

iQ-CAN™ SYSTEM DESIGN, DEMONSTRATION & CONTROL

iQ-CAN - intelligent Quick Configurable Automation

iQ-CAN™ AGV/AGC technology is far advanced from all others because it is a 'Complete AGV Technology Solution'.

- Configure, Demonstrate, Control AGV Systems without Software Coding
- See Your System Operate Before You Buy
- Upload Path/Operational Changes and Monitor System via WiFi

- 1) Universal Use Vehicle [Tunnel Under, Powered Pick/Drop, Tow]
- 2) Tape/Target-Free Navigation
- 3) PC Program Creates Systems Without Writing Software

iQ-CAN™ unifies these 3 necessary elements into a single AGV/AGC technology that provides a standardized approach for your most common needs.

1. Universal Low-Profile Vehicle Design - Tunnel Under, Tow, Powered Roller/Lift Deck, Assembly Line Uses

Application Need	Standard AGV Attachment
Move carts 'tunnel under' & capture	Powered pin on AGV rises into pin pocket under cart
Auto-load transfer with conveyors	AGV under cart base with powered conveyor deck
Auto-load transfer with load stands	AGV under cart base with powered lift/lower deck
Tow strings of dollies	Manual or Automatic hitch attachment
Assembly line	Index or continuous slow travel down line with cart

2. Tape/Target-Free Virtual Path Navigation – NO Costly Path Maintenance, Fast Path Changes by WiFi Upload

AGV Tracks CAD Map In Its Memory

- Uses a computer chip (inertial sensor) to correct for any left/right deviation while following CAD path map
- The chip is similar to what is used in Smart phones for detecting tilt & rotation motion
- Maintains 1" virtual path tracking accuracy
- The inertial chip is not a wear item unlike the typical 3-4 year life of an expensive rotating laser/target navigation component

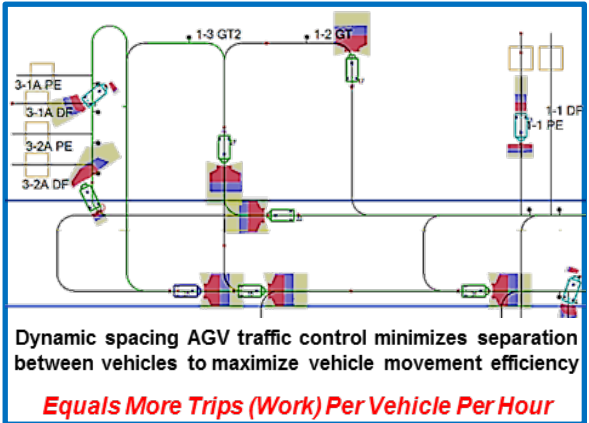
Simple In-floor Magnet Marker

'Virtual' Path created from CAD drawn map

3. iQ-CAN™ System Configuration PC Program - Creates, Demonstrates And Controls Without Writing Software

- Designer**
Graphically configures AGV/AGC system & produces operational model
- Emulator**
Tests system configuration & operational functionality
- Demonstrator**
Runs system model at load move rates/hr desired for performance optimization

Graphical PC Program
Creates Both System Model & Real System Controller Files



The File Created For Virtual System Model Is Same File Used In Real System Controller

This Means >>
What You See In The Model is What You Get in The Real System – No Surprises

Therefore, Functionality Can Not Differ Between Planned/Virtual System and Actual/Real System

That Means >>
System Implementation Risk is Low – On Both Operational and People Levels

