

# SE 3XA3: Software Requirements Specification

## Title of Project

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Table 1: **Revision History**

Date	Version	Notes
08/11/16	1.0	Basic design information

# 1 Anticipated and Unlikely Changes

## 1.1 Anticipated Changes

**AC1:** The range of allowed image sizes and image aspect ratios for the input image is expected to change after testing experimenting with different sizes after revision 0.

**AC2:** The sizes and selection of levels (number of chars encoded as well as data robustness level) of output QaRt Codes are expected to change with experimentation after revision 0 to deliver the most reliable most convenient elements.

## 1.2 Unlikely Changes

**UC1:** The general QR encoding algorithms themselves are not likely to see changes. Therefor within reason parts of the process can be spread across multiple modules with low coupling but which all are aware of the math behind other modules which are part of the process.

**UC2:** The max number of characters encoded is not likely to change, as our choice was based more on the allowances of the URL standard, rather than the allowances of any QR Code formats.

# 2 Module Hierarchy

M1:

...

# 3 Connection Between Requirements and Design

# 4 Module Decomposition

## 4.1 Hardware Hiding Modules (M1)

Secrets:

Services:

Implemented By:

Level 1	Level 2
Hardware-Hiding Module	
	?
	?
	?
Behaviour-Hiding Module	?
	?
	?
	?
	?
	?
Software Decision Module	?
	?

Table 2: Module Hierarchy

## 4.2 Behaviour-Hiding Module

Secrets:

Services:

Implemented By: –

### 4.2.1 Input Format Module (M??)

Secrets:

Services:

Implemented By:

### 4.2.2 Etc.

## 4.3 Software Decision Module

Secrets:

Services:

Implemented By: –

#### 4.3.1 Etc.

## 5 Traceability Matrix

Req.	Modules
R1	M1, M??, M??, M??
R2	M??, M??
R3	M??
R4	M??, M??
R5	M??, M??, M??, M??, M??, M??
R6	M??, M??, M??, M??, M??, M??
R7	M??, M??, M??, M??, M??
R8	M??, M??, M??, M??, M??
R9	M??
R10	M??, M??, M??
R11	M??, M??, M??, M??

Table 3: Trace Between Requirements and Modules

AC	Modules
AC??	M1
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??
AC??	M??

Table 4: Trace Between Anticipated Changes and Modules

## 6 Use Hierarchy Between Modules

Figure 1: Use hierarchy among modules