

IBM Cognos Insight
Version 10.2.1

User Guide



Note

Before using this information and the product it supports, read the information in "Notices" on page 173.

Product Information

This document applies to IBM Cognos Insight Version 10.2.1 and may also apply to subsequent releases.

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Introduction

With IBM® Cognos® Insight, you have the power to analyze data, explore scenarios, and influence decisions by creating managed workspaces.

You can use Cognos Insight workspaces to communicate results to line-of-business managers as interactive managed workspaces. Because Cognos Insight supports write-back, you can also use these workspaces to gather and consolidate management targets, commitments, and forecasts.

Finding information

To find IBM Cognos product documentation on the web, including all translated documentation, access one of the IBM Cognos Information Centers (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>). Release Notes are published directly to Information Centers, and include links to the IBM Support portal.

Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products. Cognos Insight has accessibility features. For information about these features, see Appendix A, “Accessibility features,” on page 151.

IBM Cognos HTML documentation has accessibility features. PDF documents are supplemental and, as such, include no added accessibility features.

Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.

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Chapter 1. New features

There are new features in IBM Cognos Insight version 10.2.1.

To review an updated list of environments that are supported by IBM Cognos Insight, such as operating systems, Cognos servers, and databases, see Cognos Insight system requirements (<http://www.ibm.com/support/docview.wss?uid=swg27038125>).

Print and export workspaces

In an IBM Cognos Insight workspace, you can now print the contents of the current tab. You can also export a workspace tab as a new PDF file or append it to an existing PDF file as a new page.

Related tasks:

“Printing workspace tabs” on page 109

Print the current tab of a workspace to obtain a hard copy snapshot of your workspace.

“Exporting workspaces to PDF files” on page 108

Export the current tab of a workspace to a new PDF file or as a new page in an existing PDF file to obtain a snapshot of the current view of your workspace.

Combination charts

IBM Cognos Insight now includes combination charts, which combine a column chart and a line chart to display data for two measures on the same chart.

You can choose the measure that is represented by the columns and the measure that is represented by the line. For example, your crosstab displays revenue and cost for each of your product lines. With a column chart or a line chart, you can display revenue by product line or cost by product line. With a combination chart, you can display revenue by product line as the columns and cost by product line as the line.

Related concepts:


“Chart types” on page 85

There are many types of charts for presenting your data in a way that is meaningful to you and your users.

Work with attributes

In IBM Cognos Insight, you can now filter by, create, and display attributes.

You can create and use attributes in the following ways:

- View attributes in the content pane as subordinate elements of dimensions.
- Create attributes using the **New Data** icon  or by editing dimensions.
- Create explore points to filter your crosstabs and charts by attributes.
- Drag attributes to crosstabs and the overview area to display each element's attributes in the crosstab.

- Drag attributes to chart legends and chart areas to display attributes when your cursor hovers on a legend or chart element.

Related tasks:

“Creating elements in the model” on page 97

You can add to your model by creating cubes, dimensions, measures, and attributes in the content pane.

“Filtering by dimensions and attributes” on page 59

Use explore points or the explore pane to filter the data that is displayed in the crosstabs and charts in your workspace. Explore points and the explore pane also identify how your dimensions and attributes are related and where they are not connected.

Spread data

You can use several new data spreading types in IBM Cognos Insight to distribute data across a range of cells. The data spreading types include relative proportional spread, equal leaves, equal spread, repeat, straight line, and growth percentage.

Related concepts:

“Data spreading” on page 73

Use the predefined data spreading options in IBM Cognos Insight to distribute numeric data to cells in a crosstab. For example, you can use data spreading to evenly distribute a value across a range of cells or to increment all values in a range of cells by a desired percentage.

Support for bidirectional languages

You can now enable bidirectional language support in IBM Cognos Insight to change the text direction in your workspaces.

In most widgets, text direction is set by each user, so the text direction that you choose is only a setting on your computer. However, the text direction is saved with the workspace or report when you publish it to IBM Cognos Business Intelligence.

In text widgets, you can set text direction and save the direction with the workspace, so other users will see the text direction that you chose.

Related tasks:

“Enabling bidirectional languages” on page 14

Enable bidirectional languages in IBM Cognos Insight to change the text direction in a workspace.

Support for digit shaping

IBM Cognos Insight supports the digit shaping options that you set in your operating system.

For example, if you set your operating system to use Arabic digits, then the numbers in Cognos Insight are displayed in Arabic.

Most digits in Cognos Insight change automatically when you change your operating system settings. However, you must restart Cognos Insight to refresh digits in charts.

Import external data

When you are contributing to an IBM Cognos TM1[®] plan in IBM Cognos Insight, you can now import data from an ASCII file on your computer into your part of the plan.

Related tasks:

“Importing external data into a plan” on page 133

When you access IBM Cognos Insight from IBM Cognos TM1 in connected or distributed mode, you can import data to the plan from an ASCII file on your computer.

Drill through to view details

If the IBM Cognos TM1 administrator created drill through links in IBM Cognos TM1 Performance Modeler, users can now right-click crosstab cells to view related data in another cube.

Related tasks:

“Viewing related data” on page 135

If links are defined in the cube, then when you are working in IBM Cognos Insight in connected or distributed mode, you can access additional details from another cube.

Viewing related data

If links are defined in the cube, then when you are working in IBM Cognos Insight in connected or distributed mode, you can access additional details from another cube.

Distributed mode improvements

In the IBM Cognos TM1 Applications portal, you can now start IBM Cognos Insight in distributed mode from a parent element. You can also now open a **Central** application type in distributed mode.

In previous versions of Cognos Insight, you could only start Cognos Insight in distributed mode from the leaf data nodes. Now you can open Cognos Insight in distributed mode from a parent node to work on all of that parent node's child data nodes.

For example, your data model includes a Europe level that contains the following child nodes: France, Germany, and Spain. Previously, to work on the France, Germany, and Spain nodes in Cognos Insight in distributed mode, you had to open each node, one at a time. Now, you can open Cognos Insight in distributed mode from the Europe node to work on all of the child nodes at the same time.

Related concepts:

“Contribute to a workspace on a Cognos TM1 server” on page 125

When your IBM Cognos TM1 server administrator distributes an enterprise-wide plan in a Cognos Insight workspace, you can review, analyze, and update the portion of the plan that was assigned to you.

“Contribute to a workspace on a Cognos Express server” on page 111

When your IBM Cognos Express® server administrator distributes an enterprise-wide plan in a Cognos Insight workspace, you can review, analyze, and update the portion of the plan that was assigned to you.

Scorecards

When you connect to an IBM Cognos TM1 server in IBM Cognos Insight, you can view and use scorecards that you created in IBM Cognos TM1 Performance Modeler.

Scorecards that you create in Cognos TM1 Performance Modeler are displayed in the content pane of Cognos Insight. Each scorecard can contain the following items that you can drag to your workspace: impact diagrams, strategy maps, and custom diagrams that use a custom graphic as the background.

Related concepts:

Scorecard widgets

Scorecard widgets are objects that can be created in IBM Cognos TM1 Performance Modeler. When you connect to a Cognos TM1 server, you can add scorecard widgets to IBM Cognos Insight workspaces.

Related tasks:

“Adding scorecards” on page 132

When you connect to an IBM Cognos TM1 server in IBM Cognos Insight, you can view and use scorecards that you create in IBM Cognos TM1 Performance Modeler in your workspace.

Chapter 2. What is Cognos Insight?

IBM Cognos Insight is a stand alone tool that enables you to work with complicated data sources in easy to use workspaces. Cognos Insight is also a valuable member of the Cognos family, integrating with IBM Cognos Express, IBM Cognos TM1, and IBM Cognos Business Intelligence.

IBM Cognos family

The IBM Cognos family of products includes IBM Cognos Insight, IBM Cognos Express, and IBM Cognos Enterprise. IBM Cognos Enterprise can be IBM Cognos TM1, IBM Cognos Business Intelligence, or both.

The IBM Cognos family of products provides integrated solutions that are the right size for your organization. The solutions are scalable and deployable in different sized environments, from a desktop to a single server to a server farm. Because the solutions share a common foundation, you can start with a limited solution that addresses an immediate need, and then expand your solution over time. For example, you might expand your solution in the following way:

- Start by using IBM Cognos Insight for data discovery, visualization, and planning.
- Add a server that uses IBM Cognos Express to share the insights that your users acquire. Create additional analytics to help with planning, analysis, and reporting from large data sets.
- As your user community grows or your analytic requirements change, expand your capabilities by using IBM Cognos Enterprise (IBM Cognos TM1 and IBM Cognos Business Intelligence). From a server you can remotely install Cognos Insight on desktops across your organization. You can acquire insights from real-time corporate information, visualize your insights on scorecards, and collaborate with members of your organization through mobile devices.

The following table provides a comparison of products in the IBM Cognos family.

Table 1. Comparison of the key capabilities of Cognos Insight, Cognos Express, and Cognos Enterprise

Key capabilities	Cognos Insight	Cognos Express	Cognos Enterprise
Dashboards	Yes	Yes	Yes
Analysis	Yes	Yes	Yes
What-if scenario modeling	Yes	Yes	Yes
Planning and budgeting	Yes	Yes	Yes
Production reports		Yes	Yes
Microsoft Office integration		Yes	Yes
Support for Apple iPad		Yes	Yes
Support for other mobile devices			Yes

Table 1. Comparison of the key capabilities of Cognos Insight, Cognos Express, and Cognos Enterprise (continued)

Key capabilities	Cognos Insight	Cognos Express	Cognos Enterprise
Enterprise-wide collaboration			Yes
Scorecarding	Yes		Yes
Software Development Kit			Yes

The Cognos family addresses the business intelligence and performance management needs of the following entities:

- Individuals who require personal, desktop analytics can meet their needs with Cognos Insight.
- Midsize organizations or workgroups within larger organizations can meet their needs for integrated reporting, analysis, and planning by using Cognos Express.
- Large enterprises that need to deploy analytics capabilities to hundreds or thousands of people can meet their needs with Cognos Enterprise.

The Cognos family workflow

IBM Cognos Insight integrates with IBM Cognos Express, IBM Cognos TM1, and IBM Cognos Business Intelligence.

The following workflow example illustrates how Cognos Insight works with other products in the Cognos family.

1. User A creates a workspace (or CDD file) in Cognos Insight that shows worldwide sales by salesperson and by country or region. User A decides to ask for a manager's input before finalizing the workspace. So User A emails the workspace to User B, a manager.

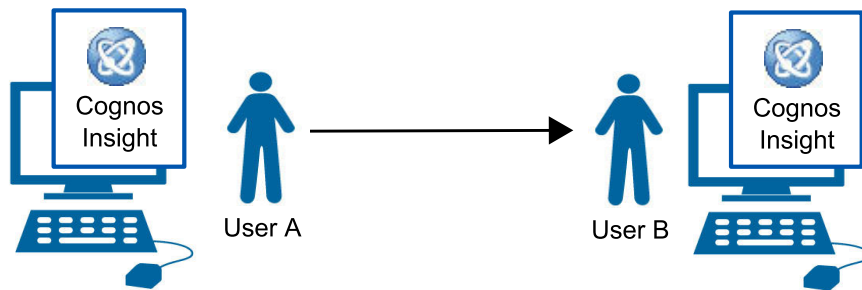


Figure 1. Workflow of User A sending a workspace to User B

2. User B reviews the workspace and makes some minor changes to how the data is displayed. Then User B emails the workspace back to User A.

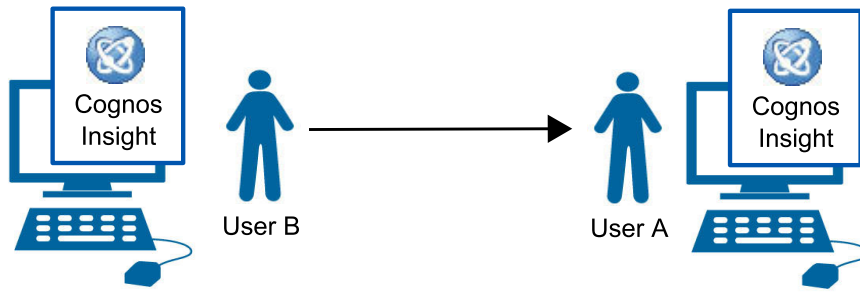


Figure 2. Workflow of User B sending the workspace to User A

3. User A likes the changes that User B made, and wants to share the workspace with other employees. User A has permission to add files to his company's Cognos Business Intelligence server, so User A uses the **Share** feature in Cognos Insight to add the workspace to the Sales folder in Cognos Connection.

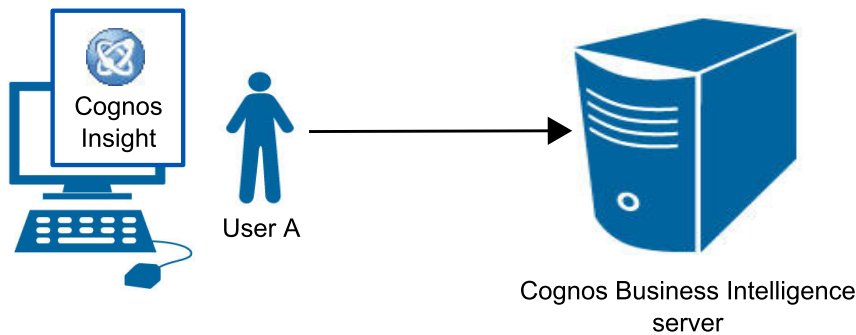


Figure 3. Workflow of User A adding the workspace to Cognos Connection

4. User C finds the workspace on Cognos Connection, and decides that the International Sales team would also benefit from the information in the workspace. User C opens the workspace from Cognos Connection and updates the data from the company's sales database. User C then asks the Cognos TM1 server administrator to publish and distribute the workspace to the Cognos TM1 server and Cognos BI server so that other users can access the data online.

