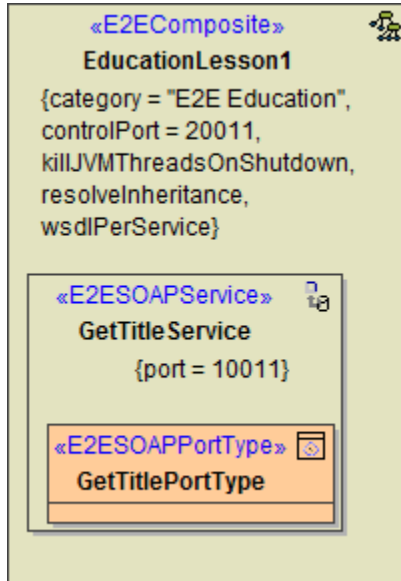# Components Lesson 2 MD18

> We skipped the sequence diagram here, as it was already explained in lesson 1 and is only used for documentation purposes.
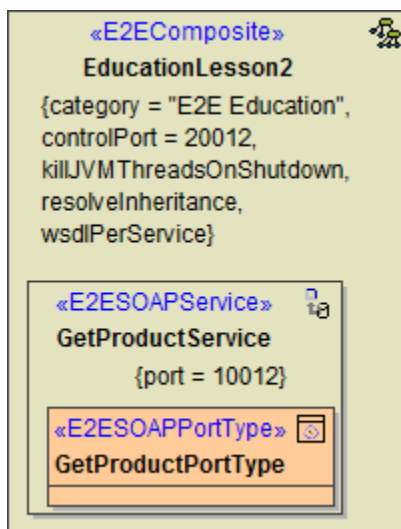
Remember that component diagrams represent the physical view of the Web service. A component diagram defines how components are wired together to form larger components or software systems. In context of the Bridge you define xUML services that are deployed to an E2E Runtime. The component diagram contains model elements like components, classes, and interfaces.

In the picture below you see the initial situation, the component diagram of lesson 1.

On this Page:

- Reworking the Component Diagram
- Using the E2E Components Wizard

«E2EComposite»
EducationLesson1
{category = "E2E Education",
controlPort = 20011,
killJVMThreadsOnShutdown,
resolveInheritance,
wsdlPerService}

«E2ESOAPService»
GetTitleService
{port = 10011}

«E2ESOAPPortType»
GetTitlePortType

In the next modeling step, you will rework the physical implementation of the Web service. The goal is to provide a second Web service running on the E2E Bridge node instance **localhost**: The new SOAP service component **GetProductService** will be specified for the xUML service **EducationLesson2**.

After editing the component diagram, it will look like shown in the following picture.

«E2EComposite»
EducationLesson2
{category = "E2E Education",
controlPort = 20012,
killJVMThreadsOnShutdown,
resolveInheritance,
wsdlPerService}

