

TOPIC 01: INTRODUCTION TO SMALL DEVICE C COMPILER

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1 Abstract

The main goal of this presentation, is to introduce Small Device C Compiler (SDCC), how to start using it, and where to find all the necessary information. The main topics of this presentation are follow: what is SDCC, who develops it? what platforms are supported? how to obtain SDCC, install it, and most importantly, how to use it. This presentation will show, where to find information about the compiler, and where to get help in case of troubles.

After this short introduction of SDCC, the presentation will focus on the compiler itself, and some other interesting technical details of the bundle. One of the first things a C programmer should do, is to choose which standard of the C programming language he/she should use in the project, SDCC offers several options. Another crucial part of the compiler are supported data types, their sizes, ranges, and support across different platforms. An unoptimized programme is almost always more slower, and often bigger than its optimized counterpart, which makes it run longer, and/or consume more energy. That makes optimization a very important step in the compilation process. In addition to several universal optimization techniques, SDCC also provides MCU specific ones for certain platforms.

Information for the presentation was gathered from the official website sdcc.sourceforge.net, especially from the SDCC manual.