**Product Catalog Editor Overview**

PAETEC currently uses several unique applications to represent their products in different formats. These applications are difficult to maintain and non-IT employees struggle to use the current solution. PAETEC hopes to create a new system as the first step in reorganizing the way it defines product catalogs.

The new Product Catalog Editor is required to allow users to view and edit PAETEC’s product catalog using a new master definition to describe new and existing products.

A graphical interface is also needed, which will enable non-IT users to specify and edit products, and define business rules for entities. Each entity will have a unique ID to allow regression to legacy formats.

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**Master Data Definition**

- Each Catalog consists of a hierarchy of components:
  - Products
  - Business Rules
  - Features
  - Attributes
  - Connection Numbers

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**Process Methodology**

- **Software Concept and Definition**
  - Requirements Analysis
  - Architectural Design

  **Stage Increment 1:**
  - Revise Requirements
  - Detailed design
  - Implement
  - Test
  - Deliver

  **Stage Increment 2:**
  - Revise Requirements
  - Detailed design
  - Implement
  - Test
  - Deliver

The project is broken down into staged increments. Each increment is based on business requirements specified by PAETEC.

**Stage 1:**
- Define master product definition
- View and edit available catalogs and products
- Add new products to product catalogs
- View basic product information

**Stage 2:**
- Finish implementation of the interface
- View and edit all entities
- Compare versions of a Product Catalog

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**Architectural Design**

- **Components:**
  - UI View Subsystem: Handles user input and sends it to the UI/System Manager Subsystem
  - UI/System Manager Subsystem: Handles interaction between the Model and View layers
  - Entity Management Subsystem: Responsible for the collection of the entities
  - XML/Persistence Subsystem: Responsible for all necessary I/O

- **Benefits:**
  - Separation of logic and core functionality from the User Interface level
  - Clear structure of the architecture makes software easier to maintain
  - Layers allow replacing of components, or whole interface
  - GWT framework supports the Model View Presenter

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**Features**

- Master data definition represents a format that all existing PAETEC products can be defined in
- Enforces a hierarchy of entities
- Supports versioning and comparison of Product Catalogs
- Supports multiple users through a web interface
- Accessible to users of varying technical backgrounds
- Information is persisted using a new Design Schema
- Streamlines the process of Product creation and development

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**Technologies Utilized**

- GWT version 1.3
- Java 1.5
- Blueprint Requirements Center 2009
- Eclipse Ganymede