Citibank® Custom Reporting System

Ad Hoc Reporting
User's Guide

November 5, 2003

Product Technology & Integration Group
Citibank® Commercial Cards

TABLE OF CONTENTS

Overview

The Citibank® Customized Reporting System (CCRS) replaces the current Ad Hoc Reporting Tool with a best-in-class business intelligence engine that supports your need for consolidated regional and card level information. CCRS utilizes a web-based interface to access our Commercial Card Global Data Repository so that critical business information is at your ready in the formats that you require.

CCRS is easy to use and you can begin creating and running reports after only a short lesson. Knowledge of databases and data relationships is helpful, but not necessary to create and run most reports. The user interface will guide you in selecting the information that you want.

A few of the features that you will be able to take advantage of are listed below:

- **Predefined Shared Reports**
  Our selection of shared reports was specifically created to save you time and effort for the most requested types of reports. A simple click and the report will run and present you with the information that you need.
- **Scheduled Reports**
  If you like a report that you have created and want to have it run on a periodic basis, CCRS allows you to subscribe to the report. No more remembering to run reports, they will be waiting for you after CCRS automatically creates them for you.
- **Data Download and Presentation Formats**
  CCRS supports a wide variety of formats to save your data on your PC, including, Excel, CSV, HTML, Excel with formatting and Plain Text. In addition, you can download charts right into Excel and download in PDF files.
- **Built-in Summary Capability**
  Do you want to see data on a summary level? CCRS automatically summarizes your data so that you see only the data that you want without having to wade through all the detailed information.
- **Built-in Drill Down Capability**
  Do you want to see specifics about an individual item? You can drill down to get related information on that line item even if you have not selected that information to be included in your report.

This User Manual gives you general information and step-by-step instructions on the basics of using CCRS. Throughout this user manual you will see tips to help you better utilize CCRS. As you begin using the tool, you will find CCRS is easy to use, with the flexibility to meet your ad hoc reporting needs.

System Requirements

You do not need any proprietary Citibank® hardware or software to be installed for you to use CCRS. Basically, if you can connect to the Internet, you can use CCRS. The following is the minimum hardware and software needed and a preferred configuration that will give you optimal performance.

Hardware

- IBM compatible Pentium class computer, 133 Mz, with 64 MB RAM, 250MB hard disk free space
- Macintosh Computer (I-Mac or above)

Software

Required Software

- Windows® 95 or higher
- Microsoft® Internet Explorer 5.5 with service-pack 1; OR Netscape 4.73 or higher (but not Netscape 6.0).

Additional Software to Download and Present Your Data

The following list of software, while not necessary, will allow you to save your data on your PC and present your reports in various formats

- Acrobat® Reader, version 4 or higher
- Word processing software, such as Microsoft® Word
- Text reader, spreadsheet or database software capable of reading/importing text files.

Preferred Hardware, Software and Communications Configuration

The following preferred hardware and software configuration will optimize your experience:

- 500 MHz or higher processor, 256mb RAM or higher, 2GB hard disk free space
- High speed internet connection
- Preferred browsers include Internet Explorer 6 and Internet Explorer 5.5 with service pack 1.

CCRS Reporting Fundamentals

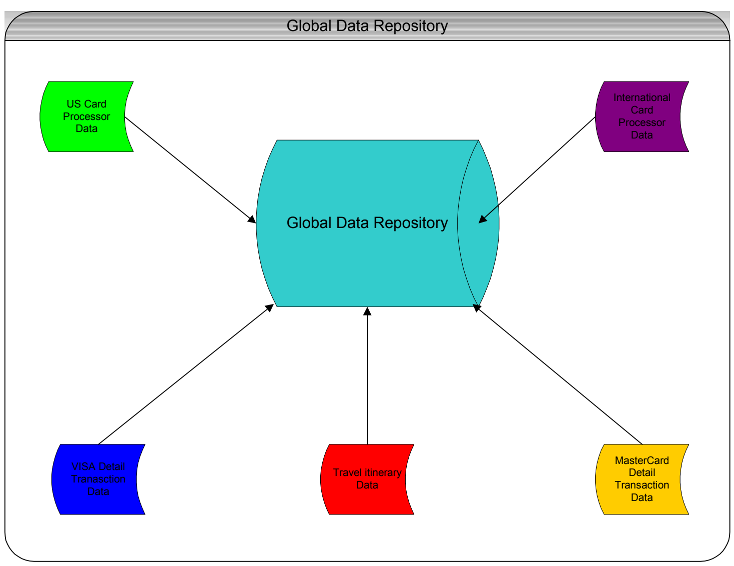
As you begin to create and run reports, you will need to have a basic understanding of CCRS. The following section gives a common understanding of terms used and familiarizes you with common definitions for reporting and data fundamentals. Some of the terms previously used in the old ad hoc reporting tool have new names.

The Global Data Repository

Citibank created the Global Data Repository (GDR) to store all commercial credit card information for CCRS. It is also referred to as a data warehouse. Every time an account is created, changed or deleted, information about that account is captured. Also, every time a financial transaction against the card is processed (purchases, payments, cash advances, credits for returned goods, etc), this creates additional information.

There are two basic types of information or data that are captured and stored in the Global Data Repository (GDR):

- Account information
- Transaction information



As you can see from the diagram, the GDR receives information from a variety of sources. The GDR arranges the information into a logical structure that groups Account data together and Transaction data together and defines the relationship between the two types of information. CCRS enables you to easily access this information so that you can create reports and download data.

User Objects

User objects are those items you can use in your report. In most cases they will be attributes, metrics, filters and prompts. These objects are described below.

Attributes

Attributes can best be described as related properties of Account or Transaction information, identifying or describing an account or a transaction in some way. Examples of account attributes include Account Name, Account Number, Card Limit and Social Security Number. Examples of transaction attributes include Transaction Amount, Transaction Post Date or Merchant Name. You use attributes to analyze account information, transaction information or a combination of both.

- *Attribute elements* are actual data values that are displayed on reports. For example, the attribute Merchant City might have attribute elements such as Dearborn, Irving, Las Vegas, Louisville, etc. These values are stored in the GDR.

Translation Tip:
In ad hoc an attribute was an element. The information that appeared when an element was selected was called a value. Now, an element is an attribute, and the information is an attribute element.
Element = Attribute
Value = Attribute Element

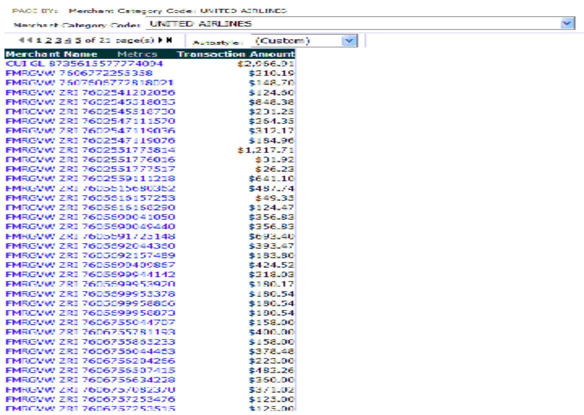
Metrics

A *metric* is used when you want to measure or summarize data. Often it is a summarized value of an attribute. As an example,

- Count of Cards is a metric that totals the number of cards
- Transaction Amount Total is a metric that totals all transaction amounts

Concept Tip:
A metric works the same way a scale works. Instead of ounces or pounds, it measures in Number of Cards or Transaction Dollars. In other words, if you put the Hierarchy 1 container (attribute) on the Number of Cards (metric) scale, it will give you how many cards are in Hierarchy 1. Put the Merchant container on the Total Transaction Amount scale and it will automatically total in dollars all the transaction amounts in the Merchant Container. You can therefore put any "container" on the right type of scale to automatically total how many or how much.

In the example below the **Total Transaction Amount** has been defined in the CCRS as a *metric.* When a metric is included on a report, it automatically totals all transactions amounts for each Merchant Name.



> 🕮 **Translation Tip:**
> Fields that used to be used as summary fields are now already defined that way. As a result, reports can be created with summary totals, and a separate **SUMMARY** command is no longer necessary. The field Transaction Amount will also be defined as an attribute to allow detail reporting.

Filters

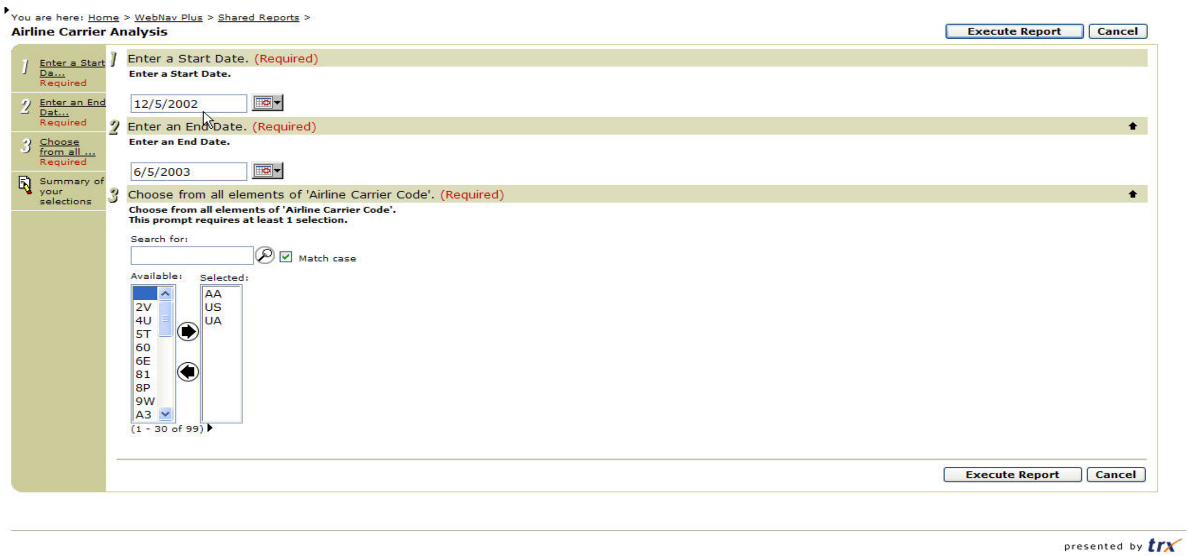
A filter specifies the conditions that the data must meet in order to be included in the report results. Filters provide you with the ability to hone in on specific information, by limiting what type of data is returned from the database.

For example you may want to analyze Total Transaction Amount by day for Merchant Names; however not all merchants, only certain merchants. You would create a filter on the Merchant Name attribute to include only the merchants that you want. You can create the filter by certain type, name, or other combination. You can choose from a lengthy list of criteria, such as “contains” or “like”.

Prompts

A *prompt* is an open-ended question that you can have some input into. Prompts allow you to determine at the time a report is run, which attribute elements (values), metrics, filters, etc. you want in a report.

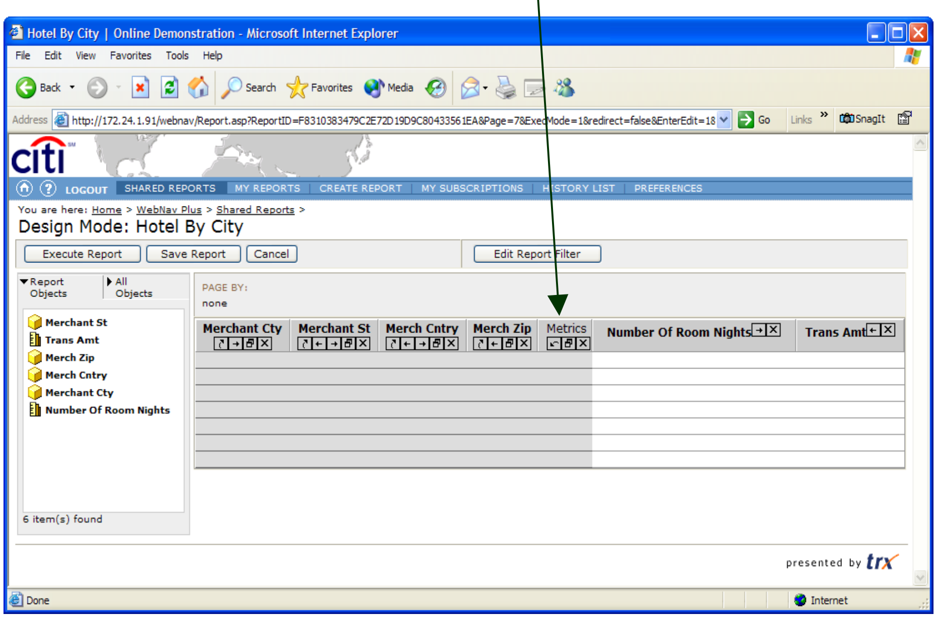
In the example below there are two prompts: first, one to allow the selection of a date range; and second, a prompt that asks you to select from a list of *Airline Carrier Codes* to be included.



Templates

A *template* is the layout or format for a report in CCRS. Templates specify what information is to be retrieved from the data warehouse and how the results should be displayed. A template can be saved and reused in as many future reports as the user wishes. Typically, templates consist of a combination of attributes and metrics.

In the example below the template has the *attributes* **Merchant Cty, Merchant St, Merch Cntry** and **Merchant Zip**; and the *metrics* **Number of Room Nights** and **Trans Amt** Although the attributes and metrics both appear on the same line, one can see where attributes end and metrics begin by the "metrics" column. Items to the right of that column are, in fact, metrics.



Reports & Documents

The following diagram demonstrates how reports and documents are created using the fundamentals that have been described above.

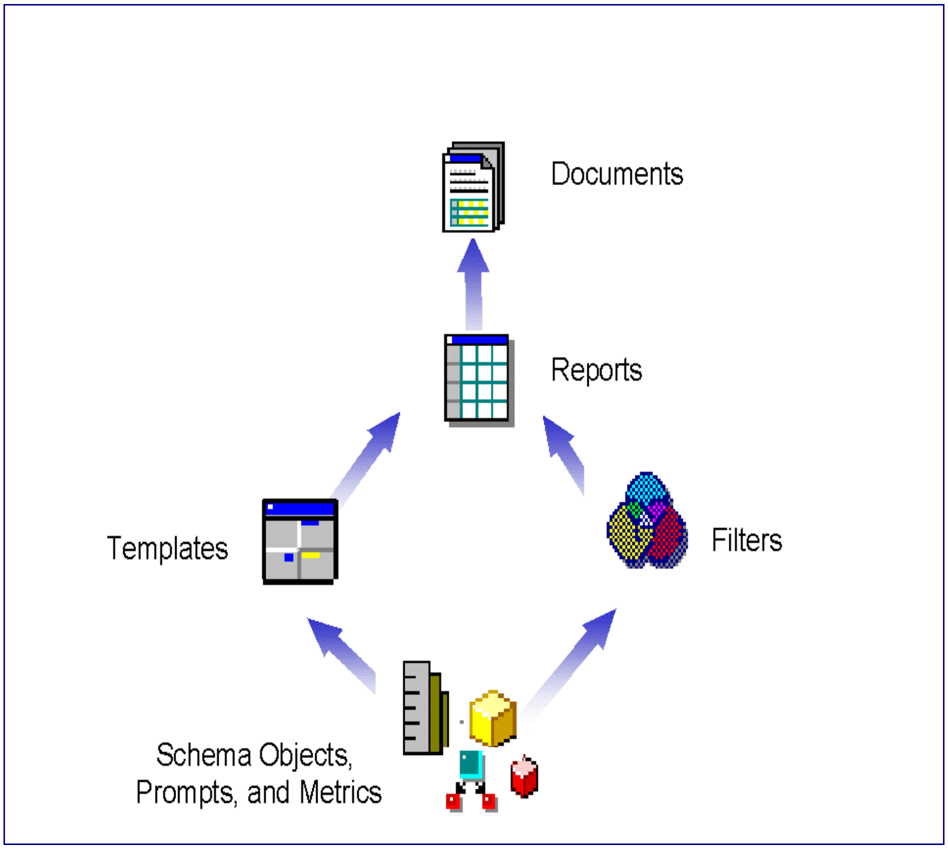


Figure 0-2: structure of system relationships

Output

There are three major types of output from the reporting system:

- Reports
- Documents
- Graphs
- Downloaded Data

Reports

A *report* is defined as the combination of a template (the layout) and a filter (the criteria). The following is a sample report that contains the attributes **Trans Date** and **Airline Carrier**

Code, the metrics **Total Air Legs** and **Total Fare Amount** and a filter for **Airline Carrier Code = BA, UA, or US**.

You are here: Home > WebNav Plus > Shared Reports >
Airline Carrier Analysis

Report View Data Format Last update: 6/5/2003 3:43:21 PM

PAGE BY: none

1 2 3 of 3 page(s) Autostyle: Columns Rows: 1 - 50 of 129 Columns: 2

Trans Date	Airline Carrier Code	Metrics	Total Air Legs	Total Fare Amount
5/18/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
8/30/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
9/14/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
9/27/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
10/19/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
10/21/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
10/31/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
11/1/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
11/4/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
11/6/2001	BA		107	$95,158.96
	UA		2214	$1,886,338.06
	US		157	$95,247.87
	Total		**2478**	**$2,076,744.89**
11/8/2001	BA		107	$95,158.96

Documents

A second type of output available is a *document*. A document is a container for formatting, displaying and distributing multiple reports. It can contain any of the following: text, images, tables, hyperlinks, and one or more reports. A document is often used for displaying reports of related subject matter; for example, three reports about monthly inventory.

