SAFETYMAN INTERNATIONAL

Sentinel Investigate Pro

Evidence-led investigation • User and evaluator handbook

Investigate Pro extends the Sentinel investigation workspace with structured hypothesis tests, causal connections, contextual reviews and measurable action plans. This handbook follows the original Safetyman framework from commissioning through independent review and continuing assurance.

Software owner: Safetyman International. Version 1.2.0. Issued 19 October 2026. The complete suite handbook includes detailed Bowtie, Assure, administration and connected-service instructions.

Start here Company allocation and access: chapter 2. Extend an existing case: chapter 3. Fictional Northbank exercise: chapter 11. Company evaluation: chapter 12.

All example people, companies and records are fictional. The interface illustrations are static renders of the supplied application, not screenshots of a deployed client system.

INVESTIGATE PRO

Meet Investigate Pro

Use the depth of analysis the event needs, within the same company workspace.

01 **Understand the extension.** Investigate keeps 5 Whys, Why Trees, evidence and timelines. Pro adds a commissioning brief, hypothesis tests, causal connections, structured factor reviews and action assurance plans.

02 **Keep the same records.** Extending a case does not copy or replace its findings. Each finding and evidence reference retains its identifier.

03 **Follow six stages.** Define the questions; preserve sources; test explanations; explain contributions; act with measurable criteria; review independently.

04 **Connect the suite.** Reviewed findings can inform Bowtie threats, barriers or degradation controls. Assure records subsequent inspections and actual action effectiveness.

05 **Understand the boundary.** The original Safetyman framework supports professional judgement. It does not certify an investigation or supply a proprietary third-party methodology.

> **Keep in mind** A supported finding is not automatically an approved conclusion. A completed checklist is not a declaration that a site is safe.

SYSTEM ADMINISTRATOR

Allocate products and enable Pro

Use Company products alongside the existing annual company licence.

01 **Back up and install the package.** Take a recoverable database and files backup. Upload the 1.2.0 ZIP through Plugins > Add New > Upload Plugin and replace the existing Sentinel plugin. Keep existing pages and shortcodes.

02 **Set the annual licence.** Use Annual licences to record the agreed period and named-seat capacity in blocks of ten. Prices may remain blank until agreed. This does not collect payment.

03 **Open Company products.** Find the company by name. Select its agreed products. Tick Investigate and Investigate Pro extension to allocate Pro. Bowtie and Assure are optional companion products.

04 **Save company products.** The revision protects against stale forms. A conflict requires a reload. The change is recorded in the company audit. Ask signed-in users to reload.

05 **Test as a client user.** Check company membership, workspace access, editing and a separate reviewer. An administrator account is not a sufficient access-control test.

> **Keep in mind** Pro is off by default for existing companies. Removing a product preserves authorised reading and export of existing records but blocks changes to that product. Global module settings also apply.

FIRST WORKFLOW

Extend an existing investigation

Begin with a 5 Whys or Why Tree and add depth without starting again.

01 **Select the correct company and workspace.** Check both selectors before editing. Open Investigations and select the event from the investigation selector.

02 **Keep the existing evidence.** Review the findings, source references and timeline. Do not change hypotheses to Supported merely to open Pro.

03 **Open Investigate Pro.** If the tab is missing, ask the administrator to check the company product allocation and your access.

04 **Select + Investigation brief.** Name the review, define its questions and complete the scope, lead, team, terms, expected condition and actual condition.

05 **Apply and confirm the save.** Connected workspaces schedule a save after Apply changes. Wait for Saved and the new revision. The local practice workspace requires Save changes.

06 **Read Review readiness.** The outstanding items are a working checklist. You can save an incomplete draft while collecting evidence.

> **Keep in mind** There is one Pro brief per investigation. Deleting that brief removes its Pro analysis records from the current draft; the base findings remain. Export first if you need a separate working copy.

DEFINE

Define the commission

Agree what the investigation can answer and who can make decisions.

01 **Write answerable questions.** For Northbank: how did the temporary route bypass segregation, what enabled the change, and which improvements can be verified?

02 **Set boundaries.** State the operation, period, relevant equipment and exclusions. Avoid claiming that one local review covers every company site.

03 **Name the lead and team.** Record expertise, operational input and possible conflicts of interest. Typed names describe responsibilities; they do not grant user permissions.

04 **Record the review arrangements.** Use Terms to identify authority, decision criteria, evidence expectations and a separate authorised reviewer.

05 **Compare expected with actual.** Describe normal arrangements and the observed deviation without deciding the cause in advance.

06 **Keep limitations current.** Record missing evidence, open questions, what will be done, who will do it and when. Explain why any unresolved matter does not invalidate the proposed conclusion.

