TVVS – Model-Based Testing
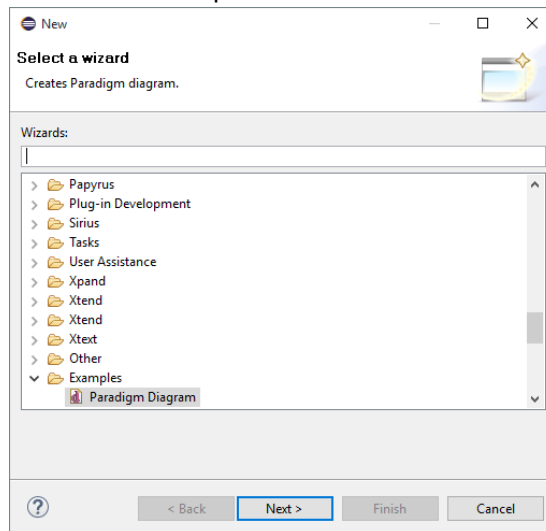
## PBGT - Exercises

Exercise 1 – Call Pattern (Guided Exercise)

In this exercise we will test the call pattern.

The goal of this exercise is to verify the result of clicking on "Departments" button of http://www.fe.up.pt

1. Create New Java Project
   a. Give a name to the project "TVVS_Exercise"
2. Create a Paradigm Diagram
   a. Right click on project folder and select "New" -> "Other". The following window should open:

   b. Select "Paradigm Diagram" from the folder "Example" or use the "Wizards" to search.
   c. Give a name to the diagram. **DO NOT change** the extension of the file and make sure that the diagram is saved in the **src folder** of the project. Click Next.
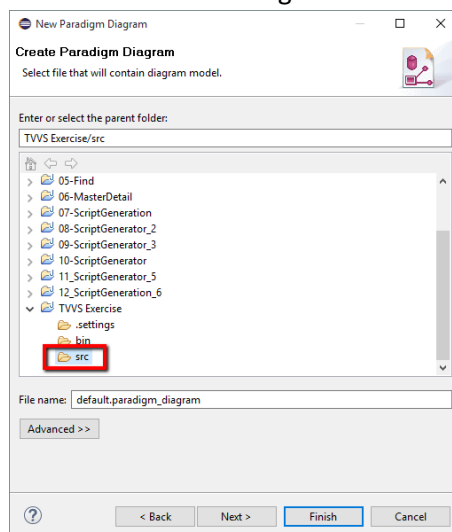

   d. Give the same name of the diagram to the paradigm domain model file and make sure that the diagram is saved in the **src folder** of the project. Click Finish

