

 **aim Vision**

ERP Optimized for  
Automotive Suppliers

# **aim** Computer Solutions

**POWERING THE AUTOMOTIVE SUPPLY CHAIN**



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# Overview

AIM Vision is the automotive manufacturer's one-stop solution for managing their most crucial functions. This highly customizable software allows modern manufacturers to address their unique needs. From the shop floor to the front office, AIM Vision keeps every element of the manufacturing process trackable, traceable and efficient.

## Installation Configurations

1

### **AIM Vision AutoSys**

Our flagship software helps suppliers manage inbound and outbound customer EDI processes, release accounting & order management, bar code labeling, shipping and inventory management. No EDI mapping is required with this solution. Customer EDI and labeling business logic is embedded directly into the solution.

2

### **AIM Vision Brokered**

The AIM Vision Brokered model builds on the AIM AutoSys, plus adds purchasing, material requirements planning and outbound and inbound supplier EDI processes. This formation is helpful for companies who serve as part brokers and need to manage orders and deliveries from off-shore suppliers .

3

### **AIM Vision Lite**

The AIM Vision Lite model is a legacy solution for those who are ready to track production and costs, manage projects, and provide quotes.

4

### **AIM Vision with AIM Mobility MES**

This configuration provides a complete enterprise resource planning software solution, with the addition of mobile device enabled manufacturing execution system (MES).

5

### **AIM Vision with AIM Mobility MES & Accumine Machine Integration**

This final configuration supercharges your plant and utilizes machine smart bots to record production counts and report it to the AIM Mobility MES app.

# CONFIGURATION APPLICATION MATRIX

TABLE 1:

This matrix shows which applications are available with each AIM Vision configuration.

	AIM AutoSys	AIM Brokered	AIM Vision Lite	AIM Vision
EDI				
Inventory Control				
Order Processing				
Kanban Processing				
Bar Code Labeling				
Bar Coded Shippers and Shipping				
Production Scheduling				
Purchasing				
Material Requirements Planning				
Manufacturing Standards				
Bill of Materials				
Production Control				
Capacity Requirements Planning				
Costing				
Project Management				
Quoting				
Manufacturing Execution System				

TABLE 2:

This matrix shows which add-on mobile applications are available with each AIM Vision configuration.

AIM Mobility App Available Add On	AIM AutoSys	AIM Brokered	AIM Vision Lite	AIM Vision
Shipping				
Dock Audit				
Location Tracking				
Physical Inventory				
Receiving				
Clipboard				
Warehouse Transfer				
Consumption				
Container Move				
Mobility MES				

Manufacturing happens on the plant floor and modern automotive manufacturers need the ability to input information using the latest hardware technologies. AIM Mobility—Manufacturing Productivity Apps provide real-time methods to input transactions into the AIM Vision ERP suite through Android tablets, with bar code scanners, directly from the plant floor, or hi-lo.



### **AIM Mobility: Shipping**

Streamline the shipping process by performing shipping tasks directly from the tablet on the shipping dock. View or delete individual labels from scanned ship orders and check for exceptions between what is ordered and what was scanned. Create master labels from staged container serial labels. Update order and print shipping paperwork.



### **AIM Mobility: Toyota Skid Build and Freight Load**

Improve the supplier packaging and supplier shipping areas of the supply chain, and comply with Toyota Shipping Confirmation System mandates to automate the data scanning, validation and shipping confirmation process. The Toyota Skid Build app using Toyota supplied Kanban labels, captures and verifies skid or pallet information, in real-time, then the Toyota Freight Load app captures and verifies shipment contents (destination, driver name, trailer number, and SCAC) before allowing the truck to leave the supplier dock.



### **AIM Mobility: Dock Audit**

Ensure quality inspections are performed for GP12 containment audits and prototype builds. Prevent shipper paperwork from being printed, or ASNs from being transmitted, until after the shipper dock audit has been performed, with the AIM Mobility Dock Audit app.





