

PRODUCT DEMONSTRATION

Your Digital Factory

One production study builds a living replica of your line — so you can experiment safely, watch the output move, and see exactly where the gain came from before you touch anything real.

Prepared for: [Client / Line Team] | [Presenter Name], Lean & IE Consultant | 10 July 2026

AGENDA

What we'll cover today

1

Introduction & Methodology

Who this is for, and the classical engineering discipline the software is built on.

2

Documentation, Phase by Phase

The full report set the tool generates across Measure, Analyze, Improve, and Control.

3

Simulation & Scenario Games

One more way to explore — play individually with C2C, Bottleneck, Line Balance, MTM, Hidden Factory.

4

The Priority Engine

The auto-generated recommendation that guides your implementation route.

5

Positioning & Next Steps

How to talk about it, and how we'd pilot it on one of your lines.

The IE Digital Suite, at a glance

A software layer built specifically for Industrial Engineers, Lean practitioners, and plant leadership — not a generic BI dashboard adapted for the shop floor. One structured time-study capture per station drives the entire toolkit.



One capture, full toolkit

A single station-by-station time study drives line balance, motion analysis, bottleneck detection, and engineering review together.



Built for engineers, by engineers

Every module mirrors a technique your IE team already trusts — MTM, ECRS, TOC, Yamazumi — automated, not replaced.



Self-contained outputs

Reports run as standalone HTML and native Excel files — shareable with Quality, Maintenance, and Production with no server or login.



Plus optional simulation

Five of the modules also run as an interactive scenario game, and a Priority Engine turns all of it into one guided implementation route.

Built on proven engineering discipline, not shortcuts



Time & Motion Study

Stopwatch-grade element and cycle-time capture, station by station.



MTM & Therblig Analysis

Motion-level root cause via structured, dimension-by-dimension diagnosis.



ECRS Methodology

Eliminate, Combine, Rearrange, Simplify — debated through structured rounds, not assumed.



Theory of Constraints

Find the true bottleneck first, and exploit it before touching anything else.



Line Balancing & Yamazumi

Every station's workload visualized against takt, at a glance.



Value Stream Mapping

Station data placed back into material and information flow context.

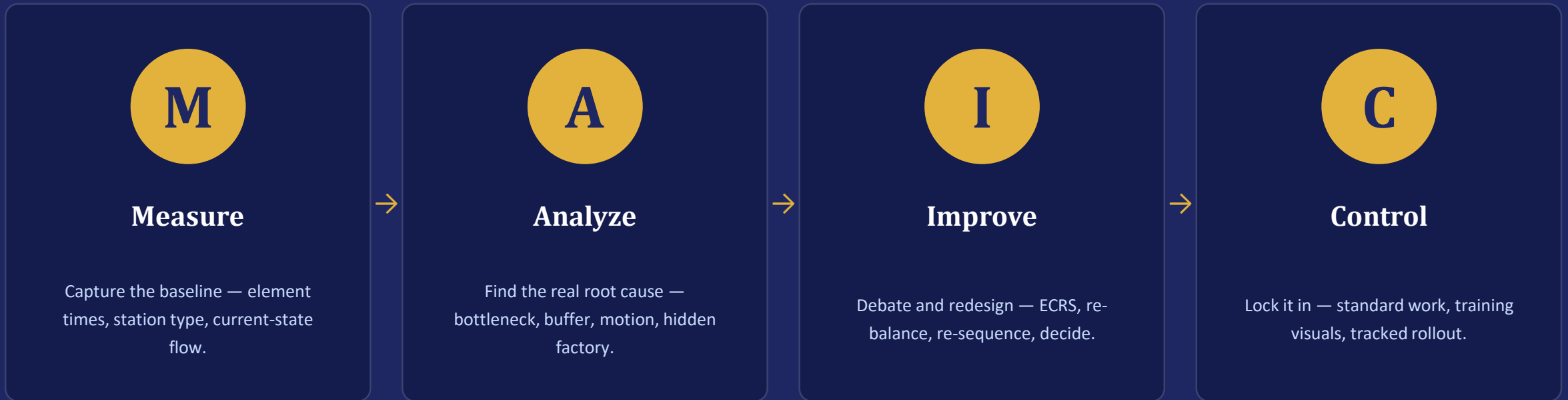
Every module you'll see maps back to a classical method

Classical Method	Software Module	What You Get
Time & Motion Study	Production Study Master	Verified element-level cycle times
MTM & Motion Economy	Golden Zone Engine	Root cause + expected gain, per element
ECRS	Engineering Review Board (ERB)	Cross-functional, documented decisions
Theory of Constraints	Bottleneck & Buffer Analysis	The true constraint, ranked and located
Line Balancing	Yamazumi & Balance Chart	Station workload at a glance
Value Stream Mapping	IE VSM Report	Flow context for the next improvement

None of this is new science. What's new is how fast you can move through it.

