metacto

INDUSTRY SOLUTIONS

Operational AI for Construction

How Metacto builds it, how it works in your environment, and how the value gets measured.

A working reference for construction leaders evaluating whether to build. Covers what Metacto would actually build, how it operates inside the systems you already run, what governs it, how the engagement runs, and how the business case is established.

WORKFLOW ARCHITECTURE · INTEGRATIONS · GOVERNANCE · ENGAGEMENT · BUSINESS CASE · PROOF

Start with the workflow, not the technology.

The work that decides profit on a construction job rarely happens on the jobsite. It happens in the paperwork between the field and the office — where margin leaks, and where risk surfaces too late to fix cheaply.

Four patterns show up on nearly every job:

Change orders, late or underpriced

A scope change gets a verbal yes and loses the paper trail. By the time the change order is written, the cost is already absorbed into your margin.

Bids too slow, so fewer go out

Estimators rebuild the same proposals from scratch, chasing specs and historical costs. Every slow bid is a job you never got to compete for.

RFIs and submittals stuck in the queue

Questions to the architect and submittal approvals sit for days. The schedule waits, trades stack up, and delay claims start to build.

Compliance and rework exposure

Prevailing-wage and certified-payroll errors, missed submittal requirements, and rework surface late, when they are most expensive to fix.

What Operational AI does about it

Your people stay on the job. The work stays on the queue, moving.

An agent owns a single repeated workflow

It drafts the document from your real records

Cites where every number came from

Routes it for approval before anything moves.

Every Metacto workflow runs the same governed loop.

1. **Drafts** from the source record
2. **Cites** every line to a source
3. **You approve** a person signs off
4. **Writes back** into your systems
5. **Logs** who approved what

Detailed workflow architecture.

Worked example: a change order, drafted to protect margin

Trigger	A field change hits the daily log on 9/14: "Added storm drain tie-in at SE corner per field directive." No change order written, no price, the crew is already moving. This is exactly where margin is lost.
Inputs	The agent reads the daily log entry, the schedule of values (SOV 02 41 00), and subcontract unit prices, all from records already in your systems.
Agent action	Drafts CO #047 with itemized cost and schedule impact, every line cited to its source.

YOUR-PLATFORM.APP · CHANGE ORDERS

CO #047 · Storm drain tie-in, SE corner	+3 DAYS
Excavation · 18 LF	+$6,200
Pipe & fittings · 12" RCP	+$8,400
Crew · 2 days	+$3,800
Change order total	**+$18,400**

Cited to: daily log 9/14 · SOV 02 41 00 · subcontract unit prices

Approval	Nothing sends to the owner until your PM approves. The PM can approve, edit, override, or reject — each action is logged.
Write-back	On approval, the change order is written back into your project management software, not re-keyed by hand.
Exceptions	Where a source is missing or a number cannot be grounded, the agent flags it rather than guessing.

Success metric: **Change-order margin captured** while the margin is still there to keep.

The same architecture, across the workflows that run a job.

Each agent owns one repeated workflow, drafts from your real records, cites its sources, and routes for approval.

Bid Desk	Builds proposals and bids from your estimates, specs, and past jobs.	142 line items · ready for review	Bid throughput & win rate
Submittal Clerk	Tracks every submittal against the spec, flags what is missing or late.	14 active · 3 overdue	Submittal cycle time
RFI Responder	Drafts RFI responses grounded in the contract documents and drawings.	RFI-112 · cited to A-401	RFI turnaround
Change-Order Writer	Spots scope changes in the daily log, drafts the change order, waits for the PM.	CO #047 · awaiting PM	Change-order margin
Pay App Preparer	Builds the monthly pay application, reconciles the G703 against the SOV.	Pay app #6 · $412,800	Billing cycle & cash flow
Job-Cost Watcher	Compares committed and actual cost to the estimate, raises the alert early.	Job 214 · −1.8% vs bid	Margin fade caught early
Closeout Coordinator	Turns daily logs into schedule status, delay flags, and the closeout package.	O&M 82% · warranties in	Time to closeout
Payroll Compliance	Checks certified payroll against the wage determination, drafts corrections.	wk 37 · 0 exceptions	Compliance & audit risk

Any workflow that recurs on every job and carries margin or schedule risk is a candidate. The first one to build is chosen during Opportunity Mapping, with the numbers to back it. Metacto ranks candidates by:

- Business impact
- Workflow repeatability
- Source readiness
- Approval clarity
- Implementation path

The goal is not to automate everything at once. It is to choose the first workflow worth funding, build it well, measure the result, and expand from what works.

Agents work inside the systems you already run.

Operational AI does not require a rip and replace. Agents read from and write to your construction software by record, with role-based access and approval gates.

