VYPa - presentation abstract
Static libraries

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14.11.2022

1 Abstract

This presentation is aimed at static libraries. The reason we chose this topic is because static libraries still have some advantages over dynamic libraries, for example in their execution speed at run-time. First, we describe what is a static library and how it is used. We talk about static libraries in context of C/C++ languages, and GCC compiler. Then, we cover basic differences between static and dynamic libraries, including use cases, advantages and disadvantages. After that, we talk about basics of compiling and linking static libraries. We also focus on a structure of a static library file on Linux operating system. Finally, we cover main challenges of using static libraries, such as losing symbol visibility, or a problem with linking static library into a dynamic library. In conclusion, we provide basic overview of static libraries in context of compilers, together with their less known features and challenges.

2 References

1. STEVANOVIC, Milan. Advanced C and C++ compiling. Apress, 2014.
2. Levine, J.R.. Linkers and Loaders.. Elsevier Science, 2000.