

Introduction

AGen Raw Material Sticker Label Printing Process Flow defines the standardized steps involved in generating, printing, and issuing identification labels for raw materials used in manufacturing operations. These labels play a critical role in ensuring accurate material identification, traceability, inventory control, and compliance with quality and regulatory requirements.

A well-defined labeling process helps prevent material mix-ups, supports effective warehouse and production handling, and ensures that essential information—such as material code, description, batch or lot number, quantity, supplier details, and receiving data clearly and consistently displayed. By following a structured process flow, the organization can maintain data accuracy between physical materials and system records, reduce human errors, and improve operational efficiency.

This process outlines the key stages from data verification and label content generation to printing, inspection, and application of sticker labels on raw materials upon receipt. It serves as a guideline for relevant departments to ensure labels are produced in a controlled, timely, and traceable manner, supporting overall production reliability and quality assurance.



Planning & Setup

Objective

The objective of the planning and setup stage is to ensure that raw material sticker labels are accurately designed, correctly configured, and consistently produced in alignment with system data, operational requirements, and quality standards.

Key activities

- Raw Material Information Review & Verification
- Label Content Definition
- Label Design & Template Setup
- System Configuration & Integration
- Printing Hardware & Consumables Preparation
- Printing Parameter Setup
- Sample Print & Verification
- Approval & Authorization
- Documentation & Change Control
- Operator Readiness & Communication
- Process training and commissioning

Digital tools

- ERP / Inventory Management System
- AGen digitalization application (mobile/tablet/computer)
- Central dashboard for control
- Printer driver



Device & User Login

Objective

The objective of Device & User Login is to ensure that only authorized users and approved devices are allowed to access the raw material sticker label printing system, thereby maintaining data accuracy, process control, and traceability.

By requiring users to log in with valid credentials, the system can control access based on user roles, ensuring that label creation, modification, and printing are performed according to assigned responsibilities. Device login ensures that printing activities are carried out only on registered and correctly configured printers, reducing the risk of incorrect label formats or misdirected print jobs.

This step also enables traceability of printing activities by capturing user ID, device ID, date, and time of each label printed. Such records support audit requirements, accountability, and investigation of labeling errors if they occur. Overall, Device & User Login helps protect system integrity, prevent unauthorized label printing, and support a controlled and compliant raw material labeling process.

Key activities

- User Authentication
- Role & Access Level Verification
- Device Identification & Validation
- Printer Configuration Check
- Session Logging & Traceability
- Error Handling & Access Control
- Logout & Session Termination

Benefits

- Improved Accountability & Traceability
- Enhanced Data Accuracy
- Role-Based Access Control (RBAC)
- Device Control & Location Accuracy
- Audit & Compliance Readiness
- Error Reduction & Misuse Prevention
- System Integration & Automation Enablement
- Security & Data Protection
- Performance Monitoring & Continuous Improvement

Label Printing (Select and Print)

Objective

The objective of the Label Printing (Select and Print) stage is to ensure that the correct raw material label is selected and printed accurately, securely, and in a controlled manner, based on verified system data and approved label templates.

How it works

- User logs in to the labeling system with authorized access
- User selects the relevant transaction (e.g. Goods Receipt / Inspection / Release)
- AGen automatic retrieves raw material data from ERP
- AGen auto-selects the correct approved label template
- User reviews label preview and confirms label quantity
- AGen auto assigns or allows selection of the correct printer
- User clicks Select & Print to execute printing
- Labels are printed with locked and verified data
- User checks print quality and barcode/QR scanability
- System auto records printing activity for traceability and audit

Data printed and captured

- SKU / Item code / EAN13 barcode
- Quantity printed
- Location (Auto display)
- Time stamp (Auto Date and Time Stamp)
- User ID (Auto User ID after login)

Advantages

- Eliminates manual writing errors
- Faster printing compare user manual data entry
- Real-time validation
- Guided systematic printing process

Real-Time Data Sync & Monitoring

Objective

AGen offer monitor progress and accuracy live data capture and daily activities perform by different printing station. You may set it to email summary mode for optional daily monitoring to daily auditing how many label printed daily.

Key activities

- Count data syncs automatically to central system.
- Printing dashboard shows:
 - Total label printed
 - Daily, weekly, monthly and yearly printing result
 - High frequency printing sticker
- Supervisors can reassign user on which sticker he or she can print.

Digital benefits

- No waiting for paper consolidation
- Immediate visibility of issues.