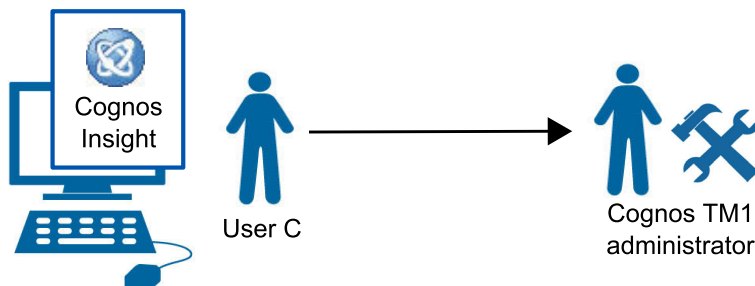


Figure 4. Workflow of User C sending the workspace to the server administrator

5. The Cognos TM1 server administrator publishes and distributes the workspace and model to the Cognos TM1 server and the Cognos BI server. Publishing and distributing adds an application and the data model to the Cognos TM1 server, and adds a data source connection and reports to the Cognos BI server. The administrator also schedules a refresh of the data in the model from the

company's database so that users can refresh the report data.

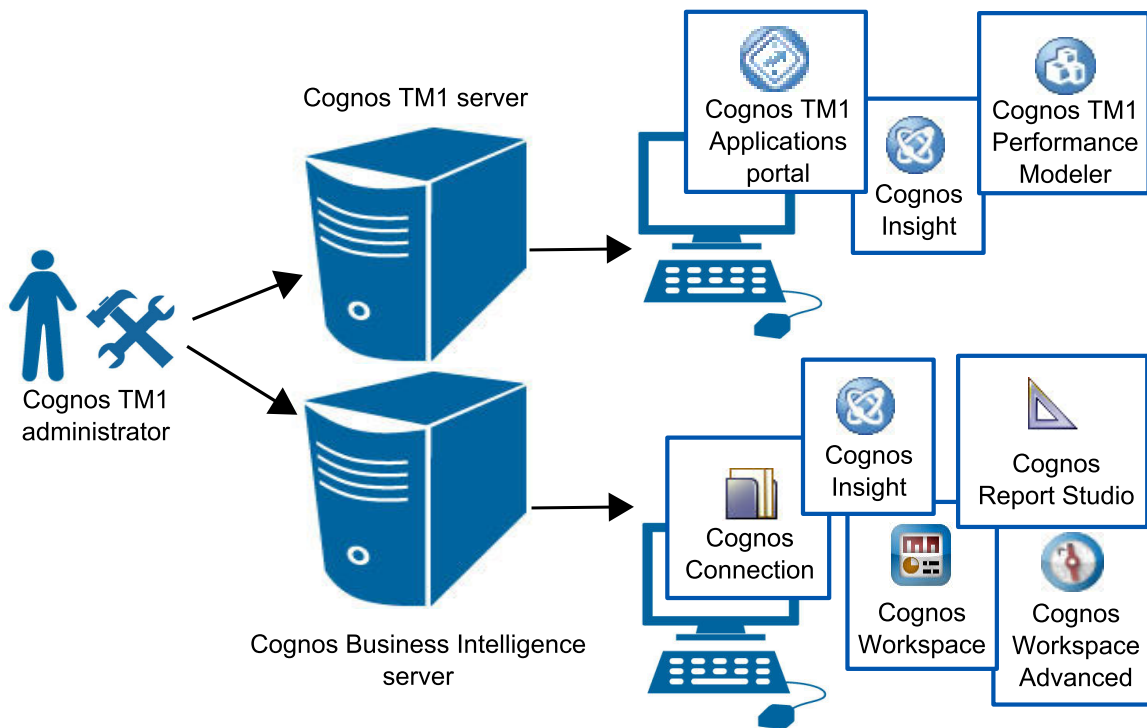


Figure 5. The server administrator publishes and distributes the workspace

6. User C finds one of the published reports on Cognos Connection and schedules a PDF report to be regularly burst to the International Sales team.

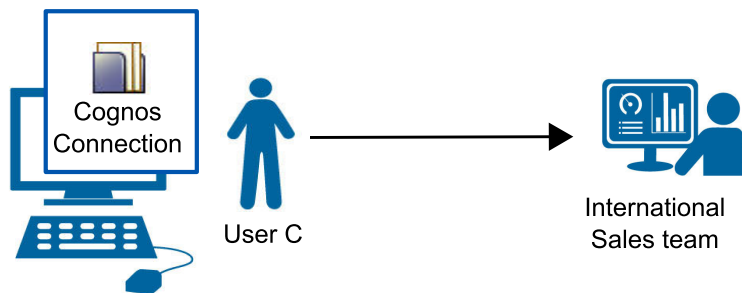


Figure 6. User C bursts a report to the International Sales team

Chapter 3. Start Cognos Insight

IBM Cognos Insight is available as a stand alone product, or you can install and start it from IBM Cognos Express, IBM Cognos TM1, or IBM Cognos Business Intelligence, depending on your access to these other IBM Cognos products.

The following list describes the different ways that you can start Cognos Insight. How you start Cognos Insight depends on whether Cognos Insight is connected to other Cognos products, such as Cognos TM1, Cognos Express, and Cognos BI.

Personal Edition

Start Cognos Insight Personal Edition from the Microsoft Windows **Start** menu to explore the features of Cognos Insight and create workspaces for personal use.

Standard Edition

Start Cognos Insight Standard Edition from the Microsoft Windows **Start** menu to create workspaces and share them with other Cognos Insight users.

Cognos Insight and Cognos Express

If you are connected to Cognos Express, start Cognos Insight from the Cognos Express Welcome page or from IBM Cognos Connection to create workspaces, share workspaces with others, or contribute to plans.

Cognos Insight and Cognos TM1

If you are connected to Cognos TM1, start Cognos Insight from the Cognos TM1 Applications portal to create workspaces and contribute to plans.

Cognos Insight and Cognos BI


If you are connected to Cognos BI, start Cognos Insight from Cognos Connection to create workspaces and share them on Cognos Connection.

The Cognos Insight window

Familiarize yourself with the parts of the IBM Cognos Insight window.

The Cognos Insight window includes the following parts:


The actions icon

Clicking the **Actions** icon  expands a menu that includes options to create, open, save, print, export, and close workspaces.

A crosstab and chart widget

Widgets are the pieces of a Cognos Insight workspace. One type of widget contains a crosstab, or grid, and a chart. The data in the crosstab is linked to the data that appears in the chart, so when you change the data in the crosstab, the chart data changes as well, and when you change the data in the chart, the crosstab changes as well.

A widget toolbar

The widget toolbar appears when you are working in a widget. It includes icons that are particular to the widget, such as the **Change chart** icon , which enables you to change the type of the chart that appears in the widget.

The overview area

The overview area is displayed above a crosstab or chart. The overview area tells you what dimensions and measures appear in the crosstab, chart, or crosstab and chart. The overview area is divided into three sections: rows, columns, and context. These sections represent the dimensions and measures that appear in the rows, columns, and context of the crosstab, chart, or crosstab and chart. For example, if the Products dimension appears in the rows section of the overview area, then products also appear in the rows of the crosstab.

The content pane

The content pane displays all of the cubes, dimensions, measures, and attributes that you can work with in the current workspace. From the content pane, you can also import, create and delete, move, and edit the elements in the content pane. The content pane also displays import processes, which enables you to refresh data from a specific import.

Explore points

An explore point is a list of the elements in a dimension. You can click the elements to filter the data in the crosstab, chart, or crosstab and chart.

Tabs Workspaces can be divided into several tabs. From the tabs area, you can create, delete, and rename tabs.

The tab thumbnails icon

Clicking the tab thumbnails icon displays small graphics of each tab so that you can navigate to another tab using these graphics instead of the tab names.

The following figure displays the locations of the parts of the Cognos Insight window.

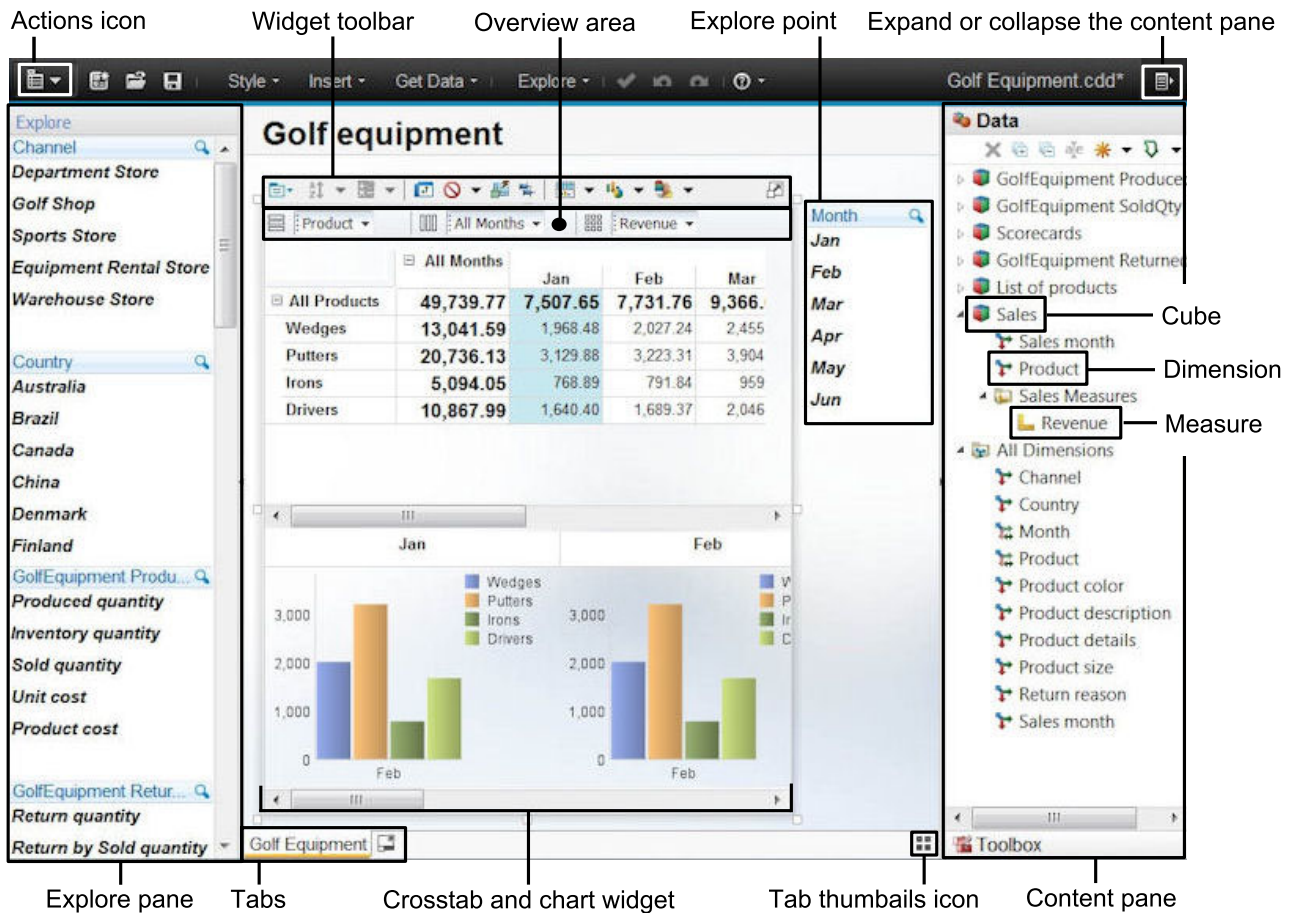


Figure 7. The parts of the Cognos Insight window

Set Cognos Insight preferences

You can customize IBM Cognos Insight, including enabling and disabling specific behaviors, setting regional options, and setting up connections to other IBM Cognos products.

You can set the following options in the **My Preferences** window, which you can access from the **Actions** icon :

- Display visual cues for improved accessibility.
- Disable the Getting Started page that displays when Cognos Insight starts.
- Disable hierarchy detection when you import data.
- Disable synchronization for new views.
- Change the default action for double-clicking a crosstab cell. The default action is to edit the cell, and you can change the default action to drill down.
- Change the initial view of dimensions after you import data. The default action is to expand hierarchies to the first level, and you can change the default action to collapse all the levels or expand all the levels.
- Change the content language of workspaces.
- Enable bidirectional language support, and choose a text direction for workspace content.

- Add URIs to connect to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Business Intelligence servers.
- Disable or enable automatic software updates.


Set your language and cultural preferences

IBM Cognos Insight uses different settings to determine your language and cultural standard depending on where you access Cognos Insight. This information will help you understand where Cognos Insight finds your language and cultural preferences so that you can change them, if necessary.

