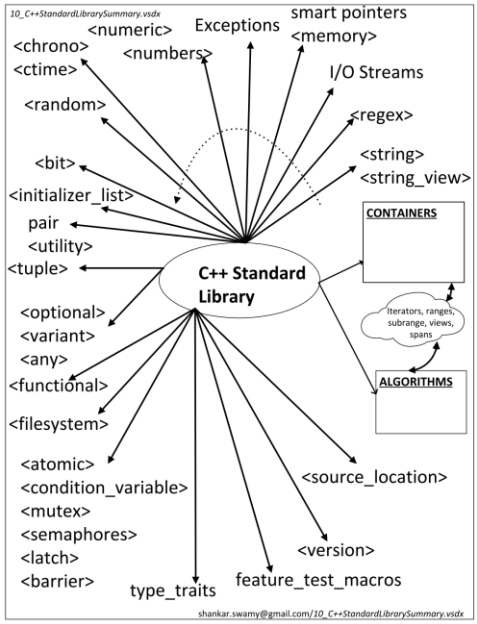


List of Containers & Algorithms

Containers

Searching, Counting
Comparison
Set
Heap

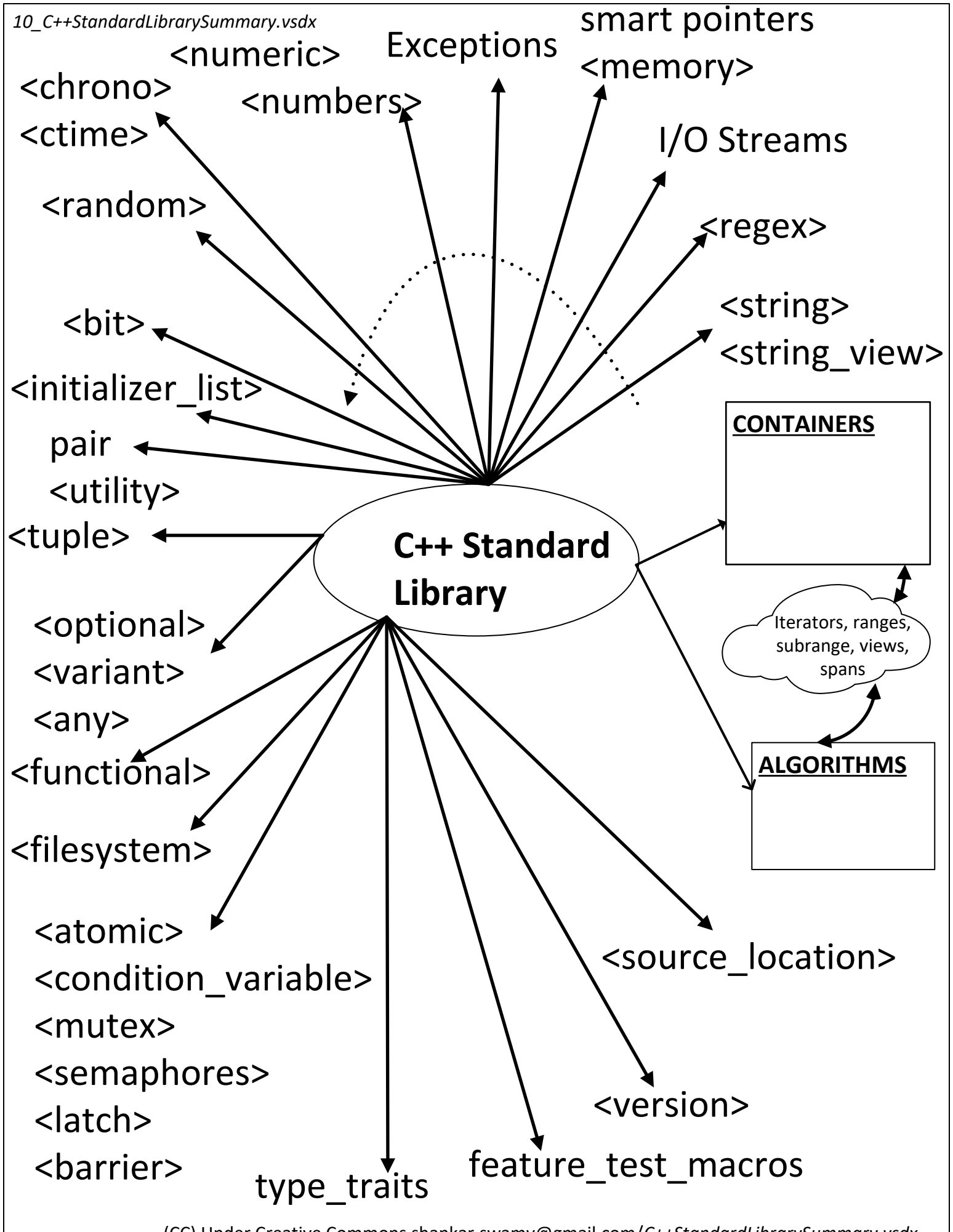
Sequence Modifying

Arithmetic/Numerical & Permutation

Looping, Sorting
Binary Search, Partition
Min/Max, Swap

Iterator Concepts
Grouped

Range, Views and Spans



10_C++StandardLibrarySummary.vsdx

C++ Standard Library

(See: *C++20-Ext-3-StdLib-Sequential*)

CONTAINERS

1. vector
2. deque
3. list
4. forward_list
5. array
6. map
7. multi_map
8. set
9. multi_set
10. unordered_map
11. unordered_multimap
12. unordered_set
13. unordered_multiset
14. queue
15. priority_queue
16. stack
17. bitset

(See: *C++20-Ext-6-StdLib-Algorithms*)

ALGORITHMS

1. Search Algorithms
2. Comparison Algorithms
3. Counting Algorithms
4. Sequence Modifying Algorithms
5. Operational Algorithms
6. Swap Algorithms
7. Partition Algorithms
8. Sorting Algorithms
9. Binary Search Algorithms
10. Minimum/Maximum Algorithms
11. Numerical Processing Algorithms
12. Permutation Algorithms

(See *C++20-0*)

Iterators, ranges, subrange, views, spans

CONTAINERS

1. vector
2. deque
3. list
4. forward_list
5. array

} Sequential Containers

6. map
7. multi_map
8. set
9. multi_set

} Associative Containers

10. unordered_map
11. unordered_multimap
12. unordered_set
13. unordered_multiset

} Unordered Associative Containers

a.k.a "Hash tables"

14. queue
15. priority_queue
16. stack

} Container Adapters

17. bitset*

18. strings**

19. streams**

1. Search lgorithms

1. adjacent_find()
2. find()
3. find_if()
4. find_first_of()
5. find_if_not()
6. find_end()
7. search()
8. search_n()

2. Comparison Algorithms

1. equal()
2. mismatch()
3. lexicographical_compare()
4. lexicographical_compare_three_way()

3. Counting Algorithms

1. all_of()
2. any_of()
3. none_of()
