



NATIONAL ASSOCIATION OF  
ELECTRICAL DISTRIBUTORS

# Supply Chain Scorecard: **Recommended Industry Vocabulary**



*Developed for the membership of the  
National Association of Electrical Distributors  
by the Task Forces on Supply Chain Scorecards*

## NAED's Overall Mission:

The National Association of Electrical Distributors is the voice of electrical distribution, providing members with the best in tools, information, and assistance to help them thrive financially and to improve the electrical distribution channel. This is accomplished through promotion of networking, advocacy, education, and defined standards.

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## Scope of this Document

This compilation is designed to facilitate a dialogue among individual distributors and the manufacturers that supply products to them for the purposes of making the supply chain evaluation process more efficient and reducing the costs for all parties involved. It is not intended to express any views regarding individual distributors' or manufacturers' business decisions. All distributors and manufacturers will continue to make their own independent decisions regarding all matters affecting competition.

Information outside the scope of the designated categories (*e.g., manufacturer pricing and payment terms, promotional allowances, etc.*) has been omitted from this document. However, individual distributors are free to discuss these subjects in separate dealings with individual manufacturers.

# Goal of NAED’s Supply Chain Scorecard Task Force

In March 2005, NAED's Sales & Marketing Committee suggested that NAED develop an industry-wide report card to make the process of evaluating supply chain performance more efficient. In response, NAED recruited teams of distributors and manufacturers who were passionate about making the supply chain more efficient. The task force recognized a common goal of driving process efficiencies and improving performance to take costs out of the channel by lowering the costs of doing business together while delivering more value to the end-customer. The task force determined that the first critical tool needed to improve channel efficiency and reduce costs for both trading partners was a common vocabulary to improve communications between parties at different levels in the supply chain. This Recommended Industry Vocabulary is designed to facilitate a dialogue among distributors and manufacturers for the purposes of making the supply chain performance evaluation process more efficient and reducing costs for all parties involved.

## Dedication

This recommended vocabulary is the result of an industry effort! Both distributors and manufacturers were involved in its development. Speaking the same language industry-wide is the first step in standardizing supply chain performance evaluation and making the evaluation process more efficient.

### The 2005 Distributor Task Force

The Distributor Task Force that developed the vocabulary in May, 2006 included 11 volunteers from 10 companies:

- Barry Nelson.....Border States Electric Supply
- David Oldfather.....Affiliated Distributors
- Donna Shamblin .....United Electric Supply
- George Adams, Jr. ....Electric Supply of Tampa
- Jeff Brittain.....McNaughton-McKay
- Jill Hoffman-Grall .....Formerly of Werner Electric Supply
- Joe Lechner & Sharon Todd.....Western Extralite
- Pat Lawler.....Standard Electric Supply
- Steve Peterson .....Formerly of Minnesota Electric Supply
- Steve Smith .....Now retired from Graybar Electric Co.

### **The 2005 Manufacturer Task Force**

The Manufacturer Task Force that developed the vocabulary in May, 2006 included 12 volunteers from 10 companies:

Dale Pivarunas .....	Advance Transformer
Greg MacDonald.....	Coleman Cable
Kevin Hestead & Brad Nanna.....	Eaton Corporation
Troit Freeland .....	Ideal Industries
Cindy Borre .....	Intermatic, Inc
Bruce Bittner .....	Formerly of Panduit
Dave Hagemeyer .....	Rockwell Automation
Marjorie Frett.....	Square D/Schneider Electric
Jim Sullivan & John Wilson.....	Now retired from Sylvania
David Dean.....	Thomas & Betts

### **Additional Key People in 2005**

NAED's general legal counsel, Ron Rucker, provided legal guidance during each conference call and face-to-face meeting. Legal guidance was also provided by Sanford M. Pastroff of Sonnenschein Nath & Rosenthal LLP. Ann Adams, Channel Management/Operations of Schneider Electric/Square D served as the task force's liaison with the IDEA Standards Committee. Input on specific EDI definitions was also received from Siemens Energy & Automation's Liz Norman, Ideal Industries' Stacie Braffett, and Rockwell Automation's Mindy Michalski.