Graphs

A third type of output is *graphs*. Many types of graphs are available to put your data into a picture that can simplify your presentation.

User Set-up and Maintenance

User IDs should be requested through your Program Administrator. After Citibank receives your request, then it generally takes two to three business days before you can access CCRS

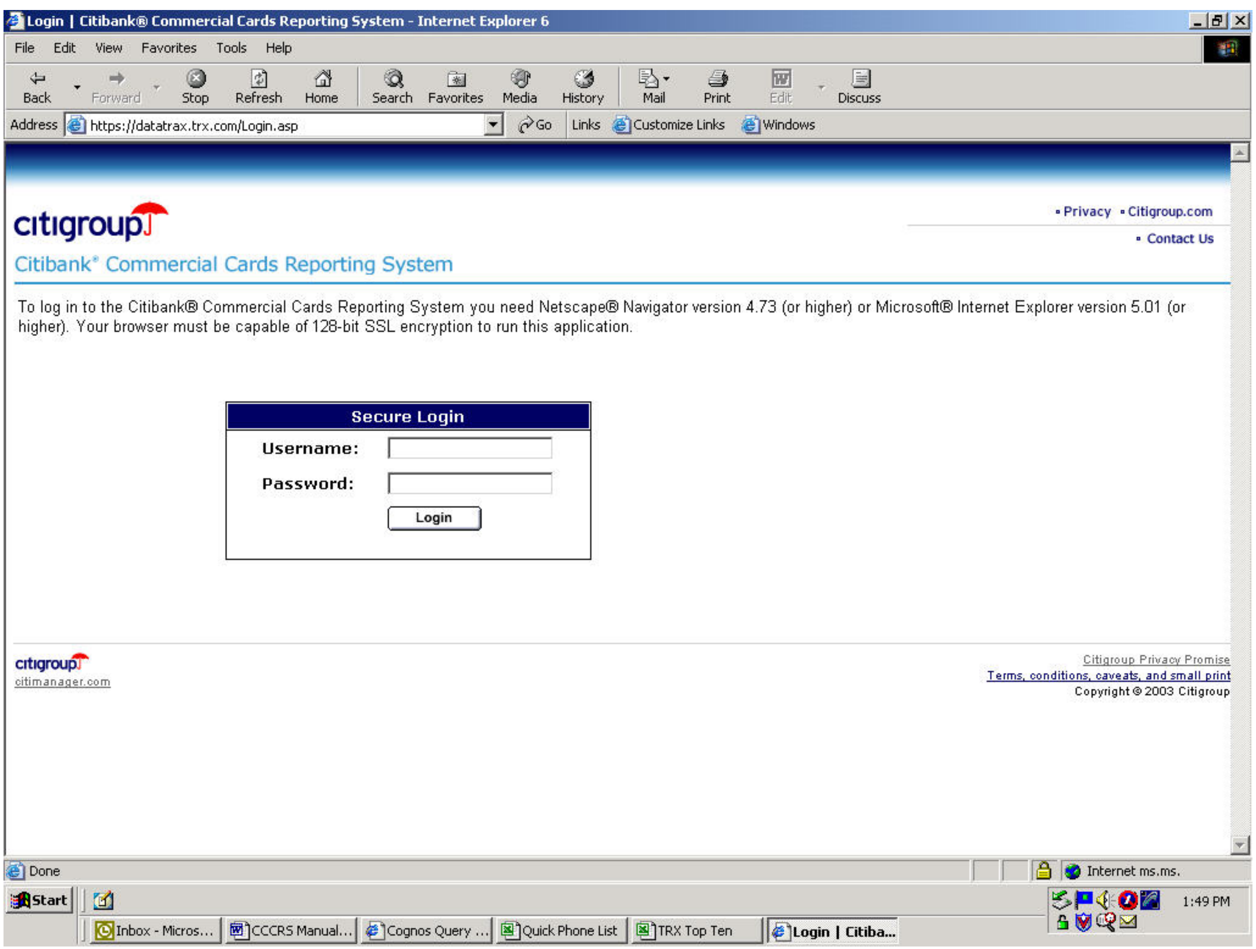
Your Program Administrator will handle maintenance requests also. These generally include changes in your name, email address or the data that you are entitled to see. Maintenance requests also take two to three business days to complete.

Access to CCRS and Logging in

CitiDirect Users

CCRS will initially be accessed using a separate web site http://datatrax.trx.com . The website address can be obtained from your Program Administrator.

CCRS will be accessed directly from the CitiDirect option for Ad Hoc Reporting at a later date. You will be directed to the reporting site and presented with the CCRS Sign-on Screen. You must enter your separate CCRS User ID and password until Single Sign-on through CitiDirect is available.



Enter your User ID and Password here.

After Single Sign On is available, you will no longer be required to remember a separate password. You will be signed in automatically upon selecting the option for Ad Hoc Reporting.

Direct Users of CCRS

Initially, you can access CCRS by using the web site: http://datatrax.trx.com . However, the site is scheduled to move to an umbrella web page known as CitiManger.

Users who do not use CitiDirect can access CCRS directly through CitiManager (http://www.citimanager.com). CCRS will appear as an option under and direct you to the CCRS Log-in Screen. CCRS uses Standard authentication, so once you have logged selected the link, you are prompted for a separate login for access.

Initial Password Change

If this is the first time that you have logged in, you will be asked to change your password. Passwords should:

be at least 6 characters long
contain both upper case and lower case characters
not contain more than two consecutive characters
not include leading or trailing spaces
not be the same as your user name
not contain the following characters: > < ' " = ; % ^ \ |

You may not change your password more than once per day.

If you enter an incorrect User ID or password, the system will display the following message:

Error in login

The password supplied is incorrect or the user name and password you provided do not access any of the projects currently available to the system.

You will be presented with the Secure Log-In Screen again where you may enter your User ID and password again.

If you do not remember your User ID or password, please call the Help Desk to retrieve your User ID and/or reset your password.

Home Page and Navigating Primary Menus

Once you have signed in, you will be presented with your Home page. The Home Page as will as all the main pages contain the Primary Menu. When you select a Primary Menu option, you will quickly be able to navigate to the main pages of CCRS.

Summary of Primary Menu Options

From your Home Page, you can traverse to any area of CCRS. The following table describes the purpose of each part of CCRS.

Home		This is the first page that you will see after you sign in. The Home Page gives you a Summary of the reports that you may access directly.
Shared Reports		The Shared Reports Page contains predefined reports that are shared with other users. These are standard reports that were created by Citibank or by those authorized by your Program Administrator.
My Reports		This is the default location for saving reports that you create. This folder contains reports that only you can see or access.
Create Reports		This provides you with options for creating a new report. If you want to do some type of analysis that is not already provided by a standard report, you can create your own report.
My Subscriptions		This shows the reports you have scheduled to run on a periodic basis. You can change or delete scheduled reports from this page. The actual reports are run automatically and added to your history list.
History List		This displays messages about the reports you have run as well as the reports to which you have subscribed. When creating reports, you may add them to your History List so that you do not have to wait for them to finish. They will then appear here with a status.

Preferences		This enables you to change preferences for a variety of settings to customize how you want CCRS to work for you.

Running Shared Reports and My Reports

Shared Reports

Reports that are saved by others for your use will appear in the Shared Folder Reports. Global Shared are standard reports that have been created by Citibank. Your Organization's Shared Report Folder will contain reports that have been placed there by your Program Administrator.

My Reports

Reports that you create can be saved in My Reports. These are reports that you created or modified from the Shared Report Folder and can be accessed only by you.

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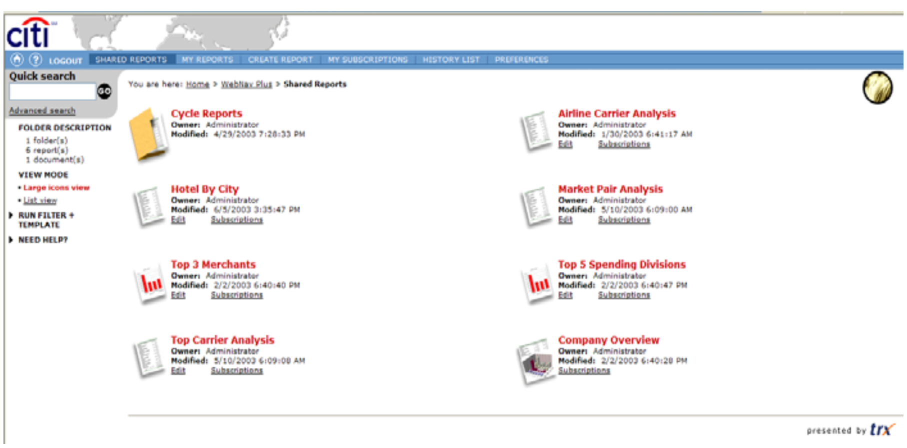
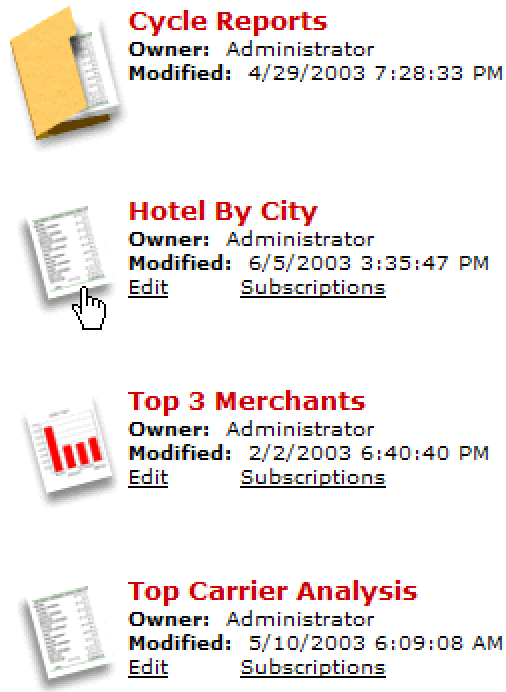
Running a Report

In the Shared Reports folder, there are numerous predefined reports that you can run for many of your reporting needs. You will see various sub-folders and reports.





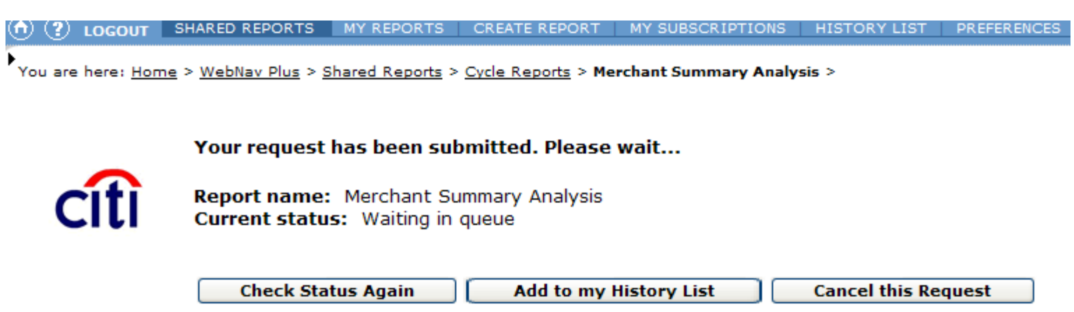
To run a shared report:

1. Click **Shared Reports**. Subfolders exist for each category of reports.
2. Click the folder you want to open.
3. Click the report you want to run.

The report will begin to run immediately, unless there are prompts associated with the report that you must answer before the report runs.

The Wait Page will appear and display the status of your report request. The status periodically changes as the report is processed. You have three main options:

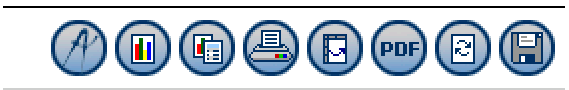
• Check Status Again	immediately checks the status of your report
• Add to My History List	adds to your History List when you don't want to wait for your report to complete
• Cancel the Report	cancels the report

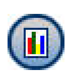


When your report has completed processing, it will appear on the screen.

Reports Toolbar

This report page contains both a report toolbar and menu bar that is used to access a variety of functionality. The report page also has four menus: Report, View, Data, and Format. These menu options contain these functions as well as other functions that are covered later in this manual. The following table defines each of the report toolbar icons.



Toolbar Description	Icon	Tool Description	Alternate Method
Design Mode		Displays the report in Design Mode, which enables you to modify the report.	You can also access this setting by clicking **Design Mode** on the **View** menu.
Grid		Displays the report in column and row format.	You can also access this setting by clicking **Grid** on the **View** menu.
Graph		Displays the report in graph mode.	You can also access this setting by clicking **Graph** on the **View** menu.
Grid and Graph		Displays the report in grid and graph mode at the same time.	You can also access this setting by clicking **Grid and Graph** on the **View** menu.
Print		Enables you to format and print the report.	You can also access this setting by clicking **Print** on the **Report** menu
Export		Enables you to export the report to another application or to a format that can be used by another application. You can export to Excel, HTML file, plain text file, or CSV file.	You can also access this setting by clicking **Export** on the **Report** menu
PDF		Enables you to export the report to a PDF file.	You can also access this setting by clicking **PDF** on the **Report** menu

Toolbar Description	Icon	Tool Description	Alternate Method
			the **Report** menu
Reprompt		Only appears for reports that contain prompts. Enables you to be re-prompted and make new selections for the report.	You can also access this setting by clicking **Reprompt** on the **Data** menu
Refresh Data		Enables you to re-execute the report.	You can also access this setting by clicking **Refresh** on the **Data** menu.
Save		Enables you to save the report.	You can also access this setting by clicking **Export** on the **Report** menu

Creating Reports using Dynamic Report Builder

CCRS contains some standard reports that you can use to perform analysis, but you can also create your own reports. By clicking on Create Report from the Primary Menu selections, you will be brought to the Create Report page.

There are two ways to create reports in CCRS:

- Dynamic Report Builder
- Common Attribute Reports

Dynamic Report builder is the most flexible and robust method for creating reports. You will have access to all attributes and be prompted for metrics and filtering criteria.

If you need a report using only the most commonly used Account or Transaction attributes, then you should use either the Account Common Attributes Report or the Transaction Common Attributes Report.

Creating a Dynamic Report

Choosing the Dynamic Report option will bring up a screen with a series of windows that allows you to select attributes and metrics and also prompts you for Account Type and Transaction Post Date range.

Attribute Windows

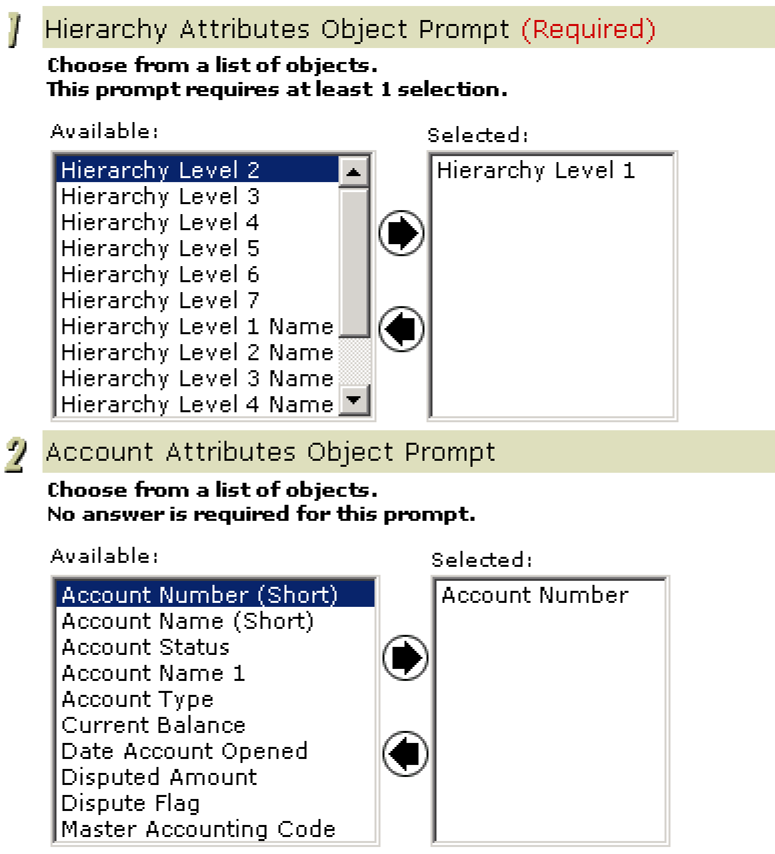
Attributes are organized in windows that logically group attributes that you can select to build your reports. These attribute windows are:

- Hierarchy
- Account
- Transaction
- Line Item Detail
- Airline Detail
- Hotel Detail
- Reallocation

As more data is loaded into the Global Data Repository, you may see additional windows and/or additional attributes within each window.

