CHAPTER 8: DATA TYPES, FORMATS AND STRINGS

Training Objectives

Actively participating during this chapter helps you learn:

- How to work with and change Data Types
- How to change existing Formats
- How to customize existing Strings

Introduction

This chapter focuses on changes you can make in Microsoft Dynamics™ GP to Data Types, Formats and Strings. A data type specifies how a field's data will be stored and displayed. Data types include a control type, keyable length, storage size, static values and a format.

Formats are the extra characters, spacing and attributes that can be applied to a data type to format data when it is displayed or printed on a report. For example, a string data type for a phone number can have a format applied to it so a field using the data type will print a phone number as (555) 123-4567 instead of 5551234567.

Formats are stored as separate resources, but are applied to data types to help define how information is displayed. A single format resource can be used by several data types. Perhaps the easiest way to understand what formats are is to view them as data "masks" that simply change the look of the information in a field without changing the actual information itself.

Format strings are used with string data types to add static elements to a field, such as parentheses or static text. The Report Writer uses a capital X as a placeholder to represent alphanumeric characters that will appear in the field. All other characters will be displayed as you type them.

Static characters in a format string are not actually stored with the data in the table. This allows you to change the format string without affecting how data is stored. Data Types, Formats and Strings are all used in the Microsoft Dynamics GP Modifier along with Report Writer. For additional information on these topics other than what is provided in this training manual, refer to the online Help or Printable Manuals.

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Data Types and Formats

Data Types, Formats, and Strings are resources that affect how information appears on Microsoft Dynamics GP windows and reports. Each of these can be modified so that they better reflect a user's individual business needs. For example, if you refer to all customers as clients, you can change the Customer ID text prompt through the system to instead read Client ID. Or to format the phone number fields to not include an extension, you can modify the data type used by those fields to reflect the change.

HINT: *Typically Report Writer is used to make changes to Data Types, Formats, and Strings only if a user has made similar changes already using the Microsoft Dynamics GP Modifier.*

To change how information appears on Microsoft Dynamics GP windows, use Microsoft Dynamics GP Modifier. To change how information appears on Microsoft Dynamics GP reports, use Microsoft Dynamics GP Report Writer.

Data types and formats are two types of resources you may work with when making customizations in Report Writer. The relationship each resource shares with information in the Microsoft Dynamics GP system is different, yet the two are used in conjunction with one another to completely define how information appears in Microsoft Dynamics GP.

Data types – Used to define several different objects in Microsoft Dynamics GP, such as data entry fields, drop-down lists, option buttons and group boxes. Microsoft Dynamics GP uses data type resources to indicate how these objects handle information. Changing one data type can change several objects throughout the system because multiple objects can all use a single type. For instance, a data type can specify details such as the number of characters that can be entered in the field. Since several string fields may use one data type in the application, changing the keyable length for a data type alters the number of characters that can be entered in all fields using that resource.

Formats – Stored as separate resources, but are applied to data types to help 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 characters to uppercase. Typically, a format is assigned to data types that are 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.*

HINT: *Changing a data type or format may affect more than one field in Microsoft Dynamics GP – all fields with that data type or format are affected.*

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Modifying Data Types

Fields, in the Microsoft Dynamics GP system, use data types to determine how information for the field is stored and to determine the number of characters that can be entered in the field. Consequently, changing a data type may change how several different fields control information in Microsoft Dynamics GP. For example, the **User Name** and **Address 1** fields use the same data type (STR30) because the way Microsoft Dynamics GP stores and displays information in those fields is the same. Both are string fields that have a keyable length of 30 characters and a storage length of 32 characters.

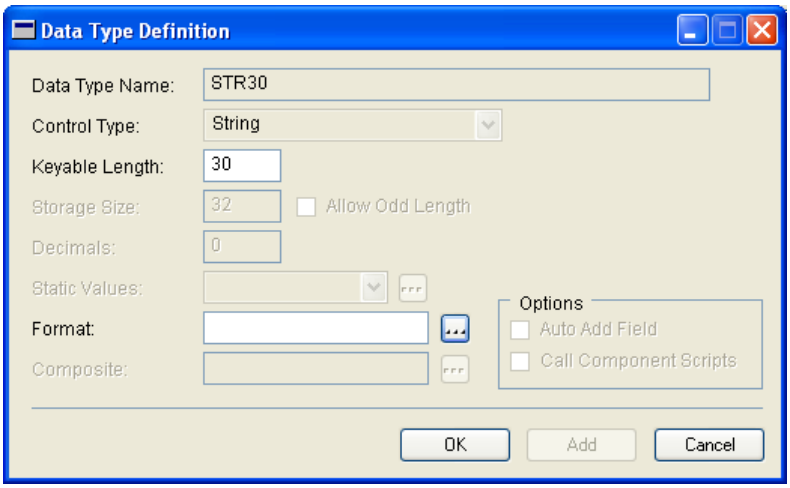
Opening the Data Type Definition Window

To view the definition of a specific data type, use one of the following methods:

- Select Fields from the Toolbar to display the Fields window, then select the desired field and click **Open** to display the Field Definition window. Click **Open** to view the field's data type in the Data Type Definition window.
- Display a list of all the data types in the Microsoft Dynamics GP system by selecting Data Types from the Toolbar. Then highlight the appropriate data type and click **Open**.

HINT: *Changes you make to a Microsoft Dynamics GP data type using these procedures will appear in all of your reports: original, modified, and custom.*

After the Data Type Definition window is opened, it appears as follows:



Modifying this STR30 data type changes the way information can be entered or displayed in the **Address 1** and **User Name** fields. If the keyable length of this data type is changed to 20, only 20 characters can be typed in either of the fields using the STR30 data type. Likewise, if you create a format that sets a field to uppercase characters only and apply it to this data type, all information entered in the **Address 1** and **User Name** fields is seen as uppercase.

Changing a Data Type Checklist

- ❑ 1. Changing the keyable length.
- ❑ 2. Modifying static values (optional).
- ❑ 3. Setting the format for a data type.
- ❑ 4. Saving the changes.

Changing the Keyable Length

By changing the keyable length, you can adjust 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.

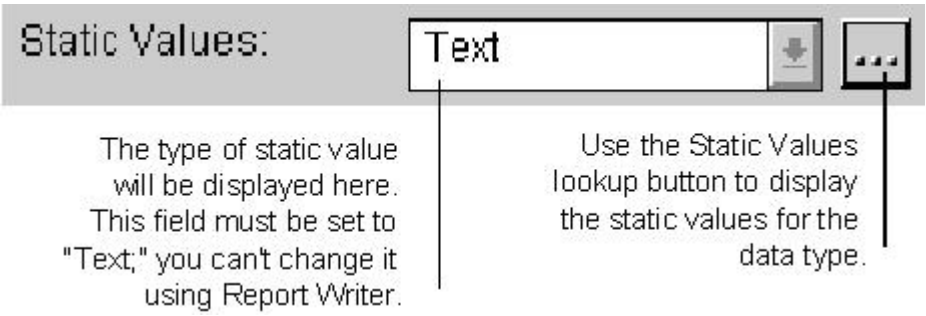
HINT: *The data type's keyable length cannot be made larger than its original length.*

Modifying Static Values (Optional)

Certain Microsoft Dynamics GP fields, including drop-down lists, multi-select list boxes, and list boxes have predefined options to select from. For instance, when setting up a payment term, you can select whether the discount type is Percent or Dollar (a flat amount). If Microsoft Dynamics GP Modifier was used to change how these selections appear in Microsoft Dynamics GP, use Report Writer to make the same changes to your reports.

