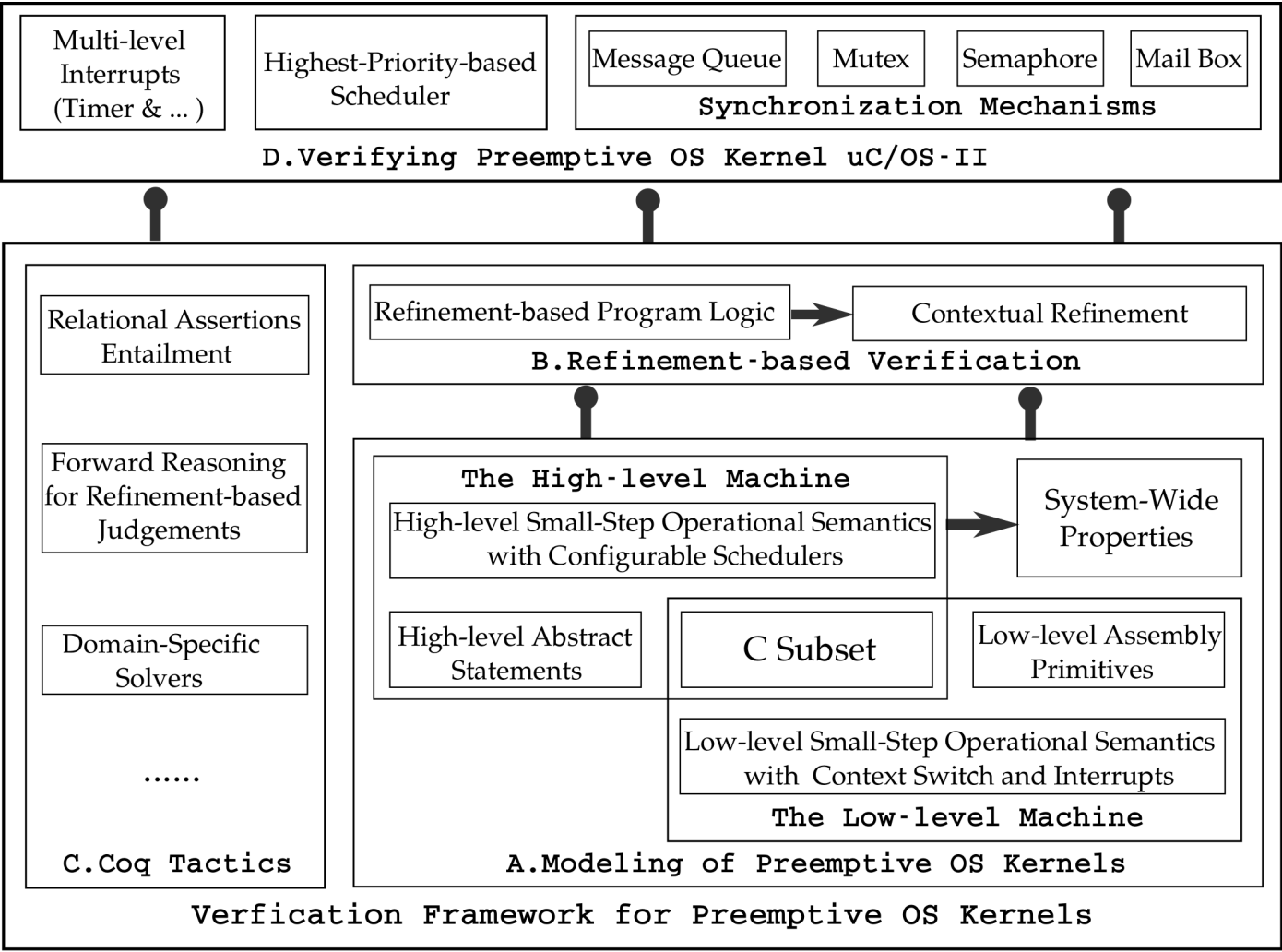
Multi-level Interrupts (Timer & ...)
Highest-Priority-based Scheduler
Message Queue
Mutex
Semaphore
Mail Box
Synchronization Mechanisms
D.Verifying Preemptive OS Kernel uC/OS-II
Relational Assertions Entailment
Forward Reasoning for Refinement-based Judgements
Domain-Specific Solvers
.....
C.Coq Tactics
Refinement-based Program Logic
Contextual Refinement
B.Refinement-based Verification
The High-level Machine
High-level Small-Step Operational Semantics with Configurable Schedulers
System-Wide Properties
High-level Abstract Statements
C Subset
Low-level Assembly Primitives
Low-level Small-Step Operational Semantics with Context Switch and Interrupts
The Low-level Machine
A.Modeling of Preemptive OS Kernels
Verfication Framework for Preemptive OS Kernels