

## 2 Getting Started: Navigation and General Options

One of the core principles of Microsoft Dynamics AX is to grant an intuitive and smooth user experience. But business software has to be in line with business processes, which may be quite complex.

### 2.1 User Interface and Common Tasks


Before we start to go through business processes and case studies, we want to take a look at the general functionality in this chapter.

#### 2.1.1 Logon and Authentication

Microsoft Dynamics AX in version 7.0 is a cloud-based solution, requiring to logon with a Microsoft Azure Active Directory user account (Microsoft Office 365 account). In order to log on, open a supported web browser like the Internet Explorer or Google Chrome and access the web address (URL) of your Dynamics AX application. The browser then shows the logon dialog, where you have to enter your Azure Active Directory user and password.

After logging on, the user-ID in Dynamics AX, the current company (legal entity), and the language derive from your user options, which you can change within the client.

Parameters in the web address of the Dynamics AX application can override the user settings and provide additional options. The web address *https://XXX.com/?&cmp=FRSI&lng=fr* (XXX.com = Dynamics AX URL) for example provides access to the company “FRSI” in French language.

If you want to log off from Dynamics AX, click the user name (or the button ) on the right-hand side of the Dynamics AX navigation bar and select *Sign out*.

#### 2.1.2 Navigation


There are four ways to access pages and forms in Microsoft Dynamics AX:

- **Dashboard and workspaces**
- **Navigation pane**
- **Navigation search**
- **Favorites**



The Dynamics AX dashboard (see section 2.1.3) is the default initial page when accessing Microsoft Dynamics AX. Since it contains all workspaces which are available to the current user, you can use the dashboard for navigating to workspaces. From the workspaces you can subsequently access list pages and detail forms.

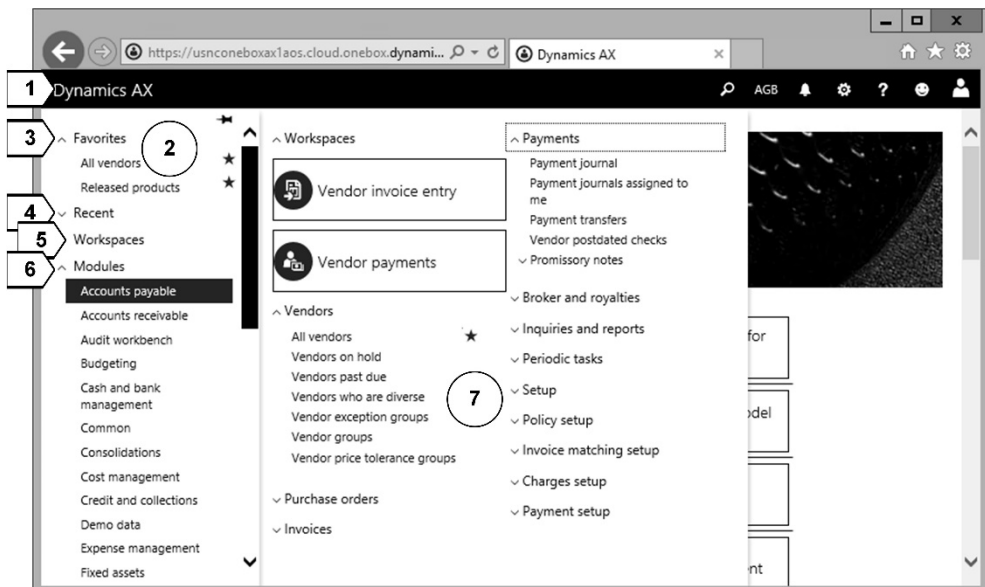
### 2.1.2.1 Navigation Pane

Whereas workspaces and favorites contain a limited number of menu items for frequent use, the navigation pane provides access to all items for which you have got appropriate permissions.

In order to show the complete navigation pane, press the keyboard shortcut *Alt+F1* or click the button  (*Navigation pane*) on the left-hand side of the Dynamics AX client. If all modules and menu items are shown, the Dynamics AX navigation pane includes following elements (see Figure 2-1):

- **Navigation bar** [1]
- **Navigation pane** [2]
- **Favorites** [3]
- **Recent** [4]
- **Workspaces** [5]
- **Modules** [6]
- **Menu** for the selected module [7]

If you want to show the navigation pane permanently, click the button  (*Pin*) on the top right-hand side of the navigation pane. In case you want to collapse the navigation pane after pinning it open, click the button  (*Collapse*) then shown on the top right-hand side of the navigation pane.



**Figure 2-1:** Navigation pane and menu in Dynamics AX

### 2.1.2.2 Modules and Menu Structure

The structure of the modules complies with functional areas like *Accounts payable* or *Production control* and refers to standard roles in the industry. The modules

*Organization administration* and *System administration* include basic settings and tasks which are not related to a specific functional area.

The *Common* module contains menu items not related to a functional role, but relevant for all users. This includes the *Global address book* (see section 2.4), the *Work items* (workflow management, see section 10.4.2), the *Cases* (see section 10.5.2), the *Activities* (referring to sales and marketing), and the *Document management* (see section 10.5.1).

After selecting a module, the menu shows all accessible menu items of this module. The particular folders and menu items, which are depending on the individual module, comply with a common basic structure.

The first folder in the menu is the folder *Workspaces*, containing all workspaces related to the selected module. This folder is not shown if the selected module does not include a workspace. Below the workspaces, there are several folders and menu items providing access to pages for frequent tasks in the particular module (e.g. the vendor management in the *Accounts payable* module).

The folder *Inquiries and reports* contains items for reporting and analysis. Inquires show the result directly on the screen, whereas reports generate a printout on paper. If you do not need a printed hard copy, you can select to display a print preview or to save the report to a file.

The folder *Periodic tasks* contains items, which are not used frequently – for example the menu items for month end closing or summary updates.


Depending on the module, one or more *Setup* folders provide access to configuration data of the particular module. Configuration data are entered when initially setting up a company (legal entity). Later on, configuration data are only updated if necessary because of changes in the business processes. Some settings should not be changed without a deep knowledge of the Dynamics AX functionality. For this reason, the permissions for the *Setup* folders usually are set in a way that regular users cannot edit sensible configuration data.

### 2.1.2.3 Recent Pages

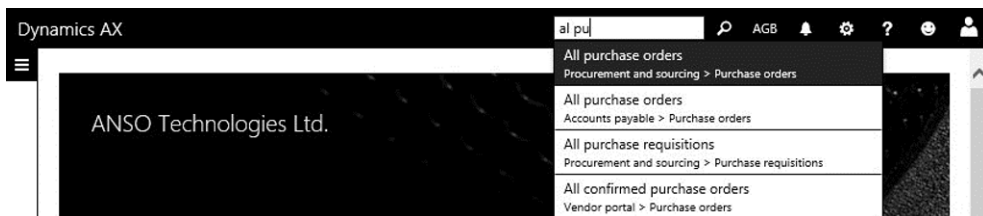
The folder *Recent* in the navigation pane shows the last workspaces and pages which you have visited. Dynamics AX automatically adds menu items to this folder from your browsing history, which makes it easy to go back to a form recently visited.

### 2.1.2.4 Navigation Search

The navigation search provides the option to directly access menu items by typing part of the name (similar to the search feature in Windows 8/10).

In order to use the navigation search, click the button  (*Search*) in the navigation bar and enter the page title or navigation path in the search field. You can limit the entered text to the first characters of the words of a page title or navigation path.

For example, typing “al pu” in the navigation search shows the page *All purchase orders* as first result. Selecting a menu item in the navigation search results will open the related page.



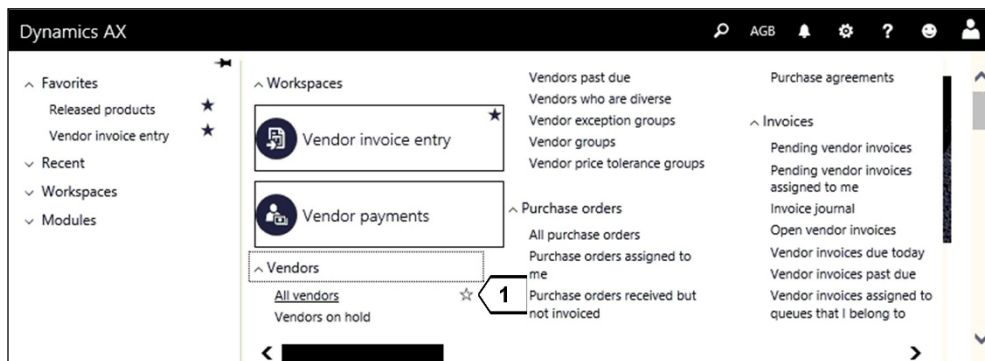
**Figure 2-2:** Using the navigation search

### 2.1.2.5 Favorites and Shared Links

Whereas modules and related menu items in the navigation pane show a uniform structure, the Dynamics AX favorites provide the option to collect menu items according to your particular requirements.

If you want to add a workspace or a page to your Dynamics AX favorites, open the navigation pane to show the particular menu item and click the empty star ☆ on the right of the menu item. A full star ★ on the right of the menu item then indicates that it is included in the favorites.

Once a menu item is added to the favorites, it automatically shows in the favorites area at the top of the navigation pane. If you want to remove an item from the favorites, click the star ☆ on the right of the menu item in the favorites pane.



**Figure 2-3:** Managing favorites in Dynamics AX

Apart from the favorites within Dynamics AX, you can use shared links to access Dynamics AX forms. In every list page or form, there is the button *OPTIONS/Share/Get a link* in the action pane. A dialog then shows the web address of the current form, which you can copy and send to other users of your Dynamics AX application. Of course you can also use this link together with general features of your browser and add it to the browser favorites or the browser start page tiles.

### 2.1.2.6 Switching the Current Company

If you want to switch from one legal entity to another, open the lookup for switching companies by clicking the company field in the navigation bar. After selecting a company in the lookup, Dynamics AX immediately switches to the other company.



**Figure 2-4:** Switching the current company

### 2.1.2.7 New in Dynamics 'AX 7'

With the browser-based interface replacing the Windows client, there are completely new options for navigating Dynamics AX. Apart from minor modifications in the menu structure, which eliminate the rigid structure of the *Common* and the *Setup* folder in various modules, core changes include the dashboard (replacing the role center), the workspaces, and the navigation search. There is no Dynamics AX address bar, but you can use the address bar of your browser. The favorites now do not support creating a personal menu structure.

## 2.1.3 Elements of the User Interface

Microsoft Dynamics AX contains following types of standard pages:

- **Dashboard**
- **Workspaces**
- **List pages**
- **Detail and transaction forms**
- **Journals, inquiries and setup forms**

This section explains the elements available in these pages.

### 2.1.3.1 Dashboard

As start page in Dynamics AX, the dashboard displays all your workspaces to give an overview of the work you should do by. Clicking a workspace tile, e.g. *Budget planning* in Figure 2-5, provides access to the related workspace.

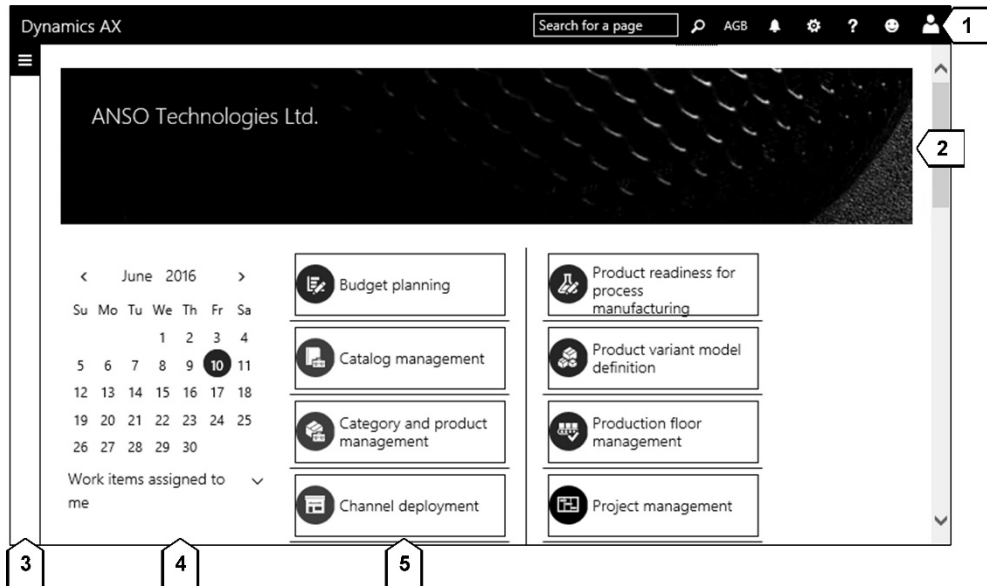
The default dashboard contains following areas (compare Figure 2-5):

- **Navigation bar** [1] – Described below
- **Company banner** [2] – As specified in the company setup (see section 10.1.4)
- **Navigation pane** [3] – Collapsed in Figure 2-5
- **Calendar and Work items** [4]
- **Workspaces** [5]

The calendar in the dashboard highlights the *Session date*, which is used as default value for the posting date in the current session. The initial value for the session date is the current date, but through the dashboard calendar (or the menu item

*Common> Common> Session date and time*) you can temporarily set it to a different date.

