

PRIMMS®

Machine-Assisted Perception for Project Risk Management

The missing intelligence layer for every project manager

AI THAT ORIENTS YOUR LEADERS · “Whoever sees faster, wins.”----John Boyd

Designed to work with **PMI Infinity™** — also compatible with Claude and ChatGPT

Project Risk Identification Measurement and Mitigation System · Desktop Application

Based on The Inductive Enterprise — John Aaron

www.ratio-weekly.com

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The AI Mandate for CIOs & CFOs

“How do we use AI to make this business more profitable, efficient, and effective — starting now?”



Start Quickly

AI programs typically take 12–18 months to deploy. PRIMMS is live on day one. No IT integration. No infrastructure. First analysis in under 60 minutes.



Start Safely

Governance risk is real. PRIMMS keeps humans in decision authority at every step. The machine orients — it never decides. Zero autonomous actions.



Show ROI Fast

A single large project protected from a 30-day slip can save \$250K–\$2M+. PRIMMS costs a fraction of one project delay. ROI measurable within weeks.

PRIMMS is the fastest, safest, most governable AI deployment available — and it generates your first governance deliverable today.

Our Mission

“Amplify human cognition with AI for better business decision making and process performance.”



Practitioner Origins

PRIMMS® — the Project Risk Identification Measurement and Mitigation System — wasn’t built in a lab. It grew out of the founder’s own experience running large-scale ERP implementations, where risk signals were visible to the team long before any dashboard showed them.



17 Years in Production

The Bayesian evidence engine at the core of PRIMMS has been in live use since 2008 — across enterprise resource planning, business transformation, and military aerospace programs.



Beyond Project Management

Today's PRIMMS desktop application pairs that same engine with an LLM for the first time — the first applied instance of a broader mission. The same architecture — structured signals, human authority, machine orientation — is built to extend to other domains where risk hides in plain sight.

Milestone Planning and Research, Inc. — amplifying human cognition with AI, not replacing it.

The Inductive Organization

PRIMMS is your entry point into AI-augmented enterprise operations and governance

TODAY

PRIMMS

AI project risk intelligence. Humans decide. Live on day one.

- Updates beliefs with discipline when new evidence arrives
- Compresses epistemic delay — acts on signals sooner

NEXT 12 MONTHS

Process Anomaly Detection & Correction With AI Agents

Inductive agents over structured data — fraud, anomaly, forecast.

- Governs with accountability — humans own every decision
- Outperforms competitors who only react to visible crises

HORIZON

Full Inductive Enterprise: AI Assists Your Workforce

Structured + unstructured signal integration. Competitive advantage.

- “The organizations that master inductive governance will learn faster, correct earlier, and outperform.” — The Inductive Enterprise

The Project Management Delivery Crisis

Why standard tools are not enough to protect your investments

70%

Did Not Fully Succeed

on-time, on-budget, on-scope (Standish, 2023)

48%

Full Success Rate

on-time, on-budget, on-scope

52%

Scope Creep

of projects experience scope creep (PMI, 2018)

\$75M

per \$1B Wasted

from poor communication alone (PMI)

The root cause is not the project management tool. It is the absence of structured risk intelligence.

The latest project management tools all track tasks, timelines, and costs. None of them assess what is actually happening inside your project. Warning signals exist in your data weeks before a crisis appears on a dashboard. PRIMMS surfaces them — using the same Bayesian evidence architecture as the human brain.

Sources: Standish Group CHAOS Report 2023; PMI Pulse of the Profession 2025 (full success rate); PMI Pulse of the Profession 2018 (scope creep); PMI, The Essential Role of Communications, 2013 (\$75M/\$1B)

What Standard PM Tools Cannot Tell You

Task tracking $\neq$ Risk intelligence. They solve different problems.

STANDARD PM TOOLS DO THIS WELL

Task assignment & status tracking

Gantt charts & timeline visibility

Resource scheduling & capacity

Budget tracking & reporting

Collaboration & document sharing

WHAT THEY CANNOT TELL YOU

Why the project is really in trouble

Team confidence erosion over time

Which failure archetype is operating

Recovery trajectory projections (+2/4/8wk)

Evidence-weighted escalation advice

There Is No Agile Easy Button for AI

Why AI initiatives raise the stakes on project risk

AI projects raise the stakes: Agile's tolerance for evolving scope suits repeatable technology releases, not the novel, no-precedent work most AI initiatives actually are — there is no agile easy button for projects like these.

