Transactional Memory Coherence and Consistency

"all transactions, all the time"

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The TCC Cycle				
Transactional Coherence & Consistency 10		Overview		
•Transactions now run in a <i>cycle</i>	Transaction Starts	P0	P1	P2
•Speculatively execute code and buffer		Execute Code		
•Wait for commit permission —"Phase" provides synchronization, if necessary				
 Arbitrate with other CPUs Commit stores together, as a block 	Transaction Completes Requests Commit	Wait for Phase		
 Provides a well-defined write ordering Can invalidate or update other caches 	Starts Commit	Arbitrate Commit	*	+
•And repeat!	Finishes Commit		-	

TCC

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