The work items pane below the calendar in the dashboard refers to the workflow management (see section 10.4.2).



**Figure 2-5:** Dynamics AX dashboard


When working in a workspace or a form, you can always return to the dashboard (initial page) by clicking the button **Dynamics AX** on the left side of the navigation bar.

*Note:* In your user options, you can select to use an alternative page (e.g. the employee self-service portal) as initial page instead of the dashboard.

### 2.1.3.2 Navigation Bar

The navigation bar at the top of every Dynamics AX form contains following buttons for global Dynamics AX features (see Figure 2-6):

- **Go to dashboard** [1] – Return to the initial page
- **Navigation search** [2] – See section 2.1.2
- **Company select** [3] – See section 2.1.2
- **Show messages** [4] – See section 2.1.4
- **Settings** [5] – User options and other general settings
- **Help** [6] – See section 2.1.6
- **Feedback** [7]
- **User** [8] – For signing out

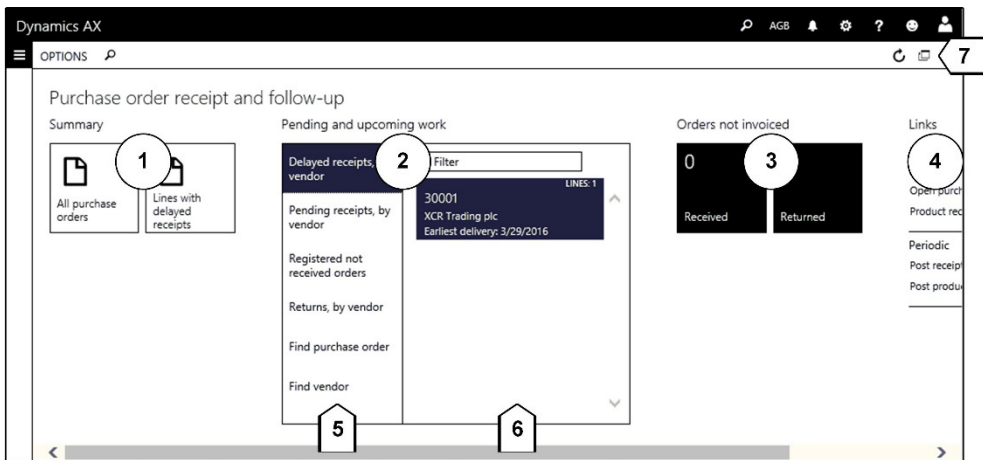
Apart from the *User options* (see section 2.3.1), the options in the button  (*Settings*) include the *Task recorder* (see section 10.5.3) and the Dynamics AX product information (button *About*).



**Figure 2-6:** Navigation bar in Dynamics AX

### 2.1.3.3 Workspaces

Workspaces are designed as starting point for the daily work in Dynamics AX. They are pages which collect all the information and functionality required to perform a specific job. The workspace *Purchase order receipt and follow-up* (see Figure 2-7) for example shows a list of delayed receipts in the center. In addition, it provides access and indicates the number of not invoiced orders, and it includes other data areas through tiles on the right and on the left.



**Figure 2-7:** Workspace for purchase order receipt and follow-up

You can view and access all workspaces, for which you have got appropriate permissions, from the dashboard and from the navigation pane. The workspace panorama then contains the following panes (compare Figure 2-7):

- **Summary pane** [1]
- **Tabbed list pane** [2]
- **Optional further panes** [3]
- **Related links** [4]

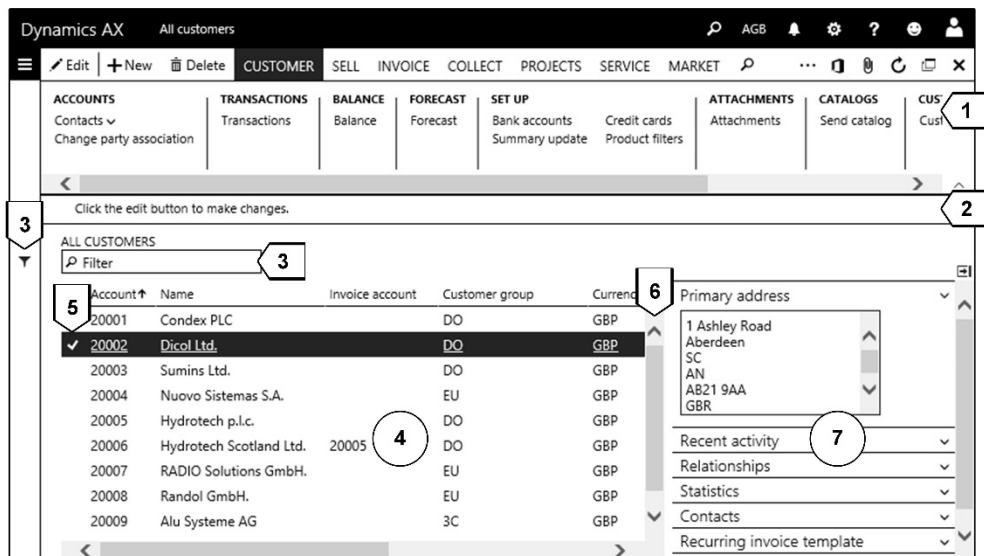
The tabbed list pane [2] in the center of a workspace is the main place for the daily work. After selecting a list in the left area [5] of this pane, the grid in the right [6] displays the related list of records. The filter field above the grid provides the option to apply a record filter. Clicking a key field shown as link in the grid immediately opens the related detail form. Depending on the particular workspace, there are buttons for executing actions in the action pane [7] and – if applicable – in the toolbar above the grid in the tabbed list pane.

The summary pane [1] on the left-hand side contains tiles for starting new tasks or accessing pages which are important in connection with the selected workspace (e.g. purchase orders in Figure 2-7). Tiles in this pane – like tiles in general – are rectangular buttons which open pages (like a menu item button) and optionally show data like counts or key performance indicators.

Depending on the particular workspace, there are further panes [3] to the right of the tabbed list pane, which contain tiles, charts, or graphs. The right-most pane [4] in the workspace contains links to pages which are related to the selected workspace.

### 2.1.3.4 List Page

A list page, like the customer page in Figure 2-8, shows the list of records of a particular table. While list pages are primarily designed for viewing and selecting records, buttons in the action pane provide the option to execute tasks on these records immediately.



**Figure 2-8:** Customer list page as an example of a list page



List pages have a common structure, containing different elements and features depending on the data shown in the particular page. The common structure includes following basic elements:



- **Action pane** [1] – Contains the action buttons
- **View/Edit mode banner** [2] – Displays in view mode, indicating that editing data is not possible in this mode
- **Filter options** [3] – Filter button and quick filter field (see section 2.1.5)
- **Grid** [4] – Displays the list of records
- **Grid check boxes** [5] – Enable selecting multiple or – if selecting the checkbox in the header line – all records




- **Scroll bar** [6] – Scroll through records or press the shortcut keys *PgUp*, *PgDn*, *Ctrl+Home* and *Ctrl+End*
- **FactBoxes** [7] – Show a summary of additional information related to the selected record (e.g. the primary address of the selected customer)


Clicking the button *Edit* in the action pane changes the page mode to edit mode, which gives the option to immediately update record data.






If the full action pane is displayed and you need additional space, you can collapse it by clicking the button  (*Collapse*) on the bottom right of the action pane. Once collapsed, the action pane will expand automatically when clicking an action pane tab (e.g. *CUSTOMER* in Figure 2-8). In order to show the full action pane permanently, click the button  (*Pin open*) on the bottom right of the action pane when expanded.


If a page does not show the FactBoxes pane and you want to view it, click the button  (*Show*) top right of the grid. By clicking the button  (*Hide*) at the same place you can hide the FactBoxes again. A general setting for activating or deactivating the FactBoxes pane is available in the system administration (*System administration> Setup> Client performance options*).

List pages do not automatically refresh, if data displayed on the screen change in the database (e.g. if somebody is working on the records displayed in the list). In order to refresh a list page, press the keyboard shortcut *Shift+F5* or click the button  (*Refresh*) in the action pane (or use the refresh options of your browser).

### 2.1.3.5 Action Pane and Action Search

The action pane contains buttons for activities referring to the selected record (like entering the order of a customer) and buttons for access to related detail forms (displaying more information). The number and functionality of buttons, which can show on show on multiple tabs (e.g. the action pane tabs *CUSTOMER* or *SELL* in Figure 2-8), is depending on the particular page. If the window size does not allow to show all action pane tabs, the button  provides access to the tabs not shown immediately.

On the top right of the action pane, there are buttons for general options including *Open in Microsoft Office* , *Attach*  (document handling, see section 10.5.1), *Refresh* , *Open in new window*  (described later in the current section), and *Close* .

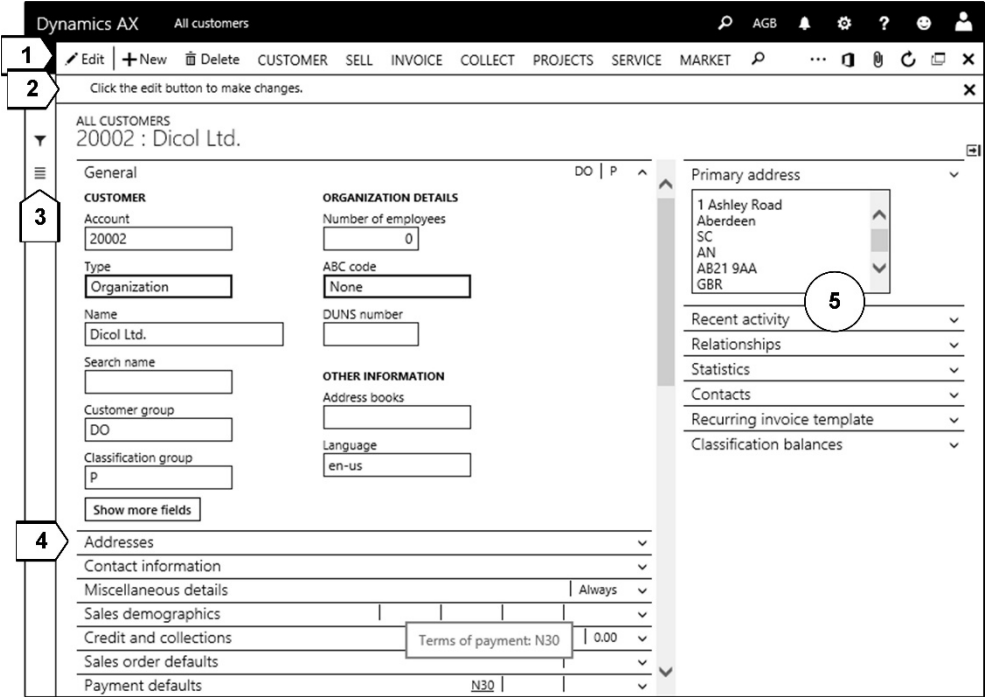
The action search provides the option to directly access buttons in the action pane by typing part of the name. In order to use the action search, click the button  (*Search*) in the action pane (or press the shortcut key *Alt+Q*) and enter the action title or action pane button path in the search field. Like in the navigation search, you can limit the entered text to the first characters of the words of the name. As an example for using the action search, you can quickly access the customer balance

from the customer list page by pressing the shortcut key *Alt+Q*, typing “b”, and pressing the *Enter* key.

2.1.3.6 Detail Form for Master Data

Unlike list pages, which are designed for viewing a list of records, detail forms are there for inserting and modifying individual records.

Clicking a key field shown as link in the grid of a list page (or pressing the *Enter* key when the field is active) opens the related detail form. Alternatively, you can access a detail form by clicking the button *Page options/Change view/Details view* on tab *OPTIONS* in the action pane of a list page.




**Figure 2-9:** Elements of a detail form on the example of the customer detail form

Detail forms have got a structure which is similar to list pages, and like in list pages the specific elements and functions are depending on the particular form. Figure 2-9 shows the customer detail form (accessed from the list page *Accounts receivable> Customers> All customers*) as example for the structure of detail forms.