Warning signals exist in your data weeks before a crisis appears on a dashboard. PRIMMS surfaces them — using the same Bayesian evidence architecture as the human brain.

Current Project Management Challenge

We are relying on an outdated management paradigm that can no longer handle the volume of information available

THE PARADIGM WE HAVE

- Management is essentially reactive
- Too much information to process
- Leaders must already know what to look for
- The quality of the leader's ideas is what matters most

WHAT WOULD HAVE TO REPLACE IT

- Watch continuously — between status meetings, not just at them
- Read language, not only dates — reports, logs, transcripts
- Score the evidence the same way every time
- Tell a bad week apart from a developing trend
- Speak first — before anyone knows to ask
- Name the cause, rank the fixes, and do the heavy analysis on your own machine

We ask: "What kind of system solves this dilemma?"

What Is PRIMMS?

A risk intelligence layer that works alongside your existing PM tools



MATLAB: deterministic signal computation — auditable, no AI black box, no MATLAB license needed. **LLM AI:** such as PMI Infinity™, Claude or ChatGPT interprets patterns, projects trajectories, generates governance briefings.

Anyone Can Use an LLM. That Is Not the Hard Part.

Detecting earlier normally costs you false alarms. The only way to improve both at once is to improve the quality of evidence interpretation and accumulation.

THE GOVERNED LAYER — DECIDES WHEN TO SPEAK

Bayesian Inference

Good, Jaynes

Evidence combines in log-odds. Three faint signals from independent sources add to one strong one — so we can act early without lowering the bar.

Statistical Baselines

Control limits, trend tests

A reference distribution makes “unusual” measurable. Without one, a bad week and a developing trend look identical.

Neuroscience

Gold & Shadlen, Fuster, Friston

Accumulate evidence to a bounded threshold — the mechanism the brain uses to trade speed against accuracy. Fire as soon as, never before, the evidence supports it.

Decision Psychology

Janis & Mann

Defensive avoidance and premature closure are predictable. Knowing the failure patterns tells us which human signals lead the schedule.

Data Science

17 years of live projects

Real outcomes calibrate what each signal is actually worth. Priors drawn from projects that finished — not from guesses.

THE SEMANTIC LAYER — DECIDES WHAT TO SAY

Only once the mathematics says the pattern is real does the LLM go to work — tracing root cause through the semantic forest of this project’s own documents, naming what is driving it, and writing mitigations a person can act on Monday. That is what language models are genuinely excellent at.

The disciplines decide when to speak. The language model decides what to say. Remove either one and you are left with a dashboard or a chatbot.

Why Not Just Paste It Into ChatGPT?

A raw upload has real value. Governance situations demand more.

RAW UPLOAD TO AN LLM

LLM must judge the evidence and interpret it at the same time

Every signal carries uncertainty — answers hedge everything

Reasoning is a narrative — can't be reconstructed or checked

No formal threshold for phase-exit or escalation

Same prompt, different day, different framing — different verdict

PRIMMS GOVERNED ARCHITECTURE

MATLAB locks the dB total and Jeffreys band first

Governing equations close the questions with formal answers

Every number in the briefing traces to a computation

$\theta \geq 0.95$ exits, $\theta < 0.70$ forces HOLD — not negotiable

Same evidence, same equations, same verdict every time

PRIMMS®-GPT

HYBRID COGNITION ARCHITECTURE FOR PROJECT RISK MANAGEMENT

MULTI-SENSORY SIGNAL ACQUISITION

Three Independent Modalities

Schedule File + Charter Doc

MISSION, SCOPE & SCHEDULE

Charter · Scope Baseline
Velocity · Jeopardy Index

Distributed Sentiment

VOICE OF THE TEAM (VoT)