Rename the existing display names of a resource by changing a data type's static value. Static values are text items that appear for a data type in Microsoft Dynamics GP. For example, static text values for drop-down list or list box data types are the values displayed within each list.

To change a static text value(s) for the data type, display the Static Value lookup list.



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

HINT: *If the Sort List option is selected, the text items are displayed alphabetically in windows, but they are not necessarily stored in that order. The corresponding values are stored in the same order that they appear in the Static Text Values list.*

The following table lists some of the static values that can be changed, depending on the data type being modified:

Data Type	Control Type	Static Value
DDL_Account_Type	Drop-down List	Posting Account Unit Account Posting Allocation Account Unit Allocation Account
LB_Fixed_Or_Variable	List Box	Fixed Allocation Variable Allocation
ML_Statement_Cycles	Multi-Select List Box	No Statement Weekly Biweekly Semimonthly Monthly Bimonthly Quarterly

Setting the Format for a Data Type

Refer to the information in this chapter on "Changing Formats" to determine how to assign or change the format of a data type.

Saving Changes

Save the changes to this data type by clicking the **OK** button. As changes are made to data types, it is good practice to examine the changes to fields in the Microsoft Dynamics GP system to verify that they appear properly.

Working with Option Button and Check Box Data Types

Microsoft Dynamics GP fields have a variety of control types, such as string, integer, and date. The values in most fields can be printed by placing the field in a report layout.

For example, the text in a field with a string control type is printed on reports exactly as it is stored in the table. A shipping method name is printed on reports just as it is stored in the Shipping Methods Master table, which is also how it appears in windows.

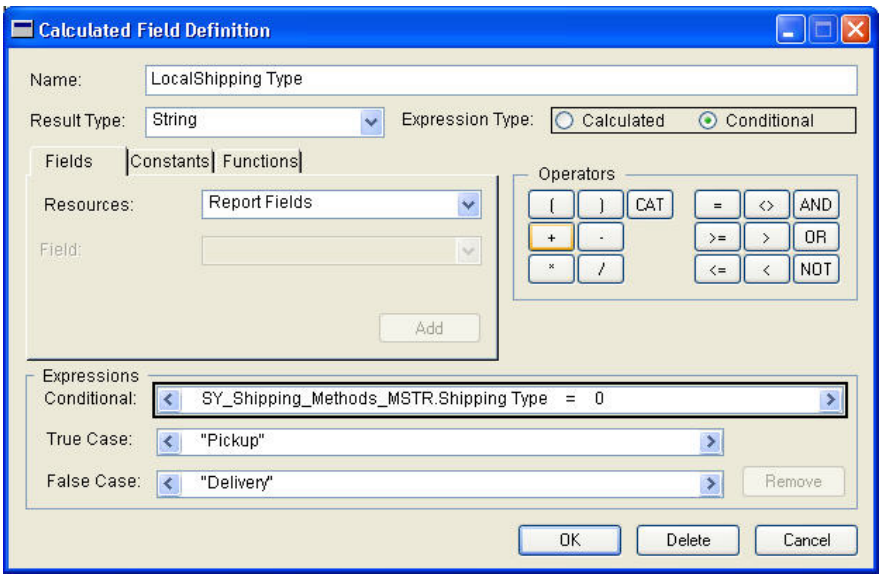
However, fields that use option button and check box data types are handled in a different way within Microsoft Dynamics GP. On windows, these fields appear as expected – as an option button or a check box that has been selected. While in the data tables, these fields are stored differently. They are either not stored directly or they are stored as integer values. This becomes important when working with these types of fields within the Report Writer. Report Writer does not automatically display these types of fields on a report as they appear on a window. To print text values for option buttons or check box fields some additional steps are required.

Option Buttons

Option button fields are not stored in tables; they are used only on windows. The fields stored in place of option buttons are called option groups. The option group fields consist of a box surrounding a group of option buttons and a prompt corresponding to the group.

Option group fields, such as the one in the following illustration, are stored in the tables as a 0, 1, or 2, depending on whether the first, second or third option button in the tab sequence was selected. 0 indicates that the first option button was selected, 1 that the second was selected, etc. The selection shown in the following illustration is stored as a 0 in the **Shipping Type** option group field in the Shipping Methods Master table.

This is because the first option button, **Pickup**, is selected. If you place this option group field on a report, however, "Pickup," the field's value, is not printed. Instead a 0 is given. To print the name of the option button selected, create a calculated field with a conditional expression, and place the calculated field on the report in place of Shipping Type. The calculated field should contain the name of the option button selected. An example of this calculated field is shown in the following illustration:



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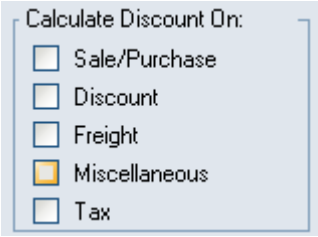
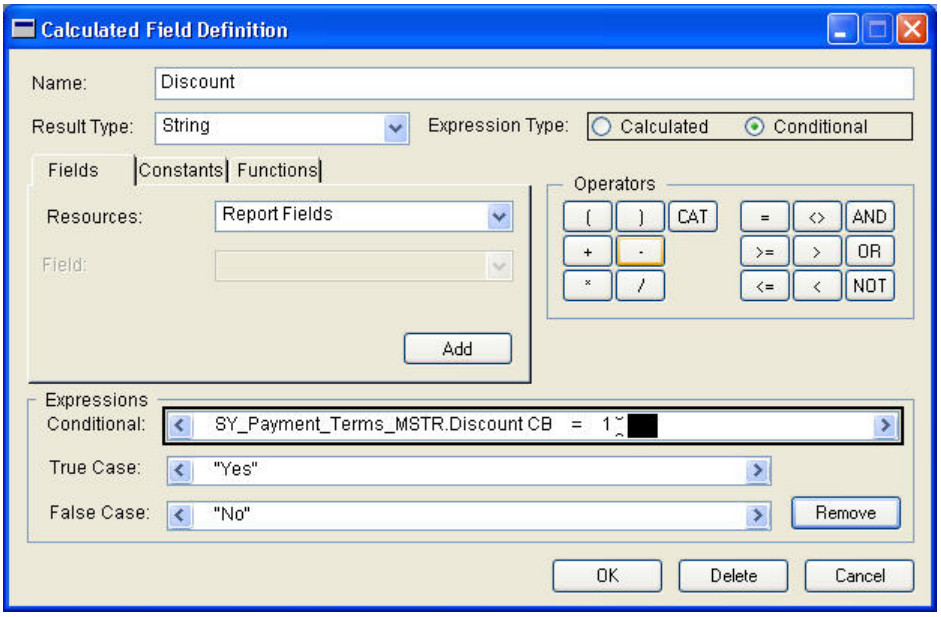
Check Boxes

Check box fields are also handled differently in tables than how they appear on windows. The field shows on a window as a box, but is stored in a table as a Boolean value. One or True indicates the box is selected. Zero or False indicates the box is not selected.