Cognos Insight Standard Edition and Personal Edition

When you install or start Cognos Insight from your own computer, your Microsoft Windows operating system's regional preferences determine the language and cultural standards for Cognos Insight. For example, if your regional preference is French (Canada), the Cognos Insight user interface will be in French, and the date, time, number, and currency format will reflect the French Canadian cultural standards.

For information about setting your Microsoft Windows operating system's regional preferences, see your Microsoft Windows operating system documentation.


You can set the content language in Cognos Insight by clicking the **Actions** icon , clicking **My Preferences**, and then choosing from the list of content languages.

Cognos Insight and Cognos Express

When you install or start Cognos Insight from the IBM Cognos TM1 Applications portal, the product language and content language that you set in the portal determine the language and cultural standards for Cognos Insight. For example, if you set the product language to French (Canada) and the content language to English (Canada), the Cognos Insight user interface appears in French and the cultural standards are Canadian English. If the language settings change, you can close and reopen a workspace in Cognos Insight to refresh the language and cultural standards.

For information about setting the product and content language in the Cognos TM1 Applications portal, see the *IBM Cognos TM1 Applications Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

If you are not connected to a Cognos Express server, you can set the content

language in Cognos Insight by clicking the **Actions** icon , clicking **My Preferences**, and then choosing from the list of content languages. The preference will override the cultural standards that are defined by your operating system or portal. This is useful when you are creating a workspace for users in another region or country, and you want to see how the workspace will appear to those users. For example, you are working in Ottawa, Canada, in French (Canadian), but the workspace you are creating will be consumed by a group of employees in France. You can set the content language of Cognos Insight to be French (France) to see your workspace as it will appear to your users.


When you start Cognos Insight from IBM Cognos Connection, the Cognos Connection product and content languages determine the language and cultural standards for Cognos Insight. For example, if you set the product language to Japanese and the content language to French (France), the Cognos Insight user interface is Japanese and the cultural standards are French (France). If the language settings change, you can close and reopen a workspace in Cognos Insight to refresh the language and cultural standards.

For information about setting the product and content language in Cognos Connection, see the *IBM Cognos Business Intelligence Administration and Security Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Cognos Insight and Cognos TM1

When you install or start Cognos Insight from the IBM Cognos TM1 Applications portal, the product language and content language that you set in the portal determine the language and cultural standards for Cognos Insight. For example, if you set the product language to French (Canada) and the content language to English (Canada), the Cognos Insight user interface appears in French and the cultural standards are Canadian English. If the language settings change, you can close and reopen a workspace in Cognos Insight to refresh the language and cultural standards.

For information about setting the product and content language in the Cognos TM1 Applications portal, see the *IBM Cognos TM1 Applications Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

If you are not connected to a Cognos TM1 server, you can set the content language in Cognos Insight by clicking the **Actions** icon , clicking **My Preferences**, and then choosing from the list of content languages. The preference will override the cultural standards that are defined by your operating system or portal. This is useful when you are creating a workspace for users in another region or country, and you want to see how the workspace will appear to those users. For example, you are working in Ottawa, Canada, in French (Canadian), but the workspace you are creating will be consumed by a group of employees in France. You can set the content language of Cognos Insight to be French (France) to see your workspace as it will appear to your users.

Cognos Insight and Cognos BI

When you start Cognos Insight from IBM Cognos Connection, the Cognos Connection product and content languages determine the language and cultural standards for Cognos Insight. For example, if you set the product language to Japanese and the content language to French (France), the Cognos Insight user interface is Japanese and the cultural standards are French (France). If the language settings change, you can close and reopen a workspace in Cognos Insight to refresh the language and cultural standards.

For information about setting the product and content language in Cognos Connection, see the *IBM Cognos Business Intelligence Administration and Security Guide*. To access this document, open the information center for your product and

version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Enabling bidirectional languages



Enable bidirectional languages in IBM Cognos Insight to change the text direction in a workspace.

About this task

You can choose to display the text in Cognos Insight workspaces from right to left or left to right. You can also choose contextual text direction. In some situations, you want to display some text left to right and some text right to left. For example, Arabic, Hebrew, Urdu, and Farsi are languages that are written from right to left. However, numbers in those languages, as well as embedded segments of Latin, Cyrillic, or Greek text, are written from left to right. In these situations, set the text direction contextually, based on the first letter in the text. If the letter belongs to a right to left script, the text direction is right to left. Otherwise, the text direction is left to right. Numbers and special characters do not influence the text direction. For example, if the text starts with a number followed by an Arabic letter, the direction is right to left. If the text starts with a number followed by a Latin letter, the direction is left to right.

Changing the text direction of a workspace affects all of the user-entered information, including the data, widget labels and tooltips, comments, and structured text, such as email addresses, file paths, and URLs. Changing the text direction does not affect the Cognos Insight user interface elements, such as menu items, toolbars, and window text.

Procedure

1. Click the **Actions** icon , and then click **My Preferences**.
2. In the **Bidirectional support** section, select the **Enable bidirectional support** check box.
3. Select an option from the **Base text direction for content** list to specify the text direction in Cognos Insight. When you enable bidirectional support, a **Text direction** icon  is displayed in the toolbar of text widgets.
4. Optional: To override the text direction that you specified for the workspace, in a text widget, click the **Text direction** icon, and then select the text direction.

Chapter 4. Import data

You can import data into IBM Cognos Insight in different ways depending on the data source, the complexity of the data, and how much control you want to have over the way that your data is mapped as dimensions, measures, and attributes.

Before you import data

Before you import source data into IBM Cognos Insight, you should understand what data cannot be imported and how Cognos Insight maps the imported data.

Quick import

You can drag simple data files to the Cognos Insight canvas or on to the Getting Started page to use the **Quick Import** option. Simple data files meet the following conditions:

- Fewer than 10 columns
- Fewer than 100,000 rows (for Microsoft Excel workbooks)
- File size of less than 10 megabytes (for files that contain comma-separated values or tab-separated values)
- Only one column header row
- No merged cells

If the data does not meet these conditions, Cognos Insight opens the **Import** wizard, which guides you through importing a more complex data set.

How Cognos Insight maps your data

When you import data, Cognos Insight uses advanced data intelligence to map your data depending on your source type. During the import, you can override any of the choices that Cognos Insight makes about how to map your data. You can also disable hierarchy detection for all imports in the **My Preferences** window.

The following list defines the different types of data in a model:

Cube A cube is the container that stores your data. A cube is defined by a set of dimensions.

Dimension

A dimension is a descriptive category of data. For example, your cube might include dimensions called Products, Customers, and Location.

Level A level represents related data within a hierarchy. For example, your Products dimension might contain levels called Product Line and Product Type.

Attribute

An attribute is a characteristic of data that the business wants to evaluate. For example, your Products dimension might contain attributes called Color and Size.

Measure

A measure is a value that determines how well your business is operating.

For example, you might use measures such as Quantity Sold or Revenue to review the performance of your business.

If you import a Cognos list report or package, Cognos Insight uses the model that was defined in the source. Cognos Insight maps other data sources in the following ways by default:

- The first column in the source file and the measures appear in a crosstab. The other columns are available as dimensions in the overview area.
- Columns of text are added as dimensions.
- Columns of numbers are added as measures if they are values. For example, Cognos Insight can interpret a column called Revenue as a measure, and a column called Telephone number as an attribute.
- When the data that you are importing into Cognos Insight contains any date that is expressed in a typical format, Cognos Insight will generate a full Gregorian calendar with hierarchies. This enables you to view your data by quarter, year, or month, even when the data you imported did not contain that information.
- The first row of data is used as headers for each column.
- A total is added to each dimension.
- The most logical roll-up type for each of your measures is chosen. For example, if your source data includes a column for Price and a column for Cost, Cognos Insight might choose an Average roll-up type for the Price measure and a Sum roll up-type for the Cost measure.
- Caption attributes are preserved.
- Business keys are preserved.

Importing delimited text files

You can import delimited text files, including the following file formats: CSV, TAB, CMA, ASC, and TXT. You can let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

Cognos Insight does not support importing TXT and CSV files with legacy encoding if the Microsoft Windows regional settings and system locale do not match the file encoding. To resolve this issue, save the file with UTF-8 encoding or change the Microsoft Windows regional settings and system locale to match the file's encoding.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

Procedure

1. Click **Get Data**, and then click **Import Data**.

2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **File**.
4. Click **Browse**, and select the file that you want to import.
5. Expand the **File Details** section.
6. Specify the comma delimiter.
7. Optional: If you want to use the decimal separator and thousands separator for a specific locale, select that locale from the **Format** field.
8. Specify the first row of data. You can use this field to avoid importing introductory text or multiple header rows from your text file.
9. Specify whether the data contains column labels, or headings.
10. Optional: If you are working in connected mode and you want to schedule a process that reimports data, specify the location of the file to be accessed by the remote IBM Cognos TM1 server. For more information about working in connected mode, see “Contribute to a workspace on a Cognos Express server” on page 111 or “Contribute to a workspace on a Cognos TM1 server” on page 125.
11. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
12. To make changes to the default mappings, click **Advanced**.
By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
13. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.
14. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default dimension_name**.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

15. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.
 - d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
 - e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.
 - f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
 - g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
16. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.

17. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.

18. To define a level, complete the following actions:

- a. Select the item in the **Source Items** pane.
- b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.

- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

19. To add an attribute to a level, complete the following actions:

- a. Select the item that you want to make an attribute in the **Source Items** pane.
- b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**.

When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.

20. To define measures for the cube, complete the following actions:

- a. Select the item that you want to make a measure in the **Source Items** pane.
- b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* **Measures** dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

21. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.

22. To add a calculated column, complete the following actions:

- a. Click **Add calculated column**.
- b. In the **Properties** pane, define the data type and mapping type of the expression.
- c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.

- d. Click **Preview** to see the results of the expression.

23. Complete one of the following actions:

- If you want to create a crosstab from your imported data, click **Import**.
- If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing Microsoft Excel files

You can import Microsoft Excel files and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

You cannot schedule an import from a Microsoft Excel file. You must use a **Guided Refresh** or a **Silent Refresh** to update data from a Microsoft Excel data source.

Some formulas and functions that are used in Microsoft Excel workbooks are not imported. The solution is to create a copy of the affected column in the Microsoft

Excel workbook and use the Paste Special command to paste the values of the affected column into the new column. You can also save the workbook as a CSV file and then import the CSV file.

In a **Quick Import**, if the Microsoft Excel workbook contains several worksheets, only the data on the current worksheet is imported. For example, if you want to import the data that is on worksheet 3, save the workbook with worksheet 3 as the visible worksheet. When you import from the workbook, only the data on worksheet 3 is imported. Another option is to use the **Import Dimensions** or **Import Data** commands.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

Procedure

1. Click **Get Data**, and then click **Import Data**.
 2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
 3. In the **Type** field, select **File**.
 4. Click **Browse**, and select the file that you want to import.
 5. Expand **File Details**.
 6. Specify whether the data contains column labels.
 7. Specify whether the data is structured as a list or a crosstab.
 8. Optional: Specify the worksheet, rows, and columns to use.
 9. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
 10. To make changes to the default mappings, click **Advanced**.

By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
 11. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.
- Tip:** You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.
12. To review the properties of the cube:

- a. Select the cube in the **Mapping** field.
- b. Click **Show Properties**.
- c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
- d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default *dimension_name***.
- e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

- 13. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.
 An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.
 - d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
 - e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
- g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can

also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.

- h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
14. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
15. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
16. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.
- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

17. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.
- e. Select the dimension and level that this attribute belongs to.
18. To define measures for the cube, complete the following actions:

- a. Select the item that you want to make a measure in the **Source Items** pane.
- b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* **Measures** dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

19. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.

20. To add a calculated column, complete the following actions:

- a. Click **Add calculated column**.
- b. In the **Properties** pane, define the data type and mapping type of the expression.
- c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.

- d. Click **Preview** to see the results of the expression.

21. Complete one of the following actions:

- If you want to create a crosstab from your imported data, click **Import**.
- If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing from relational data sources

Importing relational data requires that you understand your relational data source and be able to define queries. Ensure also that ODBC connections are set up for the data sources that you want to import from.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.


Attention: If you are using a 64-bit version of the Microsoft Windows operating system, and you want to use 32-bit ODBC drivers to connect to your data source, the following additional steps are necessary:

1. Define the 32-bit ODBC connection to the data source. For more information, see the documentation for your version of the Microsoft Windows operating system.
2. From the Cognos Insight installation location, find and open the `config.ini` file in a text editor.
3. Add the following line to the end of the file:
`DTM1_DISABLE_64BIT=true`
4. Save and close the file.
5. Import the relational data source.
6. To connect to 64-bit ODBC connections, remove the `DTM1_DISABLE_64BIT=true` line from the `config.ini` file.

About this task

When you are working in connected mode, you can use the ODBC relational data sources that are defined on the server. For more information about working in connected mode, see “Contribute to a workspace on a Cognos Express server” on page 111 or “Contribute to a workspace on a Cognos TM1 server” on page 125.

