

## Changing variable type: from *char* to *int*

I guess that if you assign the content of a *char* variable to a *int* variable, its higher byte will be left 00000000, thus the assignment will mean filling the content only of the lower byte.

For instance, if

```
char var_data1 = 0b01010101;  
int var_data2 = 0;
```

when you program in the main loop:

```
var_data2 = var_data1;
```

Probably the current content of the `var_data2` that you can watch is:

```
var_data2 = 0b0000000010101010;
```

Isn't it? Now the content of a *char* variable has been saved in a *int* variable and you can continue working at the bitwise level now in a *int* variable `var_data2`.

Watch Window	
Name	Value
<code>var_data1</code>	<code>0b10101010</code>
<code>var_data2</code>	<code>0b0000000010101010</code>

Another hint:

Remember that the NOT bitwise, for instance when you like to change a bit from active-low to active high is:  $B = A \text{ XOR } '11111111'$ .

For example, if you like to NOT the content of the 4 least significant bits in `var_data2` while erasing the others:

```
(static int var_data3;)
```

```
var_data3 = (var_data2 ^ 0b1111111111111111) & 0b00000000000001111;
```

Watch Window	
Name	Value
<code>var_data1</code>	<code>0b10101010</code>
<code>var_data2</code>	<code>0b0000000010101010</code>
<code>var_data3</code>	<code>0b00000000000000101</code>