Project Abstract

Because there was not a version of the Seismogram Transfer Program available for Windows, it became my duty to create one. By taking a look at the UNIX/Linux client side version of STP, I was able to see how the communication between the client and server was processed. I created two versions of STP for Windows; a console version, and a GUI version. The console version looked identical to the UNIX/Linux version of STP, while the GUI version looked similar to the Java version of STP available for users on the web. On the UNIX platform, the client and server communicated through files. Since this would not work on the Windows platform, it was necessary to change the functions to use raw socket functions instead. To create the GUI version of STP, I needed to use the Windows API. There were some obstacles to overcome, including the use of multithreading. As the user entered in a command to the server, the program would stop responding and freeze until the server had finished sending data to the client program. Because of that, multithreading was used to fix the problem. After coding the two versions of STP for Windows, I was now instructed to add a feature to STP that would allow users to retrieve both Phase and Event commands in XML format, and to create the schemas for them as well. By doing this, users using STP could take information from the XML files, and use them in another application.