As you can see, the windows are organized from the broadest attributes down to the most detailed attributes. In other words, Hierarchy being the broadest attribute and Reallocation, Line Item Detail, Airline Detail and Hotel Detail being the most detailed attributes.

You can select values by highlighting them in the **Available:** window and using the arrow pointing to the right to add them to the **Selected**: window as shown below:

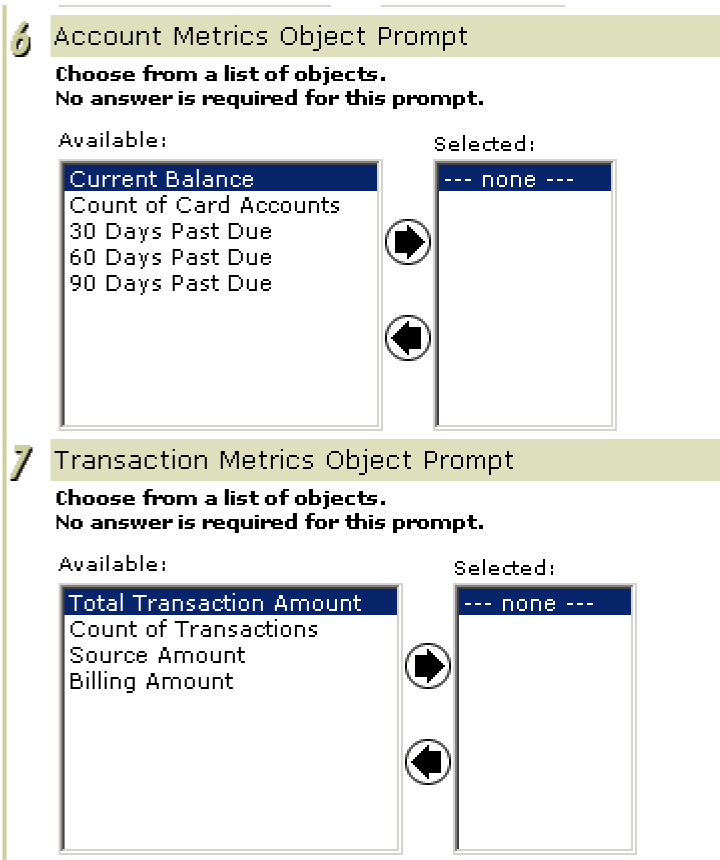


To remove a value, you can select the value in the **Selected:** window and use the arrow pointing left to move it back to the **Available:** window.

Time Saving Tip:
Instead of highlighting attributes in the window one at a time, you can highlight multiple attributes by utilizing the Shift or Ctrl keys.

Metric Prompts

Next you will see metric prompts. These are summary data associated with Account, Transaction and Detail Transaction Attributes. These are selected in the same manner as the attributes above.

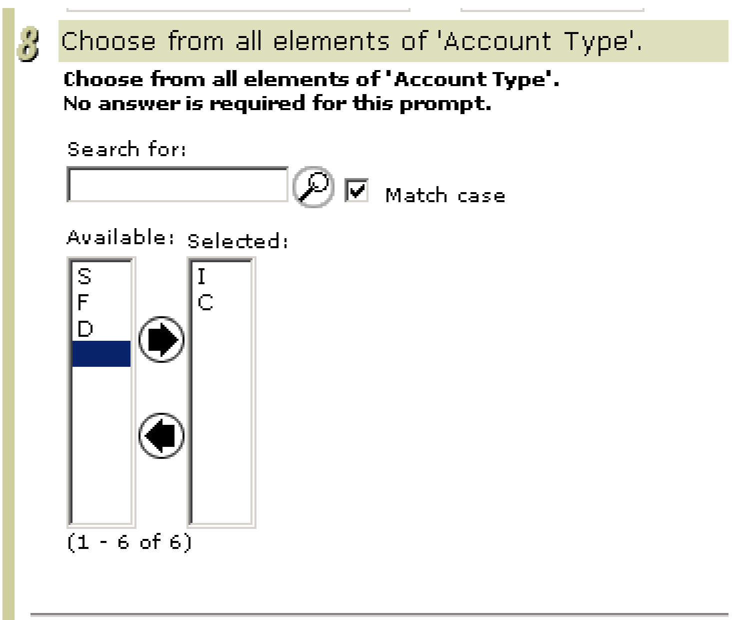

6
Account Metrics Object Prompt
Choose from a list of objects.
No answer is required for this prompt.
Available:
Selected:
Current Balance
Count of Card Accounts
30 Days Past Due
60 Days Past Due
90 Days Past Due
--- none ---
7
Transaction Metrics Object Prompt
Choose from a list of objects.
No answer is required for this prompt.
Available:
Selected:
Total Transaction Amount
Count of Transactions
Source Amount
Billing Amount
--- none ---

Account Type and Transaction Date Range Prompts

Finally you can select attribute elements (values) for two filter prompts that are used in almost all reports:

- Account Type — to limit the type of account you want to analyze when Account attributes are chosen
- Transaction Post Date Range — to limit the posting date range when Transaction or Transaction Detail attributes are chosen.

Below is an example of the Account Type Prompt.



Choosing to Edit, Save or Cancel a Dynamic Report

Now that you have answered the prompts, you are ready to edit, save or cancel your report.

Edit in Design Mode will allow you to refine or modify your report by bringing you to Design Mode. Your report is not saved, but you may also save and cancel your report from Design mode as well.

Saving will allow you to save your prompted selections without running the report.

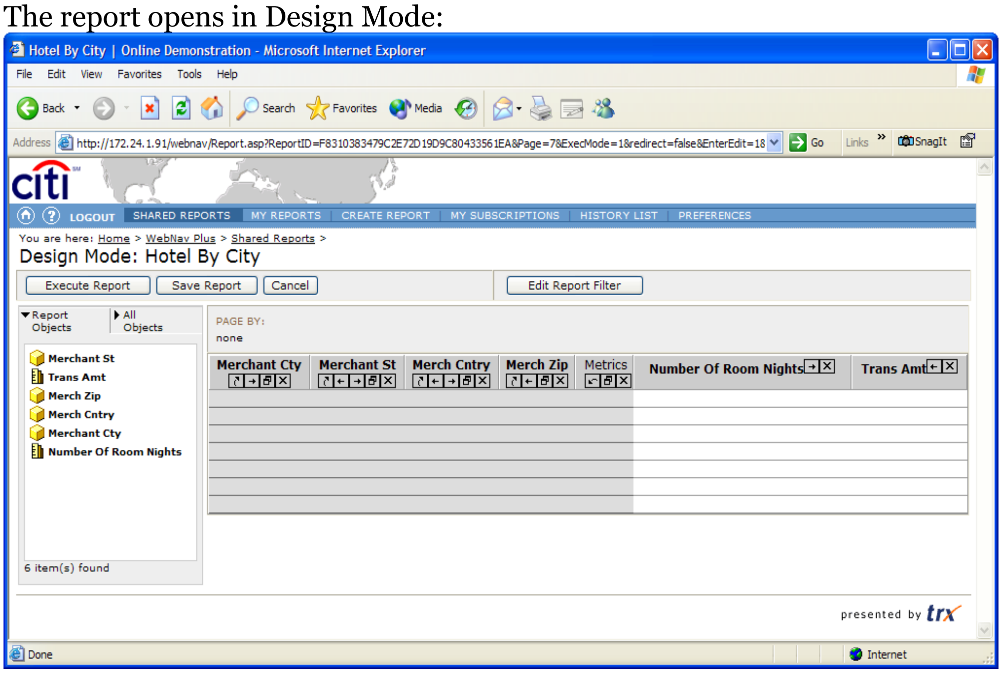
Canceling will wipe away all your selections and return you to the Create Report Menu

Editing a Report Template in Design Mode

Design Mode allows you to modify how your report will look as well as filter data in or out of your report. It is especially useful when making several changes as you can make these changes all at once and then execute the report.

In Design Mode there are two object panels—**All Objects** and **Report Objects** as well as a **Template**. All Objects contains all the objects in the data warehouse. Report Objects displays all the objects contained in the current report. The template displays a representation of how your report will look before it is run.

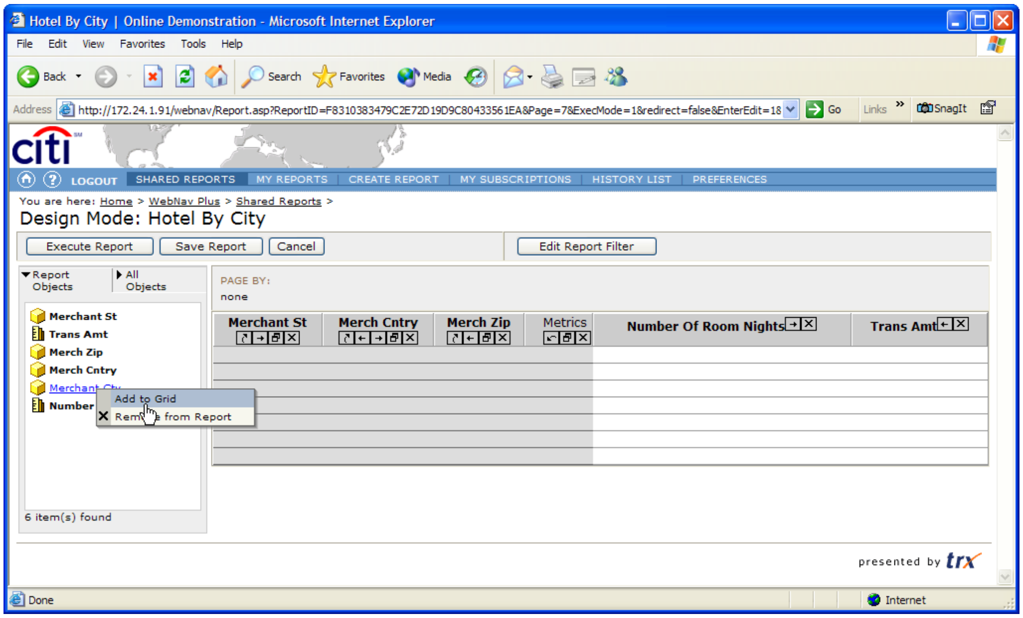
The report opens in Design Mode:



Adding attributes and Metrics Report Objects Panel

1. In the **Report Objects** panel, left -click on the object you want to add.

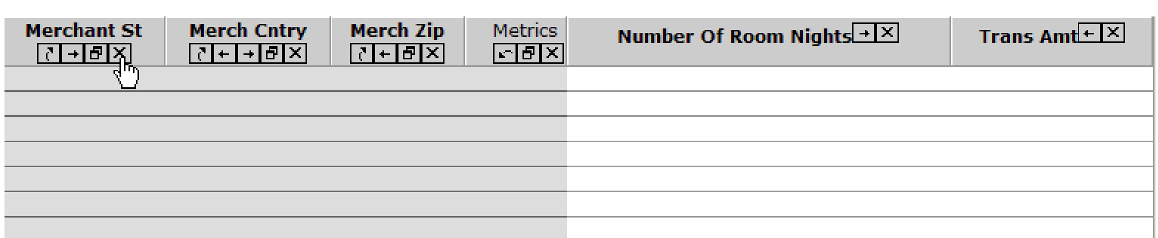
NOTE: You can also drag and drop the object onto the template.



Removing attributes and Metrics Report Objects Panel

1. Click the **X** button under the object you want to remove.

NOTE: You can also drag and drop the object into the Report Objects panel, or you can right-click the object and click **Remove from Grid**.

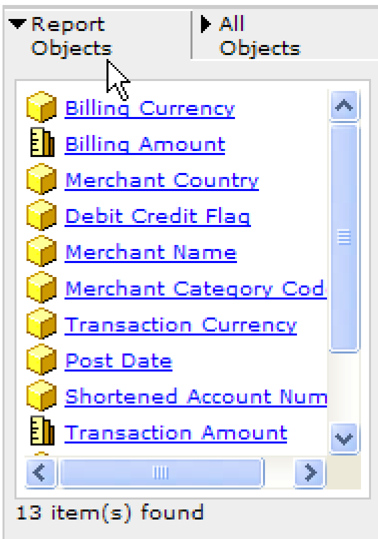


Repositioning Attributes in Design Mode

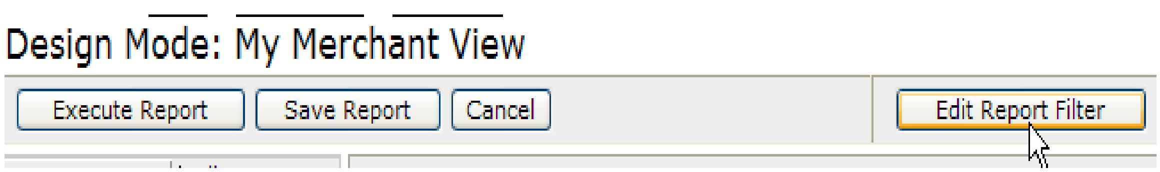
Attributes and metrics can be repositioned using the right or left arrow buttons under the attribute name in the grid. However, you can also drag and drop the attributes to the left or right.

How to Create a Report Filter

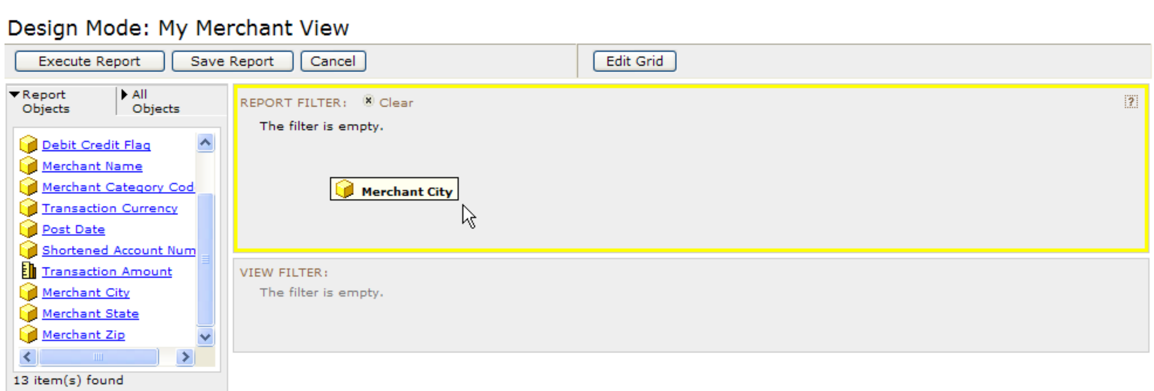
1 In Design Mode for the report, make sure the Report Objects tab in the far left window is selected as shown below:



2 Click on the **Edit Report Filter** button as shown below:



3 In the **Report Objects** window are all of the attributes and metrics you will need to create any filter that you wish for a report. Left click on each attribute you wish to add to the filter and drag and drop them into the Report Filter window.



4 You will then have the opportunity to choose the criteria under which you would like to filter.

5 Continue the process for all other attributes that you need to add to the filter.

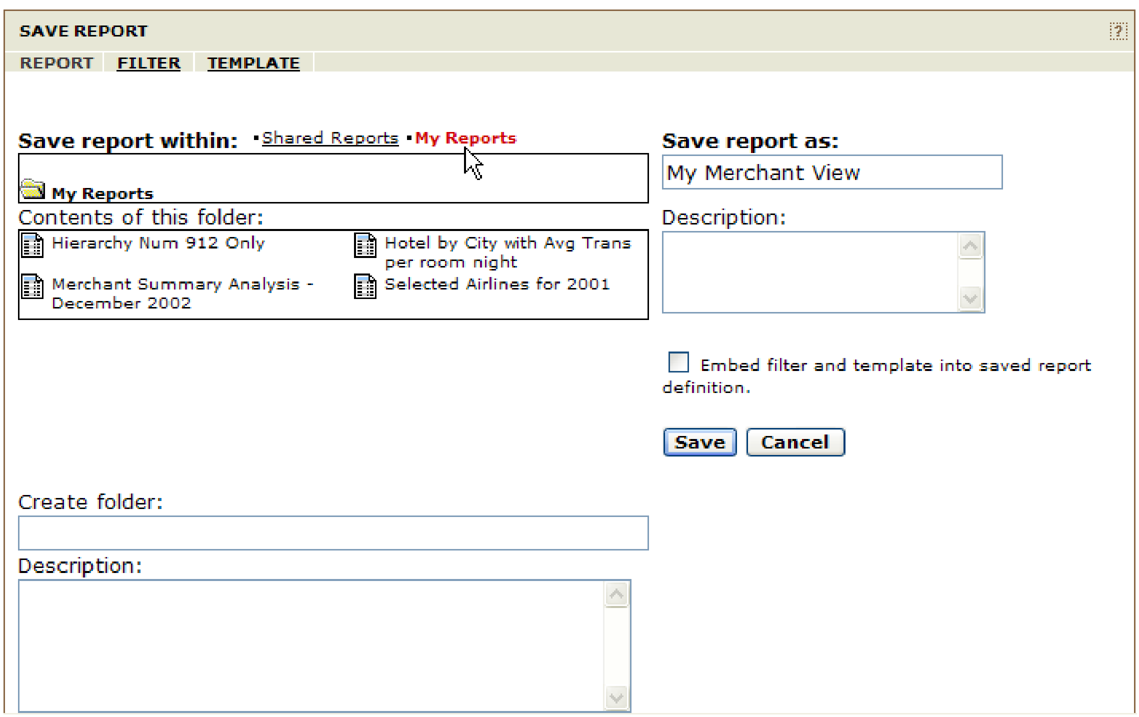
6 You can also add the metrics to the filter. To add any metric to the Report Filter window, left click on it in the **Report Objects** window, drag and drop it to the right hand Report Filter window. You will notice that you get different inequality criteria options when creating a metric filter. You did not see these inequalities when creating an attribute filter.