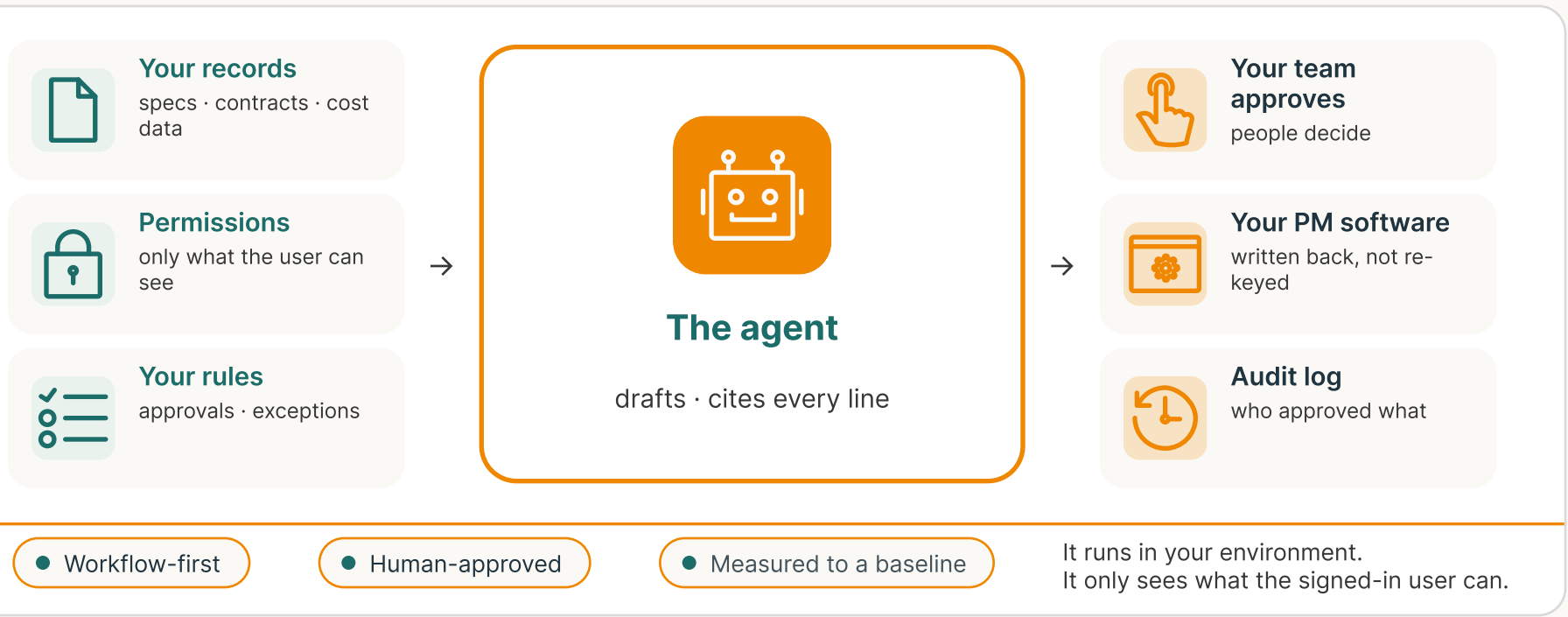
Common system categories

PROJECT MANAGEMENT & FIELD	ACCOUNTING, ERP & PAYROLL	DOCUMENTS & SIGNATURES
Procore RFIs, submittals, change orders, daily logs	**Sage 300 CRE** job cost, AP, certified payroll	**Bluebeam** drawings, markups, submittal sets
Autodesk Build drawings, specs, issues, sheets	**Trimble Viewpoint** job cost, AP/AR, pay apps	**DocuSign** change orders, contracts, lien waivers
Fieldwire tasks, plans, punch lists	**CMiC** ERP, billing, subcontracts	**SharePoint / Egnyte** specs, plans, project files
Buildertrend schedules, selections, daily logs	**QuickBooks** AP/AR, invoices, vendors	

Each integration is used at the record level — reading the source and writing the result back into the system of record rather than into a parallel tool.

Governance & risk controls

Operational AI is not an unsupervised black box. The system is built so that people decide and every action is accountable.



How the value is established.

Metacto does not lead with a generic ROI promise. The business case is built during Opportunity Mapping against your real baseline.

Value shows up at the workflow level

Each workflow targets a specific operational lever: speed, quality, margin, or risk control.

CHANGE ORDERS	**Margin captured** before it fades.
RFIS & SUBMITTALS	**Approval cycle time reduced,** delay claims avoided.
PAY APPLICATIONS	**Billing cycle time** and cash flow improved.
JOB COST	**Margin fade caught early,** while there is still time to act.
COMPLIANCE	**Audit exposure reduced.**

The stakes are concrete, per event

The change order in section 02, CO #047, represents **$18,400** in scope that, captured late or not at all, comes straight out of project margin. A single workflow that reliably catches changes like this, while the margin is still there, illustrates the order of magnitude in play on one job, multiplied across every job you run.