Check box fields resemble the following illustration that appears in the Payment Terms window. Each box and corresponding text item constitutes a check box field; the surrounding box is used only to visually group the boxes.



Similar to an option field, if a check box field is added to a report, it displays as a zero or a one. To print the name of the check box selected instead of the integer value, the process is similar to the process for printing the values of option groups. An example of this calculated field is shown in the following illustration:



You must create a calculated field with a conditional expression, and place the calculated field on the report in place of the check box field. The calculated field should contain an appropriate indicator as to whether the field has been selected.

A conditional expression must have both a true case and false case value. It is possible to have a true case be "Yes" and a false case be "_ "; thus if the expression is false, nothing prints for the calculated field.

Changing Formats

Formats are used to determine how information is displayed in fields. Using Report Writer, you can change existing formats or create formats that can be used to customize the way specific information appears on reports. By changing formats, you can alter how fields display information like currency and numeric data, and add special characters, such as static text and parentheses. Static text is text that appears in the field in addition to the field's data, such as the "text" abbreviation in phone number formats.

HINT: *Remember that formats are not applied directly to a field, but to the field's data type. A data type contains information about how the data is stored in your tables. Some fields share the same data type, so changes to the data type's format affects all fields with that data type. To change the way information appears in a field, you must change the format the field's data type uses.*

You can create or modify formats that function as a "mask" for the information in fields they are connected to. For example, phone numbers appear in Microsoft Dynamics GP with parentheses, dashes, and text. Currency appears in with a currency symbol, a comma to separate thousands, and a period to indicate the decimal. None of this information is stored with the phone number or currency values so it is necessary to use a format with each field's data type. The following table lists some samples of Microsoft Dynamics GP formats.

Data	Format	Appears on reports as:
555555	XX-XXXX	55-5555
7015558326	(XXX) XXX-XXXX	(701) 555-8326

By modifying formats such as these, you can include dashes in inventory item numbers and change formats for phone numbers to reflect international standards. If you create a new format, modify a format, or assign a different format to a data type, be sure the format type is compatible with the control type. The control type is displayed in the Data Type Definition window. The format type is displayed in the Format Definition window. The following table indicates the control types that can use formats and their corresponding format types.

Control type	Format type
String	String
Currency	Currency
Integer	Numeric
Composite	Composite

HINT: *Changing formats to accomplish these tasks does not affect the way the information is stored or how it is displayed in Microsoft Dynamics GP windows – only the way the information appears on reports is changed.*

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Opening the Format Definition Window

Open the windows used to display formats using any of the following three methods:

Method 1

Use this method if you do not know the name of the format but do know the name of the field that uses the format you want to change. To display the format for a specific field, select Fields from the Toolbar. When the Fields window appears, select the field to view and select **Open**; the Field Definition window is displayed.

Select **Open** to display this field's data type. In the Data Type Definition window, select the Format lookup button to display the format used for this data type. The format's name is highlighted in the Format Lookup window that appears. To specify a different format select **OK**. To modify the format or create a new format, select **Open** or **New**, and continue with the steps in the next section.

Method 2

Use this method to modify a format when you know the name of the format you want to modify. Begin by displaying a list of all formats in the Microsoft Dynamics GP system. From the **Resources** menu, select **Formats**; the Formats window opens. If modifying a format, highlight the format and select **Open** to display the Format Definition window. If creating a new format, select **New**. Then follow the steps in the next procedure.

Method 3

Use this method to modify or switch the format for a field on a specific report. Begin by opening the layout window for the report to modify, and highlight the field. From the **Tools** menu, select **Report Field Options**. To change the format, follow the instructions on the next few pages to change or create a new format.

Changing or Creating a Format Checklist

- ❑ 1. Determine format name and type.
- ❑ 2. Set decimal digits, alignment and fill options.
- ❑ 3. Set format-type specific options and determine the format string.
- ❑ 4. Save the changes.
- ❑ 5. Apply the new format. (optional)

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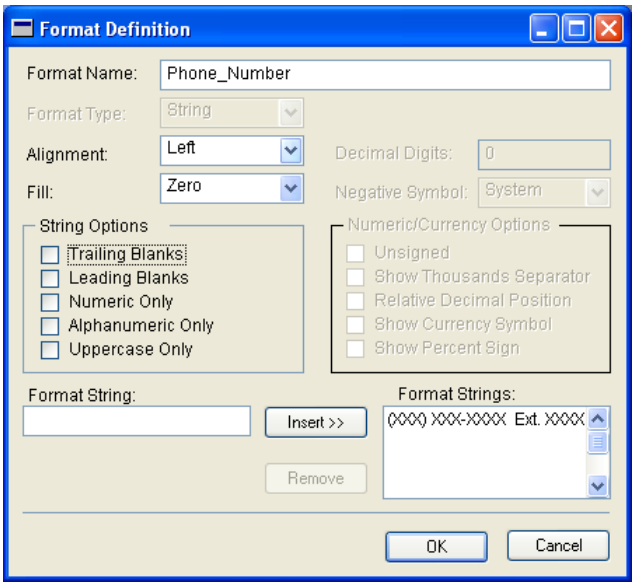
Determining the Format Name and Type

When modifying a Microsoft Dynamics GP format, the name follows a specific set of naming rules. Most format names consist of two parts: {STR_LBAU}. In this example, the first part of the name indicates the format type, which is a string. A string format type is any series of characters, such as a name.



The second part indicates options that have been set up for the format if it is a string. LBAU in the example means that data fields using this data type are left-justified (L), blanks are used to fill any unused space in the field (B), only alphanumeric characters can be entered in the field (A), and the data is always displayed in uppercase (U). When creating a format, depending upon the format's type, certain selections in the window cannot be used as part of the format. For example, if you are modifying a currency format, string format options are not available.

Setting Decimal Digits, Alignment and Fill Options

Alignment

Select Left, Right, or Center from the list to set the alignment for fields using this format. Most fields are aligned to the right, but you may change the alignment for fields so information appears at the left or center of the field.

Fill

If the format contains a format string, this selection determines how unused positions in the field contents are filled. Select from the following:

- Asterisk – Unused positions are filled by asterisks.
- Space – Unused positions are filled by spaces.
- Zero – Unused positions are filled by zeros.

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Decimal Digits

Use this field to determine the number of decimal places that can be reserved for the format. The number of decimal positions specified in the operating system is the default setting for most Microsoft Dynamics GP formats.

HINT: *The number entered in the* ***Decimal Digits*** *field is relative to the number of decimal places specified for your operating system. If the operating system is set to use two decimal positions, and you specify three Decimal Digits for the format, numbers using that format have a total of five decimal places. To prevent this, clear the Relative Decimal Position option and the numbers using that format appear with the exact Decimal Digits specified.*

Negative Symbol

Select a symbol – System, Minus, CR or ( ) – to indicate negative currency or numeric amounts in Microsoft Dynamics GP. The negative symbol specified is used to indicate negative numbers or currency amounts on reports.

