

# Algorithms with Parallelized Versions

A list of all the algorithms which can be parallelized.

Here are the 77 algorithms with parallelized versions.

<code>std::adjacent_difference</code>	<code>std::adjacent_find</code>	<code>std::all_of</code>
<code>std::any_of</code>	<code>std::copy</code>	<code>std::copy_if</code>
<code>std::copy_n</code>	<code>std::count</code>	<code>std::count_if</code>
<code>std::equal</code>	<code>std::exclusive_scan</code>	<code>std::fill</code>
<code>std::fill_n</code>	<code>std::find</code>	<code>std::find_end</code>
<code>std::find_first_of</code>	<code>std::find_if</code>	<code>std::find_if_not</code>
<code>std::for_each</code>	<code>std::for_each_n</code>	<code>std::generate</code>
<code>std::generate_n</code>	<code>std::includes</code>	<code>std::inclusive_scan</code>
<code>std::inner_product</code>	<code>std::inplace_merge</code>	<code>std::is_heap</code>
<code>std::is_heap_until</code>	<code>std::is_partitioned</code>	<code>std::is_sorted</code>
<code>std::is_sorted_until</code>	<code>std::lexicographical_compare</code>	<code>std::max_element</code>
<code>std::merge</code>	<code>std::min_element</code>	<code>std::minmax_element</code>

<code>std::mismatch</code>	<code>std::move</code>	<code>std::none_of</code>
<code>std::nth_element</code>	<code>std::partial_sort</code>	<code>std::partial_sort_copy</code>
<code>std::partition</code>	<code>std::partition_copy</code>	<code>std::reduce</code>
<code>std::remove</code>	<code>std::remove_copy</code>	<code>std::remove_copy_if</code>
<code>std::remove_if</code>	<code>std::replace</code>	<code>std::replace_copy</code>
<code>std::replace_copy_if</code>	<code>std::replace_if</code>	<code>std::reverse</code>
<code>std::reverse_copy</code>	<code>std::rotate</code>	<code>std::rotate_copy</code>
<code>std::search</code>	<code>std::search_n</code>	<code>std::set_difference</code>
<code>std::set_intersection</code>	<code>std::set_symmetric_difference</code>	<code>std::set_union</code>
<code>std::sort</code>	<code>std::stable_partition</code>	<code>std::stable_sort</code>
<code>std::swap_ranges</code>	<code>std::transform</code>	<code>std::transform_exclusive_scan</code>
<code>std::transform_inclusive_scan</code>	<code>std::transform_reduce</code>	<code>std::uninitialized_copy</code>
<code>std::uninitialized_copy_n</code>	<code>std::uninitialized_fill</code>	<code>std::uninitialized_fill_n</code>
<code>std::unique</code>	<code>std::unique_copy</code>	

## The 77 algorithms with parallelised versions

### i Availability of the Parallel STL

As far as I know, the only platform which is supported C++17 (C++17)

As far as I know, at the time this book is being updated to C++17 (October 2017), there is no standard-conforming implementation of the parallel STL available yet. Therefore, you have to install third-party frameworks such as HPX. The [HPX \(High-Performance ParalleX\)](#) is a framework that is a general purpose C++ runtime system for parallel and distributed applications of any scale. HPX has already implemented the parallel STL in a different namespace.