



# Exploring - Diagrams

This document shows how you can print diagrams in your documents, and also make them the basis for the contents of your whole document.

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**Note: ALL content in this document comes from an EA model or a Word document template. This text is stored in a tagged value in the eaDocX Document artefact**

Section: Diagrams

## 1 Printing Diagrams

This section looks at printing EA Diagrams, which is about much more than just including a picture!  
We'll look at:

- Basic diagram
- Adding Diagram + contents
- Adding Diagram but no contents
- Special treatment for Sequence Diagrams
- Landscape printing
- Using feature visibility

### 1.1 Simple diagram

This is a simple diagram. To print diagrams for any element (that is, diagrams which are the immediate children of the element or package) just choose 'Diagrams' from the list of attributes for the element or package.

That way, you can choose exactly which element types & stereotypes print their diagrams, and which not.

In this document, we have chosen to make figure title look like:

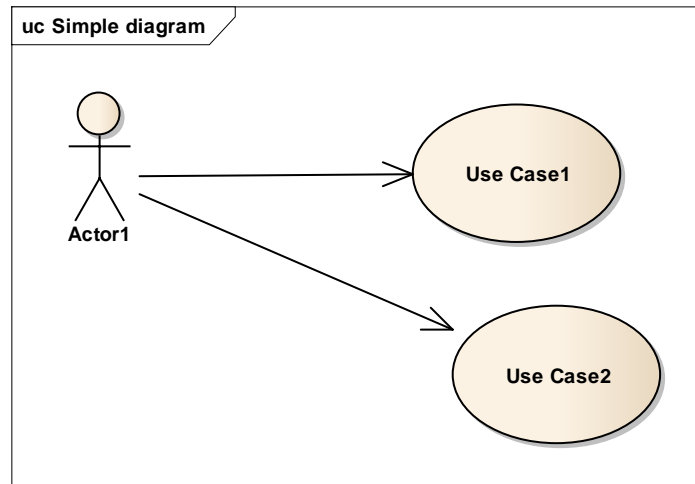
Figure: X-Y Name

You can change almost everything about this title:

- The diagram image has its own word document style, which controls things like its positioning. Here, we are using a style called 'diagramPicture' which puts all diagrams (in this document) centered on the page.

- The Word 'Figure' is OK for English language document, but there's an Application setting to change it to something more appropriate for your language or local standards.
- Figure numbers can be like this (X-Y) where the X is the chapter number, or simply 'Figure X'
- The Name is the name of the diagram from EA
- The diagram title also uses some more Word paragraph styles, which here we have made pale blue just to show they are not regular text.

Finally, here is the diagram:



**Figure 1.1 : Simple diagram**

*This is the diagram description.*

*It might be quite long and detailed, and even contain bullets*

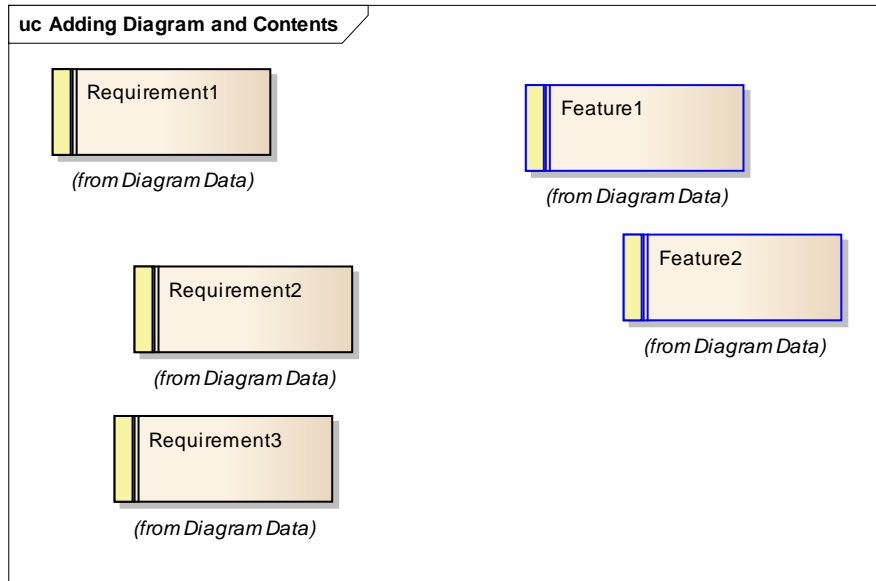
- *like this*
- *and this*

*as well as other information.*

## 1.2 Adding Diagram and Contents

Sometimes your diagram might contain elements from lots of different parts of your model, but you might want to explain each element right under the diagram.