HINT: *If the negative symbol you select is System, the default settings for negative currency and numeric amounts from the operating system are used.*

Setting Specific Options for each Format-type

The format type selected appears in the **Format Type** field. Make the appropriate modifications listed below, depending upon the format type that has been selected.

String and Composite

The String options are primarily used by the Modifier application to affect data as it is being entered into a window. Selecting these options has no affect on information shown on reports.

The following information explains the purpose of each option as used within the Modifier application:

- Select the **Trailing Blanks** option to have blanks or spaces appear at the end of the field stored with the rest of the information in the field.
- Select the **Leading Blanks** option to have blanks or spaces appear at the beginning of the field stored with the rest of the information in the field.
- Select the **Numeric Only** option to make this field accept numeric values only.
- Select the **Alphanumeric** option to allow a combination of numbers and letters in the field.
- Select **Uppercase Only** to make this format convert all letters typed in this field to uppercase.

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Currency

Fields that display currency amounts use currency formats. Since Microsoft Dynamics GP is a financial application, many fields are currency fields throughout the application.

If you are using a currency format for a currency data type, be familiar with the default currency settings set up for your operating system. Those settings override the settings defined here.

Currency options available are:

- Select **Unsigned** to prevent negative currency amounts from being printed in this field.
- Select **Show Thousands Separator** to display a separator for currency amounts greater than $999.99 (or any other unit of currency).
- Select **Relative Decimal Position** to print information in the field with the number of decimal places specified in the Decimal Digits field plus the number of digits specified by your operating system. If it is not selected, information is printed using the number of digits specified in the **Decimal Digits** field.
- Select **Show Currency Symbol** to display the currency symbol specified at the operating system level.

If the Multicurrency module for Microsoft Dynamics GP is used in your company, the functional currency is used to determine the character that is displayed for currency fields. The functional currency is also assigned in the Multicurrency module.

Numeric

Numeric formats are used to format numbers in Microsoft Dynamics GP, such as percentage fields and integers.

If using a numeric format with a numeric data type, set the following options:

- Select **Unsigned** to not have a negative symbol displayed for negative numbers. If it is not selected, negative numbers are indicated according to the setting of the Negative Symbol.
- Select **Show Thousands Separator** to include the thousands separator set in your system's control panel in the number. If not selected, no separator is used in the number.
- Select **Show Percent Sign** if the field using this format displays in percentages.

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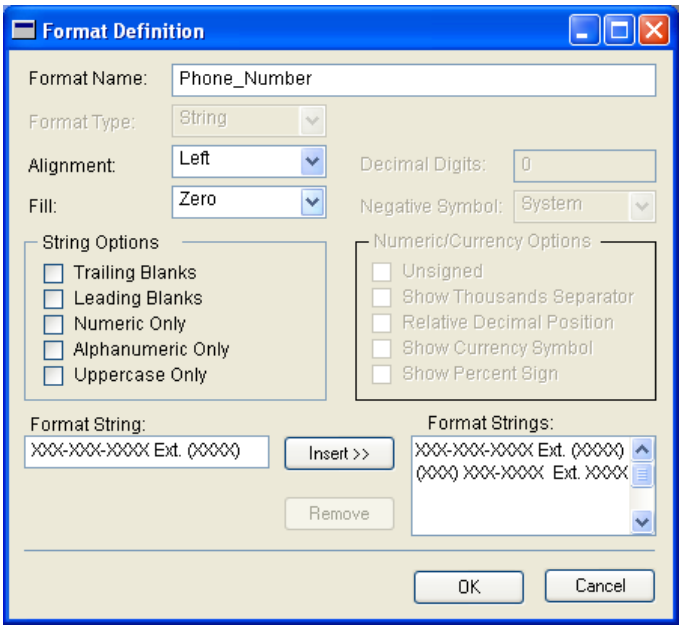
Determining the Format String

When working with a String or Composite format type, you can create a new format string for the format. Enter it in the Format String field, and select **Insert** to place it in the Format Strings list. To remove an existing format from the Format String list, highlight the string, and click the **Remove** button.



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.," do so by changing the phone number format string. Microsoft Dynamics GP places the phone number digits in the "mask" created with a format string.

The Xs in the format string represent the corresponding phone number digits. 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 or placeholders to enter in a string format, use the resource descriptions to find the field's keyable length. The number of placeholders entered should equal the keyable length. View a data type's keyable length by selecting the **Data Types** button on the Report Writer toolbar and select the data type from the list. The keyable length is displayed in the Data Type Definition window.

HINT: *Be sure to enter the correct number of Xs in the format string if modifying or creating a string. If you do not enter the correct number of Xs to represent data, the data does not appear properly on reports.*

After modifying a data type's format, you may want to print reports containing fields using that data type to be sure that the layout has not been affected. Adding static text to a format can increase the amount of space a field requires.

Saving the Changes

Save the changes to the format by clicking the **OK** button. Continue to make changes to existing formats, and then go into the Microsoft Dynamics GP system to view the changes. If you modify the format for a data type, changes made to formats appear on all reports, modified, custom, and original for all companies in the Microsoft Dynamics GP system. If you modified the format for a single field in a report, the changes affect only that field.

In some cases, the format changes made do not appear on reports until after you switch to Microsoft Dynamics GP. If the change does not appear when printing a report containing a field with a format modified from the Report Writer window, print the report from Microsoft Dynamics GP instead.

Applying the New Format (Optional)

If you created a new string format, it can be applied to any data type with a corresponding control type. Select Data Types from the Toolbar, and select the data type from the Data Types window. When the Data Type Definition window appears, select the Format lookup button. In the Resources window, select the format just created and click **OK**. Click **OK** in the Data Type Definition window to save the change to the data type.

Customizing Strings

By customizing strings in the Report Writer you can immediately change the text prompts that appear on the Microsoft Dynamics GP reports. For example, if you want to change all "Customer" text prompts to "Client" or "State" to "Province," make a change once using the Strings window, and all reports that use those text prompts automatically inherit your customizations.

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 global business needs. The global changes made using the Report Writer generally correspond with any global changes made to Microsoft Dynamics GP windows using the Modifier.

HINT: *To change prompt names for an individual report instead of throughout the entire Microsoft Dynamics GP System, choose to directly modify the individual's report layout.*

To change a string resource, select Strings from the Report Writer's Resources menu. Once the Strings window appears; modify a string by completing the following steps.

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

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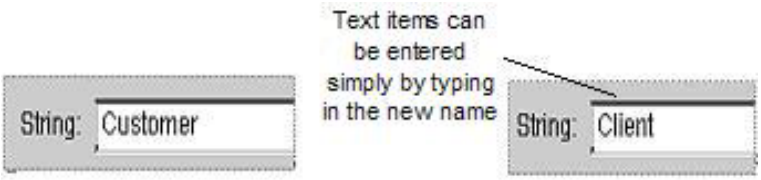
Select a String to Modify

Text items appearing in the Strings list are the strings that display throughout Dynamics. They are listed in alphabetical order grouped by series. To change the name of a string, highlight the name in the list, and then 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 you type in the* ***String*** *field because the Report Writer reads spaces as part of the string, and the name may not appear as desired in the Strings list.*

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 has been removed from the Strings list and replaced with the new name. Continue to change Microsoft Dynamics GP strings using this procedure. When finished, close the Strings window, then print a Microsoft Dynamics GP report that uses the strings you modified to view the changes made. Since changes to a string resource are global, they appear on all reports in Microsoft Dynamics GP without having to set security to any modified reports.