> **Keep in mind** The Northbank delivery-pressure question remains unresolved. The exercise does not invent a person's motivation to complete the causal story.

PRESERVE

Preserve evidence and sequence

Keep the source, interpretation and limitations distinguishable.

01 **Open Evidence register.** Add a source reference, custodian, date, type and summary. Files remain in your controlled document store; the register is not an attachment repository.

02 **Assess reliability.** Unassessed means not yet checked; Corroborated requires a justified cross-check; Disputed preserves a challenged record. The software does not independently authenticate a source.

03 **Record limits.** Explain what the source can and cannot establish. A later reconstruction or test does not automatically prove conditions at the event time.

04 **Build the Event timeline.** Use dated events, UTC times and linked evidence. Distinguish known sequence from a reconstructed assumption.

05 **Check investigation selection.** Evidence and Pro references must belong to the same investigation. Cross-case references are rejected.

06 **Protect personal information.** Use appropriate access and retention rules. Do not enter passwords, access tokens or unrelated personal details in source references.

> **Keep in mind** Deleting evidence removes its links. Affected supported findings revert to hypotheses, and affected Pro tests return to Planned so they can be reassessed.

TEST

Test competing explanations

Ask what you would observe if an explanation were true, then compare the actual evidence.

01 **Add a hypothesis as a finding.** In Investigations, record a clear explanation with Hypothesis status. Preserve alternatives rather than overwriting the first explanation.

02 **Open Pro > + Hypothesis test.** Choose the finding. Define the method and Expected result before recording the outcome.

03 **Record Observed result.** Describe what the sources establish, including inconsistent observations and test limitations.

04 **Select evidence on each side.** Supporting and contradicting references are separate. A completed Supports test needs corroborated supporting evidence; Refutes needs corroborated contradicting evidence.

05 **Choose the test conclusion.** Use Planned, Supports, Refutes or Inconclusive. Completed tests require method, expected and observed results, reasoning and evidence.

06 **Reconcile the finding separately.** Return to Investigations to update its status and reasoning. A test does not automatically approve or change the finding. A refuting test against a Supported finding blocks Pro readiness.

> **Keep in mind** If evidence changes your interpretation, revise the test with an explicit rationale and save a new revision. Do not delete an inconvenient source to make the checklist pass.

EXPLAIN

Explain causal connections

A causal map allows more than one contributing condition to connect to the same finding.

01 **Use precise findings.** Separate the observed event from contributing conditions. A label such as carelessness does not explain work conditions.

02 **Add a causal connection.** Select the contributing finding as Cause and the resulting finding as Effect. Both must belong to the selected investigation.

03 **Choose the relationship.** Contributing means the condition helped explain the result. Use Necessary only when you can defend the counterfactual claim that the result required that condition.

04 **Link evidence and rationale.** Explain why the connection is justified, what challenges it and the limits of the inference.

05 **Inspect the direction.** Arrows point from contributing to resulting finding. Cycles and self-links are rejected. Multiple incoming or outgoing connections are allowed.

06 **Export the causal map.** The SVG displays up to 24 findings for readability. The table, JSON and full report retain all connections. Layout does not imply sequence, strength or probability.

> **Keep in mind** Northbank links the omission of temporary layouts from approval to the unchecked route crossing. It describes a contribution; it does not claim a single universal root cause.

STRUCTURED REVIEW

Review context, change and barriers

Use original prompts to examine the conditions that shaped the work.

01 **Add a structured factor review.** Choose a related finding and a perspective: Human factors, Change, Barrier, Organisation, Equipment or Environment.

02 **Compare expected and actual.** For a change review, describe normal practice and what differed. For a barrier review, describe intended function and observed availability or performance.

03 **Examine human factors.** Consider information, workload, tools, communication, supervision and practical constraints. Avoid inferring intent from a bad outcome.

04 **Analyse the contribution.** Explain how the condition could affect the event. Link sources and consider a plausible alternative explanation.

05 **Keep uncertainty visible.** A factor review is a structured interpretation, not proof by itself. Update the finding and tests when the evidence warrants it.

06 **Review proportionately.** Select perspectives relevant to the event. Pro readiness requires at least one completed evidence-linked factor review; it does not prove that every necessary perspective was examined.

> **Keep in mind** The framework guides investigation depth without copying a proprietary root-cause taxonomy or question tree.

ACT

Plan actions that can be checked

Define measurable success before treating completion as improvement.

01 **Create the corrective action.** Open Actions, link it to the supported finding, assign an accountable owner and due date, and describe the intended change.