3. Drag Init node, Call node and End Node, from the right panel to the diagram area and connect the nodes with sequence connector. The result should be this.
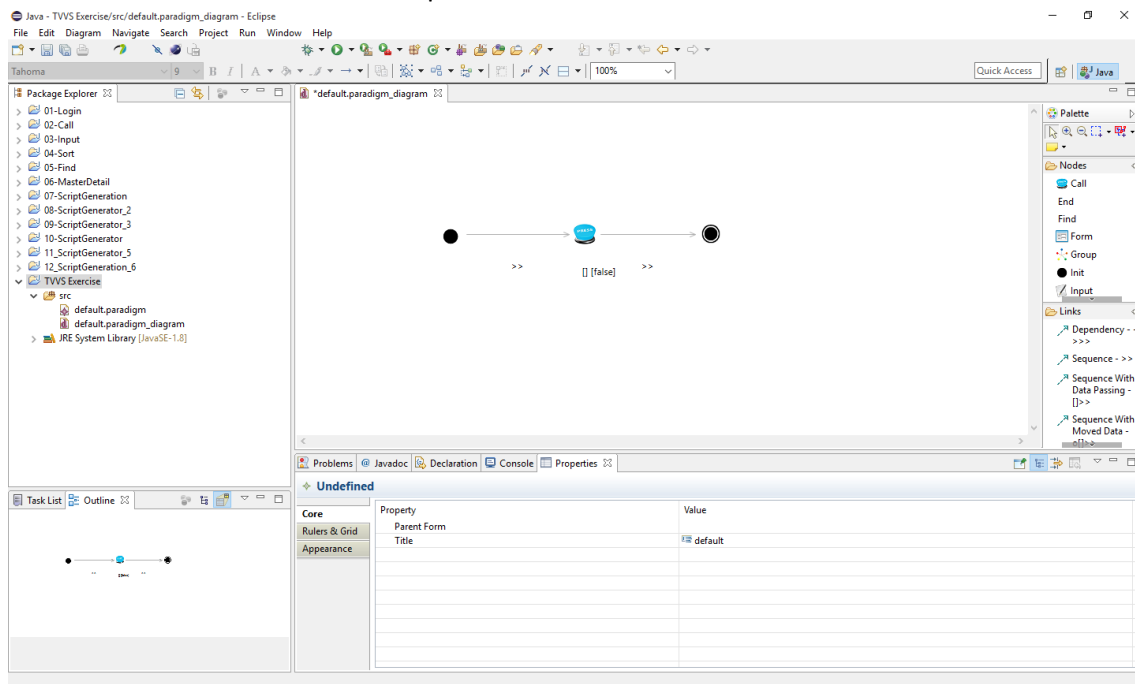
4. Select Init Node, and set the property name "init" and the property number "0". To see the properties you might have to right click on graph are and select "Show properties view".
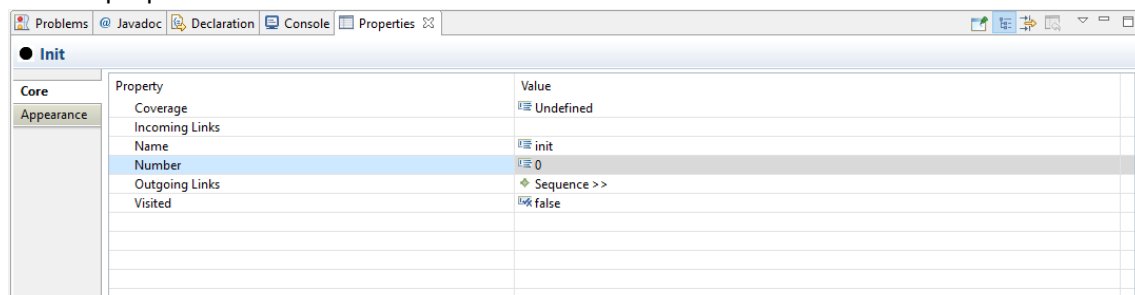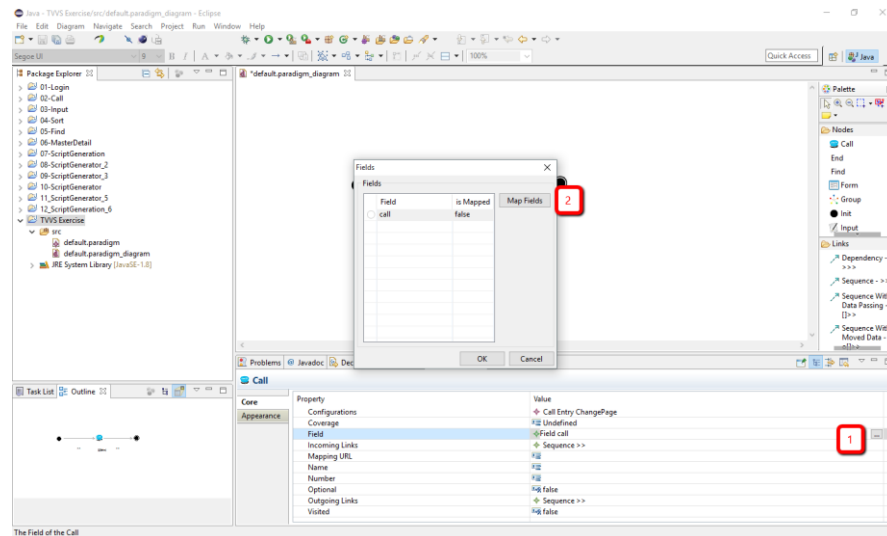

5. Select End Node, and set the property name "end" and the property number "2".
6. Select Call Node, and set the property name "button" and the property number "1".
7. Select Call Node and add two checks:
   a. Change Page
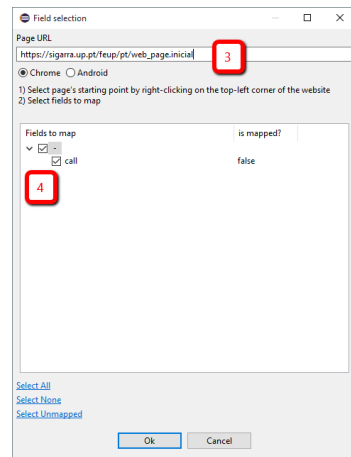   b. Present in Page: "Departamento de Engenharia Informática"

8. Map the field:

a.

b. Add the url https://sigarra.up.pt/feup/pt/web_page.Inicial and select the button. Press "OK"

c. The Chromedriver should open. After page load, right click on the top-left corner of the page.

