



Understanding BOM and Routing Automation in CPQ

Why it Matters: Disconnected systems create errors, delays, and margin erosion. BOM (Bill of Materials) and routings are critical for manufacturing, but manual processes can't keep up with complexity or speed.

What Are BOM and Routings?

- **BOM:** A hierarchical list of every component, subassembly, raw material, and purchased part needed to manufacture a product. Multi-level BOMs show parent-child relationships and how subassemblies nest within larger assemblies.
- **Routing:** The manufacturing process mapped as a sequence—which operations happen in what order, at which work centers, with what setup and run times, including inspection points and quality gates.

How CPQ Automation Works

When a sales rep configures a product, the CPQ system applies business rules to generate complete, accurate BOMs and routings automatically. That data flows directly into ERP systems for production planning without manual translation or reconstruction.

But here's the reality: Not all CPQ solutions support BOM and routing generation. And among those that claim to, capabilities vary wildly. Some generate flat parts lists that production teams must manually restructure. Others create sales BOMs that differ from engineering BOMs, forcing reconciliation. Many require middleware or custom integrations that introduce lag and failure points.

Experlogix CPQ Advantage

Complex quoting needs CPQ software that handles:

- Multi-level nested configurations: Subassemblies within assemblies, variable depth
- Parent-child relationship preservation: Hierarchy maintained through to ERP
- Operation sequencing: Routings that map to actual production flow
- Material and labor cost rollup: Accurate costing at every assembly level
- Engineering change management: Version control without breaking active quotes
- CAD and technical document generation: Drawings that match configurations
- Reusable logic libraries: Mapping trees shared across product families

Experlogix CPQ handles all of this natively. The system models products as hierarchical assemblies with full operation detail, generates production-ready structures, and delivers them to ERP in standard formats.

When your CPQ software generates complete, accurate BOM structures automatically, you eliminate manual translation, reduce errors, protect margins, and scale confidently. [Learn more at experlogix.com](https://experlogix.com).