



# Exploring - Use Cases, etc

Some kinds of EA element have additional information which you might want to Print. Use Cases can have structured scenarios, which eaDocX can make into a rich, readable document.

Section: Introduction

## 1 Use Cases and Sub-Elements

This document explores how you can use eaDocX to print some specific types of EA Element:

- Use Cases, with their structured Scenarios
- The sub-elements which many EA Elements can have, such as Constraints, Internal Requirements and Tests
- Special kinds of diagram and connector, like State Machines and Information Flows.

### 1.1 Use Cases and Structured Scenarios

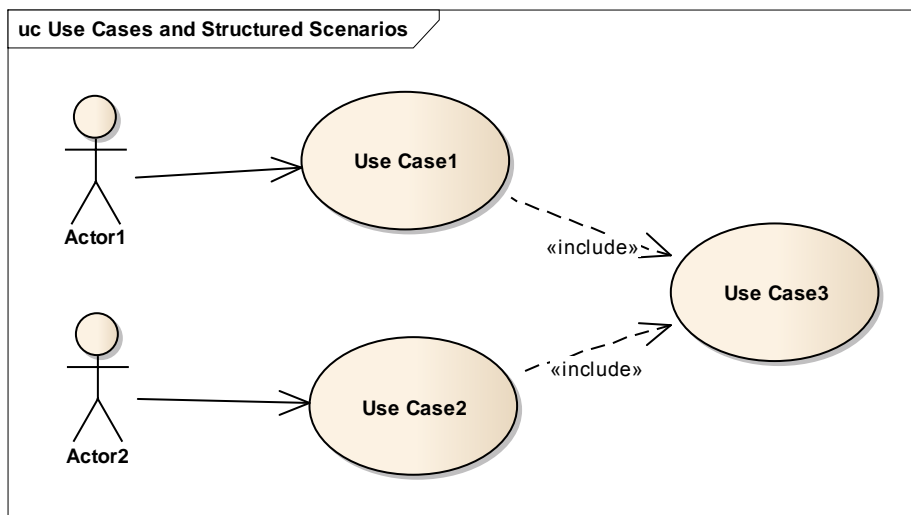


Figure 1 : Use Cases and Structured Scenarios

#### 1.1.1 Actors

Actor	Description
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Actor	Description
Actor2	
Actor1	

## 1.1.2 Use Cases

### 1.1.2.1 Use Case1

#### Description:

This is the Use Case description.

In a 'fully dressed' use case, this should probably just have a brief overview of the use case, and leave the detail for the Scenarios.

It might also have the goal:

#### Goal

Provide an example of a fully-dressed, EA Structured Scenario use case.

#### 1.1.2.1.1 Pre-conditions

Name	Description
Precondition 1	These are the details of pre-condition 1
Pre-condition 2	These are the details of pre-condition 2

#### 1.1.2.1.2 Basic Path

#	Step	Extensions	Links
1	Basic Path Step 1		
2	Basic Path Step 2. This has two alternates	<a href="#">Something happens</a> , <a href="#">Something else happens</a>	
3	<a href="#">&lt;include&gt; Use Case3</a>		
4	Basic Path Step 4. References Class A		<a href="#">Class A</a>
5	Basic Path Step 5	<a href="#">Something bad happens</a>	
6	This step references a Requirement elsewhere in the model		Requirement X

#### 1.1.2.1.3 Something happens

#	Step	Links
1	Alternate 1, step 1	

#	Step	Links
2	Alternate 1, Step 2	
3	Alternate 1, Step 3	
4	Use case continues	

Rejoins at: [Basic Path step:2](#)

#### 1.1.2.1.4 Something else happens

#	Step	Links
1	Alternate 2, step 1	
2	Alternate 2, Step 2	
3	Go back to the start of the use case	

Rejoins at: [Basic Path step:1](#)

#### 1.1.2.1.5 Something bad happens

#	Step	Links
1	This is an exception, It doesn't rejoin the basic path, as that would make it an alternate.	
2	It just ends here.	

Rejoins at: End

#### 1.1.2.1.6 Post-conditions

Name	Description
Post condition	This is the detail of the post-condition

#### 1.1.2.1.7 Internal Requirements

Internal Requirement	Description
Element Requirement1	This is an internal requirement, so it's part of the use case can't be referenced by other elements.
This is another internal (Element) requirement	<p>We use Internal Requirements just to capture the non-functional requirements which apply to a single use case, specifically:</p> <ul style="list-style-type: none"> <li>• How long the use case should take to follow the basic path</li> <li>• How often the use case will run - once a year, 2000/second etc</li> </ul>

### 1.1.2.2 Use Case2

#### 1.1.2.2.1 Basic Path

#	Step	Extensions	Links
1	B1		

#	Step	Extensions	Links
2	B2	<a href="#">A1</a>	
3	B3		
4	B4		
5	B5	<a href="#">A2</a>	

1.1.2.2.2 A1

#	Step	Links
1	A1.1	
2	A1.2	
3	A1.3	

Rejoins at: [Basic Path step:3](#)

1.1.2.2.3 A2

#	Step	Links
1	A2.1	
2	A2.2	

Rejoins at: [Basic Path step:1](#)

*1.1.2.3 Use Case3*

## 1.2 Referenced From Use Cases

These are some elements which are referenced from the use cases.

