

Compiler Construction

Celebrity compilers

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1 Abstract

This is an abstract of a speech on the topic celebrity compilers. Our speech is inspired by Chapter 8 from the book Introduction to Compiler Construction in a Java World¹.

At first, we will introduce Java Hot Spot Compiler. We'll talk about the client and the server part of this compiler and we will discuss improvements of Java Hot Spot Compiler during the time.

The second popular compiler is Eclipse Compiler for Java, which is open source platform. We can do compilation in three ways so we will talk about it.

The next introduced compiler will be GNU Java Compiler. Even if GJC is standard compiler for many Unix-like operating systems, the compilation isn't necessarily faster than compilation by Java Hot Spot Compiler. In this part, we will concentrate at it.

The last part is about Microsoft C# Compiler for .NET Framework. We should say a few words about .NET Framework. We will say something about compilation by Microsoft's C# Compiler and Just-in-Time Compilation in the CLR because it follows after getting CIL code from for example C# compiler. We will mention stages of conversion of CIL code to native code.

Brief summarization of mentioned compilers will be prepared at the end.

¹CAMPBELL, Bill. Introduction to compiler construction in a Java world. Boca Raton: CRC Press, c2013, 277 - 292. ISBN 978-1-4398-6088-5.