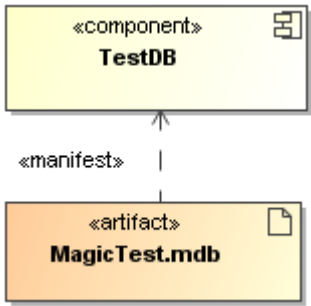
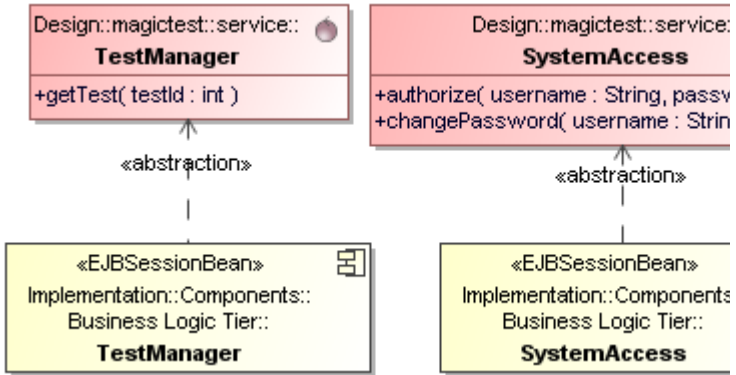
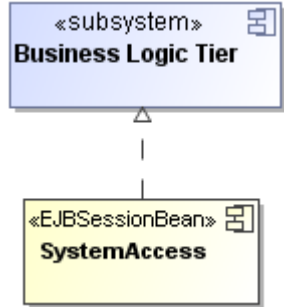
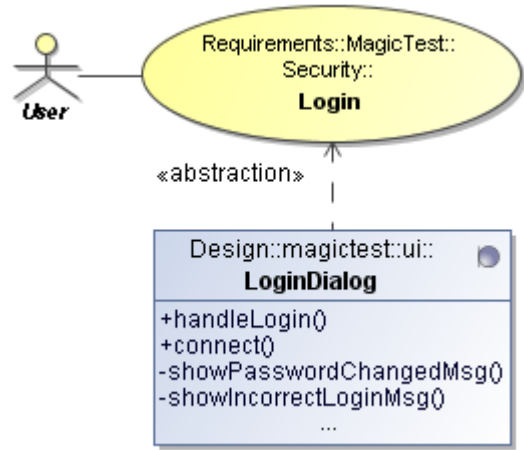


# Backward traceability – specification

| Property Name           | Description                                                                                          | Applied For: | Reference Through:                                | Value elements type | Example                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manifested in Artifacts | The property shows which components are manifested in an artifact.                                   | Artifact     | Relationships: Manifestation                      | Component           |  <pre> graph BT     MagicTest.mdb["«artifact»<br/>MagicTest.mdb"] -- «manifest» --&gt; TestDB["«component»<br/>TestDB"] </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Specifying Class        | The property shows the classes representing the component specification from the Design model.       | Component    | Relationships: Abstraction                        | Class               |  <pre> graph BT     subgraph Design         TM_Spec["Design::magictest::service::<br/>TestManager<br/>+getTest( testId : int )"]         SA_Spec["Design::magictest::service::<br/>SystemAccess<br/>+authorize( username : String, passw<br/>+changePassword( username : Strin"]     end     subgraph Implementation         TM_Impl["«EJBSessionBean»<br/>Implementation::Components::<br/>Business Logic Tier::<br/>TestManager"]         SA_Impl["«EJBSessionBean»<br/>Implementation::Components<br/>Business Logic Tier::<br/>SystemAccess"]     end     TM_Impl -- «abstraction» --&gt; TM_Spec     SA_Impl -- «abstraction» --&gt; SA_Spec </pre> |
| Specifying Component    | The property shows the components that are realized by classifiers through component realization.    | Classifier   | Relationships: Component Realization, Realization | Component           |  <pre> graph BT     SA["«EJBSessionBean»<br/>SystemAccess"] -- realization -- &gt; BLT["«subsystem»<br/>Business Logic Tier"] </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Specifying Use Case     | The property shows the use cases (from the Requirements model) representing the class specification. | Class        | Relationships: Abstraction                        | Use Case            |  <pre> graph BT     User((User)) --- LoginUC(["Requirements::MagicTest::<br/>Security::<br/>Login"])     subgraph Design         LoginDlg["Design::magictest::ui::<br/>LoginDialog<br/>+handleLogin()<br/>+connect()<br/>-showPasswordChangedMsg()<br/>-showIncorrectLoginMsg()<br/>..."]     end     LoginDlg -- «abstraction» --&gt; LoginUC </pre>                                                                                                                                                                                                                                                                                                   |

|                                             |                                                                                                                                                                                                                                            |            |                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specifying Use Case                         | The property shows the use cases that specify the given use case in the higher level of abstraction. For example, the Business Use Case specifies the Requirements Use Case.                                                               | Use Case   | Relationships: Abstraction                                                | Use Case  | <pre> graph BT     Administrate((Administrate))     ModifyUser((Modify User))     RemoveUser((Remove User))     Administrate -.-&gt; «abstraction»  ModifyUser     Administrate -.-&gt; «abstraction»  RemoveUser </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Realized Interface                          | The property shows the interfaces specifying the contract, in which the related classifier conforms to.                                                                                                                                    | Classifier | Relationships: Interface Realization                                      | Interface | <pre> classDiagram     class NotificationService {         +send( address : String, message : String )     }     class NotificationServer {         &lt;&lt;component&gt;&gt;     }     NotificationServer -- &gt; NotificationService </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Specifying Element, All Specifying Elements | <p>The <b>Specifying Element</b> property gathers specifying elements from the upper abstraction level.</p> <p>The <b>All Specifying Elements</b> property transitively gathers specifying elements from all upper abstraction levels.</p> | Element    | Relationships: Abstraction, Component Realization, Interface Realization. | Element   | <p>The diagram illustrates three levels of abstraction:</p> <ul style="list-style-type: none"> <li><b>Requirements model:</b> Contains 'UC' (Use Case), 'Activity', and 'Interaction'. 'UC' is an abstraction of 'Activity' and 'Interaction'.</li> <li><b>Design model:</b> Contains 'Class'. 'Class' is an abstraction of 'Component' and 'Artifact' in the Implementation model.</li> <li><b>Implementation model:</b> Contains 'Component', 'Artifact', and 'Interface'. 'Component' is a realization of 'Artifact' and 'Interface'. 'Artifact' is a realization of 'Interface'.</li> </ul> <p>Additional relationships shown on the right:</p> <ul style="list-style-type: none"> <li>'OwnedBehavior' is associated with 'Activity'.</li> <li>'Abstraction' is associated with 'Class'.</li> <li>'Manifestation' is associated with 'Component'.</li> <li>'Interface Realization' is associated with 'Interface'.</li> </ul> |