

C in C++

Two for one

C vs. C++

- In practice C is a subset of C++
- There are differences in the standards
 - usually simple fixes
- Most C++ compilers will handle most C

C into C++

- Change the file from `dcurses.c` to `dcurses.cpp`
- Try to compile
 - usually need to add some explicit casting
- Generally works if you have the source code
 - do this with `dcurses`

C into C++

- C++ compilers do name wrangling
- C++ linkers must support C style names
- Change your header file to work in both C and C++
 - use `extern "C"` and the `__cplusplus` define

Example.h

```
#ifndef EXAMPLE__H
#define EXAMPLE__H

#include "cmisc.h"

bool a(double d);
int b(char c);

#endif
```

Example.h

```
#ifndef EXAMPLE__H
#define EXAMPLE__H

#ifdef __cplusplus
extern "C" {
#endif

#include "cmisc.h"

bool a(double d);
int b(char c);

#ifdef __cplusplus
}
#endif

#endif
```

Example.h

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```
#ifndef EXAMPLE__H  
#define EXAMPLE__H
```

```
#ifdef __cplusplus  
extern "C" {  
#endif
```

If compiling in C++ link as C functions
If not in C++ go about life normally

```
#include "cmisc.h"
```

```
bool a(double d);  
int b(char c);
```

```
#ifdef __cplusplus  
}  
#endif
```

If compiling in C++ link as C functions
If not in C++ go about life normally

```
#endif
```