02 **Add an action assurance plan in Pro.** Select that action and its main control approach: Eliminate, Substitute, Engineered, Administrative or PPE.

03 **Record the baseline.** Describe the starting condition and evidence reference so later results can be compared meaningfully.

04 **Write measurable success criteria.** State the observation, sample, acceptance threshold and period. For Northbank, sample the next ten temporary changes over eight weeks.

05 **Set a review date and residual risk.** Record interim arrangements and what risk remains. Explain why the action addresses the cause and whether a stronger approach was feasible.

06 **Use Assure for actual outcomes.** After implementation, record completion evidence in Actions and an Effectiveness review in Assure. A scheduled review is not an effectiveness result.

> **Keep in mind** The public case's later three-change sample supports only an initial judgement. It does not satisfy the full planned ten-change review or establish long-term risk reduction.

REVIEW

Review and transfer the learning

Separate drafting, review readiness, approval and application to the bowtie.

01 **Resolve the Pro checklist.** Complete the brief, evidence-linked timeline, tests, supported findings, factor review and action plans. Record limitations for remaining open questions.

02 **Save before review.** Confirm the saved revision. Submit from Overview with a clear review note. The server checks Pro readiness as well as the existing workspace requirements.

03 **Use a separate reviewer.** The authorised reviewer inspects evidence and alternatives, then approves or returns the workspace. A checklist cannot substitute for this judgement.

04 **Propose a supported finding to Bowtie.** From Investigations, select the target workspace and mapping type. Both products must be allocated to the same company. Pro readiness must pass.

05 **Inspect the frozen source.** The transfer retains Pro analysis and referenced supporting or contradicting evidence. If source content changes, prepare a fresh proposal.

06 **Complete the target review.** A different authorised target reviewer applies the proposal. The target returns to Draft; complete owners, standards and verification before approving it.

> **Keep in mind** Proposal review is a separate gate from source workspace approval. Applying a finding does not automatically approve either the investigation or the resulting bowtie.

FICTIONAL PRACTICE

Run the Northbank exercise

A practical workshop using the same story as the public demonstration.

01 **Create or select a practice workspace.** Use an account with Pro allocated. Open Investigate Pro and select Load fictional Pro example. It creates a separate labelled draft.

02 **Alternative: import the JSON.** Download Northbank-Investigate-Pro-Example.json from the learning centre and use Import JSON. Do not treat it as a client investigation.

03 **Inspect the three tests.** Two support the route and process findings; one refutes persistent brake malfunction within stated limits. Find the delivery-pressure question and its follow-up.

04 **Challenge the case.** Change one test to Planned. Confirm readiness becomes incomplete. Restore it with justified evidence and reasoning.

05 **Practise the hand-off.** Assign a separate reviewer, create a practice Bowtie target, and propose the process finding. Confirm that review is required and application resets the target to Draft.

06 **Complete the assurance loop.** Record fictional completion and verification evidence, then review actual effectiveness. Keep all new exercise records explicitly labelled fictional.

> **Keep in mind** The downloadable working copy represents the investigation before actions were completed. The public Assure tab shows a later illustrative snapshot. Neither dataset contains real client information.

COMPANY ASSESSMENT

Evaluate with company reviewers

Use a controlled pilot to find what works and what needs improvement.

01 **Agree the evaluation scope.** Start with fictional or authorised de-identified cases. Name an investigation lead, independent reviewer, administrator and operational representative.

02 **Observe a full workflow.** Ask participants to extend a 5 Whys case, test alternatives, connect causes, plan actions, propose a Bowtie change and record an effectiveness review.

03 **Record usability evidence.** Measure completion time, help required, misunderstood fields and errors. Capture the task and exact message without confidential content.

04 **Check access and recovery.** Use two separate companies and ordinary client accounts. Attempt unauthorised access, check revoked roles, concurrent edits, export and restore from backup.

05 **Review investigation quality.** Can a new reviewer trace each conclusion to sources? Are contradictions and limitations visible? Are action criteria measurable?

