Agenda of the presentation

Note: some points with label “Optional:” can be removed, so total time will fit into the time frames.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Description | Duration |
| **Part1. Compilation steps. Linker basics.** | | | |
|  | Introduction |  | 5 min |
|  | Compilation steps | Example of source code and output from each stage.  Also prepare a summarizing picture with all compilation steps. | 10 min |
|  | Preprocessing |  |  |
|  | Translating |  |  |
|  | Assembling |  |  |
|  | Linking |  |  |
|  | Example of linker work | Example of source code.  Output from nm and objdump.  Figures and shapshots. | 15 min |
|  | Tip | Do not include everything in source files |  |
|  | Question to audience | Does linker throw away unused code?  Answer will be in part 2. |  |
|  | Optional: Few words about precompiled headers | (This is not so important. Simply, good to know) | 5 min |
|  | Optional: Internal and external linkage of identifier | (This everyone should know) | 5 min |
|  | Optional: example: order of static object initialization | (Not the most important trap to know) | 5 min |
|  | Example: hereditary disease | Two classes in different translation units with the same name but different content. (One definition rule violation) | 10 min |
|  | Optional: hereditary disease with inline functions | Show how optimization option of compiler can fix the error. | 5 min |
|  | Break | Intermediate Q&A session | 5 min |
| **Part2. Static and shared libraries.** | | | |
|  | Static libraries | Basic knowledge | 5 min |
|  | Example: linker throws away “unused” code | Static variables defined in separated translation units can be skipped while linking them from the static library | 10 min |
|  | Shared libraries | Basic knowledge. Static and Dynamic linkage. Example of source code.  Output from nm, objdump and ldd.  Export aspects for Windows. | 15 min |
|  | Example: static member mess up | Using static members inside shared library and executable. Shared library is statically linked to executable. | 15 min |
|  | My preferable structure of project |  | 5 min |
|  | Few final words |  |  |
|  | Final Q&A session |  | 10 min |