7 When finished creating the report filter click on the **Execute Report** button in the upper left hand corner as shown below:

Saving a Dynamic Report

Saving your Dynamic Report will ensure that the selections you made are saved. You do not have to run the report in order to save it.

1 Click on the Save button and the Save Report page will be displayed as below. It will be defaulted to save in My Reports.



2 In the **Save report as** box, type the name for the report as shown below:

3 Because you are saving a prompted report there are several choices listed under the Save report as window with checkboxes in front of each option. The options are described in the table below:

The following table explains the save options for prompted reports.

Save the report as a static definition.	If you select this option, the report is saved without any prompts. If you run the report, you are not re-prompted; instead the report uses the answers you provided when you first created the report.
Save the report with the prompts embedded in the filter.	If you select this option, the report retains any prompts that enable you to select filter criteria, but any prompts that enable you to change the template are not saved. If you run the report, you are only re-prompted to select filter criteria. Your filter selections from the last time you ran the report appear as the default values. The report uses the template criteria you selected when you first ran the report.
Save report with the all the embedded prompts.	If you select this option, the report retains all the original prompts. If you run the report, you are re-prompted on all the original prompts. Your selections from the last time you ran the report appear as the default values.

4 You may also further elaborate with a description of your report in the Description window.

Report Saving Tip:
Because you are saving a report *template,* be careful that your report is named in a general way As an example, if you run a monthly report of Merchant Transactions, naming the report “Merchant Transactions from 10-01-03 to 10-31-03” will not be appropriate when you run the report the next month. A better name might be Monthly Merchant Transactions.

5 Click the **Save** button.

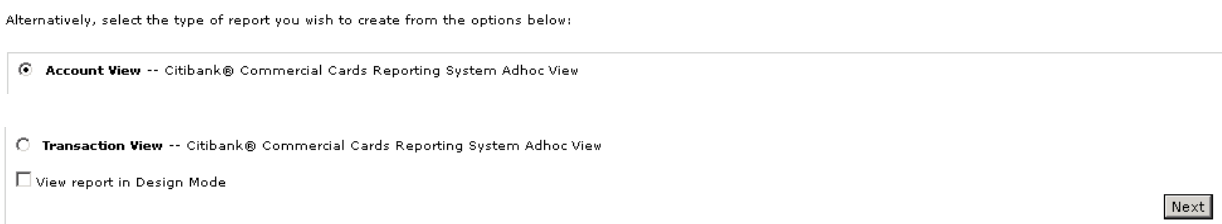
Your report will be saved in My Reports

Creating a Report Using Common Attribute Reports

You can create reports another way using the Common Attribute Report Templates. Using the Common Attribute Reports to create a report is similar to using the Dynamic Report builder. However, Common Attribute reports make available only a *limited* set of attributes. It is not as flexible or robust as the Dynamic Report builder. The disadvantage is you can choose from only a limited number of attributes; the advantage is that it is faster to see the results of changes in your report.

There are two types of Common Attribute Reports:

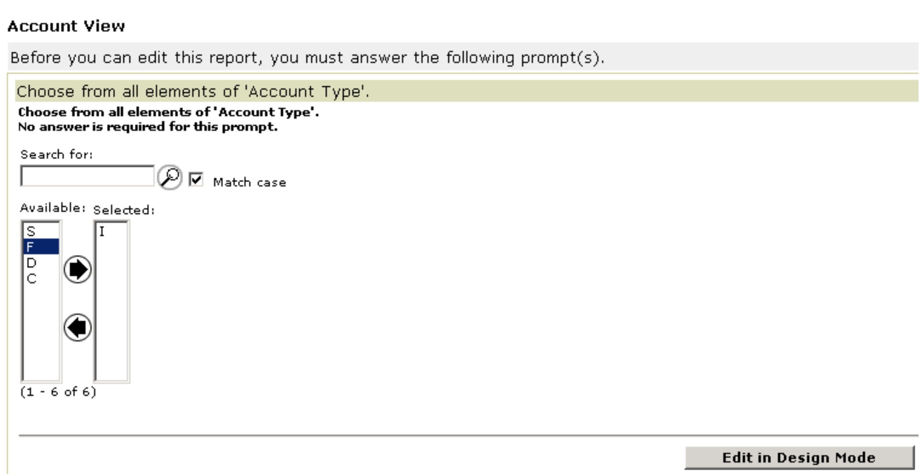
- Account Common Attribute Reports
  Contain only Hierarchy and Account information, no transaction or detail information is available.
- Transaction Common Attribute Reports
  Contains only Hierarchy, limited account information and limited transaction information. No detail transaction information is available.



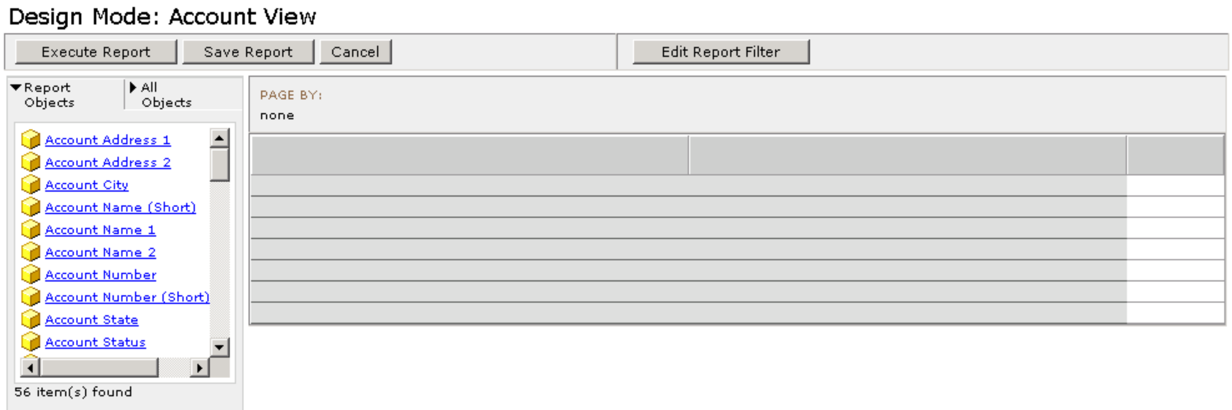
To create an Account-related report

1. Choose Account View
2. Click on next

You will be shown an account type prompt screen



3. Select a value for account type. Selecting no value will select ALL types.
4. Click on the button “Edit in Design Mode”



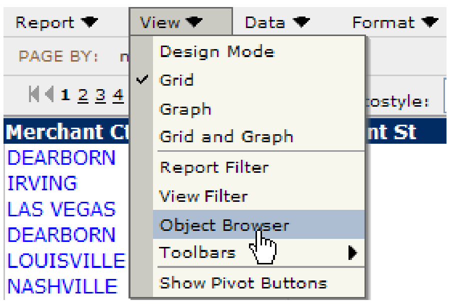
You will see the Object browser to the left with the most commonly used account attributes. This screen is the same as the screen described in the section entitled “Editing a Report Template in Design Mode” covered earlier in this manual.

Viewing and Modifying an Executed Report

Once you have run your report and it appears on the screen, you will be able to modify your report further. In most cases, these modifications will occur on the screen without having to run your report again to see the results.

Using the Object Browser to Modify a Report

You can also use the Object Browser to make changes to your report. When you use the Object Browser, the report automatically re-executes after every change you make, so you should only use the Object Browser if you are making minor changes. If you are making multiple changes, use Design Mode as you can make all your changes before re-executing the report.

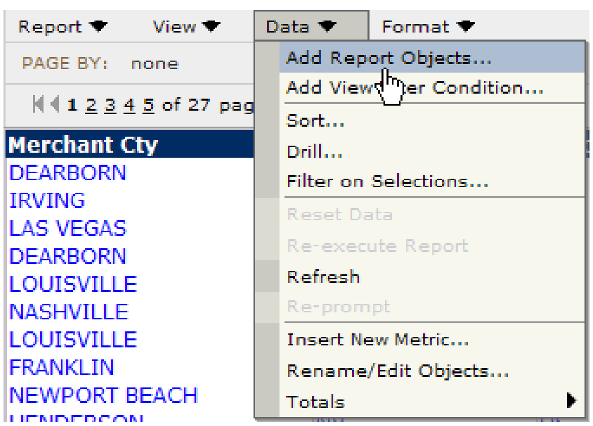


To access the Object Browser from a report:

1. On the **View** menu, click **Object Browser**.

   OR

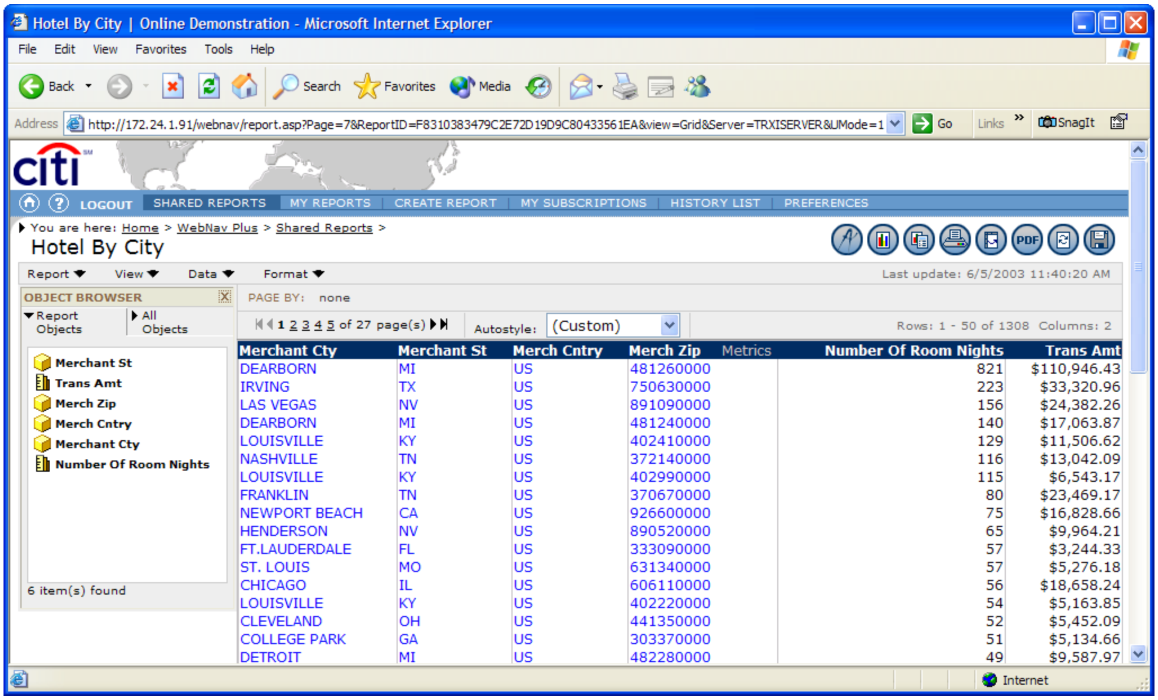
   On the **Data** menu, click Add **Report Objects**.



You add or remove objects using the Object Browser exactly as you do in Design Mode. You will see the change right on the report. However, if the change requires the system to go back to the database, you will receive a text box indicating that the system is processing.

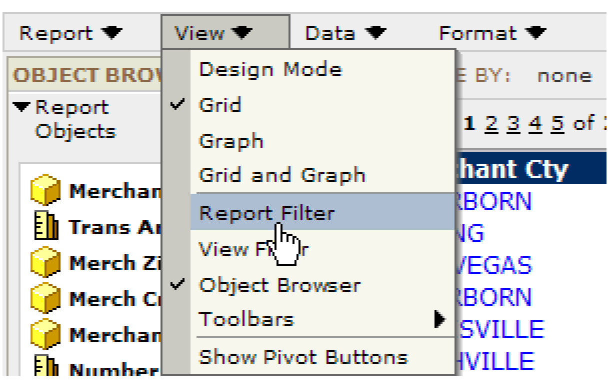
When you are finished making changes, you can close the Object Browser by clicking the **X** button in the right-hand corner of the Object Browser.

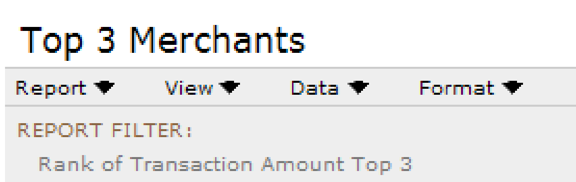
The Object Browser opens to the left of the report.



Viewing and Modifying a Report Filter

You can view the report filter while in Grid, Graph, or Design mode, but you can only modify it in Design Mode. A Report Filter pane opens at the top of the report to display the report filter.





To view the report filter from Grid or Graph mode:

1. On the **View** menu, click **Report Filter**.

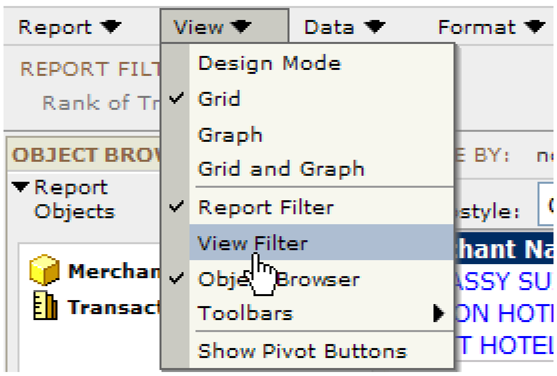
To modify the report filter:

1. Open the report in Design Mode.
2. Click **Edit Report Filter**.
3. Make your changes.

Creating a View Filter

The report filter contains the conditions or criteria that restrict what data is returned from the warehouse when you run the report. However, in addition to the report filter, a report can also have a view filter. View filters are conditions or criteria that are applied to the result set after the data has been returned from the warehouse. All the data contained in the report filter is brought back from the warehouse, but only the data in the view filter is displayed.

You can see view filters while in Grid, Graph, or Design mode, but you can only create or modify them in Grid or Graph mode.



To view, modify, or create a view filter on a report from Grid or Graph mode:

1. On the **View** menu, click **View Filter**.

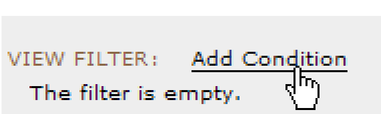
A View Filter pane opens to display the view filter

To create a view filter:

1. In the **View Filter** pane, click the **Add Condition** link.
2. In the **Filter On** box, select the object on which you want to filter.

NOTE: You can filter on any object contained in the Report Objects panel.

3. Click **Continue**.
4. Select how you want to qualify on the object.
5. Click the apply button. The report changes to display only the data contained in the view filter.



To modify an existing view filter:

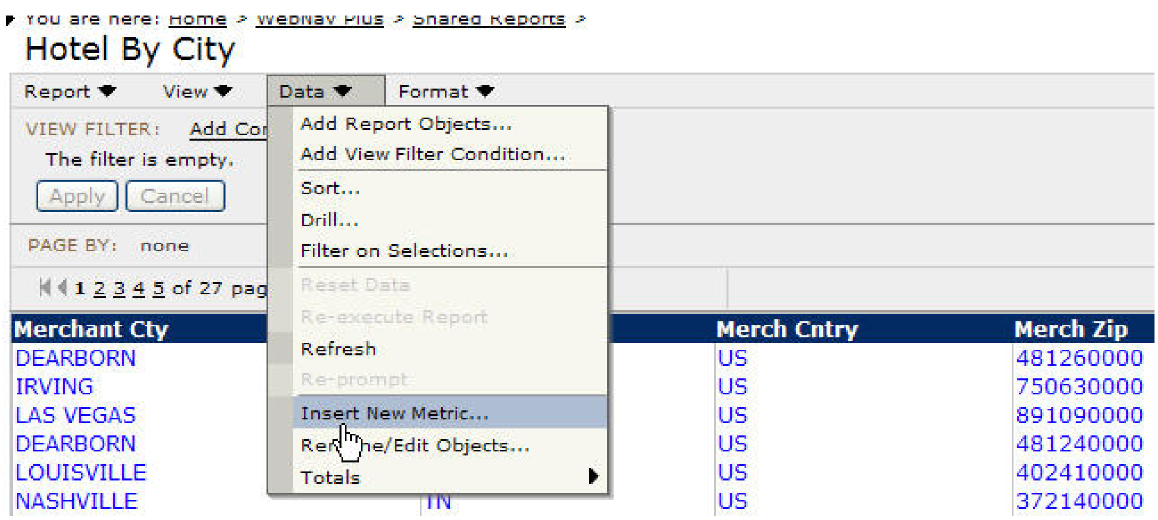
1. In the **View Filter** pane, click the condition you want to modify.
2. Make your changes.
3. Click the apply button.

