APPENDIX E

Data Acquisition System

The data acquisition system utilized was comprised of a Fisher Scientific Model 925 pH/mV meter (Pittsburgh, PA), and data recording software written in a graphical programming language, LabView6 from National Instruments Corporation (Austin, TX). The software was installed on a Pentium computer running Microsoft Windows NT4 Workstation operating system (Silicon Valley, CA). The pH/mV meter was connected to the computer *via* the RS-232 port. When recording data, the software interpreted printer output from the pH/mV meter and recorded the data in a binary file. When data acquisition was terminated, the software converted the binary file to a tab-delimited ASCII file that could be easily imported into any commonly used spreadsheet program. The software also provided the capability of smoothing the data by taking moving mean averages or moving median averages. Figure E-1 shows user interface of the software and Figure E-2 shows an example of the graphic programming codes.

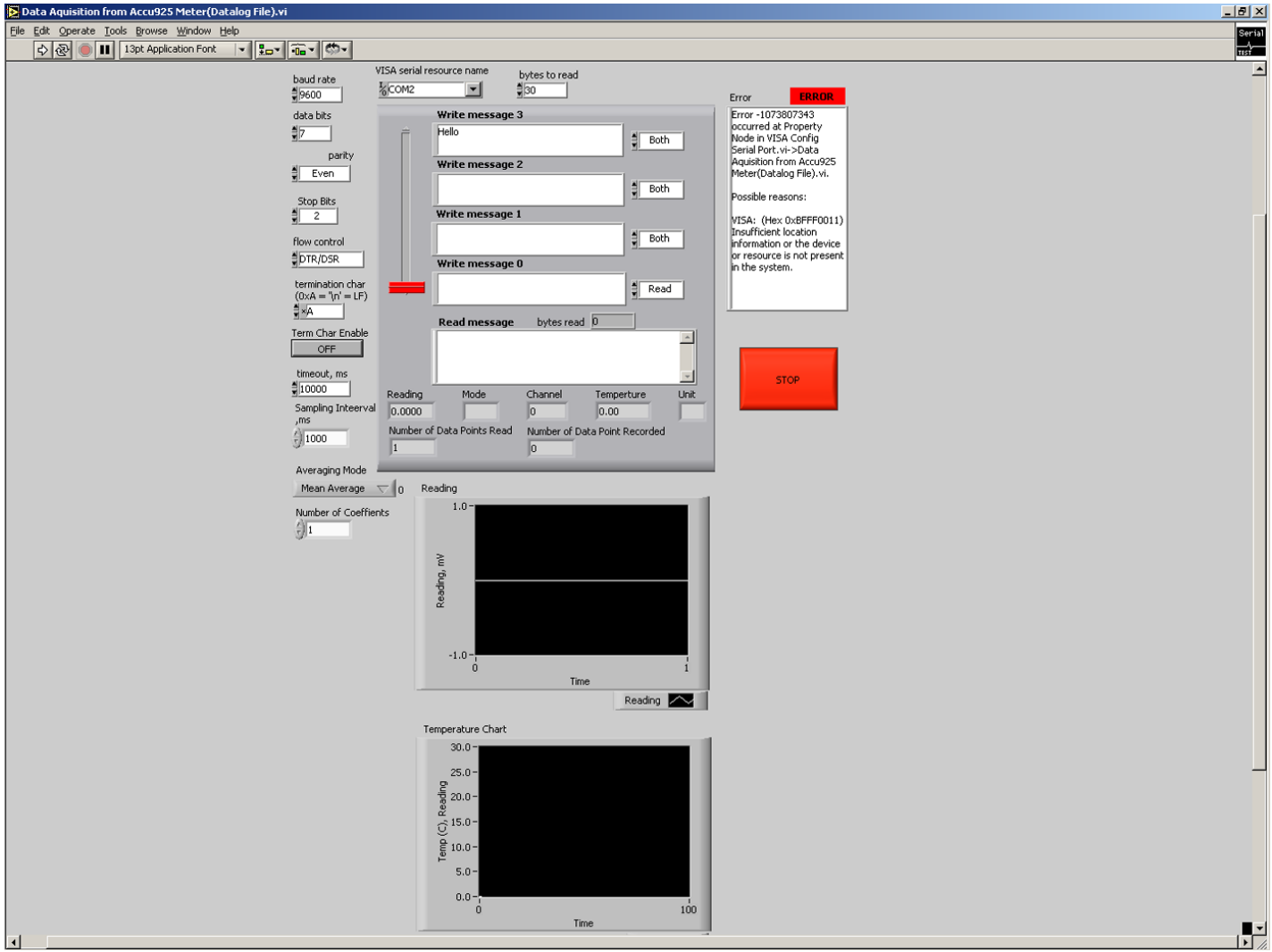

Figure E-1. Screen capture of user interface of the data acquisition software.

