Datum Advisory Limited
Clarity before transformation

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Date: 01/07/2026

Case Study: Automated Durable Product-Label Generation

Eliminating manual copying, improving durability, and integrating label printing into the workflow

Executive Summary

A critical labelling process in an SME manufacturing environment had become a bottleneck. Operators manually copied data from the ERP system into a PowerPoint template, printed paper labels, mounted them onto plastic backing plates, and assembled them by hand. The workflow was slow, fragile, and dependent on a single operator who "knew how to do it".

This case study shows how replacing the workaround with durable media and lightweight automation removed a hidden constraint, eliminated errors, and embedded the process into normal production workflow.

1. Context: A slow, manual, multi-step labelling process

At an SME manufacturing site, each finished product required a durable identification label containing:

- serial number
- product details
- customer information
- compliance or inspection data

The existing process was entirely manual:

- An operator copied and pasted data from the ERP system into a PowerPoint template
- Printed the label onto A5 paper
- Cut it down
- Stuck it onto a plastic backing plate
- Punched holes
- Tie-wrapped it to the product

This took several minutes per label, created a bottleneck at despatch, and relied on a single operator who "knew how to do it".

It was slow, fragile, and prone to transcription errors.

2. Diagnostic Insight: The problem wasn't the operator, it was the system

I recognised that:

- The label content already existed in the ERP
- The operator was simply re-typing or re-copying it
- The plastic backing plate existed only because the paper label wasn't durable
- The whole workflow was a workaround for poor materials and poor information flow

This is classic Datum thinking: remove the workaround by fixing the root cause.

3. Solution: Automate the data and upgrade the media

I delivered a two-part solution:

A. Replace the fragile label with a durable, direct-print medium

I sourced a high-durability, weather-resistant label stock (the same material used for field notebooks and construction documents). This eliminated the need for:

- plastic backing plates
- hole punching
- tie-wrap mounting
- multi-step assembly

The label could now be printed and attached directly.

B. Automate label generation using production data

I built a Power Query-driven tool in Excel that:

- pulled all required data directly from the ERP
- validated the serial number
- generated the label content automatically
- formatted it consistently
- printed it with one click

The operator now simply entered a serial number; the system did the rest.

Later, I integrated this directly into the stock-tracking system, enabling:

- right-click… Print Label
- directly from the WIP job list
- by any assembly supervisor
- without needing the original operator at all

This removed a single-point dependency and embedded the process into normal workflow.

4. Outcome: Faster, accurate, resilient labelling

The new system delivered:

- Significant time reduction per label
- Zero transcription errors
- Consistent formatting
- No plastic backing plates
- Supervisors able to print labels themselves
- Despatch no longer waiting for one operator
- Improved durability and weather resistance

The label process went from a multi-step craft activity to a simple, reliable, integrated operation.

Why This Case Matters for Datum Clients

This project demonstrates how simple, targeted interventions can remove hidden operational constraints:

Systems thinking	The real issue was workflow fragility, not label formatting.
Governance and data flow	Pulling data directly from the ERP eliminated transcription errors and rework.
Capability building	Any supervisor could now print labels, removing single-point dependency.
Simplicity over complexity	Durable media and lightweight automation replaced a multi-step workaround.
Integration into normal workflow	Embedding label printing into the WIP job list improved flow and reduced delays.

For SMEs, this case shows how improving a small process can unlock reliability, reduce waste, and strengthen operational resilience without new systems or licensing costs.