d. Press Map Field
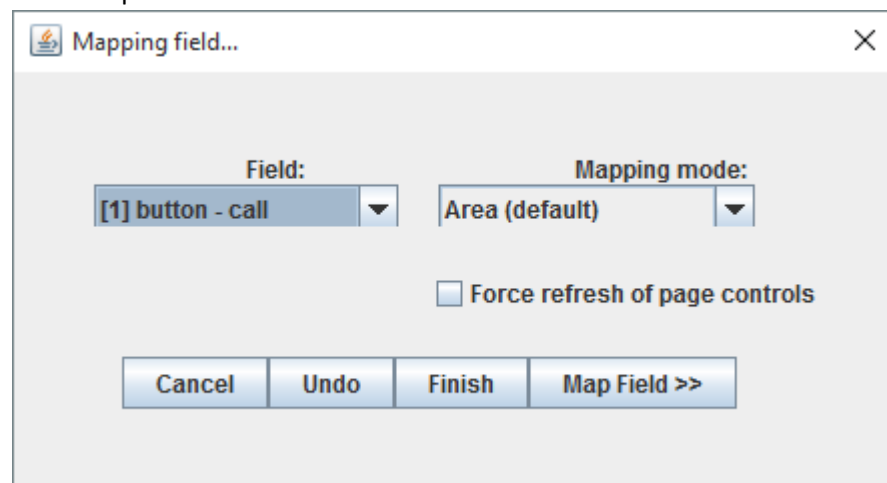
e. Press "Ok" the PBGT gather all the elements of the page and wait until it finish

f. With the right button pressed draw a rectangle over the button "Departamentos". Make sure the button is totally inside rectangle area.
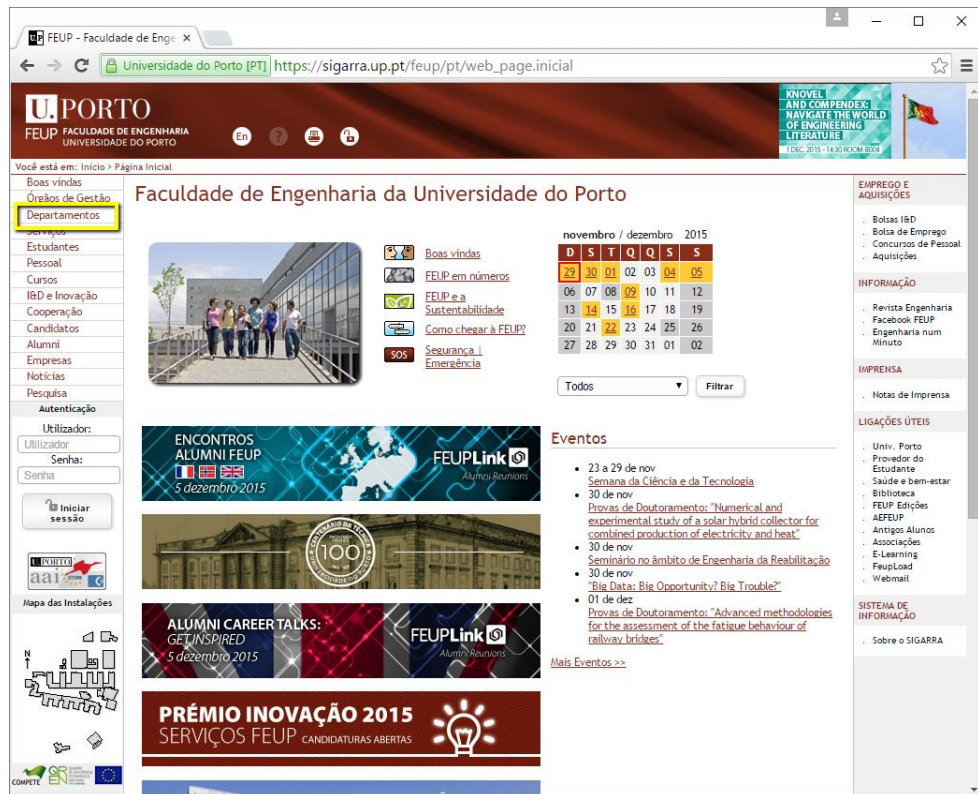
g. Save the image for control

h. Press "OK" on completed dialog.