Procedure

1. Click **Get Data**, and then click **Import Data**.
2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Source type** field, select **Relational data source (ODBC)**.
4. Select an ODBC relational data source from the list that is defined for your system.
5. Open the Query Builder. You can also type the SQL for the query.
6. To specify the columns to use in the query to get data, click the **Data View** tab and drag the columns or tables from the **Metadata Explorer** field to the grid. You can add the columns themselves or tables. The query uses the columns that you add directly to the grid to get data. The query also uses the columns that belong to the tables that you add to the grid.
7. To create joins based on relationships between columns in the tables, click the **Query Diagram** pane and do the following actions:
 - a. Drag tables from the **Metadata Explorer** field to the diagram. The query uses the tables that you add to the diagram to connect other tables. The query does not use the columns that belong to these tables to get data.
 - b. Select the items for the relationship and click the **Create join** icon .
 - c. Specify the cardinality for the relationship. Cardinality is used to avoid double-counting fact data, to support loop joins that are common in star schema models, to optimize access to the underlying data source system, and to identify items that behave as facts or dimensions.

For more information about relationships and cardinality, see the *IBM Cognos Framework Manager User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

8. To edit the SQL query manually, click the **SQL View** tab. The actions that you complete in the **Data View** tab or the **Query Diagram** tab are reflected in the **SQL View** tab.
9. If you are satisfied with the query, click **OK**.
10. To preview the data that is returned by the query that you created manually or in the Query Builder, click **Refresh**.
11. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
12. To make changes to the default mappings, click **Advanced**.
By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
13. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

14. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default dimension_name**.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.
CAUTION:
If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.
15. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.

- c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
 - g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
16. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
 17. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
 18. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.

- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

19. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
20. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* Measures dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

21. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.
22. To add a calculated column, complete the following actions:
 - a. Click **Add calculated column**.
 - b. In the **Properties** pane, define the data type and mapping type of the expression.
 - c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.
 - d. Click **Preview** to see the results of the expression.
23. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.
 - If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing IBM SPSS statistics

You can import IBM SPSS® statistics and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

Before you can import from an IBM SPSS data source, you must ensure that you have downloaded the ODBC driver, which is included in the IBM SPSS Access Pack Package. The SPSS Access Pack Package is available when you purchase IBM SPSS Statistics or IBM SPSS Modeler. Once you have downloaded the ODBC driver, you must also define an ODBC connection to the data source. For more information about defining ODBC connections, see the user documentation for your operating system.

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

Procedure

1. Click **Get Data**, and then click **Import Data**.

2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **IBM SPSS Statistics**. The Connection Editor window appears.
4. In the Connection Editor window, select the data source and enter your credentials.
5. To define or change the queries for the data source, open the query builder.
6. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
7. To make changes to the default mappings, click **Advanced**.
By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
8. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.
9. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default dimension_name**.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:
If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.
10. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces

the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
 - g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
11. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
 12. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
 13. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.

- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

14. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
15. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or

missing rows. To generate a count measure, select the *cube_name* Measures dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

16. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.
17. To add a calculated column, complete the following actions:
 - a. Click **Add calculated column**.
 - b. In the **Properties** pane, define the data type and mapping type of the expression.
 - c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.
 - d. Click **Preview** to see the results of the expression.
18. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.
 - If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing Cognos reports

You can import IBM Cognos reports and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

Only list reports that were created in IBM Cognos Report Studio and IBM Cognos Workspace Advanced can be imported. If the report contains prompts, you must answer the prompts before you can import. Single- and multivalued prompts offer a list of possible answers to select from. For other prompt types, such as text or date prompts, you must answer the prompts by typing the prompt value in the format that the prompt expects.

If you import a Cognos report that includes layout calculations, the layout calculations will not be imported. This is because reports are converted to CSV format during import into Cognos Insight, and CSV does not support layout calculations. To resolve this issue, change any layout calculations to query calculations prior to import.

You cannot schedule an import of a report when in connected mode. You must use the **Edit Import** command or the **Run Import** command.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the

decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

When you import a package or report, the data extraction performance is similar to exporting a Cognos Report Studio report to a CSV file.

Procedure

1. Click **Get Data**, and then click **Import Data**.
2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **IBM Cognos Report Data**.
4. Enter the IBM Cognos Business Intelligence server address in the following format: `http://host/ibmcognos/cgi-bin/cognos.cgi` where *host* is the server name.

Tip: You can save IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI server addresses in **My Preferences**.

5. Log on to the Cognos BI server to access the reports.
6. Click **Select**. A list of reports on the Cognos BI server is displayed.
7. Select the report that you want to import, and click **OK**.
8. If the report contains prompts, click **Prompts** to answer the prompts.
9. If the report you are importing has multiple data sources or data sources that require you to authenticate, you are prompted to select a data source and choose or enter your credentials. Click **Data Source Connections** to change the data source and choose or enter the associated user name and password.
10. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
11. To make changes to the default mappings, click **Advanced**.

By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
12. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

13. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.

- b. Click **Show Properties**.
- c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
- d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default *dimension_name***.
- e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

14. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.
 - d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
 - e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
- g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the

following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.

- h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
15. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
16. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
17. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.
- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

18. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
19. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* **Measures** dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

20. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.

21. To add a calculated column, complete the following actions:

- a. Click **Add calculated column**.
- b. In the **Properties** pane, define the data type and mapping type of the expression.
- c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.

- d. Click **Preview** to see the results of the expression.
22. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.
 - If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing Cognos packages

You can import IBM Cognos packages and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

You cannot schedule an import from a Cognos package. You must use a **Guided Refresh** or a **Silent Refresh** to update data from a Cognos package.

When you import a package or report, the data extraction performance is similar to exporting a Cognos Report Studio report to a CSV file.

Procedure

1. Click **Get Data**, and then click **Import Data**.
2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **IBM Cognos Package Data**.
4. Enter the IBM Cognos Business Intelligence server address in the following format: `http://host/ibmcognos/cgi-bin/cognos.cgi` where *host* is the server name.

Tip: You can save IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI server addresses in **My Preferences**.

5. In the **Query Definition** area, select the dimension that you want to import. Import one dimension at a time unless the dimensions share a common measure. If you choose to import more than one dimension, Ctrl+click the dimensions. If you select more than one dimension and you do not select a measure to import, an error message will appear warning you that the query may be slow or contain excessive rows.
6. If the package contains prompts, click **Prompts** to answer the prompts.
7. If the package you are importing has multiple data sources, multiple user names and passwords, or requires you to authenticate, you are prompted to select a data source and choose or enter your credentials. Click **Data Sources** to change the data source and choose or enter the associated user name and password.
8. Click **Preview** to view your data in the **Data Preview** area. To improve performance, the data preview does not refresh automatically.
9. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
10. To make changes to the default mappings, click **Advanced**.

By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
11. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.

- b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
- c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

- 12. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default dimension_name**.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

- 13. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements

were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.

- g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
14. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
 15. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
 16. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.
- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

17. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an

Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
18. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* **Measures** dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

19. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.
20. To add a calculated column, complete the following actions:
 - a. Click **Add calculated column**.
 - b. In the **Properties** pane, define the data type and mapping type of the expression.
 - c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.

- d. Click **Preview** to see the results of the expression.
21. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.

- If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing Cognos TM1 cube views

You can import IBM Cognos TM1 cube views and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

Two import sources are only available when you are connected to an IBM Cognos TM1 server: **IBM Cognos TM1 Cube View** and **IBM Cognos TM1 Dimension Subset**. Cognos TM1 cube views and dimension subsets are defined by the Cognos TM1 administrator. When you connect to the Cognos TM1 server, the cubes, views, dimensions, and subsets that you can see in the import wizard reflect the elements that you have permission to access.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

Procedure

1. Click **Get Data**, and then click **Import Data**.
2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **IBM Cognos TM1 Cube View**.
4. Select the cube and view that you want to import.
5. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
6. To make changes to the default mappings, click **Advanced**.

By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
7. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

8. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default *dimension_name***.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

9. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.

- g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
10. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
 11. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
 12. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.
- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

13. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
14. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* **Measures** dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

15. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.
16. To add a calculated column, complete the following actions:
 - a. Click **Add calculated column**.
 - b. In the **Properties** pane, define the data type and mapping type of the expression.
 - c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.

- d. Click **Preview** to see the results of the expression.
17. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.
 - If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Importing new dimensions into a cube

You can import new dimensions into an existing cube when you want to add more data than you originally imported to an existing workspace.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

About this task

You can import new dimensions when your workspace requires additional data or new data. For example, you imported an IBM Cognos Report Studio report showing revenue by month, and since you imported, a new dimension, geography, has been added to the report. You can refresh the data in your workspace to include the new dimension.

Procedure

1. Click **Get Data**, and then click **Import Dimensions**

Tip: If your data source is a file, you can also drag the file from your computer to the cube in the content pane to launch the import wizard.

2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Data Source** area, select the data type and define where Cognos Insight can access the source data.
4. In the **Columns** pane, select only the dimensions that you want to import.
5. To make changes to the way in which the new dimensions are mapped, click **Advanced**.
6. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. If you want to remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

7. To customize the properties of the new dimension, complete the following actions:
 - a. Select the dimension in the **Target Items** pane.
 - b. If your source data is organized into two columns, one for parent data items and one for the corresponding child data items, expand the **Advanced** section and select the **Parent-Child** check box. This setting adds a **Parent Members** item and a **Child Members** item under the selected dimension in the **Target Items** pane. Drag items from the **Source Items** pane to the **Parent Members** and **Child Members** items in the **Target Items** pane to define the hierarchy.
 - c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A

separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
 - g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
8. To define a level, complete the following actions:
- a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.
- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

9. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
10. Click **Import**. The new dimension appears in the content pane in the **All Dimensions** list.
 11. Drag the new dimension to the appropriate cube, and specify whether to share the dimension between the **All Dimensions** folder and the cube or to copy the dimension into the cube.

Importing Cognos TM1 dimension subsets

You can import IBM Cognos TM1 dimension subsets and let IBM Cognos Insight do most of the mapping, or you can make changes to the default mapping to define the model.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

Two import sources are only available when you are connected to an IBM Cognos TM1 server: **IBM Cognos TM1 Cube View** and **IBM Cognos TM1 Dimension Subset**. Cognos TM1 cube views and dimension subsets are defined by the Cognos TM1 administrator. When you connect to the Cognos TM1 server, the cubes, views, dimensions, and subsets that you can see in the import wizard reflect the elements that you have permission to access.

If your source data contains decimal values but there are no decimal values within the first 100 records, Cognos Insight detects the data as integers. However, the decimal places are preserved, and you can apply formatting to add the decimals. For information about formatting data, see “Changing the format of measures” on page 101.

Procedure

1. Click **Get Data**, and then click **Import Dimensions**

Tip: If your data source is a file, you can also drag the file from your computer to the cube in the content pane to launch the import wizard.

2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. In the **Type** field, select **IBM Cognos TM1 Dimension Subset**.
4. Select the dimension and subset that you want to import.
5. To finish importing your data, complete one of the following actions:
 - To create a crosstab from your imported data, click **Import**.
 - To view the imported data only in the content pane, click **Advanced**, click **Summary**, and then clear the **Open cube viewer upon completion** check box and click **Import**.
6. To make changes to the default mappings, click **Advanced**.

By default, Cognos Insight maps your data as described in “Before you import data” on page 15. You can change the mapping type for a column to dimension, level, attribute, or measure.
7. To change how Cognos Insight maps your data, complete one of the following actions:
 - a. To remove the default mapping, click **Clear All Mappings**.
 - b. When you are importing reports or files, to map your data to a single level, click **Recreate All Mappings**, and then click **Do not Detect Hierarchies**.
 - c. When you are importing reports or files, to return the mappings to the default mappings that Cognos Insight provided, click **Recreate All Mappings**, and then click **Detect Hierarchies**.

Tip: You can disable hierarchy detection for all report and file imports by clearing the **Detect hierarchies during import** check box in the **My Preferences** window.

8. To review the properties of the cube:
 - a. Select the cube in the **Mapping** field.
 - b. Click **Show Properties**.
 - c. To ensure that any zero values in your data are preserved instead of being read as blank cells, select the **Store zero values** check box.
 - d. To replace empty cells in your source data with the default values for empty cells, select the **Replace empty strings with default values** check box. The default value is **Default *dimension_name***.
 - e. If your source data contains only one measure, you can remove the default measures dimension by clearing the **Create measure dimension** check box.
9. To define a dimension, complete the following actions:
 - a. To map the dimension as a time dimension, in the **Dimension type** field, click **Time**.
 - b. Select the dimension in the **Target Items** pane.

CAUTION:

If you choose to remove the default measures dimension during import, you cannot add new measures to this cube at a later time.

- c. If you are importing a dimension that includes element names that are not unique, in the **Properties** pane, expand the **Advanced** section and select the **Include the names of parent elements** check box. This setting prefaces the element names with their parent names to make them unique. A separator character will be added to differentiate the parent name from the element name. You can change the separator character, and you can choose to use unique element names as captions.

An example of non-unique element names is the North America dimension. Ontario is a child element of the California level, and Ontario is also a child element of the Canada level. California is a child element of the Country or Region level, and Canada is a Country or Region level. If you chose to make these element names unique, the Ontario element that is a child element of the California level would be named California - Ontario, and the Ontario element that is a child element of the Canada level would be named Canada - Ontario.

- d. To include a total for this dimension, ensure that the **Create total element** check box is selected.
- e. To move the dimension in the structure, change the **Dimension index** field.