## **2011 Update of the Recommended Industry Vocabulary**

Since measuring supply chain performance is an evolutionary process, NAED's Manufacturers' Council made updating the scorecard documents a priority in August 2010. A new task force was established, with task force members consisting of volunteers from the Manufacturers' Council and representatives from Schneider Electric/Square D and Sylvania in recognition of their companies' leadership and support of the 2005 task force.

### **The 2010 Manufacturer Task Force**

The Manufacturer Task Force that updated the vocabulary includes 13 volunteers from 11 companies:

Dave Goedeking & Doug Cowan.....	3M
Kevin Duggan.....	Cooper Industries
Mike Winter.....	Emerson
Gary Norris.....	IlSCO
John Hoffman.....	LeGrand
Jim Kosciolk.....	Mersen



- Terri Dumas.....RAB Lighting
- Teressa Barnhill.....Schneider Electric/Square D
- Jay Jefferson & Louis Weisberg.....Service Wire
- Peter Vient.....Sylvania
- Liz O’Grady.....Thomas & Betts

## Definition of Supply Chain Management

“Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. Supply Chain Management is an integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model. It includes all of the logistics management activities noted above, as well as manufacturing operations, and it drives coordination of processes and activities with and across marketing, sales, product design, finance and information technology.” *Source: Definition from The Council of Supply Chain Management Professionals (CSCMP).*



The Supply-Chain Operations Reference-model (SCOR) was developed by the Supply-Chain Council as a tool to describe the business activities associated with all phases of fulfilling end-customer demand—from raw material to recycling. It is built around 6 major processes: plan, source, make, deliver, return and enable. SCOR is a standardized method of measuring supply chain performance and is applicable across all industries.

For additional information, please visit [www.supply-chain.org](http://www.supply-chain.org). *Source: The Council of Supply Chain Management Professionals. SCOR is a registered trademark of the Supply-Chain Council Inc. in the United States and Canada.*



## Recommended Definitions<sup>1</sup>

- ▶ **Average Inventory**—Average of the inventory within the rolling 12 months.
- ▶ **Average Number of Shipments per Order**—The number of shipments required to complete an order.
- ▶ **Business Alignment**— Shared vision, mutual concern, and long-term relationship focus organization-wide. “Your business matters to us.”  
\*\*\*2011 Update\*\*\*
- ▶ **Credibility**—Reliable and predictable. \*\*\*2011 Update\*\*\*
- ▶ **Direct Sales @ Distributor Cost**—Distributor Cost of the material sold to customers on shipments direct from the manufacturer.
- ▶ **Distributor Cost**—The amount the distributor actually pays for the product i.e., the price on the manufacturer’s invoice to the distributor less deductions for Special Pricing Authorizations (SPAs) and other allowances.  
*EXAMPLE: The amount on Manufacturer Z’s invoice for 100 widgets is \$80 (the distributor’s regular in to stock cost). However, 10 widgets are subject to a \$20 rebate on a Special Pricing Authorization (SPA). The distributor’s actual cost for the items is \$80 for 90 widgets and \$60 for the 10 widgets sold on the Special Pricing Authorization (SPA).*

100 Widgets @\$80 in To Stock	\$8,000
Less Credit of \$20 each for 10 Widgets on SPA	<u>200</u>
Distributor Cost	\$7,800

*Note: When calculating the value of inventory, generally accepted accounting principles apply.*
- ▶ **Distributor Non-Stock Items**—Items that a distributor does not keep on hand due to low and infrequent sales. Non-Stock items are special ordered to fill specific end-customer orders. Non-Stock items on an order may be shipped to a distributor's warehouse or shipped directly from the manufacturer to the end-customer. *Note: Whether an item is a “stock” or “non-stock” will vary by individual distributor and often even by distributor branch.*

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<sup>1</sup> *Note: This compilation is designed to facilitate a dialogue among individual distributors and the manufacturers that supply products to them for the purposes of making the supply chain evaluation process more efficient and reducing the costs for all parties involved. It is not intended to express any views regarding individual distributors’ or manufacturers’ business decisions. All distributors and manufacturers will continue to make their own independent decisions regarding all matters affecting competition.*



