### core::tree

template <class T, class Allocator = allocator<T> > class tree;

# **Member types**

member type	definition	notes
value_type	The first template parameter (T)	
allocator_type	The second template parameter (Allocator)	defaults to: allocator <t></t>
reference	value_type&	
const_reference	const value_type&	
pointer	value_type*	
const_pointer	const value_type*	
iterator	a bidirectional iterator to value_type	convertible to: const_iterator
const_iterator	a bidirectional iterator to const value_type	
reverse_iterator	a bidirectional reverse iterator to value_type	
const_reverse_iterator	a bidirectional reverse iterator to const value_type	
primitive_iterator	a bidirectional primitive iterator to value_type	convertible to: const_primitive_iterator
const_primitive_iterator	a bidirectional primitive iterator to const value_type	
reverse_primitive_iterator	a bidirectional reverse primitive iterator to value_type	
const_reverse_primitive_iterator	a bidirectional reverse primitive iterator to const value_type	
sibling_iterator	a bidirectional sibling iterator to value_type	convertible to: const_sibling_iterator

const_sibling_iterator	a bidirectional sibling iterator to const value_type	
reverse_sibling_iterator	a bidirectional reverse sibling iterator to value_type	
const_reverse_sibling_iterator	a bidirectional reverse sibling iterator to const value_type	
leaf_iterator	a bidirectional leaf iterator to value_type	convertible to: const_leaf_iterator
const_leaf_iterator	a bidirectional leaf iterator to const value_type	
reverse_leaf_iterator	a bidirectional reverse leaf iterator to value_type	
const_reverse_leaf_iterator	a bidirectional reverse leaf iterator to const value_type	
size_type	an unsigned integral type that can represent any non-negative value of difference_type	usually the same as size_t
difference_type	a signed integral type	usually the same as ptrdiff_t

# **Member functions**

(constructor)	Construct tree (public member function)
(destructor)	Tree destructor (public member function)
operator=	Assign content (public member function)

#### **Iterators:**

begin	Return iterator to beginning (public member function)
end	Return iterator to end (public member function)
rbegin	Return reverse_iterator to reverse beginning (public member function)
rend	Return reverse_iterator to reverse end (public member function)
cbegin	Return const_iterator to beginning (public member function)

cend	Return const_iterator to end (public member function)
crbegin	Return const_reverse_iterator to reverse beginning (public member function)
crend	Return const_reverse_iterator to reverse end (public member function)
pbegin	Return primitive_iterator to beginning (public member function)
pend	Return primitive_iterator to end (public member function)
rpbegin	Return reverse_primitive_iterator to reverse beginning (public member function)
rpend	Return reverse_primitive_iterator to reverse end (public member function)
cpbegin	Return const_primitive_iterator to beginning (public member function)
cpend	Return const_primitive_iterator to end (public member function)
crpbegin	Return const_reverse_primitive_iterator to reverse beginning (public member function)
crpend	Return const_reverse_primitive_iterator to reverse end (public member function)
sbegin	Return sibling_iterator to beginning (public member function)
send	Return sibling_iterator to end (public member function)
rsbegin	Return reverse_sibling_iterator to reverse beginning (public member function)
rsend	Return reverse_sibling_iterator to reverse end (public member function)
csbegin	Return const_sibling_iterator to beginning (public member function)
csend	Return const_sibling_iterator to end (public member function)
crsbegin	Return const_reverse_sibling_iterator to reverse beginning (public member function)
crsend	Return const_reverse_sibling_iterator to reverse end (public member function)
lbegin	Return leaf_iterator to beginning (public member function)
lend	Return leaf_iterator to end (public member function)
rlbegin	Return reverse_leaf_iterator to reverse beginning (public member function)
rlend	Return reverse_leaf_iterator to reverse end (public member function)
clbegin	Return const_leaf_iterator to beginning (public member function)
clend	Return const_leaf_iterator to end (public member function)

crlbegin	Return const_reverse_leaf_iterator to reverse beginning (public member function)
crlend	Return const_reverse_leaf_iterator to reverse end (public member function)

### **Capacity:**

empty	Test whether container is empty (public member function)
size	Return size (public member function)
max_size	Return maximum size (public member function)

### **Modifiers:**

assign	Assign new content to container (public member function)
emplace_front	Construct and insert an element at beginning (public member function)
push_front	Insert elements at beginning (public member function)
pop_front	Delete the first element (public member function)
emplace_back	Construct and insert an element at the end (public member function)
push_back	Insert elements at the end (public member function)
pop_back	Delete the last element (public member function)
emplace_child_front	Construct and insert a child node at beginning (public member function)
emplace_child_back	Construct and insert a child node at the end (public member function)
prepend_child	Add child nodes at beginning (public member function)
append_child	Add child nodes at the end (public member function)
emplace	Construct and insert a element (public member function)
insert	Insert elements (public member function)
copy_child_front	Copy child nodes at beginning (public member function)
copy_child_back	Copy child nodes at the end (public member function)
copy_node	Copy nodes (public member function)
erase	Erase elements (public member function)
remove_children	Remove all child nodes (public member function)

swap	Swap content (public member function)
clear	Clear content (public member function)

## Operations:

splice	Transfer elements from node to node (public member function)
merge	Merge sorted nodes (public member function)
sort	Sort elements in container (public member function)

#### **Observers:**

get_allocator	Get allocator (public member function)