CHAPTER 4: CHANGING RESOURCES

Training Objectives

Actively participating during this chapter helps you learn how to:

- Modify global pictures.
- Modify existing data types.
- Modify existing formats.
- Globally customize strings.
- Change a global message.

Changing Other Global Resources

All text and graphic objects that appear in Microsoft Dynamics™ GP can be modified from one central location. This is because they are included as resources and are independent of any forms or windows. Using Modifier, you can change a Microsoft Dynamics GP resource once, and each occurrence of that resource reflects the new change.

You can customize the following resources in Microsoft Dynamics GP:

- Pictures and native pictures
- Data types
- Formats
- Text strings
- Messages

You can also view information about resources such as tables and fields to find out how the data is stored and will be displayed.

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Pictures

Picture resources are used throughout the application to display graphical objects used for navigation and window control, such as:

- Lookup buttons
- Button drop lists
- Push buttons

They can also be used to display logos on windows or reports. You can change the design of these objects by changing the picture resources used to create that control.

Pictures in Microsoft Dynamics GP

Objects such as buttons can have up to three different pictures:

- One to display the "up" image
- One to display the "down" image
- An optional image for when the mouse passes over the control

If a separate image is not specified for "down" image, Microsoft Dynamics GP automatically generates the "down" image at runtime. For example, a Lookup button appears to use two pictures to create a three-dimensional effect.

Only the "up" image is defined for the Lookup button. Microsoft Dynamics GP automatically generates a "down" image from the "up" image specified at design time.

Push buttons and visual switches are the most common data types that use pictures. Visual switches are graphical controls similar to push buttons. However, visual switches stay in a "down" position when clicked for the first time and return to the "up" position when clicked a second time. For example, push buttons for the scrolling windows are visual switches that stay "down" once selected and must be pushed again to return them to the original position. Another example of visual switches are the **Shrink** and **Expand** buttons located near the upper right corner of scrolling windows.

Push buttons act somewhat differently because they return to their original "up" position immediately after they are selected. For example, when you click the **Reports** button on the button bar, it returns to its "up" position after the mouse button is released.

Here is an example of some data types that use pictures:

Data Type	Name	Picture
Visual Switch	VS_Scroll_Shrink	
Push Button	PB_Lookup	
Button Drop List	PBD_Reports_1	

Names used for pictures include information about:

- Control type
- Name
- Position of the object

In the example above, the first part (VS) denotes that the picture is to be used on a visual switch, followed by the name of the switch (VS_Scroll_Shrink). The switch's position is indicated by "Up" or "Dn."

In the second example above, the first part (PB) denotes that the picture is to be used on a push button, followed by the name of the button (Lookup). The button's position is indicated by "Up" or "Dn."

In the last example above, the first part (PBD) denotes that the picture is to be used on the push button drop-down list, followed by its name (Reports). The button's position is indicated by "Up" or "Dn."

Modifying Pictures

The picture resources used to create visual switches and push buttons can be edited using any graphics program such as Microsoft Paint. Using standard copy-and-paste techniques for the Windows operating systems transfer the graphics into the Microsoft Dynamics GP application. The following procedure explains the process of modifying a graphic in the Modifier's picture library.

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Select a Picture

Open the Picture window by selecting Picture from the Resources menu in Modifier. From the list, select the picture to edit by highlighting the picture's name, and then clicking the **Open** button.

Copy the Picture

When the Picture Definition window is displayed, the picture is shown in the window. To edit the picture, copy the picture to the operating system's Clipboard by selecting the Copy command from the Edit menu.

Paste the Picture in a Graphics Application

Open any graphics application to edit the picture. Use the Paste command to paste the picture from Microsoft Dynamics GP into the graphics application.

Make Changes to the Picture

Edit the picture using the graphics application. When finished, use the Copy command from the Edit menu to copy the picture back to the operating system's Clipboard.

Paste the Picture into Microsoft Dynamics GP

Open the Modifier and return to the Picture Definition window, and paste the modified picture into the window by clicking the Paste command on the Edit menu.

Save the Changes and Change any Corresponding Pictures

Save the changes to this picture by clicking the **OK** button. If a corresponding picture is specified for the "up" or "down" position, change that picture as well. When all of the necessary modifications are made, verify the changes made are correct by opening one of the windows in Microsoft Dynamics GP that uses the picture(s) you modified. Since changes to a picture resource are global, changes appear on all forms without having to set security to any modified windows.

