MILETHREE I&E

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 unmargined 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

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

The app keeps working offline on remote sites with limited connectivity, such as Starlink or other satellite links, and syncs when back online.

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 https://milethreeservices.click, then Contact. That page is the way to reach Johnson Automation Group, Three Mile Creek Services, and Creekbound Services about a rollout. The overview file is https://milethreeservices.click/downloads/MileThree-IandE-Overview.pdf.

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.