

Appendix A

Submarine DAQ Implementation Details

Figure A.1 is the execution flow chart for the Submarine DAQ application.

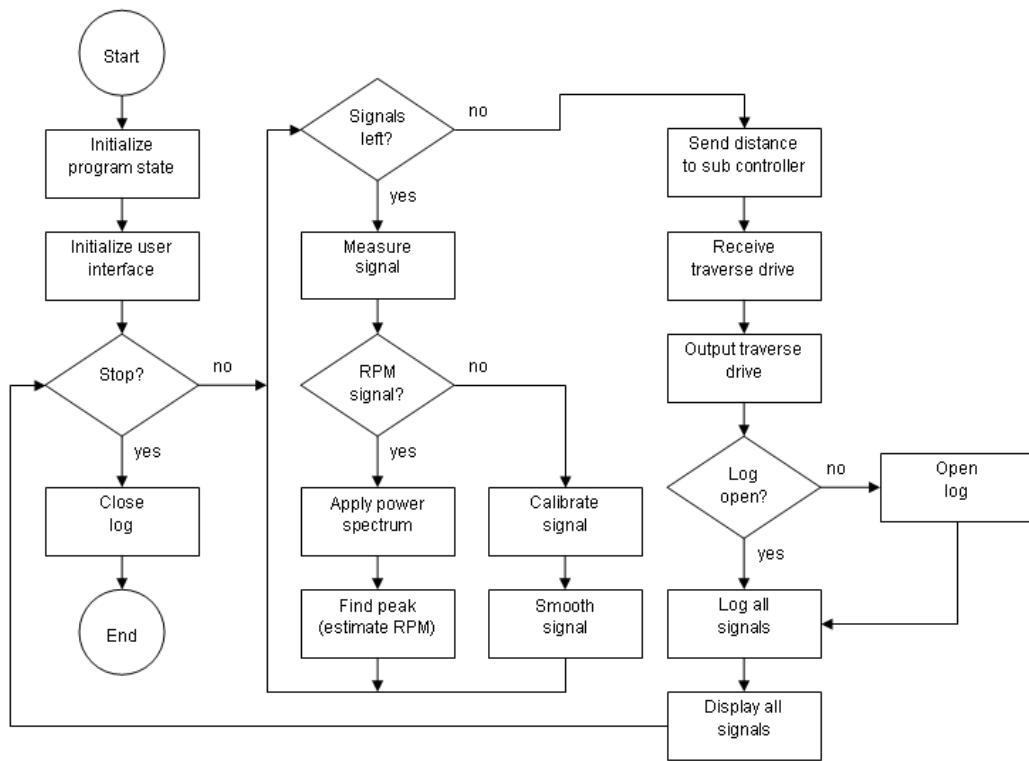


Figure A.1. Submarine DAQ flow chart.

Several portions of the Submarine DAQ LabVIEW implementation are provided for reference.

Figure A.2 demonstrates how the NI DAQ Assistant is used to read several telemetry channels.

Figure A.3 demonstrates how each telemetry channel is processed. Figure A.4 demonstrates how the motorized traverse control signal is output using the NI DAQ Assistant. Figure A.5 and figure A.6 demonstrate how telemetry is logged and displayed respectively.

