

char	meaning
I	Integer
L	Long
P	Pointer

model	meaning
ILP32	4/4/4
LP64	4/8/8
LLP64	4/4/8
ILP64	8/8/8

ARM	type
ARM32	ILP32
ARM64	LP64

LP64	bits
int	32
long	64
long long	64
pointer	64

如果知道自己在干什么，尽量使用在32-bit和64-bit上明确的类型(不会因为ARM32或ARM64而不同)

ARM32/ARM64 independent	comments
int16_t	
int32_t	
int64_t	
uint16_t	
uint32_t	
uint64_t	
intptr_t	signed int type large enough to hold any pointer
uintptr_t	unsigned int type large enough to hold any pointer

如果不能确定某种类型的bit width , 可以用`compiletime_assert()`来下编译器断言。  
比如

```
1. compiletime_assert(sizeof(size_t) == 4, "expect size_t is 32-bit");
```

ILP32/LP64/LLP64/ILP64都是符合C standard的。

c standard只要求满足如下条件

```
sizeof(char) <= sizeof(short) <= sizeof(int) <= sizeof(long) = sizeof(size_t)
```

`size_t` must represent the largest unsigned type supported by an implementation.