### **AIM Mobility: Physical Inventory**

Improve inventory accuracy and visibility during the count process with the AIM Mobility Physical Inventory app. Replace error-prone, hand-written or manually keyed physical count tags, with scanned barcodes, reducing labor costs by 50% or more. Management can analyze inventory count data in real time, gaining insights into counts and variances.



### **AIM Mobility: Location Tracking**

Track material storage locations and easily locate material when its ready to use, or ship, with the AIM Mobility Location Tracking App. Operators create unique tracking data that fits specific plant requirements. Use this app in connection with the AIM Mobility Shipping app to dynamically locate lots for shipment in FIFO order.



### **AIM Mobility: Receiving**

Expedite the receiving dock processing time with the AIM Mobility Receiving app. Scan vendor labeled products, or use the Lot Label Print function in AIM Vision to generate and affix labels to received material. Implementing this process creates simplified traceability and lot control of purchased parts, and increases data input accuracy.



### **AIM Mobility: Production Clipboard**

Add flexibility and mobility to your production activity data management with the AIM Mobility Production Clipboard app. Operators can use it to enter work center and operator efficiency data, including downtime and scrap production data from a tablet on the shop floor. Supervisors can enter and edit production efficiency data, including data from MES and the AIM Mobility MES app.



## AIM Mobility: Manufacturing Execution System (MES)

Automate production tracking and reporting directly on the shop floor with the AIM Mobility MES apps.

Utilize the digital whiteboard feature from the AIM Vision Scheduling application to load jobs to work centers via the The Load Workcenter app. This app also identifies any work center that is idled by downtime.

Operators use the Workcenter app to check into the work center, load material, and report production, scrap and downtime activities. As container counts are completed, container or shipping labels can be printed line side and affixed to the product. The system backflushes material for good and scrap parts.





These apps integrate directly the AIM Vision database, and help manufacturers gain accurate, real-time intelligence on shop floor production.



## AIM Mobility: MES with Accumine Machine Integration

AIM Mobility MES is a line side tablet app that provides real-time production data processing, printing of labels on demand, and operator efficiency tracking. Accumine's wireless SensorBot monitors the machine or manual workstation and is able to provide real-time machine monitoring. Connecting these two technologies together provide a consistent and more flexible view of production and business operations.

Benefits of AIM Mobility MES and Accumine:

-  Utilizing Accumine eliminates the need for the Inventory Control department to input production as these come directly from the machine; resources are only needed to monitor exceptions (i.e., scrap, dry cycles, etc.).
-  Utilizing Accumine for capturing downtime reporting ensures data is accurately captured directly at the work cell.
-  Utilizing AIM Mobility MES and Accumine can result in efficiency gains through targeted efforts to improve the worst performing work cells.
-  Utilizing AIM Vision and Accumine machine monitoring data helps manufacturers properly determine OEE based on machine cycles and actual downtime.

These industry 4.0 solutions will help meet the smart factory needs of the automotive production parts supplier. Improve traceability utilizing bar coded technologies and these mobile apps on YOUR plant floor.

# AUTOMOTIVE SUPPLIER REQUIREMENTS

Automotive suppliers use AIM Vision to help improve supply chain management processes and **meet Global Materials Management Operational Guidelines / Logistical Evaluation (MMOG/LE) requirements**. It is a tool, which through daily practice helps meet the best practice and lean materials management objectives of materials planning and logistics. AIM Vision helps suppliers:

- Gain control of processes
- Gain control of the supply chain
- Support continuous improvement
- Increase customer satisfaction
- Increase competitiveness

## Evaluate Customer Supply Chain Performance Metrics

Measure and report on customer supply chain performance metrics with AIM Vision Shipment Delivery Performance. Track time and quantity analytics such as quantity and percentage of early, late and on time shipments, and quantity and percentage of over shipments, under shipments and ship to schedule shipments. (Requirement 1.2.2.1)