How your number gets built

During Opportunity Mapping, Metacto defines the baseline for your chosen workflow: current cycle time, manual effort, error and rework rate, margin leakage, and builds the value case against it, with a build or no-build call before you commit budget. Measurement continues into Phase 4. The first workflow is not meant to prove that AI is interesting. It is meant to prove that the company can operate better, measurably.

The same system answers each stakeholder.

CFO / PE sponsor — Measurable economics

A baseline and value case established before any build, ROI tracked against it, and a build or no-build call before budget is committed. Proven: 1.67× analyst output and $320K recovered at Alliant.

Owner / CEO / COO — Operational leverage

More competitive bids out the door, schedule protected through faster RFI and submittal turnaround, and margin captured on change orders before it is absorbed. Production systems running on real jobs, not pilots.

Operations / PM — Process control

Each workflow has a clear owner who stays in the approval loop. Agents draft and recommend; PMs and analysts decide. The work moves faster without leaving anyone's hands.

IT / Security — Access & governance

Role-based access so an agent only sees what the signed-in user can. Source citations on every output, full audit logs, write-back into existing systems. No rip and replace.

Governed AI in construction operations.

In a production construction compliance deployment, Metacto helped turn high-volume, audit-sensitive work into governed AI workflows inside an existing platform. The proof example below is anonymized from a real Metacto case study.

CLIENT
Construction payroll and compliance platform

FUNCTION
Compliance operations and payroll review

FOCUS AREA
Governed Workflows & Risk Detection

PRIMARY USERS
Analysts, operators, and sponsors

The Operational Challenge

The team reviewed inconsistent payroll files, interpreted dense wage determinations, triaged violations, identified underpayments, and drafted notices while keeping activity visible and auditable.

The goal was not to bolt a chatbot onto the product. It was to make compliance work executable inside the platform itself: faster, governed, cited, and measurable.

The Opportunity

Metacto mapped seven Operational AI opportunities across repeatable analyst work with clear potential to lift productivity, reduce exposure, and create new platform value.

- CPR Ingestion
- Risk Scoring
- Violation Triage
- Executive Briefings
- WD Watcher
- Action Feed
- Anomaly Detection

Modeled Business Case

≈$2.5M

estimated annual run-rate opportunity at full deployment, modeled across three value tracks

≈$1.2M

Productivity

Recovered analyst capacity from faster triage, ingestion, briefings, and risk review

≈$300K

Talent Reform

Better leverage of analyst capacity and less dependency on manual review effort

≈$1M

New-SKU Revenue

Monetizable in-platform AI capability that becomes part of the client's product value

Net-New Risk Detection

In this case, Operational AI created value beyond efficiency by helping detect and respond to risk earlier. The WD Watcher identified retroactive shortfalls within a **24-hour target detection window, surfacing $656 in owed wages across 2 affected contractors and 8 affected weeks**.

What Was Built

11 governed compliance workflows shipped inside the existing platform, grouped across:

- Compliance research & cited answers
- Risk visibility & anomaly detection
- CPR ingestion & WD monitoring
- Review queues & prioritized actions
- Audit history, knowledge & adoption tracking

Governed AI by Design

01 Citations

Every claim, number, and answer ties back to a source reviewers can trust.

02 Review Gates

External actions are held for human approval; the system stages drafts.

03 Audit Trail

Actor-attributed and traceable: what AI suggested, what a human approved.

04 Utilization & Cost

Usage tracked by role, workflow, and surface for adoption and cost visibility.

Build the first workflow worth funding.

Operational AI for construction does not start with a generic AI rollout. It starts with the one repeated workflow where **margin, schedule, cash flow, or risk** is already being decided by hand. The point is not to automate everything at once, but to find the workflow with the clearest business case, build it deeply, govern it properly, and measure whether it changes how the company operates.

What happens next

During Opportunity Mapping, Metacto helps your team identify:

01

Where value is leaking

The workflows where margin, schedule, cash flow, or risk exposure are affected by manual review and handoffs.

02

Which workflow should come first

The candidate with the strongest mix of business impact, readiness, repeatability, and implementation path.

03

What the system would need to use

The records, systems, permissions, rules, and approvals required to make the workflow reliable.

04

How the business case gets measured

The baseline, success metric, and value model that determine whether the build is worth funding.

Is this the right fit?

GOOD FIT

- You run recurring project workflows like bids, RFIs, submittals, and change orders
- Margin or schedule risk lives in manual review and handoffs
- Your specs, contracts, and cost data exist in systems you can integrate
- A PM, ops leader, or analyst can stay in the approval loop
- You want a production system that runs on real jobs

NOT A FIT

- You want a generic chatbot or a one-off prototype
- There is no source of truth for your project documents and costs
- No one is accountable for the workflow or its number
- You are not ready to measure impact against a baseline

Map Construction AI Opportunities.

Tell us about the construction workflow creating the most friction, and we will help you find where AI can protect margin, speed the schedule, or reduce risk, and whether it is worth building.

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