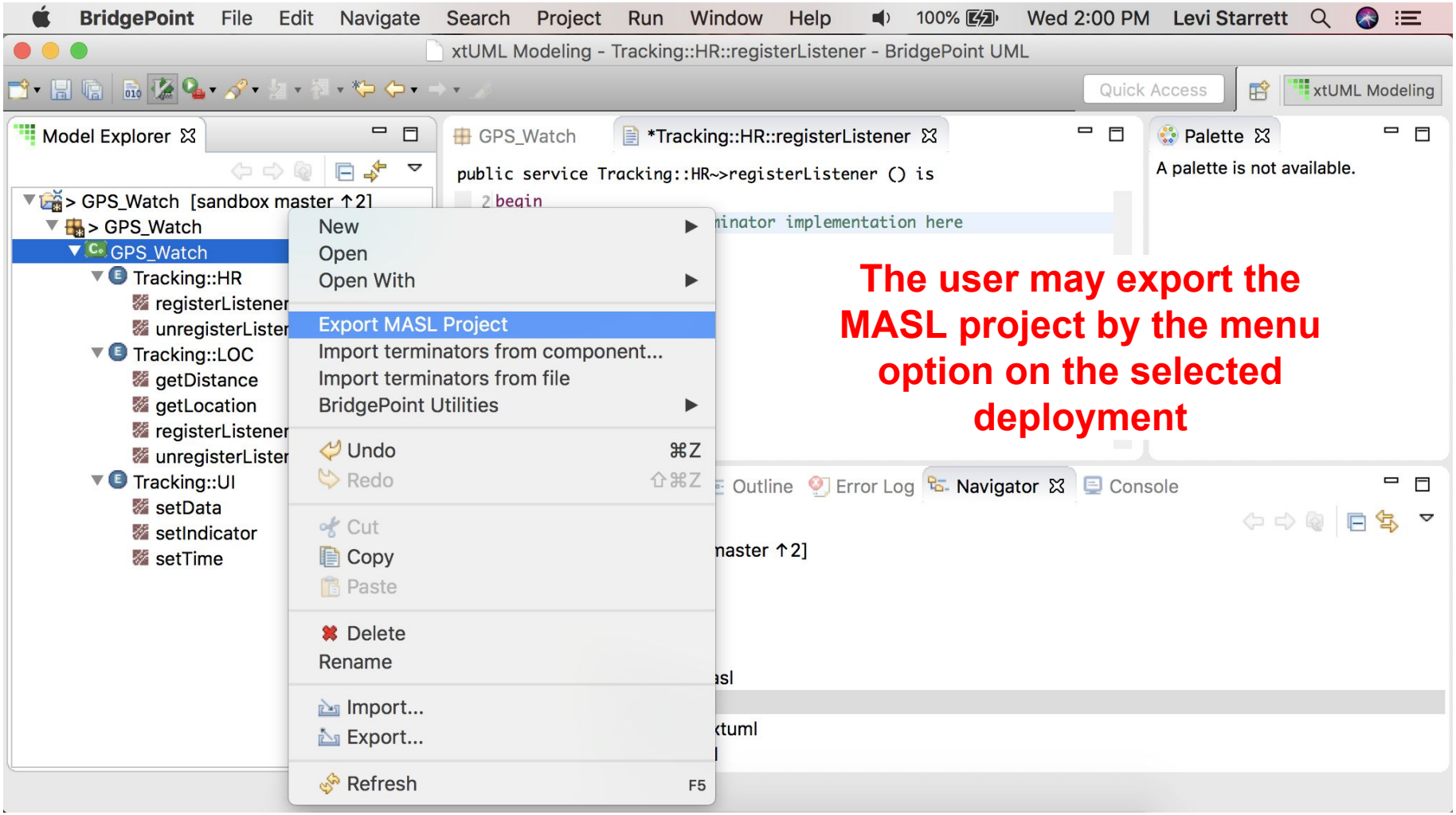
Prototyping (cont)



