EBOOK

From Spreadsheets to Structure: Building Scalable Workflows with Bill of Materials Inventory Software

How Growing Manufacturers Standardize Production, Improve Accuracy, and Scale with SOS Inventory

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Introduction

Spreadsheets are often the starting point for managing bills of materials, or BOM. They are flexible, familiar, and easy to set up. However, they don't function as well once production volume increases. If you don't have a system that updates automatically, you have to go in and manage each BOM by hand, often creating multiple versions as products change. Handling BOM manually is error-prone, and there isn't a direct connection between your data and real-time inventory. As a result, you experience inconsistent builds, inaccurate inventory counts, and limited visibility into production costs.

You can improve the process with bill of materials inventory software that allows you to define accurate BOMs, standardize production workflows, and connect materials, labor, and costs in one system.

Why Spreadsheet-Based BOMs Break at Scale

Spreadsheet-based BOM management stops being reliable as production scales. While spreadsheets can support early-stage operations, they depend on manual updates, file sharing, and individual discipline. BOM files are copied, edited, and shared across departments, and updates are not always reflected everywhere at the same time. As a result, different teams often work from different versions of the same BOM. This leads to incorrect material usage, misaligned production builds, and purchasing decisions based on outdated information.

Spreadsheets also lack a real-time connection to inventory and production activity. Material consumption and production output must be entered manually, creating a delay between what happens on the floor and what is recorded in the system. In addition, spreadsheet-based BOMs do not enforce a structured production workflow. Each team may interpret and update the file differently, which results in inconsistent build processes across SKUs, locations, and shifts.

As complexity increases, maintaining repeatable, controlled production becomes more difficult, and operational consistency relies on manual effort rather than a defined system.

Operational Workflows: Building Scalable BOM Processes Day to Day

To move beyond spreadsheets, BOMs need to function as part of an operational system rather than a static record. This means connecting materials, production activity, and finished goods through structured workflows that reflect what is actually happening on the production floor. Before implementing any software, it is important to understand how scalable production should operate at a day-to-day level.

Many manufacturers treat BOMs as reference documents used for planning or documentation—an approach that doesn't work as production volume increases. In a scalable environment, the BOM is part of a workflow that influences real-time inventory movement, production execution, and cost accuracy.

Instead of simply defining what should be built, you must create a workflow that supports and enforces how production is actually carried out:

- **Start by defining assemblies as the foundation for your BOM.**

  In a scalable system, BOMs are structured as inputs for assemblies, where each assembly is tied to a defined list of components and services with quantities. This replaces disconnected spreadsheets with a standardized structure that ensures every build follows the same inputs.

- **Use multi-level assemblies to support product complexity.**

  As product lines grow, subassemblies can be created and reused across multiple finished goods. This allows manufacturers to manage complexity without duplicating BOM data or introducing inconsistencies with long BOMs for a single complex assembly.

- **Execute builds to connect production to inventory.**

  Instead of manually adjusting inventory, build processes automatically decrease raw materials and increase finished goods. This creates a direct link between production activity and inventory accuracy.

- **Centralize production tracking through the builds list.**

  Production should be monitored in a single system, allowing teams to track timing, status, and progress. This replaces fragmented tracking methods and improves visibility across production.

- **Introduce work orders and production organization.**

  Production workflows should be organized and planned, helping teams manage flow and prioritize tasks without relying on ad hoc processes.

- **Incorporate execution visibility.**

  Assigning responsibility and tracking labor provides insight into how production is executed and where time and resources are being used.

- **Support different production models as needed.**

  Scalable systems must support both discrete and process manufacturing workflows, allowing businesses to align systems with how they actually produce goods.

Designing Operational Infrastructure for Growth and Scale

Operations don't fail because of growth alone. Many manufacturers simply don't have the right systems in place. A common response is to add more people or create more spreadsheets, but that often makes things even more complicated. You need infrastructure that can maintain consistency on its own once you define the workflows—and that's what you get with inventory management software.

Here's how to build that infrastructure:

1: Standardize BOM structures across all products

Start by making every BOM follow the same structure. When every product is built using the same format, it removes confusion and reduces mistakes as more people get involved.

2: Align operations and accounting

Next, connect operations with accounting. When production activity and financial tracking are tied together, you can trust the numbers you're working with.

3: Replace reactive processes with system-driven workflows

Instead of relying on manual updates or individual knowledge, the system should guide how work gets done.

4: Design for increasing SKU and production complexity

Design your system so it can handle more SKUs and more complexity without changing the process each time. Growth should fit into the same structure, not require constant workarounds.

5: Create visibility for better decision-making

Connect production, inventory, and cost data, so you can plan, forecast, and make decisions based on what's actually happening.

6: Build a foundation for long-term operational maturity

Over time, this creates a more stable way of working. Instead of constantly fixing issues as they come up, you're running production through a system that stays consistent as you grow.

Building Structured BOMs with SOS Inventory

Once you understand the workflows and infrastructure, you can use SOS Inventory to turn those ideas into a working structure. The goal is to replace variability in production definitions with a consistent system that behaves the same way every time work is executed.

