

Re: A better BinaryConverter function in C++

Source: <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.language/2006-10/msg00317.html>

- *From:* "Igor Tandetnik" <itandetnik@xxxxxxxx>
 - *Date:* Fri, 6 Oct 2006 12:33:51 -0400
-

Gov <[prabha.govind@microsoft\(.\)com](mailto:prabha.govind@microsoft.com)> wrote:

I have this code for a binary converter function in C++...can u suggest better way of doing it or improvements in this code...I guess there might be better way of doing the same

```
string ConvertToBinary(string Msg)
{
    const char * pCMsg=new char[Msg.size()];
    pCMsg=Msg.c_str();
```

You seem to believe these two lines copy the string into a newly allocated memory block. They do nothing of the sort. What happens is you allocate a block of memory and store its address in pCMsg pointer. You then promptly forget this address and overwrite it with Msg.c_str(). As a result, pCMsg points to the string's internal storage (no copy is made), and the allocated memory is leaked.

```
const char * pPath=new char[Path.size()];
pPath=Path.c_str();
```

Same here.

```
for(int i=0;i<Msg.size();i++)
{
    if(pCMsg[i] & 0x80) //0x80=10000000
        pMsg=1;else pMsg=0;BFile<<pMsg;
```

[snip]

```
if(pCMsg[i]& 0x1) //0x1=00000001
    pMsg=1;else pMsg=0;BFile<<pMsg;
```

You can make it

Re: A better BinaryConverter function in C++

```
std::bitset<8> bs(pCMsg[i]);  
BFile << bs;
```

This converts one byte at a time.

```
delete pCMsg;  
delete pPath;
```

Here you are deleting memory you didn't allocate, memory that belongs to strings `Msg` and `Path`. If you are lucky, you'll crash immediately. If you are unlucky, these statements will corrupt the heap but allow the application to continue execution, and you will crash hours later in a seemingly unrelated piece of code. Good luck debugging `_that_` one.

--

With best wishes,
Igor Tandetnik

With sufficient thrust, pigs fly just fine. However, this is not necessarily a good idea. It is hard to be sure where they are going to land, and it could be dangerous sitting under them as they fly overhead. -- RFC 1925

.