Automotive EDI Cheat Sheet

Terminology

Not all terms are exclusive to the automotive industry, but all are used frequently.

- **3PL** (Third Party Logistics) – outsourced warehouse/transportation provider.
  - Generally used for Aftermarket, but occasionally for OEM.
  - Can also be used by OEM and Aftermarket companies to distribute product.
- **Aftermarket**– parts sold by dealers and other distributors for use in existing vehicles.
  - Depending on their product, companies are often both an OEM and Aftermarket supplier.
- **Blanket Purchase Order** – a single purchase order that allows multiple shipments over a specified period. Used in conjunction with forecasts. Also known as a blanket agreement or call-off order.
- **Continuous Improvement** – constant focus on improving activities that generate the most value, while also eliminating waste. Also known as Kaizen.
- **Co-Man** (Co-Managed Inventory) – supplier managed inventory replenishment. Also known as CMI.
- **Component Part** – part that exists only as a portion of another part.
- **Forecast** – planned material usage for an OEM. Sent in an 830/DELFOR. Also known as Demand or Demand Forecast.
- **JIT** (Just in Time) – inventory management to align material orders with suppliers' production schedules. Also known as Lean, Lean Replenishment, Inventory Optimization, or the Toyota Production System.
- **Kanban** – supply chain optimization strategy invented by Toyota. Widely adopted throughout the automotive industry in various forms. Lean Manufacturing and Six Sigma are variants based on the original Toyota approach.
- **Lead Time** – the time interval between receiving a forecast and shipping the part.
- **Odette** – EDI standard unique to the automotive industry. Used primarily by European manufacturers.
- **OEM** (Original Equipment Manufacturer) - new vehicle assembly.
- **OFTP** (Odette File Transfer Protocol) – communication protocol unique to the automotive industry.
- **Parent Part** – a final part made up of component parts.
- **PMS (Production Management System/Software)** – business application used to plan manufacturing based on forecast information. May be a component of or separate from the MRP system.
- **Safety Stock** – inventory held to cover discrepancies between forecast and actual material consumption.
- **Tier 1 Supplier** – provides vehicle parts directly to manufacturers or distributors.
  - e.g., Company A sells power steering systems to Ford.
- **Tier 2 Supplier** – provides sub-components to tier 1 suppliers.
  - e.g., Company B sells pumps for power steering to Company A.
- **Tier 3 Supplier** – provides materials to tier 2 suppliers.
  - e.g., Company C sells pressure control valves for pumps to Company B.

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General Notes

The automotive industry was a very early adopter of EDI and has been using it extensively for more than 40 years. EDI is deeply entrenched in automotive; adoption is nearly 100% and requirements updates are comparatively rare. Because EDI has been in use for so long, older standards are still in active use. For example, ANSI versions 003020 and even 002040 are common.

There's very little adoption of new technology, although there's been some small, recent movement towards API's. In general, automotive manufacturers are only interested in making their existing technology processes more efficient, not in replacing them. Continuous improvement is a primary motivation.

Core Documents

- **830/DELFOR**
  - Most used document in OEM. Rarely used in Aftermarket.
  - Allows suppliers to manage their manufacturing and shipping schedules.
- **862/DELJIT**
  - Not as common as the 830, but frequently used. Used only in conjunction with the 830.
  - Allows suppliers to manage their shipping schedules.
- **856/DESADV**
  - Second most used document in OEM. Also used in Aftermarket.
  - Tier 1 suppliers often have facilities close to customers so 856 processing times can be extremely tight (truck sometimes only goes around the corner).

Additional Documents

- **850/ORDERS**
  - Common in Aftermarket, less so in OEM but sometimes used for special orders.
- **855/ORDRSP**
  - Common in Aftermarket, rare in OEM.
- **810/INVOIC**
  - Common in both Aftermarket and OEM, although OEM often pay based on the 856.
- **861/RECADV**
  - Not very common. Used to report receiving issues (quantity discrepancy, damaged goods, etc.).
- **824/APERAK**
  - Common in both Aftermarket and OEM.
- **864**
  - Common in both Aftermarket and OEM.
- **820/REMADV**
  - Common in both Aftermarket and OEM.
- **940/945**
  - Not as widely adopted as other document types, potential area of opportunity for suppliers who use 3PL's.
- **943/944**
  - Generally not used unless the supplier has a sophisticated inventory management system.