9. Right click on the graph area and select "Generate Test Script"

a. In this case we only have one path and one test case. We can press "OK"
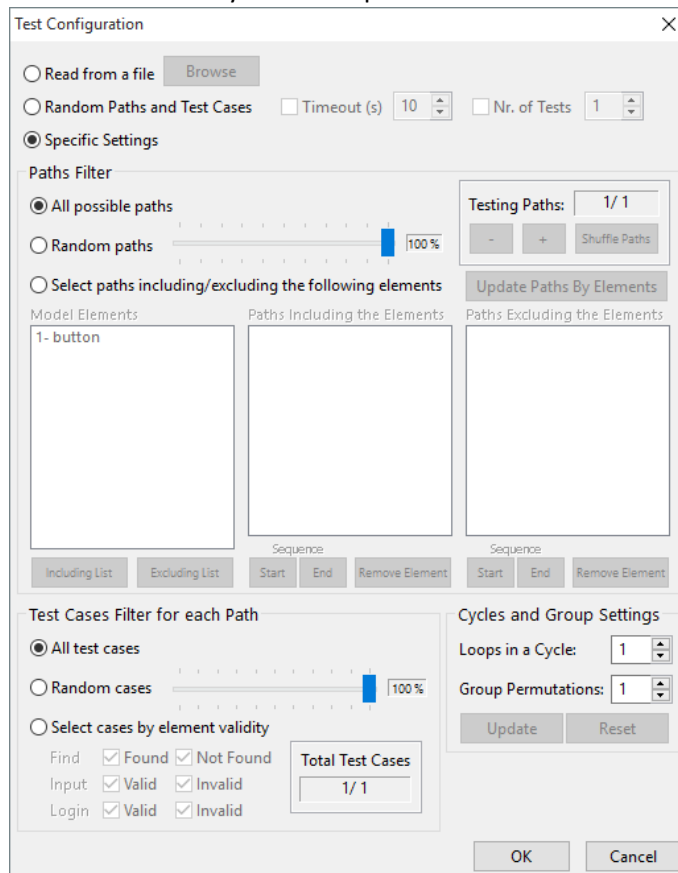
10. Right click on the graph area and select "Execute Tests", and Press OK

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Problems  @ Javadoc  Declaration  Console 23  Properties
Execution Report

Overall Results: 100% passed (100% executed)
        * Elem. 1                : 100% passed  (100% executed)

Test Case Coverage [<testCase>: <checkResult> | <executionResult>]:
        * [0, 1, 2]: 100% passed (100% executed)

Test Trace [<executionOrder>) <elementID>: <testResult>]:
        (executed tests based on generated script)
           0) 1              : passed
```
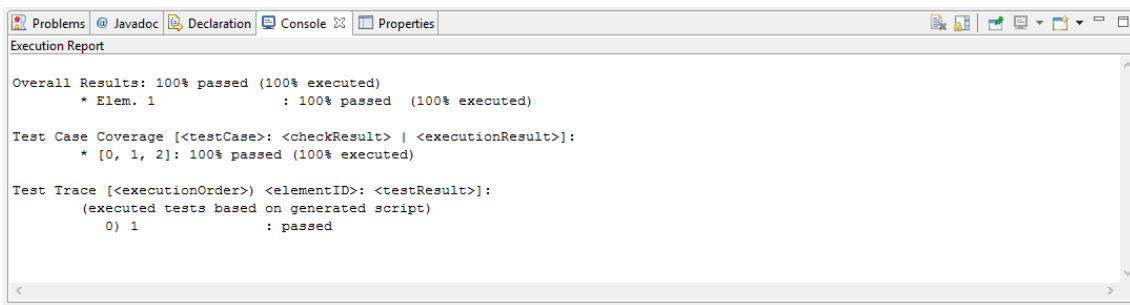
Exercise 2 – Master Detail Pattern

1. Create New Java Project
   a. Give a name to the project "TVVS_Exercise_2"
2. Create a Paradigm Diagram
   a. Right click on project folder and select "New" -> "Other". The following window should open:
   b. Select "Paradigm Diagram" from the folder "Example" or use the "Wizards" to search.
   c. Give a name to the diagram. **DO NOT change** the extension of the file and make sure that the diagram is saved in the **src folder** of the project. Click Next.
   d. Give the same name of the diagram to the paradigm domain model file and make sure that the diagram is saved in the **src folder** of the project. Click Finish.
3. Drag Init node, MasterDetail node and End Node, from the right panel to the diagram area and connect the nodes with sequence connector.
4. Select Init Node, and set the property name "init" and the property number "0".
5. Select End Node, and set the property name "end" and the property number "2".
6. Select MasterDetail Node, and set the property name "button" and the property number "1".
7. Select MasterDetail Node and add Configurations:

Master	Detail		
	Check	N	Detail
Audi	Contains	1	A6
	Contains	1	TT
	Not Contains	0	C220
Dodge	Contains	1	Viper
	Not Contains	0	A6
	Not Contains	0	TT
	Nr. Details	18	

8. Map the fields "Make" and "Model".
9. Generate Test Script.
10. Run Tests.