

Ring RS3000 — Meeting Cram Sheet

The 5-page version: the story, the armor lines, the flagships, the 14 to phrase carefully, key terms, and a safe demo path.

1. The story in 60 seconds

- **What the plant makes:** industrial **starch glue** for corrugated cardboard (not food). Made by mixing starch, water, caustic and borax to a **recipe**, one **batch** at a time, across 13 tanks.
- **What Ring is:** the new **operator screen (HMI)** that replaces the 2002 DOS-era Borland C++ screen **RS-360**. It runs on the **same untouched Allen-Bradley controller (PLC)** — *we kept the engine and replaced the dashboard*.
- **Proof it's real:** it ran **live on your actual controller** in read-only mode and correctly read **all 133 live values**, issuing **zero commands** that could change the process.
- **The work: 87 new capabilities** across 5 themes. An independent line-by-line audit of the source confirmed **all 87 exist, make sense, and are useful** — 73 are solid to state plainly; **14 need careful phrasing** (covered on page 2).
- **The pitch in one line:** *a blind, forgetful 2002 screen rebuilt into a modern command center that sees the whole plant, remembers everything it makes, and turns that into dollars — on the same trusted controller.*

Headline numbers (and the honest framing):

Number	What it means	How to say it
87	New capabilities across 5 themes	All verified to exist in the code; lead with the flagships, the 87 is the depth behind them
1,404	Past batches recoverable into a searchable history	Requires a one-time import; the old system kept them but locked in a dead format
13	Operator languages, switchable live	Engine is real; core workflow translated, deep screens still being keyed in
133 / 133	Live controller values read correctly on your plant	Proof on real hardware — "without one command that could change the process"
~2,400+	Automated tests passing, zero-warning build	Say "2,400+", not an exact number (it moves every build)

2. Three things to know cold

1. **PLC vs HMI.** The **PLC** is the rugged computer that physically runs valves/pumps/mixing — **untouched**. The **HMI** is the operator's screen — RS-360 (old) → Ring (new). Every "is this risky?" question traces back here: *we replaced the screen, not the controls*.
2. **Read-only safety gate.** Ring ships with writes **suppressed** (ReadOnlyMode=true). It can watch the live plant for days before go-live without being able to change anything. Say **"zero write commands,"** never "zero bytes" (reading does send network requests).
3. **The old system wasn't "nothing."** RS-360 *did* keep batch/step/shift/alarm records — but **locked in a dead Paradox/BDE format** with no living historian, trends, cost, step-timing, or searchable access. The honest gap is

"locked away and unusable," not "recorded nothing."

3. Say it this way — the 5 refutable claims

Watch-out: these are the lines a sharp controls engineer can break. Use the right column.

Don't say	Say instead
"The old system records nothing."	"Records were locked in a dead format — no living historian, trends, cost, or step-timing. Ring keeps the same history usable and exportable ."
"We sent zero bytes to the controller."	"We read all 133 values without one command that could change the process ."
"The old system couldn't tell if it was connected."	"It had one on/off light; Ring names unplugged vs. frozen vs. running and gates writes off that state."
"Export to CSV or Excel ."	" One-click CSV — opens directly in Excel." (There is no .xlsx export.)
"~70–80% parity, verified on-site ."	"~ 80% parity-or-better per a code audit ; separately, 133/133 live reads verified on-site ."

4. The flagships — what to lead with, by theme

Make / save money

- **Owner cost view** — what each batch and week actually cost, and where money leaks (over-dosing, scrap, hold time). *Your line: needs a one-time import of the ~1,404-batch history + current prices, then the spend numbers light up.*
- **Process Historian** — silently logs each tank's temp/level/recipe ~once a minute, **with zero extra load on the controller**. This is the memory behind trends, best-batch comparison, and cost.
- **Golden-batch overlay + predictive drift** — compare a run to your best-ever batch; warn when a pump feeds slow before it scraps a batch. *(Drift needs ~10 prior Ring-captured batches before it flags.)*

Stay ahead of problems

- **Live trending + 30-day Tank History** — pick live values, watch them plot, export CSV; review any tank's last 30 days. No engineering software needed.
- **Tank-attention tile** — points the operator at the next tank to look at, including a low-water condition the controller itself can't alarm on.
- **Staleness guard** — a frozen reading **dims and stamps "as of HH:MM"** within ~10s, so nobody acts on a dead number that looks live.

Easier for operators

- **One command-center dashboard** — the whole plant at a glance the moment Ring opens (vs. clicking ~97 screens). Health headline reads green/red across the room.
- **Live recipe tracker** — every step timed; a hung step turns amber **before** the controller's own alarm.
- **Guided batch start** — pick the named recipe, confirm in plain language, with range checks before anything reaches the PLC.
- **Startup wizard** — stand up a new station in minutes (language, PLC test, read-only confirm, names import) — no developer, no INI files.

- **13-language engine** — switch the UI live, no restart. (*Today: wizard + menus + key terms; deep operator screens still English.*)

Smarter alarms

- **Plain-language alarms** decoded from the real controller catalog — words, not numeric codes.
- **One-tap "go to the fixing screen"** + a **first-response card** (what it means / first check / who to call) for the top alarms.
- **Severity at a glance** (shape + color, color-blind safe) and **alarm-to-batch correlation** — pin downtime to the exact batch it hurt.

Own your data

- **Open SQLite database + one-click CSV export** — hand an auditor your whole history; never locked in.
- **Self-service backup/restore** with an integrity check and an automatic pre-restore safety copy.
- **Modern EtherNet/IP connection** with on-screen diagnostics (read any tag, see link health) — no fragile Borland bridge programs to babysit.

