

PRODUCT WORKFLOW STUDY

From a reported fault to a recommendation-safe exact-model part

A governed diagnostic workflow showing how Corexa can connect fault context, component evidence and exact-model fitment while refusing to auto-add a part when the evidence is not strong enough.

Evidence level stated clearly throughout

Exact model

Identity gate

Exact component

Fault context

95%+

Direct-use threshold

Stop

When evidence conflicts



THE CHALLENGE

Why the existing process breaks down

The workflow becomes unreliable when evidence, ownership and next actions are separated across documents, messages, spreadsheets or individual memory.

01

Symptoms are not parts

The same customer description can be caused by different components.

02

Parts can fit a family, not a variant

A broad catalogue match can be wrong for one generation or installed configuration.

03

Historical use can reinforce mistakes

A previously fitted part is not automatically proof that it was correct.

04

Quantity can be unknown

Recommendation engines can create false precision by inventing counts.

05

Confidence labels can distract technicians

A percentage alone does not explain whether a recommendation is safe enough to act on.

06

Automation can overreach

Auto-adding a plausible part creates commercial and service risk if the evidence is ambiguous.

The central risk

A parts recommendation is unsafe when probability is treated as fitment evidence instead of exact model, component and configuration proof.

THE OPERATING MODEL

A connected workflow around the equipment record

Corexa keeps identity, evidence, operational state and the next decision connected so one workflow can carry context into the next.

1

Capture fault context

Start with job type, symptom/error code and exact machine.

2

Resolve likely component

Use OEM and governed field evidence to identify the affected component.

3

Check exact-model fitment

Require a recommendation-safe compatibility relationship.

4

Apply the confidence gate

Direct-use paths require at least 95% supported confidence and no blocker.

5

Stop or prepare

Auto-add only the safe result; otherwise omit or require technician confirmation.

COREXA CAPABILITY	OPERATIONAL CHANGE	WHY IT MATTERS
Exact-model matching	Parts are evaluated against canonical model identity.	A family-level match cannot silently become exact fitment.
Component relationship gate	The candidate must relate to the diagnosed component.	Symptom similarity alone cannot select a part.
Recommendation-safe flag	Catalogue relationships explicitly distinguish safe from review-only fitment.	Technician-facing automation has a hard governance boundary.
95% direct-use threshold	Low-confidence candidates remain fallback/review information.	Corexa favours omission over a confident-looking guess.
Configuration constraints	Installed configuration can block an otherwise plausible relationship.	Variant differences stay visible in the decision.
Field evidence governance	Repeated service outcomes can strengthen knowledge only under defined evidence rules.	Learning can improve recommendations without bypassing safety rules.

CREDIBILITY STANDARD

What is supported - and what is not yet claimed

The evidence boundary is explicit: product capability, live repository/production evidence and future outcome hypotheses are not treated as the same thing.

✓ Repository-enforced gate

Job preparation requires recommendation-safe exact-model/component fitment and $\geq 95\%$ confidence for automatic parts.

✓ Contradiction stops

Conflicting or unresolved evidence can block direct recommendation.

✓ Quantity discipline

Unknown quantity defaults conservatively rather than being inferred from weak evidence.

✓ Pilot measurement required

Accuracy and technician acceptance need prospective measurement against real jobs.

Not yet claimed: This study does not claim that Corexa diagnoses every fault or that a 95% internal evidence score is a calibrated probability of repair success. The threshold is a governance gate, not a warranty.

Measurement plan for the publishable version

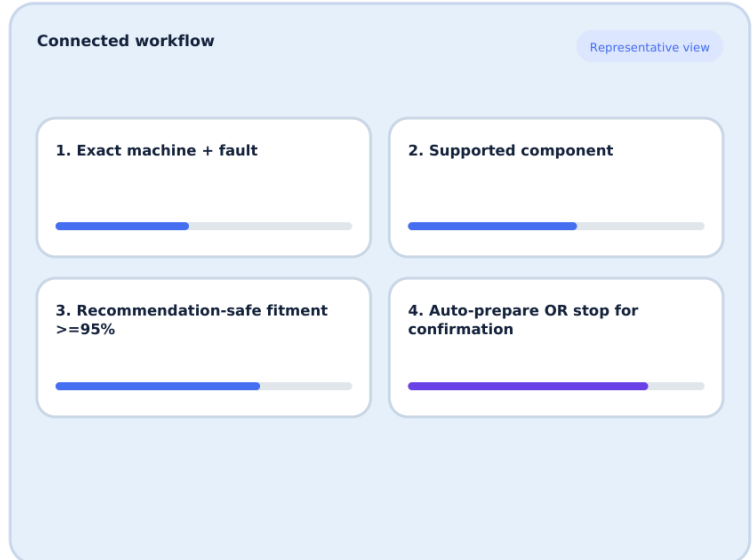
MEASURE	EVIDENCE SOURCE	CREDIBLE REPORTING
Recommendation precision	Planned parts vs technician-confirmed parts	Percentage of direct recommendations confirmed without substitution.
Blocked ambiguity	Governance decision logs	Cases correctly withheld because model/component/configuration was unresolved.
Unused auto-parts	Job planned vs used parts	Rate of automatically prepared parts not actually required.
Wrong-fit prevention	Compatibility feedback	Confirmed model-fitment conflicts caught before issue/install.
Time to parts-ready	Job creation to prepared list	Median preparation time for supported faults.
Field promotion quality	Evidence promotion ledger	Promoted relationships later contradicted by service outcomes.

"When the evidence is not strong enough, the correct automated recommendation is no recommendation."

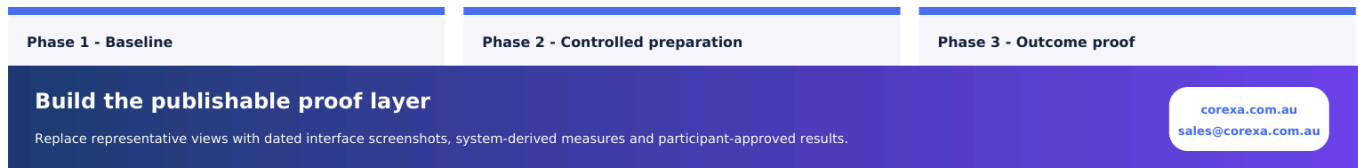
MAKE THE STORY TANGIBLE

Show a safe recommendation path - including the stop condition

Use the live Corexa interface for publication, keep representative/demo content labelled, and show the exact state transition the workflow is meant to prove.



Recommended evidence-building sequence



Publication note: capability descriptions are repository/production evidence. Confirm deployed workflow, permissions and data quality before presenting capability as a measured customer outcome.