If you choose to print 'Diagram + Contents' then eaDocX will find the elements which are in the diagram, no matter where they are in your model, and print them right here.



**Figure 1.2 : Adding Diagram and Contents**

Requirement	Requirement number	Author	Status	Priority
Requirement1		Ian	Proposed	Medium
Requirement2		Ian	Proposed	Medium
Requirement3		Ian	Proposed	Medium

Element Type	Feature
Feature	Feature1
Feature	Feature2

### 1.3 Adding just Contents of a diagram

A logical extension of print the diagram and its contents is to miss-out the diagram picture altogether. This is useful when you just want to use the diagram to collect some element together, but the picture itself isn't very useful to the reader.

So here, we have an EA diagram which has some elements on it, and we print just those elements.

Element Type	Feature
Feature	Feature3
Feature	Feature4

Element Type	Feature
Feature	Feature1

Requirement	Requirement number	Author	Status	Priority
Requirement10		Ian	Proposed	Medium
Requirement20		Ian	Proposed	Medium
Requirement30		Ian	Proposed	Medium

## 1.4 Printing Sequence Diagrams

With eaDocX, Sequence Diagrams get special treatment.

If you specify that a sequence diagram is to be printed 'with contents' then as well as all the object in the diagram printing, so will all the Message which flow between the objects.

If there is anything in the diagram you don't want to see, then just delete the Profile for those elements in the Profile window, and eaDocX won't print them.

