
Subject: How to sort a vector?

Posted by [crydev](#) on Fri, 16 Nov 2012 21:41:08 GMT

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I searched all over the forum and documentation and I used Visual Studio intellisense to help me, but I just cannot understand how I should sort a Vector. The Vector in this case is a Vector<MovieInfo>, which is a struct I wrote myself.

I found the different Sort functions but I simply don't understand how they work. I am used to using predicates, delegates and operators using C# to sort arrays and find values in one.

The problem is that I am using a Vector of items with an ArrayCtrl containing those items. I sorted the ArrayCtrl, which makes the indices different from the Vector. To sort my ArrayCtrl I simply used:

```
ArrayCtrl.Sort();
```

Which sorted alphabetically. I need to have the same for my Vector.
Can you help me?

Subject: Re: How to sort a vector?

Posted by [koldo](#) on Fri, 16 Nov 2012 23:34:12 GMT

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Hello crydev

If MovieInfo has operator< it is easy, just call Sort(myvector);

If not, you can do this:

```
struct MySortWay {  
    bool operator () (const MovieInfo& a, MovieInfo& b) const {  
        return a.value < b.value; // Just an example. It dependes on MovieInfo contents  
    }  
};
```

```
Vector <MovieInfo> myvector;
```

```
Sort(myvector, MySortWay);
```

Subject: Re: How to sort a vector?

Posted by [crydev](#) on Sun, 18 Nov 2012 11:27:40 GMT

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koldo wrote on Sat, 17 November 2012 00:34Hello crydev

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If not, you can do this:

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    }
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```

```
Vector <MovieInfo> myvector;
```

```
Sort(myvector, MySortWay);
```

Thanks Koldo, this makes sense to me. I tried it using the operator < which I created inside MovieInfo:

```
bool operator < (const MovieInfo& pComp) const
{
    return pComp.cFullPath > cFullPath;
};
```

However, the two Sort methods do not have the same algorithm! I have tried to find out another way of fixing my problem but since I am using callbacks to fill up my ArrayCtrl one item by another from another thread I'm having trouble finding out how I could sort on the fly.

The ArrayCtrl.Sort() and Sort(myVector) both sort alphabetically, but not exactly the same. What should I do to abandon this problem? Is there a way maybe to sort on the fly so I can keep my callback system?

Subject: Re: How to sort a vector?
Posted by [koldo](#) on Mon, 19 Nov 2012 08:02:12 GMT
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Hello Crydev

What is the best way for you, the ArrayCtrl system or the Sort system?

Subject: Re: How to sort a vector?

Posted by [crydev](#) on Mon, 19 Nov 2012 13:46:31 GMT

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koldo wrote on Mon, 19 November 2012 09:02Hello Crydev

What is the best way for you, the ArrayCtrl system or the Sort system?

Hi Koldo,

The Sort(myVector) system is the best way for me. I noticed that this method has a better way of handling differences in string lengths and also in strings that contain numbers.

Crydev

Subject: Re: How to sort a vector?

Posted by [koldo](#) on Mon, 19 Nov 2012 15:09:49 GMT

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Hello Crydev

AFAIK ArrayCtrl Sort() uses Value comparison that in case of Strings uses DefaultLanguageCompare() function in LangInfo.cpp. However String comparison uses String0::Compare() in AString.hpp.

If you prefer the second, I suppose that you have to create a comparison function like this;

```
int MyStringCompare(const Value& a, const Value& b) {  
    return a.ToString() < b.ToString();  
}
```

and refer to it in Sort:

```
array.Sort(columnToSort, MyStringCompare);
```

I have not tested it. Does it work?

Subject: Re: How to sort a vector?

Posted by [crydev](#) on Tue, 20 Nov 2012 15:02:40 GMT

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koldo wrote on Mon, 19 November 2012 16:09Hello Crydev

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array.Sort(columnToSort, MyStringCompare);
```

I have not tested it. Does it work?

I tested this. It did work by meaning of: it works, but it didn't work by meaning of it did what I was expecting.

You are saying that the sorting of strings in the ArrayCtrl is done by using the default language rules for strings and the sorting of a vector by using the operator you provided is done by using standard english rules. Am I correct? If so, I think I would need the language specific way of sorting for my vector.

Subject: Re: How to sort a vector?

Posted by [koldo](#) on Tue, 20 Nov 2012 15:15:18 GMT

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Hello Crydev

If you want to be sure the best thing is to read the documentation and comparison functions source and, after that, to do some tests.

Both ArrayCtrl and Sort() are so versatile that you can use the algorithm that you prefer in any of them.