Native Pictures

Native picture resources were previously used throughout Microsoft Dynamics GP to display the graphical objects used for navigation and window control, such as Lookup buttons, button drop lists, and push pins. These resources were created specifically for each supported operating system. You can change the design of these objects by changing the native picture resources used to create that control.

NOTE: *Native Picture resources are different than Picture resources discussed previously during the modification of windows. Native Picture resources are not used frequently but are still available.*

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Data Types and Formats

Data types and formats are two types of resources that must be used when making customizations using Modifier. The relationship each shares with information in the application is different, yet the two are used in conjunction with one another to completely define how information appears in Microsoft Dynamics GP.

Data type resources can be used to define several different objects the application, such as:

- Push buttons
- Data entry fields
- Drop-down lists
- Radio buttons

Microsoft Dynamics GP uses data type resources to indicate how these objects handle information. Changing one data type can change several objects throughout the application because multiple objects can use the same data type. For instance, a data type can specify details such as the number of characters entered in the field. Since one data type may be used by several string fields, changing the keyable length for a data type changes the number of characters that can be entered in all fields using that resource.

Formats are stored as separate resources, but are applied to data types to help further define objects in Microsoft Dynamics GP. Formats generally determine how information is displayed within the field. For example, a format can be used to display a currency symbol or to force all of the characters to uppercase. Most often, a format is assigned only to data types used for data entry or display fields.

HINT: *These changes are global and can be viewed in any company. You do not need to grant access to view these changes.*

Modifying Data Types

Using Modifier, you change the way information is displayed in Microsoft Dynamics GP by changing the data types used by data entry fields and window controls. Specifically, you can use data types to accomplish the following:

- Change the number of characters that can be typed into a data entry field.
- Change the text values used by buttons or list fields.
- Select a different or new format for a given field or control.

CAUTION: *Changing one data type changes several objects throughout the application because multiple objects may all use a single type.*

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With Modifier you can change data types using the Data Type Definition window. This can be accessed a couple of different ways:

- Clicking the **Data Types** button on the Tool Bar, selecting an existing data type, and clicking the **Open** button.
- Clicking the **Fields** button, selecting an existing field, clicking **Open**, and then by clicking the **Open** button on the Field Definition window.

You can change the keyable length of a data entry field that has a string control type, but it cannot exceed the storage size. You can also change formats for data types that are a string, integer, currency, or composite control type.

NOTE: *Names used for the data types often indicate the control type, the keyable length (if any) and brief description of the resource. For example, the data type STR14_Phone has a string control type (STR), a keyable length of 14, and is usually used for* ***Phone number*** *fields. Refer to the appendix of the Modifier reference manual for more information about naming conventions used for data types and other resources.*

After the Data Type Definition window appears, you can modify a data type by completing one or more of the following steps.

Set the Keyable Length

By changing the keyable length, you change the number of characters that can be typed into fields using this data type. If this data type uses a format, the keyable length does not include any characters that appear in the format, such as currency symbols, periods, or brackets.

NOTE: *Typically, the data type's keyable length cannot be made larger. However in some cases, it can be changed up to one character less than its storage size.*

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Set Static Text Values

Static text values are text items that appear for certain data types such as push buttons and drop-down list. The type of static text value used varies depending upon the control type assigned to the data type being modified. For example, a static text value for a push button data type is the string that displays on the button. Static text values are the prompts displayed beside each radio button or check box. While static text values for list data types are the items displayed in each list.

To change a static text value(s) for the data type, display the Static text value list by clicking the Lookup button next to the **Static Text Values** field.

When the Static text values window appears, highlight the selection in the list you want to change. Enter the name of the new value in the **New Value** field. Insert the new name in the list by clicking the **Replace** button.

The following table lists examples of the static text values that you can change:

Data Type	Control Type	Static text value
CB_Freight	Check Box	Freight
DDL_Account_Type	Drop-Down List	Posting Account Unit Account Posting Allocation Account Unit Allocation Account
PB_Calculate	Push Button	Calculate

Set the Format for the Data Type

Not all data types use formats. controls such as push buttons do not use formats, nor do radio buttons or check boxes. Typically, only fields that display a value or have a value entered in them use formats. You can change the formatting options for the current format, or the current format to another existing format or to a new format that you create. To change the current format in any of these ways, click the Lookup button next to the **Format** field. The Format Lookup window then displays.

NOTE: *Only formats appropriate for the current data type are displayed in the Format Lookup window.*

Use one of the following formatting procedures to assign a new format:

- To change the formatting options for the current format, highlight the format in the list and click **Open**. Modify the appropriate format options and click **OK**. Click the **OK** button on the Format Lookup window to assign the new changes.
- To change the current format to another existing format, highlight one of the available formats and click **OK.**
- To create a new format for this data type, click the **New** button. Enter the appropriate format options and click **OK**. Click the **OK** button on the Format Lookup window to assign the new format.

