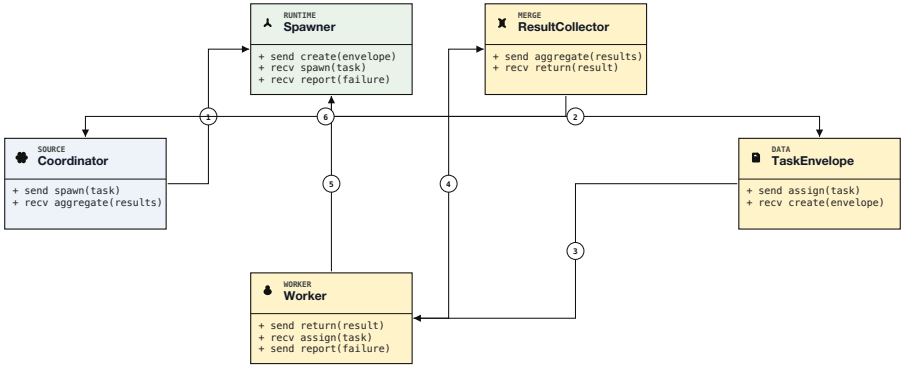
P12 Coordinator–worker spawn flow

Primitive · A² A1 · fork join role collaboration

Delegate bounded subtasks.

STRUCTURE · PARTICIPANT COLLABORATION



PATTERN INTERFACE

context

A coordinator delegates a bounded task to another execution unit.

trigger

A worker is spawned, called as a tool, or handed a task.

structure

Task envelope with identity, instructions, authority, budget, and result target.

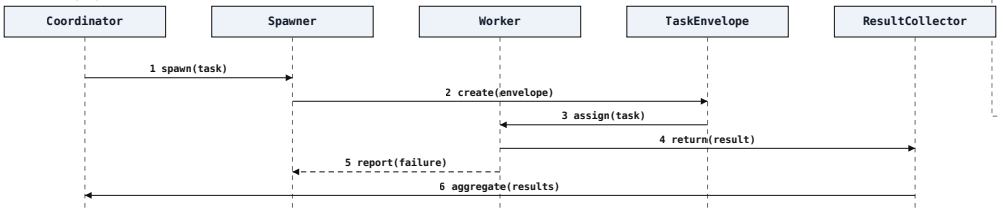
effect

Worker output returns to the coordinator with explicit lifecycle and provenance.

CONTRACT ANNOTATIONS

requires	Parent and child identities, task scope, and shared data policy are known.
ensures	Each worker has one task record, bounded authority, and a correlated result.
invariant	Delegation never silently expands permissions or budget.
violation	Cancellation, worker failure, timeout, and duplicate spawn are typed outcomes.

INTERACTION



MESSAGE TRACE `1 spawn(task) → 2 create(envelope) → 3 assign(task) → 4 return(result) → 5 report(failure) → 6 aggregate(results)`

Evidence: 41/41 repositories, 36/36 families; 41 trajectories (19 multi-checkpoint); exact audit: not sampled.

Variation: Sub-agent, agent-as-tool, background agent, child session, and worker pool.

Negative control: Sequential calls to independent agents without delegation do not count.