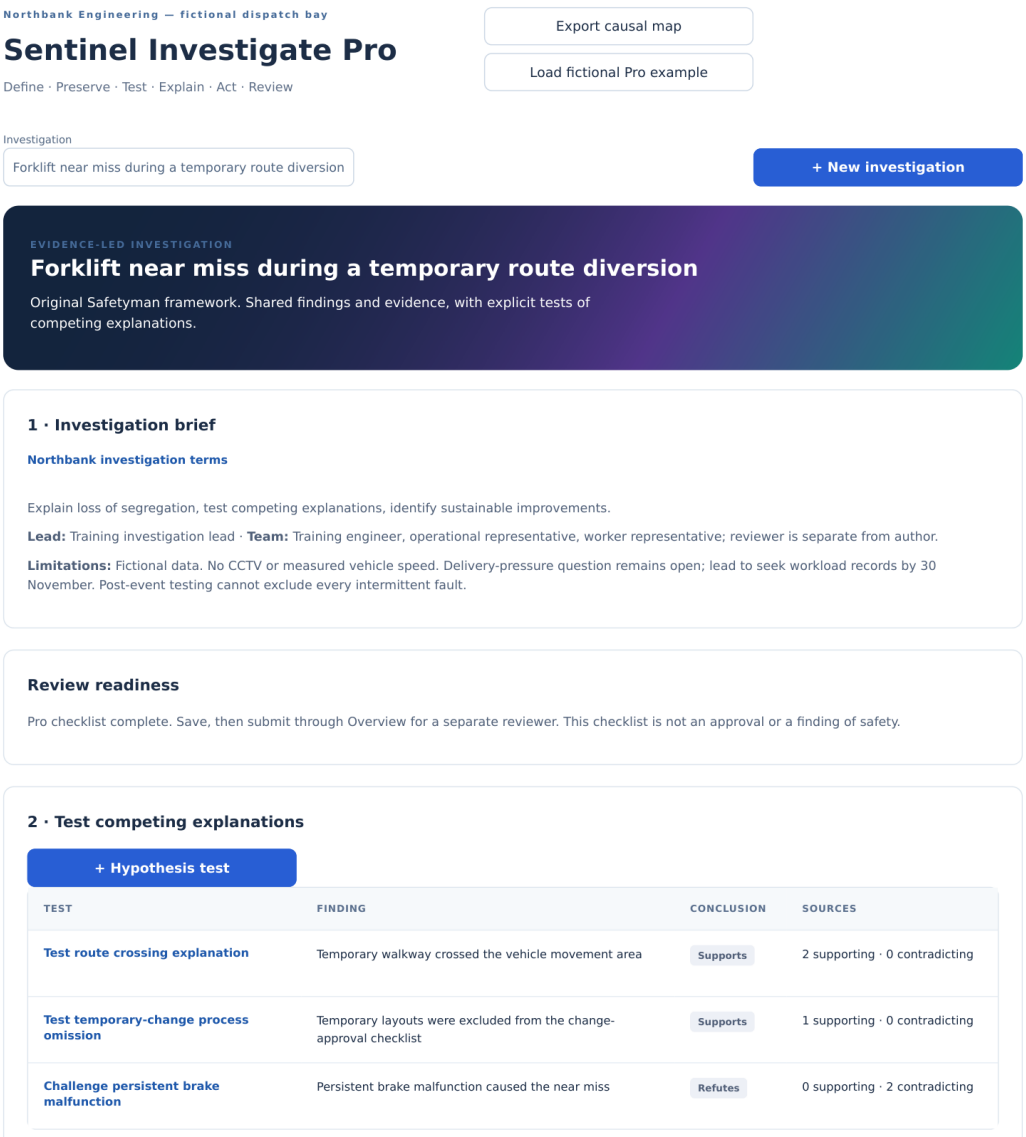
06 **Agree release decisions.** Classify defects, assign owners and retest fixes. Obtain documented acceptance before relying on the product for operational investigations.

> **Keep in mind** Automated checks support this build, but do not establish independent security certification, production load capacity or market acceptance. Company evaluation is the next evidence-gathering step.

VISUAL WALKTHROUGH

Interface reference: Pro workspace

An interface reference rendered from the supplied application with fictional data.



