

in include/linux/kernel.h

convert string to number in kernel space

string to unsigned long (32-bit)

```
1. static inline int __must_check kstrtoul(const char *s, unsigned int base, unsigned long *res)
2. static inline int __must_check kstrtou32(const char *s, unsigned int base, u32 *res)
3. int __must_check kstrtouint(const char *s, unsigned int base, unsigned int *res);
```

string to signed long (32-bit)

```
1. static inline int __must_check kstrtol(const char *s, unsigned int base, long *res)
2. int __must_check kstrtoint(const char *s, unsigned int base, int *res);
3. int __must_check kstrtoint(const char *s, unsigned int base, int *res);
```

string to unsigned long long (64-bit)

```
1. static inline int __must_check kstrtou64(const char *s, unsigned int base, u64 *res)
2. int __must_check kstrtoull(const char *s, unsigned int base, unsigned long long *res);
```

string to signed long long (64-bit)

1. `static inline int __must_check kstrtos64(const char *s, unsigned int base, s64 *res)`
2. `int __must_check kstrtoll(const char *s, unsigned int base, long long *res);`

misc.

1. `int __must_check kstrtou16(const char *s, unsigned int base, u16 *res);`
2. `int __must_check kstrtos16(const char *s, unsigned int base, s16 *res);`
3. `int __must_check kstrtou8(const char *s, unsigned int base, u8 *res);`
4. `int __must_check kstrtos8(const char *s, unsigned int base, s8 *res);`

return 0 means successfully !

convert string to number from user space

1. `int __must_check kstrtoull_from_user(const char __user *s, size_t count, unsigned int base, unsigned long long *res);`
 2. `int __must_check kstrtoll_from_user(const char __user *s, size_t count, unsigned int base, long long *res);`
 3. `int __must_check kstrtoul_from_user(const char __user *s, size_t count, unsigned int base, unsigned long *res);`
 4. `int __must_check kstrtoul_from_user(const char __user *s, size_t count, unsigned int base, long *res);`
 5. `int __must_check kstrtouint_from_user(const char __user *s, size_t count, unsigned int base, unsigned int *res);`
 6. `int __must_check kstrtoint_from_user(const char __user *s, size_t count, unsigned int base, int *res);`
 7. `int __must_check kstrtou16_from_user(const char __user *s, size_t count, unsigned int base, u16 *res);`
 8. `int __must_check kstrtos16_from_user(const char __user *s, size_t count, unsigned int base, s16 *res);`
 9. `int __must_check kstrtou8_from_user(const char __user *s, size_t count, unsigned int base, u8 *res);`
 10. `int __must_check kstrtos8_from_user(const char __user *s, size_t count, unsigned int base, s8 *res);`
-

在简陋的形式

```
int sscanf(const char *buf, const char *fmt, ...)
```

for example:

```
1.  int data1, data2, data3;
2.  sscanf("1 2 3", "%d %d %d", &data1, &data2, &data3) == 3
3.  sscanf("1 2", "%d %d %d", &data1, &data2, &data3) == 2
```