1–6 Confidence Rating
Time-Series Trend · Safe-Band Class

Free-Text Corpus

DOCUMENTS & RAIL

Status Reports · Minutes
Risk Language · Issue Lifecycle

Quality Criteria Library

BENCHMARKED RISKS & Q-GATES

Pre-identified Risk Categories
Quality Gate Milestone Criteria

MATLAB — DETERMINISTIC LAYER

Bayesian WoE + Governing Equations

Not AI — the governing equations that constrain AI

BAYESIAN WoE ENGINE

Deciban accumulation across all modalities → Jeffreys strength-of-evidence bands

FAILURE ARCHETYPE CLASSIFIER

Maps convergent signal pattern to one of six defined failure archetypes

GOVERNING EQUATIONS

Production function $Y=f(AC, IC, JO)$ · θ issue-closure ratio · velocity-based finish date

🔒 LOCKED SIGNAL SET

dB Total · Jeffreys Band · Dominant Archetype
Fixed, auditable, traceable to specific evidence

LLM — 5-LAYER INTERPRETATION

The Cortical Hierarchy

e.g. Claude or ChatGPT — cannot modify MATLAB outputs

L1 FEATURE DETECTION

Validate & extend MATLAB signals. No prescriptions.

L2 PATTERN RECOGNITION

Classify dominant failure archetype (of six).

L3 SITUATION AWARENESS

Trajectory projection at +2 / +4 / +8 weeks.

L4 EXECUTIVE PLANNING

COA matrix · decision gates · escalation posture.

L5 EXECUTIVE BRIEFING

Formatted document. Terminates: DOCX_READY.

GOVERNANCE OUTPUT

Briefing + Authority

EXECUTIVE BRIEFING

- Color-coded jeopardy status banner
- Plain-English situation narrative
- Six recovery options + wildcard
- Three decisions required this week
- First-week intervention plan



PROJECT MANAGER DECIDES

Full authority · full accountability

HYBRID INTELLIGENCE:

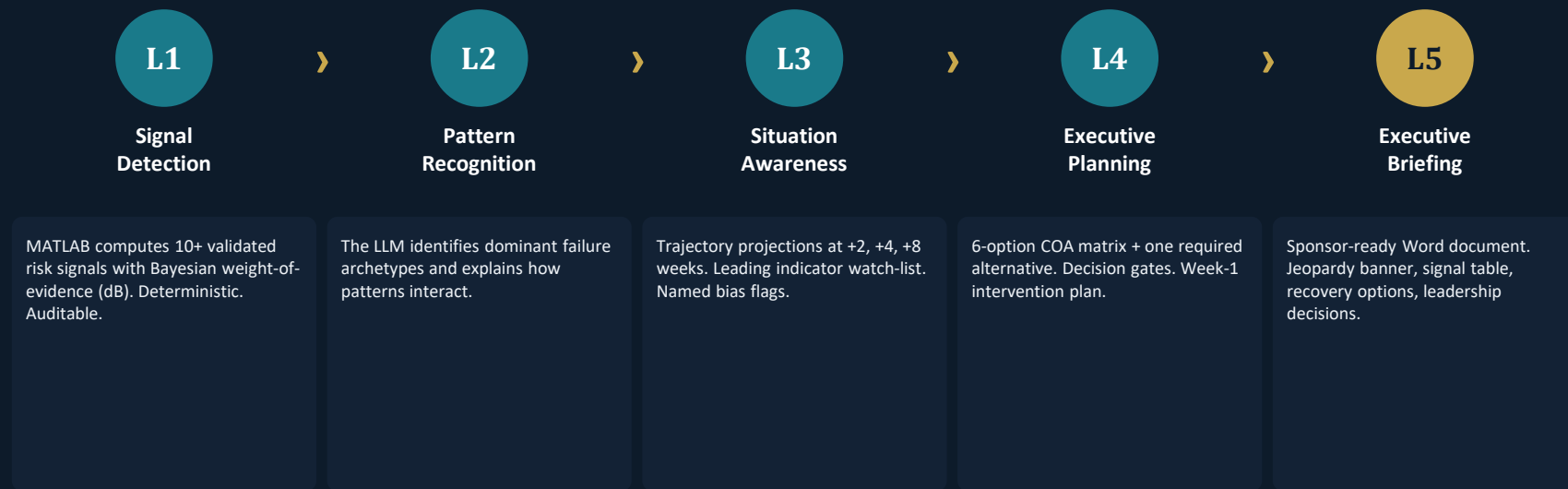
● DETERMINISTIC SIGNAL PROCESSING — fixed, auditable, no learning