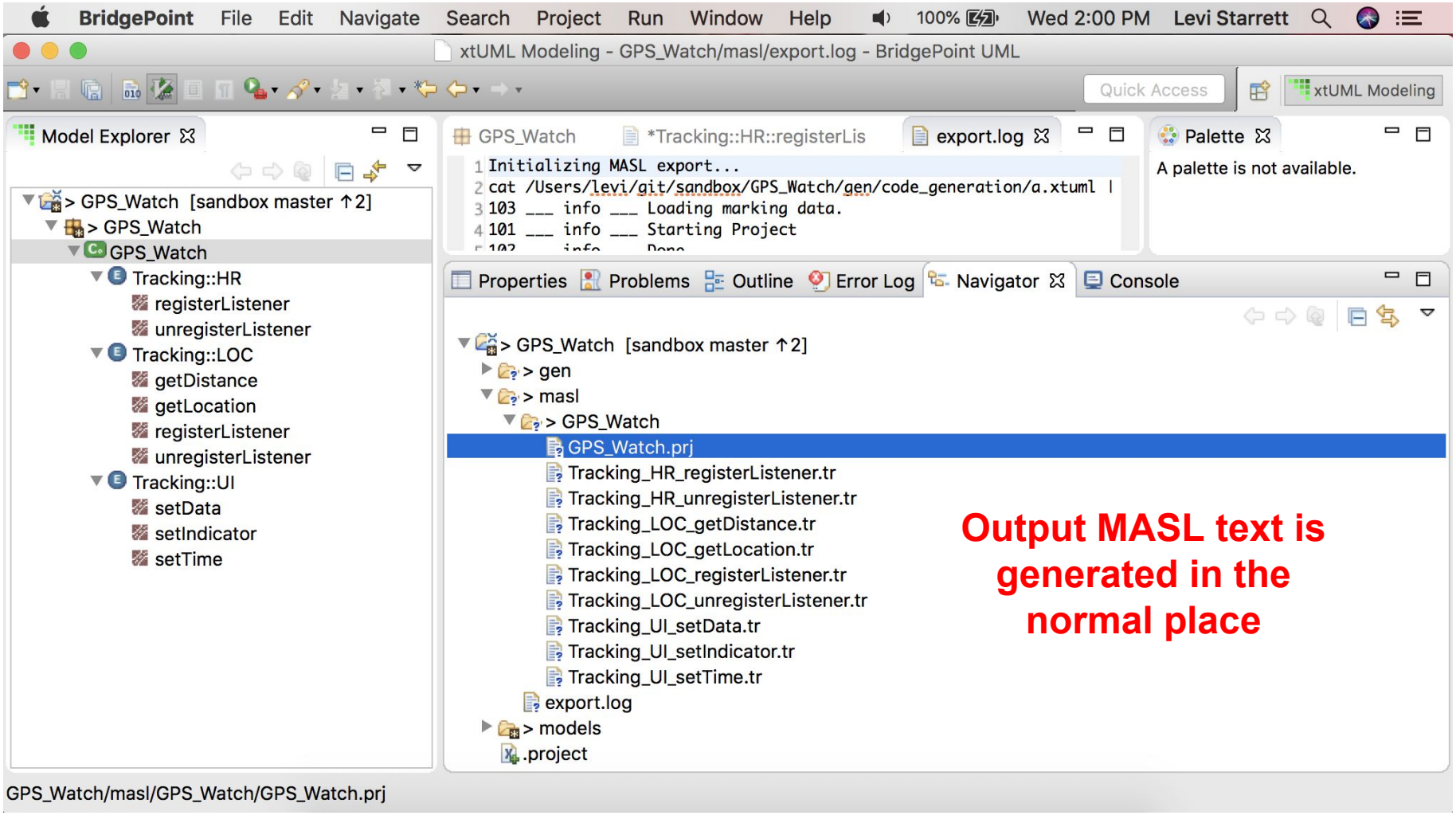
Prototyping (cont)



Prototyping (cont)

