

Using Program Complexity to Find the Address of main()

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Technology Summary

The invention relates to software and more specifically to software for vetting other software. When generating an executable file, a C/C++ compiler must generate machine instructions for performing operating system (OS) specific program start up and shut down operations as part of the compilation process. These boilerplate instructions do not implement the interesting functionality of the program. As defined by the C/C++ standards, the interesting functionality is implemented in the main() function of the program. We have developed a C/C++ standards-based, compiler agnostic method for automatically computing the address of the main() function. This method for finding the address of main() has been successfully validated against executables generated by the Microsoft Visual Studio, GCC, and TCC C/C++ compilers, showing its generality.

Inventor

SAYRE, KIRK D

Computational Sciences & Engineering Div

Licensing Contact

SIMS, DAVID L

UT-Battelle, LLC

Oak Ridge National Laboratory

Rm 124C, Bldg 4500N, MS: 6196

1 Bethel Valley Road

Oak Ridge, TN 37831

Office Phone: (865) 241-3808

E-mail: SIMSDL@ORNL.GOV

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