● LLM INTERPRETATION — pattern recognition, projection, synthesis

● HUMAN AUTHORITY — every decision, every escalation, irreducibly human

Five-Layer Cognitive Hierarchy

From raw schedule data to sponsor-ready governance document — in one workflow



L1 runs automatically in MATLAB. L2–L5 run in your LLM of choice (PMI Infinity™, Claude, ChatGPT) — paste once, receive full analysis + formatted governance document.

Your Project Data Never Leaves Your Desktop

The analysis runs locally in MATLAB. Only a compact derived summary is ever transmitted — and you set how much of it.

STAYS ON YOUR MACHINE

- ▶ The schedule workbook — every row
- ▶ The full RAIL / issue log
- ▶ Every source document you load
- ▶ All computation: CPM, Bayesian weighting, dB conversion, thresholds

WHAT IS TRANSMITTED

- ▶ A derived summary of roughly 40 lines
- ▶ Computed metrics, not your data — state, days behind, float, dB weights, closure rates
- ▶ Readable before it is sent: Export GPT writes the exact payload to a file

OFF

Full specificity. Nothing is anonymized.

NAMES

People aliased to OWNER_3F9A. The model reads what is stuck, not who owns it.

STRICT

Task titles, WBS, document titles aliased. Issue prose withheld entirely.

Detection and scoring are computed locally and are identical at every level. The setting changes only how specific the written guidance can be.

Works Standalone or With Any Project Management Tool

PRIMMS adds risk intelligence — it does not replace your existing workflow, and its output is prompt-ready for the AI tools you already use

MS Project

Jira

Monday.com

Smartsheet

ClickUp

Asana / Wrike

PRIMMS — Risk Intelligence Layer

- 1 Export schedule to Excel (one click from any PM tool)
- 2 Load into PRIMMS — add VoT ratings and relevant documents (transcripts, emails, reports)
- 3 Generate prompt → paste into LLM AI → receive full risk analysis + .docx governance document

Machine-Assisted Perception

Why hybrid intelligence outperforms both pure AI and pure human control

Why Hybrid Intelligence Wins



Pure AI Control Fails

AI cannot own outcomes or bear accountability. Responsibility, interpretation, and commitment cannot be delegated to a model.



Pure Human Control Fails Too

Leaders anchor on sunk costs, suppress weak signals, delay escalation. These are cognitive patterns — not moral defects.



Hybrid Intelligence Works

PRIMMS extends human perception with structured Bayesian evidence. Leaders retain full authority — equipped with far better information.

Failure Archetypes PRIMMS Identifies

1

Execution Collapse

Delivery cadence falling — team carrying too many incomplete items

2

Perception Distortion

Leaders see near-recovery; data says otherwise — optimism bias

3

Premature Closure

Replan triggered before recovery tested — defensive avoidance

4

Scope Drift

Boundary erosion — items added without capacity adjustment

5

Governance Gap

Decision authority unclear — escalation stalls at middle management

6

Confidence Erosion

Team confidence rising while schedule metrics stay flat or decline

PRIMMS Makes PMI Infinity™ More Powerful

PRIMMS also works with Claude and ChatGPT — but paired with PMI Infinity, it turns a capable AI co-pilot into a governed risk-intelligence system.

WHAT PMI INFINITY DOES WELL

Drafts charters, RACI matrices, and risk plans on request

Reasons fluently over whatever you paste in

Drafts a well-formatted governance narrative

Answers fully within a single session

Grounds every answer in PMI's global standards

WHAT PRIMMS ADDS ON TOP

Tells Infinity which question to ask, and when

Feeds it deterministic, auditable evidence scores (dB)

Anchors that narrative to the same evidence every time, week after week

Tracks cumulative evidence across weeks — so Infinity doesn't have to remember

Runs the phase-gate check against this project's own history, then hands Infinity a governance-ready brief

PRIMMS runs the deterministic Layer 1–4 analysis first, then hands PMI Infinity a structured, evidence-cited prompt — Infinity's answers get sharper the moment PRIMMS is feeding them.