## Assess Supplier Performance Metrics

Measure and report on supplier performance metrics with AIM Vision Vendor Analysis. Track percentage of material rejected, material accepted, early deliveries, late deliveries, and on-time deliveries by item number, vendor and date range. (Requirement 1.2.2.2)

## Analyze Internal Performance Metrics

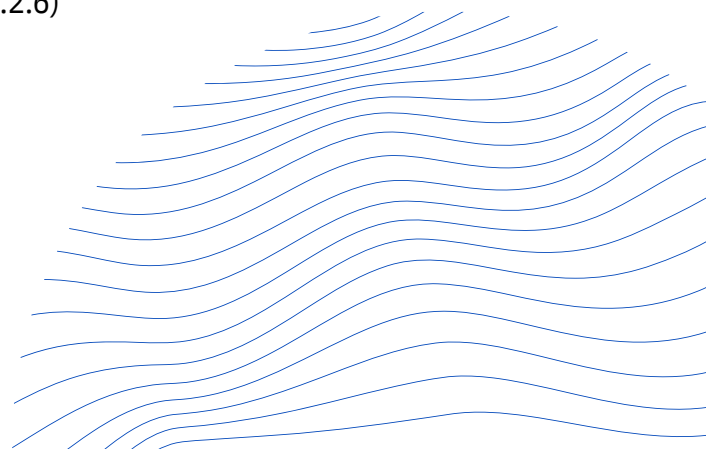
Utilize the Labor Efficiency and Scrap Accounting reporting functions within AIM Vision to evaluate and analyze key internal performance metrics. (Requirement 1.2.2.3)

## Manage Lead Time

Ensure and account for lead time in all aspects of the supply chain process. Lead Time Days is a major component of AIM Vision and used in calculating master production schedules, and generating material requirements planning (MRP) that in turn are used to create supplier (vendor) release and electronic orders. Transportation lead time is managed via Transit Days that can be defined at the Control Source, Destination or Blanket Order Detail level. (Requirement 1.2.2.4)

## Track Standard and Extraordinary Cost

Track costs related to the SCM process (e.g. freight, labor, packaging) and extraordinary costs associated with inefficiencies (e.g. premium freight, overtime, damaged packaging) to be used in continuous improvement process with the AIM Vision Shipping, Labor Efficiencies, and Manufacturing Costing modules. (Requirement 1.2.2.6)





## **Determine Inventory Turns**

Measure inventory levels and turns for each stage of the process (e.g. raw material, work-in-process [WIP], finished goods) with inventory analysis functions within the AIM Vision Inventory module. (Requirement 1.2.2.7)

## **Manage Constraining Processes**

Maximize output while ensuring that production and delivery to the customer are not compromised utilizing AIM Vision integrated inventory, part routing and scheduling modules that assist with managing constraining processes throughout the supply chain (e.g. production capacity, material flow analysis, labor, supplier) with daily structured use of the software.

Establish run lot sizes, per item number, along with minimum run quantities that are used to calculate and plan production. Define setup hours, queue hours, and post queue hours per routing operation/step for use with capacity requirements planning. Establish standard and budgeted production rates per operation/step for use in calculating the Master Production Schedule. (Requirement 1.4.2.1)

## **Communicate Supply Plan Deviations**

Utilize AIM Vision Alerts to communicate, via email and/or text, deviations from the supply plan to all relevant internal resources. The EDI Release Net Change Alert identifies if the firm requirements of an order change by a user specified percentage or more. The Shippers affected by Change in Firm Requirements alert triggers a communication if there is a change in a firm requirements that would affect a current shipper. The Net Availability Shortage alert emails the report of the same name to resources based on timing frequency; this report cumulates total common material required for all parts for the next specified number of days and alert if material on hand drops below zero. (Requirement 2.3.2.1)

