

2014 11 11

test.c

```
#include <stdio.h>

int main(void)
{
    fputs("Hello, world! \n", stdout);
    return 0;
}
```

```
$ gcc test.c
$ ./a.out
Hello, world!
```

```
$ ./configure
$ make
$ make install
```



configure

autoconf

configure

configure

configure

```
$ ./configure --prefix=/www --with-mysql
```

php

WWW

mysql

standard library

header

A

B

1 B A

2 B A

makefile

makefile

configure

configure

precompilation

stdio.h

#define

Preprocessing

bash

stdio.h

```
extern int fputs(const char *, FILE *);
extern FILE *stdout;

int main(void)
{
    fputs("Hello, world! \n", stdout);
    return 0;
}
```

fputs FILE

stdio.h

" " Preprocessing

Compilation

assembly

```
.file "test.c"
.section .rodata
.LC0:
```

```

.string "Hello, world! \n"
    .text
    .globl main
    .type main, @function
main:
.LFB0:
    .cfi_startproc
    pushq    %rbp
    .cfi_def_cfa_offset 16
    .cfi_offset 6, -16
    movq     %rsp, %rbp
    .cfi_def_cfa_register 6
    movq     stdout(%rip), %rax
    movq     %rax, %rcx
    movl     $14, %edx
    movl     $1, %esi
    movl     $.LC0, %edi
    call     fwrite
    movl     $0, %eax
    popq     %rbp
    .cfi_def_cfa 7, 8
    ret
    .cfi_endproc
.LFE0:
    .size    main, .-main
    .ident   "GCC: (Debian 4.9.1-19) 4.9.1"
    .section .note.GNU-stack,"",@progbits

```

object file

Linking

stdout fwrite

stdout fw

static linkingdynamic linking

linking

make

Installation

" " Installation

txt

Linux

/usr/share/applications .desktop

" " make install " " " "

Dynamic linking

runtime

Linux .so Windows .dll Mac .dylib