Why “Orient”? The Boyd OODA Loop for Decision Making

The military decision cycle behind PRIMMS's core design principle



OBSERVE · Machine

Four independent inputs fused: mission/scope/schedule, team sentiment, documents & RAIL, benchmarked criteria.



ORIENT · Machine

Bayesian weight-of-evidence fusion, then five-layer LLM interpretation — pattern, trajectory, options.



DECIDE · Human

The project manager weighs the options and commits. Full authority, full accountability.



ACT · Human

The team executes the intervention. The organization owns what happens next.

Boyd's Insight: *Whoever orients faster — seeing the situation clearly before the other side does — wins. Not by acting rashly. By seeing first.*

Two Constraints No AI Model Escapes

Why human authority is structural, not just cautious



The Gödel-Turing Constraint

A sufficiently expressive system cannot fully prove or govern itself from within its own rules (Gödel, 1931; Turing, 1936). An LLM's instructions and its outputs are the same substrate — both are tokens run through the same engine. It cannot police itself with the faculty that generates its own behavior.



The Zero Constraint

Named for the supercomputer in Rollerball that drowned in its own data and could say nothing at all. Every added signal raises the odds an LLM answer collapses into a hedge that commits to nothing. PRIMMS locks the arithmetic — dB total, closure ratio, finish date — before the LLM has to decide.

Governing equations close the questions that have formal answers — so the model's judgment is spent only on the questions that actually need it.

Two Checks No Other Tool Runs

Governance safeguards built into the architecture itself — not bolted on after



Phase-Gate Quality Review

At every project phase boundary, PRIMMS applies its own OCC-5C quality framework to its own recommendation — an adversarial self-check before a phase-exit verdict ever reaches a sponsor. No competing tool checks its own output this way.



Decision Vigilance

Cross-checks every optimistic re-forecast against independent evidence — issue closure via RAIL, documented plans — and flags Wishful Thinking before it becomes a pattern. Runs automatically, every week, at no extra cost.

Both checks are deterministic and MATLAB-anchored — the LLM's own recommendations are constrained by thresholds it cannot override.

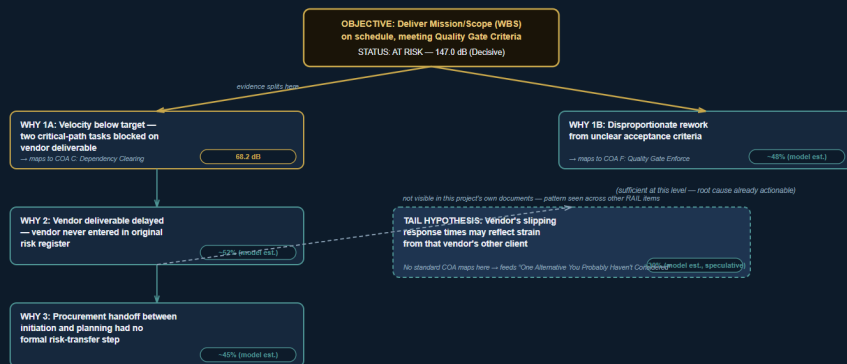
Five-Whys Causal Analysis

Not just what's wrong -- why, drilled to a real root cause

CAUSAL ANALYSIS

Why the Schedule Objective Is At Risk

Five-Whys causal tree — hybrid branching, evidence-grounded where possible



Evidence-derived (dB)

Model-estimated (%)

Tail hypothesis (speculative)

Points the LLM's own “semantic forest” at your specific objective

Not a generic five-whys template -- every cause is checked against real project evidence, drilled as deep as that evidence supports.

Every cause labeled honestly

Real MATLAB signal (deciban) or the LLM's own confidence (percentage) -- never blended, never invented to look more certain than it is.