## **Meet PPAP Requirements**

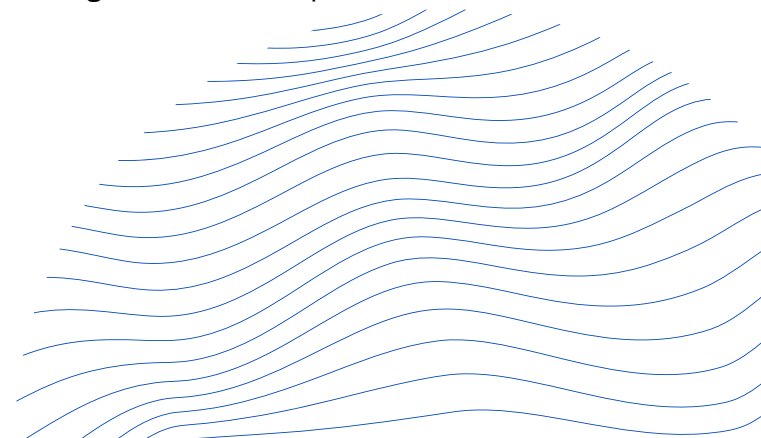
Mark inventory end items as a Pilot Part to allow PPAP requirements to be incorporated into the Material Requirements Planning and Capacity Planning Process. MRP can be generated specifically for Pilot / PPAP parts; during this process MRP only considers raw material / assemblies that are related to the specified pilot parts. (Requirement 3.2.2.1)

## **Support Lean Manufacturing**

The production planning process can be configured to support lean manufacturing through the use of pull systems that regulate the flow of material in a manufacturing process. Setting the Pull Schedule field in the Scheduling Parameters ensures production schedules reflect customer releases and shipping schedules, and will pull WIP quantities forward and consider WIP in calculating requirements before beginning new production quantities. (Requirement 3.3.2)

## **Optimize Inventory Buffer**

Ensure continuity of the supply of the current part by utilizing the various inventory buffer flags in the AIM Vision system. Safety stock, time offsets, shift adjustments, transport times, demand consistency [observation], and standard process capabilities provide a basis for what, if any, the inventory buffer should be at the specific item level. AIM Vision also provides detailed information on WIP and finished goods, pegged to customer demands to provide visibility into this management area. (Requirement 3.2.2.2)



## Accommodate Planning Horizon

Multiple AIM Vision lead times and offsets are taken into consideration when ordering purchased parts or raw material. Additionally, an alert can be setup that triggers an emailed report or text message when material quantities will go below zero based on a specified number of horizon days. (Requirement 3.2.4.3)

## Plan Production Requirements and Maintain Parameters

Generate the AIM Vision Master Production Schedule from automatically integrated electronically received customer requirements and any manual requested requirements. The schedule takes all of the following into consideration:

- Quantity on Hand for subassemblies, raw and purchase items
- Quantity Used (BOM)
- Safety Stock (Item)
- Lot Quantity (Item)
- Scrap Allowance (Part Routing)
- Material Allowance (Part Routing)
- Scheduled Receipt Quantities (Purchasing)
- Production Rate (Part Routing)
- Queue Hours (Part Routing)
- Overlap Indicators (Part Routing)
- Safety Days (Item)
- Lead Time Days (Item)
- Hours per Shift (Scheduling Parameters)
- Hours per Shift (Work Center Master)
- Hours per Shift (Shop Calendar)
- Order Method (for Items set to MRP or MRP Lot for Lot)
- Minimum Run Quantity (Item)
- Run Lot Size (Item)
- Multiple parts per tooling
- Alternate routings
- Alternate Bill of Materials

(Requirement 3.3.1)