The common structure of detail forms includes the following basic elements:

- **Action pane** [1] – Collapsed in Figure 2-9.
- **View/Edit mode banner** [2] – Indicates whether you are in view mode
- **Filter button** and **List button** [3] – Open a pane for entering a filter and/or displaying a list of records

- **Fast tabs** [4] – Group fields according to their functional area and show summary fields, which display core data directly on the tab. In Figure 2-9, the fast tab *Invoice and delivery* for example shows the terms of payment “N30”. You can expand fast tabs by clicking the particular tab. A right-hand click on a tab provides the option to expand or collapse all tabs at the same time.
- **FactBoxes** [5] – Show additional information (like in a list page)

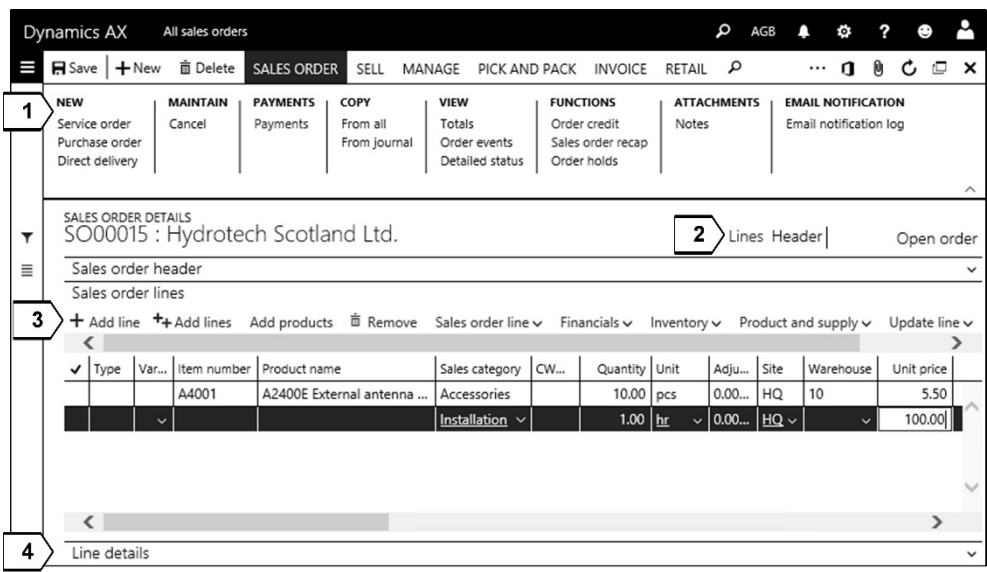
The button  (*Show/Hide list*) [3] provides the option to view a list of records in detail forms. After clicking this button in a detail form, Dynamics AX displays a navigation list pane on the left-hand side of the form. Selecting a record in the navigation list immediately shows the related detail data, which makes it easy to move from one record to the next.

Section 2.1.4 later in this book contains more information on editing records, working with fast tabs, and other options available in list pages and detail forms.

In order to return from a detail form to the list page, use the *Back* button of your browser, or press the shortcut *Alt+Back Arrow* (or the *Esc* key), or click the button  (*Close*) in the action pane.

### 2.1.3.7 Detail Form for Transaction Data

In addition to the detail forms for master data as described above, Dynamics AX contains detail forms for transaction data (like the sales order form in Figure 2-10).



Type	Var...	Item number	Product name	Sales category	CW...	Quantity	Unit	Adju...	Site	Warehouse	Unit price
✓		A4001	A2400E External antenna ...	Accessories		10.00	pcs	0.00...	HQ	10	5.50
				Installation		1.00	hr	0.00...	HQ		100.00

**Figure 2-10:** Sales order form as example of a transaction detail form

Clicking a key field shown as link in the grid of the particular list page (e.g. the sales order list page *Sales and marketing> Sales orders> All sales orders*) opens the transaction detail form similar to opening a master data detail form from a list

page as described above. When accessing a transaction detail form, it shows the *Lines* view where you can view or edit the lines.

In the **toolbar** [3] of the tab *Lines*, there are buttons for executing actions on the selected line – for example deleting a line by clicking the button *Remove*. The **action pane** [1] at the top of the form provides the option to execute actions at header level – for example deleting a complete order by clicking the button *Delete*.

If you want to edit details not shown in the line grid, expand the fast tab **Line details** [4]. In order to structure the field display, the line details tab contains multiple sub-tabs.

The lines view shows basic header data in the tab *Header*. Clicking the button **Header** [2] below the action pane (or pressing the shortcut key *Ctrl+Shift+H*) opens the header view, which contains all fields of the header record. In the header view, the button *Lines* below the action pane (shortcut key *Ctrl+Shift+L*) takes you back to the lines view.


#### 2.1.3.8 Inquiries and Setup Forms

In comparison to detail forms, inquiries and setup forms show a simple layout. Dynamics AX contains following simple forms:

- **Simple list** – Plain grid without fast tabs, e.g. the customer groups (*Accounts receivable> Setup> Customer groups*).
- **Simple list and Details** – Detail form always showing a navigation list pane with the list of records on the left, e.g. the terms of payment (*Accounts receivable> Payment setup> Terms of payment*).
- **Parameter form** – Showing a table of contents (similar to the tab structure) on the left and related fields on the right, e.g. the accounts receivable parameters (*Accounts receivable> Setup> Accounts receivable parameters*).

#### 2.1.3.9 Connected Browser Windows

Sometimes it is convenient to use connected windows in order to see related information side by side, for example if you want to scroll through the vendor transactions per vendor.

In the example of vendor transactions, open the vendor list page (*Accounts payable> Vendors> All vendors*) and click the button *VENDOR/Transactions/Transactions* in the action pane. In the vendor transactions, click the button  (*Open in new window*) which will move the vendor transactions to a new browser window. This new browser window is dynamically linked to the main Dynamics AX browser window, which shows the previous form (the vendor list page in the example). Moving from one vendor to another in the main window then automatically updates the data shown in the new transaction window.

### 2.1.3.10 New in Dynamics 'AX 7'

Based on the design principles required for the browser-based user interface, the new release has a “flat” design. This means that all forms show in the main browser window (not opening a separate window per form like in AX 2012).

Client forms now include the action search and the edit mode in list pages. The navigation list pane in detail forms replaces the AX 2012 grid view. There is no command bar, no preview pane, and no status bar. General options of the former command bar are now available in the navigation bar, form-specific features in the tab *OPTIONS* of the action pane. Cues in AX 2012 role centers are replaced by tiles in workspaces.

## 2.1.4 Working with Records

Microsoft Dynamics AX supports working with the mouse, but also offers extensive support for keyboard usage. Apart from shortcut keys, the navigation search and the action search enable fast data entry without using the mouse. An overview of shortcut keys for executing basic operations in Dynamics AX is included in the appendix of this book.

### 2.1.4.1 Viewing Records

When accessing a menu item from the navigation pane or through a tile in a workspace, Dynamics AX shows the appropriate list page.

List pages are the starting point for working on items, giving you the possibility to search and filter records. Buttons in the action pane of the list page provide the option to edit, delete, and insert data according to your permissions.

Whereas a list page only contains a limited number of fields, the detail form shows all available fields of the record. In order to access the detail form after selecting a line in the list page, click the key field shown as link in the grid.

Fast tabs on detail forms expand by clicking them or by pressing the *Enter* key. If you want to collapse an individual tab, click the tab header again or press the shortcut key *Alt+0*. Further options are available through a right-hand click on a tab. If you select to expand all tabs, you can scroll through the complete record (e.g. with your mouse wheel). Some tabs contain less important fields, which are not shown immediately when expanding the tab. The link *Show more fields* in such tabs provides the option to show these fields.

### 2.1.4.2 Edit/View Mode

When accessing a list page, it always opens in view mode which prevents data to be changed unintentionally. Detail forms usually also open in view mode, but this is depending on the settings of the form. In view mode, a banner below the action pane indicates that editing data is not possible.

If you are in view mode and want to edit a record, switch to the edit mode by clicking the button *Edit* in the action pane or by pressing the *F2* key. If you already change to the edit mode in a list page and access the related detail form afterwards, the detail form will open in edit mode. In order to return to the view mode, press the *F2* key again or click the button *OPTIONS/Edit/Read mode* in the action pane.

If you want to start a particular form always in edit mode, click the button *OPTIONS/Personalize/Always open for editing* in the action pane of the form. In case you want to set your general default mode to *Edit* or *View*, choose the appropriate setting on the tab *Preferences* of your user options.

2.1.4.3 Inserting Records

In order to insert a record in a list page or a detail form, press the shortcut key *Alt+N* or click the button *New* in the action pane. In some workspaces, you can also create records (there is an appropriate button in the action pane in this case).

A *Quick create* dialog (see Figure 2-11) then shows on the right-hand side of the form. This dialog contains the core fields of the record, making it possible to insert records in a fast way. After clicking the button *Save* at the bottom of the dialog, Dynamics AX opens to the related detail form where you can enter additional data. Depending on the page, the *Save and open* button contains additional options – e.g. for switching to the sales quotation form immediately when creating a customer.

The screenshot shows the Dynamics AX interface. On the left, a list of customers is displayed with columns for Account, Name, and Invoice account. The record '20001 Condex PLC' is selected. On the right, the 'Create customer' dialog is open, showing two sections: 'Details' and 'Address'. The 'Details' section includes fields for Customer account (20011), Delivery terms, Type (Organization), Mode of delivery, Name, Sales tax group, Customer group, Tax exempt number, Currency (GBP), Source code, and Terms of payment. The 'Address' section includes fields for Country/region (USA), City, ZIP/postal code, and State. At the bottom of the dialog are buttons for 'Save', 'Save and open', and 'Cancel'.

Figure 2-11: Quick create dialog for entering a new customer

If no *Quick create* dialog is available for a particular page, Dynamics AX takes you to the related detail form showing an empty record for entering data (except if you apply a template as described in section 2.3.2).

In the lines of a transaction form (e.g. the sales order lines), you can create a new record by simply pressing the *Down Arrow* key from the last line of the grid.

#### 2.1.4.4 Editing Data

Before you can edit a record in a list page or detail form, you have to make sure that you are in the edit mode. In order to switch between the fields of the form, you can use the mouse, the *Tab* key, or the *Shift+Tab* shortcut key.

If you have started to insert a record which contains a mandatory field and you want to stop, you might have to delete the record as described below even if you did not enter anything. Alternatively, you can close the form without saving by pushing the *Esc* key. If you are in a *Quick create* dialog, click the button *Cancel* at the bottom.

You can manually save a record in list pages and detail forms by clicking the button *Save* in the action pane or by pressing the shortcut key *Alt+S* (or *Ctrl+S*). But it is not required to save a record explicitly. Dynamics AX saves every change of a record automatically when leaving the record – switching to another record, or closing the form using the *Back* button of the browser, or the button ☐ (*Close*) in the action pane of the form. If you close a form pressing the *Esc* key, a dialog asks whether you want to save the changes.

If you have entered or modified data and do not want to save the update, press the shortcut key *Ctrl+Shift+F5* or click the button *OPTIONS/Edit/Revert* in the action pane. Reversing restores the record from the database and is only available as long as you do not save the record (manually or by moving to another record).

Another option not to save changes is to close the form by pressing the *Esc* key or the shortcut key *Alt+Shift+Q* (as long as you did not save the record already).

#### 2.1.4.5 Deleting Data

In order to delete the content of an input field, press the *Delete* key. If you want to delete a complete record, click the button *Delete* in the action pane or press the shortcut key *Alt+F9* after selecting the particular record.

In some cases, Dynamics AX shows an error message preventing you from deleting a record – e.g. if there are open transactions.

#### 2.1.4.6 Elements in a Detail Form

When entering data in a form, you have to distinguish between following elements as shown in Figure 2-12 on the example of the bank accounts detail form (*Cash and bank management> Bank accounts*):

- **Field group** [1] – Groups fields by functional area to provide a logical structure.
- **Mandatory field** [2] – Shows a red frame and the *required field indicator* ★, requiring data input before you can save the record.

- **Slider [3]** – Sliders (as shown in Figure 2-12) and checkboxes are used in fields with a binary choice (Yes/No). In order to select a checkbox or set a slider to “Yes”, click it with the mouse or press the *Space bar* key once the cursor is on the field.
- **Date field [4]** – The format of date and number fields is specified on the tab *Preferences* of your user options. Date fields show the calendar icon for selecting a particular date. If entering a date manually, you don’t have to type date separators like “.” or “/”. For a date in the current year, simply enter the day and month (e.g. “0523” if using the US date format). In order to insert the current date, simply type “t” (or “d” for the session date).
- **Lookup field with a fixed list of values [5]**
- **Lookup field with a related main table [6]**


**Figure 2-12:** Types of fields on the example of the bank account detail form

#### 2.1.4.7 Lookup Fields and Table Reference


In a lookup field, you can only enter or select a value which is included in a predefined list of values. Related to the setup of this list of values, there are two types of lookup fields:

- **Lookup fields with a related main table**, which contains permitted values – e.g. *Bank groups* in Figure 2-12.
- **Lookup fields with a fixed list of values**, which is given by Dynamics AX enumerable types (*Enums*) – e.g. *Bank account status* in Figure 2-12.