«E2ESOAPService»
GetProductService
{port = 10012}

«E2ESOAPPortType»
GetProductPortType

Reworking the Component Diagram

For reworking the existing component diagram you created in lesson 1, you will do some editing directly in the diagram and use the E2E Components Wizard to create the new port type.
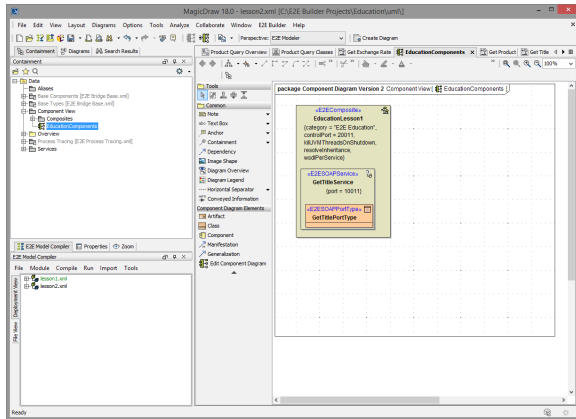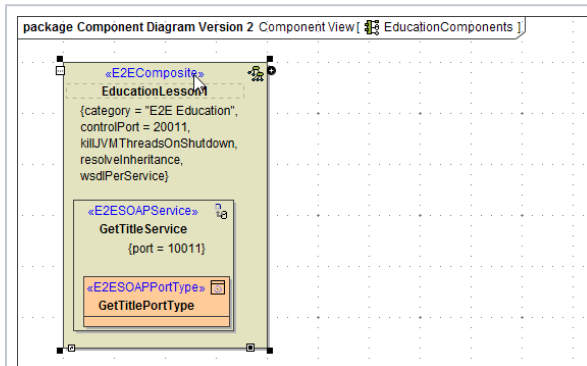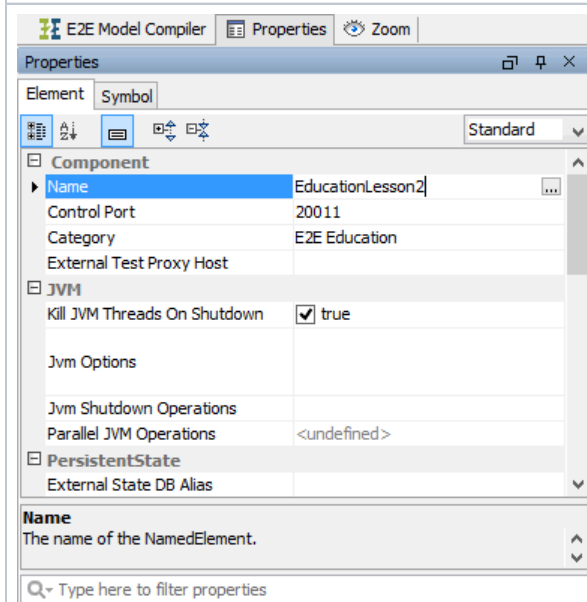
In the containment tree, navigate to **Data - Component View - EducationComponents** and open the component diagram.
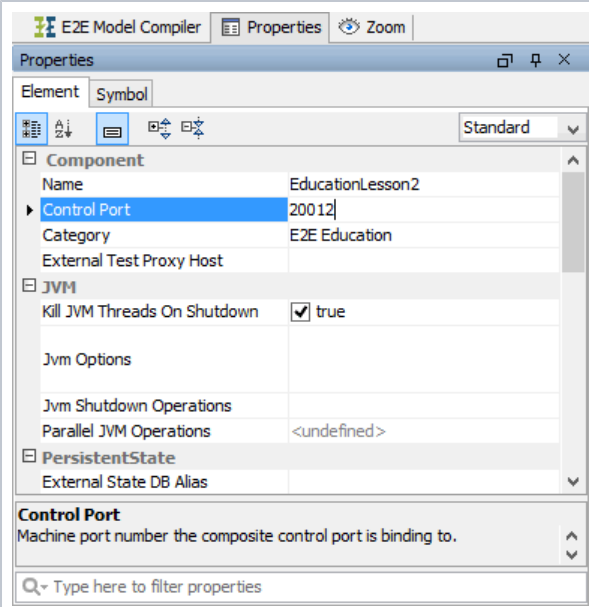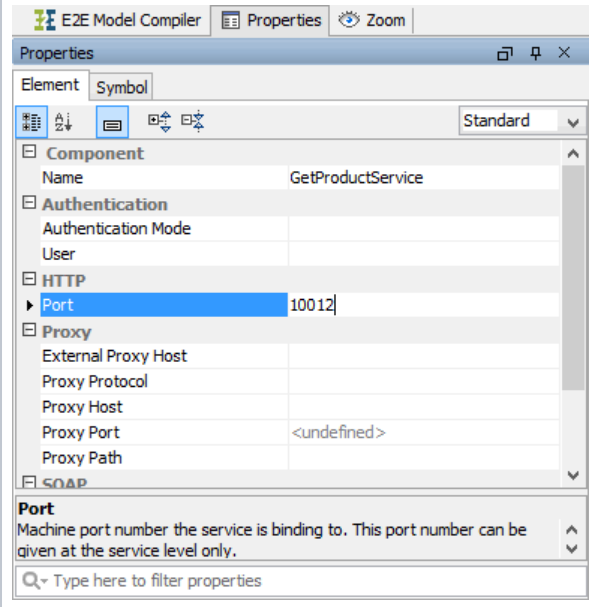

First, you will enter the new names of the xUML service components and change the port number of the SOAP service component, so both services (lesson 1 as well as lesson 2) can be run at the same time.