Save the Changes

Save the changes to this data type by clicking the **OK** button. Continue changing existing data types as desired. As you make changes to data types, examine the changes to fields to verify the changes appear properly. Since changes to a format resource are global, changes you make appear on all forms in Microsoft Dynamics GP without having to set security to any modified windows.

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Modifying Formats

Formats are used to determine how information is displayed in Microsoft Dynamics GP fields. Using Modifier, you can change existing formats or create your own formats to customize the way information appears in the application. By changing formats, you can change how fields display information about currency and numeric fields and add special characters to data entry fields.

CAUTION: *It is important to remember that formats are not applied directly to a field, but to the field's data type. Therefore, when making a change to a format, you are changing all fields assigned to a data type that uses that format.*

Create or modify formats that function as a "mask" for the information in fields they are connected to. For example, phone numbers appear in with parentheses, dashes, and text. None of this information is stored with the phone number in Microsoft Dynamics GP, so it is necessary to use a format for each field's data type so they appear correctly:

Data	Format	How it appears in Microsoft Dynamics GP
7015558326	(XXX) XXX-XXXX	(701) 555-8326

Change the format for a data type in two different ways.

- Assign a new format that you create
- Edit the format that is already assigned

To change the format for a data type, select the **Fields** button to open the Fields window. Select the field that uses the data type you want to change and click the **Open** button to display the Field Definition window. Click the **Open** button next to the **Data Type** field to display the Data Type Definition window. Select the **Lookup** button next to the **Format** field to display the format used for this data type.

NOTE: *All of the formats displayed in the Format Lookup list use a format type that matches the control type assigned to the current data type. A format can use one of four types: currency, numeric, string, or composite.*

Click **New** to create a new format or select **Open** to edit the existing format. The Format Definition window displays:

After the Format Definition window appears, you can modify or create a format by completing one or more of the following steps.

Enter a Format Name

Although some formats have a descriptive name, like Account_Number, most formats use names that consist of information indicating the format's type and keyable length along with details about options that have been set for that format. For example, the following format uses a string type with a keyable length of 15 characters and formatting options set to left aligned, a blank fill character, and alphanumeric and upper case values only.

STR15_LBAU

Select an Alignment

Select Left, Right, or Center to set the alignment for fields using this format. Most fields are left aligned, but the alignment can be changed so information is displayed from the right or is centered within the field.

Select a Fill Character

Select the character that represents the unused positions within the field. Select an asterisk, space, or zero as the fill character. Changing the fill option for a format does not change how information is entered in the field. The fill character specified appears in an empty data entry field, or a field that uses only a portion of its keyable length. For example, if you specify zeroes as the fill character for your phone number format, the phone number appears like the number in the following illustration if no number is entered:

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Set Options Specific to the Current Format Type

The format type for the format selected appears in the **Format Type** field. Based on this type, determine options specific to this kind of format type.

NOTE: *Depending upon the format's type, certain selections in the window are not available for the format. For example, if you are modifying a currency format, string options will not be available.*

Additional Currency and Numeric Format Options

If using a numeric or currency format type, you can specify additional options used with currency and numeric formats you are modifying or creating. If you are not using one of these two format types, these options are dimmed.

Format Option	Description
Decimal Digits	Enter the number of decimal places to be displayed for the currency or numeric fields using this format.
Negative Symbol	The negative symbol selected here is the negative symbol that appears in fields that display negative numbers or negative amounts. If you select System, the default settings set for your operating system are used.
Unsigned	Select this if you do not want negative amounts to appear in the field using this format. If this is not selected, negative numbers are indicated according to the setting of the Negative Symbol selection.
Show Thousands Separator	Select this to display a thousands separator for amounts greater than 999.99. The thousands separator set up with your operating system is used by Modifier if this selection is made.
Relative Decimal Position	Clear this if you want the number of decimal digits entered in the **Decimal Digits** field to equal the actual number of digits that appear to the right of the decimal point. If you select the Relative Decimal Position selection, the number of decimal digits set are added to the number of digits specified by your operating system.
Show Currency Symbol	Select this to display the currency symbol specified for your operating system.
Show Percent Sign	Select this to include the percent sign for any fields using this format.

Additional String Format Options

If using a string format type, you can specify additional options that can be used with string formats being modified or created. If you are not using this format type, these options are dimmed.

