

SFWRENG 3K04  
Assignment 1 Part 2  
Documentation

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# **1 Requirements**

## **1.1 Welcome Screen**

All required aspects of the welcome screen are implemented in the current software revision:

- Register a new user
- Login as an existing user
- Maximum of 10 users stored locally

All requirements will remain in future software revisions.

## **1.2 User Interface Essential Aspects**

All required essential aspects of the user interface have been implemented in the current software revision:

- User interface is capable of utilizing and managing windows for display of text and graphics
- User interface is capable of processing user positioning and input buttons
- User interface is capable of displaying all programmable parameters for review and modification
- User interface is capable of visually indicating when the DCM and the device are communicating
- User interface is capable of visually indicating when a different PACEMAKER device is approached than was previously interrogated

All requirements will remain in future software revisions.

## **1.3 DCM Utility Functions**

### **1.3.1 About**

All required aspects of the About function are implemented in the current software revision:

- Application model number
- Application software revision
- DCM serial number
- Institution name

All requirements will remain in future software revisions.

### **1.3.2 Set Clock**

The Set Clock function is not implemented, but has been allocated a window and a button on the DCM main window. This function will likely be removed in a future revision of the software depending on the feasibility of implementing the feature.

### **1.3.3 New Patient**

The New Patient function is implemented in the current software revision. The function will remain in future software revisions.

### **1.3.4 Quit**

The Quit function is implemented in the current software revision. The function will remain in future software revisions.

## **1.4 Pacing Mode Interfaces**

Interfaces for pacing modes and pacing mode selection are implemented in the current software revision. The feature will remain in future software revisions.

## **1.5 Printed Reports**

All common requirements for printed reports are implemented in the current software revision:

- Header Information
  - Application model and version number
  - Device model and serial number
  - DCM serial number
  - Date and time of report printing
  - Report name

All common requirements for printed reports will remain in future software revisions.

### **1.5.1 Bradycardia Parameters**

The feature is implemented in the current software revision. The feature will remain in future software revisions.

### **1.5.2 Temporary Parameters**

The feature has been allocated a button in the reports window in the current software revision. This feature will likely be removed in a future revision of the software as it is unlikely that a temporary pacing mode is introduced.

## 1.6 Programmable Parameters

Provisions for storing programmable parameter data have been implemented in the current software revision for the following programmable parameters:

- Lower Rate Limit
- Upper Rate Limit
- Atrial Amplitude
- Atrial Pulse Width
- Atrial Refractory Period (ARP)
- Ventricular Amplitude
- Ventricular Pulse Width
- Ventricular Refractory Period (VRP)

These programmable parameters will remain in future software revisions.

## 1.7 Real-time Electrograms

stuff

## 2 Software

### 2.1

## 3 Testing

### 3.1