

Glossary of Terms

APICS—Formerly the American Production and Inventory Control Society, now known as the Association for Operations Management (they did not change the acronym). This organization of professionals is the keeper of the body of knowledge for inventory planning topics and process flow materials. They can be reached at 800 444 APIC.

ABC analysis—The stratification of inventory into levels associated with monetary and/or volume levels. Materials planning utilizes this methodology extensively in planning methodologies.

ATO—Assemble to order. An inventory strategy that master-schedules assemblies for availability when demand happens. Subassemblies and/or components are assembled after the demand signal. Dell Computer has made this strategy famous in recent years.

Audit—To audit a process such as inventory accuracy is to check accuracy of a process by a defined periodic check and measure.

Balance by location—An inventory balance for only one location where a material or item is stored. This should not be confused with having more than one item in a location. They do not address the same subject.

BOM—Bill Of material. The BOM is a record file documenting the description of all component and ingredient relationships including “quantity per” and all item and material numbers. It normally resides in the computer business system, but copies may also be available in the engineering design systems.

BOR—Bill of resource. The BOR is a record file documenting the BOM information along with the routing records. It documents the sequence of materials used in the process by tying each component to a process step.

Buker, Inc.—Buker, Inc. is a consulting organization in Chicago that is involved in ERP education and training including video offerings (www.Buker.com).

Business imperatives—Business imperatives are the shorter-term business objectives that *must be done* in the next 12 months for competitive advantage as determined by top management. Not to be confused with strategic objectives, which are longer term.

Business system—A computer system used to communicate linkages between business processes such as scheduling and execution of schedules, inventory consumption and balance records, forecasting and planning inventory, financials and operations, and other critical process elements. Business systems are usually referred to as an ERP (enterprise resource planning) systems.

Brainstorming—Brainstorming is a technique used to develop ideas in a problem-solving effort. Team members take turns submitting ideas, which are documented for later review.

Class A ERP—A specific high-level of performance using ERP methodology and defined by measurements and certification criteria. There are organizations (such as DHSeldon & Associates) that certify this performance level by auditing performance. The metrics are usually around five areas: Prioritization and Management of Business Objectives (includes Project Management, Human Capital Management and Investment and Business Imperatives), Sales and Operations Planning Processes, Scheduling Disciplines and Production Planning, Data Integrity, and Execution of Schedules and Plans.

Consultants—Experts hired from outside your organization to aid in the implementation of an improvement in process. Often education and training is a good application for consultants.

Cumulative lead time—Cumulative lead time is the summary of all lead time required to requisition material and convert this material into saleable inventory. Normal sequences include procurement, fabrication, subassembly, assembly, testing, and shipping.

Cycle count—A cycle count program is designed to schedule and periodically audit inventory balances for accuracy. Normally it is done using random sampling with a plan to count certain segments completely over specific periods of time. There can be wide variation in cycle counting programs depending on the process control in that particular stores area.

Demand planning—Top-management planning processes include demand planning. Demand planning is the process that results in the forecast of customer behaviors as it relates to a business's product sales. Inputs to demand planning are normally as follows: business planning goals, marketing plans, sales cycle knowledge, customer knowledge, and history of seasonality and cyclicity.

Discipline—In inventory control and manufacturing environments, discipline normally refers to the action controls required for predictability or repeatability of a process. Processes need good disciplines or controls for repeatability.

ECN—The engineering change number describes the serial number of a change as it is being and after is completed. This is sometimes called an ECO (engineering change order).

ECO—Engineering change order. Same as an ECN, above.

ECR—The engineering change request usually is the prerequisite to the ECN. This is the process and document used to suggest a change to a product. And ECR is not an authorized change.

End items—Finished goods ready to ship. This refers to product in both MTS or MTO environments.

ERP—Enterprise resource planning. A methodology of linking and measuring business processes for the objective of high performance and low cost. Emphasis is on capacity and realities of process. Evolved from the MRP II process methodology, ERP adds more emphasis on linkages outside the business (suppliers and customers). Sometimes referred to as supply chain management.

ETO—Engineer to order methodology is used in manufacturing when the demand signal has some of the necessary information to properly complete a product. The manufacturing process is not started until the customer has ordered the item, which signals engineering to spec the job.

Finished goods—Finished goods inventory is inventory that is customer-ready and could be sold and delivered in the time it takes to pack and ship the product.

Fishbone analysis—The fishbone diagram is a method or tool for problem solving using a fishbone diagram and process. Usually the factors considered include variation sources from the following: methods used in the process, machinery or equipment required, manpower or people factors, materials, or environmental issues.