Tip: You can also reorder dimensions by dragging them in the **Target Items** pane.

- f. Optional: Specify how to sort the elements in this dimension. Element sorting determines the order of the parent data items in a dimension. The default element sorting of **None** preserves the order in which the elements were input from the source data. You can also sort elements alphabetically by name or by their level, or depth, in the dimension, or by the order in which they appear in the hierarchy. Sorting by level or by hierarchy can be used for advanced scripting purposes. For example, within the Product Line dimension, you have the following elements: Golf Equipment, Camping Equipment, and Outdoor Protection. You can sort these elements alphabetically by name or leave them in this order.
 - g. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the child items of the elements in a dimension. The default component sorting of **None** preserves the order in which the components were input from the source data. You can also sort components alphabetically by name. For example, the Camping Equipment element from the example in the previous step includes the following components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.
 - h. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.
10. To define the month on which your fiscal year begins, select the **Date** dimension, and choose a month from the **Fiscal year starts on** list.
 11. To populate the **Date** dimension with all dates, regardless of whether data exists for those quarters, months, and days, select the **Populate whole years** check box.
 12. To define a level, complete the following actions:
 - a. Select the item in the **Source Items** pane.
 - b. In the **Properties** pane, click **Level** under **Mapping type**.

Tip: To define several items as levels at the same time, select the items in the **Source Items** pane, right-click them, and then click **Level**.

- c. In the **Owner dimension** field, select the dimension that this level belongs to.

For example, the source lists Years, Quarters, Months, and Days as separate columns. Each column is defined as a separate dimension. To create a hierarchy with Years at the top and Days at the bottom, define Quarters, Months, and Days as levels with Years as the level at the top.

- d. To move the level in the structure, change the **Level index** field.

Tip: You can also reorder levels by dragging them in the **Target Items** pane.

13. To add an attribute to a level, complete the following actions:
 - a. Select the item that you want to make an attribute in the **Source Items** pane.
 - b. In the **Properties** pane, click **Attribute** under **Mapping type**.

Tip: To define several items as attributes at the same time, select the items in the **Source Items** pane, right-click them, and then click **Attribute**. When the mapping type changes to **Attribute**, the attribute becomes a child item of the closest level. You might need to move the attribute to the appropriate level, if it is not nested under the correct level.

- c. Specify the data type for the attribute.
- d. Optional: Change the attribute type.

A caption provides a descriptive label for a data item. For example, your source data includes an SKU column that displays product codes, and an Item Name column that displays the product name. You make the Item Name data into an attribute of the Item level in your target data so that your workspace shows the product name labels on the Item dimension. To append the original column name to the caption for any captions that are not unique, click **Ensure uniqueness**.

An alias adds data that can be used as an alternative name for an item, such as a name in another language. Each alias must have a unique name.

- e. Select the dimension and level that this attribute belongs to.
14. To define measures for the cube, complete the following actions:
 - a. Select the item that you want to make a measure in the **Source Items** pane.
 - b. In the **Properties** pane, click **Measure** under **Mapping type**.

Tip: To define several items as measures at the same time, select the items in the **Source Items** pane, right-click them, and then click **Measure**.

- c. Specify the data type for the measure.

Important: If your source data does not include decimals within the first 100 records, your workspace data will not include decimals. However, the decimal data is preserved during the import. You can change the format of this measure to include decimals. For information about formatting measures, see “Changing the format of measures” on page 101.

- d. To move the measure in the structure, change the **Measure index** field.

Tip: You can also reorder measures by dragging them in the **Target Items** pane.

Tip: Generate a count measure to confirm that your data was imported. The Count column in your crosstab should show the number of rows that you imported. This number will give you a quick indication of any duplicate or missing rows. To generate a count measure, select the *cube_name* Measures dimension in the **Target items** pane, and ensure that the **Generate count measure** check box is selected.

15. To exclude a column from the import, right-click it in the **Data Preview** pane and click **Do not map**.
16. To add a calculated column, complete the following actions:
 - a. Click **Add calculated column**.
 - b. In the **Properties** pane, define the data type and mapping type of the expression.
 - c. Type the expression in the **Expression** field. Expressions must end with a semicolon (;).

For example, to add a calculated column that concatenates the Surname and Given name items, define the following expression:

```
v_Expression = v_Surname_0 | ',' | v_Given_name_1;
```

The expressions that you can add during an import are IBM Cognos TM1 TurboIntegrator expressions, so you can only use the functions that are compatible with Cognos TM1 TurboIntegrator. For more information about authoring expressions, see “Calculations” on page 63.
 - d. Click **Preview** to see the results of the expression.
17. Complete one of the following actions:
 - If you want to create a crosstab from your imported data, click **Import**.
 - If you want to view the imported data only in the Content pane, click **Next**, clear the **Open cube viewer upon completion** check box, and click **Import**.

Adding existing dimensions

If you have already imported or built dimensions in your workspace, you may want to use them in the new cube you create when you import data.

Before you begin

To review the way in which Cognos Insight maps data by default, see “Before you import data” on page 15.

About this task

You can include an existing dimension to the data that you are importing. For example, you create a Version dimension and then add it to a new import to define different scenarios. In this case, you would use the import's **Slice on** feature to specify a version for the new import. Or you could have an existing Products dimension that you want to include in a new cube that you import. In this case, you would map a source column to the existing dimension.

Procedure

1. From the **Get Data** menu, click **Import Dimensions**.
2. Optional: In the **Import name** field, enter a name for this import process. Import processes appear by name in the content pane, where you can select a process and refresh the data for that import.
3. Select the data source that you want to import.

Tip: If your data source is a file, you can also drag the file from your computer to the cube in the content pane to start the import wizard.

4. In the Import Wizard, click **Advanced**.
5. Click **Show Properties**.
6. Click the **Advanced** section for the cube item, and in the **Use existing dimensions in the import** area, add the existing dimensions you want to include in your cube.
7. Map columns from your source to the existing dimension. If your source does not contain a mappable column for the dimension, in the **Slice on** area, click **Select** and choose an appropriate member in the dimension. For example, you select the Base member in a Versions dimension to assign your data to that member of the cube.


Transferring in dimensions from Cognos Business Viewpoint

When you transfer hierarchies from IBM Cognos Business Viewpoint, the hierarchies become dimensions in IBM Cognos Insight.

Before you begin

You must be using Cognos Business Viewpoint, version 10.1.1, or later and Cognos Insight must be able to find the URL for Cognos Business Viewpoint.

Procedure

1. If a connection to Cognos Business Viewpoint is not available, complete the following actions:
 - a. Click the **Actions** icon , and then click **My Preferences**.
 - b. On the **System** tab, in the **System gateway URI**, specify the URI. The URI is case-sensitive.
 - c. In the **System type** box, select the type.
 - d. Click **Add**.
 - e. Click **OK**.

You can also define a connection to Cognos Business Viewpoint in the IBM Cognos TM1 system.

2. Click **Get Data**, and then click **Transfer In**.

The command is available only if you have a connection to Cognos Business Viewpoint.
3. Select one version of a hierarchy along with any child subsets. You can select multiple hierarchies but you can select only one hierarchy per dimension.
4. Click **OK**.
5. Review the selection that you made and click **OK** to continue.
6. In the **Summary** page, click **OK** to complete the transfer.

Refreshing data

When you want to update an IBM Cognos Insight workspace with new values from the same data source, you can reimport data.

About this task


Note: The **Edit Import** and **Run Import** commands are not available in IBM Cognos Insight Personal Edition.

If the values in your data source have changed and you want to import the new data, you can refresh it. For example, you imported a spreadsheet showing your company's average sales by quarter, and since you imported, the average has improved because sales have improved. You can refresh the data in your workspace to update the workspace.

You can only refresh data from one data source at a time. If your workspace includes data from several data sources, perform a refresh for each data source. When you import data into IBM Cognos Insight, each import process is displayed in the content pane in the **All Imports** list. You can run or edit a specific import process.

If you have published the workspace that you want to refresh with new data to an IBM Cognos Express or IBM Cognos TM1 server, instead of using this procedure to refresh your workspace data, you should update the cube in Cognos TM1 Performance Modeler by connecting the cube to your data source. If you choose to refresh the data on your computer and then republish it to Cognos Express or Cognos TM1, the publish process will create a new Cognos TM1 server instead of replacing the data in the existing Cognos TM1 application. For information about connecting a cube to a data source, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Procedure

1. To open the content pane, click the content pane icon .
2. Right-click the cube that contains the data that you want to refresh, and click one of the following commands:
 - To keep the mappings that you defined earlier and refresh only the data, click **Run Import**, and then choose the import process that you want to run. The import processes are identified either by the name that you entered in the first step of the import wizard, or by the default name, **New Import**, and the import number. If you run the import process, you do not have any more steps to complete.
 - To define different mappings than you defined when you imported this cube, click **Edit Import**, and then choose the import process that you want to edit. The import processes are identified by the name that you entered in the first step of the import wizard, or by the default name, **New Import**, and the import number. Then go to step 4.

Tip: You can also re-import data by expanding the **All Imports** folder in the content pane and double-clicking the import process that you want to run.

3. Complete the following actions for each import process that you want to edit:
 - a. To make mapping changes, click **Advanced**.
 - b. If you want to remove the default mapping, click **Clear All Mappings**.
 - c. To open the **Properties** pane, click **Show Properties**.
 - d. If necessary, from the **Measure dimension** list, specify the dimension that contains the measures in your cube.

- e. From the **Data update behavior** list, specify how to update the cube. New values can be added to existing values or new values can replace existing values.
 - f. In the **Data Preview** pane, select the columns of data that you want to update or add, and define each data item's mapping type. Any columns that you drag to an existing cube can be measures or attributes. You cannot change them to be dimensions or levels.
 - g. If you want to import only fact data, or measures, map to the leaf level of a hierarchy.

You can change the mappings for measures. For example, you earlier imported a measure called Cost. You are now importing a measure called Unit Cost and you want the data for Unit Cost to be in the Cost measure. You map the Unit Cost measure to the Cost measure in the **Import** wizard.
4. Complete one of the following actions:
- If you want the imported data to appear only in the content pane, click **Summary**, clear the **Open cube viewer upon completion** check box, and click **Import**.
 - If you want the imported data to appear in a crosstab and in the content pane, click **Import**.

Results

If you want to schedule a process to refresh the data, search for chores on the information center for your product and version. You can access all Cognos information centers from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Chapter 5. Analyze data

When you explore, sort, and nest data in IBM Cognos Insight, you see the information from different perspectives and can use your analysis to make better business decisions. For example, you can use a line chart to help you identify trends.

Entering data


You can enter in your data directly into the IBM Cognos Insight crosstab and use commands to perform simple calculation tasks. You can also copy and paste into the cells or import data from a Microsoft Excel workbook or a CSV file.


Procedure

1. To change the values in a cell, select the cell and type the new values, and then press Enter or use the arrow keys to move to another cell.

When you press Enter, the data is displayed in blue. This indicates that the data you have entered is different than the original values on the IBM Cognos Express or IBM Cognos TM1 server. If other cells are related to the cell where you entered data, pressing Enter results in these cells turning blue to indicate that their values are also different than the original values on the server.

When you use the arrow keys to move to another cell, the data is displayed in green if you are contributing to a plan. This indicates that the data in the cell has changed and that the change is pending. Recalculations are not performed and related cells are not updated. If you are working with personal data, the data is displayed in blue until you save the workspace.

You can use the **Undo** icon  to revert a change that you typed into a crosstab cell.

When you commit your changes by clicking the **Commit** icon , the changed values are saved on the Cognos Express or Cognos TM1 server. The data is then displayed in black to indicate that others can see the changes to the data.

Data that will appear in a chart must be in the following range: 0.000000001 to 99,999,999,999,999,999,999,999,999,999,999.

If you are working in distributed mode and delete data, the data is still available on the server until you submit the data. This is because the data is stored locally in distributed mode.

2. You can use the following commands to enter data in a cell. These commands are processed when you press Enter and can apply only to the current crosstab. These commands are not case-sensitive.

Table 2. Commands for entering data

Command	Description
K	Enters the value in thousands. For example, 5K results in 5000 being entered in the cell.
M	Enters the value in millions. For example, 10M results in 10,000,000 being entered in the cell.

Table 2. Commands for entering data (continued)

Command	Description
Add, +	Adds a number to the cell value. For example, Add50 adds 50 to the cell value.
Sub	Subtracts a number from the cell value. For example, Sub50 subtracts 50 from the cell value.
Increase, Inc, >	Increases the cell value by a number used as a percentage. For example, inc6 or 6> increases the cell value by 6%.
Decrease, Dec, <	Decreases the cell value by a number used as a percentage. For example, Dec6 or 6< decreases the cell value by 6%.
Hold, Hol	Holds the cell value from data spreads.
Release, Rel	Releases held cells.
Multiply, Mul	Multiplies the cell value by a number. For example, Mul50 multiplies each cell value by 50.
Divide, Div	Divides each cell value by a number. For example, Div50 divides each cell value by 50.
Grow	Applies compound growth to the percentage that you enter. For example, Grow5 adds 5% to every member in a dimension.
Power, Pow	Raises the number of one cell to the power that you enter. For example, the number in the cell is 10. Entering Pow3 raises 10 to 1000.
>	Copies the value to the right to all child items, or leaves, of the consolidation or only to those child items that contain non-zero values.
<	Copies the value to the left to all child items, or leaves, of the consolidation or only to those child items that contain non-zero values.
	Copies the value down to all child items, or leaves, of the consolidation or only to those child items that contain non-zero values.
^	Copies the value up to all child items, or leaves, of the consolidation or only to those child items that contain non-zero values.
: (a colon)	Stops copying.