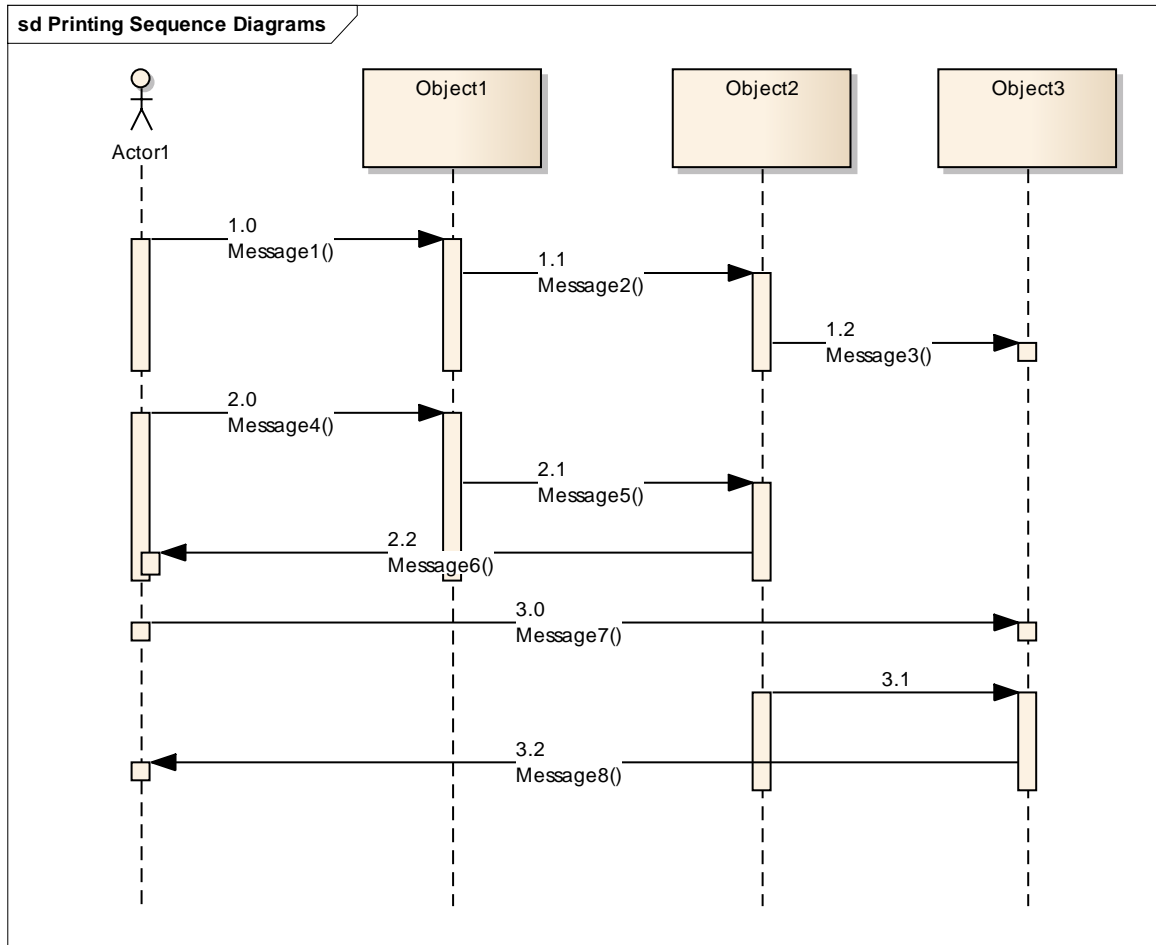


Figure 1.3 : Printing Sequence Diagrams

Object (Sequence)	Description
Object1	
Object2	
Object3	

##	Message	From object	To object
1.0	Message1	Actor1	Object1
1.1	Message2	Object1	Object2
1.2	Message3	Object2	Object3
2.0	Message4	Actor1	Object1
2.1	Message5	Object1	Object2
2.2	Message6	Object2	Actor1
3.0	Message7	Actor1	Object3

#.#	Message	From object	To object
3.1		Object2	Object3
3.2	Message8	Object3	Actor1

Object (Sequence)	Description
Object2	
Object3	
Object1	

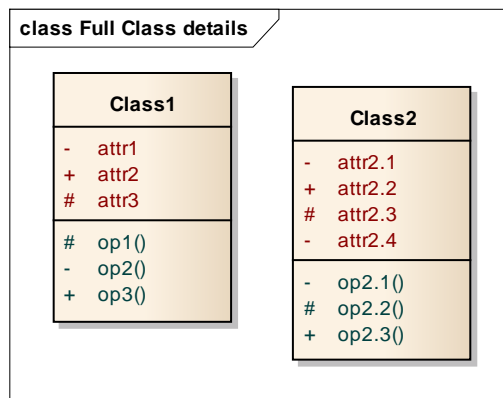
## 1.5 Using Visibility in diagrams

### 1.5.1 Class Descriptions

These are the full class descriptions of the example classes.

In the diagrams below, the diagrams will use EA Diagram Feature Visibility settings to document customized views of these classes.

For each of the examples, we have used Conditional Formatting to show visibilities.



**Figure 1.4 : Full Class details**

*The classes in this example have a number of Attributes and Methods, and each has been given different visibilities.*

*For those who can't remember their UML (!) the symbols used are:*

- Private
- + Public
- # Protected

### 1.5.1.1 Class2

#### 1.5.1.1.1 Attributes

Attribute	Visibility
attr2.1	Private
attr2.2	Public
attr2.3	Protected
attr2.4	Private

#### 1.5.1.1.2 Methods

Name	Visibility
op2.1	Private
op2.2	Protected
op2.3	Public

### 1.5.1.2 Class1

#### 1.5.1.2.1 Attributes

Attribute	Visibility
attr1	Private
attr2	Public
attr3	Protected

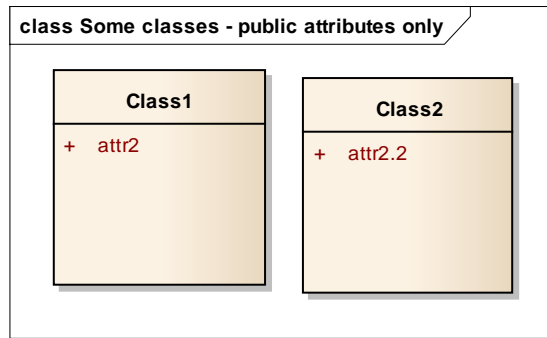
#### 1.5.1.2.2 Methods

Name	Visibility
op1	Protected
op2	Private
op3	Public

## 1.5.2 Visibility Views

These are some different ways of documenting the above classes, using the Feature Visibility settings on the diagrams.

