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Subject: [SOLVED] Why long long int seems to be 32 bit longer?

Posted by [forlano](#) on Mon, 29 Jul 2019 06:19:03 GMT

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Hello,

perhaps this is not U++ related but it depends by some compiler flag I am not aware of (MSVC 2017).

According to wikipedia [https://en.wikipedia.org/wiki/C\\_data\\_types](https://en.wikipedia.org/wiki/C_data_types)

long long int

should be 64 bit longer. Now I want to set the bits of such number.

Here is a simple code that set the kth bit in a long long int

```
#include <Core/Core.h>
using namespace Upp;
#include <climits>

// set the kth bit
long long int setKthBit(int n, int k)
{
    return ((1 << k) | n);
}

int getKthBit(int n, int k)
{
    return (n & ( 1 << k )) >> k;
}

CONSOLE_APP_MAIN
{ unsigned long long num = 0, n;
  int k = 30;
  n = setKthBit(num, k);
  printf("%llu \n", n);
  Cout()<<getKthBit(n,k);
  //Cout() << "unsigned long long max = " << ULLONG_MAX ;
}
```

What I observe is that for k>30 the code does not work. It seems it cannot use a proper 64 bit number.

what am I missing?

Thanks,  
Luigi

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