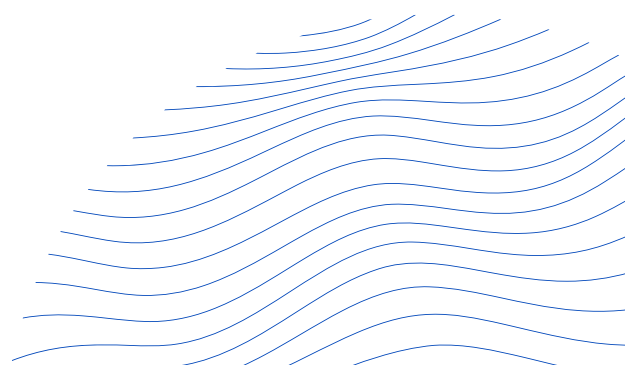
## Receive Delivery Forecasts & Shipping Schedules Electronically

Reduce reaction time and cost, and allow resources to be more productive through automated electronic receipt of customer orders. 830/DELFOR requirements are automatically received and processed to the system through our unattended EDI mailbox. Once updated through Release Order Accounting to the Production Schedule module, the Master Production Schedule generates a complete list of required finished goods needed to produce the demand quantity.

Similarly, 862/DELTJIT requirements are automatically received and processed through our unattended EDI mailbox.

Various inquiry screens are available to view shipping requirements by destination, part status or total requirements by item, shipment history, accum quantity comparison and release net changes. The Destination Requirements Inquiry is extremely useful when validating report data to determine how the report calculated the requirements.

The system allows you to store multiple releases with requirements in order to view net or accum changes in orders, from day to day, or week to week. This information can even be graphed to present visual drops or increases in your order levels. (Requirement 3.4.1)



## **Optimize Dock Operations**

Minimize the risk of shipping errors with efficient dock operations. Utilize the AIM Vision Daily Shipping Schedule report to manage shipments. Utilize the AIM Mobility Shipping app as a verification process that detects if items and/or quantities to be shipped do not match the customer's requirements. (Requirement 4.3.1 and 4.3.1.2)

## **Ensure Accurate and Timely Shipment Documentation and ASN Transmission**

Destination level flags help identify ship-to's that require additional export transport documents. Additionally, customer specific paperwork are included per customer requirements. ASNs can be setup to automatically be sent electronically after the shipper update process is complete. Shipper paperwork can also be setup, on a destination by destination basis, to be emailed to the customer. This allows customers to track, plan and manage their receiving process. (Requirement 4.3.2 and 4.3.2.4)

## **Meet Customer Specific Shipping Label Requirements**

Shipping label specifications are embedded into AIM Vision. The library of nearly 2450 labels for 485 trading partners can be used to label shipping containers, and master or mixed loads. Utilizing the AIM Mobility Shipping app, users are able to reconcile master/mixed load labels to the individual container label and generate master/mixed load labels from scanned serial labels. (Requirement 4.3.2.2 and 4.3.2.3)

## **Safeguard Accurate Identified and Identified Material**


Utilizing the AIM Vision inventory control, WIP control and lot traceability functions companies can accurately label and identify material at all stages in the supply chain, reducing the risk of misplaced materials, delays and production disruptions. (Requirement 5.1.1)

## **Integrate Inventory & Financials**

Keep the inventory tracking and financials in sync with AIM Vision's tightly coupled integration with Microsoft Dynamics financial applications. This helps ensure appropriate business decisions can be made. (Requirement 5.2.1)

## **Optimize Material Flow and Track Material Status**

Designed as a workflow based system, AIM Vision uses customer demands to trigger production runs to optimize material flow and minimize lead time. Supporting FIFO, the AIM Vision Ship Order system can specify FIFO shipments based on Delivery Date, Entry Date or Manufactured Date. Applying parameters at key production point on the BOM/BOP allows AIM Vision users to identify, track and record inventory at key production points. Utilizing the AIM Mobility MES app, allows for bar coded technologies during the material flow process. Additionally, AIM Vision provides a rigorous transaction audit for any inventory transaction including raw, component, make, WIP, finished, dispositioned and scrap inventory counts. (Requirement 5.2.3.1 and 5.2.3.2)

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## **Maintain Inventory Accuracy**

Employing AIM Vision bar code technologies throughout the material flow process helps ensure accurate material records are maintained and eliminates inventory errors.

