

The field toolkit for instrumentation and electrical technicians.

MileThree I&E is an offline-ready field toolkit for instrumentation and electrical technicians. It gathers standards-based calculators, a public PLC handbook, and site procedures in one branded app.

Who it is for

Instrumentation and electrical technicians who run the numbers at the equipment.

The person training that crew, using the public handbook and the same tools.

The organization that wants one toolkit, shared procedures, and seats for the people who need Pro.

A printable overview of MileThree I&E for technicians and the people who roll a crew onto one toolkit. It names the free and Pro tools, the enterprise seat license, and how to reach help.

For technicians

The next loop check can start from a phone, with a free account, even when the pad has no signal.

Faster calculations in the field

Enter the reading you already have. The tool returns the number for that check.

Works offline on a phone

After a signed-in visit, saved calculators keep running when the network drops.

No formula hunting

Each tool shows the math it used, so the factor stays with the job instead of in a truck binder.

Saved site procedures

Write a startup, shutdown, or isolation checklist and share a read-only copy with the crew.

A free account in a minute

Sign up and the free tools, the handbook, and site procedures open.

Examples from the public catalog

4–20 mA analog scaling (Free)

Scale a process value to loop current, including linear and square-root transfer.

Hydrostatic Pressure & Kill Mud Weight (Free)

Hydrostatic pressure and unmarginated kill-mud weight from density, TVD, and SIDPP.

Voltage and signal scaling (Free)

Scale a process value to 4–20 mA, 0–10 V, or 1–5 V, linear or square-root.

DP wet-leg / dry-leg level (Pro)

Hydrostatic level LRV and URV for wet-leg or dry-leg differential pressure.

Free and Pro tools

The public catalog lists 6 free tools and 36 Pro tools. A free account opens the free set. A Pro session or an enterprise seat opens the rest.

Free

4–20 mA analog scaling

Scale a process value to loop current, including linear and square-root transfer.

Voltage and signal scaling

Scale a process value to 4–20 mA, 0–10 V, or 1–5 V, linear or square-root.

Chemical Pump Sight Glass Calibration

Sight-glass drawdown for a target pump rate, or the rate implied by an observed drop.

Hydrostatic Pressure & Kill Mud Weight

Hydrostatic pressure and unmargined kill-mud weight from density, TVD, and SIDPP.

Pipe & Annular Capacity

Tubing bore and casing-annulus fluid volume from the oilfield capacity factor.

Vertical Tank Volume

Ideal vertical-cylinder volume from a gauge reading, in barrels and gallons.

Pro, by title

Signals

Loop check-out; PID loop tuning; Transmitter linearity.

DP Level & Flow

Capillary seal drift; Control valve Cv; DP flow; DP wet-leg / dry-leg level; Flow totalizer; Orifice plate sizing; Tank level from pressure.

Temp

RTD Pt100 / Pt1000; RTD tolerance class; Thermocouple Type J / K; Thermocouple types; Thermowell wake frequency.

Modbus

Modbus register decode; Modbus RTU CRC and float order; Modbus RTU frame builder.

Electrical

Conductor ampacity; Conductor voltage drop; Conduit fill; Hazardous-area classification; IS entity parameter check; Loop load and HART resistance.

PLC

Conveyor Indexing PLC Tester.

Volume

Mud/Frac Pit Volume; Pipe Metal Displacement.

Well Control

Equivalent Circulating Density (ECD); Instrument tubing design pressure.

Pumping

Fluid Cut / Brine Blending; Mud Weight-Up (Sacks of Barite); Pump Strokes & Displacement Time.

Gauging

API Gravity !" SG !" PPG; Pipe Tally Tape & Volume Converter.

Reference

Oilfield Constants; Unit conversions.

Why an enterprise seat license

An organization is one customer. A platform admin assigns an enterprise license and a seat limit. Covered members, including organization admins, receive Pro tools up to that limit, in the order they joined.

An organization admin invites people by email and can set that organization's colors and logo.

Membership decides which tools and procedure shares a person can open.

From public sources

Cited in the MileThree I&E Production Design Document v2, October 2026.

Deloitte reports that tenured crew make up about 50% of oil, gas, and chemicals personnel, and that most of that group will retire within 5–7 years. A shared toolkit gives a new technician the same formulas the crew already uses.

Deloitte, The Future of Work in Oil, Gas and Chemicals

The IEA World Energy Employment 2025 report found that more than half of 700+ surveyed energy firms report critical hiring bottlenecks, most acute in applied technical roles, and estimates about 40% more new entrants are needed by 2030.

IEA, World Energy Employment 2025, executive summary

McKinsey notes that about 30% of global onshore production is connected by VSAT, and that links such as those in the Permian are bandwidth-limited. The app is built to keep working when that link drops.

McKinsey, How tapping connectivity in oil and gas can fuel higher performance (2020)

Field audits summarized by Raymond Panko found errors in 94% of 88 operational spreadsheets in one review and in 84% of 163 in another. The calculators show a cited public formula with the technician's own numbers.

Raymond R. Panko, spreadsheet audit summary

The U.S. Chemical Safety Board found that the BP Texas City raffinate-splitter level transmitter gave misleading readings, partly because it was calibrated for a different specific gravity. The DP level and tank tools take specific gravity as an explicit input.

U.S. Chemical Safety Board, BP Texas City final report

QA pass recorded October 15, 2026. That pass recorded 683 unit tests and 92 browser tests, as cited in the MileThree I&E Production Design Document v2.

Choose what to integrate

Match the work in front of the crew, then add the next piece when that work shows up. The free tools and the handbook stand on their own. Pro seats, site procedures, and the organization console follow.

Commissioning

A new loop has to read the right signal before it is left in service. Toolkit. A free account opens analog scaling and voltage and signal scaling. A Pro seat adds loop checkout. Tools: 4–20 mA analog scaling; Voltage and signal scaling; Loop check-out.

Troubleshooting

A level, a loop, or a serial reading does not match the panel. Toolkit. Differential-pressure level, loop load, and Modbus CRC are Pro tools for that call. Tools: DP wet-leg / dry-leg level; Loop load and HART resistance; Modbus RTU CRC and float order.

Standards and the handbook

A technician needs the pocket reference before an account exists. PLC handbook. It is public. Calculators follow cited standards, including ISA practice, NAMUR NE43, IEC 60751, NIST ITS-90, Modbus, IEEE 754, and the NEC / ISA entity method.

Field procedures

Startup, shutdown, and isolation steps should read the same for every technician on the site. Site procedures. A signed-in person writes the checklist and shares a read-only copy.

Offline field use

The location has no useful signal. Toolkit on a phone. Saved calculators keep running. Free calculators stay available. A Pro module uses a signed device pass that refreshes on the next check-in.

Organization rollout

One company wants Pro tools for a set of seats, its own colors, and a person who can invite the crew. Enterprise seats and the organization console. Johnson Automation Group, Three Mile Creek Services, and Creekbound Services present the toolkit. Reach them through the help site.

Contact

Open Help on the MileThree site, then Contact. That page is the way to reach Johnson Automation Group, Three Mile Creek Services, and Creekbound Services about a rollout.

Calculations are aids for trained technicians. They are not a substitute for stamped engineering, manufacturer documentation, site procedures or applicable codes (NEC/ISA). Always verify results.