

# C++ Tricks 2.6 I386C(Variable Arguments)

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## 2.6 I386C(Variable Arguments)

(2.4)C“...”

```
void g(int a,char* c,...);
```

g22

```
g(3,"Hello",2,4,5);//g53
```

2.4:

```
void g(int a,char* c...){
```

```
    void *pc=&c;int* pi=static_cast<int*>  
(pc)+1;//pi
```

```
    for(int i=0;i<a;i++)std::cout<<pi[i]<<" "
```

```
    std::cout<<c<<std::endl;
```

```
}
```

addAllint0

```
int addAll(...);
```

```
int a=f(1,4,2,5,7,0);
```

addAll

```
int addAll(...){
```

```
    int sum=0;int *p=&sum; //p
```

```
    p+=3; //sumebpeipp
```

```
    for(;*p;++p) //p0
```

```
sum+=*p;
```

```
return sum;
```

```
}
```

Cprintfscanf

```
void printf(char *c,...);
```

```
void scanf(char *c,...);
```

(align)C(macro)(struct)stdarg.h:

```
typedef struct {char *p;int offset;} va_list;
```

```
#define va_start(valist,arg)
```

```
#define va_arg(valist,type)
```

```
#define va_end(valist)
```

va\_listva\_startva\_listva\_liststdarg.h

va\_argtypeva\_endaddAll

```
int addAll(int i,...)
```

```
{
```

```
va_list vl; //va_list
```

```
va_start(vl,i); //vl
```

```
if(i=0)return 0; //0
```

```

int sum=i; //sum
for(;;){
i=va_arg(vl,int); //sum
if(i==0)break; //0
sum+=i;
}
va_end(vl);
return sum;
}

```

(printf)(align)l386

CC++reinterpret\_castC

C++C++CC++

C++(TMP)SFINAEC++

int

long isIntImp(int);

char isIntImp(...);

template<typename T>

struct isInt

{

enum{value=sizeof(isIntImp(T()))==sizeof(long);

}

T

if(isInt<T>::value)//...

()TintisIntImplongvalue1char

value0TintintintSFINAESTLBoost

SFINAEisIntImpisIntImpsizeof

C++C++