HINT: *When you rename a string in the Report Writer, customized prompt names that are longer than the original name may need to be resized and rearranged in the report's layout.*

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Lab 8.1 – Formats and Data Types

Company: Fabrikam, Inc.

Scenario: It has come to your attention that none of the phone numbers in your Microsoft Dynamics GP system have the extension part of the phone number filled in. However, all of your reports are currently showing Ext. 0000 as part of the phone number. Use Report Writer to change the format that the Phone Number data type uses.

Challenge Yourself!

1. Change the resource for the Phone_Number format to remove the "Ext." abbreviation and the four characters in the format that represent the extension.

***HINT**: Remove the existing format string before adding the new format string. The new format string is (XXX) XXX-XXXX.*

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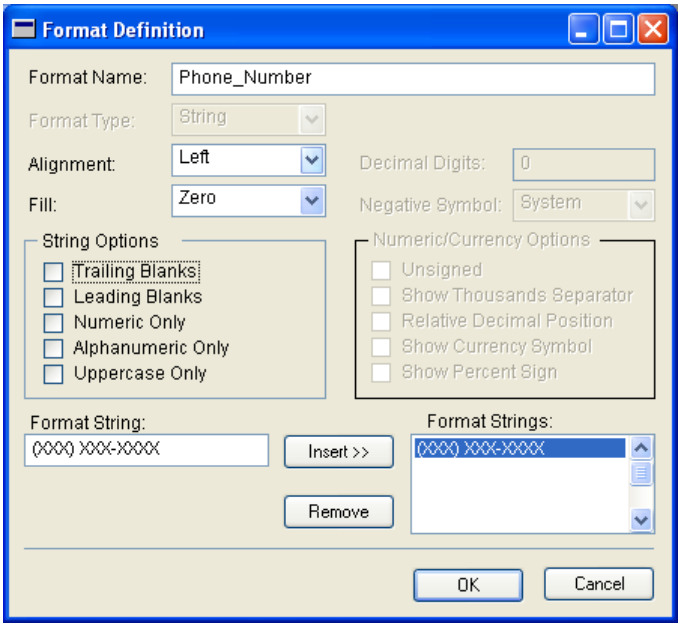
2. Use only numbers in your phone number fields, so modify the format accordingly.

   The Format Definition window should now look like the following illustration.



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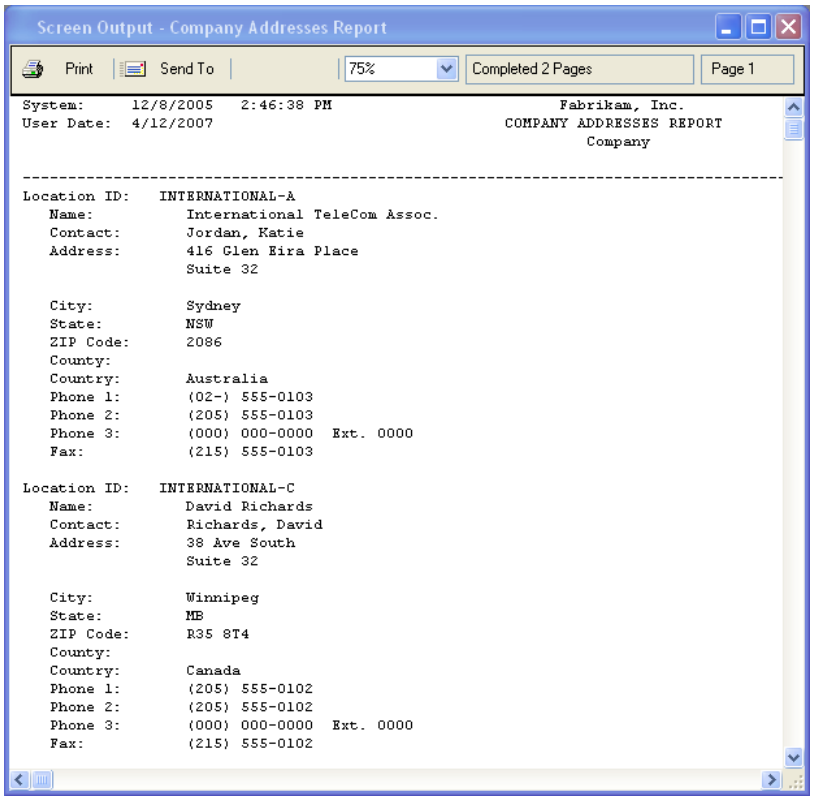
3. Print the Company Addresses Report to the screen using the Report Writer to view the changes to the phone numbers.

4. All phone numbers (that use the Phone_Number format definition) will be displayed in the new format. Notice the Phone 3 field does not and is displayed differently on the report.

   The screen output should look similar to the following illustration:



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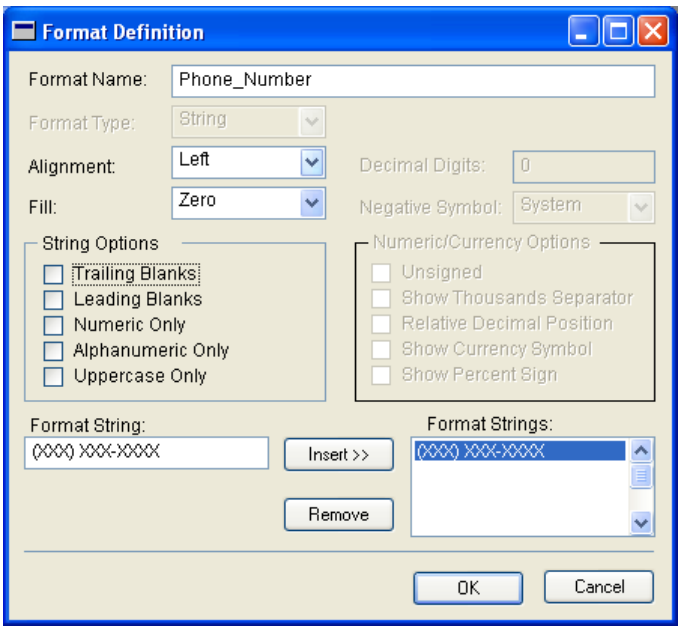
Need a Little Help?

1. Launch Report Writer.
2. From the **Resources** menu, open the Formats window.
3. Open the Phone_Number format. The Format Definition window appears as follows when you first open the window.



4. Change the Phone_Number format used by this data type to remove the "Ext." abbreviation and the four characters in the format that represent the extension.

