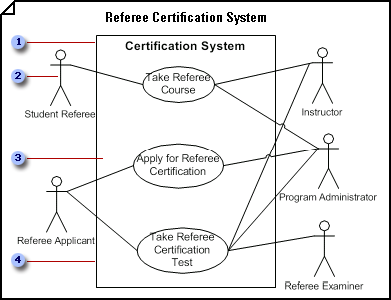
**Create a UML use case diagram**

Applies To: Visio Professional 2016 Visio Standard 2016 Visio 2013 Visio 2010 Visio 2007 Visio Premium 2010 Visio Pro for Office 365 Visio Professional 2013 Visio Standard 2007 Visio Standard 2010 [More...](javascript:) [Less](javascript:)

You can use Visio to build Unified Modeling Language (UML) use case diagrams. Unified Modeling Language (UML) is a standard way to draw software models.



Callout 1Defining the system boundary determines what is considered external or internal to the system.

Callout 2An actor represents a role played by an outside object. One object may play several roles and, therefore, is represented by several actors.

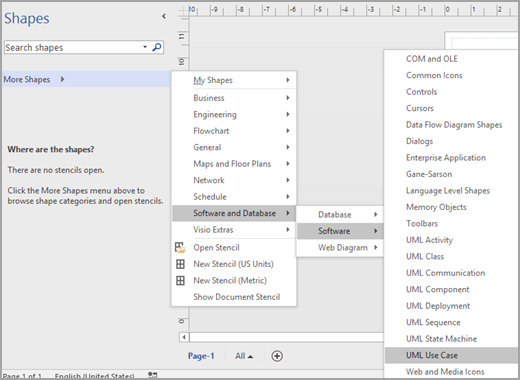
Callout 3A communicates relationship illustrates the participation of the actor in the use case.

Callout 4A use case is a set of events that occurs when an actor uses a system to complete a process. Normally, a use case is a relatively large process, not an individual step or transaction.

[2016, 2013](javascript:) [2010](javascript:) [2007](javascript:)

[](javascript:)

1. On the **File** tab, point to **New**, and then open a blank diagram.
2. Click **More Shapes** > **Software and Database** > **Software** > **UML Use Case**.



1. **To indicate a subsystem in a use case diagram**
   1. Drag a **Subsystem** shape onto the drawing page. The subsystem can represent your entire system or a major component.
   2. Double-click the **Subsystem** shape, and then type a new name for the for it, or press the DELETE key to delete the existing name. Click outside the shape on the drawing page.
   3. To resize the subsystem, select the shape, and then drag a selection handle.
2. Drag [**Use Case shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\use-case-shapes-3aa9183f-a32d-4b71-8d54-ed18e67f6f53) from the **Use Case** stencil and place them inside the subsystem boundary, and then drag [**Actor shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\actor-shapes-a32bf17c-af0e-4291-b796-307373c73b96) to the outside of the subsystem boundary.
3. Use connector shapes to indicate relationships between use cases and actors. There are five connectors available:
   1. **Association**: Shows the relationship of an actor to a use case.
   2. **Dependency**: Indicates that one use case has a dependency on another.
   3. **Generalization**: Indicates that a use case is a specific way to achieve goals of the general use case.
   4. **Include**: Shows how a use case is broken into smaller steps.
   5. **Extend**: Shows that one use case adds functionality to another.

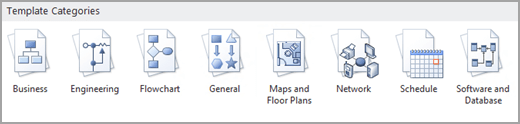
**Example: To indicate a relationship between an actor and a use case**

* 1. In a use case diagram, drag an **Association** connector shape onto the drawing page.
  2. Glue one endpoint of the **Association** shape to a connection point on an **Actor** shape. Glue the other endpoint to a connection point on a **Use Case** shape.

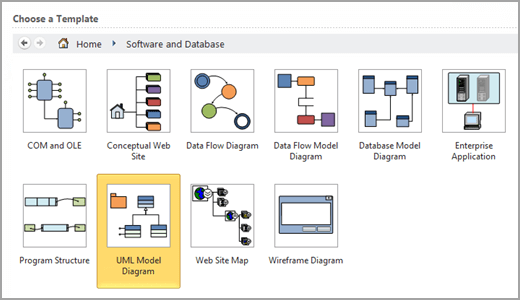
1. Save the diagram.

