



The Right Skills, at the Right Time, *at the Right Price*



Supply Chain Transfers

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Overview

Everything is tightly integrated in Oracle's supply chain system, giving real-time visibility into transfers across all functions that need to know inventory status, from purchasing to accounting to customer service. In this paper I will cover the functionality, flow, and setups for direct orders, internal orders, and back-to-back orders.

Why Have Transfers?

Once an order is placed, different departments need to know the status to correctly perform their jobs. Purchasing needs to know how much inventory is in stock, Customer Service needs to be able to track fulfillment, and Accounting needs to be able to see the exact number of dollars in transit. Advanced ERP systems like Oracle's are tightly integrated and automated, so organizations can always get a snapshot of their balance sheet that reflects real-time status.

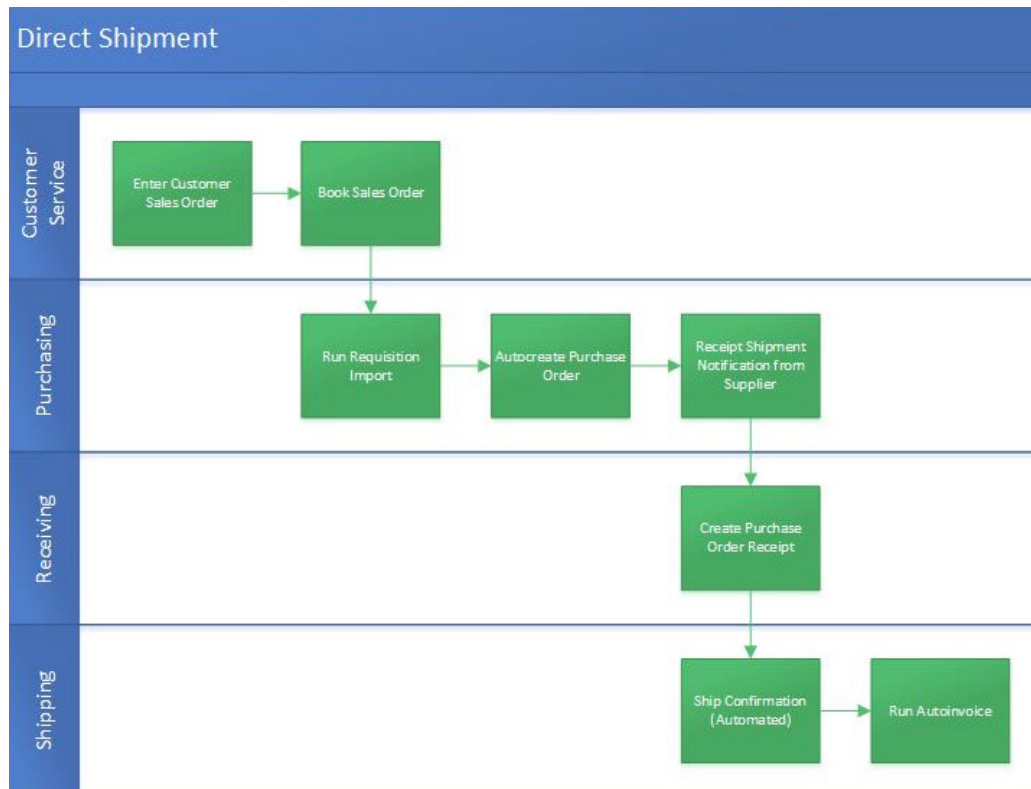
Order Types

- 1. Direct Orders (Drop Shipments) Ship directly from the supplier to the customer*
- 2. Internal Orders Transfer inventory from one location to another*
- 3. Back-to-Back Orders Are specialty item requests that are stocked by the supplier, sent to the distributor, then shipped to the customer*

Direct Orders

Direct orders are pretty straightforward: the customer orders a product, the supplier is notified, and the supplier ships the product directly to the customer. Direct orders are beneficial because they allow distributors to expand their product offerings without carrying the inventory. Transaction processing is all automated, so you're essentially gaining a margin on something that you will never need to touch.

While there are other applications involved in the background, the general flow of a direct order looks like this:



Direct Order Setups

You will need to, at a minimum, enable the following item attributes to drive direct orders:

- Purchased, Purchasable
- Transactable, Stockable
- Reservable, Customer Ordered, Customer Ordered Enabled
- Shippable, Transactable
- Cost Enabled, Inventory Asset Value
- On the Sales Order Line, set the Attribute Source Type to EXTERNAL. This integrates the purchase order in the system so it is trackable.

Optional setups can be used to enhance the performance of direct orders.

