Case studies

- Article Label Printing at Scale
- Bill of Materials Generation

Article Label Printing at Scale

Overview

A trading company with its own in-house logistics operation needed a fast, reliable way to generate article labels directly from their ERP data. Manual label creation had become a bottleneck as order volumes grew, and the team was looking for a solution that would integrate cleanly with their existing infrastructure without adding complexity.

Together with **kiwi software**, they rolled out VeloxFactory as the rendering engine behind a lean scanning workflow that now produces over **4,000 labels per day**, fully automated and delivered straight to the warehouse floor.

The Challenge

Warehouse staff had been looking up article data manually, copying it into label templates, and printing. As the business grew, this process couldn't keep up. What they needed was simple:

- Labels generated in under a second per scan
- Data pulled directly from the ERP, no manual input
- An interface that works with a standard barcode scanner, no keyboard required
- No additional middleware, no fat clients, no complex integrations

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The Solution

kiwi software built a lightweight single-page scanning mask that ties directly into VeloxFactory's REST API. The whole frontend was finished in a single day. The workflow is straightforward:

1. A warehouse employee scans an article barcode
2. The scanning mask sends one API request to VeloxFactory, passing only the article number

3. VeloxFactory fetches all relevant article data in real time from the connected MS SQL database
4. The Jaspersoft report template is rendered with the live data and output as a print-ready PDF
5. VeloxFactory dispatches the label to the company's print server, which routes it to the nearest floor printer

Scan in, label out. Typically within 800 ms end-to-end.

Technical Setup

Component	Details
Frontend	Custom scanning mask (developed by kiwi software)
Report engine	VeloxFactory
Report template	Jaspersoft Studio (.jrxml), designed to label specs
Data source	MS SQL Server via VeloxFactory data adapter (sqlsrv driver)
API input	Article number only
Print delivery	VeloxFactory Print Task to on-premises print server
Daily volume	4,000+ labels

The data adapter resolves the article number into the full set of label attributes: description, unit, weight class, hazard indicators and storage zone. The report template then lays these out according to the company's label specification.

Results

Since going live, the process runs without any manual intervention:

- 4,000+ labels generated and printed per day, fully automated
- Label generation time down from several minutes to under one second
- Data entry errors eliminated completely
- Staff need no training beyond a single walkthrough of the scanning mask
- No local print drivers or client software required on scanning stations

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Why VeloxFactory

The combination of a clean REST API, native data adapter support and built-in print server integration meant there was no need for a separate middleware layer or custom rendering pipeline. kiwi software connected the MS SQL database via the sqlsrv driver, configured the print server target and had the scanning frontend running in a day.

> "We connected the database, set up the print target and had a working frontend the same day." -- kiwi software, project lead

Bill of Materials Generation

Overview

A manufacturing company needed a simple, reliable way to get printed bills of materials into the hands of their foremen at the start of each production run. Their existing process involved exporting data manually from their production system, which was slow and prone to errors when order volumes picked up.

By connecting VeloxFactory to their MySQL production database, they now generate 200 to 300 bills of materials per day, each one triggered with nothing more than a production order reference number.

The Challenge

Before VeloxFactory, generating a bill of materials meant pulling data out of the production system by hand, formatting it and sending it to print. The foreman often had to wait, and mistakes in the data transfer occasionally caused issues on the shop floor. The company needed:

- A fast way to generate accurate, print-ready BOMs from live production data
- A process simple enough for office staff to use without training
- No dependency on exports or manual data handling

The Solution

kiwi software connected VeloxFactory to the company's MySQL production database using a configured data adapter. Staff now use VeloxFactory's built-in web frontend to trigger BOM generation: they type in the reference number of a production order, VeloxFactory fetches the full set of production data from the database and renders a structured bill of materials as a PDF. The document is printed and handed to the foreman before the run starts.

No exports, no formatting, no waiting.

Technical Setup

Component	Details
Frontend	VeloxFactory web frontend (built-in)
Report engine	VeloxFactory
Report template	Jaspersoft Studio (.jrxml)
Data source	MySQL database via VeloxFactory data adapter
API input	Production order reference number
Output	Print-ready PDF bill of materials
Daily volume	200 to 300 BOMs

The data adapter resolves the production order reference into the full component list, quantities, units and any production notes required for the BOM layout.

Results

Since the rollout, BOM generation is no longer a bottleneck before production starts:

- 200 to 300 bills of materials generated per day
- Generation time reduced from several minutes to seconds
- No more manual data exports or formatting steps
- Foremen receive accurate, consistently formatted documents every time

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Why VeloxFactory

VeloxFactory's built-in web frontend meant no custom tooling was needed at all on the user side. kiwi software set up the MySQL data adapter and the Jaspersoft report template, and the company was up and running within a day. The foremen now get a clean, standardised BOM for every production order without anyone having to touch the underlying data.

> "Our foremen get the BOM before the run starts. That used to take minutes, now it takes seconds." -- Production manager