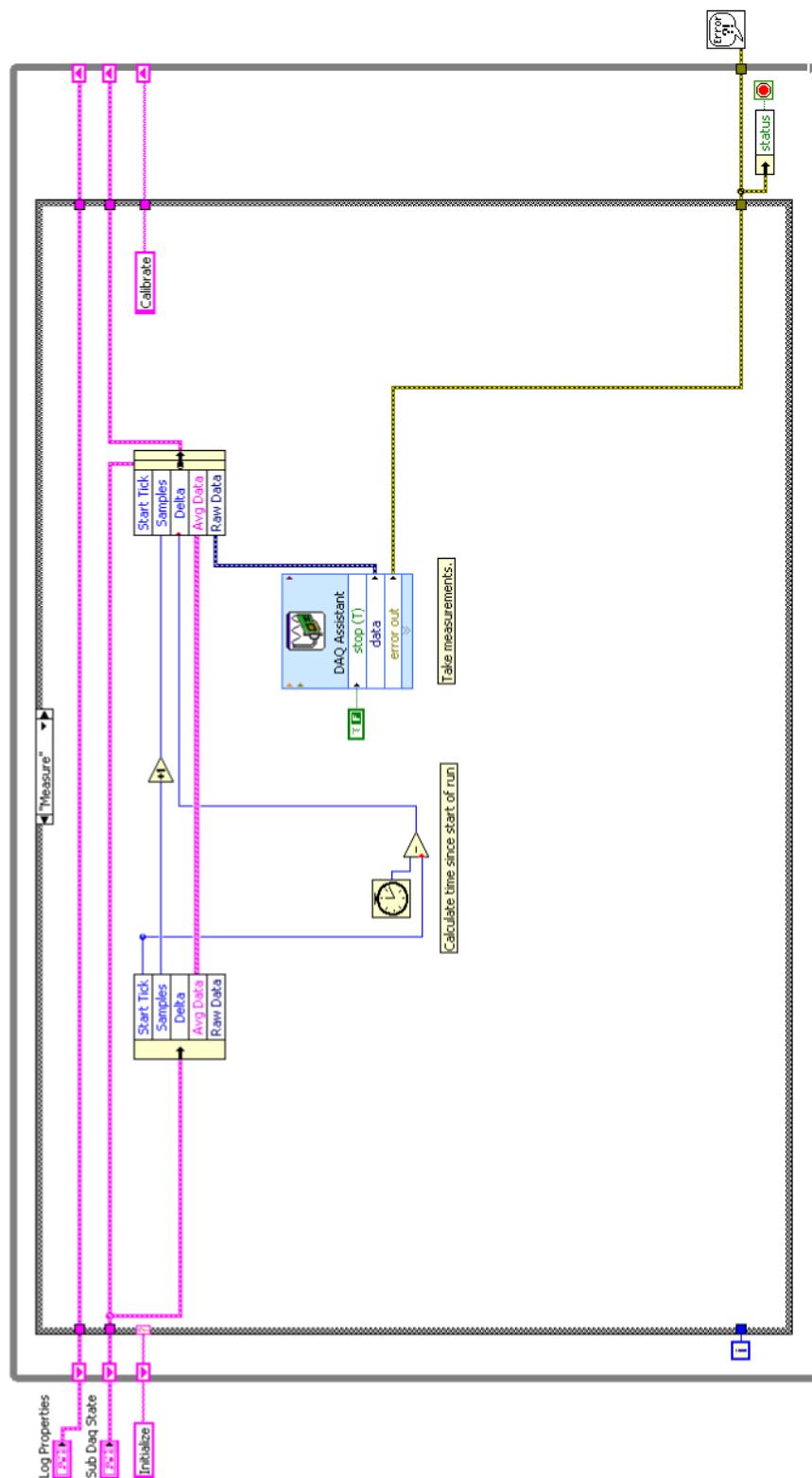


Figure A.2. Submarine DAQ VI measure state.