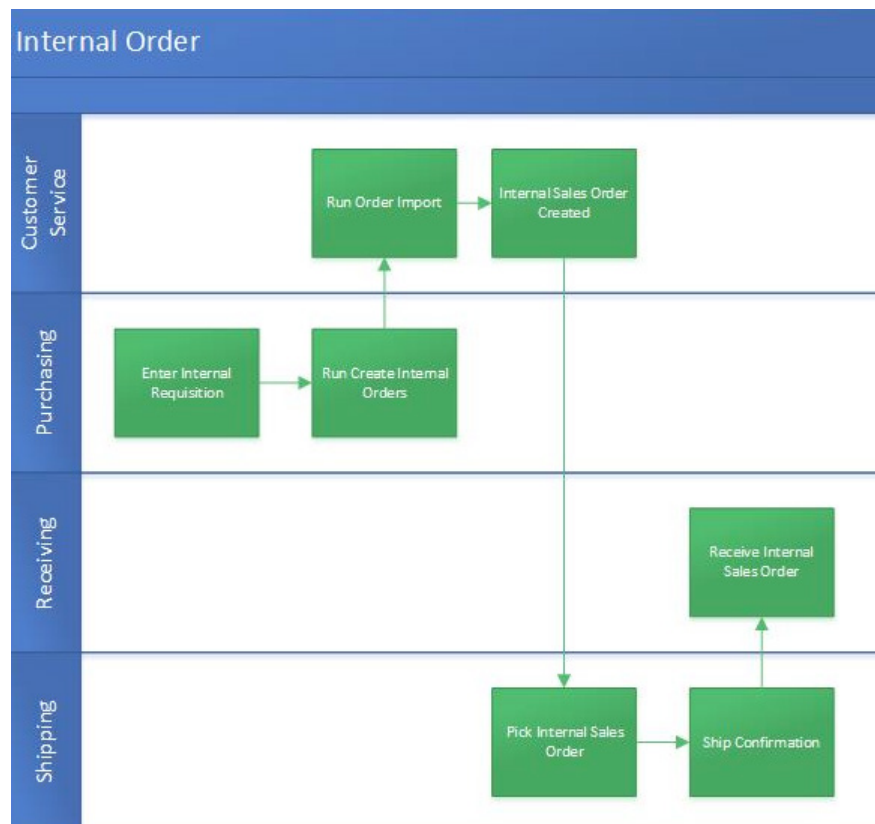
- Drop Shipment Organization controls supply chain visibility, and this can be used in instances where you may not want product volumes to appear in the planning system.
- Default Receiving Subinventory allows you to have the order pop into the receiving screen automatically, saving manual data entry.

- Default Item Source Type saves a step if an item will always be direct ordered or drop shipped.
- Automatic Sourcing allows you to set items and groups of items so they drop ship automatically on a recurring basis.
- Advanced Shipping Notice (ASN) is an EDI option where the supplier sends you an electronic file and instead of making a receipt, the ASN serves as the receipt, saving manual data entry.
- Pay on Receipt creates an invoice that is paid automatically so AP matching is not necessary.
- ATO, PTO models can have drop shipments set up by selecting the item type.
- Across Ledger, Operating Unit extends the drop shipment process across ledger and operating units.

Internal Orders

Internal orders are used when inventory is moved from one location to another within the same organization. So, for example, if your Kansas distribution center is nearing a stock out for a specific product and your Wisconsin facility has excess, Kansas would request the product, Wisconsin would fulfill it, and Kansas would receive it. This is all done within one Oracle instance and all transactions can be seen online in real time. Internal orders have a number of benefits: They allow you flexibility in sourcing stock to better meet customer demand, they can be consolidated and shipped with other internal orders to gain efficiency, transaction processing is automated, and, like direct orders, accounting functions are embedded into the material transfer so your organization has a real-time status of the general ledger.

The general flow of an internal order is shown below. The difference between this order and the direct order is that after the shipment is confirmed, you then receive the internal order in your Receiving and Purchasing system.





Internal Order Setups

There are more setups required for the internal order process than for direct orders, and they span three modules: Inventory, Purchasing, and Order Management. Make sure these attributes are enabled:

Item Attributes

- Purchased, Purchasable
- Transactable, Stockable
- Reservable, Customer Ordered, Customer Ordered Enabled
- Internal Ordered, Internal Ordered Enabled
- Shippable, Transactable
- Cost Enabled, Inventory Asset Value

Inventory Module Attributes

- Inter-Organization Shipping Network
- Item Sourcing, HR Locations

Purchasing Module Attributes

- Internal Requisitions Document Type (Make sure this is fully set up. There is a Purchasing Options reference that is very key to what source is being used from Order Management).

Order Management Module Attributes

- Internal Order Source, Transaction Type (these should be seeded, but double check)
- Internal Customer with ORG reference in SHIP TO
- Internal Price List
- Pick & Pack Rules, as needed for Order Type

Optional setups can enhance the supply chain flow.