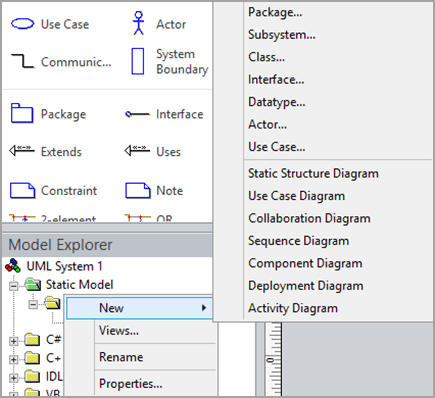
For more information about use case diagrams (and procedures for using Microsoft Visual Studio to create use case diagrams), go to [UML Use Case Diagrams: Reference](https://msdn.microsoft.com/en-us/library/dd409432.aspx).

1. On the **File** tab, point to **New**.
2. Under **Template Categories**, click **Software and Database**.

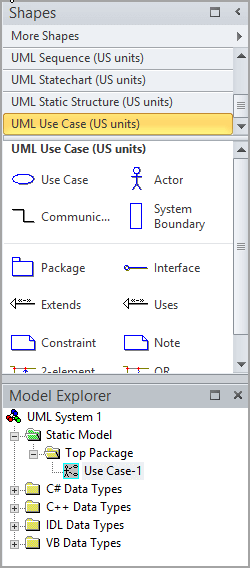


1. Click **UML Model Diagram**. A blank drawing page appears.



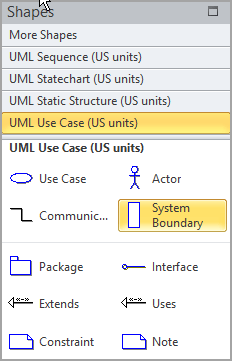
1. In the tree view, right-click the package or subsystem in which you want to include a use case diagram, then point to **New**, and then click **Use Case Diagram**.

A blank page appears, and the **UML Use Case** stencil becomes the top-most stencil. An icon representing the diagram is added to the tree view.



**Note:** If the tree view is not visible, on the UML tab, in the **Show/Hide** group, select **Model Explorer**.

1. **To indicate a** [**System Boundary**](file:///F:\2017Even\FoundationsofIT\term3sw\system-boundary-3c6c60df-9d33-4c93-a3de-6eaf73d5b090) **in a use case diagram**
   1. Drag a **System Boundary** shape onto the drawing page.



* 1. Double-click the **System Boundary** shape, and then type a new name for the system or press the DELETE key to delete the existing name. Click outside the shape on the drawing page.
  2. To resize the system boundary, select the shape, and then drag a selection handle.

1. Drag [**Use Case shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\use-case-shapes-3aa9183f-a32d-4b71-8d54-ed18e67f6f53) from the **Use Case** stencil and place them inside the system boundary, and then drag [**Actor shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\actor-shapes-a32bf17c-af0e-4291-b796-307373c73b96) to the outside of the system boundary.
2. Use [**Communicates shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\communicates-shapes-bb0f40e7-655e-4805-9a15-c606ddeaa092) to indicate relationships between use cases and actors.

**To indicate a relationship between an actor and a use case**

* 1. In a use case diagram, drag a **Communicates** shape onto the drawing page.
  2. Glue one endpoint End point image, which is plus sign in a green squareof the **Communicates** shape to a connection point Connection point image - blue Xon an **Actor** shape. Glue the other endpoint to a connection point on a **Use Case** shape.
  3. If you want to add an arrow to indicate the flow of information, do the following:
     + Double-click the **Communicates** shape, then, under **Association**, click the end you want to edit, and then click **Properties**.
     + In the **Association End** category, check **IsNavigable**, click **OK**, then click **OK** again.
     + Right-click the **Communicates** shape and click **Shape Display Options**. Under **End options**, select **End navigability**, and then click **OK**.

1. Use **Uses** and **Extends** shapes to indicate the relationships between use cases.

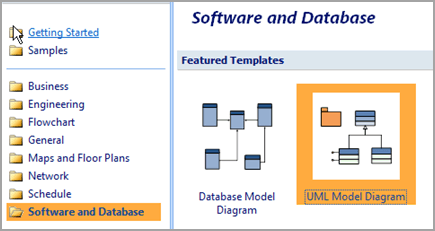
**To indicate a uses relationship between two use cases**

* 1. In a use case diagram, drag a **Uses** relationship shape onto the drawing page.
  2. Glue the **Uses** endpoint without an arrowhead to a connection point Connection point image - blue Xon the **Use Case** shape that uses the behavior of the other use case.
  3. Glue the **Uses** endpoint (with an arrowhead) to a connection point on the use case being used.
  4. Double-click the **Uses** shape to open the **UML Generalization Properties** dialog box. Add property values, and then click **OK**.