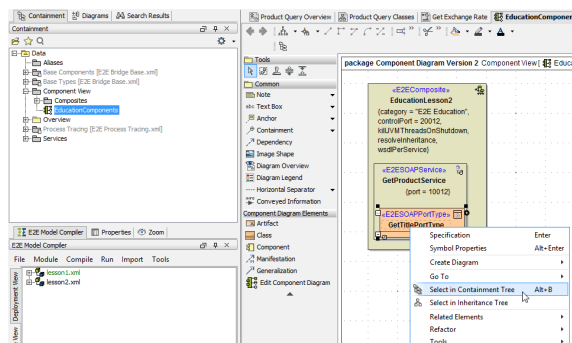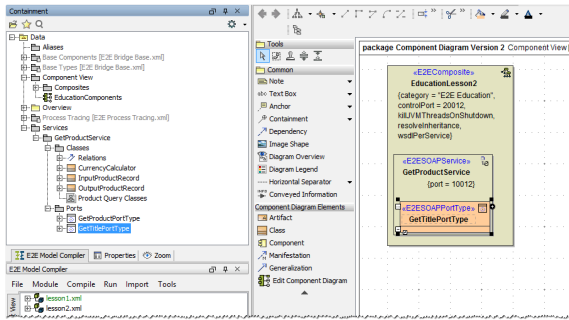|	
	Click the <<E2EComposite>> component **EducationLesson1** to select the element.
	Switch to the **Properties** tab in the lower left corner of Magic Draw (where the Model Compiler is situated, too). Change the name of the component to **EducationLesson2**.

| | Change the **Control Port** number to 20012. |

| | Select the service component **GetTitle Service** in the diagram pane. In the Properties tab, change it's name to **GetProductService** and change the **Port** to 10012. |
| | Switch back to the **E2E Model Compiler** tab. |

Next, you will substitute the old port type **GetTitlePortType** by the new port type **GetProductPortType**. First, you will delete the old port type, then insert the new one.

Right-click the port type **GetTitlePortType**. Select **Select in Containment Tree** from the context menu.
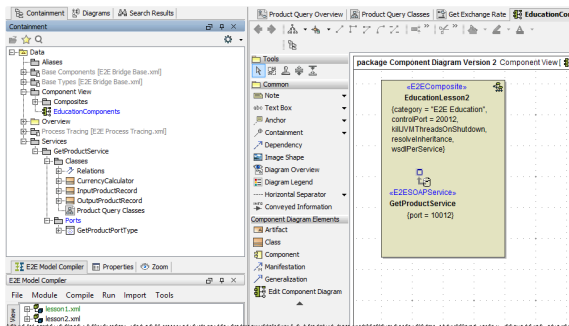

The containment tree expands automatically and highlights the selected UML element.

Press **Del** to delete the **Component** in the containment tree as well as the symbol in the diagram pane.

> Pressing the **Delete**-button in the containment tree deletes the definition in the containment tree and removes all corresponding symbols from diagrams.
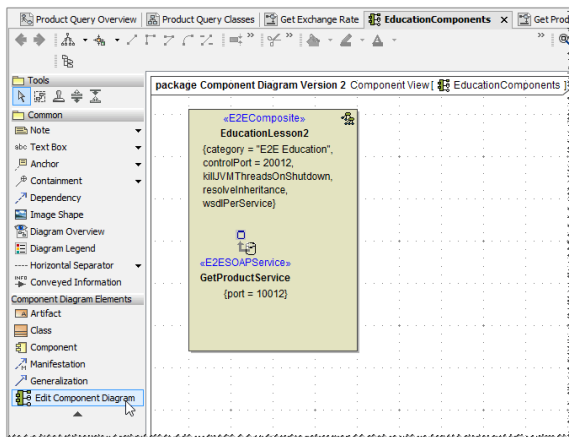
Note that the **Component** has been deleted from the diagram pane.