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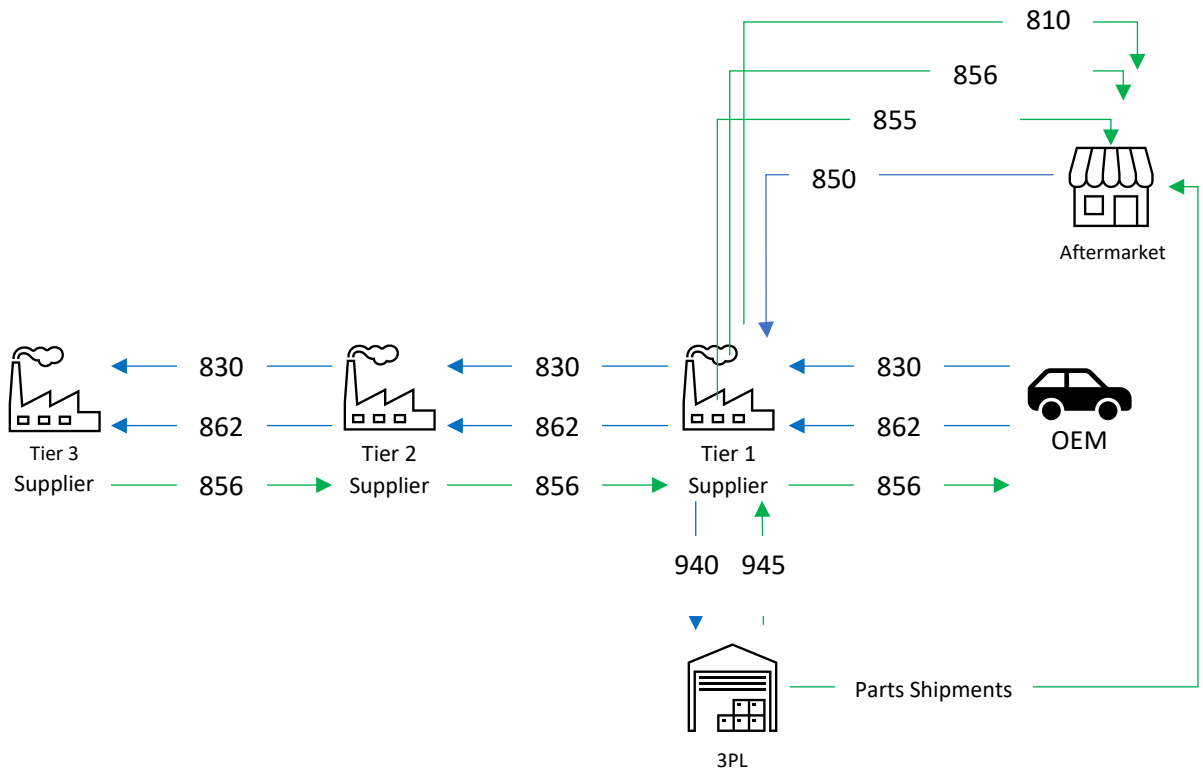

830/DELFOR Details

The 830 (DELFOR in EDIFACT) is used by OEM companies to send material forecasts. The intent is to let the supplier know what they plan to order so the supplier can manage their production schedule accordingly. 830's use a blanket PO; the blanket is created only occasionally, at most once per year.

The 830 is used to generate orders and so takes the place of the 850, although OEM's do sometimes also send 850's for special orders.

Key components of the 830 are:

- **Release number** – unique ID that authorizes shipment against the blanket PO. The PO number in an 830 is the blanket PO and is the same on every forecast, so the release number is what distinguishes one forecast from another.
- **Ship/delivery pattern** – how to ship firm quantities. Shipments are often requested on a day of the week rather than a specific date, e.g., every Thursday.
    - Forecasts received within the release window ship in the next available day, while those received after the release window ship the following available day.
        - For example, if the ship pattern is Thursdays, a forecast received on Monday will ship Thursday of that same week, while a forecast received on Wednesday will ship Thursday of the following week.

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- **Forecast schedule** – quantities based on manufacturing projections. The quantities in a forecast have a code to indicate status. There are many possibilities, but the most common statuses are:
    - A (Immediate) – quantity is late.
    - C (Firm) – quantity is definite, ship the product. Used to create an order in the supplier's system.
    - D (Planning) – quantity is intended but not definite. Used for production planning.
- **Shipped/received details** – details about previous item quantities. Typically used to convey most recent quantity received (i.e., last shipment) and total quantity received during a specific period (usually since the creation of the blanket PO).

862/DELJIT Details

The 862 is a shipping schedule used by OEM companies to indicate delivery requirements. The intent is to let the supplier know when they want shipments sent so the supplier can manage their shipping schedule accordingly. It doesn't authorize manufacturing and is used only to convey a desired ship schedule. That means suppliers will never receive an 862 without first receiving an 830.

The 830 can be used to convey both order and shipping schedules, or just order schedule. If the 830 is used only for order schedule, then the 862 is sent as a supplement to convey the shipping schedule. The main advantage to using the 862 is the ability to indicate specific daily schedules or shipments to multiple locations. If neither is needed, then the 830 is sufficient.

Key components of the 862 are:

- **Schedule horizon** – the calendar period covered (e.g., January 1st to January 31st).
- **Ship/delivery pattern** – when to ship firm quantities. The dates are specific and release windows don't apply.
- **Forecast schedule** – shipment quantities based on manufacturing projections. The quantities in a ship schedule have a code to indicate status. There are many possibilities, but the most common statuses are:
    - C (Firm) – quantity is definite, ship the product.
    - D (Planning) – quantity is intended but not definite. Assume you should ship but wait for confirmation.
- **Shipped/received details** - details about previous item quantities. Typically used to convey most recent quantity received (i.e., last shipment) and total quantity received during a specific period (usually since the creation of the blanket PO).

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