



# JMP Solutions

*Industrial Technology Partner to the Fortune 1000*



## Automated Guided Vehicles

**Solutions and Capabilities**

We help people  
and businesses  
realize their  
full potential  
by *continually*  
*redefining* what is  
possible.

# JMP Solutions

AGV DIVISION

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JMP Solutions is an Industrial Technology Partner to Fortune 1000 manufacturers and producers providing engineering services and turnkey solutions in seven core areas: process automation, control system integration, information and MES, automation and robotics, automated guided vehicles, material handling, and networking and security applications. With 15 business units in the U.S. and Canada, JMP services customers locally, delivering more than 20,000 solutions to 1,000-plus clients over the course of its 30-year history.

# Automated Guided Vehicles

JMP SOLUTIONS



At JMP Solutions we are committed to developing and integrating innovative solutions that address specific customer needs utilizing cutting edge automation and robotics technologies. Automated guided vehicles and autonomous mobile robots (AGVs and AMRs) are at the forefront of innovation in streamlining material movement processes while improving plant safety and overall process efficiency.

AGVs and AMRs conduct their plant environment movement and material delivery actions autonomously. They are guided by magnetic tape, laser vision sensors or virtual plant floor mapping and deliver a wide range of benefits across a complete scope of business outcomes when employed as material movement solutions within a manufacturing facility.

When optimized between process and layout of a specific plant, autonomous vehicles deliver a quick and measurable payback period through: elimination of facility traffic bottlenecks (increased throughput), diversion of labor from non-value add tasks, ergonomic relief, elimination of MUDA (waste) actions, and minimization of maintenance and certification costs associated with traditional tow and lift trucks and their operators.

These benefits are all realized by developing a well-defined process control and mapping architecture designed around your desired business outcome. AGV solutions also deliver a high level of flexibility and adaptability to floorplan changes and process modifications as needs evolve throughout the lifetime of your system.



What we say,  
we do. Every  
time. All the  
time.



Learn how AGVs can optimize your process

# The JMP Difference: What sets us apart.

Industry certification for confidence and peace-of-mind.



## OPERATIONAL DISCIPLINE

Customer satisfaction is our absolute first priority and this is reflected in our daily operating rhythms. Customer issues are addressed daily by each employee through to the executive team. Transparent NPS surveys publicly rank our performance, unedited.



## THE JMP PROMISE

At JMP we promise an extraordinary customer experience delivered through exceptional communication, guaranteed performance and radical commitment across the scope of the project and beyond with continued support.



## PROJECT EXECUTION METHODOLOGIES

We execute with excellence every time, all the time. Our proven project management process is meticulously focused around all aspects of change, risk, and quality & safety management with stage-gate analysis at all critical points.



**Robotic Industries Association Certified Integrator**



**Control System Integrator Association Certified**



**Rockwell Automation Solution Partner**



## Autonomous Vehicle Solutions

AGVs and AMRs are not simply stand-alone delivery mechanisms, rather a component of a fully integrated industrial solution. These vehicles truly shine and deliver value when they work co-operatively as an integral part of a sophisticated plant automation and control solution.

Adoption and acceptance of autonomous vehicles has been growing rapidly throughout a number of industries. Driven by lean manufacturing initiatives, MUDA focused business philosophy, increasing plant safety standards and the rapid evolution of communication and automation technologies. These advancements make the use of AGVs approaching a plug-and-play scenario where process customization and integration with other plant assets is a nearly seamless and highly efficient process with quick and measurable payback periods.



### **AUTOMOTIVE MANUFACTURING**

The automotive industry has been the pioneer in and earliest adopters of robotic and autonomous vehicle technologies in manufacturing processes. Process optimization, overall cost reduction and elimination of waste actions have been drivers of this technology towards the goal of consistent improvement and lean manufacturing.



### **FOOD & BEVERAGE**

Food & beverage manufacturing facilities are unique environments comprised of hygienic and non-hygienic areas as well as zones that span a range of extreme temperatures (processing vs. cold storage). AGVs reduce risk of human error leading to cross-contamination and increase safety associated with movement between extreme zones.



### **CONSUMER PACKAGED GOODS**

The CPG industry is a relatively newcomer to the adoption of AGV technologies but the value that these systems can deliver is quickly proving itself in this space. Heavy and irregularly shaped goods introduce challenging ergonomics for human interaction while a high degree of plant truck traffic leads to bottlenecks / congestion.

# Features & Benefits

## Safe Bulk Material Movement

Ergonomic stress is removed from human resources needing to load or unload goods from traditional material movement devices.

## Traceable Part Delivery

Seamless integration into material planning and tracking (ERP and MES) systems provides real-time stock transparency and traceability.

## Defined Traffic Control Patterns

Traffic patterns are clearly mapped according to floorplan / footprint, safe movement routes and process requirements in order to minimize work-in-progress while streamlining receiving process efficiency.

## Increased Plant Safety

Potential for human error in tow motor and pump truck traffic is virtually eliminated by autonomous vehicles incapable of causing a collision.

## Increased Throughput Via Bottleneck Reduction

Traffic mapping, scheduling and well-defined rules for any scenario results in a consistent flow of AGV traffic, minimized wait time between pickup and delivery and elimination of traffic and process bottlenecks.

## Resource Utilization

Material movement operators commonly experience downtime and unproductive hours during periods of decreased production levels. AGVs do not need operators and return to their charging station for a full charge.

## Quiet and Sustainable

AGV technologies do not make any significant contribution to plant noise pollution or indoor emissions as their electric motors are near silent and completely free of emissions.

## Simple Fleet Expansion

As production volumes grow and material movement demand increases, adding vehicles to a system is a simple and seamless process which enhances overall efficiency as the fleet grows.

## Interface Flexibility

There is a wide range of process specific and customizable interface options available on AGV systems in order to provide the most effective and user-friendly solution for every context.

## Reallocation of Labor

Human resources can be diverted from non-value adding, monotonous and ergonomically unsafe tasks to high value tasks and processes that benefit from and are safe for human interaction.

# AGVs & AMRs Streamline Your Operations



AGV and AMR technologies not only provide safe, predictable and well-defined material movement patterns but also a high degree of flexibility for adaptation to your evolving manufacturing process and dynamic plant environment.

## **JMP Solutions**

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