
Subject: Preferred way to access VectorMap
Posted by [forlano](#) on Sun, 01 Jan 2012 14:36:49 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hello,

I have a
VectorMap<int, myclass> V;

I can retrieve the values of V with:

1) V[i].myclass_method...

2) myclass& a = V.Get(i);
a.myclass_method...

Which is the preferred way? Which is the faster?

Thanks,
Luigi

Subject: Re: Preferred way to access VectorMap
Posted by [dolik.rce](#) on Sun, 01 Jan 2012 16:57:59 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Luigi,

First of all, beware that each of those two methods does something else:

```
VectorMap<K = int,T = myclass> {  
  T&    Get(const K& k)          { return value[Find(k)]; }  
  T&    operator[](int i)        { return value[i]; }  
}
```

Now, lets say we are talking about Vector, where Get and operator [] are identical. In this case, operator[] calls get: T& operator[](int i) { return Get(i); }
So it is one function call shorter to use get, but I would say that modern compilers will optimize this out, so there is not much of a difference between both method. The only time you might see some speedup is when you need to do several operations over the same element, than it is definitely a good idea to save a reference and work with that (method 2), instead of calling operator[] or Get multiple times, because Get has little overhead caused by checking the range of argument.

Also note that since Get and operator[] are equivalent, you can use a third variant:

3) myclass& a = V[i];
a.myclass_method...

Best regards,
Honza

Subject: Re: Preferred way to access VectorMap
Posted by [forlano](#) on Sun, 01 Jan 2012 17:47:38 GMT
[View Forum Message](#) <> [Reply to Message](#)

dolik.rce wrote on Sun, 01 January 2012 17:57Hi Luigi,

First of all, beware that each of those two methods does something else:

```
VectorMap<K = int,T = myclass> {  
    T&    Get(const K& k)           { return value[Find(k)]; }  
    T&    operator[](int i)        { return value[i]; }  
}
```

Hi Honza,

Thank you for the info.

You are right about the warning and the differences. However in my case I forced the key 'i' to be in the same place of [i]. But in principle this is not the case.

So I am going to use the reference

Best Wishes,
Luigi