> Pressing the **Delete**-button on an element on the diagram pane only deletes the symbol on the diagram pane. In this case, you have to use **Ctrl - D**. Pressing **Ctrl - D** deletes both: the symbol and the definition in the containment tree.
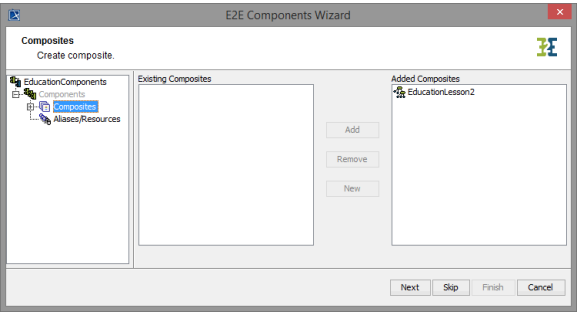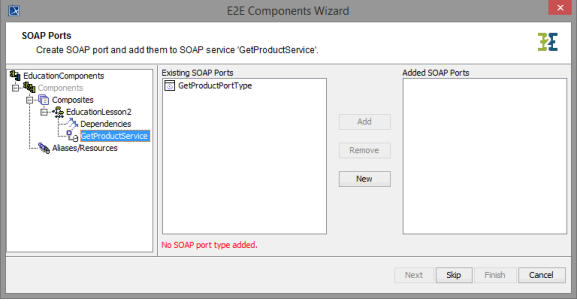
Using the E2E Components Wizard

Start the **E2E Components Wizard** by clicking on the icon in the diagram toolbar on the left.
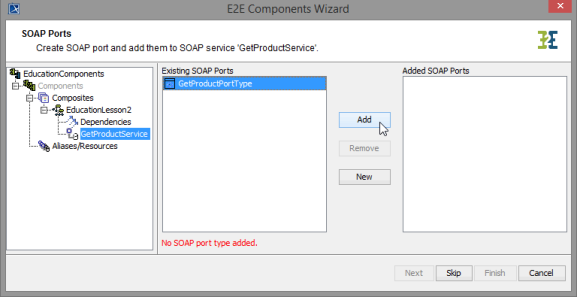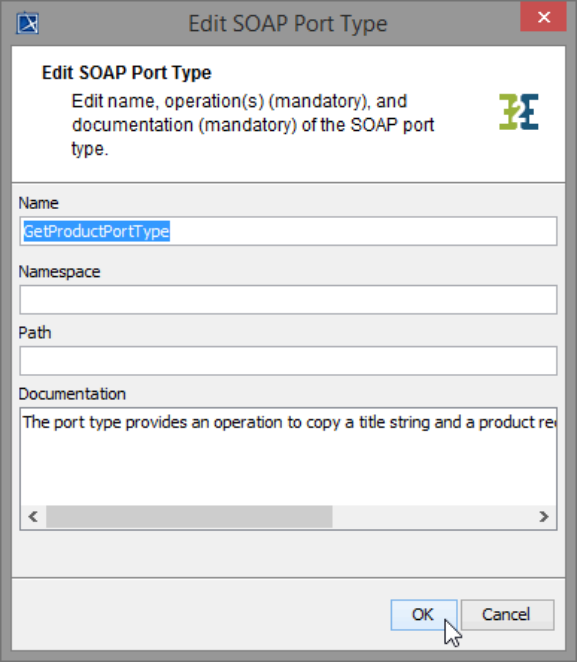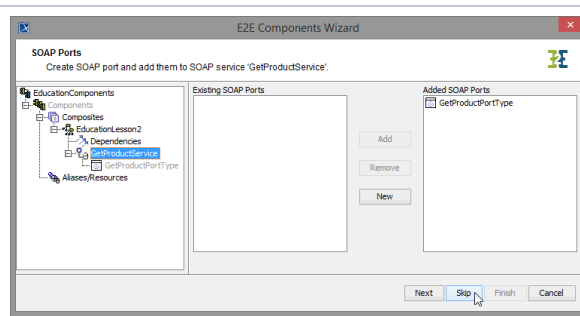

> You need to click the icon **Edit Component Diagram** in the diagram toolbar and **not** the icon **E2E Components Wizard** in the menu bar in order to edit an existing component diagram.