Forecasting—Forecasting is the process deliverable from top-management demand planning. The forecast is designed to predict customer behaviors, taking into consideration both history and actions to affect their behavior. In high-performance businesses it is updated and reviewed at least monthly, and more recently, it is often reviewed weekly.

Inventory—Material, components, or finished goods held for or used in the process of manufacturing or distribution.

Inventory control—Inventory control involves the process of storing moving, and managing the inventory of an organization. Elements include managing obsolescence, excessive, accuracy, availability, and general levels of inventory.

Inventory record—A computer system record showing the quantity of on-hand inventory of any specific item or material.

Inventory stratification—The stratification of inventory into levels associated with monetary and/or volume levels. Materials planning utilizes this methodology extensively in planning methodologies. See ABC analysis.

Ishikawa diagram—Cause-and-effect problem-solving tool using a fishbone diagram and process.

Item master record—The “master” record by part number within the computer system where vital information linked to that item or material is kept.

JIT—Just in time, Same as lean manufacturing.

Lean manufacturing—Lean manufacturing process focuses on eliminating waste or cost-added activities in all processes in the business. Objectives of lean drive flexibility and speed of process.

Location—Labeled area where inventory can be or is held. The location description is also sometimes referred to as the location.

Master scheduler—The master scheduler directs the development and execution of the master schedule. He or she helps direct the “rules of engagement” between the demand signal and the supply-side delivery process.

Master scheduling—Master scheduling is the process of linking demand and top-management planning processes to the factories or procurement of a manufacturing or distribution business. The master schedule creates the drumbeat for the supply chain and gives specific direction on both planned and unplanned schedule requirements.

Materials management—Materials management is the functional group responsible for scheduling, planning, procuring, and controlling inventory in a manufacturing organization. In some manufacturing organizations, procurement is in a separate functional group.

MPS—Master production schedule. This is the process during which all product is scheduled through a factory or distribution facility. It normally drives requirement signals into the planning process and sets the drumbeat for the future requirements.

MRP—Material requirements planning. A sub-process of ERP that nets available and scheduled inventory against requirements from the master schedule. In most companies today, this process is done in some form for materials planning in future time buckets.

MRP II—Manufacturing resource planning. The predecessor to ERP (see ERP). MRP II was a business planning system in the 1980s and 1990s that integrated capacity planning and top-management planning with the materials planning and plan execution. It was changed into ERP in the 1990s with the integration of supply chain management.

MTS—Make to stock. When organizations plan and build finished-level inventory prior to the customer demand signal, it is referred to as a make-to-stock environment. MTS is usually referred to as an inventory strategy.

MTO—Make to order. When organizations plan subcomponents prior to the customer demand signal and finish manufacturing the product after the customer order, it is referred to as a make-to-order environment. MTO is usually referred to as an inventory strategy.

Obsolescence—High-performance companies define the point at which inventory is no longer expected to be used in any reasonable time frame. Usually inventory that is not planned to be used in the next two years or more would be considered obsolete. This often becomes an issue when engineering change orphans a part due to a replacement design.

Oliver Wight—Consulting company involved with ERP education and training

Pareto chart—Frequency chart of root causes. In this case it refers to the root cause of inventory inaccuracies.

Procurement—Procurement is the purchasing function within an organization responsible for procuring items required by the company. Responsibilities usually include contract negotiations, supplier selection, pricing, reverse auctions, and supplier performance.

Repetitive manufacturing—Repetitive manufacturing is an environment where the same items are often repeated. System shortcuts can make sense, and many business systems are set up specifically to accommodate this type of efficiency.

Routing—See routing record.

Routing Record—Documented description of the process steps used in manufacturing or converting raw material and/or components into finished and semi-finished goods.

Stratification—See inventory stratification.

Strategic objectives—The strategic objectives are longer-term goals for an organization. These goals tend to define the priorities and outline of top-management expectations going forward. The time frames are usually in the two- to five-year range.

Tolerance on inventory metric—Generally acceptable inventory accuracy tolerances For inventory balances are: A = +/- 0%; B = +/- 2%; C = +/- 3 to 5%. These tolerances are allowed for less expensive parts for efficiency. Many manufacturing operations do not use tolerances.

Work order—A work order is used in some businesses to define a specific job requirement with configuration requirements and quantity required. In a repetitive environment, work orders are often not used.

5-Why diagram—Problem-solving process for breaking bigger problems into smaller components and determining causes.

24-hour rule—When inventory is stored in an area (by process design or normal habit) for more than 24 hours, it falls into the 24-hour rule. In this situation it is generally considered responsible to know where this inventory is by tracking it in the business system. Inventory that is held less than 24 hours in any one area often is tracked at the next 24-hour point or at finished goods.