***HINT**: Remove the existing format string before adding the new format string. The new format string is (XXX) XXX-XXXX.*

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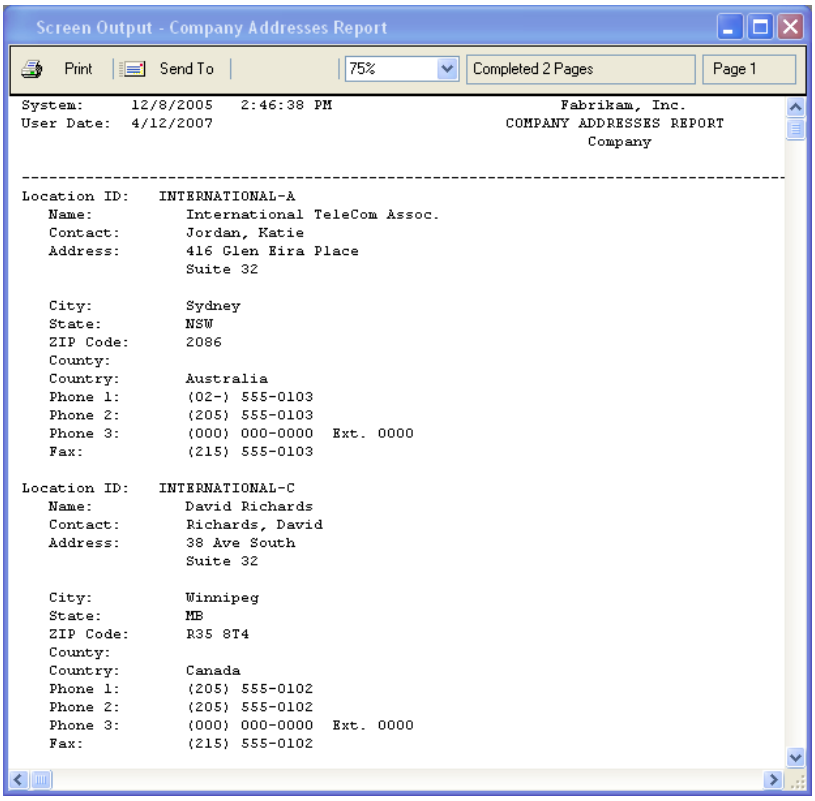
5. Since you use only numbers in your phone number fields, set the format so it accepts only numbers:

   Save the changes to the phone number data type and its format. Print the Company Addresses Report to the window using the Report Writer to view the changes to the phone numbers. All phone numbers will be displayed in the new format (that use the Phone_Number format definition), as shown in the report output.

Old format	New format
(312) 555-2449 Ext. 0000	(312) 555-2499

The window output should look similar to the following illustration:



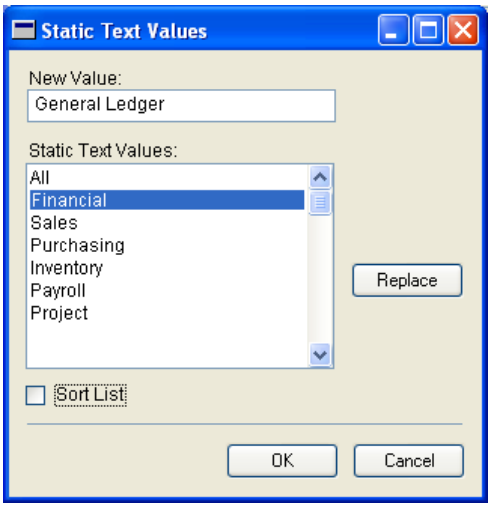
Lab 8.2 – Modify Drop-down List

Company: Fabrikam, Inc.

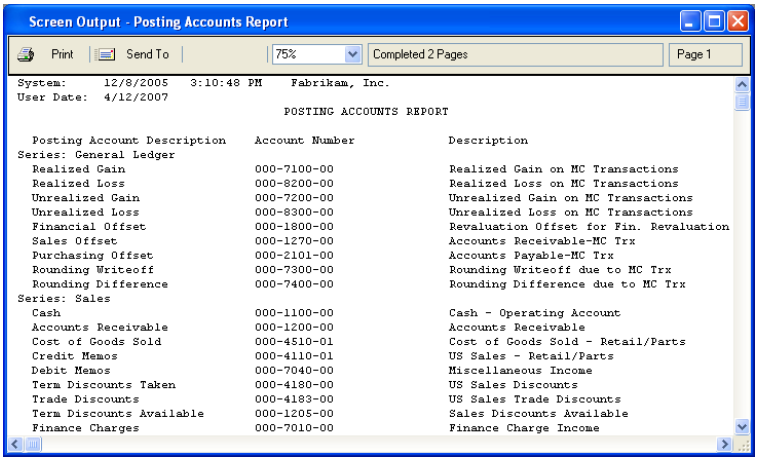
Scenario: You want to change the name of the financial series to General Ledger. Once you have changed the field's static text value, the field displays "General Ledger" instead of "Financial" on all the reports where the field appears. This change takes place on all reports, including original reports.

Challenge Yourself!

1. In Report Writer, use the Field Definition window to modify the Static Values for the Series field. Replace "Financial" with "General Ledger." The window should look like the following illustration.



2. To view the change you have made, go to Microsoft Dynamics GP, and print the Posting Accounts Report.



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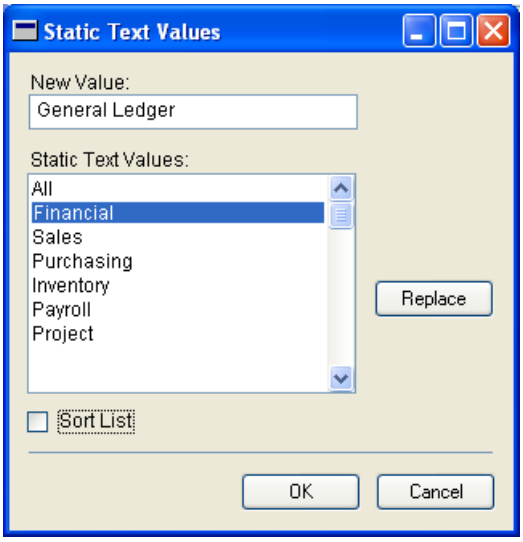
Lab 8.2 – Modify Drop-down List

Company: Fabrikam, Inc.

Scenario: You want to change the name of the financial series to General Ledger. Once you have changed the field's static text value, the field displays "General Ledger" instead of "Financial" on all the reports where the field appears. This change takes place on all reports, including original reports.

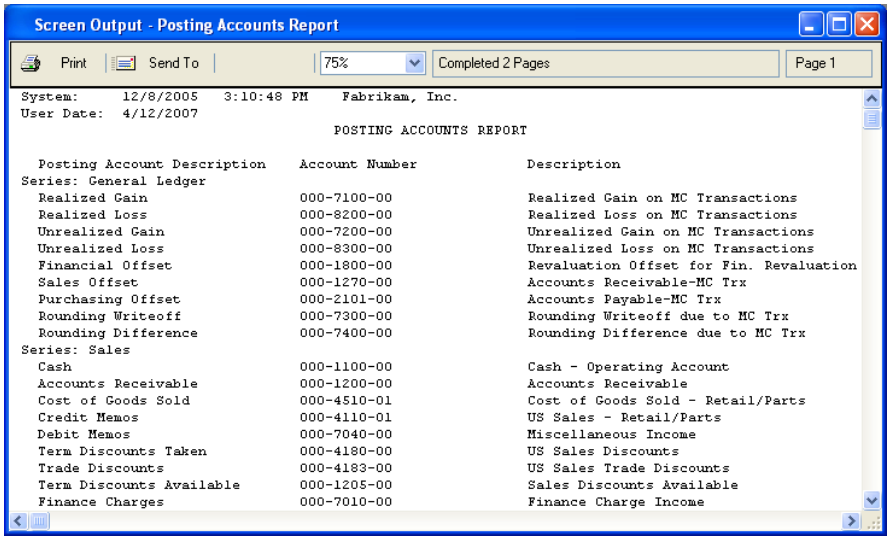
Need a Little Help?