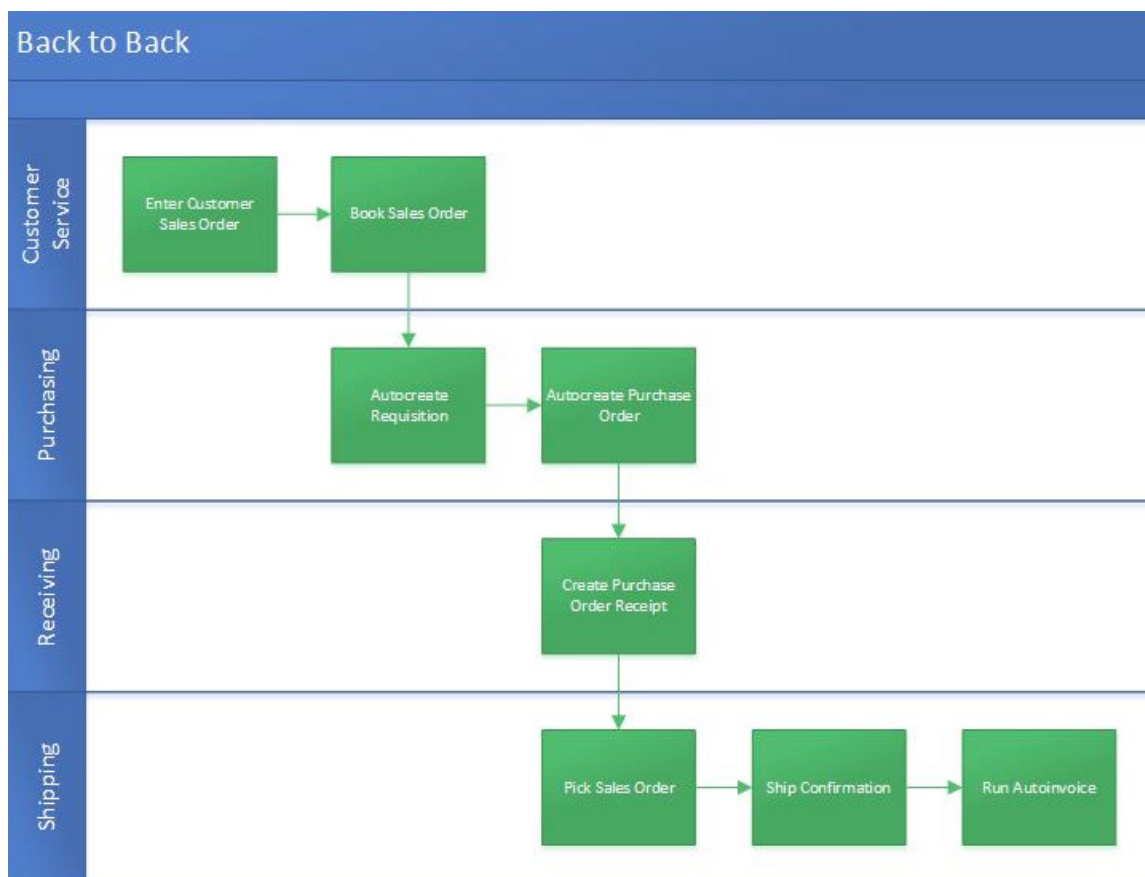
- Automatic Sourcing allows you to specify when you buy this product or transfer it from the distribution center
- Cross Operating Unit can be helpful, but if units are using different ledgers this can introduce complications.
- Subinventory Transfers support products that you already have in your distribution center, but want to transfer with paperwork to another subinventory.
- Internal Orders Processing Constraints can be put into place to restrict standard order management functionality.
- Direct vs. Intransit - Direct shipments can be used if distribution centers are physically close to one another, allowing the product to skip the in transit step and go directly into inventory. Intransit allows an intermediate step before receiving.

- Internal Order Required, Transfer Costs gives you the ability to not require an internal order and to add costs to be billed to the appropriate cost center.

Back-to-Back Orders

Back-to-back orders are used for products that are special-ordered from the supplier in the specific quantity requested by the customer. They are then shipped to the distributor, and the distributor fulfills the order. Back-to-back orders allow you to offer exceptional customer service by sourcing uncommon merchandise while not incurring the inventory expenses for items with low demand. In addition, you have the opportunity to private-label and consolidate shipping, furthering the recognition of your brand.

Back-to-back orders use a special process that links the sales order line to the purchase order line. The flow is as follows:



Back-to-Back Setups

The following item attributes need to be enabled in order for back-to-back ordering to function properly:

- Purchased, Purchasable
- Transactable, Stockable
- Reservable, Customer Ordered, Customer Ordered Enabled



- Assemble to Order, Build in WIP
- General Planning – BUY flag needs to be set
- Shippable, Transactable
- Cost Enabled, Inventory Asset Value

Sourcing

- Rule or Item Level Setup

Conclusion

The automation of supply chain transfers using Oracle applications gains efficiencies and gives organizations greater visibility into their operations. Departments across the supply chain can get the information they need, and by using advanced setups, distributors are able to strengthen their brand by offering customers a broader range of products.

About the Author

Ed McDonough has more than 20 years' experience implementing Oracle software projects across a variety of industries with particular focus concentrated on manufacturing and distribution. He has spearheaded new process re-engineering initiatives and project methodology designs that have resulted in increased project performance company-wide for several global manufacturing and distribution companies. Ed is a regular contributor to the Enterprise Resource Planning (ERP) software body of knowledge and Oracle applications community education and development, including authoring white papers, conducting training seminars, and speaking at software conferences across the nation.

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