

# 1-序列容器-vector&list

-----比特科技整理-----

- 本节目标
  1. 熟悉vector&list使用
  2. 使用vector&list要注意的问题

- vector

<http://www.cplusplus.com/reference/vector/vector/>

## *fx* Member functions

<b>(constructor)</b>	Construct vector (public member function )
<b>(destructor)</b>	Vector destructor (public member function )
<b>operator=</b>	Assign content (public member function )

### Iterators:

<b>begin</b>	Return iterator to beginning (public member function )
<b>end</b>	Return iterator to end (public member function )
<b>rbegin</b>	Return reverse iterator to reverse beginning (public member function )
<b>rend</b>	Return reverse iterator to reverse end (public member function )
<b>cbegin</b> <small>C++11</small>	Return const_iterator to beginning (public member function )
<b>cend</b> <small>C++11</small>	Return const_iterator to end (public member function )
<b>crbegin</b> <small>C++11</small>	Return const_reverse_iterator to reverse beginning (public member function )
<b>crend</b> <small>C++11</small>	Return const_reverse_iterator to reverse end (public member function )

### Capacity:

<b>size</b>	Return size (public member function )
<b>max_size</b>	Return maximum size (public member function )
<b>resize</b>	Change size (public member function )
<b>capacity</b>	Return size of allocated storage capacity (public member function )
<b>empty</b>	Test whether vector is empty (public member function )
<b>reserve</b>	Request a change in capacity (public member function )
<b>shrink_to_fit</b> <small>C++11</small>	Shrink to fit (public member function )

### Element access:

<b>operator[]</b>	Access element (public member function )
<b>at</b>	Access element (public member function )
<b>front</b>	Access first element (public member function )
<b>back</b>	Access last element (public member function )
<b>data</b> <small>C++11</small>	Access data (public member function )

**Modifiers:**

<b>assign</b>	Assign vector content (public member function )
<b>push_back</b>	Add element at the end (public member function )
<b>pop_back</b>	Delete last element (public member function )
<b>insert</b>	Insert elements (public member function )
<b>erase</b>	Erase elements (public member function )
<b>swap</b>	Swap content (public member function )
<b>clear</b>	Clear content (public member function )
<b>emplace</b> <small>C++11</small>	Construct and insert element (public member function )
<b>emplace_back</b> <small>C++11</small>	Construct and insert element at the end (public member function )

**Allocator:**

<b>get_allocator</b>	Get allocator (public member function )
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- list

<http://www.cplusplus.com/reference/list/list/>

***fx* Member functions**

<b>(constructor)</b>	Construct list (public member function )
<b>(destructor)</b>	List destructor (public member function )
<b>operator=</b>	Assign content (public member function )

**Iterators:**

<b>begin</b>	Return iterator to beginning (public member function )
<b>end</b>	Return iterator to end (public member function )
<b>rbegin</b>	Return reverse iterator to reverse beginning (public member function )
<b>rend</b>	Return reverse iterator to reverse end (public member function )
<b>cbegin</b> <small>C++11</small>	Return const_iterator to beginning (public member function )
<b>cend</b> <small>C++11</small>	Return const_iterator to end (public member function )
<b>crbegin</b> <small>C++11</small>	Return const_reverse_iterator to reverse beginning (public member function )
<b>crend</b> <small>C++11</small>	Return const_reverse_iterator to reverse end (public member function )

**Capacity:**

<b>empty</b>	Test whether container is empty (public member function )
<b>size</b>	Return size (public member function )
<b>max_size</b>	Return maximum size (public member function )

**Element access:**

<b>front</b>	Access first element (public member function )
<b>back</b>	Access last element (public member function )

**Modifiers:**

<b>assign</b>	Assign new content to container (public member function )
<b>emplace_front</b> <small>C++11</small>	Construct and insert element at beginning (public member function )
<b>push_front</b>	Insert element at beginning (public member function )
<b>pop_front</b>	Delete first element (public member function )
<b>emplace_back</b> <small>C++11</small>	Construct and insert element at the end (public member function )
<b>push_back</b>	Add element at the end (public member function )
<b>pop_back</b>	Delete last element (public member function )
<b>emplace</b> <small>C++11</small>	Construct and insert element (public member function )
<b>insert</b>	Insert elements (public member function )
<b>erase</b>	Erase elements (public member function )
<b>swap</b>	Swap content (public member function )
<b>resize</b>	Change size (public member function )
<b>clear</b>	Clear content (public member function )

**Operations:**

<b>splice</b>	Transfer elements from list to list (public member function )
<b>remove</b>	Remove elements with specific value (public member function )
<b>remove_if</b>	Remove elements fulfilling condition (public member function template )
<b>unique</b>	Remove duplicate values (public member function )
<b>merge</b>	Merge sorted lists (public member function )
<b>sort</b>	Sort elements in container (public member function )
<b>reverse</b>	Reverse the order of elements (public member function )

**Observers:**

<b>get_allocator</b>	Get allocator (public member function )
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