

# malloc realloc and pointers

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Hi all,

I m relatively new to C. I have few queries related to malloc():

1. When we perform malloc(), the memory allocated dynamically comes from the heap area of the process in concern. Well, we then say that the heap has shrunk. my query is: Is it that the heap physically does not shrink but the particular nodes are marked 'ALLOCATED' and for subsequent calls to malloc() the memory manager remembers them and does not reference them?

2. With realloc(), if some pointer 'ptr' is pointing initially to a particular position in a buffer (char \*buffer) then on performing a realloc() on this buffer, what will be 'ptr' pointing to?

3. whats the maximum memory size that we can allocate dynamically by calling malloc() ?

4. Is it valid in C to typecast a pointer? eg. code snippet... of course int is 16 bit and long is 32 bit.

```
int *variable, value;  
*((long*)variable)++ = value;  
*((long*)variable)++ = value;  
*((long*)variable)++ = value;  
*((long*)variable)++ = value;
```

thanx in advance

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