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Thread: [Dynamically cast through the sizeof\(data_type\)](#)

aeiro - August 19, 2018, 4:30 pm

As you all may have noticed i'm trying to expand my knowledge of pointers.

Right now i'm working with void* and am using a macro defined as `#define Make(x, y, z) (*(x*)(y)+z)`

I've got a function that sets all the values in a struct to 0. works fine until i attempt this with a void*.

PHP Code

```
<?php
void Instant(int size, void* &prTest, int TypeSize) //TypeSize = sizeof(int) atm
{

    for (int i = 0; i < size; i++)
    {
        Make(char, prTest, i*TypeSize) = NULL;
        ///////////////Is there anyway i can cast this by the size of the type?

        //instead of creating a switch statement determining the value of type size and incrementing through
        //the pointer by that type?
        /*
        switch (TypeSize)
        {
            case sizeof(int) :
                Make(int, prTest, i) = NULL;
            }
        */
    }
}
```

I understand that `Make(char, prTest, i*TypeSize) = NULL;` will input 1 Byte into the address of `prTest + i*TypeSize`. I want to somehow fill `Sizeof(Byte)*TypeSize`

EDIT**

changed function to write everybyte

PHP Code

```
<?php
void Instant(int size, void* &prTest, int TypeSize) //TypeSize = sizeof(Struct)
{
    for (int i = 0; i < size * TypeSize; i++)
        (Make(char, prTest, i)) = NULL;
}
```

Gorzoid - August 19, 2018, 5:19 pm

There is no 1 to 1 correspondence between type size and type. For example float and int will have the same size on most compilers. If your typesize is 4, how do you know if it should be a float or an int. If you just want to zero the memory, use `memset(prTest, 0, size * TypeSize);`

If you want to zero initialize the type, then you'll have to use enum switches or since you are using C++ and not C, use a template function

aeiro - August 19, 2018, 6:03 pm

(Aug 19, 2018 05:19 PM)Gorzoid Wrote: [\[CITE\]](#) There is no 1 to 1 correspondence between type size and type. For example float and int will have the same size on most compilers. If your typesize is 4, how do you know if it should be a float or an int. If you just want to zero the memory, use `memset(prTest, 0, size * TypeSize);`

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I'm trying to do everything manually to get a better understanding. but the function under EDIT** does the same thing as memset. so that is what i'm sticking with.