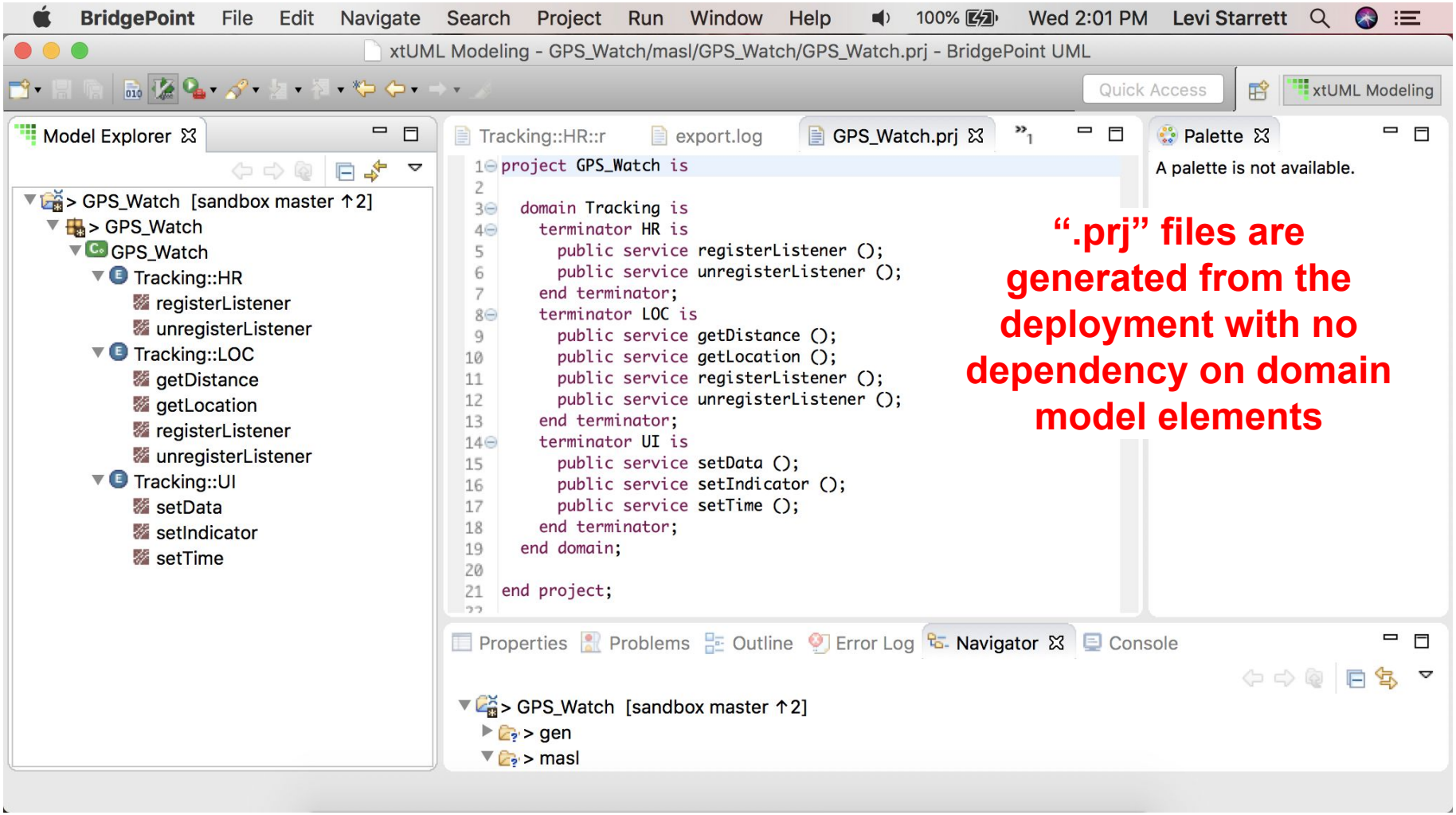


Prototyping (cont)



Output MASL text is generated in the normal place

Prototyping (cont)



".prj" files are generated from the deployment with no dependency on domain model elements



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