In edit mode, all lookup fields show the lookup button  in the right part of the field. In view mode, lookup fields with a related main table show as a link (similar to Internet links).

When typing characters in a lookup field, the value lookup opens automatically and applies the typed characters as filter on the ID (key field of the relevant table). In many lookups, the filter also applies to the column *Name*. If you enter for example “E” in a lookup field, the lookup form automatically pops up showing all records starting with “E” in the key field or the name.

If you want to manually open a value lookup, click the lookup button  or press the shortcut key *Alt + Down* once the cursor is on the field.

In the lookup form, you can select a record by clicking it, or by pressing the *Enter* key once the appropriate line in the lookup is active. If a value lookup contains multiple lines and you want to reduce the number of displayed lines, you can use the grid column filter and the sorting options as described in section 2.1.5. In the example shown in Figure 2-12, you can enter a filter on the bank group name by clicking the column header field *Name* in the lookup.

Apart from value lookup, the table reference of fields with a related main table also provides the option to directly access the detail form of the related main table. If you want to insert a new bank group in the form shown in Figure 2-12 for example, you can open the bank group form directly from the *Bank group* field.

In edit mode, you have to do a right-click on the field label (and not on the field itself) to open the context menu, where you can choose the option *View details* to access the detail form related to a lookup field.

In view mode or in non-editable fields, the table reference displays as a link providing the option to access the related detail form with a simple mouse click (alternatively you can right-click the field label and select the *View details* option).

After opening the referenced detail form, you can edit records the same way as if accessing from the navigation pane. Apart from using the table reference as an easy way to insert and edit related data, you can apply it to view the details of related records – for example directly accessing a sales order from a line in the invoice inquiry (*Accounts receivable*> *Inquiries and reports*> *Invoices*> *Invoice journal*).

#### 2.1.4.8 Product Information Dialog


In some forms like the sales order or the purchase order form, selecting the option *View details* or clicking the link in the item number field does not show the item form (released product form), but the product information dialog. This dialog displays the core data of the item. In many cases, these data are sufficient and you don’t need to access the details in the released product form. But if you need, click the link in the field *Item number* of the dialog to access to released product detail form.

2.1.4.9 Segmented Entry Control

A special kind of lookup applies to ledger account fields, for example in the lines of financial journals. Since the ledger account is one field with multiple segments (the main account and applicable financial dimensions), a specific control for the lookup and data entry applies – the segmented entry control (see section 9.3.2).

2.1.4.10 Message Bar and Message Center

If there is an issue with the operation you are executing in Dynamics AX (e.g. if you try to delete a record which has got related transactions), an error message immediately displays in the message bar below the action pane of the form.

If an asynchronous operation (e.g. document posting, or validation, or processing a batch job) generates an error or warning, the message is sent to the message center. The button  (*Show messages*) in the navigation bar then indicates the number of unread notifications. Clicking this button shows all recent messages, and for messages with extensive details (e.g. error messages when posting a document) you can click the link *Message details* to view more information (see Figure 2-13).

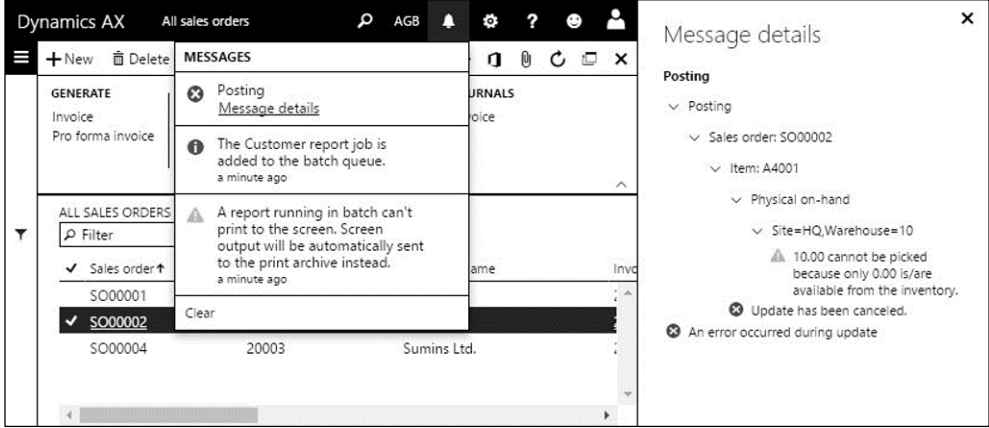


Figure 2-13: Viewing notifications in the message center

2.1.4.11 New in Dynamics 'AX 7'

The browser-based user interface has required changes in the form layout. There are new shortcuts, sliders replace most checkboxes, the value lookup opens automatically in lookup fields, and the message center replaces the Infolog.

2.1.5 Filtering and Sorting

In order to work efficiently in tables that contain numerous records, it is crucial to find the records in demand quickly. Dynamics AX includes features for filtering and sorting in list pages and in detail forms for this purpose.

2.1.5.1 Quick Filter

In list pages, the quick filter is the easiest way to filter records. When entering characters in the quick filter field, a drop dialog automatically displays where you can select on which column you want to apply the filter.

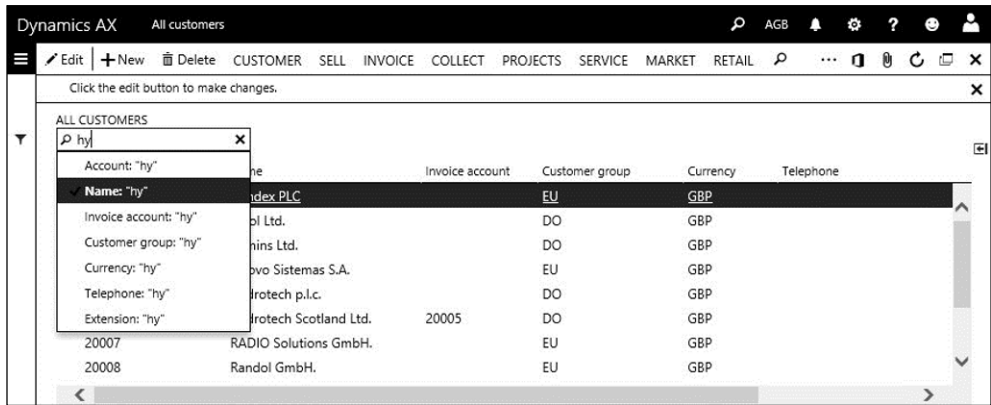


Figure 2-14: Quick filter showing the drop dialog for the filter column


After pressing the *Enter* key or clicking the search button  on the left-hand side of the quick filter field, the filter applies and the page only shows records which begin with the characters entered in the filter field.

Figure 2-14 shows an example for entering a filter in the quick filter. The filter for customers with a name beginning with the characters “hy” is not yet executed.

2.1.5.2 Filter Pane

The filter pane, which is not only available in list pages but also in detail forms, provides the option to use multiple filter criteria in parallel.

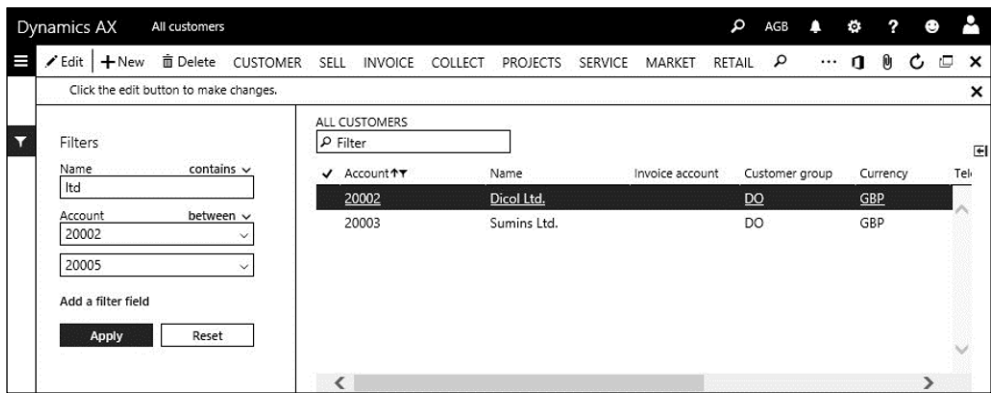



Figure 2-15: Filter pane in a list page

In order to show the filter pane in a form, click the filter button  on the left-hand side or press the shortcut key *Ctrl+F3*. Then enter the required characters for filtering in the appropriate filter field of the filter pane. In the operator selection on

the right side above the filter field, you can choose whether to apply these characters with a “begins with”, “contains”, “is one of”, or other operator. If you want to filter on additional or other fields, click the link *Add a filter field* in the filter pane and select the appropriate field. Clicking the button *Apply* finally applies the filter.

The operator “matches” for a filter field provides the option to use manual wildcards and filter expressions as described further below.

If you do not want to apply a selected filter any longer, clear it by clicking the button *Reset* in the filter pane.

2.1.5.3 Grid Column Filter

Another option for setting a filter in list pages and other list forms (including value lookups) is the grid column filter.

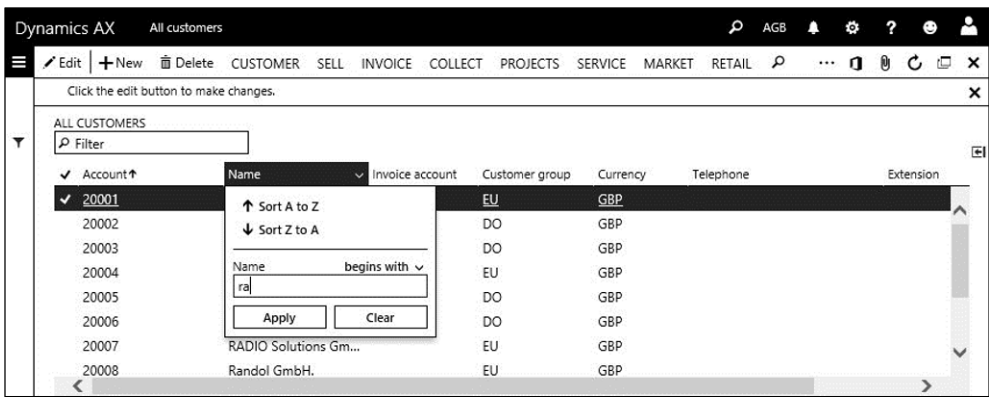



Figure 2-16: Entering a grid column filter in a list page

You can access the grid column filter by clicking the header field of a column in a grid. In the drop dialog, you can enter the filter in the filter field. The operator works the same way as described for the filter pane above.

Once the grid column filter is active, you can see the filter icon  next to the particular column header.

A special feature in the grid column filter is that you can use the asterisk (\*) wildcard together with the “begins with” operator. This provides the option to enter for example “\*ab” in the filter field for filtering on all records containing “ab” – without the need to change the operator.

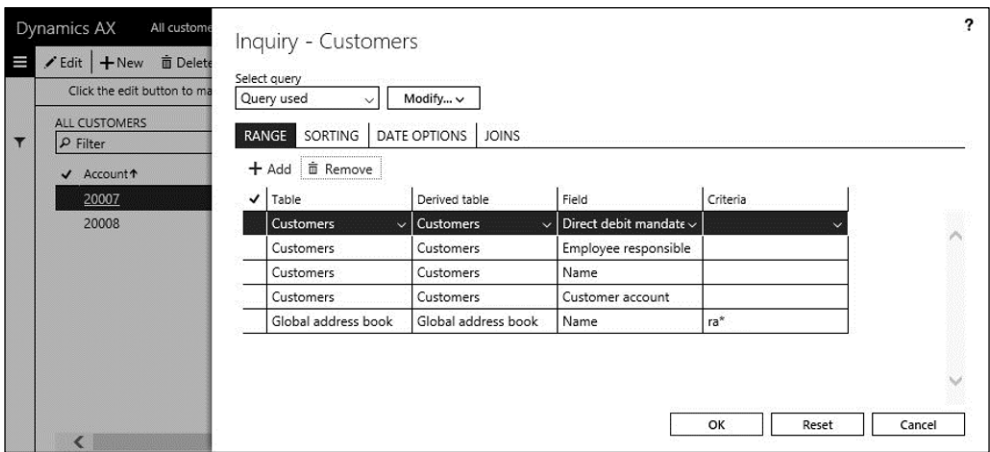
2.1.5.4 Advanced Filter

If you have to enter complex filter criteria, you can access the advanced filter in list pages and in detail forms by pressing the shortcut key *Ctrl+Shift+F3* or by clicking the button *OPTIONS/Page options/Advanced Filter/Sort* in the action pane.