Shift in Thinking: From Setup to System Design

It's common to treat implementation as an exercise in data entry: load the items, build the BOMs, and start using the system. But it's more complicated than that. The more effective approach is to treat the setup process as a production model design. Every decision—how items are defined, how assemblies are structured, how builds are executed—determines how work will behave. In other words, you are not documenting production; you are defining production.

Step 1: Define a Clean Item Structure Before Building BOMs

BOM accuracy depends on clean, consistent item data. It prevents confusion as SKU count grows. Name and categorize each item as a raw material, subassembly, or finished good, so every user can interpret the information the same way.

Step 2: Build BOMs for Assemblies, Not Lists

Create each BOM for an assembly with defined components and quantities. This structure ensures that production follows a defined format, reduces variation between similar products, and improves consistency in how builds are executed.

Step 3: Use Multi-Level Assemblies to Manage Complexity

Break complex assemblies into subassemblies that can be reused across multiple finished goods. This reduces duplication and simplifies updates. When a subassembly changes, every product that uses it will automatically reflect that change.

Step 4: Execute Builds to Drive Inventory Accuracy

Use build transactions to convert raw materials into finished goods. Each build will automatically update inventory by reducing material stock count and increasing finished goods count. No manual adjustments required.

Step 5: Organize Production with Work Orders and Builds Lists

Use work orders to plan and group production activity, and use the builds list to gain visibility into active and completed production activity, including status and timing. Together, these create a centralized view of production for improved coordination across teams.

Step 6: Introduce Work Centers and Labor Tracking as You Scale

Work centers define where production steps take place, and labor tracking records time and effort of people associated with builds. These add visibility into production execution and support more accurate planning and resource allocation as operations scale.

Step 7: Align BOMs with Financial Data Through QuickBooks

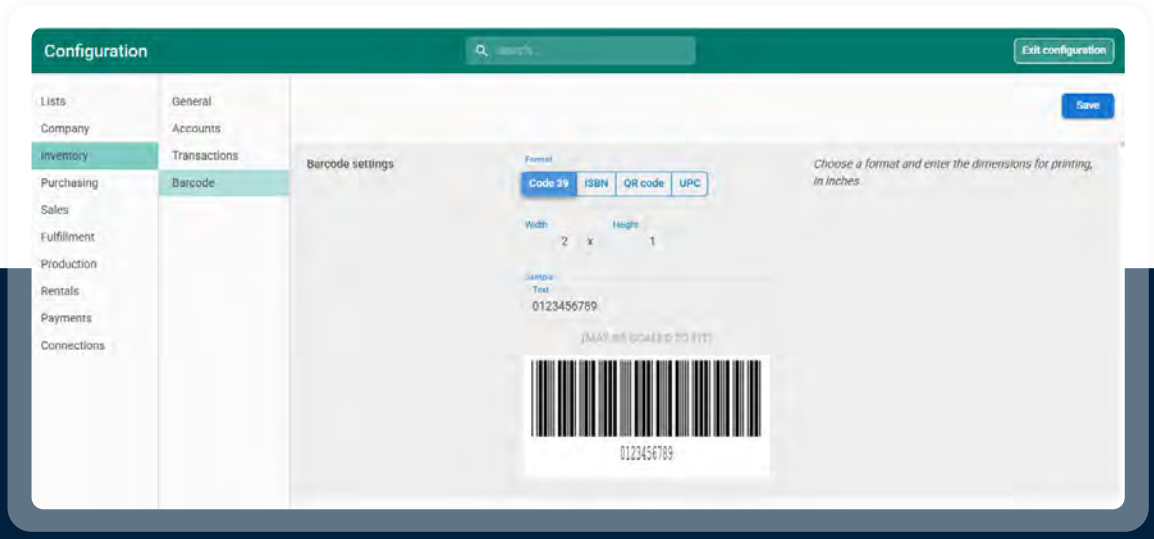
By connecting SOS Inventory to your QuickBooks Online account, you can sync production costs and accounting activity. Every inventory change and production cost is recorded in the financial records based on actual builds and material usage.

Step 8: Standardize and Document Your BOM Framework

Establish internal standards for BOM creation, assembly structure, and build execution. Without standardization, different teams may apply different approaches. Documentation supports consistent, stable operations as your business grows.

Key Takeaway

By building structured BOMs in SOS Inventory for assemblies that connect directly to inventory through build transactions, production no longer relies on manual spreadsheets. Instead, every action runs through a defined system that records and updates activity in real time. The result is more consistent production, accurate tracking, and a system that can scale without losing control over data or processes.



Scale with SOS Inventory

Spreadsheet-based BOMs limit growth and introduce avoidable risk as production volume and product complexity increase. You can improve operations now and at scale by using SOS Inventory to create repeatable, consistent production workflows that automatically update financial and inventory data.

SOS Inventory extends QuickBooks Online with structured BOM and production capabilities designed for effective manufacturing operations. It provides a practical path to scalable production without the cost or complexity of a full ERP system. To see how SOS Inventory can work for your business, **book a demo today.**