**Project Identity**  
Automatic Expert Anesthesiology Monitor  
Week 5  
Through October 8, 2007  
Kane Killelea

**Work Completed**

This week we faced many of the same challenges as last week. We have been in communication with Dr. McIsaac at Hartford Hospital, and he gave us some programs to attempt to pull data from the hospital network. He sent us a variety of LabVIEW virtual instruments files that interface with the equipment in the operating rooms. Unfortunately we were unable to go to the hospital during this past week, so we couldn’t test these new programs to see if they work. I also looked into creating a LabVIEW program that can passively listen to the network so we can retrieve some data from the machines. Figure 1 shows the program I created to listen to a network and record the information received to a text file.

![Block Diagram](image)

Figure 1: LabVIEW listener program (Block Diagram)

The parameters of certain components of this system will have to be modified based on the type of data we receive from the network. This week when we go to the hospital I will attempt to use this program to passively listen to the network and determine what the packet structure is like.

I continued to do research into the Blackfin-specific LabVIEW controls to prepare for converting our program into something that can be embedded on a Blackfin chip. In the coming week I will watch online tutorials and speak with Newton Defaria about a contact at Analog Devices.

We determined that the LCD screen we have cannot be used because it is missing some key components. We contacted several different companies that claim to be able to
service this particular screen, but kept getting referred to different people and no one seemed to be able to help. This week we will look into what type of screen we will need to purchase and then speak with Dr. McIsaac about getting funding to purchase it. I e-mailed National Instruments and Analog Devices concerning the LCD integration with Blackfin. The representative from Analog Devices told me that we need to buy an EZ-extender card for Blackfin that allows us to deal with audio/visual components. When I e-mailed someone at National Instruments they told me that I can just output information to the serial port on the Blackfin EZ-Kit board. I will need to send some follow-up emails this week to determine what our options are with Blackfin, and order the extender card if we do in fact need it. Figure 2 shows the A-V Extender card.

![Figure 2: A-V Extender Card](image)

**Future Work**

This week we need to go to Hartford Hospital so we can retrieve data from the GE-Marquette machine. Once we obtain a set of data we can expand on our existing LabVIEW program and we can begin to make some real progress. We will also have to order an LCD screen, and determine if we need to get an extender card for our Blackfin chip.

**Project Review**

We have been having some problems up to this point in getting anything major accomplished because of the difficulty inherent in getting data from the GE-Marquette machine. We have been to the hospital on several occasions and have tried many different ways to get the data but it appears that certain machines are operating on a silent network. This is a difficult issue to overcome, but once we do we will be able to make a good deal of progress.
Hours Worked
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