Inserting a New Metric

You can also modify a report by creating new metrics from existing metrics already in the report. When you save the report, they are saved as part of the report.

To insert a new metric:

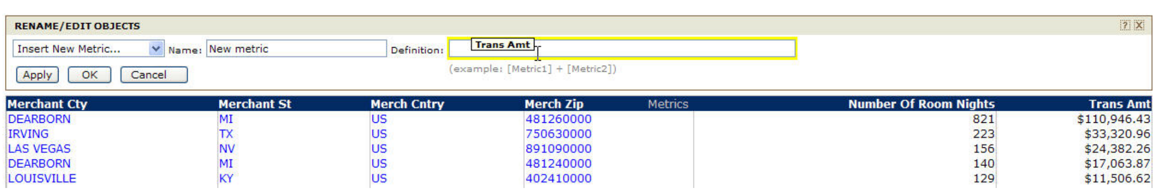
On the **Data** menu, click **Insert New Metric**.



In the **Rename/Edit Objects** pane, in the **Name** box, type the name of the new metric.

In the **Definition** box, drag and drop the objects you want to use to create the new metric from the template.

NOTE: You can also type mathematical operators and constants in the **Definition** box.



Click **OK**.

Renaming an Object in a Report

You can rename objects in a report. When you rename an object, the name is only changed on the report itself.

To rename an object in a report:

1. On the **Data** menu, click **Rename/Edit Objects** or right click on the header to be renamed as shown below:

NOTE: Editing objects refer to inserting new metrics. You cannot edit the definition of an existing metric.

2. In the **Rename/Edit Objects** pane, in the first dropdown box, select the object in the report that you want to rename. This will already be selected if you used the right click method in Step 1 above.
3. In the **Name** box, type the name you want to appear in the report.
4. Click **OK**.

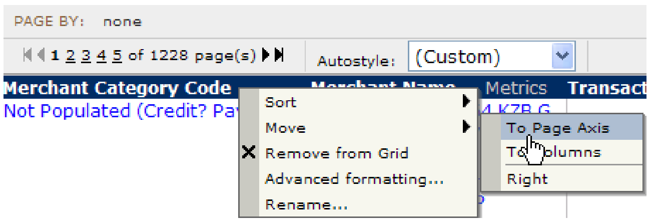
Paging by an Object on a Report

When you have a report with a large result set, you can more easily view the information for the report by paging the data. To do this, you can page by any object on a report. All of the data for the report is still retrieved at one time from the database; you are simply retrieving it to view in segments.

To page by an object on a report:

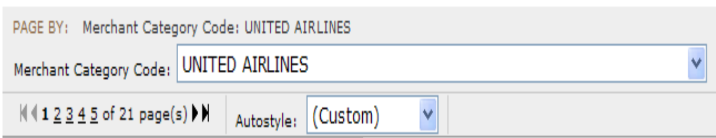
1. Right-click the object you want to page by, point to **Move**, and click **To Page Axis**.

NOTE: You can also drag and drop an object into the **Page By**



To select an element to page by:

1. In the **Page By** pane, in the dropdown box, select the element you want to view.

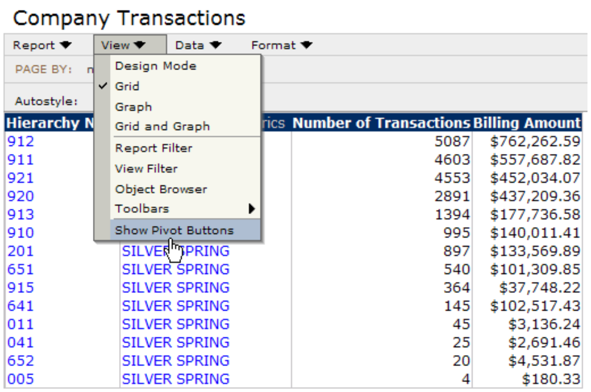


Merchant Name	Transaction Amount
CUI GL 8735615577774094	$2,966.91
FMRGVW 7606772255358	$210.19
FMRGVW 7607606772818021	$148.70
FMRGVW ZRI 7602541202056	$124.60
FMRGVW ZRI 7602545518035	$848.38
FMRGVW ZRI 7602545518730	$231.25
FMRGVW ZRI 7602547111570	$264.35
FMRGVW ZRI 7602547119036	$312.17
FMRGVW ZRI 7602547119076	$184.96
FMRGVW ZRI 7602551775814	$1,217.71
FMRGVW ZRI 7602551776016	$31.92
FMRGVW ZRI 7602551777517	$26.23
FMRGVW ZRI 7602559111218	$641.10
FMRGVW ZRI 7605615680362	$487.74
FMRGVW ZRI 7605616157253	$49.35
FMRGVW ZRI 7605616168290	$124.47
FMRGVW ZRI 7605690041050	$356.83
FMRGVW ZRI 7605690049440	$356.83
FMRGVW ZRI 7605691725148	$693.40
FMRGVW ZRI 7605692044360	$393.47
FMRGVW ZRI 7605692157489	$183.80
FMRGVW ZRI 7605699409867	$424.52
FMRGVW ZRI 7605699944142	$218.03
FMRGVW ZRI 7605699953920	$180.17
FMRGVW ZRI 7605699955378	$180.54
FMRGVW ZRI 7605699958866	$180.54
FMRGVW ZRI 7605699958873	$180.54
FMRGVW ZRI 7606755044707	$158.00
FMRGVW ZRI 7606755781193	$400.00
FMRGVW ZRI 7606755865233	$158.00
FMRGVW ZRI 7606756044463	$378.48
FMRGVW ZRI 7606756204266	$223.00
FMRGVW ZRI 7606756507415	$482.26
FMRGVW ZRI 7606756634228	$360.00
FMRGVW ZRI 7606757082370	$371.02
FMRGVW ZRI 7606757253476	$125.00
FMRGVW ZRI 7606757253515	$125.00

Pivoting Data on a Report

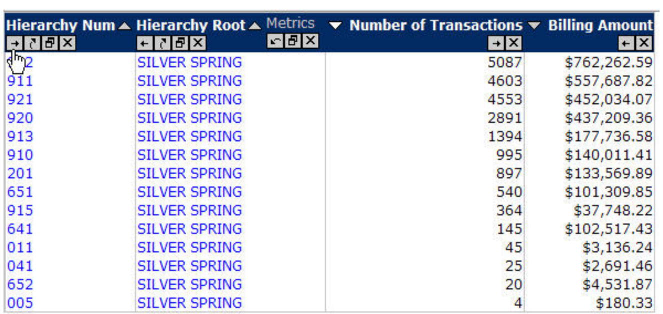
You can also change the placement of data on a report. You can move objects between the row header, column header, and page by field. You can also change the relative order of display for data in the rows, columns, or page-by field.

To pivot data, you can drag and drop objects onto other areas of the report, right-click an object and use the Move menu, or use the pivot buttons.



To access the pivot buttons:

1. On the **View** menu, click **Show Pivot buttons**.



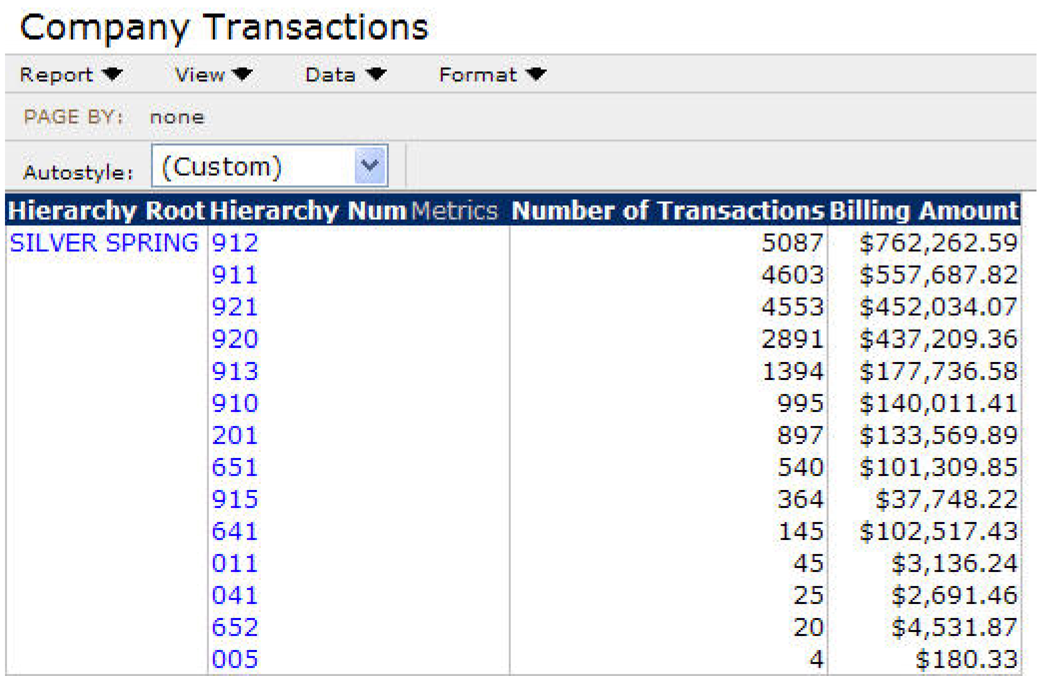
To pivot an object on a report:

1. Under the object you want to move, click the appropriate pivot button.

NOTE: You can also pivot data by dragging and dropping the object onto a different area of the report or by right-clicking the object, pointing to **Move**, and clicking the area of the report to which you want to move the object.

1 On the **View** menu, click **Show Pivot buttons**.

The report display changes to reflect the new arrangement of the data.



Company Transactions

Report View Data Format

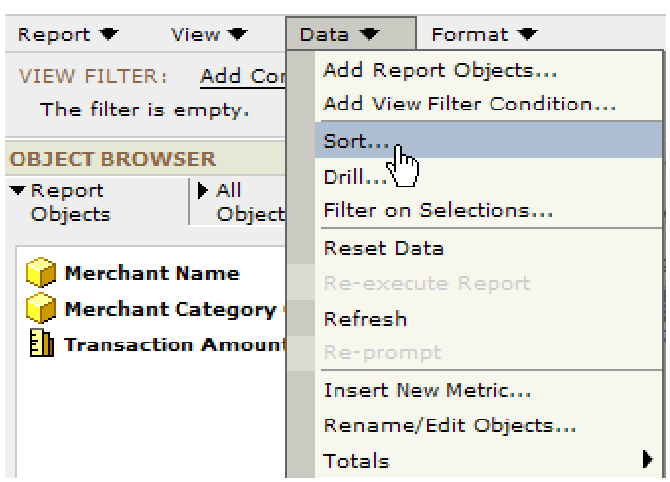
PAGE BY: none

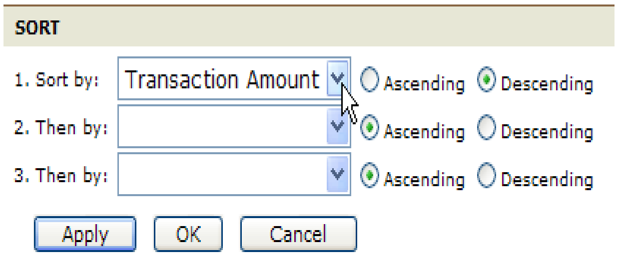
Autostyle: (Custom)

Hierarchy Root	Hierarchy Num	Metrics	Number of Transactions	Billing Amount
SILVER SPRING	912		5087	$762,262.59
	911		4603	$557,687.82
	921		4553	$452,034.07
	920		2891	$437,209.36
	913		1394	$177,736.58
	910		995	$140,011.41
	201		897	$133,569.89
	651		540	$101,309.85
	915		364	$37,748.22
	641		145	$102,517.43
	011		45	$3,136.24
	041		25	$2,691.46
	652		20	$4,531.87
	005		4	$180.33

Sorting Data on a Report

Sorting is defaulted to ascending alphabetic and numeric standard. However, you can set up your own sort order for the data on a report. You can sort by up to three fields in succession in ascending or descending order.





To sort data on a report:

1. On the **Data** menu, click **Sort**.
2. In the **Sort** pane, in each dropdown box, select the criterion by which you want to sort.
3. For each criterion, select **Ascending** or **Descending** order.
4. Click **OK**.

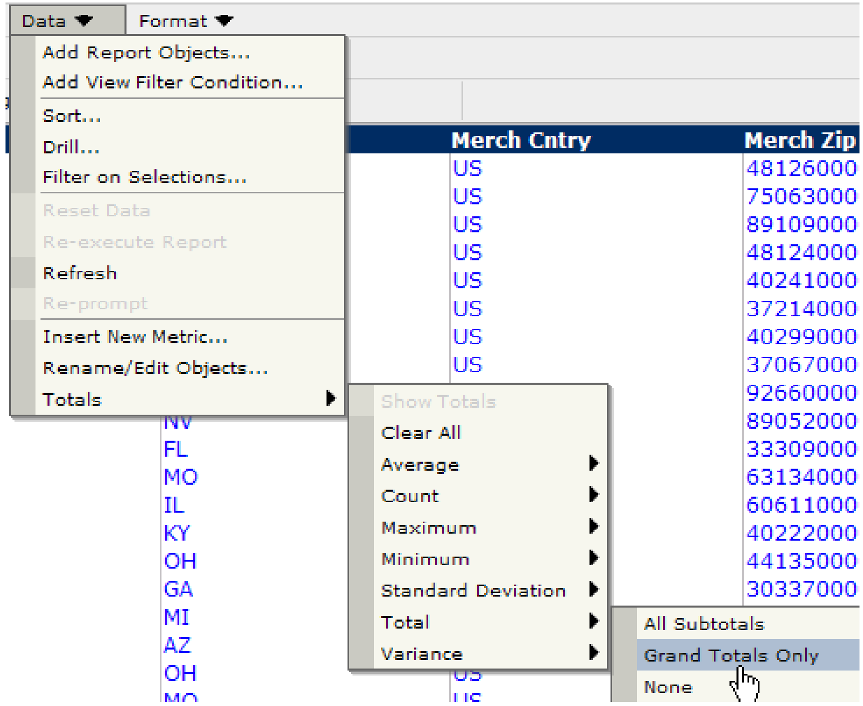
The report display changes to show the new sort order.

Adding Totals to a Report

You can add various types of subtotals and grand totals to a report. If a report already has totals on it, you can also choose to hide the totals or to remove them.

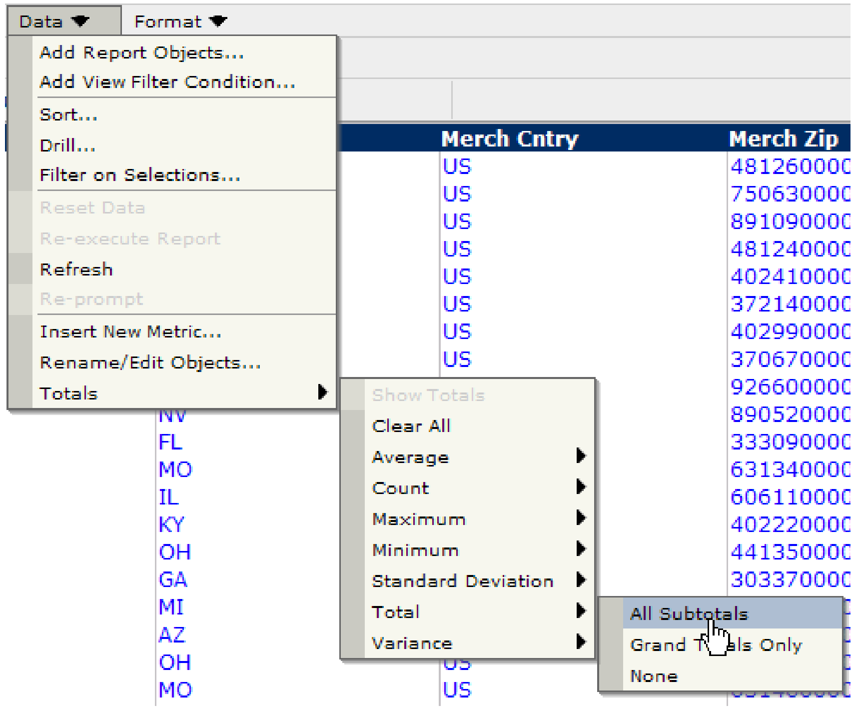
To add grand totals to a report:

1. On the **Data** menu, point to **Totals**, point to the type of total you want to add, and click **Grand Totals Only**.