The advanced filter opens in a separate dialog on the right. Like the filter pane, the advanced filter provides the option to set a filter on fields which do not show in the list page or detail form.

If you need to enter a criterion on a field which is not shown in the advanced filter dialog, insert a record in the filter dialog by pushing the shortcut *Alt+N* or clicking the button *Add*. In the new filter line, enter the criterion in the columns *Table*, *Derived table*, *Field* and *Criteria*. The fields *Table* and *Derived table* of a new line by default contain the base table of the filtered page. In case of simple criteria, you don't have to change it.

The lookup button ☐ in the column *Field* opens a value lookup, where you can select the table field. In the column *Criteria* next to the column *Field*, enter the filter criterion. If the field selected in the filter line is a lookup field, you can open a value lookup.



**Figure 2-17:** Entering filter criteria in the advanced filter dialog

Once you have finished entering the filter criteria, close the advanced filter dialog by clicking the button *OK*. The filter then applies and the page only shows matching records.

### 2.1.5.5 Filter Expressions

When entering characters in the quick filter field of a list page, Dynamics AX shows records beginning with these characters.

All other filter options support further filter criteria in order to provide more precise filtering definitions. The table below shows an overview of the most important filter expressions:

Table 2-1: Important filter expressions

Meaning	Sign	Example	Explanation
Equal	=	EU	Field content to match "EU"
Not equal	!	!GB	Field content not to match "GB"
Interval	..	1..2	Field content from "1" to "2" (incl.)
Greater	>	>1	Field content more than "1"
Less	<	<2	Field content less than "2"
Connection	,	1,2	Field content to match "1" OR "2"; Connects "Not equal" (e.g. "!1,!2") criteria with AND
Wildcard	*	*E*	Field content containing "E"
	?	?B*	First character unknown, followed by a "B", other characters unknown

2.1.5.6 Saving a Filter

If you need particular filter criteria frequently, you can save them by clicking the button *Modify/Save as* in the advanced filter dialog. A second dialog then requires entering a filter name.

Saved filters are stored in your *Usage data*, which means that nobody else can use your saved filters. In order to select a saved filter, choose it in the lookup of the field *Select query* in the advanced filter dialog as shown in Figure 2-18.

In addition to the filters saved manually, the filter which you have used the last time is available in every page by selecting the option *Previously used query* in the *Select query* lookup.

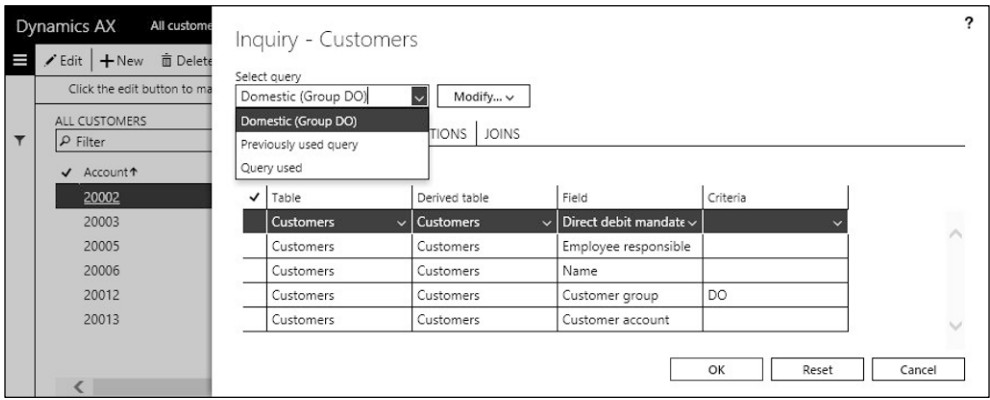


Figure 2-18: Selecting a saved filter in the advanced filter dialog

2.1.5.7 Sorting

In addition to the filtering options, the grid column filter in list pages – accessible by clicking the appropriate column header – provides sorting options. If you open a detail form after sorting the list page, the detail form will use the sorting selected in the list page.

Alternatively, you can specify sorting criteria in the advanced filter dialog. The advanced filter dialog contains the tab *Sorting* for this purpose, where you can enter applicable sorting criteria with table name and field name in one or more lines (similar to a filter criterion).

### 2.1.5.8 Distinguish Value Lookup

When using a filter, you should not confuse it with the value lookup shown in section 2.1.4. Whereas the value lookup supports entering a value into a field, the filter features described here are used to select records from the table displayed in the grid.

### 2.1.5.9 New in Dynamics 'AX 7'

The quick filter, the new filter pane, and the grid column filter in this release replace the filter by grid and the filter by selection in Dynamics AX 2012.

## 2.1.6 Help System

If you need help on functional questions, you can access the Microsoft Dynamics AX Help system available throughout the whole application. In the help system, there are two areas of help content:

- **Wiki articles** – Links to public Microsoft help text and videos
- **Task guides** – From the Microsoft Dynamics Lifecycle Services (LCS)

Whereas task guides give a description on how to use Dynamics AX in business processes, the wiki articles explain standard features and functionality.

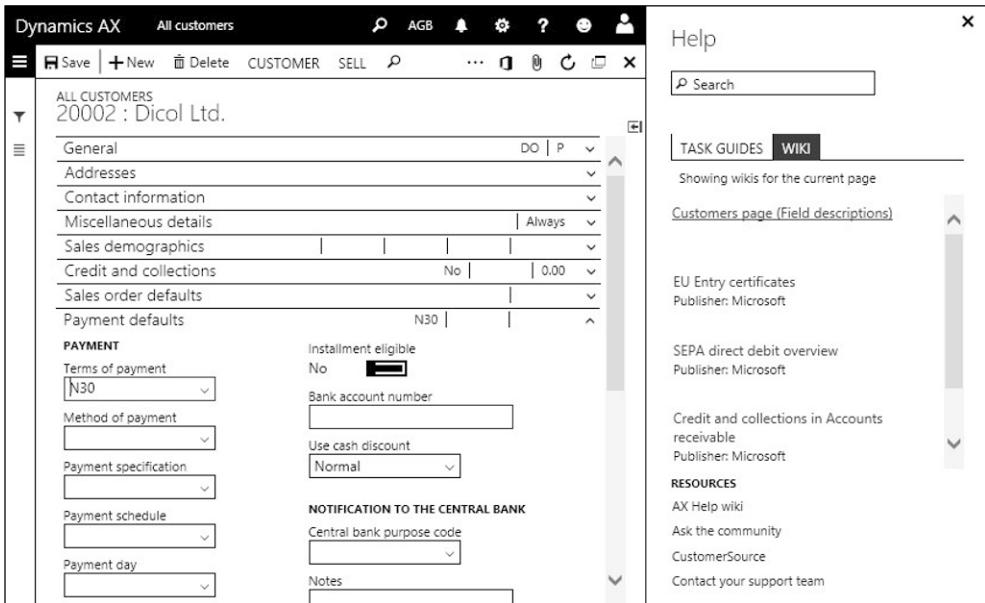




Figure 2-19: Dynamics AX help referring to the customer form

Basic parameters for the help system are specified in the system parameters (*System administration> Setup> System parameters*, tab *Help*).

### 2.1.6.1 Accessing Help

In order to access help, click the button  (*Help*) in the navigation bar. The help pane then displays task guides and wikis referring to the particular form (see Figure 2-19). After switching to the tab *Wiki*, you can access the help text by clicking the link to the particular Wiki article which opens in a new browser tab.

The search field at the top of the help pane provides options which are similar to the features of search engines in the Internet. Abstracts in the search results help to recognize relevant text easily.

In order to close the help pane, press the *Esc* key or click the button  (*Close*) on the top right of the help pane.

### 2.1.6.2 Custom Help with Task Guides

Using the task recorder (see section 10.5.3) you can create recordings based on the business processes in your company. After saving a recording to a Microsoft Dynamics Lifecycle Services (LCS) Business Process Library, it will be available on the *Task guides* tab of the help pane.

### 2.1.6.3 New in Dynamics 'AX 7'

The architecture of the help system has completely changed, containing links to Wikis and task guides instead of the help server. With the Dynamics AX May 2016 update, you can view a short field help if pointing the mouse over a field label (similar to the AX 2012 help text in the status bar).

## 2.1.7 Case Study Exercises

### Exercise 2.1 – Logon and Navigation

Your first task is to log on to a Dynamics AX training system, where you should access a company which is different from your default company.

Open the list page *All vendors*, first through the *Accounts payable* menu in the navigation pane, and then through the navigation search. Check if there are vendors with a name starting with "A". Next, access the workspace *Purchase order preparation* and try to find a vendor with a name starting with "A" from there.

Finally, log out from the Dynamics AX.

### Exercise 2.2 – Favorites

Start a client session in Dynamics AX, select the training company, and show the navigation pane. Add the list page *Released products*, which you can find in the menu *Product information management*, to your favorites. Then open this page from the favorites.



**Exercise 2.3 – Detail Forms**

As an example of detail forms in Dynamics AX, access the vendor detail form through the vendor list page (*Accounts payable* > *Vendors* > *All vendors*). In this form you want to view the vendor in the third line of the list page. Show an example of a field group and a lookup field with and without main table.

Then show an example of a slider and a checkbox field. What can you tell about fast tabs and FactBoxes? How do you proceed if you want to edit the vendor? Is there an option to edit multiple vendors in this form?

**Exercise 2.4 – Inserting Records**

Create a new vendor without applying record templates. For the beginning, the only data for the vendor are the name “##-Exercise 2.4 Inc.” (## = your user ID) and any vendor group.

Notes: If the number sequence for vendor accounts is set to “Manual”, you have to enter the vendor number manually. If the *Accounts payable parameters* require entering a sales tax group or a tax-exempt number (VAT registration number), access the tab *Invoice and delivery* and enter the required information there.

**Exercise 2.5 – Lookup Fields**

You want to update the vendor of exercise 2.4. Searching a *Buyer group* in the lookup of the appropriate field on the tab *Miscellaneous details* of the vendor form, you notice that the required group is not available. Create a new buyer group ##-P (## = your user ID) using the *View details* option. Then select the new group in your vendor record.

**Exercise 2.6 – Filtering**

In order to get some exercise with filtering, enter a few filters in the vendor list page as given below. Use the quick filter and the grid column filter for the first and the second filtering task. For the other filtering tasks, use the filter pane and the advanced filter.

Use following criteria one after the other and clear the filter after each task:

- All vendors with a name starting with “T”
- All vendors assigned to the vendor group selected in exercise 2.4
- All vendors with a name containing “in”
- Vendors with a number from US-101 to US-103 or higher than US-108 (use a similar filter if these vendor accounts do not exist)
- Vendors with a number ending with “1” and a name containing “of”
- Vendors with an “e” on the second character of the name
- Vendors with a name not starting with “C”

Once you have finished the filtering tasks given above, open the advanced filter dialog and select vendors, who do not have *Terms of payment* “Net 30 days”.

## 2.2 Printing and Reporting

Depending on your requirements, there are several options for viewing and analyzing data. Apart from printing Dynamics AX standard reports and using the Microsoft Office integration, you can apply Business Intelligence tools (including Microsoft Power BI) and the Management Reporter (for financial reports).

### 2.2.1 Printing of Documents

In Dynamics AX, there are following ways to print documents:

- **Browser page printing** – Printing any list page or form as a web page using the printing page features of your browser
- **Standard report preview download** – Printing a report to the screen (print preview) and exporting a PDF or Word file from there
- **Standard report direct printing** – Directly sending a standard report to a local or network printer

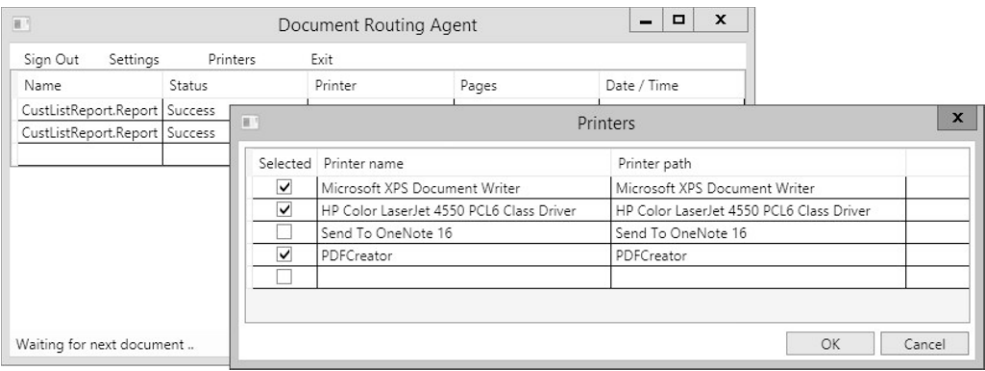
The option of printing Dynamics AX pages from your browser, which works like printing any other web page, does not require any print setting in Dynamics AX.

