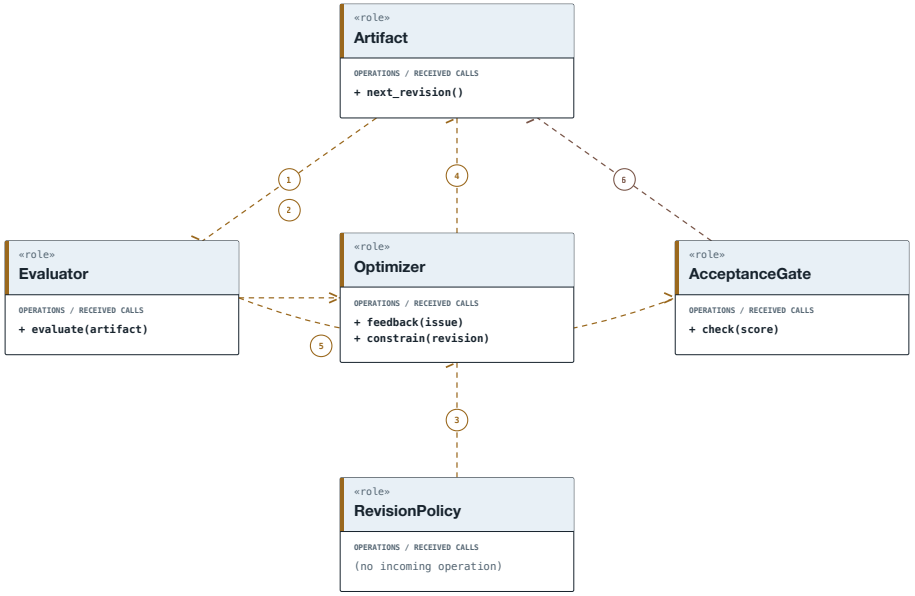
W05 Evaluator-optimizer

Workflow / UML CLASS VIEW / ANALYTICAL MODEL

Revise an artifact using iterative feedback.

UML CLASS VIEW

dashed arrow: call dependency · brown: return/failure · analytical, not an observed trace



POINTCUT / PATTERN INTERFACE

CONTEXT	An artifact is improved through explicit evaluation and revision.
TRIGGER	A candidate receives a score, failure, or critique.
STRUCTURE	Generator, evaluator, revision input, and stopping rule.
EFFECT	A revised candidate is selected with recorded evaluation evidence.

CONTRACT / REQUIRED BEHAVIOR

REQUIRES	Evaluation criteria are observable and revision budget is bounded.
ENSURES	Selected output maps to a passing or best-recorded evaluation.
INVARIANT	Final independent evaluation is not merely the optimizer's repeated selector.
VIOLATION	Evaluator errors, ties, or exhaustion terminate with an explicit status.

RELATIONSHIPS / ANALYTICAL CALLS

number · caller → callee · message

1 Artifact → Evaluator evaluate(artifact)
2 Evaluator → Optimizer feedback(issue)
3 RevisionPolicy → Optimizer constrain(revision)
4 Optimizer → Artifact next_revision()
5 Evaluator → AcceptanceGate check(score)
6 AcceptanceGate ↩ Artifact stop_or_revise()

VARIATION / TEST / NEGATIVE CONTROL

VARIATION	Rubric evaluator, model judge, best-of-N, and iterative revision.
TEST_OBLIGATION	Test improvement, stagnation, evaluator exception, and held-out evaluation.
NEGATIVE_CONTROL	One model call that says it improved itself is not enough.