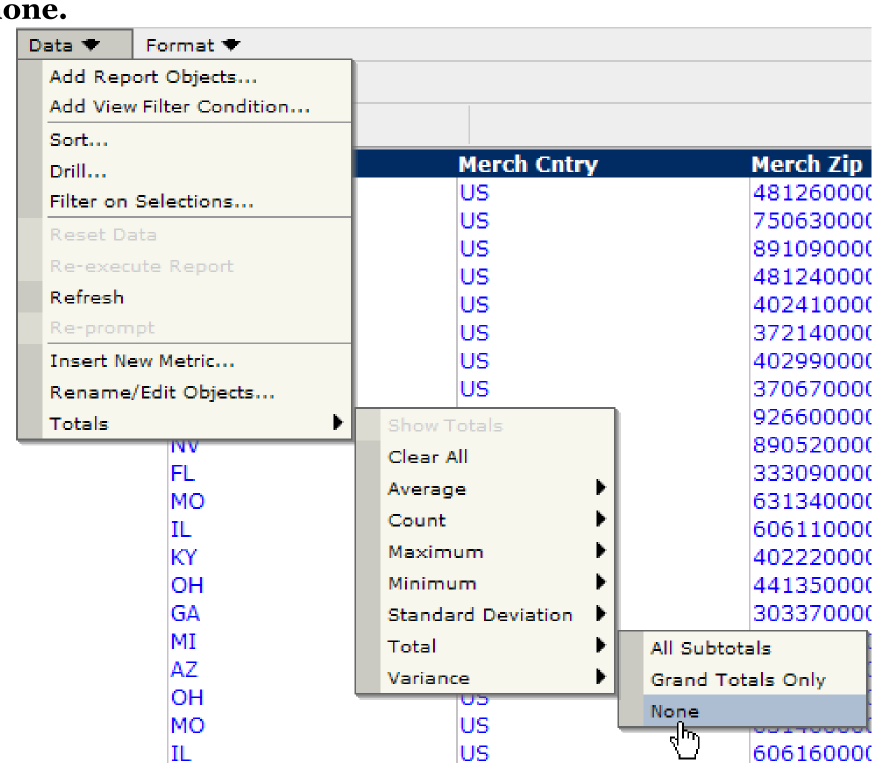
To add a grand total and subtotals to a report:

1. On the **Data** menu, point to **Totals**, point to the type of total you want to add, and click **All Subtotals**.



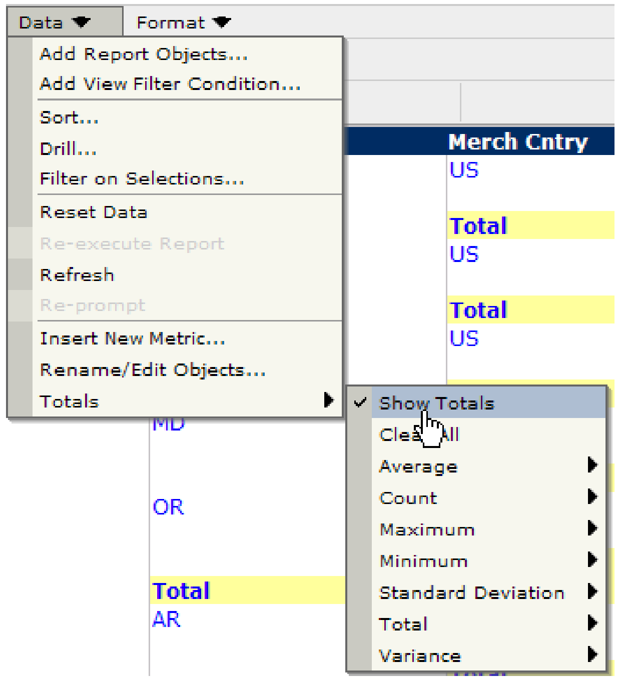
To remove totals from a report:

1. On the **Data** menu, point to **Totals**, point to the type of total you to want to remove, and click **none.**



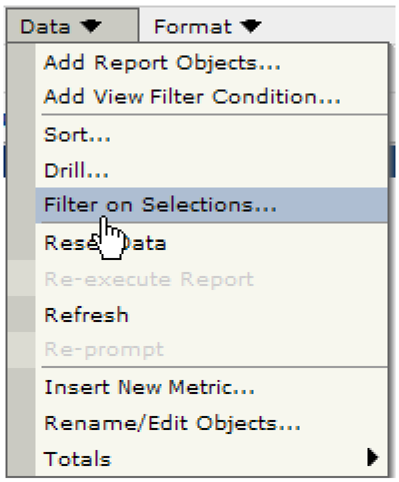
To hide totals on a report:

1. On the **Data** menu, point to **Totals**, and click **Show Totals**. To show the totals again, repeat this step. This option shows and hides totals on a report.



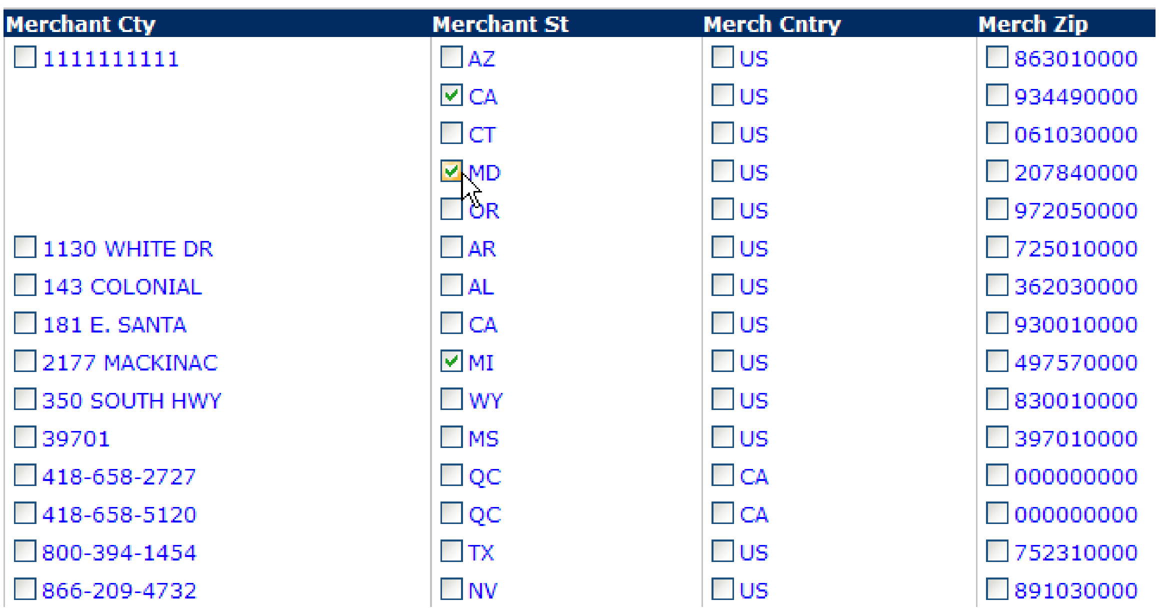
Filtering on Selections in a Report

You can also narrow down the amount of data you are viewing by filtering on selected elements of the report. This would be useful when you want to display selected data that is not easily filtered or is random in nature.



To filter on selections in a report:

1. On the **Data** menu, click **Filter on Selections**.
2. Click the checkbox beside the elements you want to view.
3. Click **OK**.

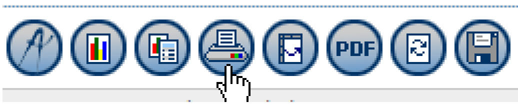


Merchant Cty	Merchant St	Merch Cntry	Merch Zip
1111111111	AZ	US	863010000
	CA	US	934490000
	CT	US	061030000
	MD	US	207840000
	OR	US	972050000
1130 WHITE DR	AR	US	725010000
143 COLONIAL	AL	US	362030000
181 E. SANTA	CA	US	930010000
2177 MACKINAC	MI	US	497570000
350 SOUTH HWY	WY	US	830010000
39701	MS	US	397010000
418-658-2727	QC	CA	000000000
418-658-5120	QC	CA	000000000
800-394-1454	TX	US	752310000
866-209-4732	NV	US	891030000

The report display changes to show only the elements on which you selected to filter.

Printing a Report

You can print reports. When you print reports, you have the option to change a variety of print settings, including adding custom headers and footers, fitting a report to a page, and changing paper size and margins.



To print a report:

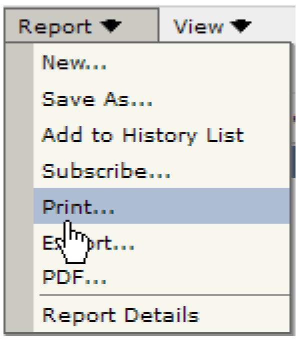
1. On the report toolbar, click the print icon.

NOTE: You can also print a report by clicking **Print** on the **Report** menu.

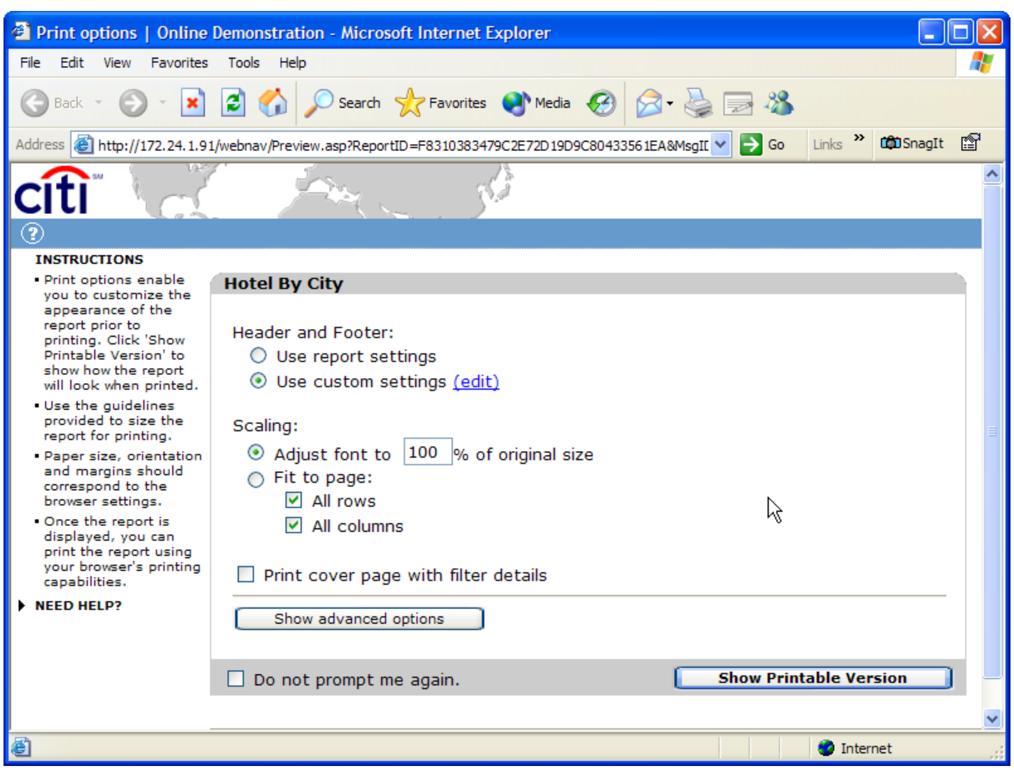
2. Change the print settings as desired.

NOTE: You can access advanced print settings by clicking **Show advanced options**.

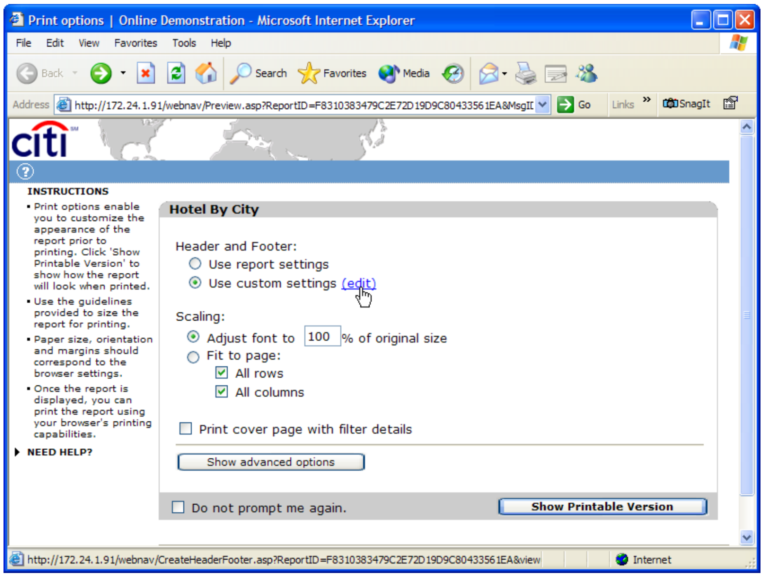
3. Click **Show Printable**



When you choose to print a report, a new web page opens so you can change print settings.

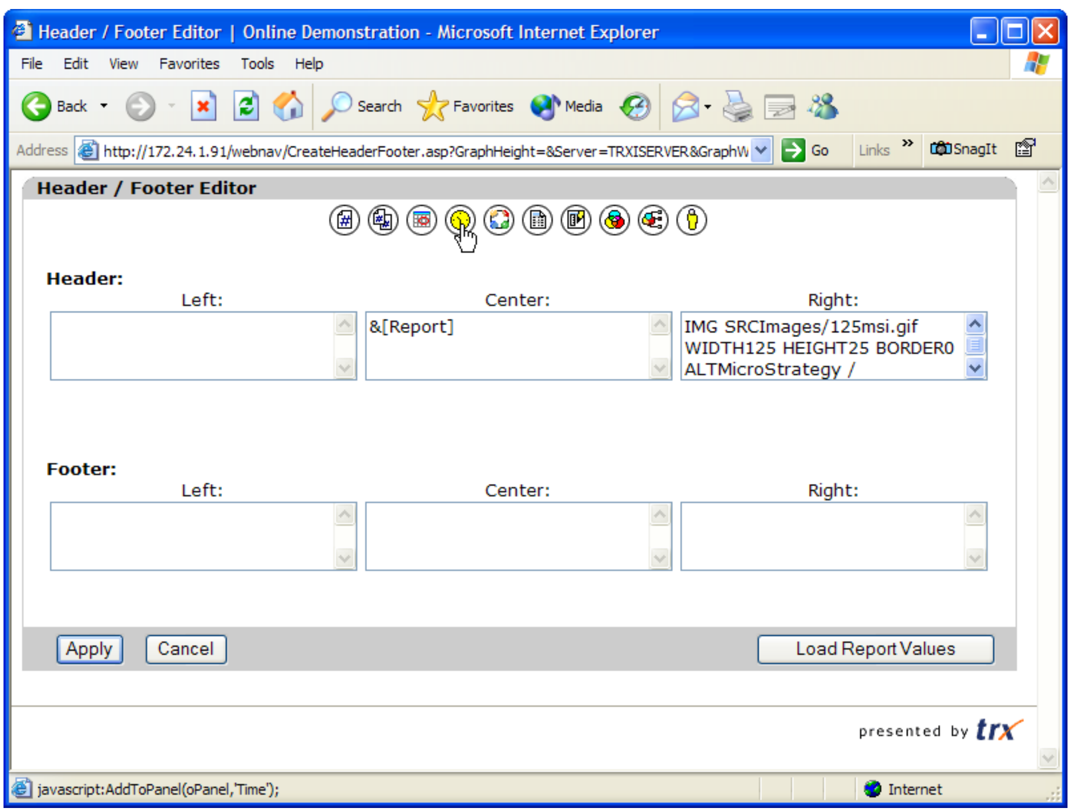


In addition to changing standard print settings, you can create custom headers and footers. The icons in the Header/Footer Editor enable you to easily insert report information such as the report name, filter, template, filter details, project, user, date and time.



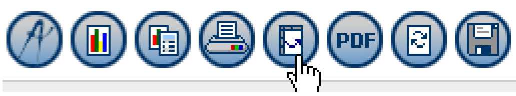
To create custom headers and footers:

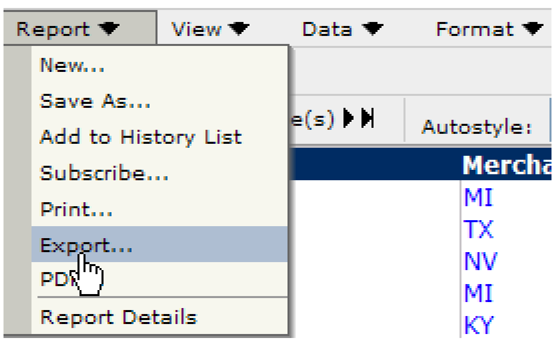
1. On the print options page, under **Header and Footer**, select **Use custom settings**.
2. Click the **(edit)** link.
3. In the **Header/Footer Editor**, customize the header and footer as desired.
4. Click **Apply**.



