
Subject: Complex numbers..How to use in upp??
Posted by [Monty.mvh](#) on Fri, 16 Sep 2011 11:42:20 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi,
I need to use complex numbers for some mathematical calculations.
Can anyone guide me how to use it ...

Subject: Re: Complex numbers..How to use in upp??
Posted by [281264](#) on Fri, 16 Sep 2011 20:59:02 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi,

Check complex class in C++ by including `#include<complex>` in your header file or .cpp file.

Here is a simple example:

```
// Demonstrate complex class
#include <iostream>
#include <complex>
using namespace std;

int main()
{
    complex<double> complex_01(10, 20);
    complex<double> complex_02(40, -3);
    cout << complex_01 << endl;
    cout << complex_02 << endl;
    complex<double> complex_03 = complex_01 + complex_02;
    cout << complex_03 << endl;
    return 0;
}
```

Cheers,

Javier

Subject: Re: Complex numbers..How to use in upp??
Posted by [Monty.mvh](#) on Sat, 17 Sep 2011 04:34:39 GMT
[View Forum Message](#) <> [Reply to Message](#)

Thanks Javier,

Can i individually access real and imaginary parts.. Something like this: `a[0].re = 3` and `a[0].im = 5`

Subject: Re: Complex numbers..How to use in upp??
Posted by [dolik.rce](#) on Sat, 17 Sep 2011 10:12:30 GMT
[View Forum Message](#) <> [Reply to Message](#)

There is a support for complex numbers in U++ Core: the Complex class. See `uppsrc/Core/Complex.h` for some details. It is based on the `std::complex` that Javier recommended in previous post, but adds some integration with U++, e.g. Value compatibility.

Simple usage:`#include <Core/Core.h>`

`using namespace Upp;`

```
CONSOLE_APP_MAIN{
    Complex a(1,2);
    Cout() << "a = " << a << "\n";
    Cout() << "Im(a) = " << a.imag() << "\n";
    Cout() << "Re(a) = " << a.real() << "\n";
    Cout() << "|a| = " << abs(a) << "\n";
    Cout() << "2a = " << Complex(a+a) << "\n";
    Cout() << "a^2 = " << Complex(a*a) << "\n";
}
```

Best regards,
Honza

Subject: Re: Complex numbers..How to use in upp??
Posted by [281264](#) on Sat, 17 Sep 2011 16:27:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

Honza,

Thank you. I was not aware about this Upp class; certainly it will be useful.

Cheers,

Javier

Subject: Re: Complex numbers..How to use in upp??
Posted by [kohait00](#) on Wed, 23 Nov 2011 09:50:19 GMT
[View Forum Message](#) <> [Reply to Message](#)

it's been added shortly see last release infos..