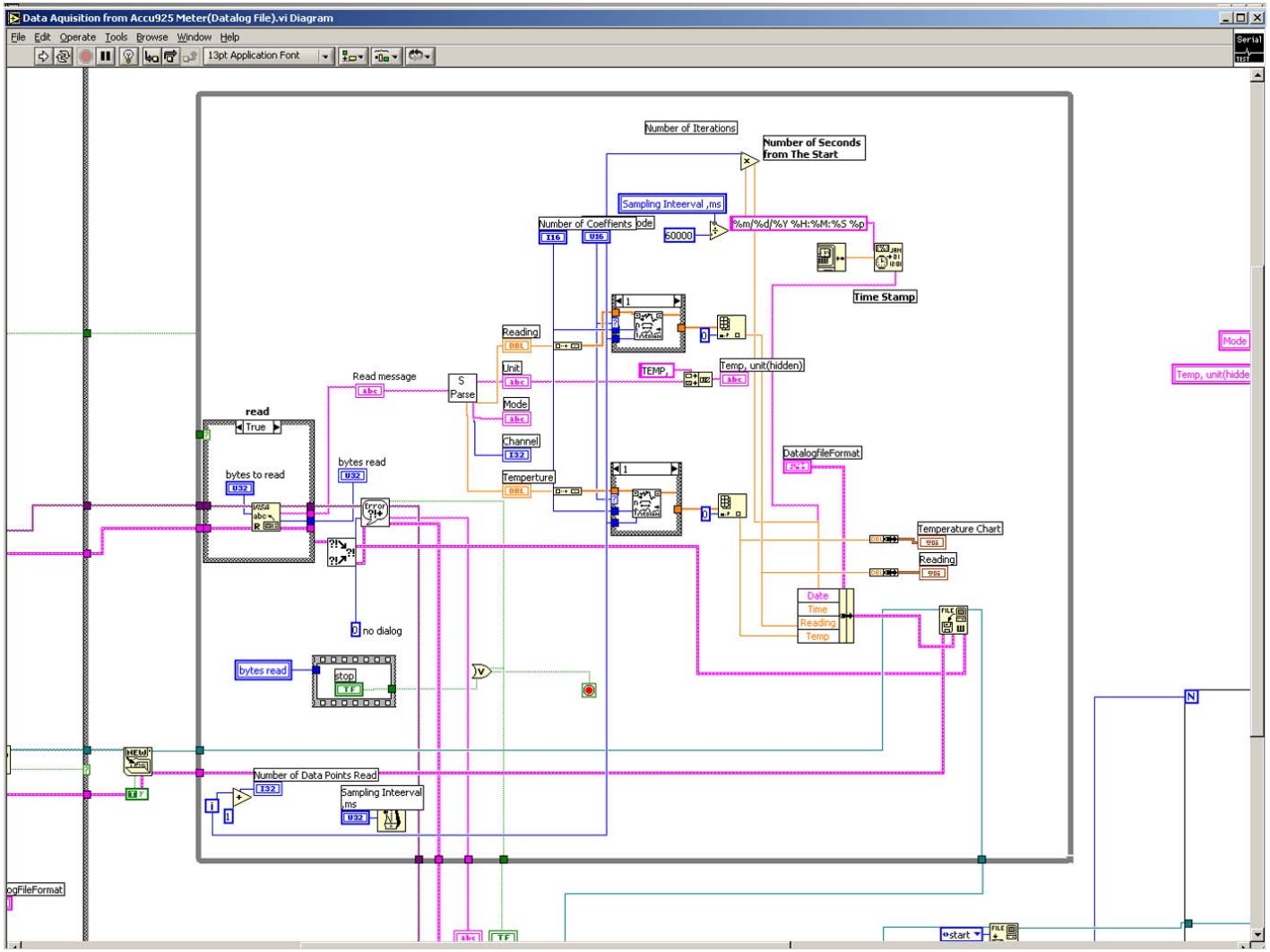

Figure E-2. Screen capture of a portion of the software logic.