Exporting a Report

You can also export reports to other formats. You can export grid reports to Excel, PDF, CSV (file format that can be imported into Excel), plain text file, or HTML file. You can export graph reports to Excel or HTML.





To export a report to Excel, CSV, plain text, or HTML format:

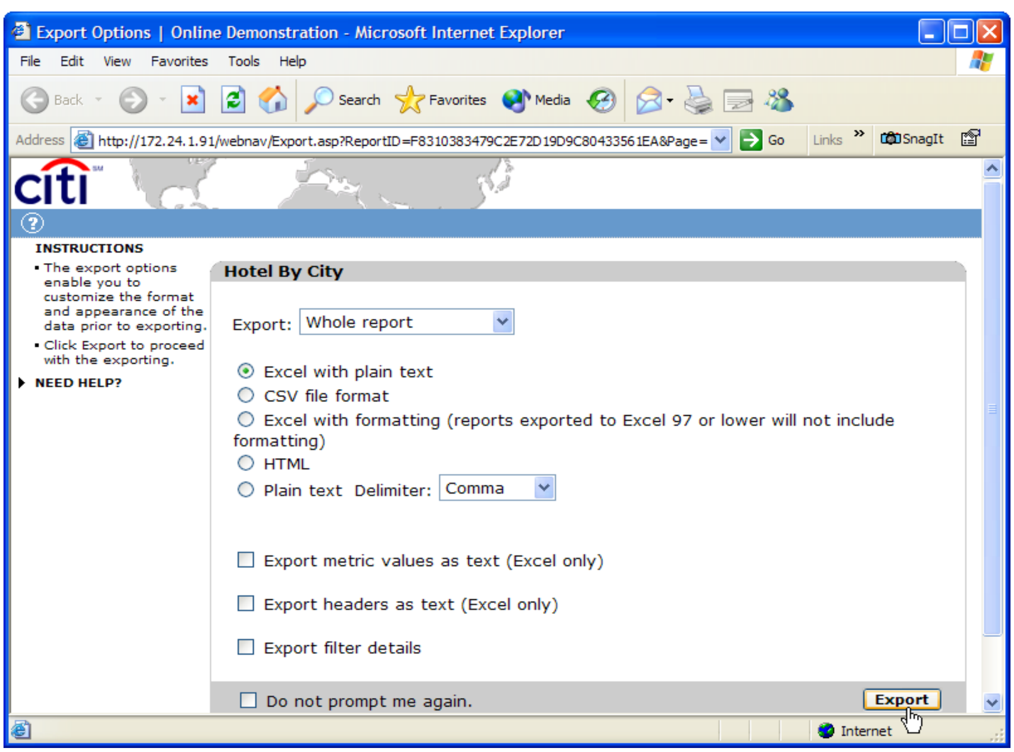
1. On the report toolbar, click the export icon.

   NOTE: You can also perform these types of exports by clicking **Export** on the **Report** menu.

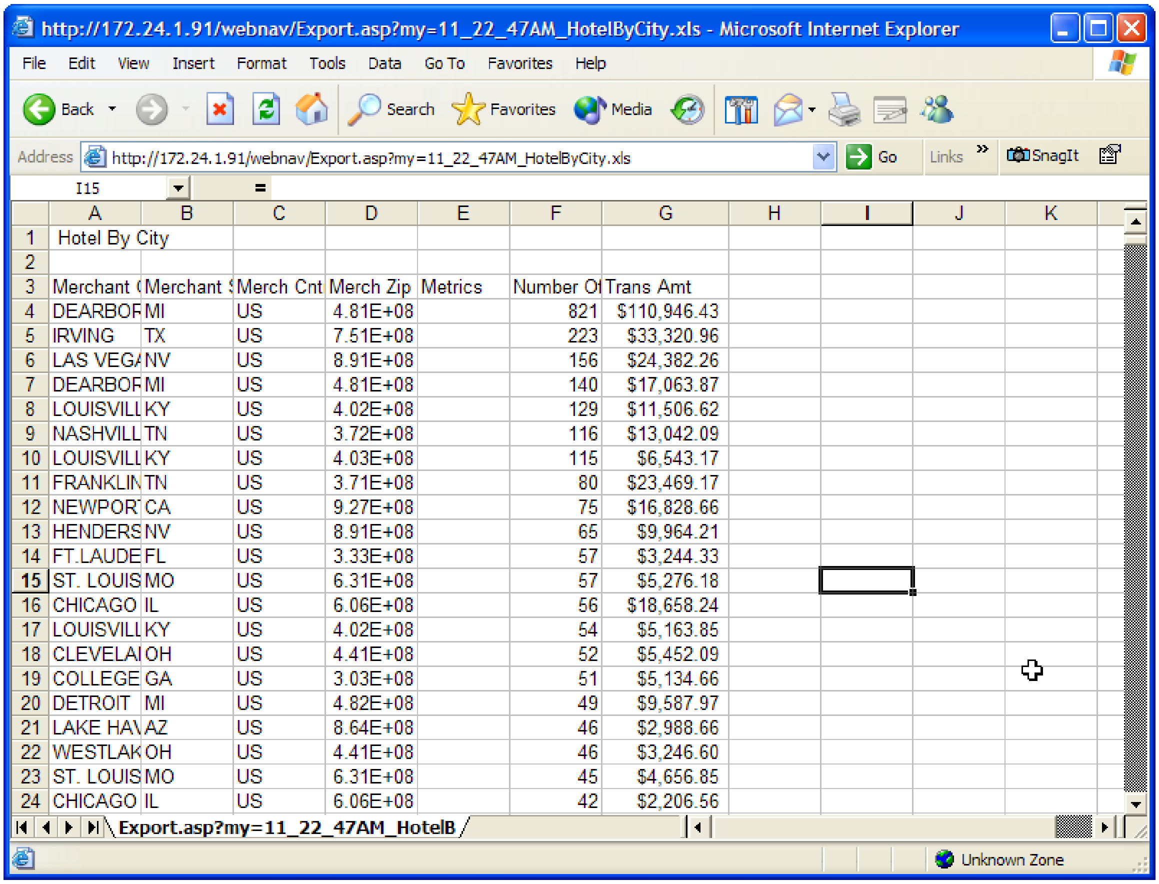
2. Change the export settings as desired.

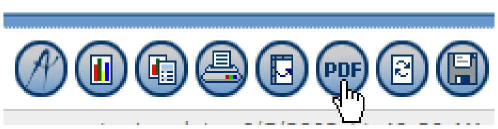
   NOTE: You can export the entire report or just the portion you are viewing.

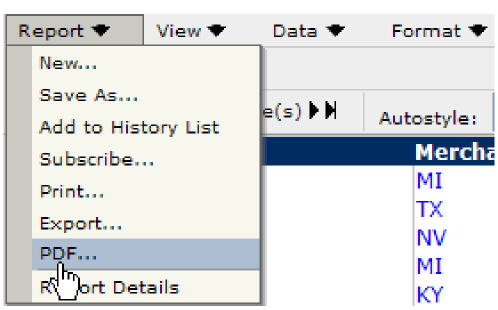
When you choose to export a report, a new Web page opens so you can change export settings.



When you export the report, a document of the file type you selected opens, and the report is exported to that document.







To export a report to PDF format:

1. On the report toolbar, click the export to PDF icon.

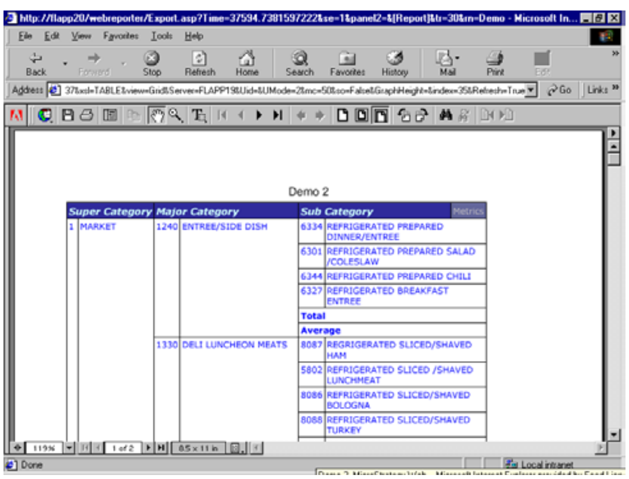
NOTE: You can also perform a PDF export by clicking **PDF** on the **Report** menu.

2. Change the export settings as desired.

NOTE: You can customize the header and footer by clicking the **(edit)** link beside **Header and Footer**.

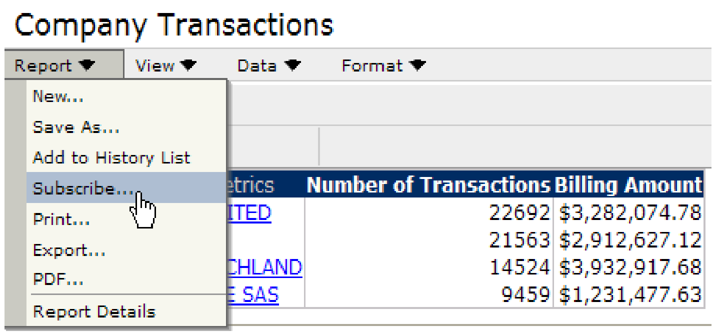
When you choose to export a report to PDF, a Web page opens so you can change export settings.

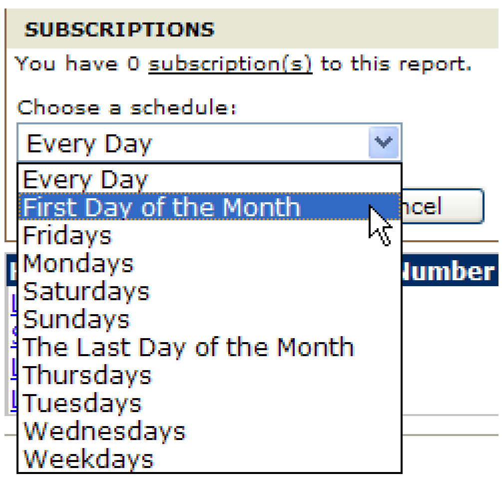
When you export the report, a PDF document opens, and the report is exported to that document.



Subscribing to a Report

In addition to running reports manually, you can subscribe to a report so that it runs automatically based on a schedule. The results are saved and a message is delivered to your history list where you can retrieve the report results.





To subscribe to a report:

1. On the **Report** menu, click **Subscribe**.

NOTE: If you have made changes to a report, you must save it before you can subscribe to the report.

2. In the **Subscriptions** pane, in the Choose **a schedule** box, select the schedule you want to use.
3. Click **OK**.

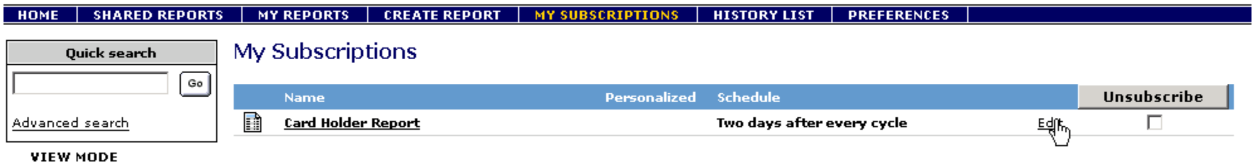
You can view subscriptions you create under **My Subscriptions**. You can also modify your subscriptions and view them from this page.

To view your subscriptions:

1. On the top of any page in the project or on the project home page, click **My Subscriptions**.

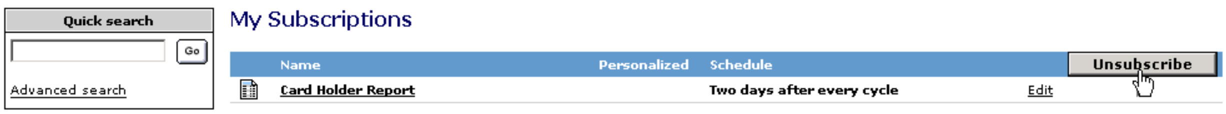
To modify a subscription:

1. On the **My Subscriptions** page, click the **Edit** link beside the subscription you want to modify.
2. Change the schedule you are using for the report.
3. Click **OK**.



To unsubscribe to a report:

1. On the **My Subscriptions** page, select the checkbox for the report to which you no longer want to subscribe.
2. Click **Unsubscribe**.
3. Click **OK**.



Drilling on a Report

Whenever you run a report, you can also drill on the report. Drilling enables you to view data at levels other than those originally displayed on a report. You can drill up to higher-level related attributes or down to lower-level related attributes. You can drill on part of a report or all of a report.

You can drill in one of five ways:

- Clicking an element hyperlink (automatically drills down to the immediate child just for the element you selected)

- Clicking a header hyperlink (automatically drills down to the immediate child for all elements of that attribute)

- Right-clicking an element (enables you to choose a level within the same dimension to which you want to drill just for the element you selected)

- Right-clicking a header (enables you to choose a level within the same dimension to which you want to drill for all elements of that attribute)

- Using the Drill pane (enables you to choose the attribute or attributes on which you want to drill and the level to which you want to drill; also enables you to drill on multiple attributes at one time and to drill on all or part of a report using the drill checkboxes)

To drill down to the immediate child for a specific element:

1. Click the element on which you want to drill.

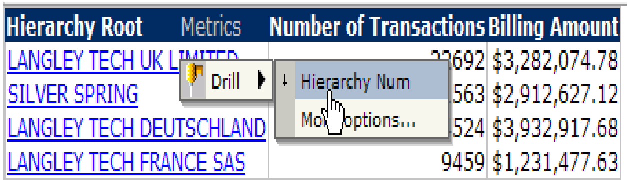
Hierarchy Root	Metrics	Number of Transactions	Billing Amount
LANGLEY TECH UK LIMITED		22692	$3,282,074.78
SILVER SPRING		21563	$2,912,627.12
LANGLEY TECH DEUTSCHLAND		14524	$3,932,917.68
LANGLEY TECH FRANCE SAS		9459	$1,231,477.63

To drill down to the immediate child for all elements of a specific attribute:

1. Click the header for the attribute on which you want to drill.

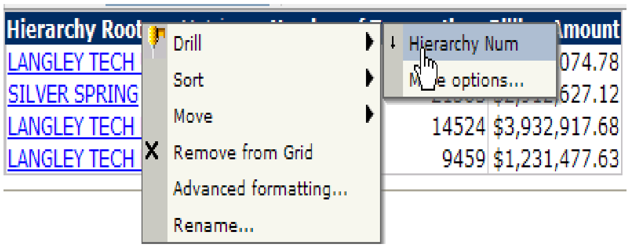
To drill up or down within the same hierarchy for a specific element:

1. Right-click the element on which you want to drill, point to **Drill**, and click the level to which you want to drill.



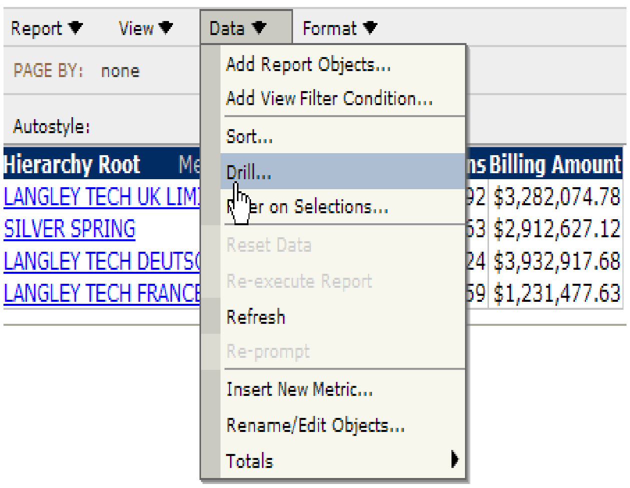
To drill up or down within the same hierarchy for all the elements of a specific attribute:

1. Right-click the header for the attribute on which you want to drill, point to **Drill**, and click the level to which you want to drill.



   OR

   On the **Data** menu, click **Drill**.

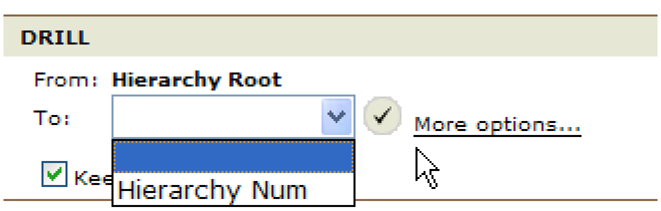


2. In the **Drill** pane, in the dropdown box beside the attribute on which you want to drill, select the level to which you want to drill.

   NOTE: Having the Keep parent while drilling setting selected means that the attribute you are drilling from appears on the resulting report as well as the attribute to which you are drilling.

3. Click the apply button.

   NOTE: You can also use this option to drill to selected elements of the attribute. To drill on only part of the report, click the checkboxes beside the elements you want to drill on before clicking the apply button.