Checks the tails, not just the obvious answer

A required tail hypothesis surfaces a cause your own team is too close to see -- and feeds straight into the wildcard recovery option.

Exportable to a real Bayesian-network tool (optional)

Open the tree in GeNIe (.xdsl) and adjust it yourself -- add factors, change probabilities.

The Reasoning Map: Inference to the Best Explanation

Root causes are ranked, rival hypotheses — never asserted as settled fact



Current Best Explanation

Every finding sits above an explicit “evidence floor.” Below it, PRIMMS ranks competing explanations by scope, parsimony, coherence, and testability — the same virtues philosophers of science use to judge inference to the best explanation.



Live Rival & Tail Hypothesis

The model is required to carry a genuine rival, a combination hypothesis, and a tail hypothesis alongside its leading explanation — then names the exact test that would confirm or kill each one.

“Likely, not merely lovely” — confidence is a Bayesian-anchored dB score or the LLM’s own stated ranking, never blended or inflated to look more certain than it is.

Decision Pathway & Courses of Action

Test the hypothesis before you commit capacity to the wrong fix



Decision Pathway

A sequenced, run-this-first diagnostic plan: each check names what confirms or kills a rival hypothesis, and what to prepare once it does — so the team tests before it commits.



Courses of Action

A ranked recovery-option matrix, each option tied to the signal that drove it — plus the model's own second-guess: a course of action leadership may not have considered.

Generated this week from a live project run — three leadership decisions, each with an owner, a trigger, and a deadline, ready before Monday's meeting.

The Business Case

Protecting one project justifies the investment many times over

15–40%

Efficiency Improvement

AI risk management (ResearchGate 2025)

20–30%

Cost Reduction

Case studies: construction, finance,
manufacturing

25–50%

Better Risk Identification

Organizations using structured AI risk
analysis

\$75M

at Risk per \$1B Spent

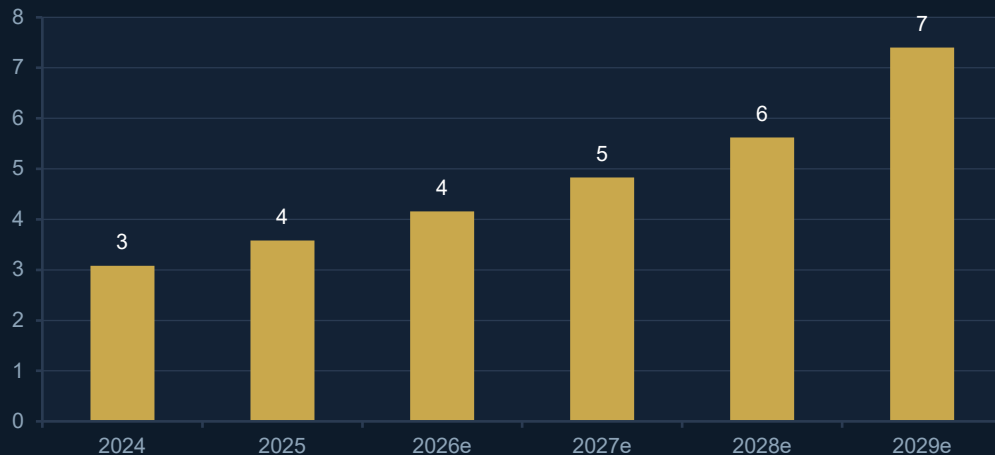
From ineffective project communication
alone (PMI)

A single large project protected from a 30-day slip = \$250K–\$2M+ saved. PRIMMS costs a fraction of one delay.

The Market Opportunity

A \$7.4B market by 2029 — and only 12% are using AI substantially today

AI in PM Market Size (\$B)



82%

of senior leaders plan AI for PM in 5 years (PMI)

16.3%

CAGR 2024–2025 in AI project management

~12%

currently use AI substantially in PM — first mover window open

25M

new PM-oriented workers needed by 2030 (PMI)

Sources: Mordor Intelligence, PMI Pulse of the Profession 2025, Capterra, ResearchGate

Proven Method. Early-Access System.