Printing Analysis

Objective

Printing Analysis for Label Printing (Raw Material Purchase) reviews the effectiveness and accuracy of printing raw material purchase labels within the sticker label printing process flow. It examines print quality, data correctness (material code, batch, quantity), printer performance, and label compatibility. The analysis identifies issues such as misprints, rework, ink or ribbon wastage, and delays caused by equipment or data errors. Insights from this analysis support improvements in printing accuracy, cost control, traceability, and smooth receiving and inventory management of raw materials.

System generates

- Reorder stock alert
- Zero stock alert
- High stock alerts

Analysis includes

- Last printed date
- Printing history
- Receiving history (Assume what you print is what you receive)

Exception Handling & Reprint

Objective

Exception Handling & Reprint for Raw Material Sticker Label Printing Process Flow defines how printing errors are managed and corrected. Exceptions include wrong label selection, incorrect data, poor print quality, barcode unreadability, or printer malfunction. When an exception occurs, the system or operator cancels the faulty label, records the reason, and triggers a controlled reprint with corrected data. Proper handling ensures traceability, prevents mislabeling, minimizes material waste, and maintains accuracy and compliance in raw material identification and inventory control.

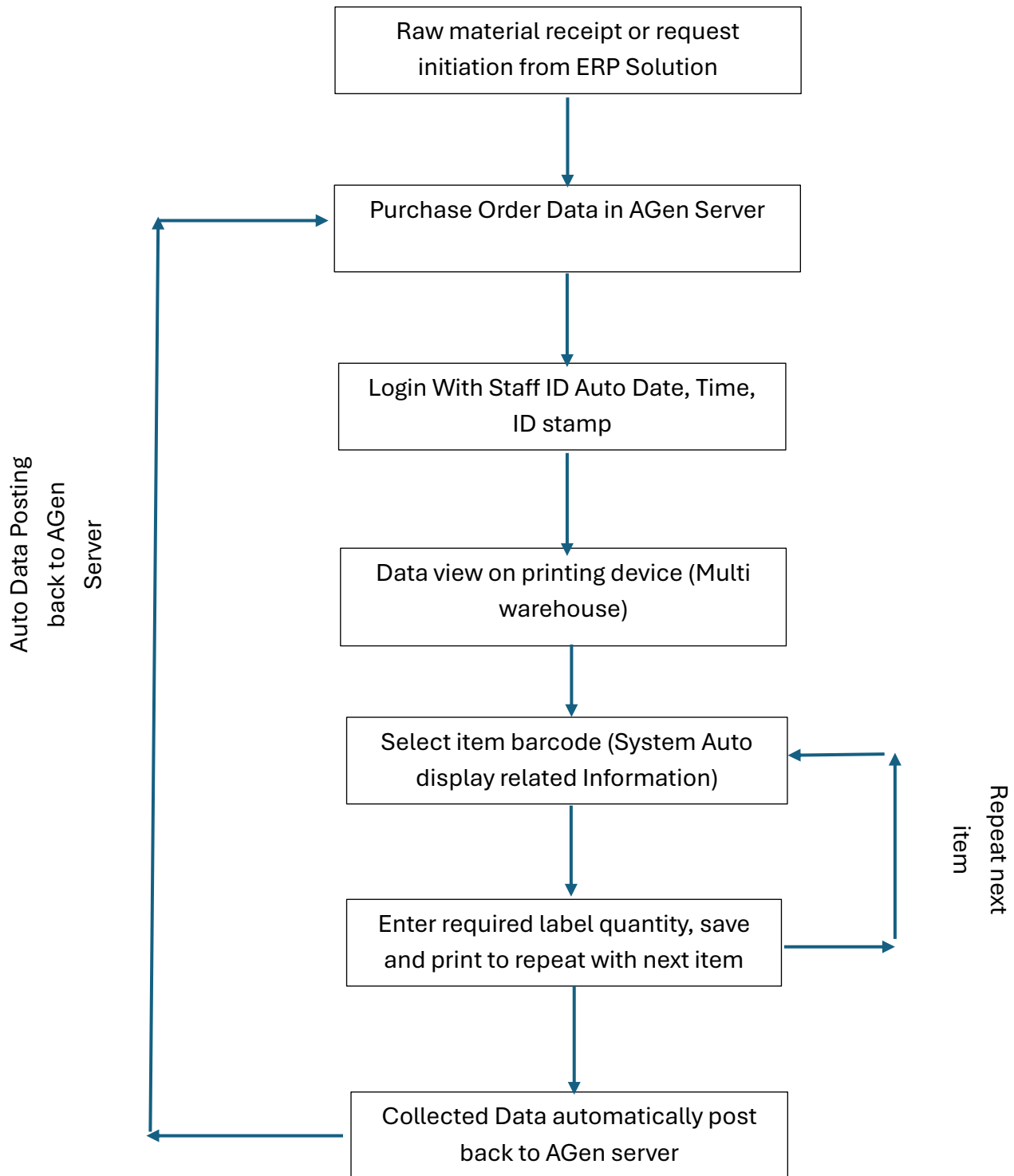
Key activities

- Detect printing exceptions (wrong label, incorrect data, poor print, barcode failure)
- Stop and isolate the faulty label to prevent misuse
- Log exception details and root cause
- Verify corrected master data or label template
- Approve reprint authorization (system or supervisor)
- Reprint label with validated data
- Dispose of rejected labels per control procedure
- Confirm print quality and traceability before release

Outcome

- Correct and accurate labels issued for raw materials
- Prevention of mislabeling and traceability errors
- Reduced risk of wrong material identification in production
- Controlled and documented reprint process
- Minimized label waste and reprinting costs
- Improved compliance with quality and audit requirements
- Consistent print quality and readable barcodes
- Increased process reliability and operator confidence

Process Flow for Label Printing



Build In Free Barcode scanner

Objective

The objective of a Built-In Free Barcode Scanner in a Raw Material Sticker Label Printing Process Flow is to improve the accuracy, speed, and corrective of raw material identification and label generation without requiring separate dedicated scanning hardware. To enable efficient and error-free raw material label printing by using built-in device scanning capabilities (such as tablet, mobile phone, or integrated PC camera scanners) to automatically read and verify printed barcode information and synchronize it with the labeling system.

Actions