- ▶ **Distributor Stock Items**—Items that a distributor keeps on hand in their warehouse to fulfill end-customer orders. *Note: Whether an item is a “stock” or “non-stock” will vary by individual distributor and often even by distributor branch.*
- ▶ **Electronic Data Interchange (EDI)**—The exchange of business documents electronically instead of mailing or faxing paper. Businesses use EDI to reduce errors and the costs associated with the manual keying of data and to speed up the process of sending and receiving standard business documents. EDI uses standard transaction sets and formats that have specific transaction numbers assigned to them. The transaction set numbers identify the standard use and function of the individual transaction that is being transmitted. *(Definitions of common EDI transactions follow).*
- ▶ **EDI 214: Transportation Carrier Shipment Status**—EDI transaction used to report the status of a shipment to the shipper, consignee, or third parties, from pickup to final delivery.
- ▶ **EDI 810: Invoice**—EDI transaction that is an electronic version of a paper invoice. It communicates the specific items, price, and quantities shipped and the amount that must be paid.
- ▶ **EDI: 812 Credit/Debit Adjustment**—EDI Transaction used to request or notify a trading partner of an adjustment. An EDI 812 identifies and contains the details and amounts covering exceptions, adjustments, credits, or debits for goods or services.
- ▶ **EDI 820: Payment Order/Remittance Advice**—EDI transaction used to receive remittance advice and send payments to vendors.
- ▶ **EDI 824: Application Advice**—EDI transaction used to report at the functional group or transaction set level the results of an application system's data content edits of transaction sets; used to report acceptance, rejection, or acceptance with change of the transaction set.
- ▶ **EDI 830: Planning and Forecasting**—EDI transaction used to transfer forecasting or material release information in the form a simple forecast. This forecast includes the buyer's authorization for the seller to commit resources, labor and



materials, or a forecast used as an order release mechanism (*which can eliminate the need for discrete purchase orders*).

- ▶ **EDI 832: Price/Sales Catalog**—EDI transaction used to furnish the price of goods or services in the form of a catalog. The EDI 832 keeps internal item files up-to-date with accurate product and price information.
- ▶ **EDI 840: Request for Quotation**—EDI transaction used to solicit price, delivery schedule, and other information from potential sellers. The EDI 840 can be used for a limited list of parts versus an entire catalog.
- ▶ **EDI 843: Response to Request for Quotation**—EDI transaction that responds to the EDI 840: Request for Quotation and provides price, delivery schedule, and other information.
- ▶ **EDI 844: Product Transfer Account Adjustment** (*also known as a SPA Credit Request*)—EDI Transaction used by a distributor to request credit for transactions covered by a manufacturer's preauthorized SPA Quotation. (*Definition courtesy of SPA Task Force*).
- ▶ **EDI 845: Price Authorization Acknowledgement/Status** (*May also be known as a SPA Quotation, but there are other uses including price quotations*)—EDI Transaction used by a manufacturer to provide a distributor with pricing or a specific SPA quotation. (*Definition courtesy of SPA Task Force*).
- ▶ **EDI 849: Product Transfer Account Adjustment Response** (*also known as a SPA Credit/ Discrepancy*)—EDI Transaction used by a manufacturer to issue an SPA Credit or an SPA Credit Discrepancy Notice in response to a Distributor SPA Claim Filing. (*Definition courtesy of SPA Task Force*).
- ▶ **EDI 850: Purchase Order**—EDI transaction that is an electronic version of a paper Purchase Order.
- ▶ **EDI 852: Product Activity Data**—EDI transaction that reports the movement of material in and out of a supplier consigned inventory on a daily or weekly basis, depending on the need.



