Boost.Container

The programmers handbags

Containers
[overview]

Container	C++ STL	Boost.Container
List	YES	YES
Set	YES	YES
Dqueue	YES	YES
Queue	YES	NO
Stack	YES	NO
Map	YES	YES
Bitset	YES	NO
Vector	YES	YES

Containers
[non standard containers]

- stable_vector
- flat map
- flat set
- slist

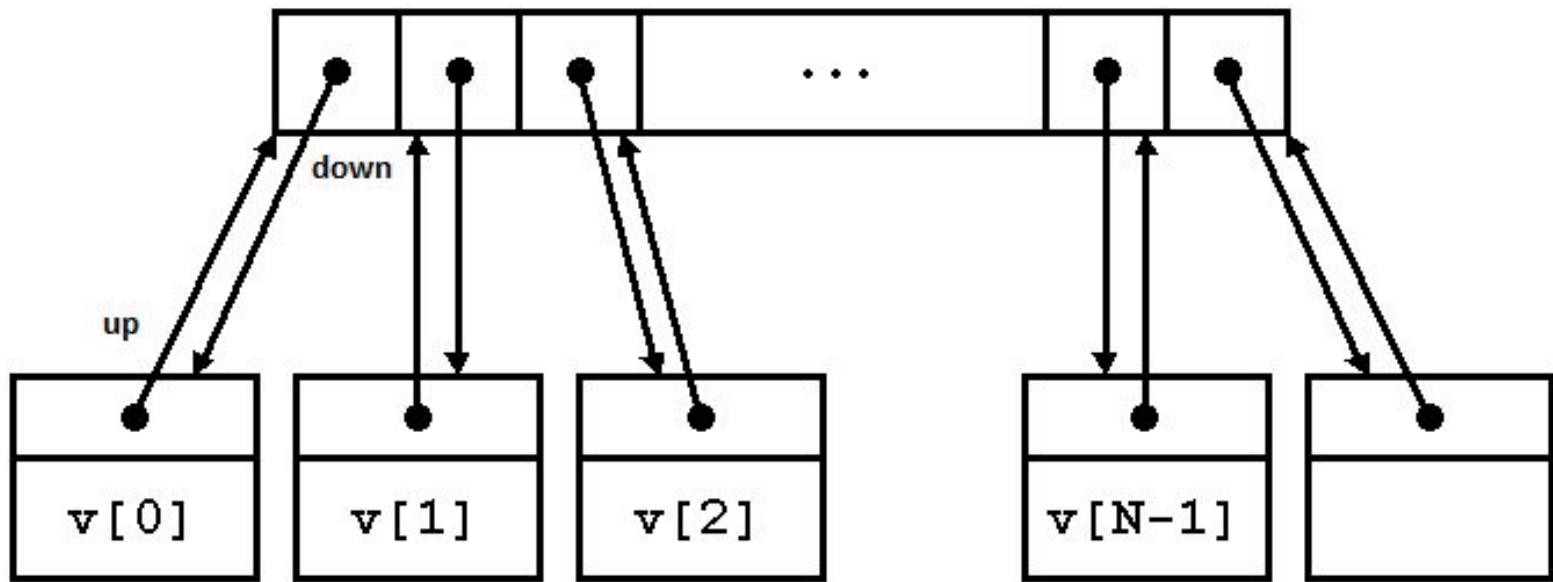# Containers
[stable_vector]

- Stable
  => references and iterators stay valid

- Provides all optional operations of vector
  => e.g. element access via index []

- O-Complexities like vector

- Needs more memory

Containers
[stable_vector]

Access perceding elements via iterator:

it.p = *(it.p->up+n);

Containers
[flat_map / flat_set]

- Faster lookup
- Faster interation
- Less memory consumption

- Non-stable iterators
- Slower insertion

Containers
[slist]

- Insertion/Splicing does not invalidate iterators
- Removal only invalidates one iterator

- Supports only forward traversal
- Slower insertion/deletion

=> **Provides less guarantees more**

Containers
[things worth knowing]

- Header library only
- Header Reference does not reflect whole API
- Doxygen output might be incomplete
- Requires an C++98 compliant compiler
- Move semantics are implemented for pre C++11 compilers