5. The 14 to phrase carefully (one line each)

Feature	The honest line
Severity-aware alarm popup	The fancy popup (calm warnings / blinking critical / E-STOP button) is built but switched off ; live popup is one full-screen red alert. Don't demo it.
Data export	CSV only (opens in Excel) — don't promise .xlsx.
"Ring remembers" slate	Mostly roadmap ; but the Batch-ETA card is already live — don't undersell it.
Heartbeat liveness	Legacy <i>had</i> a heartbeat light — Ring's edge is naming unplugged/frozen/running + write-gating.
Self-healing reconnect	Present as Ring's "no morning-restart" win, not a legacy gap (legacy polled continuously).
Auth / audit trail	Self-disclosed gap (no per-person login). Passwords were HMI-config , not "PLC-resident."
Live process overviews	Most screens live; MF2 & Double-Backer hidden pending naming; viscometer screen = manual entry (no PLC tag).
Operator data entry	The forms sit behind the admin password today — expect "how does a line operator log a reading?"
Day-in-the-life dashboard	The 6 glance items are live; the persona scores + "needs-you-next timeline" are roadmap .
Screen parity (~80%)	Concede the named gaps: mixer popup shows devices as "UNKNOWN"; the legacy live mixer animation is its one real edge.
13-language localization	Engine is real & live-switchable; deep operator screens still render English — don't claim "high-traffic screens translated."
Deferred follow-ups	Email/comm-adaptor/user-setup are disclosed stubs — none block daily use.
TVC agitator control	Screens exist, but don't claim they cycle the real paddles (PLC likely owns it; writes suppressed).

Feature	The honest line
Predictive equipment	Stays "all nominal" until ~ 10 Ring-captured batches exist; email is a daily digest, needs SMTP set up .

6. The hardest questions, compressed

Q. Why rebuild instead of patch? **A.** Cost, history, trends, and readable alarms can't be patched into a 2002 screen on a dead toolchain — and the platform risk grows yearly. Rebuilding the screen is the only path, and it keeps the proven controller.

Q. Does any of this touch the running plant? **A.** No — same controller, recipes, valves, and interlocks. Ring is the screen on top, and it ran read-only (zero write commands) during the trial.

Q. How do I know it works? **A.** Two proofs: it read 133/133 live values on your real controller, and every feature claim was checked against the source code by an independent audit.

Q. Is our data locked in? **A.** The opposite — open SQLite file, one-click CSV export. The lock-in is the *old* system's problem.

Q. Will operators relearn everything? **A.** It reduces training: one green/red dashboard, plain-language alarms with a what-to-do card, a guided wizard, their own language. The detailed screens they know still exist underneath.

Q. What isn't finished? **A.** A short named list, none blocking daily use: partial screen translation, per-operator logins, a few analytics cards not yet on every screen, the severity-themed popup, email needing mail-server setup, and the agitator auto-cycle pending live confirmation. We label every one in the product.

Q. What would you challenge me on, and the answer? **A.** The alarm popup — the severity-themed version is built but not switched on; today every alarm raises the same full-screen alert. Concede it, then pivot to what's live: plain-language alarms, one-tap to the fixing screen, a first-response card, and downtime tied to the batch.

7. Key terms (10-second definitions)

- **PLC (controller):** the rugged computer that physically runs valves/pumps/mixing. Allen-Bradley CompactLogix. **Untouched by Ring.**
- **HMI:** the operator's *screen*. RS-360 = old, Ring = new. This is what we replaced.
- **Batch:** one production run of one glue recipe — fill, dose ingredients step by step, mix, finish.
- **Recipe / formula:** the ordered steps that make one product.
- **Op-code:** the controller's *number* for a step ("add starch"). Old system showed the number; Ring shows the words.
- **Tag:** one named value inside the controller (e.g. mix-tank temperature). "133 tags read" = every live value read correctly.
- **EtherNet/IP:** the open, standard network Ring uses to talk to the controller (vs. the old bespoke Borland bridge).
- **Read-only gate:** a Ring setting that suppresses every write, so it can watch the live plant without changing it.
- **Viscosity:** how thick the glue is — the critical quality spec, but **the controller has no viscosity sensor**, so no system can show it live.

- **Historian:** the background recorder logging tank temp/level/recipe ~once a minute — the memory behind trends and cost.

8. A safe 5-minute demo (all read-only, all shipped)

If you walk them through the software, this path uses only live, write-free features — nothing here can touch the plant:

1. **Open the dashboard** — "this is the whole plant at a glance the moment it opens." Point to the green health headline and the four KPI tiles.
2. **Tap a KPI tile** — show it jumps straight to the screen that handles it (no menu-diving).
3. **Show the live recipe tracker** — every step timed; explain the amber "running long" warning.
4. **Open the alarms view** — show alarms in **plain words** (not codes), the severity glyphs, and the one-tap "go to the fixing screen" + first-response card.
5. **Open a past batch in history** — "answer 'what happened Tuesday?' — search, open the run, export it." Hit **export CSV**.
6. **Switch the language** live — show the UI flip instantly (stick to the wizard/menus, which are fully translated).
7. **Point at the read-only banner** — "every write is suppressed; this is watching your live plant safely."

Avoid demoing: the severity-themed alarm popup (not switched on), Excel export (it's CSV), and anything claiming the agitator drives real paddles.

Bottom line: you don't win by claiming perfection — you win by being the person who already knows exactly what's done, what's partial, and why it's still a generational leap over a blind 2002 screen on a dead toolchain. Full detail + 354 Q&A at ring-rs3000.pages.dev/feature-prep.