SFWRENG 3K04
Assignment 1 Part 2
Documentation

Lab 1 Group 7
Carlos Capili
Raeed Hassan
Shaqeeb Momen
Aaron Pinto
Udeep Shah

Contents

1 Requirements

1.1 Welcome Screen

A welcome screen greets the user when the program is launched, displaying the option to either register a new user or login as an existing user. Users have a username and a password. A maximum of 10 users are stored locally, with the user losing the ability to register new users once this maximum has been reached. The ability to delete existing users may be added in a future revision of the software.

1.2 User Interface Essential Aspects

The user interface is a graphical user interface that manages windows that display text and graphics. User interface elements in the windows scale with the size of the window. There are minimum, maximum, and fixed sizes for windows to ensure that user elements are displayed as intended.

User interface elements such as push buttons, radio buttons and text inputs are accesed through the cursor.

All required programmable parameters avaiable for review and modification in parameters window.

Status bar allocated for visual indication of connecting between DCM and device.

not implemented currently

1.3   DCM Utility Functions

1.3.1   About

The About function displays the application model number, application software revision, DCM serial number and institution name. These are all present in the current revision of the DCM.

1.3.2   Set Clock

The Set Clock function has been allocated a window that will display the current date and time on the device and allow the user to set a new date and time. 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

Presnent in current revision.

1.3.4   Quit

The Quit function exits the program. Present in current revision.

Condition			Current Revision	Future Revisions
DCM Utility Functions	About	Application model number	✓	✓
		Application software revision number	✓	✓
		DCM serial number	✓	✓
		Institution name	✓	✓
	Set Clock		✓	✓
	New Patient		✓	✓
	Quit		✓	✓

Table 1: DCM Utility Functions

1.4   Pacing Mode Interfaces

Pacing mode selection

1.5   Printed Reports

Header information: Institution name, date and time, device model and serial number, dcm serial number, application model and version number, report name

1.5.1   Bradycardia Parameters

Displays programmable parameters relevant to pacing mode in a popup window.

1.5.2 Temporary Parameters

Allocated a button in the Reports window. This function will likely be removed in a future revision of the software depending on whether a temporary pacing mode is introduced.

1.6 Programmable Parameters

Programmable parameters stored locally in file that can be modified through parameters window. Only parameters relevant to assignment were allocated. A table of programmable parameters present in the current revision of the DCM and parameters that will likely be added in future revisions is shown in Table 2.

Current Revision	Future Revision
Lower Rate Limit	
Upper Rate Limit	
Atrial Amplitude	
Atrial Pulse Width	
Ventricular Amplitude	
Ventricular Pulse Width	
VRP	
ARP	

Table 2: Programmable Paramters

1.7 Real-time Electrograms

Space has been in the DCM and Report windows for the real-time electrograms and electrogram reports.

2 Software

2.1

3   Testing

3.1