

ISO/IEC TS 19570:2015-07 (E)

Programming Languages - Technical Specification for C++ Extensions for Parallelism

Contents

Page

1	General	4
1.1	Scope	4
1.2	Normative references	4
1.3	Namespaces and headers	4
1.4	Terms and definitions	5
1.5	Feature-testing recommendations	5
2	Execution policies	6
2.1	In general	6
2.2	Header <experimental/execution_policy> synopsis	6
2.3	Execution policy type trait	7
2.4	Sequential execution policy	7
2.5	Parallel execution policy	7
2.6	Parallel+Vector execution policy	7
2.7	Dynamic execution policy	8
	2.7.1 execution_policy construct/assign	8
	2.7.2 execution_policy object access	9
2.8	Execution policy objects	9
3	Parallel exceptions	10
3.1	Exception reporting behavior	10
3.2	Header <experimental/exception_list> synopsis	10
4	Parallel algorithms	12
4.1	In general	12
	4.1.1 Requirements on user-provided function objects	12
	4.1.2 Effect of execution policies on algorithm execution	12
	4.1.3 ExecutionPolicy algorithm overloads	14
4.2	Definitions	14
4.3	Non-Numeric Parallel Algorithms	15
	4.3.1 Header <experimental/algorithm> synopsis	15
	4.3.2 For each	16
4.4	Numeric Parallel Algorithms	17
	4.4.1 Header <experimental/numeric> synopsis	17
	4.4.2 Reduce	20
	4.4.3 Exclusive scan	20
	4.4.4 Inclusive scan	21
	4.4.5 Transform reduce	22
	4.4.6 Transform exclusive scan	22
	4.4.7 Transform inclusive scan	23