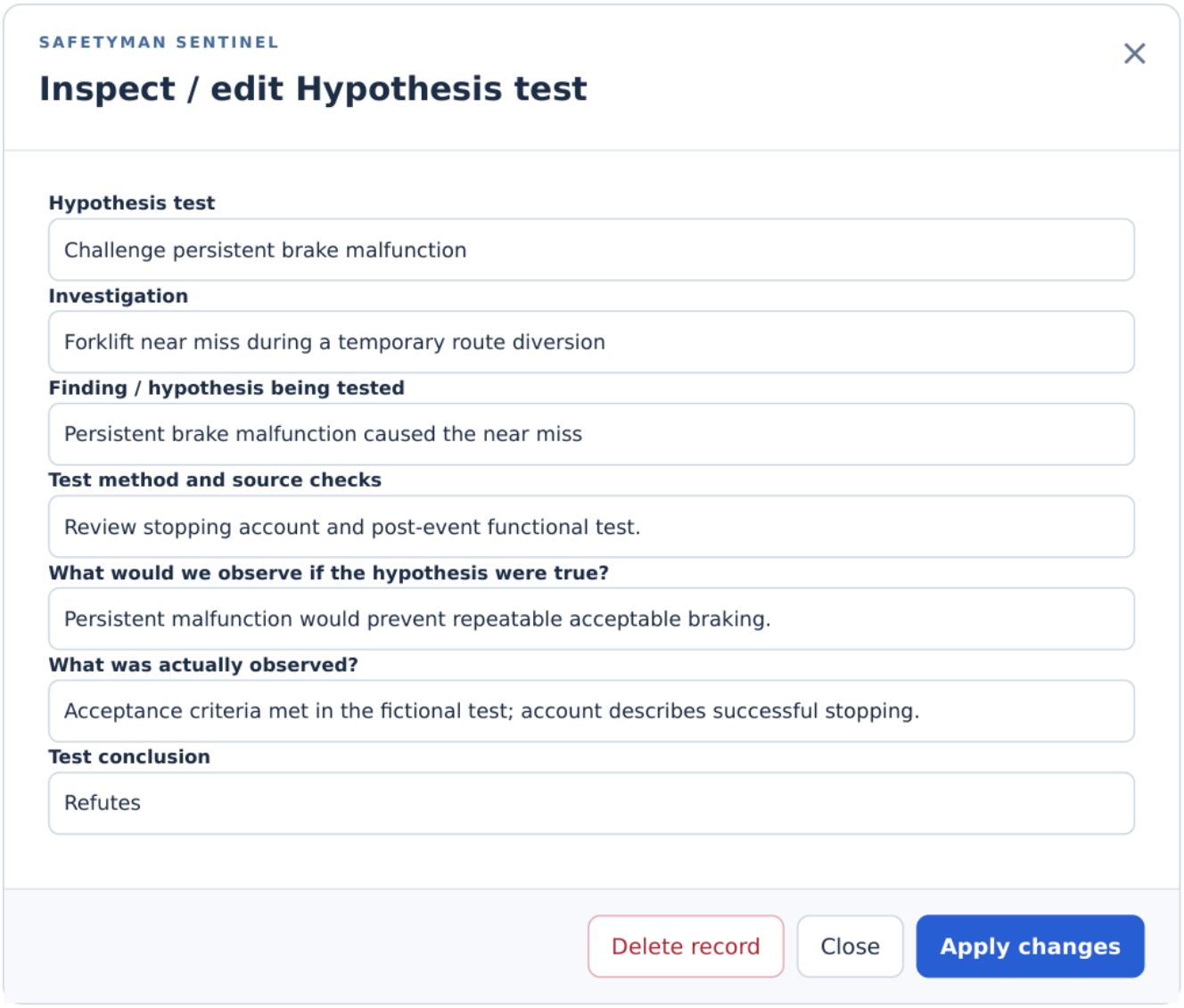
The brief, readiness checks and hypothesis tests share the selected investigation. Readiness can pass while actions remain open: it checks that improvement is planned and reviewable, not that all work is finished.

Static reference from the supplied application with fictional data; not a live Hostinger screenshot.

VISUAL WALKTHROUGH

Interface reference: hypothesis test

Inspect the method and expected result before deciding what the observation means.



The full form also contains supporting and contradicting evidence selectors and interpretation. This reference shows its upper fields; use the Test chapter for the complete procedure.

Static reference from the supplied application with fictional data; not a live Hostinger screenshot.

HELP AND LIMITATIONS

Troubleshooting Pro and preserving trust

Resolve the cause of a warning rather than bypassing the workflow.

01 **Pro tab missing.** Check Company products, global Investigate availability, annual licence and the user's company allocation. Reload after changes.

02 **Cannot select the intended finding.** Close the form and select the correct investigation first. Sources from another investigation are deliberately rejected.

03 **Test cannot be saved.** For a completed test, provide the method, expected and observed results, reasoning and evidence. Supports or Refutes requires corroborated evidence on the relevant side.

04 **Review submission blocked.** Read the Pro readiness panel. Missing limitations, unresolved refuting tests, incomplete action criteria or planned tests can block submission.

05 **Transfer is stale.** A changed source may no longer match its frozen snapshot. Reject the old proposal and prepare a new one; do not conceal the change.

06 **Use AI carefully.** The existing AI assistant receives only the text you deliberately submit. Include source identifiers, remove unnecessary personal data, check every suggestion and keep unverified output as a hypothesis. No autonomous causal conclusion is approved.

> **Keep in mind** AI needs separate server configuration. Sensor ingestion, email delivery and forecasting are separate capabilities; they do not validate an investigation. Do not use invented data to make a forecast appear validated.