

Basic Use Case Template

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Per popular request, I am putting forward a basic template for use cases matching the document “Structuring Use Cases with Goals”, HaT.TR.95.1 (available at the same address and web site), and the course / tutorial of a similar name. This document is copyrighted by Humans and Technology as HaT technical report TR 96.03a, also found at <http://alistair.cockburn.us>. You have permission to copy and distribute the documents as long as you reference the source of the originals. You may use the templates in courses and presentations with proper reference. You may use and vary the template on your projects without reference. Do note that the template may evolve over time according to your feedback. *Additions to the text may appear in italics, like this (added, v.2).*

The template has the sections: name (which is the goal), goal in context, scope, level, trigger, pre- and postconditions, main course, extensions, sub-variations, and other characteristic data for the use case. You may easily graft more information on to the end, *or omit information. To help you decide when to omit information, I include a section on Using, Staging, Tailoring the Template.* The base template is given twice, once in simple word-processing format and then again in table format so you can choose the one that best suits your tool set. *Personally, I find that people work best with the simple text format.* You will find that the collection of use cases is easier to work with in something like Lotus Notes than in a word processor.

In this version of the template, I write Sub-Variation as an attempt to make it more distinct from Extensions. Refer to the original paper.

This document has the following parts:

- Template in plain text
- Template in table form
- Example in plain text
- Example in table form
- *Using, Staging, Tailoring the Template*

The Word binary of this document *may* be available on the web site.

Use Case: <number> <the name should be the goal as a short active verb phrase>

CHARACTERISTIC INFORMATION

Goal in Context: <a longer statement of the goal, if needed>

Scope: <what system is being considered black-box under design>

Level: <one of: Summary, Primary task, Subfunction>

Preconditions: <what we expect is already the state of the world>

Success End Condition: <the state of the world upon successful completion>

Failed End Condition: <the state of the world if goal abandoned>

Primary Actor: <a role name for the primary actor, or description>

Trigger: <the action upon the system that starts the use case, may be time event>

MAIN SUCCESS SCENARIO

<put here the steps of the scenario from trigger to goal delivery, and any cleanup after>

<step #> <action description>

EXTENSIONS

<put here there extensions, one at a time, each refering to the step of the main scenario>

<step altered> <condition> : <action or sub.use case>

<step altered> <condition> : <action or sub.use case>

SUB-VARIATIONS

<put here the sub-variations that will cause eventual bifurcation in the scenario>

<step or variation # > <list of sub-variations>

<step or variation # > <list of sub-variations>

RELATED INFORMATION (optional)

Priority: <how critical to your system / organization>

Performance Target: <the amount of time this use case should take>

Frequency: <how often it is expected to happen>

Superordinate Use Case: <optional, name of use case that includes this one>

Subordinate Use Cases: <optional, depending on tools, links to sub.use cases>

Channel to primary actor: <e.g. interactive, static files, database>

Secondary Actors: <list of other systems needed to accomplish use case>

Channel to Secondary Actors: <e.g. interactive, static, file, database, timeout>

OPEN ISSUES (optional)

<list of issues about this use cases awaiting decisions>

SCHEDULE

Due Date: <date or release of deployment>

...any other schedule / staffing information you need...

Table format:

USE CASE #	< the name is the goal as a short active verb phrase>	
Goal in Context	<a longer statement of the goal in context if needed>	
Scope & Level	<what system is being considered black box under design> <one of : Summary, Primary Task, Subfunction>	
Preconditions	<what we expect is already the state of the world>	
Success End Condition	<the state of the world upon successful completion>	
Failed End Condition	<the state of the world if goal abandoned>	
Primary, Secondary Actors	<a role name or description for the primary actor>. <other systems relied upon to accomplish use case>	
Trigger	<the action upon the system that starts the use case>	
DESCRIPTION	Step	Action
	1	<put here the steps of the scenario from trigger to goal delivery, and any cleanup after>
	2	<...>
	3	
EXTENSIONS	Step	Branching Action
	1a	<condition causing branching> : <action or name of sub.use case>
SUB-VARIATIONS		Branching Action
	1	<list of variation s>

RELATED INFORMATION	<Use case name>
Priority:	<how critical to your system / organization>
Performance	<the amount of time this use case should take>
Frequency	<how often it is expected to happen>
Channels to actors	<e.g. interactive, static files, database, timeouts>
OPEN ISSUES	<list of issues awaiting decision affecting this use case >
Due Date	<date or release needed>
...any other management information...	<...as needed>
Superordinates	<optional, name of use case(s) that includes this one>
Subordinates	<optional, depending on tools, links to sub.use cases>

Sample:

Use Case: 5 Buy Goods

CHARACTERISTIC INFORMATION

Goal in Context: Buyer issues request directly to our company, expects goods shipped and to be billed.

Scope: Company

Level: Summary

Preconditions: We know Buyer, their address, etc.

Success End Condition: Buyer has goods, we have money for the goods.

Failed End Condition: We have not sent the goods, Buyer has not spent the money.

Primary Actor: Buyer, any agent (or computer) acting for the customer

Trigger: purchase request comes in.

