

**The Development of a Tool to Aid Software Developers in Delivering More Usable Graphical User Interfaces.** *M. Ho and S. Ludi\**, Department of Software Engineering, *mch4912@rit.edu, salvse@rit.edu*

Too many software titles have frustrating user interfaces. There are currently very few tools aimed at supporting developers in the delivery of usable graphical user interfaces (GUIs). The objective of this project is to develop a tool to do just that. The tool runs in two modes: advisory mode and diagnostic mode. In advisory mode the developer provides information about the intended users of the software being developed. The tool then uses this information to determine a number of characteristics that the GUI should exhibit. The developer can then use these characteristics as a guideline for developing a GUI for the intended users. In diagnostic mode the tool parses the developer's code and determines the extent of the GUI's usability. The developer also has the freedom to customize the tool according to the needs of specific projects and specific intended users.

The tool was developed mostly in C# and the code parsing algorithms were developed in Perl with support from the Microsoft .NET framework. Development of the tool required researching technologies such as C#, GUI implementation, and multi-lingual interfacing. Software engineering principles such as modularity and pattern usage also contributed to the system's design.