Software Engineering Group Projects – General Documentation Standards

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CONTENTS

1. INTRODUCTION

1.1. Purpose of this Document

The purpose of this document is to describe the general layout and essential information content required in minutes, documents, and diagrams; and to specify procedures for the production of such items.

1.2. Scope

This document describes the basic layout and information content of minutes, documents and diagrams. It does not cover standards for the layout of source code, since that is described in the Coding Standards [1].

This QA manual for documentation should be read by all project members. It is assumed the reader is already familiar with the QA Plan [2]. The QA document *Operating Procedures and Configuration Management Standards* [3] should be read in conjunction with this document.

The specification of layout and information content described here is independent of any particular document preparation system, and templates are provided for both Word and LaTeX documents.

1.3. Objectives

The objectives of this particular document are:

- to indicate the information which should be contained in meeting minutes;
- to indicate the information which should be present in any formal project document, regardless of the document production system used;
- to specify the section headings which must appear in any formal project document;
- to indicate the information which should be present on diagrams which are essentially self-contained documents.
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2. MINUTES OF MEETINGS

Minutes of meetings should be in plain text, and should be emailed to all project members within 24 hours of the meeting. They must contain the following information at the start:

- a project title, which should include the name of the project (e.g., *Group Project 07*);
- the meeting purpose (e.g., *Weekly Project Meeting*);
- a list of the people present at the meeting plus any apologies;
- the place and date of the meeting;
- a circulation list, which should include all those present plus other persons as appropriate; for weekly project meetings, all project members plus the Project Manager should receive the minutes.
- the author of the minutes;
- the date the minutes were produced;

- the version number of the minutes, increased if they have to be recirculated because of errors.

Following the above information should be the following headings and descriptions:

- Matters arising - this section will describe matters arising from previous meetings, in particular describing the progress of actions propagated from the previous meeting; each significant point will be numbered so that it can be referenced when being discussed;

- New business - this section will describe each significant new piece of business, numbering each item;

- AOB - this section will describe items discussed as any other business (AOB), and each significant point will be numbered.

For all sections of the minutes, actions decided upon must be indicated, and on a new line must be the word ACTION: and the email address of people designated to carry out the action.

Following the end of the AOB section must be the minute scribe's email address and the date the minutes were produced.

Copies of all minutes must be stored in the project's configuration directory as described in QA document SE.QA.08, Operating Procedures and Configuration Management [3].

Appendix A of this document gives a simple example of what minutes should look like.

3. DOCUMENTS

3.1. Basic Information Content And Layout

All formal project documents (i.e., those identified in the Project Management standards, with the exception of the User Interface Presentation) [4] must contain the following information on the front cover:

- a title, which should clearly indicate both the project and nature of the particular document (e.g., *Group Project 07 - Design Specification*);

- the author(s) of the document;

- the configuration reference for the document (see QA document SE.QA.08 [3] for details of configuration references);

- the date the latest version of the document was produced;

- the version number of the document. This should be incremented if a new release of the document is made.

- the document status (see QA document SE.QA.08 [3] for details of permitted document statuses);

- the name and address of the Department, together with a copyright notice.

Each page within the document must contain the following information:

- a page header containing:
    - the title of the document (abbreviated if the full title is too long);
    - the version number of the document;
    - the status of the document, in brackets (e.g. *Draft* or *Released*);

- a page footer containing:
    - the phrase *Aberystwyth University / Computer Science*;
    - a page number in the form: *Page x of y* where *x* is the page number and *y* is the total number of pages; page 1 will be the front cover.

Note that for a document which is not yet under change control, there should be a version number (start at v0.1) and date, and the status should be draft.

3.2. Sections Which Must Be Included

Every formal document must contain the following lists and sections:

- CONTENTS - this list should come after the title page and must list the titles of all sections and subsections together with their page numbers;

- INTRODUCTION - this section must contain the following subsections:
    - Purpose of this Document- this subsection must briefly describe what the document is intended to achieve. It should be an overview, as the detail of *how* the purpose will be achieved is described later in the *Objectives* subsection.
    - Scope - this subsection must describe the parameters of the document, i.e., what topics it covers (and, if applicable, what it specifically excludes). It should also indicate who should read the document, and indicate if there are any other documents which should be consulted before reading the document;
    - Objectives - this subsection must list the specific objectives of the document. These are the detailed goals that must be attained in order to achieve the document's stated purpose. It should be possible to verify that these objectives have been met.