The **E2E Components Wizard** dialog window opens.

The wizard displays the service component **EducationLesson2**.

Expand the tree on the left and navigate to the component **GetProductService** below the **Composites** node of the tree.
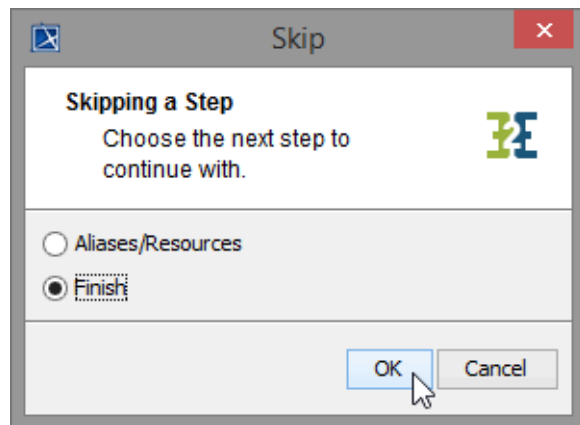
In the SOAP Port Type list, all available port types are listed. As you already deleted **GetTitlePortType**, **GetProductPortType** is the only available port type.

Select **GetProductPortType** and click **Add** to add it to the xUML service.

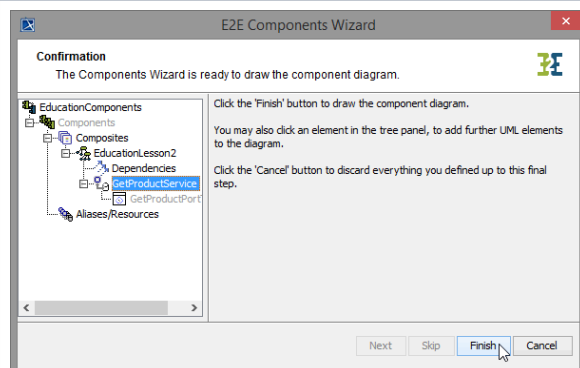
Click **OK** for confirmation.

In the **Components** part of the tree panel, the service component is selected again, to give you the option to define further frontend services.

As you do not need any further elements, click **Skip**.

All necessary components have been defined. As you do not define any backend or proxy in lesson 2, choose the option **Finish** to continue with the last step.
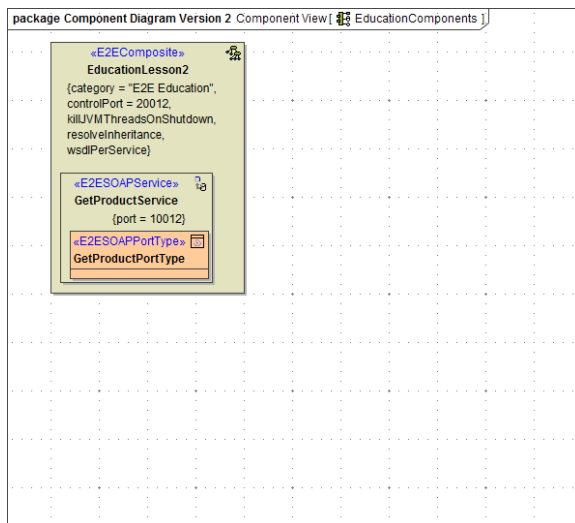

This is the final step of the Components Wizard. You need to confirm drawing the component diagram. If components are not complete yet, you may select an element node in the tree panel and add further UML elements to the diagram.

Click **Finish**.

The component diagram will be drawn in MagicDraw. The defined components are saved in the package **Data / Component View**.
The generated component diagram will open.

Save the UML model.

Now, the xUML service **EducationLesson2** can be compiled.