

Microsoft Dynamics™ AX 2009

Setting up intercompany for intracompany direct delivery

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Using intercompany functionality for intracompany direct delivery

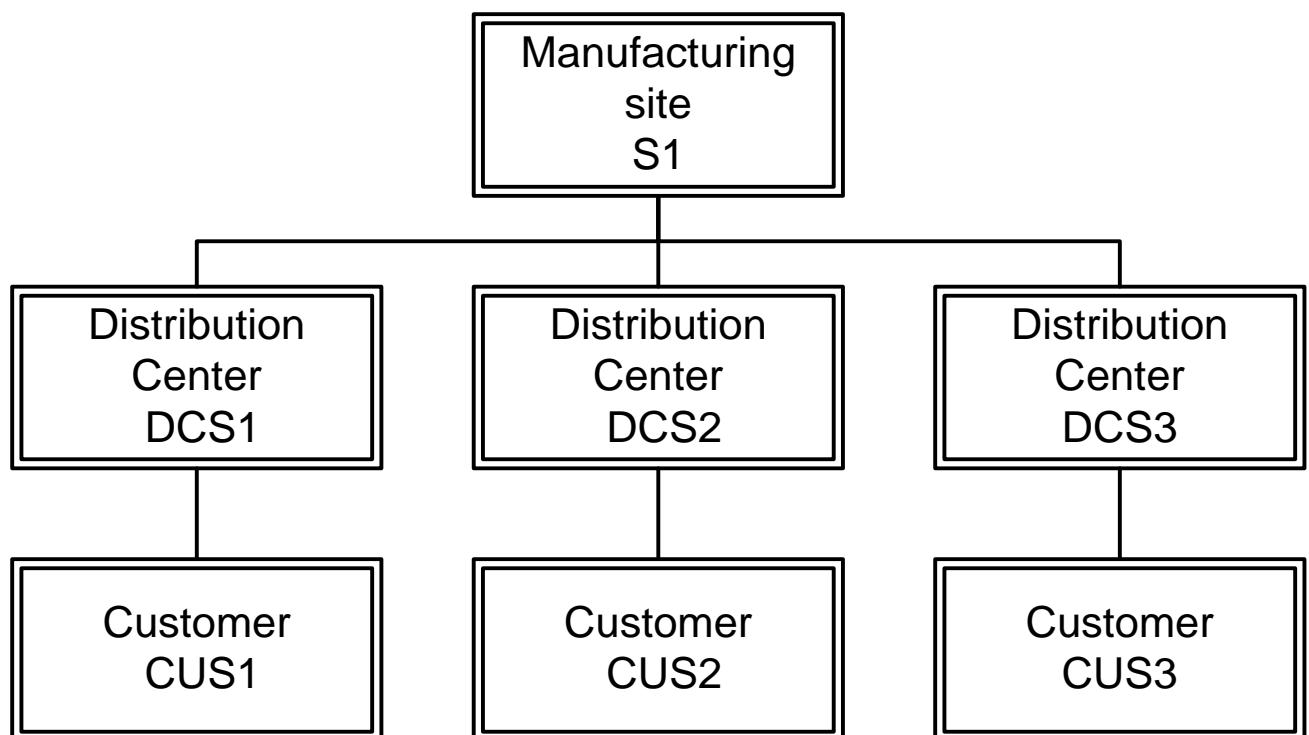
You can use Microsoft Dynamics™ AX intercompany functionality within one company as an intracompany direct delivery solution. This solution is relevant for companies that want to measure sites as independent cost centers when sites make deliveries on behalf of one another. This document describes one of the many ways to set up and use intercompany for intracompany direct delivery.

Note that intracompany direct delivery was not the original purpose of the intercompany functionality, and therefore, there are limitations to this solution that are related to the structure of companies within Microsoft Dynamics AX. One company is designed for one legal entity with one VAT number and in which all sites are placed in the same country. Some specific limitations to this solution are listed in the [Extended Use](#) section in this document.

The following illustration shows a company with four sites. The replenishment of stock follows a common waterfall model.

The manufacturing site replenishes the stock at all three distribution centers:

- DCS1, DCS2, and DCS3. DCS1 replenishes the stock at customer CUS1
- DCS2 replenishes the stock at customer CUS2
- DCS3 replenishes the stock at customer CUS3



In emergency situations, a distribution center can replenish the stock at another distribution center or at a customer, other than the one for which it is usually responsible. In such a situation, the distribution center receives a predefined compensation, such as a fixed price, the cost price, or the cost price plus a charge (miscellaneous charge). The revenue for customer CUS1 belongs to DCS1, even if the sales order is fulfilled from one of the other two distribution centers. The same principle applies to the revenue for customers CUS2 and CUS3.

