
Subject: New containers - naming

Posted by [mirek](#) on Sun, 03 Feb 2013 18:46:31 GMT

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Hi,

in past weeks, I was working on a new container that will become a basis of couple of other containers.

The new container, which I have named 'InVector', excels at inserting or removing elements at arbitrary locations (trading this feature for somewhat slower operator[]).

It is so fast that it is possible to create 'std::set' equivalent (means, elements are added at UpperBound index, so that InVector stays sorted at all times and it has $\log(n)$ search of elements), which is quite superior to set (which is implemented with using binary trees). It is moderately faster and it consumes significantly less memory.

InVector thus makes possible to create a new set of containers, alike to 'Array, Index, VectorMap, ArrayMap', where instead of hashing binary search is used. Of course, hashing is still much faster, but the advantage of binary search is the ability to perform range searches. Also, it consumes less memory than hashing.

Now one small funny problem is how to name these new containers. My current state of mind is something like

InArray (Array counterpart)

Order (Index counterpart)

OrderVector (VectorMap counterpart)

OrderArray (ArrayMap counterpart)

Any better ideas?

Mirek

P.S.: InVector can be seen in `sandbox/InVector`, with tests and benchmarks...