When you drill on a report, the report you drilled to is displayed on the page.

Company Transactions

Report ▼ View ▼ Data ▼ Format ▼

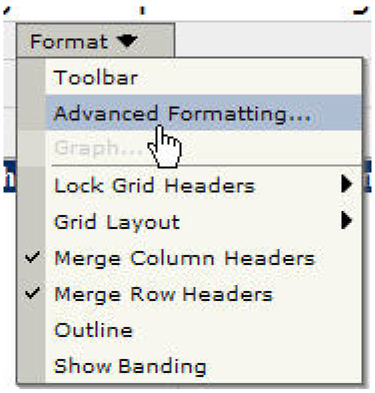
PAGE BY: none

Autostyle: (Custom)

Hierarchy Num	Hierarchy Root	Metrics	Number of Transactions	Billing Amount
912	SILVER SPRING		5087	$762,262.59
911	SILVER SPRING		4603	$557,687.82
921	SILVER SPRING		4553	$452,034.07
920	SILVER SPRING		2891	$437,209.36
913	SILVER SPRING		1394	$177,736.58
910	SILVER SPRING		995	$140,011.41
201	SILVER SPRING		897	$133,569.89
651	SILVER SPRING		540	$101,309.85
915	SILVER SPRING		364	$37,748.22
641	SILVER SPRING		145	$102,517.43
011	SILVER SPRING		45	$3,136.24
041	SILVER SPRING		25	$2,691.46
652	SILVER SPRING		20	$4,531.87
005	SILVER SPRING		4	$180.33

Formatting a Grid Report

When you run a shared report or a report that you have created, reports have a default format. However, you can also customize the format of reports yourself. You can format reports down to the individual cell level.



To format a report in Grid mode:

1 On the **Format** menu, click **Advanced Formatting**.

NOTE: This action displays the **Format** pane. You can also display this pane by right-clicking an object in the report that you want to format and clicking **Advanced Formatting**.

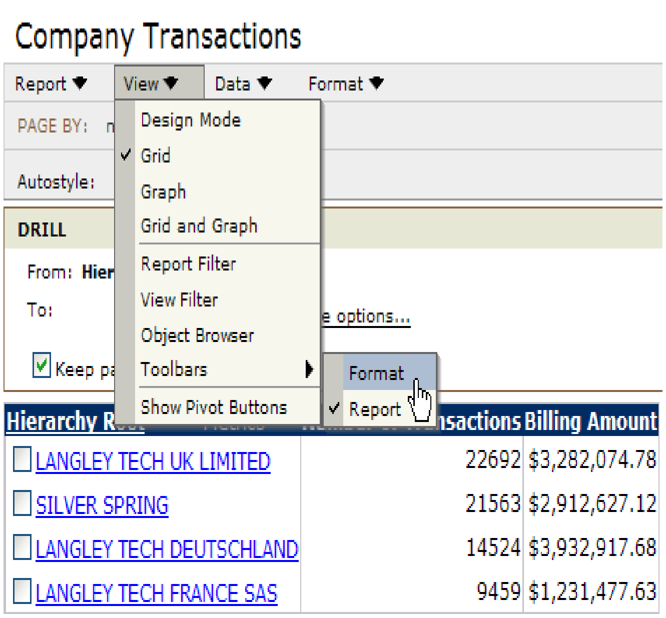
OR

On the **Format** menu, click **Toolbar**.

OR

On the **View** menu, point to **Toolbars** and click **Format**.

NOTE: These actions display the formatting toolbar, which you can also use to format reports.



1 On the **Format** pane or toolbar, format the report as desired.

2 If you are using the **Format** pane, click **Apply** after each formatting change.

NOTE: You can format the row or column axis headers and values, or you can choose to format individual attribute or metric fields. You can change the font, font size, colors, number type, alignment, and a variety of other settings.

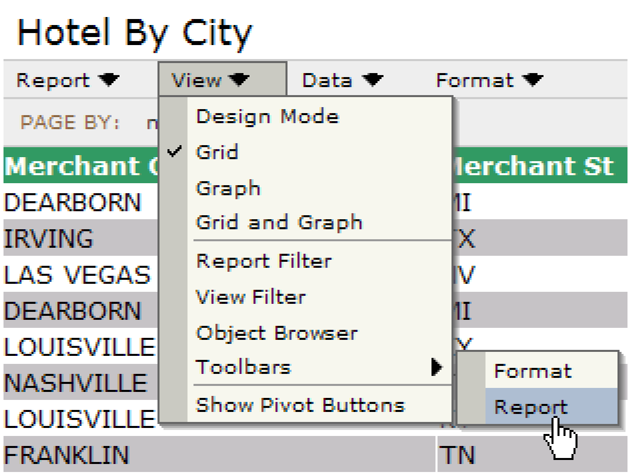
3 If you are using the **Format** pane, when you have finished all your changes, click **OK**.

The report display is updated as you apply each formatting change.

Merchant Cty	Merchant St	Merchant Country	Merch Zip	Metrics	Avg Trans per room night	Number Of Room Nights	Trans Amt
DEARBORN	MI	US	481260000		135	821	$110,946.43
IRVING	TX	US	750630000		149	223	$33,320.96
LAS VEGAS	NV	US	891090000		156	156	$24,382.26
DEARBORN	MI	US	481240000		122	140	$17,063.87
LOUISVILLE	KY	US	402410000		89	129	$11,506.62
NASHVILLE	TN	US	372140000		112	116	$13,042.09
LOUISVILLE	KY	US	402990000		57	115	$6,543.17

Changing the Autostyle of a Report

In addition to formatting the report on your own, you can also change the format of the report by selecting other predefined autostyles. Web comes with a variety of autostyles that you can use.

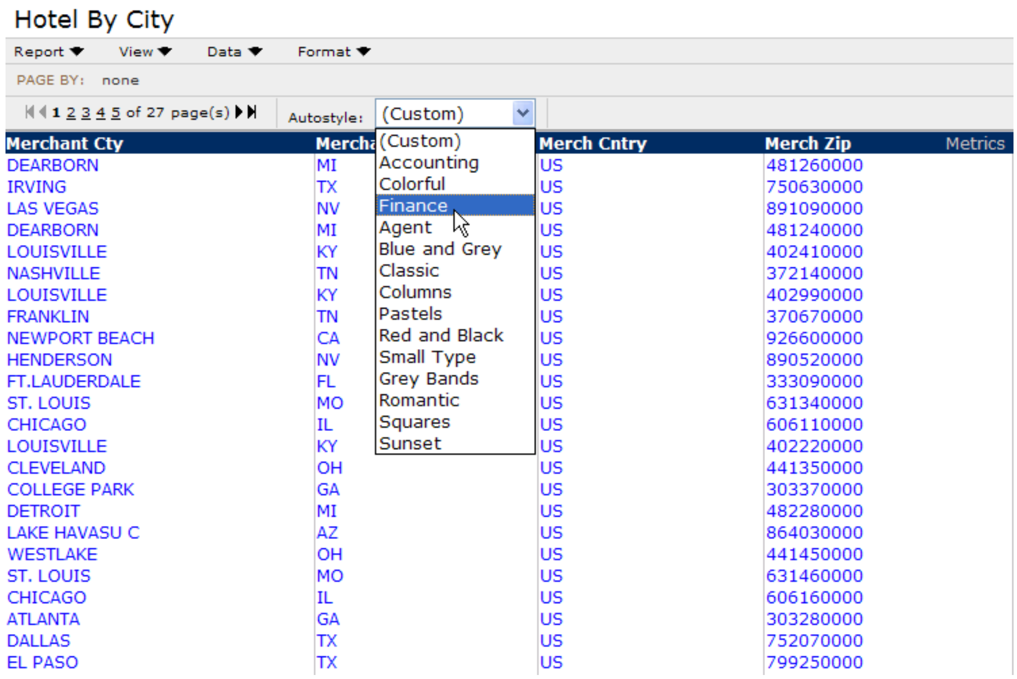


To change the autostyle of a report:

1. On the **View** menu, point to **Toolbars** and click **Report**.

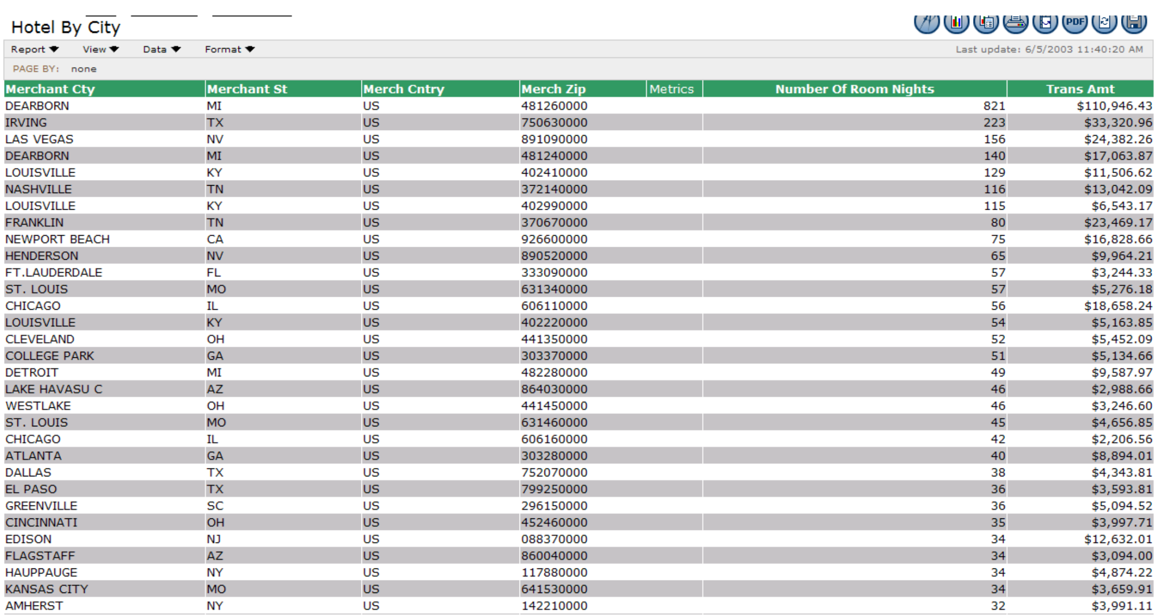
NOTE: This action displays the **Report** toolbar, which enables you to change the autostyle of a report.

2. On the **Report** toolbar, in the **Autostyle** box, select the autostyle you want to use.



Merchant Cty	Mercha	Merch Cntry	Merch Zip	Metrics
DEARBORN	MI	US	481260000	
IRVING	TX	US	750630000	
LAS VEGAS	NV	US	891090000	
DEARBORN	MI	US	481240000	
LOUISVILLE	KY	US	402410000	
NASHVILLE	TN	US	372140000	
LOUISVILLE	KY	US	402990000	
FRANKLIN	TN	US	370670000	
NEWPORT BEACH	CA	US	926600000	
HENDERSON	NV	US	890520000	
FT.LAUDERDALE	FL	US	333090000	
ST. LOUIS	MO	US	631340000	
CHICAGO	IL	US	606110000	
LOUISVILLE	KY	US	402220000	
CLEVELAND	OH	US	441350000	
COLLEGE PARK	GA	US	303370000	
DETROIT	MI	US	482280000	
LAKE HAVASU C	AZ	US	864030000	
WESTLAKE	OH	US	441450000	
ST. LOUIS	MO	US	631460000	
CHICAGO	IL	US	606160000	
ATLANTA	GA	US	303280000	
DALLAS	TX	US	752070000	
EL PASO	TX	US	799250000	

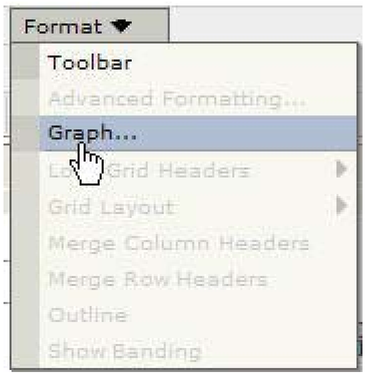
The report display automatically updates to show the report using the selected autostyle.

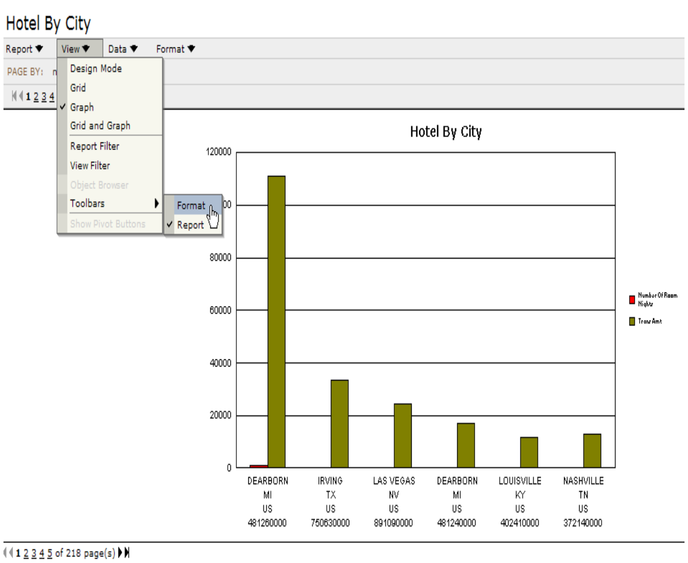


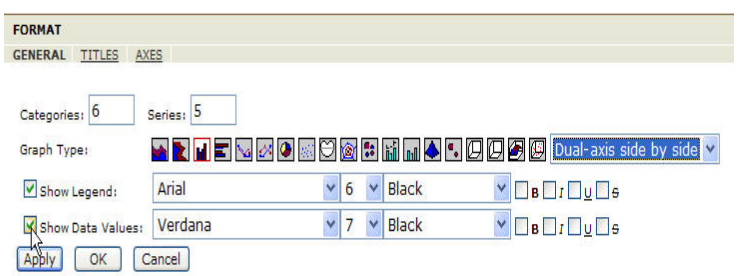
Merchant Cty	Merchant St	Merch Cntry	Merch Zip	Metrics	Number Of Room Nights	Trans Amt
DEARBORN	MI	US	481260000		821	$110,946.43
IRVING	TX	US	750630000		223	$33,320.96
LAS VEGAS	NV	US	891090000		156	$24,382.26
DEARBORN	MI	US	481240000		140	$17,063.87
LOUISVILLE	KY	US	402410000		129	$11,506.62
NASHVILLE	TN	US	372140000		116	$13,042.09
LOUISVILLE	KY	US	402990000		115	$6,543.17
FRANKLIN	TN	US	370670000		80	$23,469.17
NEWPORT BEACH	CA	US	926600000		75	$16,828.66
HENDERSON	NV	US	890520000		65	$9,964.21
FT.LAUDERDALE	FL	US	333090000		57	$3,244.33
ST. LOUIS	MO	US	631340000		57	$5,276.18
CHICAGO	IL	US	606110000		56	$18,658.24
LOUISVILLE	KY	US	402220000		54	$5,163.85
CLEVELAND	OH	US	441350000		52	$5,452.09
COLLEGE PARK	GA	US	303370000		51	$5,134.66
DETROIT	MI	US	482280000		49	$9,587.97
LAKE HAVASU C	AZ	US	864030000		46	$2,988.66
WESTLAKE	OH	US	441450000		46	$3,246.60
ST. LOUIS	MO	US	631460000		45	$4,656.85
CHICAGO	IL	US	606160000		42	$2,206.56
ATLANTA	GA	US	303280000		40	$8,894.01
DALLAS	TX	US	752070000		38	$4,343.81
EL PASO	TX	US	799250000		36	$3,593.81
GREENVILLE	SC	US	296150000		36	$5,094.52
CINCINNATI	OH	US	452460000		35	$3,997.71
EDISON	NJ	US	088370000		34	$12,632.01
FLAGSTAFF	AZ	US	860040000		34	$3,094.00
HAUPPAUGE	NY	US	117880000		34	$4,874.22
KANSAS CITY	MO	US	641530000		34	$3,659.91
AMHERST	NY	US	142210000		32	$3,991.11

Formatting a Graph Report

You can also customize the format of a report in Graph mode. Just like with Grid mode, the report automatically displays with a default graph format, but you can change various settings such as the graph type, titles, and the legend.







To format a report in Graph mode:

1. Switch the report to Graph mode.
2. On the **Format** menu, click **Graph**.

NOTE: This action displays the **Format** pane. You can also display this pane by right-clicking an object in the report that you want to format and clicking **Advanced Formatting**.

OR

On the **Format** menu, click **Toolbar**.

OR

On the **View** menu, point to **Toolbars** and click **Format**.

NOTE: These actions display the formatting toolbar, which you can also use to format graphs.

3. On the **Format** pane or toolbar, format the graph as desired.

NOTE: You can change the graph type and subtype, format and create titles, display data values, and modify a variety of other graph settings.

The report display is updated as you apply each formatting change.