The following section describes how to set up Microsoft Dynamics AX to handle these situations using the intercompany functionality.

Setup

Activate multisite

Because this is a multisite example, you must activate multisite functionality. However, you do not have to activate multisite functionality to use intercompany.

1. Click **Administration > Setup > System > Multisite activation**.
2. Click **Activate multisite**.

For more information about the multisite feature and prerequisites for activation, see "About sites and the multisite functionality" in the Applications and Business Processes Help.

Note: You can use Intercompany for intracompany direct delivery without activating multisite, but there is a difference in the control of the financial dimensions. It is not possible to activate or lock links in a non-multisite environment.

Create a financial dimension

In this example, the cost center dimension is used to connect the site structure with the general ledger, but any dimension can be used.

3. Click **Basic > Common Forms > Dimensions**.
4. Create a cost center dimension for S1, DCS1, DCS2, and DCS3.
5. Create a purpose dimension for each internal vendor and internal customer to detect transactions derived from intersite related transactions.

Set up a financial dimension link for sites

In this example, the cost center dimension is used to connect the site structure with the general ledger, but any dimension can be used.

1. Click **Inventory management > Setup > Posting > Dimension link**.
2. Select **Cost center** in the **dimension** field.
3. Close the form.

Select a financial dimension to link to a site

1. Click **Inventory management > Setup > Inventory breakdown > Sites**.
2. Create a record for S1, DCS1, DCS2, and DCS3.
3. Apply the financial dimension Cost center on each site.

Lock the financial dimension link

Activate and lock the link to ensure that users cannot accidentally change the cost center dimension on sales and purchase order lines.

1. Click **Inventory management > Setup > Posting > Dimension link**.
2. Activate and lock the link.

For more information about setting up, activating, and locking financial dimension links, see "Configure and manage financial dimension links to sites" in the Applications and Business Processes Help.

Terms of payment

If a formalized payment process is not needed, you can apply specific terms of payment to the internal customers and internal vendors.

1. Click **Accounts receivable** (or **Accounts payable**) > **Setup** > **Payment** > **Terms of payment**.
2. If separate intersite due to/due from accounts are needed in the general ledger to track the value, each internal customer and internal vendor must have specific terms of payment.
3. On the **Setup** tab, be sure that:
 - C.O.D. is selected in the **Payment method** field.
 - The **Cash payment** check box is selected.
 - The relevant intersite due to/due from account is selected in the **Cash** field.

This ensures that any invoice that is updated using these terms of payment is settled automatically.

External customers

1. Click **Accounts receivable** > **Common Forms** > **Customer Details**.
2. Click the **Setup** tab and select the **Direct delivery** check box if it is common that a site other than the site that the customer normally trades with makes a delivery, and that the delivery is not consolidated at the site the customer normally trades with, but delivered directly to the customer. If the **Direct delivery** check box is selected, its value defaults to the sales order and enables direct delivery when an intercompany vendor is selected.

If deliveries from other sites are usually consolidated at the site that the customer normally trades with, and the normal site makes the deliveries to the customer, then do not select the **Direct delivery** check box. If the **Direct delivery** check box is not selected, its value defaults to the sales order header and ensures that only the **Create purchase** function can be used when an intercompany vendor is selected.

In the following steps, it is assumed that the **Direct delivery** check box is selected for external customers.

3. Click the **Sales order** tab.
4. In the **Site** field, select the site that the customer belongs to. This automatically fills in the financial dimension purpose associated with the selected site. These values are defaulted to sales orders and quotations.

Internal vendors

A number of vendors must be set up. Each vendor represents the purchasing part of the trade relation between two sites.

1. Click **Accounts payable** > **Common Forms** > **Vendor Details**.
2. On the **Overview** tab, select a vendor group in the **Group** field. To help exclude intersite purchases from external purchases, we recommend that you create a specific intersite vendor group. Apply this group to all internal vendors.
3. Select a currency in the **Currency** field. The currency code must be the same on intercompany sales orders and intercompany purchase orders. This happens automatically. To avoid discrepancies in the general ledger caused by differences in exchange rates due to different posting dates used

when posting an intercompany sales order and an intercompany purchase order, we recommend that you set up a company currency.

4. On the **Purchase order** tab, select a site in the **Site** field. Select the site that the internal vendor represents. This ensures that all purchase orders created using this vendor inherit this site on the purchase order header. The site on the vendor defaults the financial dimension associated with this site to the vendor and new purchase order header.
5. On the **Payment** tab, select the terms of payment that were created for this internal vendor in the **Terms of payment** field. The terms of payment are inherited by all purchase orders that are created for this vendor. The invoice update of the purchase orders with these terms of payment is settled automatically, and it is then possible to avoid a traditional payment process.
6. On the **Dimension** tab, select the purpose dimension that represents this internal vendor in the **Purpose** field. This dimension is inherited by all transactions that are generated using this vendor account.