Standard reports are formatted documents based on Microsoft SQL Server Reporting Services (SSRS). When printing a standard report, you can either download a file from the print preview, or send the document directly to a local or network printer. If you want to send documents directly to a printer, you have to configure the Document Reporting Services.

*Note:* When printing a list page or form, there may be different results depending on the selected browser (Internet Explorer, Google, Chrome, or other).

#### 2.2.1.1 Document Reporting Services Setup

Document Reporting Services are hosted in Microsoft Azure. If you want to connect your printers to the Azure services, you have to install the *Document Routing Agent* on one or more client computers in your network.



**Figure 2-20:** Selecting printers in the Document Routing Agent

In order to install the *Document Routing Agent*, open the form *Organization administration> Setup> Network printers* and click the button *OPTIONS/Application/Download document routing agent installer*. After installing the application, open the *Document Routing Agent* on your client desktop and click the *Settings* button in the toolbar. Enter the *Dynamics AX URL* (the same URL which you use to access Dynamics AX in the browser) and the *Azure AD Tenant* (Domain name of the Azure Active Directory / Microsoft Office 365 account). Then click the button *OK* and the button *Sign In*. Finally click the button *Printers* and put a checkmark in front of the printers which you want to use in Dynamics AX.

In the Dynamics AX network printer form (*Organization administration> Setup> Network printers*), you can now view the printers which have been enabled by one or more *Document Routing Agents*. Once the form is in edit mode, select the option “Yes” in the column *Active* for all printers to be used in the current company.

2.2.1.2 Printing Standard Reports

In each Dynamics AX module, there are standard reports in the folder *Inquiries and reports*. In addition, some list pages and detail forms also provide the option to run a standard report by clicking the appropriate button – e.g. a customer account statement by clicking the button *COLLECT/Customer balances/Statements* in the customer list page (*Accounts receivable> Customers> All customers*).

In order to explain how to print a report in Dynamics AX, the description below shows the example of printing a standard report from the menu. After selecting the menu item, Dynamics AX shows the report dialog where you can enter filter criteria and print destinations. Figure 2-21 for example shows the report dialog of the customer list (*Accounts receivable> Inquiries and reports> Customers> Customer report*) after a filter on the group “DO” has been entered.

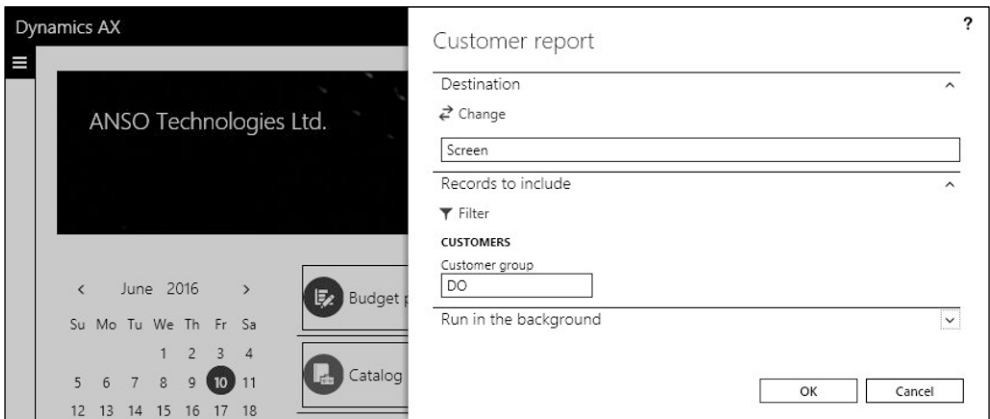


Figure 2-21: Report dialog for the customer list

Filter criteria are not directly entered in the report dialog, but in a filter dialog which you can access by clicking the button *Filter* on the tab *Records to include* of the report dialog. The filter dialog for reports works similar to the advanced filter

in list pages and detail forms. Apart from entering filter criteria on the tab *Range*, you can enter sorting criteria on the tab *Sorting*. After closing the filter dialog, the selected filter shows in the report dialog.

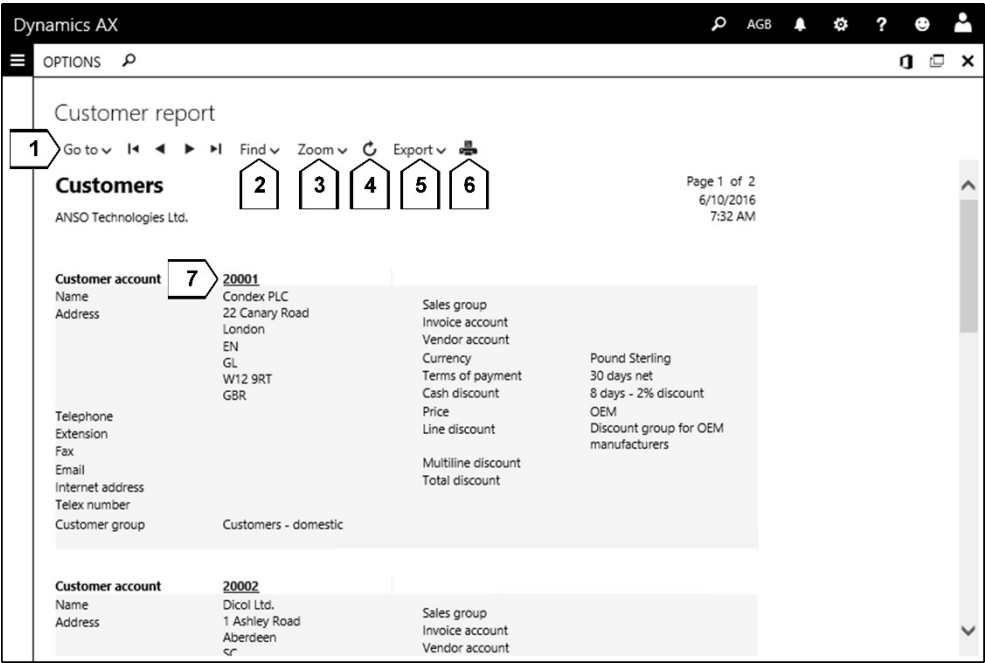
The button *Change* on the tab *Destination* of the report dialog opens the print destination settings, where you can select the destination for the printout. Table 2-2 below shows the available options for the print destination.

**Table 2-2:** Print destinations for reports

Destination	Explanation
Print archive	Saves the report selection to the print archive
Screen	Shows a report preview on the screen
Printer	Prints the report to the selected printer (available printers are specified in the network printer form as described above)
File	Saves the report content to a CSV, Excel, HTML, XML, or PDF file
E-mail	Saves the report content to a file and sends it to an e-mail recipient (the recipient has to be entered manually)





Once you have finished entering the print destination and the filter criteria in the report dialog, print the report by clicking the button *OK* in the report dialog. The settings used when printing the report are automatically stored in the user options. They show by default when printing the selected report again. You can change the filter criteria and the print destination as required then.

2.2.1.3 Print Preview



**Figure 2-22:** Print preview options

If you select the screen as print destination, Dynamics AX shows a print preview on the screen. The preview includes following options (see Figure 2-22):

- **Scroll** [1] between pages by entering the page number (button *Go to*) or clicking the button for the first page , previous page , next page , or last page 
- **Find** [2] text in the report
- **Zoom** [3] in and out
- **Refresh** [4] the preview in order to retrieve current data
- **Export** [5] the preview to different file formats including XML, CSV, PDF, HTML, TIFF, Excel or Word
- **Print** [6] the preview
- **Link** [7] which provides access to the detail form for selected fields

#### 2.2.1.4 Print Archive

The print archive allows saving a report within Dynamics AX. You can save to the archive either by selecting the print archive as print destination in the report dialog or – if choosing a different print destination – by setting the slider *Save in print archive* to “Yes”.

When saving to the archive, the report selection is stored in the print archive which makes it possible to reprint the report later. If you want to access your print archive, open the form *Common> Inquiries> Print archive*. In order to access the print archives of all users, open the form *Organization administration> Inquiries and reports> Print archive*.

#### 2.2.1.5 Post and Print

When posting an external document (e.g. an invoice or a packing slip), you also want to print the document in most cases. Posting dialogs therefore contain a parameter for printing the related document – e.g. the slider *Print invoice* when posting a sales invoice. The buttons *Select* (filter selection) and *Printer setup* (printer selection) in posting dialogs provide the option to specify filter criteria and print destinations as described for standard reports above.

In case the printout of a posted document is required at a later date (e.g. if you have missed to set the slider *Print* to “Yes” when posting), you can still print it in the inquiry of the particular posted document. If you want to (re-)print a sales invoice for example, open the sales invoice journal (*Accounts receivable> Inquiries and reports> Invoices> Invoice journal*) and click the button *INVOICE/Document/View/Original preview* in the action pane after selecting the invoice.

#### 2.2.1.6 Batch Processing

If you do not need to view the results of a particular report or a periodic activity immediately, you can switch to the tab *Run in the background* in the report dialog and submit the report to a batch process. After setting the slider *Batch processing* to

“Yes” and – if required – selecting a *Batch group*, specify the starting time and repetitions for the batch job by clicking the button *Recurrence*.

The screenshot shows the Dynamics AX interface with a 'Customer report' dialog box open. The dialog box has a 'Recurrence' tab selected. The 'Batch processing' section has 'Yes' selected. The 'Task description' is 'Customer report'. The 'Batch group' is set to a dropdown menu. The 'Private' and 'Critical Job' options are both set to 'No'. The 'Monitoring category' is set to a dropdown menu. The 'Start date' is 6/10/2016 (07:43:06 am) (GMT-08:00) Pacific Time (US & Canada). The 'OK' and 'Cancel' buttons are at the bottom right.

**Figure 2-23:** Batch processing selection in a report dialog

As a prerequisite for batch processing, at least one batch server has to be set up and started. You can set up the batch server in the menu item *System administration> Setup> Server configuration*. If you want to categorize batch jobs, you can use batch groups (*System administration> Setup> Batch group*).

Batch processing is a background process on the batch server, except for client and private tasks which require running the periodic activity *Organization administration> Periodic> Batch processing* on a client.

If you want to check and to edit the status of batch jobs, open the form *System administration> Inquiries> Batch jobs*.

### 2.2.1.7 New in Dynamics 'AX 7'

As a result of the browser-based interface, the regular printing features of the browser replace the AX 2012 auto-report features for printing information in Dynamics AX pages and forms. In addition, the cloud-based architecture requires the Document Routing Agent for connecting printers to the Azure services.

## 2.2.2 Microsoft Office Integration

The Microsoft Office integration in Dynamics AX provides an easy way for data interaction with Microsoft Office. This data interaction includes:


- **Static export** – Export data from Dynamics AX to Microsoft Excel
- **Opening and editing** – Update data in Dynamics AX from Microsoft Office

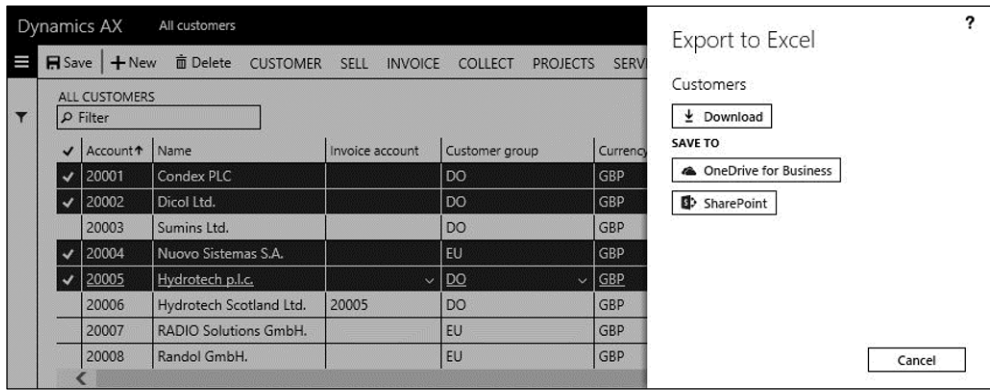
By use of document templates, you can easily create your own Excel workbooks for editing Dynamics AX data in Excel.