- SPECIFIC SECTIONS GO HERE - the purpose of the document will be met by a number of sections, and they should go here. The expected sections for different types of document are discussed in other standards documents, e.g. [5,6].

- REFERENCES - this section must list any books, manuals, documents, etc. which are referred to (i.e., cited) in the main text of the document. The citation of references and the presentation of reference lists is a major topic and is beyond the scope of this document; look at the citation format and the reference lists in the QA manuals for examples of how to do it, and also look in text books for alternative approaches; if there aren't any references, then the section heading must be present but the body of the section must consist of the string *N/A*.

- DOCUMENT CHANGE HISTORY - The Change History is a summary of changes made; QA Document SE.QA.08, *Operating Procedures and Configuration Management*, describes in detail the procedures for reporting problems, and recording and authorising changes. This section must contain a table with the following headings and descriptions:
    - Version - the version of the document being described;
    - CCF No. - the number of the Change Control Form (CCF) authorising the changes from the previous version. If the document has not been released (even in draft) and so no CCF was needed, this should be indicated by *N/A* in this column of the table;
    - Date - the date the change was put under change control, in the form *nn/mm/yy*, where *nn* is two digits representing the day, *mm* is two digits representing the month, and *yy* is the last two digits of the year;
    - Sections Changed From Previous Versions - a list of the amended sections or a very brief description of more general changes;
    - Changed By - the initials of the person who carried out the change;

Sections, subsections and subsubsections must be numbered starting from 1. Section headings must be entirely in upper case; subsection and subsubsection headings must have the first letter of each word capitalised and the rest of the word in lower case, with the exception of names, whose case must be preserved.

Note that for a document which is not yet under change control, the Change History can be left blank. Once a document is under change control, all the fields on the Change History *must* be filled in.

3.3. Document Production Methods

All documents must be produced using a word processor or document preparation system. All files containing released documents must be stored in the project's configuration directory and accessed as described in QA document SE.QA.08, *Operating Procedures and Configuration Management* [3].

All documents must be checked for spelling and other typographical errors using an automated spell checking program before being released. They must also be read carefully by someone other than the author, as spell checking programs do not catch all types of error.

4. PRODUCTION AND INCLUSION OF DIAGRAMS

All diagrams, graphs, pictures, etc. must be drawn or generated by computer and stored in electronic form. Where diagrams, graphs, etc. are input to a document, they must be stored and accessed in the configuration directory along with their parent document according to the procedures specified in QA document SE.QA.08 [3].

APPENDIX A - EXAMPLE MINUTES

```
Project: Group Project 07
Meeting: Weekly Project Meeting
Persons present: All project members except Jim Bloggs (flu)
Place and date of meeting: C55, Tuesday 8th March 2016
Circulation list: All project members, plus project manager
Author: John Biggs
Date of minutes: 9th March.
Version: 1.0

Matters arising
===============

1. Jane Giggs reported on the experimental user interface (point 4 of minutes
of 1st March). The AWT did not provide the facilities she needed. She would
experiment with Swing.
ACTION: jgg6

2. Joe Green presented a draft of the testing specification (point 6 of
minutes of 1st March). A document walkthrough was carried out and the document
was approved.

New business
============

3. Jan Gray, project leader, reported that everyone was well ahead of time
and that the project would be over by Easter. The project manager pointed
out that the project had to deliver and test code as well as a design
document, and that this would occupy everyone after Easter. Jan Gray will
redraw the plan to cover project.
ACTION: jog6

4. The design specification document needs to be started. Tanya Thin and
Steve Stout will produce drafts of sections 1 and 2 respectively by next
week's meeting.
ACTION: tnt6 and sos6

AOB
===

None.
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REFERENCES

[1] QA Document SE.QA.09 -- Coding Standards.

[2] QA Document SE.QA.01 - Quality Assurance Plan.

[3] QA Document SE.QA.08 - Operating Procedures and Configuration Management Standards.

[4] QA Document SE.QA.03 - Project Management Standards.

[5] QA Document SE.QA.05 - Design Specification Standards.

[6] QA Document SE.QA.06 - Test Procedure Standards.

DOCUMENT HISTORY

Version	*CCF No.*	*Date*	*Changes made to document*	*Changed by*
1.6	N/A	18/11/09	Changed group letter to be group number to match present situation	CJP
2.0	N/A	12/05/12	Simplified process	CJP
2.1	N/A	21/12/16	Updated for single semester projects	CJP