- Enable or disable the barcode scanner from the AGen software.
- Device basic barcode scanning can still be performed with device camera.
- Use the build in free barcode scanner to capture barcode.

Advanced insights

- Build in free barcode scanner in AGen give you backup if your barcode scanner is failed in your device.
- This barcode scanner also helps mini warehouse who do not want to invest in barcode scanner.



Reporting & Insights

Objective

Learn and improve future operations. From AGen user configurable reporting tools, back-end users can anytime configure their own daily report. Users will not be constrained by the software reporting capability.

Standard reports

- Stock identification label printing variance
- Daily receiving (Assume total receiving = Total label generated)
- Category variance analysis
- store Information (Assume receiving=label generated)
- Staff productivity

Advanced insights

- Root analysis (Which is the most common raw material)
- Trend analysis over multiple suppliers



Daily Email Alert for Data Transfer Summary

Objective

Automatic alert administrators on daily data collected by different raw material automatically. System administrators on the surface need to make sure all the label printing processes are moving smooth daily in every branch so they can complete their administrative task on the devices and raw material identification. For data analysis, this task will be performed by the inventory manager to optimize the different warehouse receiving and storage operation.

Actions

- Enable or disable the auto email alert from AGen software.
- Configure the information required to appear on the email.
- Daily raw material activity review from AGen summary page.

Advanced insights

- Building an email alert system makes device administrator life easier.
- Let the software automatically work and report to you without any clicking.



Date	Week	Barcode	Online	Posted	Total	Status	Remark
23/04/2026	Thursday	2102	13/13	2102/2102	3734	Success	No
22/04/2026	Wednesday	2262	13/13	2481/2262	3734	Success	Post yesterday fail posting date
21/04/2026	Tuesday	2744	13/13	2525/2744	3734	Need Attention	Data posting fail
20/04/2026	Monday	3904	13/13	4422/3904	3734	Success	Post yesterday fail posting date
19/04/2026	Sunday	2635	13/13	2635/2635	3734	Success	No
18/04/2026	Saturday	3010	13/13	3011/3010	3734	Success	Post yesterday fail posting date
17/04/2026	Friday	4269	13/13	4269/4269	3734	Success	No
16/04/2026	Thursday	3916	13/13	3915/3916	3734	Need Attention	Data posting fail
15/04/2026	Wednesday	3631	13/13	3631/3631	3734	Success	No
14/04/2026	Tuesday	3618	13/13	3618/3618	3734	Success	No
13/04/2026	Monday	3384	13/13	3384/3384	3734	Success	No
12/04/2026	Sunday	2407	13/13	2407/2407	3734	Success	No
11/04/2026	Saturday	2759	13/13	2759/2759	3734	Success	No
10/04/2026	Friday	3693	13/13	3693/3693	3734	Success	No
09/04/2026	Thursday	3444	13/13	31288/3444	3734	Success	Post yesterday fail posting date
08/04/2026	Wednesday	2350	13/13	13819/2350	3734	Success	Post yesterday fail posting date