

Homework 4

Custom Events

due before class on **October 24th**

Outline

In this example, students will create several widgets that generate “submissions,” and one widget that logs each submission that occurs. Students will add events to each widget, and use those events to connect the widgets together.

The layout of each widget is not specified in detail. Students may select their own layouts, but they must still ensure that those layouts have reasonable resizing behaviors.

Students *must* add new events to each submit widget; a submission that does not create new events to represent submission events will receive half-credit.

Students will turn in their submissions using iCollege. Students should submit a zip-file containing their project directory. Students should ensure that their code is submitted in a buildable form.

The PointSource Widget

The PointSource widget allows a user to submit a three-dimensional point. It should have three sliders, one each for the X, Y and Z coordinates of the point, respectively; it should also have a “submit” button.

The PointSource should have an event to represent a point submission; when the “Submit” button is clicked, that event should be fired. (The widget may either include the current X, Y and Z values as parameters for the event itself, or include a separate `getPoint` function.)

The TextSource Widget

The TextSource widget allows a user to submit a text-string. It should have a single-line text field, and a “submit” button. The TextSource widget should have an event to represent a text submission event, which should be fired when the “Submit” button is clicked. (As before, you may either include the text to be submitted as a parameter to the event, or use a separate `getText` function.)

The SelectionSource Widget

The SelectionSource widget should have 4 radio buttons in it, and a “Submit” button. The SelectionSource widget should have an event to represent a selection submission, which should be emitted when the “Submit” button is clicked. (You may either include the text of the submitted radio-button as a parameter for the event, or use a separate `getSelection` function.)

The SubmissionLog Widget

The SubmissionLog widget should have a single multi-line text field; the multi-line text field should not be editable. The widget should also have a `logSubmission` function, which should take a string as an argument; when the function is called, the string should be added, on its own line, to the multi-line text field.

The Main Interface

Your main interface should contain one of each type of widget.

You should attach callbacks to the submit-events of each of the selection widgets, such that, when a submission occurs, that submission is logged in the submission log.

Graduate Students

There is no additional graduate portion for this assignments.