### 1.5.2.1 Public Attributes only



**Figure 1.5 : Some classes - public attributes only**

Here, we have changed the EA diagram to show only 'Public' attributes.

#### 1.5.2.1.1 Class1

##### 1.5.2.1.1.1 Attributes

Attribute	Visibility
attr2	Public

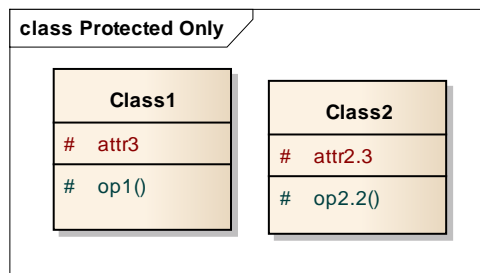
#### 1.5.2.1.2 Class2

##### 1.5.2.1.2.1 Attributes

Attribute	Visibility
attr2.2	Public

### 1.5.2.2 Protected Only

Here, the diagram shows only the 'Protected' Attributes and Methods, and the classed documented below reflect this choice: they show only the 'Protected' Attributes and Methods.





**Figure 1.6 : Protected Only**

*This diagram shows only the 'Protected' Attributes and Operations.*

### 1.5.2.2.1 Class1

#### 1.5.2.2.1.1 Attributes

Attribute	Visibility
attr3	Protected

#### 1.5.2.2.1.2 Methods

Name	Visibility
op1	Protected

### 1.5.2.2.2 Class2

#### 1.5.2.2.2.1 Attributes

Attribute	Visibility
attr2.3	Protected

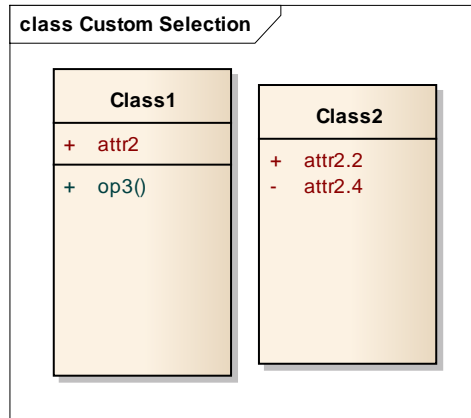
#### 1.5.2.2.2.2 Methods

Name	Visibility
op2.2	Protected

### 1.5.2.3 Custom Selection

The diagram below shows a custom-selection of attributes and methods.

This could be because these are the only ones we think are interesting for the readers of our document.



**Figure 1.7 : Custom Selection**

EA also allows you to make a custom selection of exactly which Attributes and Operations appear in the diagram, for each class. This is time-consuming, but it provides a neat way of creating highly customized documents.

#### 1.5.2.3.1 Class2

##### 1.5.2.3.1.1 Attributes

Attribute	Visibility
attr2.2	Public
attr2.4	Private

#### 1.5.2.3.2 Class1

##### 1.5.2.3.2.1 Attributes

Attribute	Visibility
attr2	Public

##### 1.5.2.3.2.2 Methods

Name	Visibility
op3	Public

## 1.6 Printing in Landscape

Some diagrams are wide, and are best printed on a Landscape orientation page. The diagram below has been set to print in Landscape in EA.

**Important Note:**

To make documents which are configured to print Landscape by EA, you must select the document setting for Diagrams "Auto-print Landscape".

This is set to 'false' by default, so that documents which used older versions of eaDocX, which did not have this setting, will look the same.



**Figure 1.8 : Printing in Landscape**

End

