Subject: [solved] Why doesn't Vector have Find? Posted by cbpporter on Fri, 04 Dec 2015 13:59:42 GMT View Forum Message <> Reply to Message

I know that it is not particularly fast, but it is convenient. I am tired of changing Vectors to Index for the sole reason of having uniform Find interface :).

Subject: Re: Why doesn't Vector have Find? Posted by Mindtraveller on Fri, 04 Dec 2015 18:43:49 GMT View Forum Message <> Reply to Message

There is a common Find() template to achieve what you want. It is applied to a number of containers, not only Vector.

But I doubt if slow sequential search is a good idea at all. If you want Vector and you want to have quick search, make it sorted. Add items by using FindUpperBound()-like calls, then you may search with FindBinary() which costs O(log(n)), not O(n) as for sequential search.

Subject: Re: Why doesn't Vector have Find? Posted by mirek on Sat, 05 Dec 2015 10:28:16 GMT View Forum Message <> Reply to Message

Mindtraveller wrote on Fri, 04 December 2015 19:43There is a common Find() template to achieve what you want. It is applied to a number of containers, not only Vector. But I doubt if slow sequential search is a good idea at all. If you want Vector and you want to have quick search, make it sorted. Add items by using FindUpperBound()-like calls, then you may search with FindBinary() which costs O(log(n)), not O(n) as for sequential search.

Actually, I think this might not be that bad idea, in fact I was thinking about it too.

Thing is that sometimes you know that you only have a limited number of elements to find, but you want to conserve memory. Index consumes quite a lot of auxiliary memory for hashing. In that case, I often use simple Vector with FindIndex. Anyway, sometimes later it is needed to convert (or copy/paste) code to Index. Having Find as method would save some typing.

BTW, if you are about to insert items by FindUpperBound, you might consider using Sorted* kind of container :)

Mirek

Subject: Re: Why doesn't Vector have Find? Posted by cbpporter on Wed, 10 Feb 2016 15:02:44 GMT View Forum Message <> Reply to Message

So, has any decision been reached? :)

I have a ton of finds in Vectors implemented using for loops and I'm about to replace them with my "find" global method.

Subject: Re: Why doesn't Vector have Find? Posted by mirek on Wed, 10 Feb 2016 17:07:11 GMT View Forum Message <> Reply to Message

cbpporter wrote on Wed, 10 February 2016 16:02So, has any decision been reached? :)

I have a ton of finds in Vectors implemented using for loops and I'm about to replace them with my "find" global method.

Well, FindIndex existed in U++ for ages... (does exactly that).

I am now in middle of major Core complete overhaul, changing everything to C++11/14 standards. Maybe I will add Find to Vector/Array in the process...

Subject: Re: Why doesn't Vector have Find? Posted by cbpporter on Fri, 12 Feb 2016 15:31:31 GMT View Forum Message <> Reply to Message

FindIndex will do for now.

Hmmm, Core updates. Exciting!

