*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 he 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 structured 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**