MAIN SUCCESS SCENARIO

1. Buyer calls in with a purchase request.
2. Company captures buyer's name, address, requested goods, etc.
3. Company gives buyer information on goods, prices, delivery dates, etc.
4. Buyer signs for order.
5. Company creates order, ships order to buyer.
6. Company ships invoice to buyer.
7. Buyers pays invoice.

EXTENSIONS

- 3a. Company is out of one of the ordered items:
 - 3a1. Renegotiate order.
- 4a. Buyer pays directly with credit card:
 - 4a1. Take payment by credit card (use case 44)
- 7a. Buyer returns goods:
 - 7a. Handle returned goods (use case 105)

SUB-VARIATIONS

1. Buyer may use
 - phone in,
 - fax in,
 - use web order form,
 - electronic interchange
7. Buyer may pay by
 - cash or money order
 - check
 - credit card

RELATED INFORMATION

Priority: top

Performance Target: 5 minutes for order, 45 days until paid

Frequency: 200/day

Superordinate Use Case: Manage customer relationship (use case 2)

Subordinate Use Cases:

Create order (use case 15)

Take payment by credit card (use case 44)

Handle returned goods (use case 105)

Channel to primary actor: may be phone, file or interactive

Secondary Actors: credit card company, bank, shipping service

Channels to Secondary Actors:

OPEN ISSUES

What happens if we have part of the order?

What happens if credit card is stolen?

SCHEDULE

Due Date: release 1.0

Sample in table format:

USE CASE 5	Buy Goods	
Goal in Context	Buyer issues request directly to our company, expects goods shipped and to be billed.	
Scope & Level	Company, Summary	
Preconditions	We know Buyer, their address, etc.	
Success End Condition	Buyer has goods, we have money for the goods.	
Failed End Condition	We have not sent the goods, Buyer has not spent the money.	
Primary, Secondary Actors	Buyer, any agent (or computer) acting for the customer. Credit card company, bank, shipping service	
Trigger	purchase request comes in.	
DESCRIPTION	Step	Action
	1	Buyer calls in with a purchase request
	2	Company captures buyer's name, address, requested goods, etc.
	3	Company gives buyer information on goods, prices, delivery dates, etc.
	4	Buyer signs for order.
	5	Company creates order, ships order to buyer.
	6	Company ships invoice to buyer.
	7	Buyers pays invoice.
EXTENSIONS	Step	Branching Action
	3a	Company is out of one of the ordered items: 3a1. Renegotiate order.
	4a	Buyer pays directly with credit card: 4a1. Take payment by credit card (use case 44)
	7a	Buyer returns goods: 7a. Handle returned goods (use case 105)
SUB-VARIATIONS		Branching Action
	1	Buyer may use phone in, fax in, use web order form, electronic interchange
	7	Buyer may pay by cash or money order check credit card

RELATED INFORMATION	5. Buy Goods
Priority:	top
Performance	5 minutes for order, 45 days until paid
Frequency	200/day
Channel to actors	not yet determined
OPEN ISSUES	What if we have part of the order? What is credit card is stolen?
Due Date	release 1.0
...any other management information...	
Superordinates	Manage customer relationship (use case 2)
Subordinates	Create order (use case 15) Take payment by credit card (use case 44)

Using, Staging, Tailoring the Template

My (and others') experience is that at early stages of the project the template is too long and *too complete* to fill out all at one time - at the beginning of the project, it is appropriate to work with less information (see the chapter, "Managing Precision, Accuracy and Scale" in my book, Surviving Object-Oriented Projects). Therefore...

1. Learn to fill in all the fields of the template in several passes, at several moments in the project's requirements gathering and project setup work. Here is a sample sequence. First, fill in just these fields, for all the use cases you need to consider at this time:

Use Case: <number> <the name should be the goal as a short active verb phrase>

Goal in Context: <a longer statement of the goal, if needed>

Scope: <what system is being considered black-box under design>

Level: <one of: Summary, Primary task, Subfunction>

Primary Actor: <a role name for the primary actor, or description>

Priority: <how critical to your system / organization>

Frequency: <how often it is expected to happen>

2. Stare at what you have so far. Think. Examine. Can you merge or remove some of them? Can you partition them into ones that should be developed together, or written later? For the ones you determine to pursue now, fill in the following fields:

Trigger: <the action upon the system that starts the use case, may be time event>

MAIN SUCCESS SCENARIO

3. Now you have enough information to check your project's scope and look for surprises. Before you are done describing the system's functioning, you have to fill out:

EXTENSIONS

SUB-VARIATIONS

Superordinate Use Case: <optional, name of use case that includes this one>

Subordinate Use Cases: <optional, depending on tools, links to sub.use cases>

4. You now have the system's functionality captured. When you are ready to work on your estimations, fill in:

Performance Target: <the amount of time this use case should take>

OPEN ISSUES

SCHEDULE

5. Finally, when you are in the final stages of project estimating, you need to identify all the systems to which you will have to build interfaces. Fill in:

Channel to primary actor: <e.g. interactive, static files, database>

Secondary Actors: <list of other systems needed to accomplish use case>

Channel to Secondary Actors: <e.g. interactive, static, file, database, timeout>