Reach Robotics: Achieving real-time production visibility and traceability with Business Central and Insight Works apps

Summary

Customer
Reach Robotics

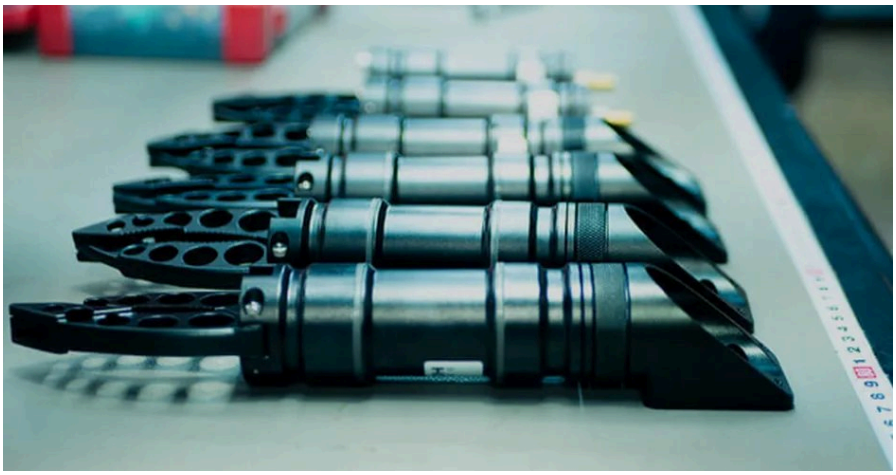
Industry
Defense and commercial robotics

Location
Glebe, New South Wales, Australia

Partners
Dynamic Aspect (Microsoft Partner)
Insight Works (ISV)

Solution
- Microsoft Dynamics 365 Business Central
- Enhanced Planning Worksheet
- Multi-Level BOM Viewer
- Routing Analysis
- Shop Floor Insight

Results
- ERP return on investment within 12 months
- Manual processing reduced by 35–45%
- Reporting cycles cut from days to hours
- Inventory optimized by 15–25%
- Real-time labor time and production status
- Lot and serial traceability on the shop floor
- Single source of truth across the business



ABOUT REACH ROBOTICS

Reach Robotics designs and manufactures advanced robotic manipulation and perception systems for harsh environments. Headquartered in Glebe, New South Wales, Australia, the company supports defense and commercial applications including maritime infrastructure, underwater inspection, law enforcement, marine science, mining, and autonomous robotics.

CHALLENGES: REPLACING SPREADSHEETS WITH BUSINESS CENTRAL AT A GROWING DEFENSE MANUFACTURER

As Reach Robotics took on more complex defense and industrial programs, its spreadsheets and fragmented systems began to strain. Production tracking and labor time were recorded in manual spreadsheets, so production status was never current.

Planning and procurement ran through disconnected workflows, and finance and operations data did not always agree. Reporting depended on manual reconciliation that took days.

The goal was a scalable, integrated platform with real-time visibility and control across manufacturing, inventory, planning, finance, and projects, one that also meets the governance and traceability expectations of the defense industry.

SOLUTION: HOW REACH ROBOTICS EXTENDED BUSINESS CENTRAL FROM PLANNING TO THE SHOP FLOOR

Working with Microsoft Partner Dynamic Aspect, Reach Robotics implemented Microsoft Dynamics 365 Business Central with four Insight Works apps covering planning, bill of materials review, shop floor execution, traceability, and process analysis. About 15 staff use the apps every day.

1. Purchase and production planning on one screen: Enhanced Planning Worksheet is used by planners to see supply, demand, availability by location, and vendor information in one place, and to create purchase orders directly from the worksheet. Enhanced Planning Worksheet gives the team a more disciplined, visible purchasing process.

2. Clear visibility into complex bills of materials: Multi-Level BOM Viewer is used by planners to review Reach Robotics' multi-level assemblies, which are hard to read in a flat list. Multi-Level BOM Viewer shows each bill of

materials as a hierarchy, with supply and demand for every component and feasibility checks that flag potential shortages.

3. Real-time shop floor execution and traceability: Shop Floor Insight is used by production staff to record labor, production progress, and quality events with barcode scanning on mobile devices, replacing manual spreadsheets. Shop Floor Insight also captures lot and serial numbers at the point of production, providing the traceability that defense audits require.

4. Process insight from actual production times: Routing Analysis is used by the team to compare the operation times recorded on finished production orders against each routing's expected times. Routing Analysis flags operations that vary widely, even when the average looks acceptable, so the team can correct routings and standardize processes.

IMPLEMENTATION: A LOW-DISRUPTION IMPLEMENTATION BUILT ON PROCESS MAPPING

Reach Robotics manufactures specialized systems for highly regulated industries, so the team's main task was mapping those manufacturing workflows to finance, planning, quality, and reporting processes.

Dynamic Aspect designed and delivered the Business Central solution and deployed all four Insight Works apps. The rollout caused minimal disruption to day-to-day operations.

RESULTS: FASTER REPORTING, LEANER INVENTORY, AND A FAST RETURN

Reach Robotics reported measurable improvements across planning, production, and reporting.

- Return on the ERP investment within 12 months.
- Manual processing reduced by 35–45%, cutting re-keying and reconciliation work.
- Reporting cycles shortened from days to hours.
- Inventory optimized by 15–25%, with the planning apps a major contributor.
- Labor time and production status available in real time, replacing manual spreadsheets.
- Lot and serial traceability captured on the shop floor, supporting defense audit and compliance requirements.
- A single source of truth across finance, manufacturing, procurement, inventory, projects, and quality, with improved reporting accuracy.

Reach Robotics now runs on current, connected data instead of spreadsheets reconciled after the fact.

"This solution delivered a platform capable of providing accurate, real-time visibility across finance, manufacturing, supply chain, and operational planning while supporting the governance and reporting expectations associated with defense industry participation." **Nathan King, Head of Operations, Reach Robotics Pty Ltd**

CONCLUSION: FROM SPREADSHEETS TO A DEFENSE-READY OPERATING PLATFORM

By extending Business Central with four Insight Works apps and working with Dynamic Aspect, Reach Robotics replaced spreadsheets and disconnected workflows with one connected platform. With reporting in hours, leaner inventory, and lot and serial traceability captured where the work happens, Reach Robotics has a foundation that meets defense industry expectations as its programs grow.

About Insight Works

Insight Works is a Microsoft Dynamics 365 Business Central ISV (independent software vendor) specializing in warehouse management, manufacturing, and productivity solutions. With a portfolio of apps available on Microsoft Marketplace, Insight Works helps distributors, manufacturers, and wholesalers extend Business Central to fit the way they actually work. Learn more at insight-works.com.

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