- ▶ **EDI 855: Purchase Order Acknowledgement**—EDI transaction that is an electronic version of a phone call, fax, or hard copy of a purchase order acknowledgement. The EDI 855 can also be used in conjunction with the EDI 852: Product Activity Data as an initiation of a VMI Order.
- ▶ **EDI 856: Ship Notice/Manifest**—EDI transaction sent when product is shipped that is an electronic version of a printed packing slip.
- ▶ **EDI 857: Shipping and Billing Notice**—EDI transaction that combines the EDI 856: Ship Notice/Manifest and EDI 810: Invoice. The EDI 857 is used to reduce EDI costs when shipment and purchase order accuracy is high.
- ▶ **EDI 860: Purchase Order Change Request**—EDI transaction used (1) by a buyer to request a change to a previously submitted purchase order; or (2) by a buyer to confirm acceptance of a purchase order change initiated by the seller or by mutual agreement of the two parties.
- ▶ **EDI 861: Receiving Advice/Acceptance Certificate**—EDI transaction used to notify the trading partner of the initial receipt or verified receipt quantity for a shipment of goods.
- ▶ **EDI 864: Text Message**—EDI transaction used to transmit messages, contracts, explanations, or other one-time communications in some human readable form, for people, not computer processing.
- ▶ **EDI 865: Purchase Order Change Acknowledgement**—EDI transaction used to convey acceptance or rejection of changes to a previously submitted purchase order by the seller or to notify the buyer of changes initiated by the seller to a previously submitted purchase order by the seller.
- ▶ **EDI 867: Product Transfer and Resale Report**—EDI transaction used to (1) report information about product that has been transferred from one location to another (*inter-branch transfer and/or transfer from a Regional Distribution Center to a branch*); (2) report sales of product to an end-customer; and/or (3) report lost orders, i.e., demand beyond actual sales. (*Definition courtesy of POS Task Force*).



- ▶ **EDI 869: Order Status Inquiry**—EDI transaction used to request information about all or part of a purchase order or for all or part of the items on order, whether shipped or unshipped.
- ▶ **EDI 870: Order Status Report**—EDI transaction used in response to the EDI 869: Order Status Inquiry, to report on the current status of a requirement forecast, an entire purchase order, selected line items on a purchase order, selected products/services on a purchase order, or purchase orders for a specific customer in their entirety or on a selection basis. This transaction set can also be used to report on the current status of single or multiple requisitions. This transaction set may also be used to update the supplier's scheduled shipment or delivery dates.
- ▶ **Electronic Invoicing**—Invoices received via Electronic Data Interchange (EDI), Flat File, Vendor Managed Inventory (VMI), and/or downloaded from the vendor's secure website. Electronic invoicing takes costs out of the channel because it does not require manual intervention—*interpretation, price verification, re-keying, printing, filing, and/or internal routing of hard copies.*
- ▶ **EDI 997: Functional Acknowledgement**—EDI transaction that confirms that a specific transaction set has been received and is structured correctly according to accepted standards and definitions for that transaction set.
- ▶ **Electronic Purchase Order**—Purchase Orders received via EDI, Flat File, VMI, and/or Online entry directly into the recipient's business system. Electronic Purchase Orders take costs out of the channel because they do not require manual intervention—*interpretation, price verification, re-keying, printing, filing, and/or internal routing of hard copies.*
- ▶ **Emergency/Expedited Order**—Orders requiring special handling, i.e., requested in less than the normal/historical lead times, a negotiated delivery date, or shipment via air freight.
- ▶ **Freight Efficiency**—The number of orders that do not meet manufacturer minimum order requirements and the distributor pays a surcharge or the freight, as a percentage of total orders.



- ▶ **Gross Margin Return on Inventory (Definition from Performance Analysis Report, i.e., PAR)**—  $GMROI = \text{Gross Profit}^* \text{ divided by Average Inventory} \times 100$ .  
*Note: This ratio measures how many gross margin dollars are produced from each dollar tied up in inventory. GMROI facilitates the evaluation of products with widely varying gross margin and inventory utilization rates. \*Dr. Al Bates only includes the gross profit on stock sales in this calculation in the PAR Report.*
  
- ▶ **Growth in Sales @ Distributor Cost**—The percentage change in sales @ Distributor Cost over a specified time period.  
*Example:*
  - 2010 Sales @Distributor Cost \$100
  - 2009 Sales @ Distributor Cost \$80
  - Growth in Sales @ Distributor Cost is 25%
  