1. Launch Report Writer.
2. Open the Fields window.
3. Highlight the **Series** field and open the Field Definition window.
4. Open the Data Type Definition window.
5. Open the Static Text Values window.
6. Select Financial in the Static Text Value list, overwrite Financial with General Ledger. The window should look like the following illustration.



7. Click the **Replace** button to replace the text value.

8. To view the change you have made, print the Posting Accounts Report. (REPORTS→COMPANY→SETUP) The output window should look similar to the following illustration:



System: 12/8/2005 3:10:48 PM Fabrikam, Inc.
User Date: 4/12/2007

POSTING ACCOUNTS REPORT

Posting Account Description	Account Number	Description
Series: General Ledger		
Realized Gain	000-7100-00	Realized Gain on MC Transactions
Realized Loss	000-8200-00	Realized Loss on MC Transactions
Unrealized Gain	000-7200-00	Unrealized Gain on MC Transactions
Unrealized Loss	000-8300-00	Unrealized Loss on MC Transactions
Financial Offset	000-1800-00	Revaluation Offset for Fin. Revaluation
Sales Offset	000-1270-00	Accounts Receivable-MC Trx
Purchasing Offset	000-2101-00	Accounts Payable-MC Trx
Rounding Writeoff	000-7300-00	Rounding Writeoff due to MC Trx
Rounding Difference	000-7400-00	Rounding Difference due to MC Trx
Series: Sales		
Cash	000-1100-00	Cash - Operating Account
Accounts Receivable	000-1200-00	Accounts Receivable
Cost of Goods Sold	000-4510-01	Cost of Goods Sold - Retail/Parts
Credit Memos	000-4110-01	US Sales - Retail/Parts
Debit Memos	000-7040-00	Miscellaneous Income
Term Discounts Taken	000-4180-00	US Sales Discounts
Trade Discounts	000-4183-00	US Sales Trade Discounts
Term Discounts Available	000-1205-00	Sales Discounts Available
Finance Charges	000-7010-00	Finance Charge Income

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Lab 8.3 – Modify Strings

Company: Fabrikam, Inc.

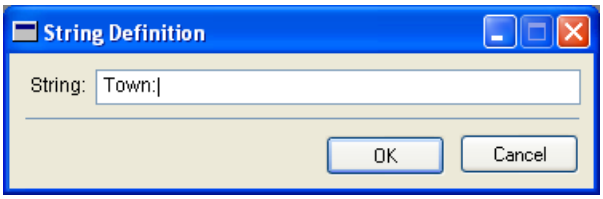
Scenario: In this exercise, you change all occurrences of the text prompt "City:" to "Town:"

Challenge Yourself!

1. Change the string resource called City: to Town:

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

When you have finished, the window should resemble the following illustration.



2. The change takes place on all reports, including original reports. To view the change you have made, go to Microsoft Dynamics GP and print the Company Addresses Report. Town should replace the city label on the report.

Lab 8.3 – Modify Strings

Company: Fabrikam, Inc.

Scenario: In this exercise, you change all occurrences of the text prompt "City:" to "Town:"

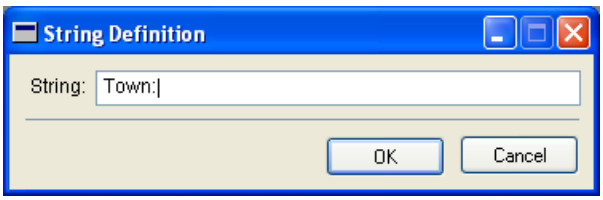
Need a Little Help?

1. Launch Report Writer.
2. From the Resources menu select Strings. The Strings window appears.
3. Select the System series.

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

4. Locate City: and select it.
5. Open the String Definition window and replace City: with Town:

   When you have finished, the window should resemble the following illustration.



6. The change takes place on all reports, including original reports. To view the change you have made, go to Microsoft Dynamics GP, and print the Company Addresses Report. Town should replace the city label on the report.

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Lab 8.4 – Per Record Format, Decimal Places

Company: Fabrikam, Inc.

Scenario: Create a custom inventory report that displays the item number, item description, and the quantity on hand for that item. The report will also total the number of items listed in the report. In order to accommodate a field that can store a different number of decimal places, depending on the value stored in a related field, you need to create a per-record format for use with that field. Specifically, create a per-record format to use with the **QTY on Hand** field.

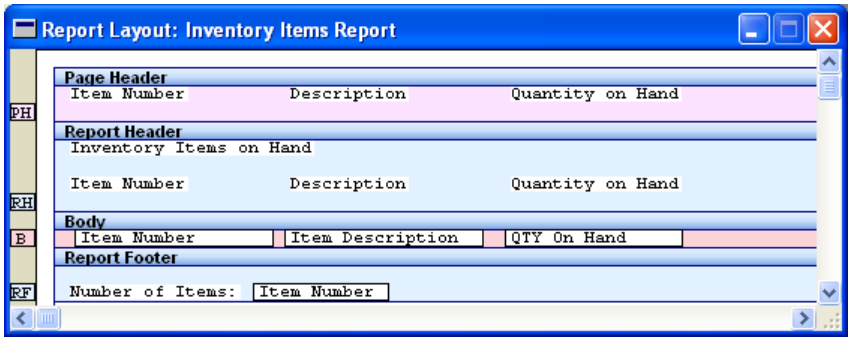
Challenge Yourself!

Creating the Report

1. Create a new text report called Inventory Items Report using the following information in the Report Definition window.

Main Table	Item Master
Max Records	20
Text Report Options	17 Characters/Inch, Six Lines/Inch
Printing Options	none

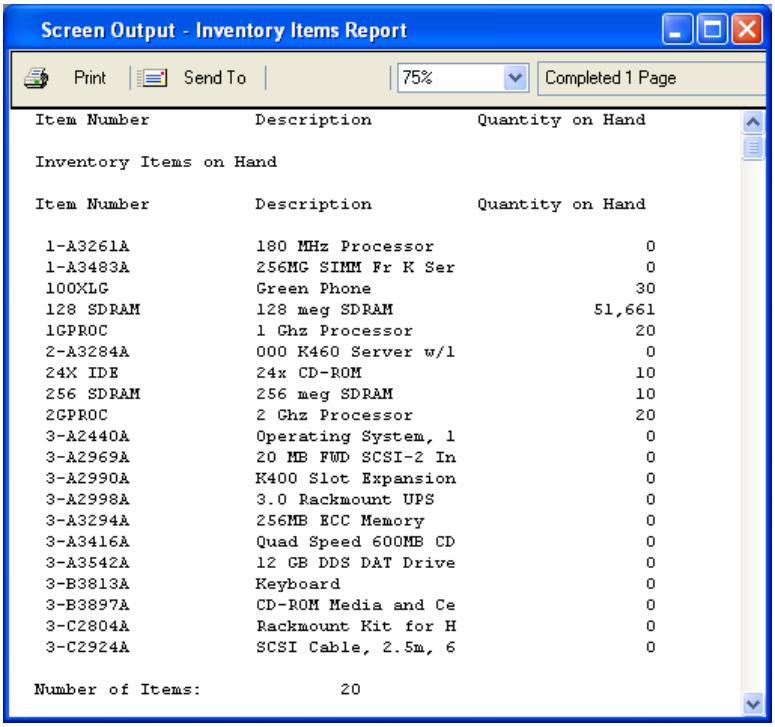
2. Add the Item Quantity Master table to the report.
3. Use the following illustration to create the report layout:



NOTE: *All the fields in the body have a field type of Data. The Item Number field in RF should have a field type of Count.*

4. Open the Report Field Options window for the **Quantity on Hand** field, and change the Format of the field so that it depends on the format of the **Decimal Places QTYS** field from the Item Master.