4. count()
5. count_if()

10. Set Algorithms

1. inplace_merge()
2. merge()
3. includes()
4. set_union()
5. set_intersection()
6. set_difference()
7. set_symmetric_difference()

11. Heap Algorithm

1. is_heap()
2. is_heap_until()
3. make_heap()
4. push_heap()
5. pop_heap()
6. sort_heap()

4. Sequence Modifying Algorithms

1. copy()
2. copy_backward()
3. copy_if()
4. copy_n()
5. fill()
6. fill_n()
7. generate()
8. move()
9. move_backward()
10. remove()
11. remove_if()
12. remove_copy()
13. remove_copy_if()
14. replace()
15. replace_if()
16. **replace_copy()**
17. **replace_copy_if()**
18. **reverse()**
19. **reverse_copy()**
20. **rotate()**
21. **rotate_copy()**
22. **sample()**
23. **shift_left()**
24. **shift_right()**
25. **shuffle()**
26. **random_shuffle()**
27. **transform()**
28. **unique()**
29. **unique_copy()**

5. Operational Algorithms

1. for_each()
2. for_each_n()

6. Swap Algorithms

1. iter_swap()
2. swap_ranges()

7. Partition Algorithms

1. is_partitioned()
2. partition()
3. stable_partition()
4. partition_copy()
5. partition_point()

8. Sorting Algorithms

1. is_sorted()
2. is_sorted_until()
3. nth_element()
4. partial_sort()
5. partial_sort_copy()
6. stable_sort()
7. sort()

12. Minimum/Maximum Algorithms

1. clamp()
2. min()
3. max()
4. minmax()
5. min_element()
6. max_element()
7. minmax_element()

9. Binary Search Algorithms

1. lower_bound()
2. upper_bound()
3. equal_range()
4. binary_search()

13. Numerical Processing Algorithms

1. iota()
2. adjacent_difference()
3. partial_sum()
4. exclusive_scan()
5. inclusive_scan()
6. transform_exclusive_scan()
7. transform_inclusive_scan()
8. accumulate()
9. inner_product()
10. reduce()
11. transform_reduce()

14. Permutation Algorithms

1. is_permutation()
2. next_permutation()
3. prev_permutation()

Iterator Concepts in C++20