Format Option	Description
Trailing Blanks	Select this to allow blanks or spaces appearing at the end of the field to be stored with the rest of the information in the field.
Leading Blanks	Select this to allow blanks or spaces to appear at the beginning of information entered in a field.
Numeric Only	Select to make this field accept numeric values only by selecting this option.
Alphanumeric	Select this to allow only a combination of numbers and letters in this field. This prevents the user from entering special characters into the field.
Uppercase Only	Select this to convert all letters typed in this field to uppercase.

Using a Format String

Typically, you can use a format string to display text or special characters in a field to more accurately portray information. For example, to change a phone number format string to allow for a country code instead of an area code or to display the word "Extension" instead of "Ext.," change the phone number format string. Microsoft Dynamics GP places the phone number digits in the "mask" that you create with a format string.

You can create a new format string, or modify the existing format string for a format if it uses a string format type. Remove an existing format from the Format Strings list by highlighting the string, then clicking the **Remove** button.

Enter Xs in the format string to represent the characters the user must enter into the field. For example, the phone number format has a keyable length of 14, so 14 Xs were entered in the format string to represent data. To determine how many Xs to enter in a string format, check the keyable length on the Data Type Definition window for the data type using this format.

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After entering the format string, select **Insert** before clicking **OK** to close the Format Definition window.

Save the Changes

Save the changes to the format by clicking the **OK** button. As you make changes to data types, examine the changes to fields in the application to verify the changes made appear properly. Since changes to a format resource are global, changes made appear on all forms in Microsoft Dynamics GP without having to set security to any modified windows.

HINT: *After you have completed modifying formats, enter Microsoft Dynamics GP to view the fields using those formats. If you add many static text values to a format string, the string may be too long for the field. If this is the case, shorten the size of the format string, or resize all fields that use the format.*

Customizing Strings

Change text strings, such as prompts, menu names and button names, which appear numerous places throughout the application. This is done by changing the appropriate string resource. For example, to change all "Customer" prompts to "Client," or "State" to "Province," you only need to make the change once using the Strings window.

This allows you to make global changes to names to implement terminology more reflective of your everyday business activity. It also provides a way to customize Microsoft Dynamics GP to meet international business needs.

To change a string resource throughout the application, select Strings from the Modifier's Resources menu. When the Strings window appears modify a string by completing the following steps.

NOTE: *Because of the numerous text strings included in the Microsoft Dynamics GP dictionary, once a string has been selected it may take a few moments for the Strings window to open.*

Select a String to Modify

Text items appearing in the Strings list are the strings that display throughout Microsoft Dynamics GP. They are listed in alphabetical order grouped by series. To change the name of a string, highlight the name in the list and click the **Open** button.

Set the Name of the Text String

When the String Definition window opens, the name selected in the Strings window appears highlighted in the **String** field. Change the name by typing in the new value.

HINT: *Be sure to avoid adding spaces before or after the name typed in the* ***String*** *field because Modifier reads spaces as part of the string and the name may not appear as desired in the Strings list.*

HINT: *Be sure to change all variations of a particular string. For example, to change all occurrences of Customer to Client, change Customer, Customer ID, and Customer ID: in each Series.*

HINT: *Note that you cannot change a string to a value that already exists in the dictionary.*

Specify keyboard equivalents can be created by placing an ampersand (&) in front of the letter you want to have underlined. For example, to place an accelerator key on the **OK** button, type &OK in the **String** field. When pressing the ALT+O key combination in Microsoft Dynamics GP, the **OK** button is selected.

Save the Changes

Save the changes made to the text item by clicking the **OK** button in the Static Text window. When the Strings window appears, notice that the name you replaced is removed from the Strings list and replaced with the new name. Continue to change strings using this procedure. When finished, close the Strings window, then enter Microsoft Dynamics GP to view the changes made. Since changes to a string resource are global, changes appear on all forms without having to set security to any modified windows.

NOTE: *When you rename a string in Modifier, customized prompt names that are longer than the original name may need to be resized and rearranged in the window's layout. If you need to resize and rearrange prompts to fit properly, refer to the Modifying Window Prompts procedure for information on how that can be completed.*

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Customizing Messages

Messages are used throughout Microsoft Dynamics GP to display statements or questions that can be used to provide information or prompt a user to make a selection. Messages are entered using the Messages window, which can be accessed from the Resources menu in Modifier (RESOURCES→MESSAGES).