2.2.2.1 Static Export to Excel

The static export to Excel, which provides the option to retrieve data from Dynamics AX for viewing them in an Excel workbook, is available in most list pages and detail forms.

As a prerequisite for the static export, open the respective form in Dynamics AX and select lines for the export by marking the appropriate grid check boxes leftmost in the grid. Instead of using the grid check boxes, you can also select lines by clicking them directly in the grid while holding the *Ctrl* key. The *Shift* key selects multiple consecutive lines, and the grid check box in the header line selects all lines of the grid.


The button *Open in Microsoft Office*  / *Export to Excel* in the action pane of list pages then provides the option to export the list to Microsoft Excel. Alternatively, you can right-click in the grid of a list page to open the context menu where you can choose the option *Export all rows* or *Export marked rows*.



**Figure 2-24:** Choosing the export location when exporting to Excel


In the export dialog (see Figure 2-24) you can subsequently select whether you want to download the Excel workbook content to your local computer or if you want to export to OneDrive or SharePoint using Excel Online.

2.2.2.2 Opening Data in Excel

Unlike the static export, which just retrieves data from Dynamics AX to Excel, the option *Open in Microsoft Office* supports updating and inserting data from Excel to Dynamics AX. It is available in most list pages and detail forms. In order to start editing data in Excel, open the respective form in Dynamics AX, click the button  (*Open in Microsoft Office*) in the action pane and select the appropriate option below the heading *Open in Excel*. In some forms, for example in the general journals (*General ledger> Journal entries> General journals*), there is a dedicated button in the action pane for opening in Excel.

In the *Open in Excel* dialog you can subsequently select if you want to download the Excel workbook for working on your local computer or if you want to open it in OneDrive or SharePoint using Excel Online.


Microsoft Excel then displays the data connector in the task pane, where you have to sign in with your Azure Active Directory account before retrieving data. In Excel you can subsequently edit and insert data (button *New*), also working temporarily offline in Excel if required.

Clicking the button *Refresh* in the Excel worksheet retrieves current data from Dynamics AX, including new lines for new records. In order to transfer data from Excel to Dynamics AX, click the button *Publish*. In case incorrect data are going to be published, an error message in the Excel task pane shows the issue (click the button  at the bottom of the pane to see the details) and prevents the update.

### 2.2.2.3 Using Document Templates

You can create your own Excel worksheets and use them for updating data in Dynamics AX if you upload them as document templates.

As a starting point, open the Excel workbook designer (*Common> Office integration> Excel workbook designer*) and select the Dynamics AX table for which you want to create the Excel workbook. Then move the fields you want to include in Excel from the *Available fields* pane to the *Selected fields*. In the next step, click the button *Create workbook* in the action pane for downloading the Excel workbook to your computer or exporting it to OneDrive or SharePoint. After signing in, you can immediately use the worksheet for updating Dynamics AX data as described above.

If you save the Excel worksheet, you can upload it as document template in order to make it available as *Open in Excel* option. Open the document templates (*Common> Office integration> Document templates*) for this purpose, click the button *New* in the action pane and upload the Excel file which you have saved in the previous step. The new template then shows as additional option in the button  (*Open in Microsoft Office*) of the related Dynamics AX form.

### 2.2.2.4 New in Dynamics 'AX 7'

As a result of the cloud-based architecture, the AX 2012 Copy/Paste functionality is not available any more. The Microsoft Office integration has completely changed, now providing additional options.

## 2.2.3 Case Study Exercise

### Exercise 2.7 – Printing

Print a vendor list (*Accounts payable> Inquiries and reports> Vendor reports> Vendors*), selecting a print preview as print destination. Then print the vendor list again, filtering on any vendor group of your choice and choosing a PDF-file as print destination.




## 2.3 Advanced Options

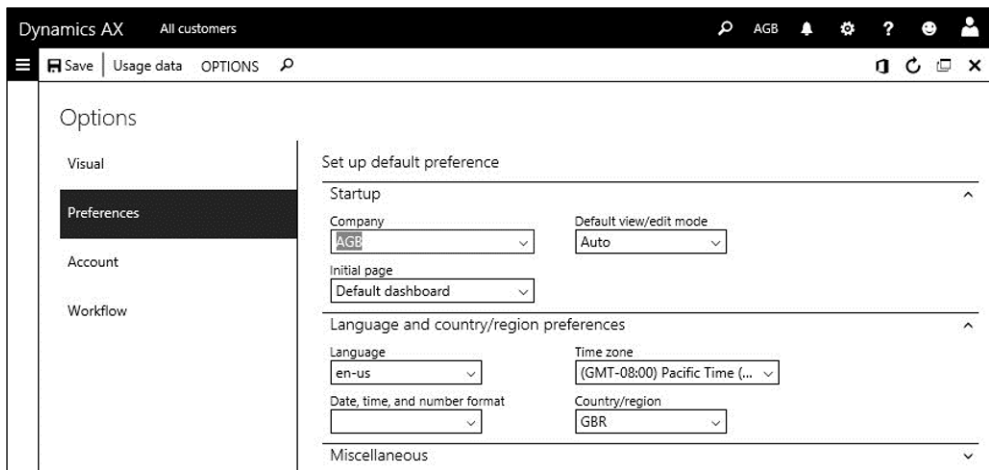
Before you can log on to Microsoft Dynamics AX, a Dynamics AX user with appropriate permissions has to be set up for you. In some areas of the application, a worker record (see section 10.2.2) assigned to your user is required additionally.

### 2.3.1 User Options and Personalization

Options for personally adjusting the Dynamics AX user interface are available in the user options. In addition, personalization provides enhanced features for individually configuring every single form.

#### 2.3.1.1 User Options

The user options are a form controlling core personal settings in Dynamics AX. You can access your user options by clicking the button /Options in the navigation bar (or accessing the menu item *Common> Setup> User options*) if you have got appropriate permissions. System administrators can access your user options from the user management (*System administration> Users> Users*, button *User options*).



**Figure 2-25:** Managing preferences in the user options form

Main settings in the user option form as shown in Figure 2-25 include following preferences for your workspace:

- **Language** – Language of the user interface
- **Country/region** – Default value for country/region when entering an address
- **Company** – Default-company when logging on
- **Default view/edit mode** – Start all detail forms in view mode or in edit mode
- **Document handling** – See section 10.5.1
- **Sign out after** (tab **Account**) – Minutes of inactivity for closing your session
- **Visual** tab – Color theme and element size
- **Workflow** tab – Settings for workflow management (see section 10.4)

### 2.3.1.2 Usage Data

The button *Usage data* in the action pane of the user options opens a form, which shows detailed settings of a user. These settings include filter settings, form settings, and record templates (user templates), which have been stored automatically or manually.

In the usage data, you can switch from the tab *General* to the other tabs if you want to view the usage data in a particular area. Clicking the button *Data* after selecting a usage data record shows the record details. It is not possible to modify usage data, but you can delete usage data records by clicking the button *Delete* or pressing the shortcut key *Alt+F9*. Clicking the button *Reset* on the tab *General* deletes all your usage data.

### 2.3.1.3 Setup for Personalization

Apart from modifications in the development environment, which apply to all users, changes of the user interface in list pages and forms are also possible at personal level. For this purpose, each user with appropriate permissions in Dynamics AX can adjust forms according to his personal requirements.

The personalization setup (*System administration> Setup> Personalization*) contains settings whether personalization is allowed. On the tab *Users*, you can override the general setting specified on the tab *System*. In addition, you can export and import personalizations on the *Users* tab.

### 2.3.1.4 Implicit Personalization

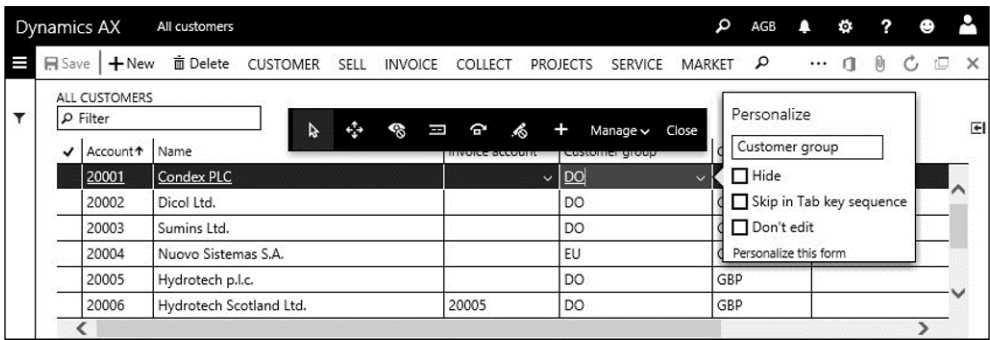
In list pages and the grid of other forms, you change the width of columns with your mouse (drag and drop in the header column). Dynamics AX also remembers the settings for showing the full action pane, the fast tabs, and the FactBoxes per page in your personalization.

### 2.3.1.5 Explicit Personalization

If you need enhanced options to adjust a form according to your personal preferences, you can use the element personalization window and the personalization toolbar. These options are available in every list page, detail form, workspace, and dashboard.

In order to access the element personalization window, right-click an element (e.g. a field shown in a list page) and choose the option *Personalize* in the context menu. The personalization window then provides the option to override several standard settings – for example by entering a personal field label, hiding the element, or preventing to edit the field content.

The personalization toolbar, which you can access by clicking the link *Personalize this form* in the element personalization window or by clicking the button *OPTIONS/Personalize/Personalize this form* in the action pane, provides additional options.



**Figure 2-26:** Element personalization window and personalization toolbar in a list page

In the personalization toolbar, you can personalize the form by clicking the appropriate button, and then selecting the field or other element to which you want to apply the selected action. Options in the personalization toolbar include *Select* (shows the element personalization window as described above), *Move* (change the location of an element), *Hide*, *Summary* (in detail forms, shows the field as summary field on the fast tab), *Skip* (skip in the tab sequence), *Edit* (prevents editing), and *Add* (add a table field to display in the form). If you add a field, you have to select the page area where you want to add the field before a dialog shows where you can select one or multiple table fields.

Settings in the personalization apply immediately. The button *Manage* in the personalization toolbar provides the option to reset the form to the standard layout (button *Manage/Clear*) and to export or import the personalization.

Apart from changing the layout of a form, personalization includes the option to add a list page to a workspace by clicking the button *OPTIONS/Personalize/Add to workspace* in the action pane. After selecting the appropriate *Workspace* and the *Presentation* (tile or list) you have to click the button *Configure* and to select some options in a subsequent dialog. When you are finished, the list page shows as additional list or tile in the selected – now personalized – workspace.

In the workspace, the element personalization window for tiles includes the additional option to pin a tile to the dashboard. If you select this option, the dashboard shows the selected form which means that you can directly access it from the dashboard.

### 2.3.1.6 New in Dynamics 'AX 7'

The browser-based user interface has required a completely new personalization functionality. The new personalization only stores changes to the standard, making it possible to keep personalization even if there are modifications or AX updates.

## 2.3.2 Record Information and Templates

The record information dialog in Dynamics AX provides access to data and to general features not directly shown in a particular list page or detail form.

### 2.3.2.1 Options in the Record Information Dialog

After selecting a record, you can open the record information dialog in a list page or detail form by clicking the button *OPTIONS/Page options/Record info*.

The *Record information* dialog provides following options for the selected record:

- **Rename key field** – Agree with system administration before using this option
- **Show all fields** and **Database log** – Information on the selected record
- **Script** – Create an insert script
- **Company accounts template** and **User template** – Create a record template

Note: Depending on your permissions and the Dynamics AX configuration, some options might not be available.

The screenshot shows the Dynamics AX interface with the 'Record information' dialog open for Vendor 30001: XCR Trading plc. The dialog is titled 'Record information' and lists the following actions available:

- VENDORS**
  - Vendor account: 30001
  - Rename the unique record key. This action is time consuming because all references. (Button: **Rename**)
  - Display information about all the fields in this record. (Buttons: **Show all fields**, **Database Log**)
  - Create insert script for regenerating the record. The script lines are copied to the Clipboard. (Button: **Script**)
  - Use this record as a template. (Buttons: **Company accounts template**, **User template**)

The background shows the vendor detail form with fields for Identification, Organization Details, and Other Information.

**Figure 2-27:** The record information dialog in the vendor detail form

### 2.3.2.2 Renaming

You can rename the key field of a record by clicking the button *Rename* in the record information dialog. Renaming then opens a second dialog for entering the new field content.

Processing a request for renaming may be a time-consuming activity, because Dynamics AX has to update all references. If you want to modify a vendor number for example, the update does not only include the vendor table itself, but also the vendor transactions, the purchase orders, and all other tables which contain the vendor number. You have to take into account, that references are only updated

within Dynamics AX. Other applications and external partners like customers or vendors have to receive the appropriate information separately.

