

```

/**
 * list_entry - get the struct for this entry
 * @ptr:      the &struct list_head pointer.
 * @type:     the type of the struct this is embedded in.
 * @member:   the name of the list_struct within the struct.
 */
#define list_entry(ptr, type, member) \
    container_of(ptr, type, member)

#define container_of(ptr, type, member) ({ \
    const typeof( ((type *)0)->member ) *__mptr = (ptr); \
    (type *) ( (char *)__mptr - offsetof(type,member) ); })

#define offsetof(TYPE, MEMBER) ((size_t) &((TYPE *)0)->MEMBER)

```