Eagle: Tcl Implementation in C# Joe Mistachkin August 2008

Eagle, Extensible Adaptable Generalized Logic Engine, is a version of the Tcl scripting language for the Microsoft Common Language Runtime (CLR). It is designed to be a universal scripting solution for any CLR based language. It is written completely in C#. Superficially, it is similar to Jacl; however, it was written from scratch based on the design and implementation of Tcl 8.4. It provides most of the functionality of the Tcl 8.4 interpreter while borrowing selected features from Tcl 8.5 and the upcoming Tcl 8.6 in addition to adding entirely new features.

This paper explains how Eagle adds value to both Tcl/Tk and CLR based applications and how it differs from other "dynamic languages" hosted by the CLR and its cousin, the Dynamic Language Runtime (DLR). It then describes how to use, integrate with, and extend Eagle effectively. It also covers some important implementation details and the overall design philosophy behind them.