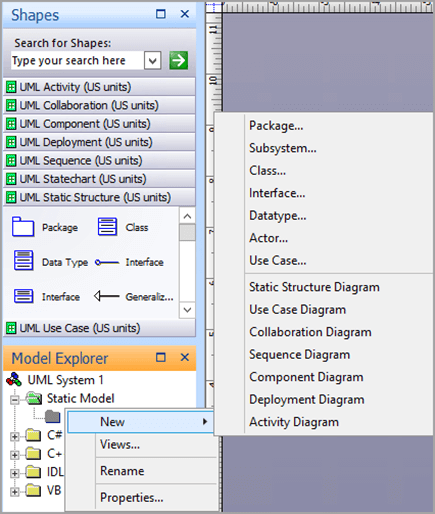
**To indicate an extends relationship between two use cases**

* 1. In a use case diagram, drag an **Extends** shape onto the drawing page.
  2. Glue the **Extends** endpoint End point image, which is plus sign in a green squarewithout an arrowhead to a connection point Connection point image - blue Xon the use case providing the extension.
  3. Glue the **Extends** endpoint with an arrowhead to a connection point on the base use case.
  4. Double-click the **Extends** shape to open the **UML Generalization Properties** dialog box. Add the property values, and then click **OK**.

1. Double-click any shape (except the **System Boundary** shape) to open its **UML Properties** dialog box where you can add a name, attributes, operations, and other property values.
2. Save the diagram.
3. On the **File** menu, point to **New**, point to **Software and Database**, and then click **UML Model Diagram**.



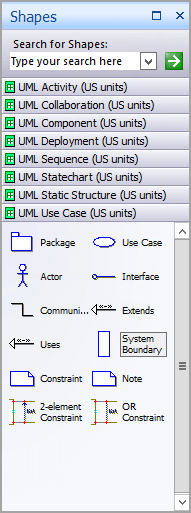
1. In the tree view, right-click the package or subsystem in which you want to include a use case diagram, point to **New**, and then click **Use Case Diagram**.



A blank page appears, and the **UML Use Case** stencil becomes the top-most stencil. An icon representing the diagram is added to the tree view.

**Note:** If the tree view is not visible, on the **UML** menu, point to **View**, and then click **Model Explorer**.

1. **To indicate a system boundary in a use case diagram**
   1. Drag a **System Boundary** shape onto the drawing page.



* 1. Double-click the **System Boundary** shape, and then type a new name for the system or press the DELETE key to delete the existing name. Click outside the shape on the drawing page.
  2. To resize the system boundary, select the shape, and then drag a selection handle.

1. Drag [**Use Case shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\use-case-shapes-3aa9183f-a32d-4b71-8d54-ed18e67f6f53) from the **Use Case** stencil and place them inside the system boundary, and then drag [**Actor shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\actor-shapes-a32bf17c-af0e-4291-b796-307373c73b96) to the outside of the system boundary.
2. Use [**Communicates shapes**](file:///F:\2017Even\FoundationsofIT\term3sw\communicates-shapes-bb0f40e7-655e-4805-9a15-c606ddeaa092) to indicate relationships between use cases and actors.

**To indicate a relationship between an actor and a use case**

* 1. In a use case diagram, drag a **Communicates** shape onto the drawing page.
  2. Glue one endpoint End point image, which is plus sign in a green squareof the **Communicates** shape to a connection point Connection point image - blue Xon an **Actor** shape. Glue the other endpoint to a connection point on a **Use Case** shape.
  3. If you want to add an arrow to indicate the flow of information, do the following:
     + Double-click the **Communicates** shape, then, under **Association**, click the end you want to edit, and then click **Properties**.
     + In the **Association End** category, check **IsNavigable**, click **OK**, then click **OK** again.
     + Right-click the **Communicates** shape and click **Shape Display Options**. Under **End options**, select **End navigability**, and then click **OK**.

1. Use **Uses** and **Extends** shapes to indicate the relationships between use cases.

**To indicate a uses relationship between two use cases**

* 1. In a use case diagram, drag a **Uses** relationship shape onto the drawing page.
  2. Glue the **Uses** endpoint without an arrowhead to a connection point Connection point image - blue Xon the **Use Case** shape that uses the behavior of the other use case.
  3. Glue the **Uses** endpoint (with an arrowhead) to a connection point on the use case being used.
  4. Double-click the **Uses** shape to open the **UML Generalization Properties** dialog box. Add property values, and then click **OK**.

**To indicate an extends relationship between two use cases**

* 1. In a use case diagram, drag an **Extends** shape onto the drawing page.
  2. Glue the **Extends** endpoint End point image, which is plus sign in a green squarewithout an arrowhead to a connection point Connection point image - blue Xon the use case providing the extension.
  3. Glue the **Extends** endpoint with an arrowhead to a connection point on the base use case.
  4. Double-click the **Extends** shape to open the **UML Generalization Properties** dialog box. Add the property values, and then click **OK**.

1. Double-click any shape (except the **System Boundary** shape) to open its **UML Properties** dialog box where you can add a name, attributes, operations, and other property values.
2. Save the diagram.