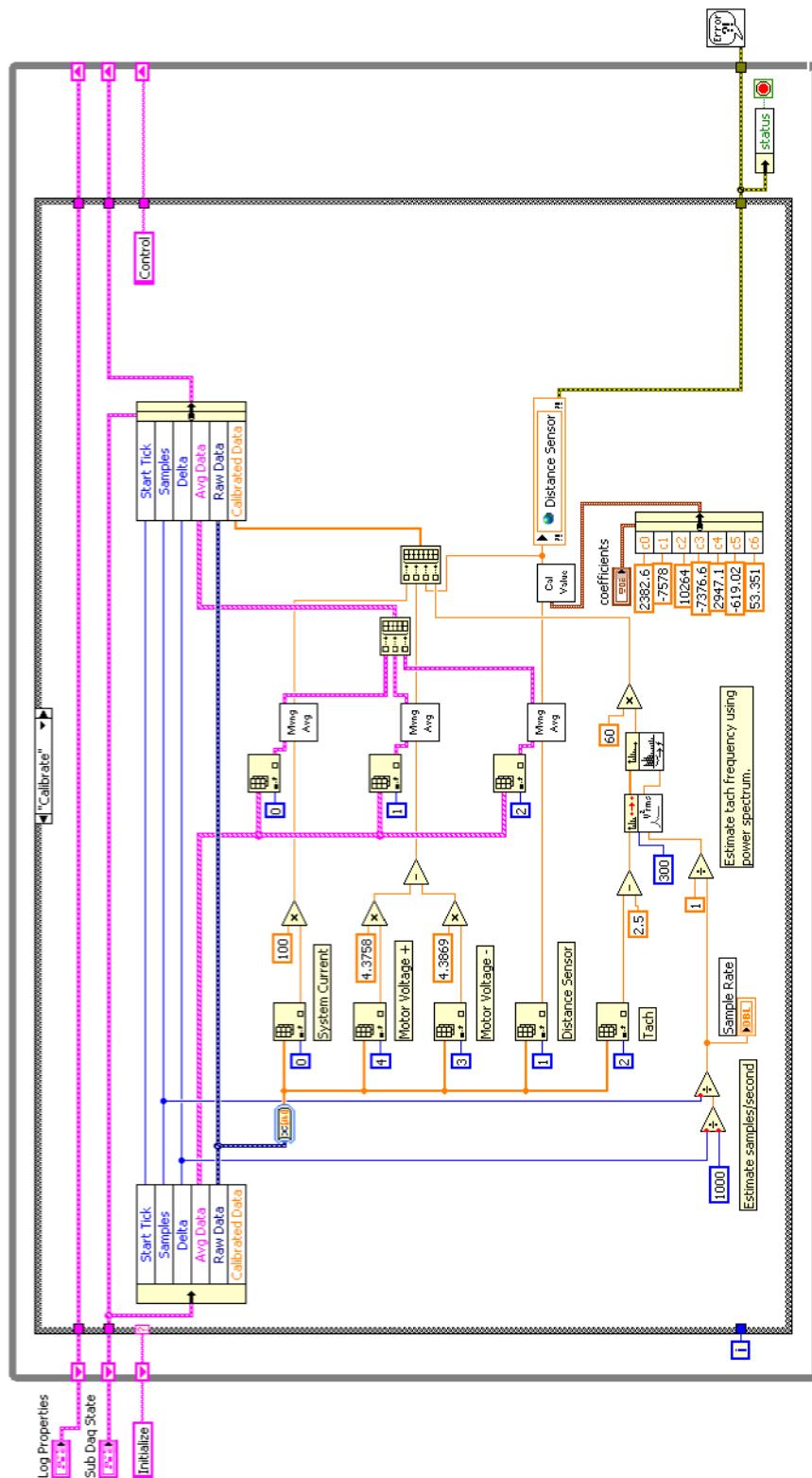


Figure A.3. Submarine DAQ VI calibrate state.