- ▶ **Initial Fill Rate**—Stock line items received complete on **first receipt** as a percentage of stock line items ordered. *Note: See Recommended Best Practices for comments when a line item exceeds a truckload.*
  
- ▶ **Investment in the Future of the Business**— Time, energy and funding consistently invested in people, products, systems, skills development, and training in order to gain a future advantage. *\*\*\*2011 Update\*\*\**
  
- ▶ **Inventory Turnover (Definition from Performance Analysis Report, i.e., PAR)**—  $\text{Cost of Goods Sold}^* \text{ divided by Average Inventory}$ . *Note: Dr. Al Bates measures Inventory Turnover 2 ways in the PAR Report—Cost of Goods Sold of Total Sales and Cost of Goods Sold of Sales Through Stock. For purposes of the Supply Chain Scorecard, it is recommended that Inventory Turnover be calculated based on the Cost of Goods Sold for Sales through Stock only.*
  
- ▶ **Invoice Accuracy**—The number of line items invoiced correctly divided by the total number of line items invoiced.
  
- ▶ **Lead Time**—The time elapsed in calendar days between when an electronic order is issued, or a manual order is accepted, to the receipt of material. *Note: Sometimes referred to as “Order Cycle Time” by Manufacturers.*
  
- ▶ **Manual Purchase Order**—Purchase Orders placed via telephone, fax, or hard copy. Manual Purchase Orders require physical intervention—*interpretation, price verification, re-keying, printing, filing, and internal routing of hard copies*—and increase the cost of doing business together.



- ▶ **Manufacturer Non-Stock Item**—Products that are assembled-to-order, custom engineered, modified, private labeled, and/or have low or infrequent usage. Non-Stock Items are frequently ordered by description rather than by catalog number. *Note: Whether an item is a “stock” or “non-stock” will vary by individual manufacturer.*
- ▶ **Manufacturer Stock Items**—Standard items listed in a manufacturer's catalog with unique identifiers (*i.e., catalog numbers*) and UPC Codes assigned. Manufacturer Stock Items are typically available off-the-shelf for immediate shipment. *Note: Whether an item is a “stock” or “non-stock” will vary by individual manufacturer.*
- ▶ **Marketing Coop Funds (Co-Op)**—A **cost sharing arrangement**, typically based on product purchases, to create brand recognition, stimulate product demand, and/or build customer relationships in which manufacturers may elect to provide financial assistance to distributors for specific marketing activities. The guidelines for accrual of co-op funds vary and may be in a manufacturer's published policies and procedures. *Note: Some companies may currently refer to this as an “advertising allowance” or “promotional allowance.” \*\*\*2011 Update\*\*\**
- ▶ **Marketing Development Funds (MDF)**—A **funding arrangement** to create brand recognition, stimulate product demand, and/or build customer relationships in which manufacturers may elect to provide financial assistance to distributors for specific marketing activities. The guidelines for approval of Marketing Development Funds vary and may be in a manufacturer's published policies and procedures. *Note: Some companies may include marketing group programs in this voluntary funding arrangement. \*\*\*2011 Update\*\*\**
- ▶ **Objective Measures**—Measures that are based on observable facts, uninfluenced by emotions or personal prejudices.
- ▶ **On-Time Delivery**—The number of lines received complete from the manufacturer by the requested date based on normal/historical lead times or a negotiated delivery date divided by the total lines ordered.
- ▶ **On-Time Payment**—The total dollar value of past due invoices as a percent of the total invoices due.



- ▶ **Order Level Optimization**—Number of purchase orders that do not meet minimum order requirements divided by the total number of purchase orders.  
*Note: Purchase Orders that do not meet minimum order requirements may incur a “small order” processing charge or require the distributor to pay for the freight.*
- ▶ **Overstock Inventory**—The amount of inventory in excess of a specified number of days supply.
- ▶ **Percentage of Stock Sales Subject to Special Pricing Authorizations**—Stock Sales @ Distributor Cost subject to Special Pricing Authorizations (SPAs) from this vendor divided by Total Stock Sales @ Distributor Cost from this vendor.

