



BuilderRunner2

Visual Programming for Cross-Direction Control

Design. Simulate. Deploy.

BuilderRunner2 brings the power of visual programming to paper machine CD control. Drag blocks, wire them together, and deploy — no coding required. Build control strategies in minutes, not days.

Visual Drag-and-Drop Editor

Assemble control chains like building blocks. Each node wraps a proven automap4 algorithm — S-curve discovery, PRBS identification, MPC control, actuator level management.

Run Anywhere, Deploy Anywhere

Design in the Graphic Builder, deploy headless on the plant floor. No Qt, no GUI dependencies — just a JSON file and a runtime engine. Your control runs as a service, 24/7.

Connect to Everything

STEC Multiverse, MQTT, OPC UA, Modbus TCP — all running simultaneously. Wire any node to any bridge source. One drawing, multiple transports, zero lock-in.

See It Live

Debug probes show exactly what your chain is doing — profiles, trends, heatmaps, histograms, FFT. Freeze values, inject test signals, watch your logic respond live.

Grade-Driven Commissioning

Import an automap4 grade (.npz) and BuilderRunner2 seeds the mapper with S-curves, mapping matrix and tuning constants. No manual re-entry. No typos. Just load and go.

Version Control Built In

Clone, commit, push, pull, branch and merge from the Git menu — scoped to your project folder. Track changes and never lose a working configuration.



Why BuilderRunner2?

The Visual Way to Control Your Paper Machine

No Programming Required

If you can draw a flowchart, you can build a control strategy. Drag nodes from the palette, wire them up, set parameters in the Inspector. Learning curve: minutes, not months.

Lucidchart-Style Wire Routing

Wires stay at 90 degrees and route around obstacles automatically. Drag a node and every wire re-routes live. Square-up the whole drawing with one click.

Staged Changes, Git-Style

Nodes and wires you have edited glow green until you save. Know at a glance what has changed. Undo/redo respects staging. Your work is always safe.

Debug Like a Pro

The Firing Log records every pass: node fired, inputs resolved, output produced. Pause, step, resume. Set breakpoints. Inject test values without touching the machine.

Print-Ready Output

Export the canvas as a tiled PDF with readable labels, corner ticks and sheet numbering. Vector print via CUPS with embedded fonts. Professional documentation, automatically.

Headless Runtime

Run control drawings as services on plant computers. The same engine that powers the Graphic Builder runs without a display. Deployment is just a JSON file away.

Complete Algorithm Palette

Eleven groups of production-proven blocks — logic, maths, filtering, statistics, CD control, debug and more. Drop a node on the canvas, wire it in, and it runs.

Purpose-Built CD Nodes

MapperNode, ControllerNode, LevelRampNode, TargetGeneratorNode, SetpointAssemblerNode — a full cross-direction control chain, ready to wire together out of the box.

Debug Probes Included

PlanicePlot draws profiles, trends, heatmaps, histograms and FFTs right on the canvas. PlanicePoker holds or injects values on the fly. Watch your control think.

BuilderRunner2 — Visual programming for paper machine control. Design it. Test it. Deploy it. All without writing a line of code.