Subject: How to link assembler compiled file
Posted by frederik.dumarey on Sun, 18 May 2025 09:51:20 GMT
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Hello,

I added a assembler file named my_strlen.S to my package, the contents of this file are below:

```
 .global _my_strlen   # Export the symbol _my_strlen
 .text      # code section

_my_strlen:

 #function prologue
 pushq %rbp
 movq %rsp, %rbp
 movq %rdi, %rsi    # copy the string pointer to %rsi
 xorq %rax, %rax    # zero %rax to use as a counter

strlen_loop:
 cmpb $0, (%rsi)    # compare byte at %rsi with 0 (null terminator)
 je strlen_end    # if zero, end of string reached
 incq %rax     # increment counter
 incq %rsi     # move to next character
 jmp strlen_loop    # repeat loop

strlen_end:

 #function epilogue
 popq %rbp
 ret
```

Since this is AT&T assembler code, it compiled without any problem to a object file using right_click, build and compile option in TheIDE GUI. So far so good.

I then added a C++ file, which has the following content:

```
#include <iostream>

//declare the assembler function
extern "C" size_t my_strlen(const char* str);

int main(int argc, const char *argv[])
{
 const char* message = "Hello from Assembler";
 size_t length = my_strlen(message);
```

```
 std::cout << "Message: " << message << std::endl;
 std::cout << "Length: " << length << std::endl;
 return 0;
}
```

which can also be compiled using the same method as stated before.

Now my question: how do I link those two object files in the GUI? I suppose I have to go to Project menu item, then Custom build steps, but what do I enter in all these fields?

Thanks.
