

SOFTWARE DESIGN SPECIFICATION

1.0 Introduction

This section provides an overview of the entire design document. This document describes all data, architectural, interface and component-level design for the software.

1.1 Goals and objectives

Overall goals and software objectives are described.

1.2 Statement of scope

A description of the software is presented. Major inputs, processing functionality, and outputs are described without regard to implementation detail.

1.3 Software context

The software is placed in a business or product line context. Strategic issues relevant to context are discussed. The intent is for the reader to understand the 'big picture'.

1.4 Major constraints

Any business or product line constraints that will impact the manner in which the software is to be specified, designed, implemented or tested are noted here.

2.0 Data design

A description of all data structures and databases.

2.1 Data structures

Data structures that are available to major portions of the architecture are described.

2.2 Database description

Database(s) created as part of the application is(are) described.

3.0 Architectural and component-level design

A description of the software architecture is presented.

3.1 Architecture diagrams

Various views (logical, process, physical, development) of architecture are presented with descriptions.

3.2 Description for Components

A description of major software components contained within the architecture is presented. Section 3.2.1 is repeated for each of n components.

3.2.1 Component n description

3.2.1.1 Interface description

Input, output, exceptions, etc.

3.2.3.2 Static models

Class diagrams, composite structure diagram, etc.

3.2.3.3 Dynamic models

Activity diagrams, sequential diagrams, state diagrams, etc,

3.3 External Interface Description

The software's interface(s) to the outside world (other software or hardware systems) are described.

4.0 User interface design

A description of the user interface design of the software is presented.

4.1 Description of the user interface

A description of user interface including screen images or prototype is presented.

4.2 Interface design rules

Conventions and standards used for designing/implementing the user interface are stated.

5.0 Restrictions, limitations, and constraints

Special design issues which impact the design or implementation of the software are noted here.

6.0 Appendices

Presents information that supplements the design specification.

6.1 Requirements traceability matrix

A matrix that traces stated components and data structures to software requirements is developed.

6.2 Implementation issues