



ANALYZE

REPLENISHMENT

WHAT IS REPLENISHMENT?

It is a constraint-based inventory planning process designed to provide improved management control and lead to significantly better performance outcomes – availability, turns and cost. The ability to control performance outcomes is accomplished by determining inventory levels using the factors that best predict the risk of stock-outs in meeting future requirements – actual demand patterns and highly probable replenishment times. Controlling outcomes then becomes a function of monitoring actual-to-planned operations, and taking the appropriate actions to ensure corrections are made prior to achieving an undesired result. This process serves to both decrease the impact of variability in both supply and demand and to provide for focused process improvement efforts.

ANALYZE provides an easy-to-understand process for setting inventory levels for all stocked items.

ANALYZE provides the ability to perform what-if scenarios to determine buffer sizes based on demand, varying degrees of risk, and replenishment timing.

ANALYZE provides the ability to use pattern recognition to determine inventory levels that produce the highest sales and inventory turnover by satisfying demand without variability getting in the way.

*Unless your business performance has reached **Infinity**, your performance is **Constrained!***

Constraint-Based Decision-Making significantly improves workflow management, customer service, and bottom-line performance.

AGI's Decision-Support Software provides an effective, easy-to-use constraint-based workflow management capability for improved performance whether the workflows are Project, Production, or Inventory-based.

*Visibility and Control –
Setting Inventory Levels and Time-to-Reliably Replenish*

BUSINESS ISSUES

From a business perspective, the purpose of all inventory planning and control activities is to ensure availability, high turns and desired cost performance outcomes. Carrying the right amount of inventory is an important component in meeting customer demand. Incorrect inventory levels result in wasted working capital and lost profits.

Decision-makers need the ability to visually see the business impact of inventory planning and control, and to see the impact of trade-offs between *availability* and *inventory levels*, as well as *demand* and *time to reliably replenish* in order to make good planning and control decisions.

Control means “seeing” the results before they occur with adequate time to respond and adjust.

KEY FUNCTIONALITY OF ANALYZE

Inventory buffers, properly sized and positioned, are designed to absorb time delays in workflow and protect availability commitments from demand variability.

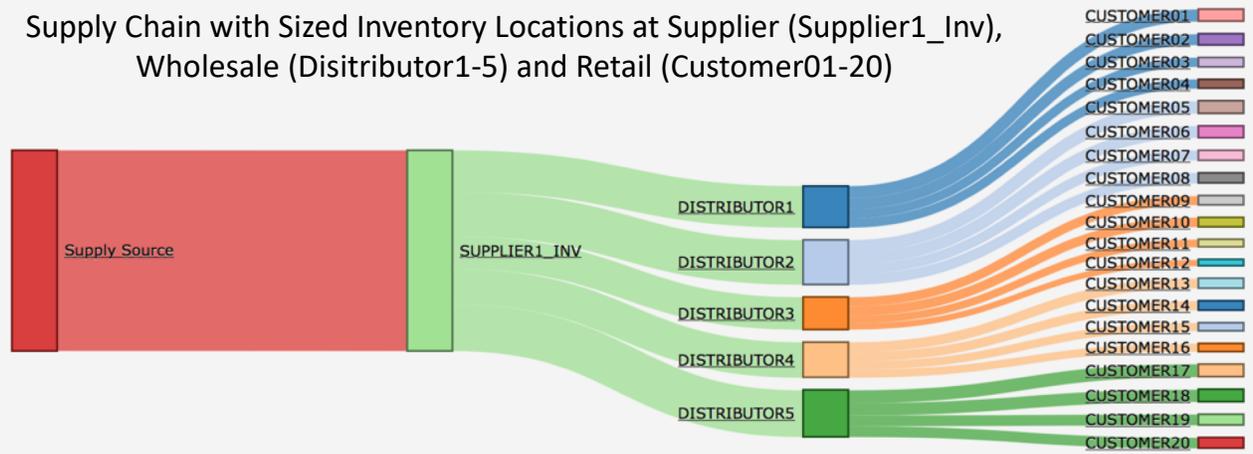
It is the interactions between demand variability and supplier delivery performance that determines the risk of out-of-stocks.

ANALYZE utilizes a patented process that converts discreet customer demand into time-based demand patterns. Time-based demand patterns provide visibility into where and when demand variability, in conjunction with supplier performance, run the risk of out-of-stocks.

BUSINESS BENEFITS

- Higher fill rates.
- Higher inventory turns.
- Increased working capital.
- Improved customer-vendor relationships.

Supply Chain with Sized Inventory Locations at Supplier (Supplier1_Inv), Wholesale (Distributor1-5) and Retail (Customer01-20)



Supplier – Wholesale – Retail Time Based Demand Patterns for sizing inventory buffers



What it Takes to Run ANALYZE

What You Already Have in Place

- ✓ Provide, for each item to be buffered, historical or forecasted demand data (i.e., demand date and quantity) for all orders processed in the user defined Demand Date Range

What You will Need to Do

- ❑ Establish **Reliable (NOT Average)** Lead Times (RLT) or Times-to-Reliably Replenish (TRR); i.e., a planned period of time between the release and completion of an order that is often greater than, and seldom less than the actual time
- ❑ Minimize the batching of orders by placing replenishment orders in accordance with actual demand of the item issued (or sold) from inventory
- ❑ Maintain a predetermined maximum quantity, whether it be in inventory or on its way back to being in inventory

ANALYZE works because time based demand patterns provide an "all in one picture" of time, demand, risk and investment where the implications of your choices are easy to see.

ANALYZE works with your existing ERP system to further leverage your return on investment.

Over 30 years of experience in constraint-based decision making, AGI's ANALYZE Software is designed to help companies deliver more effectively and efficiently.

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