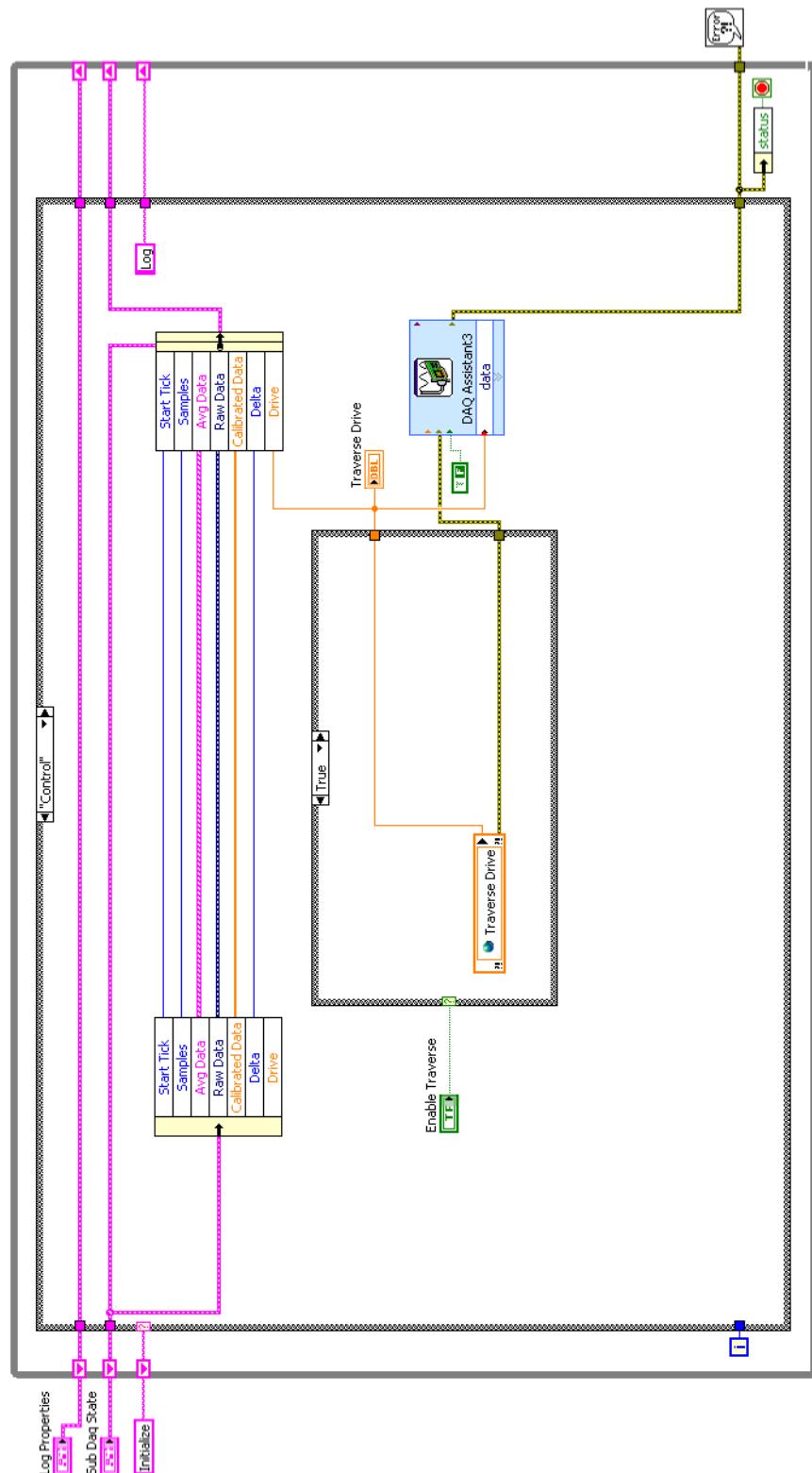


Figure A.4. Submarine DAQ VI control state.

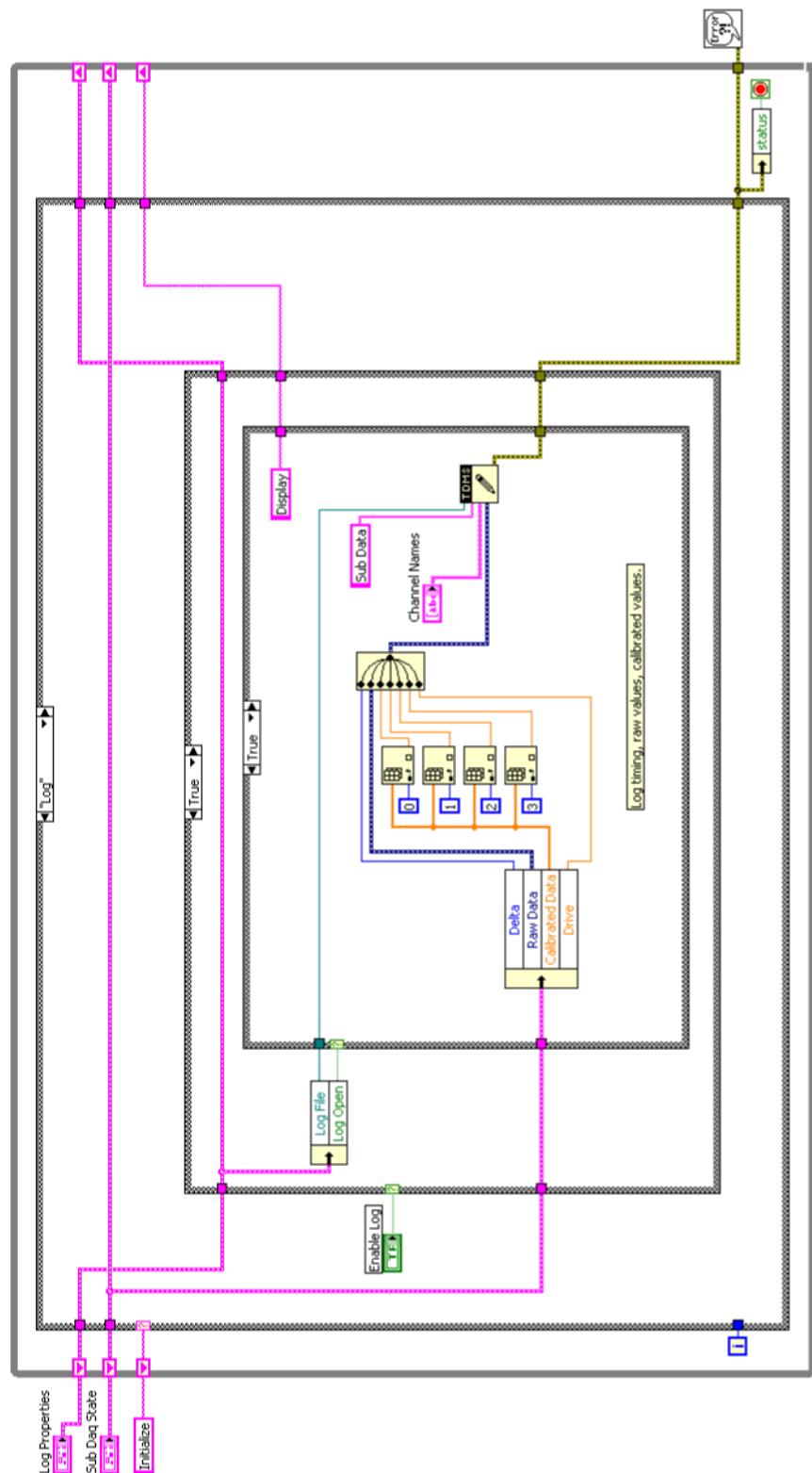


Figure A.5. Submarine DAQ VI log state.

