

Demonstration Guide

USC-CSSE Annual Research Review 2008

Name: Difftool

Presenter(s): Vu Nguyen

Objective: Difftool is a source code differencing tool of USC CodeCount toolset. Difftool allows the user to compare and collect both physical and logical differentials between two versions of a source program. The tool counts the number of added/new, deleted, modified, and unmodified physical and logical SLOC of the current version in comparison with the previous version.

Rationale: Difftool is built on top of CodeCount toolset which utilizes one of possible two SLOC definitions physical or logical. Since Difftool utilizes existing USC CodeCount toolset functionality to identify and count physical and logical SLOC counts, it follows the CodeCount counting standards. Difftool physical and logical SLOC results are consistent with those of USC CodeCount toolset.

Target Users: This tool is designed for programmers and business analysts including project managers to estimate and analyze added, modified and deleted code, which provides information for allocating resources for testing, further development, etc. Logical SLOC is the key input of COCOMO II model.

Scope: Source code sizing; Lines of code analysis.

Project Type: Multi-year USC-CSSE research project

Runs On:

- Windows 95, 98, NT, 2000, XP
- Unix, Linux

IPR Status: The CodeCount toolset and Difftool are copyright USC Center for Systems and Software Engineering but are made available with a Limited Public License which permits the distribution of the modifications you make provided you return a copy to us so we can further enhance the toolset for the benefit of all.

Developers: Directed Research students of the Center and industry professionals from Aerospace, Northrop Grumman Mission Systems, and Boeing.

Future Directions: Current version works with C/C++, Java, C#, SQL, and Ada source programs. The program is being enhanced to support other languages.