- To change the heading for a row or column, select the heading, type in the new name, and press Enter.

Filtering data

Filter the dimensions, measures, attributes, and data that appears in a workspace to analyze information from different viewpoints and understand it better.






Nesting and swapping dimensions in crosstab and charts

Replace the items that appear in crosstabs and charts to view your data from a different perspective.

About this task

If the widget contains both a crosstab and a chart, changes that you make to the crosstab will be reflected in the chart, and changes that you make to the chart will be reflected in the crosstab.

Procedure

1. To change the dimensions, measures, or attributes that appear in a crosstab or chart, complete one of the following actions:
 - Drag the item from the content pane  to the rows, columns, or context of the crosstab.
 - Drag the item from the content pane to a chart element, such as the x-axis, a bar in a bar chart, or the chart legend.
 - Drag the item from the rows section , columns section , or context section  of the overview area to another section of the overview area.
2. To filter which elements in a dimension, measure, or attribute appear in a crosstab or chart, in the overview area, click the dimension, measure, or attribute, and select the level of detail that you want. You can filter the elements that appear in an entire workspace by using explore points or the explore pane. For more information, see “Filtering by dimensions and attributes.”
3. To exchange the rows and columns in a crosstab, click the **Swap** icon .

Filtering by dimensions and attributes

Use explore points or the explore pane to filter the data that is displayed in the crosstabs and charts in your workspace. Explore points and the explore pane also identify how your dimensions and attributes are related and where they are not connected.


About this task

Explore points are widgets that list the elements in a dimension. You can click each element to filter the workspace to display only elements you select. For example, one explore point shows months, a second explore point shows products, and a third explore point shows your stores. If you select January, February, and March, you see which stores sold which products in any of these months. The products and stores are highlighted only if they contain data for January or February or March. If you then select two products as well as these months, you see a further refinement of the data. The stores that are highlighted have sold at least one of the two products in January or February or March.

You can create explore points from attributes as well as dimensions. Attributes enable you to group dimension elements in a different way. For example, the product dimension includes five products. Three of the products are new this year, and two of the products were created five years ago. You can use an attribute to define which elements of the dimension are new and which are old, and then filter your crosstab and chart to show only new or old products. This helps you compare the new products to the old.

The explore pane is similar to an explore point, but the explore pane includes all dimensions, attributes, and measures, and the explore pane is docked at the side of the workspace.

Procedure

1. To view the explore pane, click **Explore**, and then click **View Explore Pane**.
2. To create an explore point, drag a dimension or attribute from the content pane  to the canvas. An explore point widget is added to the canvas.

Tip: If the dimension contains attributes, you can change the element that is displayed in the explore point by clicking the explore point title and then clicking a dimension or attribute from the list.

3. Select one or more elements in each explore point or in the explore pane to change what appears in the workspace widgets.
4. If you do not want the selected elements and the elements that are associated with the selected elements to be highlighted, click **Explore**, and then clear **Identify Related Items**.
5. If you do not want the selected items and the items that are related to the selected items to appear at the top of explore points, click **Explore**, and then clear **Show Related Items First**.
6. To clear the selections in explore points, complete one or more of the following actions:
 - If you want to clear the selections in one explore point, click **Explore**, and then click **Clear Specific Explore Point**.
 - If you want to clear the selections in all explore points, click **Explore**, and then click **Clear All Explore Points**.

Results

If you select multiple members, data for any of the selected members is highlighted.

If the data in the crosstab is aggregated, selecting members in the explore points changes the totals. For example, the crosstab shows revenue for all products for each quarter. If you select a specific product in an explore point, the crosstab still shows all products in the headings but the total is now the total for the product that you selected.


Related concepts:

“Multi-selection in an explore point displays #N/A in some cells” on page 167
When you select two or more members in an explore point in IBM Cognos Insight, the cells in widgets with crosstabs sometimes display the calculated values and sometimes display #N/A.

Searching for data

When a dimension contains many elements, you can use an explore point to search for an element.

Procedure

1. If the dimension is not in an explore point, drag it to the canvas.
2. In the title bar of the explore point, click the search icon .
3. In the text box that appears, type a character string.

Related tasks:

“Adding members to dimensions” on page 102

You can add members to dimensions by adding rows and columns to a crosstab at different levels.

Drilling up and drilling down

You can drill up and drill down to review different levels of your data in a crosstab or a chart.

About this task

Drilling up and drilling down are defined as follows:

Drilling up

Drilling up means to replace the data you are drilling up on with the data for the parent element of that data. You drill up to compare data. For example, your crosstab contains revenue by year for the Dishwashers product line. You drill up on the Dishwashers product line to display revenue by year for all product lines. This view of the data enables you to compare the revenue that you earned from the Dishwasher product line to the revenue that you earned for other product lines.

Drilling down

Drilling down means to replace the data you are drilling down on with the data for the child element of that data. You drill down to see more detail about data. For example, your crosstab contains revenue by year for the Dishwashers product line. You drill down to analyze the revenue you collected for each dishwasher product within the Dishwashers product line.

You can drill up or drill down on the following elements in a crosstab:

- Crosstab cells.

If a crosstab cell appears within a row and a column, you can choose whether you want to drill up or drill down on the row or the column. For example, a cell appears in the **January** column and in the **Quantity** row. When you right-click the cell and choose **Drill down**, you can click **January** or **Quantity**.

- Row or column headings.


You can also drill up or drill down on the following elements in a chart:

- Labels, such as the legend title, the items in a legend, or the axis labels.
- Data, such as the columns in a column chart or the lines in a line chart.

Tip:

You can change the behavior of double-clicking on a crosstab cell so that double-clicking drills down on the data in the cell. From the **Explore** menu, in the **Double-click in Crosstabs** section, click **Drill down**. To return the behavior to the default, where you can double-click a cell to edit the data in that cell, from the **Explore** menu, in the **Double-click in Crosstabs** section, click **Edit**. The setting you choose is saved with your workspace, so your workspace users get the same setting when they open your workspace.

You can also change the default behavior for new workspaces that you create so that double-clicking a cell in a crosstab drills down on the data in the cell. Click

the **Actions** icon , click **My Preferences**, and then, in the **Default action for new workspaces when double-clicking on a cell** section, click **Drill down**. The setting you choose in the My Preferences window applies only to new workspaces you create, and this setting is not saved with your workspace.




Procedure

1. Right-click the data item in the crosstab or chart, click **Drill up** or **Drill down**, and, if necessary, click the data item that you want to drill up or drill down on. If the **Drill up** option does not appear, the data item has no parent data, so you can not drill up. If the **Drill down** option does not appear, the data item has no child data, so you can not drill down.

Tip:

You can double-click a row or column heading in a crosstab or an element in a chart to drill up or down on the item. When you hover over the item, your cursor changes to show you in which direction double-clicking the item will drill, up or down.

You can click an item in the overview area to display the parent items and child items of the data that is currently displayed in the crosstab or chart. Clicking a parent item drills up in the crosstab or chart, and clicking a child item drills down in the crosstab or chart.

2. To remove all the drill-up and drill-down actions you have performed on a data item, click the item in the rows area , columns area , or context area , and then click **View All - item_name**.

Filtering to show top or bottom results

You can filter to display only the top or bottom results in a crosstab.

About this task

You can apply filters to a crosstab in the following ways:

- Show only the top results to quickly determine the highest values in your data. For example, you want to know which months had the highest revenue, so you filter to show only the top three results.
- Show only the bottom results to quickly determine the lowest values in your data. For example, you want to know which employees have spent the fewest dollars on travel, so you filter to show only the bottom five results.

Procedure

1. Click the column or row heading for which you want to display only the top or bottom values.
2. Right-click the item, click **Top or Bottom**, and then click one of the options to choose the number of values you want to display. If you click **Custom**, a new window appears where you can limit the results that are displayed in the crosstab by choosing one of the following options:
 - Enter a custom number of top or bottom results. For example, you can type 50 to display the top 50 customers by revenue.
 - Enter a custom percentage of top or bottom results. For example, you can type 10 to display the customers who contribute to the top 10% of revenue.

- Enter a number up to which your top or bottom results will sum. For example, you can type 10000000 to display the customers who contribute to the first 10 million dollars of revenue.
3. In the **Based on** list, choose the measure for which you want to specify top or bottom results.
 4. Click **OK**.
 5. To remove a top or bottom filter, right-click the filtered item, click **Top or Bottom**, and then click **No Top or Bottom**.

Sorting

Sorting the range of values in an ascending or descending order makes it easier for you to organize and analyze your data.

Procedure

1. Select the entire row or column you want to sort.
2. Right-click the header and click **Sort**.
3. Specify if you want to sort by value or label and then click **Sort Ascending** or **Sort Descending**.

Calculations

Calculations are important to solving problems and making decisions. They can help you define the relationships between items of interest. For example, calculations such as variance and variance percentage can assist with your cost-benefit analysis by enabling you to compare costs versus revenues and actual sales versus projected sales.

Note the following considerations when you write calculations:

- If you are using a number that is greater than zero but less than one, preface the number with a leading zero. For example, 0.10.
- Use single quotes and square brackets around names. For example, [*item_name*].
- End each calculation with a semicolon (;).
- You can use spaces to improve clarity.
- You can use both uppercase and lowercase letters. The syntax is not case-sensitive.

To view the syntax for a calculation, you can right-click the calculation, and then click **Calculate > Edit this calculation**.

Calculations in Cognos Insight have the same syntax as expressions in IBM Cognos TM1. For more information about how to author expressions, review the following sections in the *Cognos TM1 Reference Guide*:

- Rules Functions
- TM1 TurboIntegrator Functions

To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Adding a simple calculation

You can add, subtract, multiply, or divide rows or columns in a crosstab. You can also create a custom calculation.

Before you begin

The data that you want to use in the calculation must appear in the rows or columns.

Procedure

1. Select one or more rows or columns for the calculation.
2. Right-click the rows or columns and click **Calculate**.
3. Select one of the calculation commands: add, subtract, multiply, divide, or **Custom**.
4. If you select **Custom**, complete the following actions:
 - a. In the **Expression** field, enter the calculation. After you enter '[' , a list appears that you can use to select items. For more information about authoring expressions, see "Calculations" on page 63.
 - b. Specify whether the total for the arguments is summarized first or the arguments are applied first.
 - c. Click **OK**.
5. To rename the new row or column, highlight it and type a new name.

Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

Results

The default behavior for new calculations is to exclude the calculation value from any parent summaries. To include the calculation value in parent summaries, right-click the calculation, click **Calculate**, and then click **Edit this calculation**. Then, under **Parent summary**, click **Include calculation value**.

Calculating a subtotal

You can calculate a subtotal for part of your data. For example, your crosstab shows revenue by product line by year, and you want to calculate a subtotal for the years before you hired a new sales manager and a subtotal for the years after the new sales manager was hired.

Procedure

1. Ctrl+click the row or column headings for the data that you want to summarize in a subtotal.
2. Use one of the following methods to create a subtotal:
 - Right-click your selection, click **Calculate**, and then click the option that summarizes the members you selected (for example, *Item 1 + Item 2*).
 - Right-click your selection, click **Insert Parent**.
3. Rename your subtotal by selecting the row or column heading and typing a new name.


Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

Comparing rows or columns to highlight exceptions




You can compare two rows or columns to identify information that may need further exploration.

Procedure

1. Select the two rows or columns that you want to compare.

2. Click the **Calculate** icon , and then select a way to compare the rows or columns.

A new row or column displays the following icons to indicate the result of the comparison:

- The **Excellent** icon  indicates that the first element is 10 percent higher than the second element.
 - The **Average** icon  indicates that the first element is neither 10 percent higher nor 10 percent lower than the second element.
 - The **Poor** icon  indicates that the first element is 10 percent lower than the second element.
3. To change what is identified as excellent, average, or poor, complete the following actions:
 - a. Click **Calculate**, and then click **Edit this calculation**.
 - b. To change the definition for excellent, change the 1.1.
 - c. To change the definition for poor, change the 0.9.


Calculating variance

You can find the difference between the data in any two columns or rows by calculating the variance.

About this task

The steps use forecast revenue and actual revenue for each product line as example data.

Procedure

1. Select the rows or columns that you want to use.
2. From the **Calculate** icon , select one dimension minus another dimension. For example, click **Forecast Revenue - Actual Revenue**.
3. To rename the new row or column that contains the calculation, highlight it and type Variance.

Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

Calculating variance percentage

You can find the percentage difference between two rows or columns by calculating the variance percentage. The variance percentage calculation is the difference between two numbers, divided by the first number, then multiplied by 100.

About this task

The steps use forecast revenue and actual revenue for each product line as example data.

Procedure

1. Select the rows or columns that you want to use.
2. Right-click the rows or columns and click **Calculate**, and then click **Custom**. The Calculation window appears with a default expression in the **Expression** field.
3. In the **Expression** field, create the following expression: `['first_data_item'] - ['second_data_item'] / ['first_data_item'] * 100`.