*Example: A distributor sells 100 Company Z brand widgets through stock during a specific time period at an in-to stock cost of \$80. Ten of the Company Z brand widgets are subject to a Special Pricing Authorization (SPA), resulting in an in-to stock cost of \$60 each.*

90 Widgets @ \$80 In To Stock	\$7,200
10 Widgets on SPA @ \$60	<u>\$600</u>
Distributor Cost	\$7,800

*Percent of Company Z Stock Sales Subject to Special Pricing Authorizations = \$600/\$7,800, or 7.7%*

- ▶ **Perfect Order**—An order that is delivered on-time, with all line items filled completely, with no errors, and invoiced correctly.
- ▶ **Price Change Notification**—The number of calendar days in advance of price changes notification is provided.
- ▶ **Price Change Updates**—The number of calendar days in advance of the effective date specific pricing updates are provided.
- ▶ **Purchase Order Accuracy**—The number of line items ordered 100% correctly (*Correct part number, correct price, correct Unit of Measure, correct carton quantity, within the published or “agreed to” lead time*) divided by the total line items ordered.
- ▶ **Rebates**—A return of part of an amount given in payment exclusive of Special Pricing Authorizations (SPAs). Examples of rebates include marketing group incentives, year-end volume discounts, and other pre-negotiated price adjustments. The guidelines vary and may be in a manufacturer's published policies and procedures.



- ▶ **Receipt of Credit for Return Cycle Time**—The number of calendar days between shipment of the items on the Return Goods Authorization (RGA) and the receipt of the credit for the items returned.
- ▶ **Return of Authorized Goods Cycle Time**—The number of calendar days between the receipt of authorization for return and the shipment of the items on the Return Goods Authorization (RGA).
- ▶ **Return Authorization Processing Cycle Time**—The number of calendar days between the initial request for Return Goods Authorization (RGA) and the receipt of authorization for return.
- ▶ **Sales @ Distributor Cost**—Stock plus Direct Sales @ Distributor Cost to customers.
- ▶ **Shipping Accuracy**—The number of line items received 100% correctly divided by the total line items ordered.
- ▶ **Special Pricing Authorization** (*Also known as SPA*)—A discounted price granted by a manufacturer to a distributor to meet a competitive situation. (*Definition courtesy of SPA Task Force*).
- ▶ **Stagnant Inventory**—Stock items that have not had a sale during a specified time period.
- ▶ **Stock Sales @ Distributor Cost**—Distributor Cost of the material sold to customers through the warehouse.
- ▶ **Subjective Measure**—Measures an individual's satisfaction with specific behaviors.
- ▶ **Vendor Managed Inventory (VMI)**—Vendor Managed Inventories (VMI) refers to any practice that involves cooperation between supply chain partners to control inventories. The practice uses demands, inventories and forecasts to prepare and carry out automatic replenishments through EDI linkages. (*Definition from the APQC—American Productivity & Quality Center*).

- ▶ **UCC 128: 128 Shipping Container Label**—Scan-able packing list. A UCC 128 lets the receiving department know what is in the shipment without having to open the cartons. Used in conjunction with the EDI 856: Ship Notice/Manifest, when a shipment with a UCC-128 is received, it is scanned and the contents of the shipment are electronically matched in the receiver's computer. This streamlines the receiving process by eliminating the manual entry of data.

## What You Can Do

What can you do to make sure that the **Recommended Industry Vocabulary** is up-to-date?

Give us your feedback!

## Let Your Voice Be Heard!

The 2011 updates to the Recommended Best Practices were presented to the electrical industry for a 60-day commentary period that ends July 15, 2011.

Please send your feedback to NAED Customer Service at 1.888.791.2512 or email [customerservice@naed.org](mailto:customerservice@naed.org).

▶▶ To download the most recent **Recommended Industry Vocabulary: Supply Chain Scorecard**, go to [www.naed.org](http://www.naed.org), roll over the “Resources” tab, then click on “Supply Chain Scorecard” under the “Defined Standards” heading.



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