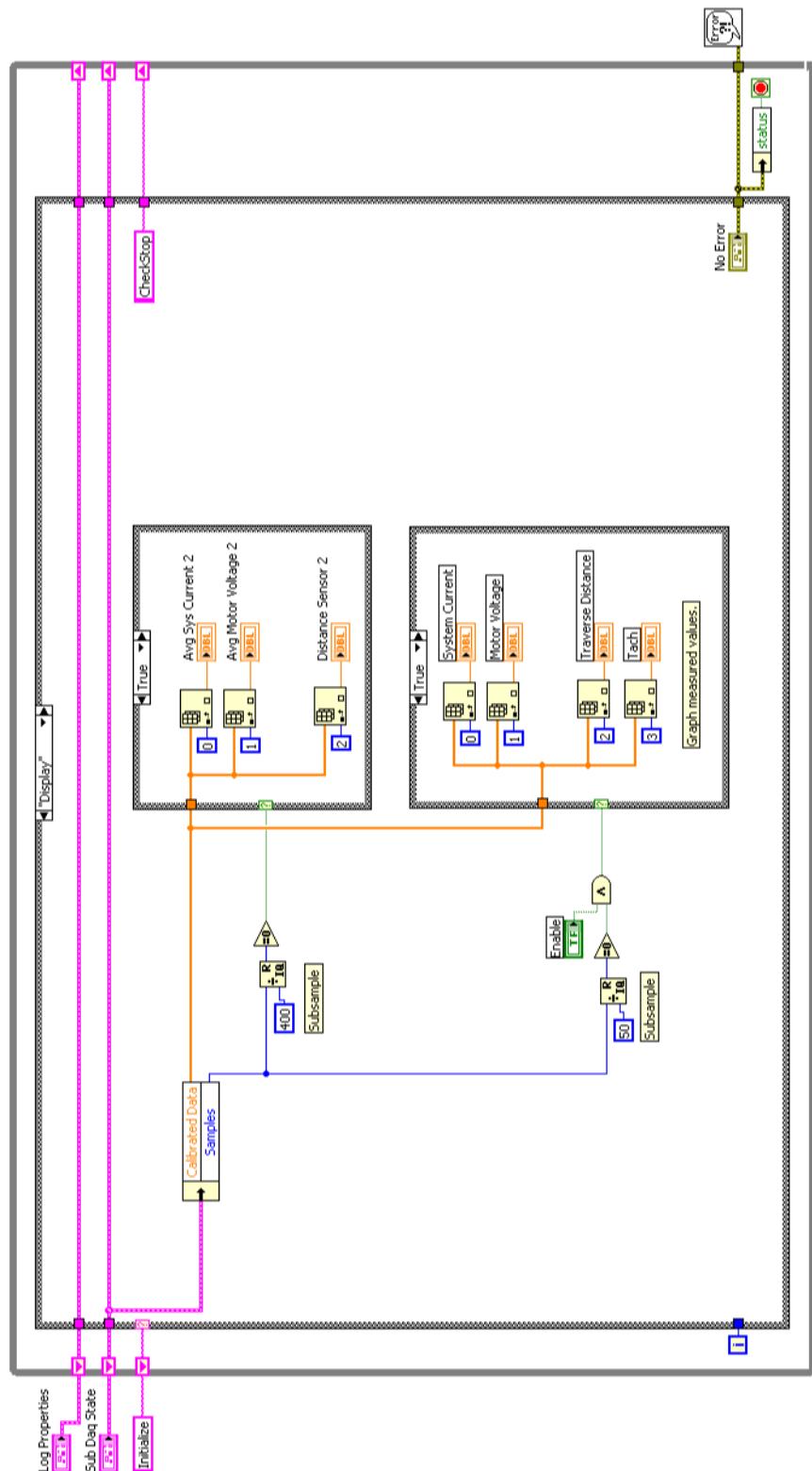


Figure A.6. Submarine DAQ VI display state.