5. Print the report in Report Writer. The output window should look similar to the following illustration:



Item Number	Description	Quantity on Hand

Inventory Items on Hand

Item Number	Description	Quantity on Hand
1-A3261A	180 MHz Processor	0
1-A3483A	256MG SIMM Fr K Ser	0
100XLG	Green Phone	30
128 SDRAM	128 meg SDRAM	51,661
1GPROC	1 Ghz Processor	20
2-A3284A	000 K460 Server w/1	0
24X IDE	24x CD-ROM	10
256 SDRAM	256 meg SDRAM	10
2GPROC	2 Ghz Processor	20
3-A2440A	Operating System, 1	0
3-A2969A	20 MB FWD SCSI-2 In	0
3-A2990A	K400 Slot Expansion	0
3-A2998A	3.0 Rackmount UPS	0
3-A3294A	256MB ECC Memory	0
3-A3416A	Quad Speed 600MB CD	0
3-A3542A	12 GB DDS DAT Drive	0
3-B3813A	Keyboard	0
3-B3897A	CD-ROM Media and Ce	0
3-C2804A	Rackmount Kit for H	0
3-C2924A	SCSI Cable, 2.5m, 6	0

Number of Items: 20

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Lab 8.4 – Per Record Format, Decimal Places

Company: Fabrikam, Inc.

Scenario: Create a custom inventory report that displays the item number, item description, and the quantity on hand for that item. The report will also total the number of items listed in the report. In order to accommodate a field that can store a different number of decimal places, depending on the value stored in a related field, you need to create a per-record format for use with that field. Specifically, create a per-record format to use with the **QTY on Hand** field.

Need a Little Help?

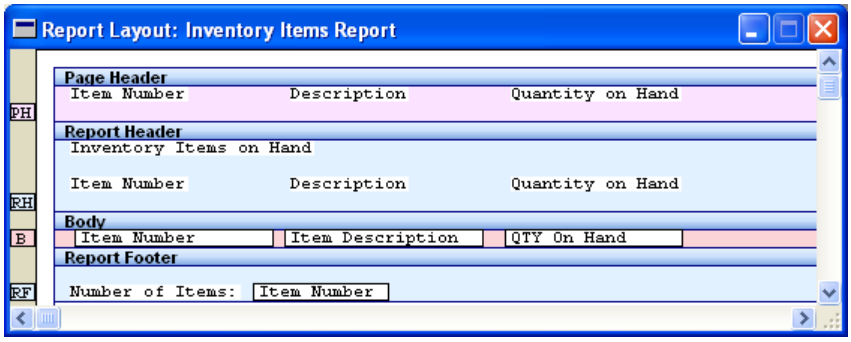
Creating the Report

1. Launch Report Writer.
2. Create a new report using the following information in the Report Definition window.

Report Name	Inventory Items Report
Series	Inventory
Main Table	Item Master
Using Key	IV_Item_MSTR_Key1
Max Records	20
Format Options	Text Report
Text Report Options	17 Characters/Inch, Six Lines/Inch
Printing Options	none

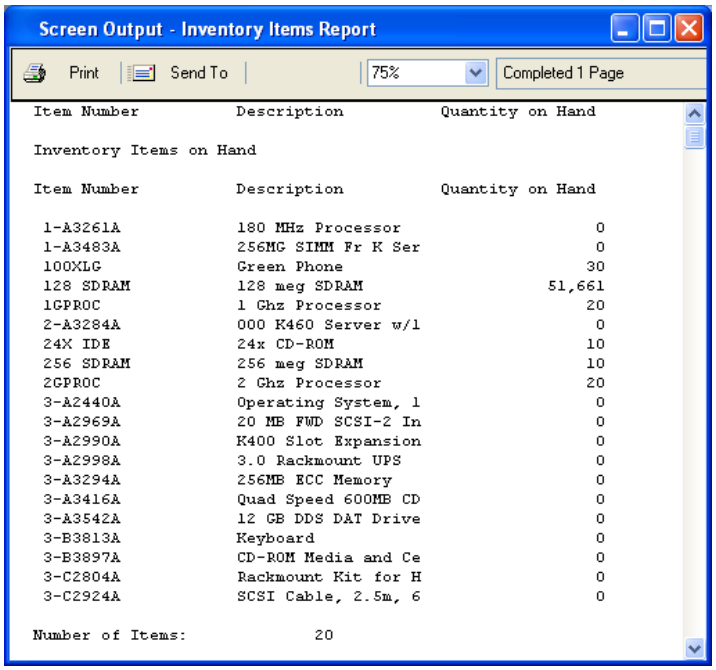
3. Open the Report Table Relationships window. Add the Item Quantity Master table to the report.
4. Use the text tool to add the following text fields to the Page Header section (PH) and the Report Header Section (RH).
   - Item Number
   - Description
   - Qty on Hand
   - Inventory Items on Hand (RH)
5. Add the following fields to the Body section (B).
   - Item Master — Item Number
   - Item Master — Description
   - Item Quantity Master — Qty on Hand

6. Add the **Item Number** field and a label for the field to the Report Footer section (RF).
7. Change the Field Type for the **Item Number** in the footer to Count.
8. Use the following illustration to adjust/align fields in the report layout:



NOTE: *All the fields in the body have a field type of Data. The* ***Item Number*** *field in RF should have a field type of Count.*

9. Open the Report Field Options window for the **Quantity on Hand** field. From the list of Fields below Item Masters select Decimal Places QTYS. Click **OK**.
10. Save your changes to the Report Layout.
11. Print the report in the Report Writer. The output window should look similar to the following illustration:



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Conclusion

Data Types, Formats and Strings

Some key points to remember from this chapter include:

- A data type specifies how a field's data will be stored and displayed. Data types include a control type, keyable length, storage size, static values and a format.
- Formats are the extra characters, spacing and attributes that can be applied to a data type to format data when it is displayed or printed on a report.
- A format is applied to a data type to control how the data type's information will be displayed.
- Format strings are used with string data types to add static elements to a field, such as parentheses or static text.
- Report Writer uses a capital X as a placeholder to represent alphanumeric characters that will appear in the field.

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Quick Interaction: Lessons Learned

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

1.

2.

3.

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