One study. Full documentation, phase by phase.

Before anything else — this is what the software actually delivers: a complete, structured document set for every station, organized exactly the way your engineers already run a project.



Every report you're about to see belongs to exactly one of these four phases — nothing floats outside the structure.

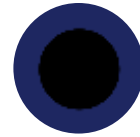
Capture the baseline, station by station

Four documents establish ground truth before any opinion enters the room.



Production Study Master

Station-by-station element and cycle-time capture — the single source everything downstream is built from.



Man-Stations Gantt (MTM)

Visual timeline of manual, machine, and walk time per station, element by element.



IE Process-Product Matrix

Baseline mapping of process steps against product variants running through the line.



IE VSM — Current State

Material and information flow exactly as it runs today, before any change is proposed.

Find the real root cause

Six documents turn the baseline into a diagnosis — each one answering a different “why.”



Bottleneck Story

Locates and quantifies the true constraint — no manual takt-time math.



C2C Buffer & Stability Report

Cycle-to-cycle variation, sized buffers, and a per-station stability score.



Blocking & Starving Story

Narrates exactly where one station stalls its neighbor, and how often.



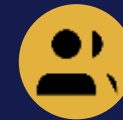
Hidden Factory Story

Surfaces the non-value-add time and rework hiding inside the process.



Motion Waste & Golden Zone

Therblig-level root cause per element, with an expected MTM gain.



Static Holding Exposure Map

Flags ergonomic risk by station, ranked for follow-up.

Debate, redesign, and decide

Five documents turn a diagnosis into a documented engineering decision.



Engineering Review Board (ERB)

Every ECRS opportunity debated through five structured rounds, cross-functionally signed off.



Engineering Judgement Review

Rationale, benefit, difficulty, and gain logged against every idea, station by station.



Line Balance Debate & Chart

Station workload re-balanced against takt, with the reasoning documented, not just the result.



Line Sync Debate

Timing conflicts between adjacent stations resolved and recorded.



Precedence Debate & Decisions

Sequencing constraints reviewed, challenged, and formally decided.

Lock the gain in, and keep it there

Four documents make the new method the only method — trained the same way, every shift.



Standard Work Combination Sheet

The improved method, formalized: manual, walk, and machine time per element.



OPL Visuals — All Stations

One-point-lesson visuals so every trainer teaches the new standard the same way.



Updated Yamazumi Chart

The rebalanced line, visualized against takt, ready for the next review.



Rollout Tracking

Implementation status tracked against the plan, station by station.

Play with it: five modules also run as a game

Everything up to this point already stands on its own as complete documentation. If your team wants to explore a question interactively before deciding, five modules also run as an individual scenario game — one module, one question, one answer at a time.



C2C Story

Drag the buffer size and watch cycle-to-cycle stability respond.



Bottleneck

Move a station's cycle time and watch total line output respond live.



Line Balancing

Rebalance stations against takt and watch the Yamazumi shift in real time.



MTM

Adjust a motion-economy fix and watch the element close the gap to standard.



Hidden Factory

Toggle a hidden-factory item off and see the capacity it gives back.

Use it when it helps a conversation. The documentation from the last four slides doesn't need it to be useful.

One auto-generated list tells you where to start

Every finding from Measure, Analyze, and Improve — plus anything explored in a scenario game — rolls up into one ranked recommendation.

Station	Opportunity	Source Phase	Est. Gain	Priority
Stn-15	Resequence tightening return/reset	Analyze → Improve	4.0 s/cyc	High
Stn-13	Combine repeated peel/place motions	Analyze → Improve	9.8 s/cyc	High
Stn-3	Dual-fixtured for LH/RH simultaneous action	Analyze → Improve	13.8 s/cyc	High
Stn-9	Resolve blocking into Stn-10	Analyze	6 events/hr	Medium

This is the one artifact your engineering team walks into Monday morning with.

THE POSITIONING SHIFT

Documentation first. Simulation as a bonus. Priority as the guide.

DON'T SAY

"It's a simulator."

SAY

"A complete Measure-Analyze-Improve-Control documentation engine, with an optional scenario game and one Priority Engine that tells you where to start."

Every report already stands on its own. The simulation is a bonus lens, not the product. The Priority Engine is the destination.

Let's run the full document set on one of your lines

1

Pick a pilot line

One line, 10–20 stations — ideally one with a known bottleneck or throughput complaint.

2

One-day capture

Joint time study; within days you receive the full Measure / Analyze / Improve / Control document set.

3

Walk it together

Review the documentation, the Priority Engine's ranked list, and — if useful — the scenario game, live.

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