Vendor posting profiles

To separate intracompany transactions from ordinary transactions, we recommend that you apply a dedicated summary account for the intracompany vendor group. The account serves as a suspense account due to the previously described setup of the terms of payment on the vendor.

Click **Accounts payable > Setup > Posting profiles**.

Internal customers

A number of customers must be set up. Each customer represents the selling part of a trade relation between two sites.

1. Click **Accounts receivable > Common Forms > Customer Details**.
2. On the **Overview** tab, select a customer group in the **Customer group** field. To help exclude intersite sales from external sales, we recommend that you create a specific intersite customer group. Apply this group to all internal customers.
3. Select a currency in the **Currency** field. The currency code must be the same on intercompany sales orders and intercompany purchase orders. This happens automatically. To avoid discrepancies in the general ledger caused by differences in exchange rate due to different posting dates used when posting an intercompany sales order and an intercompany purchase order, we recommend that you set up a company currency.
4. On the **Sales order** tab, select the site that this internal customer represents in the **Site** field. This ensures that all sales orders and quotations that are created using this customer inherit this site on the sales order/quotation header. The site on the customer defaults the financial dimension associated with this site to the customer and new sales order headers and quotations.
5. On the **Payment** tab, select the terms of payment that were created for this internal customer in the **Terms of payment** field. The terms of payment are inherited by all sales orders and quotations created for this customer. The invoice update of the sales orders with these terms of payment is settled automatically, and it is then possible to avoid a traditional payment process.
6. On the **Dimension** tab, select the purpose dimension that represents this internal customer in the **Purpose** field. This dimension is inherited by all transactions generated using this customer account.

7. Click the **Setup** button and select **External codes**. Because the **Customer** table and **Vendor** table are two different tables, an external code must be set up. In this example, it is sufficient to set up an external code for a customer/vendor account number in one of the modules.
8. Create a new code and type a name for it, for example IC, and in the **Value** field, enter the vendor account number that matches the internal vendor that the internal customer is supposed to trade with.

Customer posting profiles

To separate intracompany transactions from ordinary transactions, we recommend that you apply a dedicated summary account for the intracompany customer group. The account serves as a suspense account due to the previously described setup of the terms of payment on the customer.

Click **Accounts receivable > Setup > Posting profiles**.

Miscellaneous charges

You can use miscellaneous charges to apply a fixed fee or a percentage of the cost price when a site makes a delivery on behalf of another site. Because the **Misc. charge** table in **Accounts receivable** and the **Misc.charge** table in **Accounts payable** are two different tables, you must set up an external code between the two. In this example, it is sufficient to set up an external code for the miscellaneous charge code in one of the modules.

Note: In this setup, IC is used as the external code.

Click **Accounts receivable > Setup > Misc. Charges > Misc. charges code**.

Inventory posting profile

Click **Inventory Management > Setup > Posting > Posting**.

To separate intracompany transactions from ordinary transactions, we recommend that you apply dedicated accounts for all of the following.

Sales order – intracompany customer group

- Packing slip
- Packing slip offset
- Consumption
- Revenue
- Discount
- Packing slip revenue
- Packing slip revenue – offset

Purchase order – intracompany vendor group

- Packing slip
- Packing slip offset
- Consumption
- Discount
- Fixed receipt price profit
- Fixed receipt price offset
- Charge
- Stock variation

- Packing slip purchase
- Packing slip purchase offset
- Purchase price variance

Endpoint

An endpoint is needed.

1. Click **Basic > Setup > Application Integration Framework > Endpoints**.
2. Create a new endpoint.
3. Click the **General** tab, select the **Intercompany organization** check box, and select a company in the **Company** field.
4. Click the **Constraints** tab and apply all the internal vendors and internal customers.
5. Click the **General** tab and select the **Active** check box.
6. Click the **Action policies** button.
7. In the **Action policies** form, click **Create Actions**.
8. Create a new action and select **PurchaseRequisition** in the **Intercompany action ID** field.

Click the **Setup** tab.

The parameters on this tab control the behavior of the intercompany functionality. In this case, we recommend that you select at least the **Post invoice automatically** check box in the **Intercompany purchase order (direct delivery)** field group. This ensures that intersite purchase orders in direct delivery chains are automatically posted when intersite sales orders are invoice updated.