ElementType	Feature
Feature	Feature 42

Class	Stereotype
Class A	

End

Section: test\_cases

## 2 Test Cases

These test cases were generated directly from the Structured Scenarios of the Use Cases above (just [Use Case 1](#) and [Use Case 2](#)).

This fantastic EA feature looks at the structure of the scenarios for a single use cases, and creates either an internal set of test cases for the UC, or, as in this case, creates a separate <<testcase>>Use Case, which in turn contains the 'Element Tests'.

### 2.1 Use Case2\_TestCase1

#### 2.1.1 Element Tests

ID	Test	Test Type	Test Description
TC02.1	A1	Standard	<u>Start:</u> 1. B1 <u>Alternate:</u> When [A1] 2a_1. A1.1 2a_2. A1.2 2a_3. A1.3 <u>Result:</u> A1 complete. Rejoin at 3.
TC02.2	A1_Complete Path	Standard	<u>Start:</u> 1. B1 <u>Alternate:</u> When [A1] 2a_1. A1.1 2a_2. A1.2 2a_3. A1.3 <u>Continues:</u> 3. B3 4. B4 5. B5 <u>Result:</u> Use case ends.
TC02.3	A2	Standard	<u>Start:</u> 1. B1 2. B2 3. B3

ID	Test	Test Type	Test Description
			4. B4 <u>Alternate:</u> When [A2] 5a_1. A2.1 5a_2. A2.2 <u>Result:</u> A2 complete. Rejoin at 1.
TC02.4	A2_Complete Path	Standard	<u>Start:</u> 1. B1 2. B2 3. B3 4. B4 <u>Alternate:</u> When [A2] 5a_1. A2.1 5a_2. A2.2 <u>Continues:</u> 1. B1 2. B2 3. B3 4. B4 5. B5 <u>Result:</u> Use case ends.
TC02.5	Basic Path	Standard	<u>Start:</u> 1. B1 2. B2 3. B3 4. B4 5. B5 <u>Result:</u> Basic Path complete. Use case ends.

## 2.2 Use Case1\_TestCase1

### 2.2.1 Element Tests

ID	Test	Test Type	Test Description
TC01.1	Something happens	Standard	<u>Start:</u> 1. Basic Path Step 1 <u>Alternate:</u> When [Something happens] 2a_1. Alternate 1, step 1

ID	Test	Test Type	Test Description
			2a_2. Alternate 1, Step 2 2a_3. Alternate 1, Step 3 2a_4. Use case continues <u>Result:</u> Something happens complete. Rejoin at 2.
TC01.2	Something happens_Complete Path	Standard	<u>Start:</u> 1. Basic Path Step 1 <u>Alternate:</u> When [Something happens] 2a_1. Alternate 1, step 1 2a_2. Alternate 1, Step 2 2a_3. Alternate 1, Step 3 2a_4. Use case continues <u>Continues:</u> 2. Basic Path Step 2. This has two alternates 3. <a href="#">Use Case3</a> 4. Basic Path Step 4. References <a href="#">Class A</a> <u>Uses:</u> <a href="#">Class A</a> 5. Basic Path Step 5 6. This step references a Requirement elsewhere in the model <u>Uses:</u> <a href="#">Requirement X</a> <u>Result:</u> Use case ends.
TC01.3	Something else happens	Standard	<u>Start:</u> 1. Basic Path Step 1 <u>Alternate:</u> When [Something else happens] 2b_1. Alternate 2, step 1 2b_2. Alternate 2, Step 2 2b_3. Go back to the start of the use case <u>Result:</u> Something else happens complete. Rejoin at 1.
TC01.4	Something else happens_Complete Path	Standard	<u>Start:</u> 1. Basic Path Step 1 <u>Alternate:</u> When [Something else happens] 2b_1. Alternate 2, step 1 2b_2. Alternate 2, Step 2 2b_3. Go back to the start of the use case <u>Continues:</u> 1. Basic Path Step 1 2. Basic Path Step 2. This has two alternates 3. <a href="#">Use Case3</a>

ID	Test	Test Type	Test Description
			<p>4. Basic Path Step 4. References <a href="#">Class A</a>  <u>Uses:</u> <a href="#">Class A</a>            5. Basic Path Step 5            6. This step references a Requirement elsewhere in the model  <u>Uses:</u> <a href="#">Requirement X</a>  <u>Result:</u>            Use case ends.</p>
TC01.5	Something bad happens	Standard	<p><u>Start:</u>            1. Basic Path Step 1            2. Basic Path Step 2. This has two alternates            3. <a href="#">Use Case3</a>            4. Basic Path Step 4. References <a href="#">Class A</a>  <u>Uses:</u> <a href="#">Class A</a>            5. Basic Path Step 5  <u>Exception:</u>            When [Something bad happens]            5a_1. This is an exception, It doesn't rejoin the basic path, as that would make it an alternate.            5a_2. It just ends here.  <u>Result:</u>            Something bad happens complete.            Use case ends.</p>
TC01.6	Basic Path	Standard	<p><u>Start:</u>            1. Basic Path Step 1            2. Basic Path Step 2. This has two alternates            3. <a href="#">Use Case3</a>            4. Basic Path Step 4. References <a href="#">Class A</a>  <u>Uses:</u> <a href="#">Class A</a>            5. Basic Path Step 5            6. This step references a Requirement elsewhere in the model  <u>Uses:</u> <a href="#">Requirement X</a>  <u>Result:</u>            Basic Path complete.            Use case ends.</p>

End







