

Ska Fabricating & TRi PLC

Powering Efficient and Cost-Effective Depalletizing with the FMD1616-10 Super PLC

At a Glance

CLIENT:

Ska Fabricating

INDUSTRY:

Packaging Automation, Beverage

CHALLENGE:

Develop a semi-automated, small-footprint, and cost-effective depalletizer for small to medium-sized producers.

SOLUTION:

TRi PLC FMD1616-10 Super PLC

RESULTS:

Creation of the "Can-i-Bus" depalletizer, a market-leading solution celebrated for its reliability, flexibility, and affordability.



"The Can-i-Bus was designed with space and cost in mind. It needed a control system that was equally efficient, powerful, and economical. That's where TRi PLC came in."

- Matt Vincent, Co-Owner, Ska Fabricating

About the Client: Ska Fabricating

Born from the needs of its sister company, Ska Brewing, [Ska Fabricating](#) has established itself as a global leader in designing and manufacturing high-quality depalletizers, palletizers, and container handling equipment. With a deep understanding of the craft beverage industry, Ska Fabricating engineers solutions that are robust, reliable, and tailored to the specific demands of producers worldwide, from small-batch operations to high-speed packaging lines.

The Market Challenge: Bridging the Automation Gap

The craft beverage and specialty packaging markets are booming, but this growth presents a unique challenge. Many producers need to increase efficiency but often operate in facilities with limited space and capital. Traditional, fully automatic depalletizing systems are often too large and expensive. Ska Fabricating identified a critical need for a machine that was:

- **Compact:** A small footprint to fit into tight spaces.
- **Affordable:** A low total cost of ownership for a rapid return on investment.
- **Flexible:** Capable of handling multiple can sizes and container types.
- **Reliable:** Built for consistent, day-in, day-out production.



The Ideal Control Solution: FMD1616-10 Super PLC

To bring their vision for the "Can-i-Bus" to life, Ska Fabricating needed a PLC that could serve as the machine's central brain — delivering robust performance without inflating costs. After evaluation, they selected the [TRi FMD1616-10 Super PLC](#). This choice highlights the strategic advantages of partnering with TRi PLC for machine builders and OEMs.



Key Decision Factors: The OEM Advantage

- **Price-to-Performance:** The FMD1616-10 packs incredible I/O, communication, and motion control into a low-cost, open-board design.
- **Powerful & Flexible Programming:** The [i-TRiLOGI Ladder+BASIC software](#) combines simple ladder logic with a powerful BASIC language for complex tasks.
- **Reduced Development Time:** A free, full-featured simulator allows for complete program testing on a PC without hardware.
- **Comprehensive Features:** Its rich, standard feature set — which often requires expensive add-on modules from other brands — simplifies design and lowers the bill of materials (BOM).

FMD1616-10 Key Specifications

Feature	Specification
Digital I/O	16 Inputs (24V NPN), 16 Outputs (24V NPN, 1A)
Analog I/O	8 Inputs (12-bit, 0-5V), 2 Outputs (12-bit, 0-5V/0-10V)
High-Speed I/O	2 Quadrature Encoder Inputs, 4 Interrupt Inputs
Motion Control	4 PWM Channels, 2 Stepper Motor Control outputs
Communication	Ethernet (Modbus/TCP), RS232, RS485 (Modbus RTU/ASCII)
Memory	8K words program memory, expandable to 16K

Implementation & Results

The Can-i-Bus, powered by the TRi FMD1616-10, became an immediate success. It delivers on its promise of a small footprint and semi-automated efficiency, handling a wide range of can sizes at speeds from **25 to 400 cans per minute** (with proper conveyance). The reliability and cost-effectiveness of the TRi PLC were instrumental in allowing Ska Fabricating to offer a high-value solution that met a critical market need, cementing their reputation as an industry innovator.

The project demonstrates how TRi PLCs empower OEMs to build advanced, reliable, and profitable machines. By providing a powerful, all-in-one control solution at an aggressive price point, TRi enables machine builders to innovate and compete effectively in any market.