Each message has a message ID used when referencing the message in script. Replacement markers can be used to substitute text for the replacement marker (%1). A generic statement can be created and used from several different windows. The substitute statement can be used to insert text where the replacement marker resides.

To easily view all messages and IDs, a text file can be generated listing all resources in the dictionary. To create this report, use the Generate Resource Reports option (FILE→GENERATE RESOURCE REPORTS). After this report is created, view the section listing message statements.

HINT: *Globally changing messages allows you to easily update messages in a dictionary, or translate them for a multi-lingual application. All messages can be accessed through the Messages window.*

Conclusion

In this chapter you learned about changing global resources and that making a change to a single resource can affect multiple objects. Instruction was given on creating or modifying graphics and static text values that appear on resources. We also discussed resources such as data types and formats and how Modifier can be used to change the way data is displayed for an object.

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Lab 4.1– Changing Data Formats

Company: Fabrikam, Inc.

Scenario: This lesson shows you how to change keyable lengths for data entry fields in Microsoft Dynamics GP and change the format the data type uses. For this lesson, your business only uses phone numbers that are ten digits in length, without an extension. Shorten the keyable length of phone number fields by changing the Phone_Number data type.

Challenge Yourself!

- Within Modifier, change the Phone_Number data type used by the **Phone 1** and **Phone 2** fields to allow the user to enter only ten characters. Customize the Phone_Number format to list spaces rather than the zero if no phone number is entered. The format is numeric only and should not display an extension.

- Validate your changes by viewing a window within Microsoft Dynamics GP such as the Company Setup window.

Need a Little Help?

- Within Modifier navigate to the Phone_Number data type. Change the keyable length to 10, which only allows the user to enter ten characters.
- Next, use the following information to customize the Phone_Number format for the Phone_Number data type:

- The format for this data type lists spaces rather than the zero if no phone number is displayed.
- The format is numeric only and should not display an extension. Select the existing format and modify it by taking off the extension. Click the **Insert** button to add it to the Format Strings column. Remove the format with the extension if it still exists in the list.
- Validate your changes by viewing a window within Microsoft Dynamics GP application such as the Company Setup window. (TOOLS→SETUP→COMPANY→COMPANY)

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Lab 4.2 – Modifying Push Button Data Types

Company: Fabrikam, Inc.

Scenario: This lesson shows you how to change a push button data type by changing the name of a push button globally. An accelerator key will also be added to the button.

Challenge Yourself!

- Within Modifier, change the static text or caption of the **OK** Push Button to display the word "Accept" rather than "OK." Make the letter "A" the accelerator or shortcut. This button is used on many windows within Microsoft Dynamics GP.

- Validate your changes by viewing a window within Microsoft Dynamics GP such as the Company Setup window.

Need a Little Help?

- Within Modifier, navigate to the PB_OK data type, which is used by the **OK** Push Button. Change the static text on the Up Caption to display the word "Accept" rather than the word "OK."

- Make the letter "A" the accelerator or shortcut. This can be accomplished by using an ampersand symbol in front of the letter "A."
- Validate your changes by viewing a window within Microsoft Dynamics GP such as the Company Setup window. (TOOLS→SETUP→COMPANY→COMPANY)

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Lab 4.3 – Changing Strings in Microsoft Dynamics GP

Company: Fabrikam, Inc.

Scenario: This lesson goes through the process of changing text strings throughout Microsoft Dynamics GP. For this lesson, changing one global string alters all occurrences of that string throughout the dictionary.

Challenge Yourself!

- Within Modifier, change all occurrences of the term "ZIP Code" to "Postal code." "Postal code" should be entered with a lowercase "c." This is because "Postal Code" with an uppercase "C" already exists in Microsoft Dynamics GP.

- Within the Strings window, select Purchasing as the Core, and then modify the ZIP Code string.
- Validate your changes by viewing a window within Microsoft Dynamics GP such as the Company Setup window.

Need a Little Help?

- Within Modifier, navigate to the Strings window. The Strings window can be accessed from the Resources menu. (RESOURCES→STRINGS)
- Within Modifier, change all occurrences of the term "ZIP Code" to "Postal code." "Postal code" should be entered with a lowercase "c." This is because "Postal Code" with an uppercase "C" already exists in Microsoft Dynamics GP.

- Within the Strings window, select Purchasing as the Core, and then modify the ZIP Code string.
- Validate your changes by viewing a window within Microsoft Dynamics GP such as the Company Setup window. (TOOLS→SETUP→COMPANY→COMPANY)

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Quick Interaction: Lessons Learned

Take a moment and write down three Key Points you have learned from this chapter:

1.

2.

3.

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