### core::tree

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

#### Member types

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| **member type** | **definition** | **notes** |
| value\_type | The first template parameter (T) |  |
| allocator\_type | The second template parameter (Allocator) | defaults to: allocator<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

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

##### Iterators:

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| 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:

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| empty | Test whether container is empty (public member function) |
| size | Return size (public member function) |
| max\_size | Return maximum size (public member function) |

##### Modifiers:

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| 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:

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| 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:

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| get\_allocator | Get allocator (public member function) |