

Lightweight Thread API functionality

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API analysis

Current common API

	Num of functions	Argobots support	Qthreads support	MassiveThreads support
Common API	33'	33	29*	28+

- ' Can be up to 40 with simple helper functions
- * Tasklet functions not supported
- +Tasklet and ULT id functions not supported

API analysis

Lightweight thread libraries API

	Num of functions	Exclusive functions
Argobots	150	100'
Qthreads	182	142*
MassiveThreads	75	38+

' ES, ULT, Tasklet, Scheduler, Pool, Event, Eventual and Future functions

* Futures, Non-blocking atomic, FEB, Reductions, Loops, Data Structures, System Calls functions

+ Inits, Locks, Logs, Prof, wsapi objects functions

Argobots API analysis

Argoboto Modules	Event	Eventual	Future	ULT Local Storage	Pool	Sched. Config	Sched.	Self	ES	Tasklet	ULT	ULT attr
Critical	X	X	X	X	X				X	X	X	
Non-Critical						X	X	X		X	X	X

Qthreads API analysis

Qthreads Modules	Futures	Non-Blocking atomic	FEB	Reductions	Threaded loops	Data Structures	External blocking	Templates	Memory allocation
Critical	X	X	X	X	X	X	X	X	
Non-Critical									X

MassiveThreads API analysis

MassiveThreads Modules	Init & Fin	ULT	Felock	Key	Log	Prof	Wsapi
Critical		X	X	X	X	X	X
Non-Critical	X	X					