Seventeen years of framework behind it — and we are deliberate about what is new



Operational Day One

- No IT integration or API keys
- Works offline — data stays local
- Desktop app + your LLM of choice
- First analysis in under 60 minutes
- No MATLAB license required



Governance by Design

- MATLAB = deterministic, auditable signals
- Every claim cited to specific evidence
- Zero autonomous decisions — 100% human authority
- Escalation posture is a human governance choice
- Transparent reasoning at every layer
- Your data stays local — you set what is sent
- Zero-retention LLM options — your terms



Expert Intelligence Built In

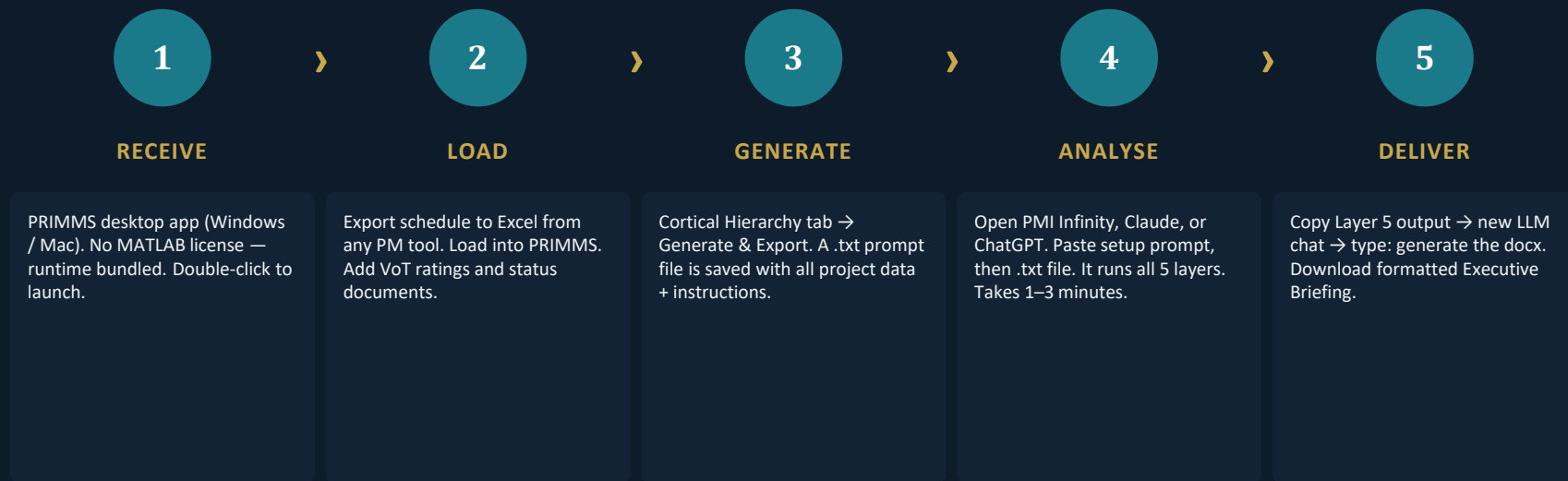
- Decades of PM expertise encoded in the system
- 6 archetypes grounded in behavioral research
- Bayesian WoE framework (Jeffreys/Jaynes/Good)
- Boyd OODA loop and cybernetic principles
- Continuously updated via your LLM's knowledge base

PRIMMS® has been refined on live projects since 2008. **This desktop AI release** is in supervised early access.

Pilots run with direct support from the creator — and what you find shapes the release. We would rather tell you that than pretend otherwise.

Getting Started

Everything you need to run your first analysis today



Requirements: Excel schedule file · LLM account · PRIMMS desktop app · No IT team required

The Machine Orients.

The Humans Decide.

“Whoever sees faster, wins”---John Boyd

PRIMMS gives your leadership team what no standard PM tool can provide: structured evidence, pattern recognition, and recovery intelligence — with human authority intact at every step.



Request a Demo

See PRIMMS analyse a live project in 30 minutes



Pilot Program

Your first real analysis with your own project data
today



Procurement

Single-user & team licences — contact your
distributor

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Questions, pilot programs, and procurement inquiries welcome.

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