The values of the **Misc.charge allocations** field determine the allocation method used for miscellaneous charges with debit type item when posting intersite purchase order invoices. We also recommend that you select the **Batch number** and **Serial number** check boxes. This ensures that a request for a specific batch or serial number is carried forward to an intersite sales order.

Note: For more information about individual fields on the **Setup** tab, search for the form name in the Applications and Business Processes Help.

Click the **Configure** button.

The rules used when exchanging keys, such as item numbers, currency codes, and so on, must be determined. Because this setup covers the setup inside one company, we recommend that you use the rule "Our." "Our" indicates that the key values are the same. This is true for all keys except customer, vendor number, and miscellaneous charge codes.

9. Define the following document values.
 - Handling vendor numbers** = Our
 - Handling customer numbers** = Not specified
10. Click the **Addresses** tab and define the following values.
 - Handling countries** = Our
 - Handling states** = Our
 - Handling counties** = Our
 - Handling ZIP/postal codes** = Our

11. Click the **Items** tab and define the following values.

Handling item numbers = Our

Handling units = Our

12. Click the **Other base data** tab and define the following values.

Handling currency codes = Our

Handling terms of delivery = Our

Handling delivery methods = Our

Handling misc. charges codes = Our

13. Click the **Intercompany** tab and define the following values.

Handling return reasons = Our

Handling warehouse = Not specified

Handling Cost center document value = Not specified

Handling departments = Not specified

Handling purpose value = Not specified

14. Close the **Value mapping** form.

15. Create a new action and select **SalesOrder** in the **Intercompany action ID** field.

Click the **Setup** tab.

The parameters control the behavior of the intercompany functionality. In this case, we recommend that you at least clear the **Allow Summary update of documents for original customers** check box, because new intercompany sales orders are created in the same company, and an update conflict can occur.

We recommend that you select the **Batch number** and **Serial number** check boxes.

Note: For more information about individual fields on the **Setup** tab, search for the form name in the Applications and Business Processes Help.

Click the **Configure** button.

The rules used when exchanging keys, such as item numbers, currency codes, and so on, must be determined. Because this setup covers the setup inside one company, we recommend that you use the rule "Our." "Our" indicates that the key values are the same. This is true for all keys except customer, vendor number, and miscellaneous charge codes.

16. Set up the following document values.

Handling vendor numbers = Not specified

Handling customer numbers = External – select external code IC

17. Click the **Addresses** tab and define the following document values.

Handling countries = Our

Handling states = Our

Handling counties = Our

Handling ZIP/postal codes = Our

18. Click the **Items** tab and define the following document values.

Handling item numbers = Our

Handling units = Our

19. Click the **Other base data** tab and define the following document values.

Handling currency code = Our

Handling terms of delivery = Our

Handling delivery methods = Our

Handling Misc.charges code = External, select external code IC

20. Click the **Intercompany** tab and define the following document values.

Handling return reasons = Our

Handling warehouse = Not specified

Handling cost center document value = Not specified

Handling departments = Not specified

Handling purpose value = Not specified

Scenario

The following scenario is dependent on the setup described above. The order processor at the distribution center DCS1 receives a request from customer CUS1 to deliver an item. The order processor creates a sales order for CUS1 and applies a sales order line with the site information DCS1. Unfortunately, the item is not on-hand at DCS1. The item is, however, on-hand at DCS2. The order processor places an order at DCS2. From the sales order header, the order processor clicks **Function** > **Create direct delivery**. In the **Vendor account** field, the internal vendor (created to represent the sales/purchase relation between DCS1 and DCS2) is applied. The order processor clicks **Include** and then clicks **OK**.

Now a chain of orders is created. When the DCS2 packing slip updates the intercompany sales orders, all orders in the chain are packing slip updated as well. This is caused by the **Direct delivery** function. The packing slip from the original sales order is printed. This is caused by the recommended parameter setup on the endpoint. When DCS2 invoice updates the intercompany sales orders, the intercompany purchase order is invoice updated as well. This is controlled by means of the recommend parameter setup on the endpoint. Both invoices are settled directly. This is controlled by the recommend setup of terms of payment on internal vendor and internal customer accounts.

All transactions in the general ledger are traceable due to the recommended setup of posting profiles and the financial dimensions set up on the internal vendor and internal customer accounts.

Extended use

Transfer orders

Transfer orders do not allow the addition of charges when items are moved. To work around this limitation, you can manually change a planned transfer order to a purchase order, apply an intracompany vendor, and firm the purchase order. This automatically creates an intercompany purchase and intercompany sales order. However, it is not possible to trace an item in transit from Microsoft Dynamics AX, and there are no reports to support reconciliation in the general ledger.

Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like and with familiar Microsoft software, automating and streamlining financial, customer relationship and supply chain processes in a way that helps you drive business success.

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