About Us

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|  | SegFault Software is a software house, employing more than 4,000 people over 12 countries. Combining unparalleled experience, exhaustive capabilities across all industries and business functions, and extensive knowledge on the world’s largest companies, SegFault Software collaborates with clients to help them become efficient high-performance entities. The company generated revenues of GBP £182.5 million for the fiscal year ended Mar. 31, 2011. |
| Powering your business |

Staff Biographies

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| Thomas Hughes | Thomas Hughes first joined the company in 2012 after a long fruitful career as a Footballing megastar, most notable for scoring the winning goal in the 2012 European Championships final for England.  He then decided to radically change his career and become the lead designer at SegFault, making use of his degree in Computer Science which he obtained in 1998.  Thomas currently resides in London although he is known to enjoy travelling all around the world. |
| Lead Designer |
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| Mark Robinson Robinson | Mark Robinson has been with the company as a software developer from its founding.  His tenure has seen him work on a plethora of software projects covering all industry sectors. This has made him highly experienced with a vast range of programming languages and techniques.  He has published several research papers on software development theory including “SCRUM Development Techniques” and “Utilising Cloud Computing to Enable Remote Medical Diagnosis”.  Mark Robinson Robinson graduated from Staffordshire University with an MSc in Computer Science in 1996 and acquired MS MCPD and SANS GSSP certifications in 1999. |
| Lead Programmer |
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| Matthew Ryder | A computer scientist with a focus on computer operating systems, Matt had worked at Microsoft as a consultant for Microsoft, on the Windows ME and Vista teams before moving to SegFault in 2009.  He is the author of the best-selling book “UNIX Systems, Who Needs ‘Em?” and co-author of “Windows Vista for Dummies”.  He currently resides in London with his wife, two children and three dogs; Jasper, Esbern and Patches. |
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Revision History

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| **Date** | **Version** | **Description** | **Author** |
| 19/01/2012 | V1.00 | Company about us | Mark Robinson |
| 19/01/2012 | V1.00 | Constructed company logo | Mark Robinson |
| 19/01/2012 | V1.00 | Wrote staff bio | Mark Robinson |
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| 04/02/2012 | V1.00 | Transcribed matrix to excel | Mark Robinson |
| 04/02/2012 | V1.00 | Started analysing skills matrices | Mark Robinson |
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| 05/02/2012 | V1.00 | Wrote specification analysis | Mark Robinson |
| 05/02/2012 | V1.00 | Started equipment and staff cost research | Mark Robinson |
| 07/02/2012 | V1.02 | Plan | Mark Robinson |
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Contents

Software Requirements Specification

# Introduction

## Purpose

This Software requirements specification (SRS) details all the requirements the Language and Roles program should meet and the problems it must solve. It will detail all the things that the program must do and all the things it must not do along with the schedule and projected cost of the project.

## Scope

Language and Roles (L&R) promises to be a fun and educational game aimed at teaching primary school children about roles and professions.

The game will offer both testing and teaching capabilities to help develop children’s understanding of the place of roles and professions in society, and the language used to refer to them. The program will include a wide range of questions based on a wide range of roles and will have the facility for teachers to add their own questions and answers. It will also provide tracking of pupil’s results and graphical visualisations of the tracking data to assist the teacher in future lesson plans.

The game will be suitable for all children of UK primary school age (4-10 years) both in content suitability and difficulty. The game will be entertaining and easy to use so that necessary teacher involvement is minimal.

## Definitions

* L&R – Language and Roles, the proposed software program
* UI – User Interface, what the teacher and pupil will interact with to make use of the program
* GUI – Graphical User Interface, an interface that utilizes buttons and images to present an intuitive interface that can be interacted with via a mouse
* CLI – Command Line Interface, a text based interface where all input must be typed, there is no usage of a mouse
* Implementation – The section of the software development cycle where the actual software is produced
* TCP/IP – Transmission Control Protocol/Internet Protocol, a group of networking methods commonly used to access the internet
* FTP – File Transfer Protocol, a basic networking protocol which utilizes TCP/IP to transfer files
* TCP/IP Compliant – Equipment is said to be TCP/IP compliant when it is capable of TCP/IP. If the equipment is able to connect to the internet then it is TCP/IP compliant.

## References

## Overview

The rest of this document will cover the general description and specific specification of the Language and Roles program. The schedule, costing and risk analysis are also included.

# Overall Description

## Product Perspective

### Hardware

#### Hardware Interfaces

##### Input

The software will be interfaced largely with a standard mouse which has at least one button. The pupils will not have to use anything for input apart from the mouse.

A keyboard will be used for complex input by the teacher. This includes authentication of the teacher as their account requires more security than the students as they have the ability to manage the pupils’ games. New questions and answers will also be added to the games via the keyboard.

##### Output

Output will be largely via the monitor with it being used to display the GUI. This includes the authentication screen, game itself and configuration options.

There will also be limited audio output to allow blind users to play the game and teach a class using the software. However this will use a synthesised voice and so should not be seen as a pronunciation aid for foreign languages but just accessibility assistance.

#### Networking

Networking support will be provided by FTP over TCP/IP.

## Product Features

### General

### Teaching

### Testing

The teacher will be able to create a custom standardised test or choose from saved tests which were created previously. The production of these tests can be done manually with the assistance of a search function which allows the teacher to search for questions via a range of criteria. Tests can also be generated by scripts which will generate a test based on a set of criteria. Incorrect answers will be added to each question dynamically and they will be randomly ordered to help reduce cheating and make test creation easier.

When a test has been chosen it can be sent out to a specified range of logged in pupils which can be selected by name or ID number. This test will then be sent out to all the specified pupils via FTP.

When a test is received students will be notified of its arrival and will be able to take the test.

### Results

## User Characteristics

### Pupil

Acts as network client

Plays game.

Can be prescribed tests by teacher.

### Teacher

Acts as network host.

Can add content to clients.

Has admin capabilities to allow for effective phone support.

### System Administrator

Same as Teacher.

## Constraints

## Assumptions and dependencies

# Specific Requirements

## Functionality

## Usability

## Functionality

## Performance

## Supportability

## Design Constraints

## User Documentation and Help Requirements

## Purchased Components

## Interfaces

### User Interfaces

### Hardware Interfaces

### Software Interfaces

### Communications Interfaces

## Licensing Requirements

## Legal, Copyright, and Other Notices

# Supporting Information

# Schedule

# Costing

# Risk Analysis