Tip: When you type '[' into the Expression field, a list appears with the dimensions in your cube. You can select the dimension from this list instead of typing it into the Expression field. The same list will appear any time you type '['.

For example, type the following expression: `(['actualrevenue'] - ['forecastrevenue']) / ['forecastrevenue'] * 100`.

4. Under **Calculation order**, ensure that **Summarize first, then apply the calculation** is selected. This option means that Cognos Insight performs the calculation on the total values. Choosing **Apply the calculation first, then summarize** applies the calculation to each row or column first, and then sums the calculation results.
5. In the **Name** field, type Variance Percentage.
6. Click **OK**.
7. To format the new calculated data to appear with a percentage symbol, right-click a calculated cell and click **Format Measure** *measure_name*.
8. In the list of formats, click **Number**.
9. On the **Advanced** tab, type % in the positive and negative **Suffix** fields.

Counting the unique elements in a dimension

In IBM Cognos Insight, you can create a calculation to calculate the number of unique elements in a dimension that have values. For example, you know that some employees received a bonus and some did not, but you have too many employees to count the number of employees with bonus values in the Bonus column of your crosstab. You can use a calculation to quickly determine how many employees received a bonus.

About this task

You can use the ConsolidatedCountUnique function to count the number of cells that contain data. For example, you could use the following expression to find out how many cities sold the Golf Equipment product line in 2013:

```
ConsolidatedCountUnique ( 0, 'City', 'All Cities', '2013', 'Golf Equipment' );
```

Procedure

1. Right-click the column where you want the calculated values to appear, and then click **Calculate > Edit this calculation**.
2. In the **Expression** field, enter a calculation in the following format:
`ConsolidatedCountUnique (0, 'Dimension1', 'Cube', 'Element1', 'Element2', 'Element3');`
Where the following variables represent parts of the cube:
 - *'Dimension1'* is the name of the dimension that you want to count values for. For example, if you want to know how many cells in the Employees column have entries for sick days, you can specify the Employees dimension.
 - *'Cube'* is the name of the cube that you are working with.
 - *'Element1', 'Element2', and 'Element3'* represent all the dimensions in the cube and how they are filtered. For example, if your cube includes a Date dimension, a Geography dimension, and an Employment type dimension, you can specify to filter the data to '2012', 'Canada', and 'Full time'.

Calculating the average from a total

In IBM Cognos Insight, you can use a calculation to calculate the average value from the child elements of a consolidation, or total.

About this task

You can use the `ConsolidatedAvg` function to return the average value from the child elements of a consolidated, or total, value. For example, if your crosstab displays revenue by year by product line, you can use the following expression to find the average revenue value for all years, or you can use a consolidated average on each year's total to find the average revenue for each year:

```
ConsolidatedAvg ( 0, 'Total of Years', 'Product Revenue', 'All Products' );
```

Procedure

1. Right-click the column in your crosstab that will display the calculation results, and then click **Calculate > Edit this calculation**.
2. In the **Expression** field, enter a calculation in the following format:
`ConsolidatedAvg (Number , 'Cube', 'Element1', 'Element2', 'Element3');`
Where the following variables represent parts of the cube:
 - *Number* can be 0, 1, or 2. 0 includes all child elements in the calculation; 1 ignores consolidation weighting; and 2 ignores zero values.
 - *'Cube'* is the name of the cube that you are working with.
 - *'Element1', 'Element2', and 'Element3'* represent the other dimensions and how they are filtered. These elements must be listed in the order that their parent dimensions appear in the cube. For example, if your cube includes a Date dimension, a Geography dimension, and an Employment type dimension in this order, you can specify to filter the data to '2012', 'Canada', and 'Full-time'.

Banding values during import

You can create banding calculations during an import to IBM Cognos Insight when you want to define ranges of values. For example, you can create a band for revenue between 0 and 500,000, another band for revenue between 500,000 and 1,000,000, and another band for revenue above 1,000,000. Then you can display text for each band, such as low, medium, and high.

About this task

You can use the IF and ElseIf functions to create as many bands as necessary. You can also create bands using the greater than (>) or less than (<) symbols, or both.

For example you could use the following expression to identify for low, medium, and high inventory quantities:

```
IF (Inventory < 2500); Expression='low';  
ElseIf (Inventory < 5000); Expression='medium';  
Else; Expression='high';  
EndIf;
```

You can use bands for non-numeric data as well. In that case, you must use an @ symbol to precede the comparison symbol (such as the equals sign). For example, the following calculation bands textual data:

```
IF (Title@='Manager'), Expression='yes';  
ElseIf (Title@='Employee'), Expression='no';  
Else; Expression='no';  
EndIf;
```

Procedure

1. On the **Advanced** page of the import wizard, click **Add Calculated Column**. A new item, named **Expression**, appears in the **Source Items** list and the **Target Items** hierarchy.
2. In the **Properties** pane, in the **Mapping Type** section, click **Dimension**. The expression is defined as a dimension, and a dimension and level appear in the **Target Items** hierarchy.
3. Select the expression in the **Source Items** list.
4. In the **Properties** pane, in the **Source Item** field, enter a name for the expression. The name you choose will identify the expression in the content pane and in the crosstabs and charts in the workspace.
5. In the **Properties** pane, in the **Expression** field, enter the calculation in the following format:

```
IF (Column < Value1); Expression='Text1';  
ElseIf (Column < Value2); Expression='Text2';  
EndIf;
```

Where the following variables represent parts of the expression:

- *Column* is the ID of the source item that you want to divide into bands.
- *Value1* is the value below which you want to define the first band.
- *Value2* is the value below which you want to define the second band.
- *'Text1'* is the text that you want to display for the values that are within the first band.
- *'Text2'* is the text that you want to display for the values that are within the second band.

Calculating contribution margin

Contribution margin shows which products are the most profitable, which ones are breaking even, and which ones are costing you more than they earn in revenue.


About this task

You can use this information when planning sales forecasts and sales incentives as well as the product mix for next year. You can also add measures to allocate

additional costs that are not included in the unit cost, such as overhead. You can spread these additional costs proportionally, and include them in your contribution margin calculation.

The steps use unit price and cost of goods listed for each product as an example. You want to calculate the contribution margin for each product.

Procedure

1. Select the rows or columns that you want to use.
2. Click the **Calculate** icon , and then click one dimension minus another dimension. For example, select Unit Price - Cost of Goods.
3. To rename the new row or column that contains the calculation, highlight it and type Contribution Margin.

Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

4. To see which products contribute the most, right-click the Contribution Margin heading, and click **Sort**.
5. Specify if you want to sort by value or label and then click **Sort Ascending** or **Sort Descending**.

Changing how totals are displayed for measures

You can change how to display the summaries, or totals, for measures only.

Procedure


1. Right-click the cell of the measure or right-click the heading for the measure that you want to change.
2. Click **Rollup** and select one of the following commands:
 - **Summary** to display the total for the members that make up the measure
 - **Average** to display the average value of the members that make up the measure
 - **Minimum** to display the minimum value of the members that make up the measure
 - **Maximum** to display the maximum value of the members that make up the measure
 - **Count** to display the number of members that make up the measure, excluding null values
3. Click **Show Value as** and then click one of the following commands:
 - **Cell value**
 - **% of total for the row**
 - **% of total for the parent row**
 - **% of total for the column**
 - **% of total for the parent column**
 - **% of grand total**

Creating time roll-up calculations

A time roll-up summarizes the data for a range of dates that is relative to a specific date. For example, a year to date calculation is a time roll-up.

Procedure

1. Right-click the time dimension in the crosstab, and click **Time Roll-ups**.

Tip: If the time dimension is not included in your crosstab, you can create or edit a time roll-up calculation by right-clicking the time dimension in the content pane, clicking **Edit**, and then clicking the **Time roll-ups** icon . The name of the time dimension will match name used in the data source. For example, if your data was a spreadsheet with a column called Date, then the time dimension that Cognos Insight created during import will be called Date.

2. Choose a reference date from the following options:

- Today's date
- A specific date

The date range you choose in the next step will be relative to the reference date you choose in this step. For example, if you choose October 21, 2011 as the reference date and **Week to date** as the date range, your crosstab will summarize data for the week of October 21 up to that date.

3. Choose a date range from the following options:

- Choose from the list of the most common time ranges.
- To specify a custom date range, click **Custom** and enter a name and the start and end dates for the range.

4. To edit a time roll-up, right-click the time dimension in the crosstab, and then click **Time Roll-ups**.
5. To refresh all time roll-ups in a workspace relative to today's date, right-click the time dimension in the crosstab, and then click **Refresh time roll-ups**.

Editing a calculation

You can make changes to a calculation at any time.

Procedure

1. Right-click the calculation that you want to edit.
2. Click **Calculate**, and then click **Edit this calculation**.
3. Make the required changes. For more information about authoring expressions, see "Calculations" on page 63.
4. Specify whether the total for the arguments is summarized first or the calculation applied first:
 - Choosing **Summarize first, then apply the calculation** means that Cognos Insight performs the calculation on the summarized values.
 - Choosing **Apply the calculation first, then summarize** applies the calculation to each row or column first, and then sums the calculation results.
5. Click **OK**.

Editing all calculations

If you want to view and edit all the calculations that are defined in a workspace, you can edit the underlying Cognos TM1 cube rules.

About this task

Here is an example of a cube rule:


```
['Profitability Measures':'Purchase cost']  
= N: ['Profitability Measures':'Quantity purchased in kilograms'] *  
['Profitability Measures':'Price per kilogram'];
```

This cube rule contains the following components:

- An area definition: ['Profitability Measures':'Purchase cost']
- A leaf qualifier: N:
- A formula: ['Profitability Measures':'Quantity purchased in kilograms'] *
['Profitability Measures':'Quantity price per kilogram']
- A terminator: ;

This cube rule states that if the cube uses any value from the Purchase cost item in the Profitability measures dimension, then instead of returning that value, the workspace will return the product of the corresponding value from Quantity purchased in kilograms multiplied by Price per kilogram at the leaf, or lowest, level.

Procedure

1. Click the **Widget actions** icon  and click **Set Cube Rules**.
2. Make the required edits to the cube rules, and click **OK**.

What to do next

For more information about cube rules, review the following topics from the *IBM Cognos TM1 Rules Guide*:

- Overview of Cube Rules
- Components of a Rule
- How Rules Work

To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Related concepts:


“Example: using rules to compare two members”

Rules let you calculate cell values through the use of functions, numeric operations, conditional expressions, and inter-cube references.


Example: using rules to compare two members




Rules let you calculate cell values through the use of functions, numeric operations, conditional expressions, and inter-cube references.

When you use the **Calculate** options in IBM Cognos Insight, rules that perform the desired comparison are automatically generated. You can click the **Set Cube Rules**

command from the **Widget actions** icon  to review or edit the rules.

When you select two members and use the **Compare** command from the **Calculate**

icon , each member is evaluated against a rule that is generated for you.

You see a new row or column that shows a green circle for excellent , or 10 percent higher than expected, a yellow diamond for average , and a red square for poor , or 10 percent lower than expected.

The following generated rule statement drives this graphic display:

```
['Measures':'Compare Forecast Revenue vs. Actual Revenue'] =
  IF(['Measures':'Forecast Revenue'] < ['Measures':'Actual Revenue']*0.9,
    -1,
    IF(['Measures':'Forecast Revenue'] > ['Measures':'Actual Revenue']*1.1,
      1,
      0
    )
  );
```

This rule statement indicates that for the Compare Forecast Revenue vs. Actual Revenue member in the Measures dimension, if the value of Forecast Revenue is less than 90% of Actual Revenue, then the value of the Compare Forecast Revenue vs. Actual Revenue member is -1. If the if the value of Forecast Revenue is greater than 110% of Actual Revenue, then the value of the Compare Forecast Revenue vs. Actual Revenue member is 1. Otherwise, the value of Compare Forecast Revenue vs. Actual Revenue member is 0.

In this case, a value of -1 for Compare Forecast Revenue vs. Actual Revenue displays a green circle. A value of 1 for Compare Forecast Revenue vs. Actual Revenue displays a red square. A value of 0 for Compare Forecast Revenue vs. Actual Revenue displays a yellow diamond.

You can edit the rule statement to modify the thresholds at which these visual indicators appear. For example, if you want the green circle to appear when Actual Revenue exceeds Forecast Revenue by 20%, and you want the red square to appear when Actual Revenue falls short of Forecast Revenue by 20%, you would modify the statement as follows:

```
['Measures':'Compare Forecast Revenue vs. Actual Revenue'] =
  IF(['Measures':'Forecast Revenue'] < ['Measures':'Actual Revenue']*0.8,
    -1,
    IF(['Measures':'Forecast Revenue'] > ['Measures':'Actual Revenue']*1.2,
      1,
      0
    )
  );
```

For a complete description of rules, including a comprehensive example of developing a complex application with rules, see the *IBM Cognos TM1 Rules Guide* or the *IBM Cognos Analytic Server Rules Guide*. For descriptions of all the functions that can be used in rules, see the *IBM Cognos TM1 Reference Guide*. To access these documents, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Related tasks:

“Editing all calculations” on page 70

If you want to view and edit all the calculations that are defined in a workspace, you can edit the underlying Cognos TM1 cube rules.