Renaming therefore is an exceptional activity, usually with restricted access secured by appropriate permission settings.

### 2.3.2.3 Show All Fields and Database Log

The button *Show all fields* in the record information dialog displays the content of all fields of the selected record. Choose this option if you want to know the content of fields not shown in a particular list page or detail form.

The button *Database log* in the record information dialog shows a log file of all changes to the selected record. As a prerequisite, logging for the particular table has to be enabled in the form *System administration> Setup> Database log setup* or in the development environment.


### 2.3.2.4 Record Templates

Record templates help creating new records by copying the content of fields from a template created before. As an example, it might be useful to set up a different template in the vendor table for domestic vendors and for foreign vendors, which initialize the record with correct posting groups when creating a new vendor.

When working with record templates, you have to distinguish between two types of templates:

- **User templates** – Only available to the current user
- **Company accounts templates** – Available to all users

A user template is only available to the user who has created it. You can create a user template by clicking the button *User template* in the record information dialog. A second dialog then opens where you enter the name and a short description of the template. The template then is a copy of the record which you have selected when opening the record information dialog.

User templates are stored in your usage data, where it is not possible to modify them later. If a user template is not required any more, you can delete it in the usage data (button /Options in the navigation bar> button *Usage data*> tab *Record templates*). Alternatively, you can delete a user template by pressing the shortcut key *Alt+F9* in the template selection dialog as shown in Figure 2-28.

Unlike user templates, company accounts templates are available to all users. You can create a company accounts template by clicking the button *Company accounts template* in the record information dialog.

If you want to access a company accounts template later, open the form *Common> Setup> Record templates*. On the tab *Overview* of the record templates form, select the table to which the template belongs. Then switch to the tab *Templates* where you can view and delete the system template.

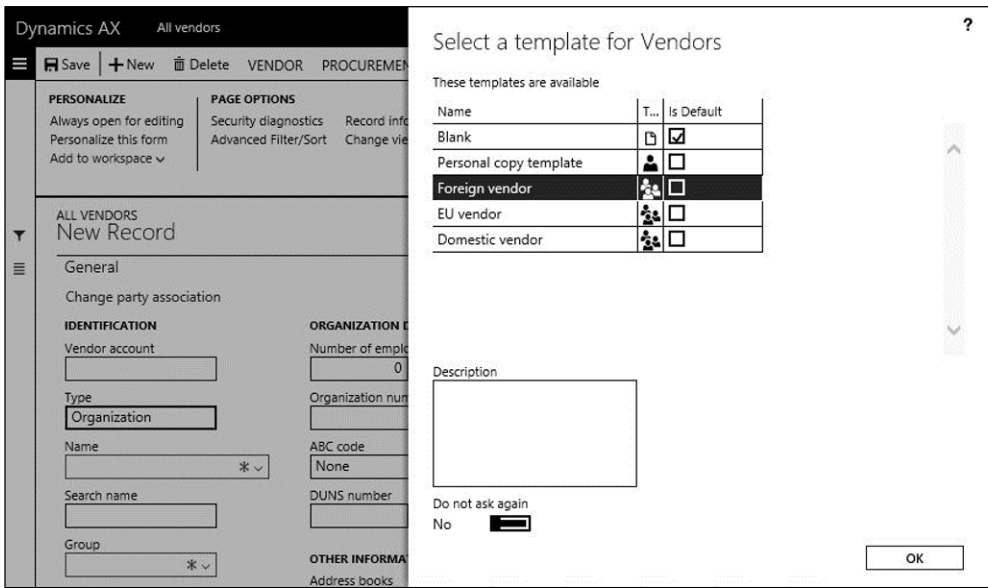


Figure 2-28: Selecting a template in the template dialog

If there are templates for a table, they display in a template selection dialog when inserting a new record in the particular table. Figure 2-28 for example shows the dialog displayed when creating a new vendor in the vendor detail form (*Accounts payable*> *Vendors*> *All vendors*) once there is a vendor template.

In the template dialog, select the appropriate template and click the button *OK*. Company account templates show the icon whereas user templates show the icon . In the far right column, you can optionally select one line to make it the default template. If you set the slider *Do not ask again* at the bottom of the template dialog to “Yes”, Dynamics AX applies the default template without showing the dialog when inserting further records. If you want to show the template dialog when creating new records again, click the button *Show template selection* which then displays in the record information dialog.

### 2.3.3 Case Study Exercises

#### Exercise 2.8 – User Options

You want to access your user options in order to check your user name and e-mail address. In the visual options, select the high-contrast color theme and a small element size. The training company should be the *Start company accounts* when logging in to Dynamics AX the next time.

#### Exercise 2.9 – Record Templates

Create a new user template based on the vendor which you have entered in exercise 2.4. In order to learn how to use templates, insert a new vendor applying this template afterwards.

## 2.4 Global Address Book

Dynamics AX contains a common table for all business partners of your enterprise – internal and external relationships, companies and persons. This common table is the global address book, using the label “parties” for the business partners. Parties in the global address book are shared across companies and include customers, sales leads, vendors, organization units, employees, and other contacts.

### 2.4.1 Party and Address

When creating a new customer, vendor, or any other kind of party, Dynamics AX inserts a record in the global address book. A party may contain one or more (postal) addresses and contact information data. A party therefore is not the same as an address – a party is an organization or person characterized by its name.

Dynamics AX

AGB

Save | + New | Delete | PARTY | OPTIONS

PARTY  
000001961 : Dicol Ltd.

General

IDENTIFICATION

Party ID  
000001961

Type  
Organization

Name  
Dicol Ltd.

Search name

Show more fields

ORGANIZATION DETAILS

Number of employees  
0

Organization number

ABC code  
None

DUNS number

OTHER INFORMATION

Address books

Language  
en-us

Addresses

+ Add | Edit | Map | More options

Name or description	Address	Purpose	Primary
Dicol	1 Ashley Road Aberdeen SC AN AB21 9AA GBR	Business	Yes
Dicol Main Warehouse	12 Delivery Road Aberdeen SC AN AB21 9AA GBR	Delivery	No

Contact information

Relationships

Roles

Figure 2-29: Managing a party with multiple addresses in the party detail form

Depending on permission settings, you can access all parties in the global address book (*Common> Common> Global address book*). The party detail form accessed from the global address book shows details like name, addresses, and contact data.

### 2.4.1.1 Creating Parties in the Global Address Book

You can insert a new party directly in the global address book by clicking the button *New* in the action pane. In the new party record, the *Party ID* usually derives from the appropriate number sequence. The lookup field *Type*, which contains the alternative options “Organization” and “Person”, controls the fields which display in the party form (e.g. showing the field *First name* only for persons).

After entering the party name in the field *Name* (for an organization) or in the fields *First name* and *Last name* (for a person), you can enter additional data. These data include the postal address on the tab *Addresses* and contact data like e-mail addresses and phone numbers on the tab *Contact information*. Section 3.2.1 shows – on the example of the vendor management – in more detail how to manage postal addresses and contact information.

### 2.4.1.2 Indirectly Creating Parties

Apart from directly creating a party in the global address book, you can also create a party indirectly by entering a customer, a vendor, or any other kind of party in any module.

In forms indirectly creating parties, the field *Name* is a lookup providing the option to search an existing party. If you select an existing party in this lookup, the party receives an additional role. If you do not select an existing party, but type a new name, Dynamics AX automatically creates a new party with this name.

If you insert a new customer in the customer form (*Accounts receivable* > *Customers* > *All customers*) for example, a new party is created in case you type a name in the lookup field *Name* of the *Create* dialog. If you select an existing party in the lookup field *Name*, the new role “Customer” is assigned to the party.

Since a party may already exist in the global address book (e.g. a customer being a vendor in your own or an affiliated company within a common Dynamics AX database), you should – in order to avoid duplicate parties – check existing parties before creating a new party record. In case the duplicate check is activated in the global address book parameters and you enter a duplicate party anyhow, a confirmation dialog shows the existing record before saving the new party.

### 2.4.1.3 Internal Organizations

Apart from external parties (organizations and persons), internal organizations like operating units and legal entities (see section 10.1.2) are also parties in the global address book. You can recognize internal organizations by the *Type* (e.g. “Legal entities”). Party types reserved for internal organizations are not available when manually inserting a party directly in the global address book.

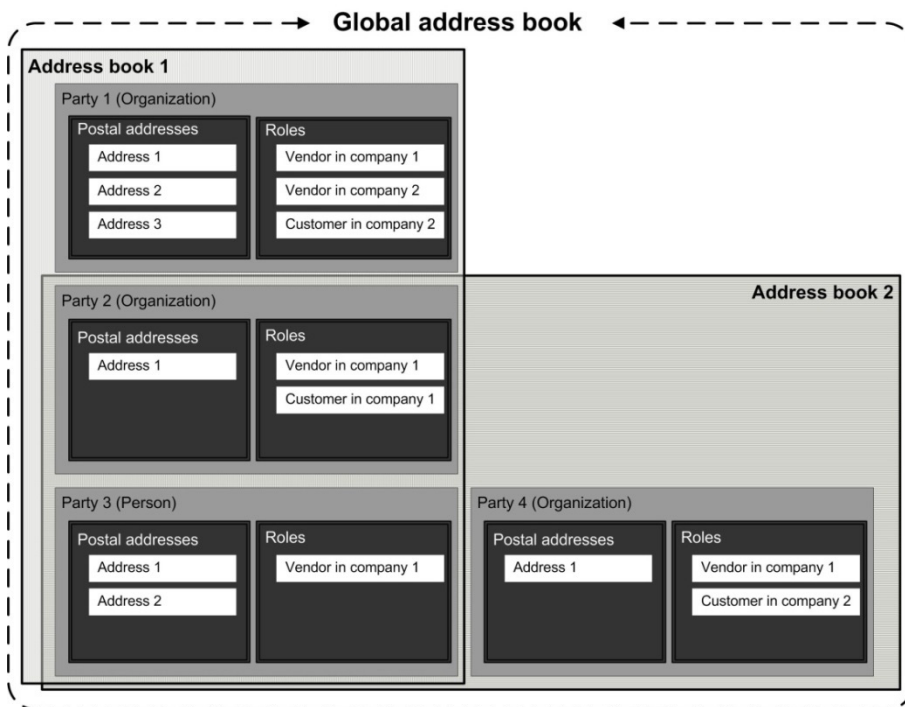


### 2.4.2 Address Book

An address book is a collection of party records. You can set up one or more address books in the form *Organization administration> Global address book> Address books*, e.g. one for sales and one for purchasing.

The global address book is the collection of all parties in all companies of a Dynamics AX system (see Figure 2-30).

In order to link a party to one or more address books, put a checkmark in front of the address books which display in the lookup of the field *Address books* on the tab *General* of the party detail form.



**Figure 2-30:** Conceptual structure of the global address book

You can use address books for filtering addresses – e.g. using the filter field *Address books* in the global address book list page – and as a basis for security settings in the extensible data security framework.

#### 2.4.2.1 Roles

A role (e.g. “Vendor” or “Customer”) describes the relationship between a party and your enterprise. A party can refer to one or more roles in one or more companies. There are two ways of assigning a role to a party:

- **Indirectly** – Entering a record in other areas like the customer list page automatically creates a party with the appropriate role.
- **Directly** – Clicking an appropriate button in the action pane of the global address book (e.g. *PARTY/New/Customer*) after selecting a party creates a record in the selected area (e.g. customer record) and assigns the related role.

The roles of a party are shown on the tab *Roles* of the party detail form.

#### 2.4.2.2 Address Book Parameters

If the duplicate check is activated in the global address book parameters (*Organization administration> Global address book> Global address book parameters*, slider *Use duplicate check*), a dialog shows duplicate party records whenever you try to create a party (directly or indirectly) with the name of an already existing party. In the dialog you can choose whether to use the existing party or to create a new party, which by chance has got the same name as the existing party.

Other global address book parameters include the default party type (“Organization” or “Person”) and the name sequence for persons (first/last name).

Settings regarding the format of postal addresses and available ZIP/postal codes or cities are specified in the address setup (*Organization administration> Global address book> Addresses> Address setup*).

#### 2.4.3 Case Study Exercise

##### Exercise 2.10 – Global Address Book

In order to learn the functionality of the global address book, check if you can find the party record of your vendor from exercise 2.4.

The next task is to insert a new party in the global address book. Fields to be entered include the name “##-Exercise 2.10” (## = your user ID) and a postal address in London. The new party becomes a vendor in your company. What do you do in Dynamics AX?

Using Microsoft Dynamics AX

The New Dynamics 'AX 7'

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