Physical inventory processes are performed via the AIM Vision Inventory Control module, and aided by the AIM Vision Physical Inventory App that allows for scanning of bar code labels and tags, which increases error-proofing. Physical inventory processes are supported by item level parameters that define cycle days, allowing users to run the AIM Vision Physical Inventory Cycle Count Due Report allowing companies to run cycle counts, when needed, rather than complete physical counts. (Requirement 5.2.5)

## **Handle "Phase-Out" Parts**

Fabrication authorization levels are captured and displayed in AIM Vision with significant visibility. Deploying scheduling patterns at the destination level of the order allows users to identify what days to schedule production, what days to ship the part, and whether or not to apply standard pack rounding to the quantity. Balance out / phase out parts would not have standard pack rounding applied, thereby allowing the exact customer quantity authorized to be produced / manufactured. Fabrication, material and accumulation quantity authorization information is recorded for each blanket order. (Requirement 5.2.6)

## **Manage Engineering Changes**

Engineering changes (EC) can be managed via the AIM Vision engineering change tracking subsystem that allows users to issue effectivity dates for item engineering changes and indicate production and shipping start and stop dates for each engineering change. This feature also links EC documents, including corrective action history, to the item master.

Additionally, any changes to a BOM / Routing are tracked and recorded in an audit log identifying the change date, user ID, and details of the change. BOM / Routing audit reports are available from within AIM Vision to further aid in management. (Requirement 5.3.1)

## **Control Material Traceability with Lot / Serial Processes**

Meet customer, industry and regulatory requirements (e.g. Transportation Recall Enhancement, Accountability and Documentation [TREAD] Act, Federal Motor Vehicle Safety Standard [FMVSS], End of Life Vehicle [ELV]) with lot control traceability features in AIM Vision. Maintain traceability functions for full lots, as well as partial lots, and splits and merges, which get assigned their own managed identity. Utilize AIM Vision bar coded technologies to automate the collecting, recording, and tracking of lot / serial information. (Requirement 5.4.1)



## **Exchange Electronic Data with Suppliers**

Reduce lead times, administration and costs with AIM Vision Supplier EDI and Supplier Portal capabilities. Send planning releases to suppliers electronically based on customer demands via the MRP to PO and Supplier EDI features. Utilize the iDashboards add-on Supplier Portal to allow suppliers to view release orders, acknowledge digital acceptance of orders and if not, identify which ones will be problematic.

Supplier sent ASNs are received electronically and identified as anticipated orders in the purchasing module improving visibility of information. When the material is received, the electronic data is approved and can be acknowledged within the system. (Requirement 6.3.2)

## **Administer Container Tracking**

Support material flow container requirements with AIM Vision's container management and container tracking system features. Returnable and expendable packaging are defined in the Container ID table. Containers with associated pieces (e.g., lid, tray, pallet) are setup in the Container BOM table. Containers are assigned to blanket orders and container tracking IDs are used to group containers. The shipper update will automatically increase the out quantity, and update the ending balance quantity in the container tracking option. Users then manage the receipt of containers back into the plant, and record any damaged container counts.

Use of the AIM Mobility Location Tracking app enhances the user's ability to locate containers within the plant. (Requirement 6.4.2)

## **Manage Receiving Process**

Utilize AIM Vision bar code technologies to assist with receiving management. Suppliers are provided bar code label specifications, and encouraged to label containers so users can scan material into the system at the point of receiving. Employing the AIM Vision Bar Code Receiving app, users can scan containers reducing inaccuracies. Receiving quantity discrepancies and quality issues are captured at the point of material receipt, allowing companies to implement corrective action. (Requirement 6.6.2)







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