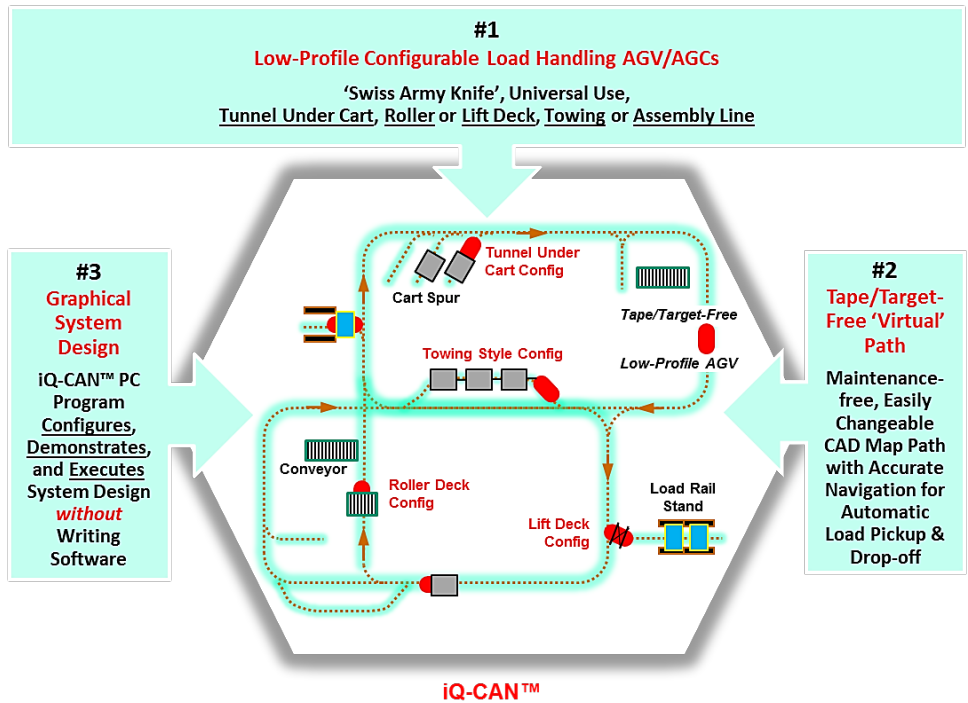
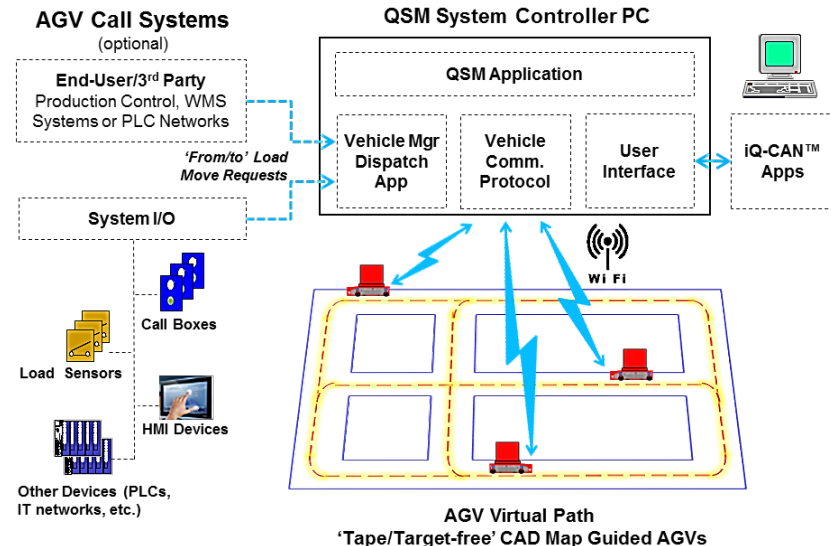
iQ-CAN™ SYSTEM DESIGN, DEMONSTRATION & CONTROL

iQ-CAN™ is an integrated AGV software & hardware technology that includes vehicle, path, station, routing, traffic and system management logic. The iQ-CAN™ PC program is utilized by Savant to configure, test, demonstrate, and refine the AGV system design before it is installed.

Customers see their proposed systems operate in a virtual environment with vehicles navigating on their facility CAD layout. Observing the virtual system in operation allows the customer team to determine where path and operational changes are indicated. They acquire a fuller understanding of the proposed system's operational performance which provides a high level of execution confidence.

iQ-CAN™ has powerful capabilities to handle a wide range of system applications from simple to complex with virtually unlimited vehicle fleet size, path length/complexity and system control requirements. This allows users to easily expand systems with added vehicles and path.

The iQ-CAN™ PC Program's extremely user-friendly, graphical system configuration interface allows the end-user (without need of software expertise), to easily understand the 'how & why' of their system operation. If desired, they can acquire the program to change or create their own systems, eliminating costly dependence inherent in other AGV technologies.



iQ-CAN™

Intelligent - Quick Configurable Automation

'Tape/Target-Free' Path, AGV/AGC Systems

The **QSM™** is the system controller for the AGV/AGV system. It runs the completed iQ-CAN™ system design/model file and optional iQ-CAN™ Vehicle Manager (VM) remote call & dispatch program. The VM supports a variety of ways to 'call' for AGVs to pick up and transport loads including pushbuttons, load sensors, Ethernet interface with MRP, WMS, PLC and other higher level networked systems. The QSM™ manages AGV routing and dynamic-separation AGV traffic control. iQ-CAN™ provides easy, fast and inexpensive system configuration, graphic demonstration modeling of proposed system operation, RF download for immediate system changes.



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