Displaying values as percentages

By default, measures appear in IBM Cognos Insight as the actual values from your database. You can now compare the relative contributions of each value by displaying the values as percentages of the total.

Procedure

To display cell values as a percentage of a total value, right-click a cell, click **Show Value as**, and then choose from the following options:

- **Cell value**
- **% of total for the row**
- **% of total for the parent row**
- **% of total for the column**
- **% of total for the parent column**
- **% of grand total**

The cells that display a percentage are shaded. This shading indicates that the values in these cells are calculated, as opposed to those values representing items in the dimension.

Data spreading

Use the predefined data spreading options in IBM Cognos Insight to distribute numeric data to cells in a crosstab. For example, you can use data spreading to evenly distribute a value across a range of cells or to increment all values in a range of cells by a desired percentage.

Data spreading uses the following terms to identify data items in a hierarchy:

Leaf or leaves

The leaf data items are the lowest child data items. For example, if the data hierarchy includes a Year level, a Month level, and a Day level, and the Day level has no child data items, then Day is the leaf.

Consolidation

A consolidation is a parent data item. For example, if the data hierarchy includes a Year level, a Month level, and a Day level, and the Day level has no child data items, then Year and Month are consolidations.

Contiguous

Contiguous cells are cells that are next to each other, or adjoining, in a row or column. For example, contiguous cells in a crosstab that displays years would be 2011, 2012, and 2013. Non-contiguous cells would be 2011 and 2013.

There are several types of data spreading, and each type is available in different situations and has different benefits. The following table explains the differences.

Table 3. Comparison of data spreading methods

Data spreading method	Selections that offer this method	What this method does
Relative proportional	Single cell that contains a parent data item	Apply the proportions from one parent data item's child data items to the child data items of another parent data item.
Equal leaves	Single cell that contains a parent data item	Distribute data equally across the lowest child data items for a parent data item.
Equal spread	Single cell that contains a parent data item Contiguous range of data items at the same level	Distribute data equally across the immediate child data items for a parent data item.
Repeat	Single cell Contiguous range of data items at the same level Non-contiguous cells	Replaces the selected cells with a value, adds a value to the selected cells, or subtracts a value from the selected cells.
Straight line	Single cell Contiguous range of data items at the same level	Populates a range of cells with values at equal intervals between two endpoints.
Growth percentage	Single cell Contiguous range of data items at the same level	Sequentially increments the values in a range by a growth percentage.

Two types of data spreading, relative proportional and equal leaves, are available when you type a value into a consolidated cell whose child data items do not contain values. For example, you add a member to a crosstab, which creates an empty column with a column total. When you type a value into the column total cell, a Data Spread window appears, and you can choose to spread data to the child cells using a relative proportional spread or an equal leaves spread.

Spreading data using a relative proportion

In IBM Cognos Insight, use the relative proportional spread method to spread values to the leaves (children) of a consolidation proportional to the leaves of a reference cell. The reference cell can be located in the cube from which you initiate spreading or in a separate cube. However, the reference cell must share the same consolidations as the cell from which you initiate spreading.

The following example illustrates relative proportional spreading where the initial cell and the reference cell are in the same cube.

Table 4. A crosstab that illustrates relative proportional spreading

Country or region	1 Quarter	Jan	Feb	Mar
Argentina	0	0	0	0
Belgium	0	0	0	0
Brazil	100	10	20	70

Table 4. A crosstab that illustrates relative proportional spreading (continued)

Country or region	1 Quarter	Jan	Feb	Mar
Canada	0	0	0	0
Chile	0	0	0	0
Denmark	0	0	0	0

The previous example shows a single consolidated value of 100 in the cell at the intersection of 1 Quarter and Brazil. The leaves of 1 Quarter are Jan, Feb, and Mar. In this example, the following things are true:

- Jan contains the value 10, which is 10% of 100.
- Feb contains the value 20, which is 20% of 100.
- Mar contains the value 70, which is 70% of 100.

If you initiate relative proportional spreading from the intersection of 1 Quarter and Argentina, and specify an **Update Action** of **Replace** when spreading the value 400, the leaves of 1 Quarter, Argentina are populated as proportional to the leaves of 1 Quarter, Brazil:

- Jan contains the value 40, which is 10% of 400.
- Feb contains the value 80, which is 20% of 400.
- Mar contains the value 280, which is 70% of 400.

Procedure

1. Select the consolidated cell from which you want to initiate the data spreading.
2. Right-click the cell and click **Data Spread > Relative Proportional Spread**.
3. In the **Cube** list, select the cube in which the reference cell is located.
4. If necessary, click any of the **Dimension** buttons to select a different dimension element that identifies the reference cell.

When you click a **Dimension** button, the **Subset Editor** opens and displays all elements of the dimension. You can then select a single element and click **OK**.

For example, click account1, select a different element in the **Subset Editor**, and click **OK**.

Note: The **Dimension** buttons for consolidated elements are unavailable because the cell from which spreading is initiated and the reference cell must share common consolidated elements.

5. Click **Select**.
The **Reference Cell** field on the Relative Proportional Spread window is now populated with the cell you selected.
6. In the **Value** field, enter the value to be spread.
7. Select an **Update Action**.
8. Click **Apply**.

Spreading data equally across leaves of a cell

In IBM Cognos Insight, use the equal leaves method to distribute a specified value equally across all leaves of a consolidated cell. When you apply this method, you can choose to distribute the value to all leaves of the consolidation or only to those leaves that already contain non-zero values.

For example, assume that there are several leaves of Year, Argentina with zero values. If you use the equal leaves method to distribute the value 1200 to all the leaves of Year, Argentina, the result is as follows.

Table 5. A crosstab that illustrates equal leaves spreading from a single consolidation

Country or region	Year	Q1	Q2	Q3	Q4
Argentina	1200	300	300	300	300
Belgium	0	0	0	0	0
Brazil	0	0	0	0	0

If you initiate the equal leaves method from a cell identified by more than one consolidated element, the specified value is distributed to all leaves associated with the cell. For example, assume the selected cell is identified by two consolidated elements: Year and S Series Sedan.

If you initiate equal leaves spreading from the intersection of Year, S Series Sedan, then the specified value is distributed to all cells identified by the leaves of Year and the leaves of S Series Sedan. For instance, if you use equal leaves to distribute the value 1200 to all leaves of the intersection of Year, S Series Sedan, the result is as follows.

Table 6. A crosstab that illustrates equal leaves spreading from the intersection of two consolidations

Type of automobile	Year	Q1	Q2	Q3	Q4
S Series Sedan	1200	300	300	300	300
S Series 1.8 L Sedan	150	37.5	37.5	37.5	37.5
S Series 2.0 L Sedan	150	37.5	37.5	37.5	37.5
S Series 2.5 L Sedan	150	37.5	37.5	37.5	37.5

When you initiate equal leaves from a cell that is identified by multiple consolidated elements, the RAM requirements of the cube can increase significantly. To address this issue, the system issues a warning in circumstances where more than 10,000 cells are affected by the equal leaves method. In circumstances where more than one million cells are affected, the spreading operation does not execute.

Procedure

1. Select the consolidated cell from which you want to initiate data spreading.
2. Right-click the cell and click **Data Spread > Equal Leaves**.
3. In the **Value** field, enter the value that you want to distribute.
4. Select an **Apply To** option.

Option	Description
Populated Leaf Cells	The specified value is distributed only to leaf cells currently containing non-zero values.
All Leaf Cells	The specified value is distributed to all leaf cells regardless of current values.

5. Select an **Update Action**.
6. Click **Apply**.

Spreading data equally across cells

In IBM Cognos Insight, use the equal spread method to distribute a specified value equally across the selected cells.

For example, in the following crosstab, a range of 12 cells is selected, as indicated by italic font and asterisks (*).

Table 7. A crosstab with a range of cells selected

Country or region	1 Quarter	Jan	Feb	Mar
Argentina	300	25*	75*	65*
Belgium	0	45*	85*	55*
Brazil	0	35*	55*	75*
Canada	0	35*	65*	45*
Chile	0	0	0	0
Denmark	0	0	0	0

When you equally spread the value 60 to these cells and select the **Add** update action, the value is equally spread across the range and added to the existing cell values. The result is that each cell value is increased incrementally by 5 ($60/12=5$), as shown in the following example.

Table 8. A crosstab with equal spreading applied

Country or region	1 Quarter	Jan	Feb	Mar
Argentina	300	30	80	70
Belgium	0	50	90	60
Brazil	0	40	60	80
Canada	0	40	70	50
Chile	0	0	0	0
Denmark	0	0	0	0

Procedure

1. Select the cell or range of cells from which you want to initiate data spreading.
2. Right-click the selection and click **Data Spread > Equal Spread**.
3. Enter the value you want to spread in the **Value** field.
4. If necessary, select **Extend** options to specify the directions for the data spread.
5. Select an **Update Action**.

6. Click **Apply**.

The value you entered spreads equally in the directions that you specified, or across the range of cells that you selected.

When you apply an equal spread to a single consolidated cell without specifying a direction for the spreading operation, the value being spread is distributed proportionally to all leaves of the consolidated cell.

Repeating data in cells

In IBM Cognos Insight, use the repeat method to repeat a specified value across selected cells in a crosstab.

In the following example, data spreading begins at the cell at the intersection of Feb and Brazil, and the value 25 is repeated to the right and down.

Table 9. A crosstab that illustrates the repeat method

Country or region	1 Quarter	Jan	Feb	Mar
Argentina	0	0	0	0
Belgium	0	0	0	0
Brazil	50	0	25	25
Canada	50	0	25	25
Chile	50	0	25	25
Denmark	50	0	25	25

Unlike the other spreading methods, repeat is available when you select cells that are not touching. For example, in the previous figure, if you select the cell at the intersection of Chile and Feb and the cell at the intersection of Brazil and Mar, you can still apply the repeat spreading method to these cells.

Procedure

1. Select the cell or range of cells from which you want to initiate data spreading.
2. Right-click the cell or range and click **Data Spread > Repeat**.
3. In the **Value** field, enter the value that you want to repeat.
4. If necessary, select **Extend** options to specify the direction(s) for the data spread.
5. Select an **Update Action**.
6. Click **Apply**.

The value you entered repeats in the directions that you specified, or across the range of cells that you selected.

When you apply the repeat spreading method to a single consolidated cell without specifying a direction for the spreading operation, the value being spread is distributed proportionally to all leaves of the consolidated cell.

Populating cells with a range of values

In IBM Cognos Insight, use the straight line method to populate cells by linear interpolation between two specified endpoints.

For example, the following crosstab shows the effect of Straight Line spreading across a range of six cells with the endpoints 100 and 200.

Table 10. A crosstab that illustrates straight line spreading

Country or region	Jan	Feb	Mar	Apr	May	Jun
Argentina	100	120	140	160	180	200
Belgium	0	0	0	0	0	0
Brazil	0	0	0	0	0	0
Canada	0	0	0	0	0	0
Chile	0	0	0	0	0	0
Denmark	0	0	0	0	0	0

With the start value of 100 and the end value of 200, straight line spreading populates the intervening cells with values at equal intervals between the two endpoints.

Procedure

1. Select the cell or range of cells from which you want to initiate the data spreading.

Remember: You can apply straight line spreading only across a single row or column, not across rectangular ranges.

2. Right-click the cell or range and click **Data Spread > Straight Line**.
3. In the **Start Value** field, enter the starting value for the spreading.
4. In the **End Value** field, enter the ending value for the spreading.
5. If necessary, select **Extend** options to specify the directions for the data spread, left and right within rows or up and down within columns.
6. Select an **Update Action**.
7. Click **Apply**.

The data is spread in a straight line in the directions that you specified, or across the range of cells that you selected.

Spreading data using a growth percentage

In IBM Cognos Insight, use the growth percentage method to sequentially increment all values in a range by the specified growth percentage, starting at an initial cell.

For example, the following crosstab shows the result of applying the growth percentage method to a range of six cells where the initial value is 100 and the growth percentage is 10%. This example uses the **Replace data** action.

Table 11. A crosstab that illustrates growth percentage spreading

Country or region	Jan	Feb	Mar	Apr	May	Jun
Argentina	100.00	110.00	121.00	133.10	146.41	161.05
Belgium	0.00	0.00	0.00	0.00	0.00	0.00
Brazil	0.00	0.00	0.00	0.00	0.00	0.00
Canada	0.00	0.00	0.00	0.00	0.00	0.00
Chile	0.00	0.00	0.00	0.00	0.00	0.00
Denmark	0.00	0.00	0.00	0.00	0.00	0.00

The initial value of 100 displays in the cell identified by Jan, Argentina. Applying the growth percentage of 10% to 100 yields 110, the value in Feb, Argentina. Applying the growth percentage of 10% to 110 yields 121, the value in Mar, Argentina.

Procedure

1. Select the cell or range of cells from which you want to initiate the data spreading.

Remember: You can apply **Growth %** spreading only across a single row or column, not across rectangular ranges.

2. Right-click the cell or range and click **Data Spread > Growth %**.
3. In the **Start Value** field, enter the starting value for the spreading.
4. In the **% Growth** field, enter the growth percentage for the spreading.
5. If necessary, select **Extend** options to specify the direction for the data spread, left and right within rows or up and down within columns.
6. Select an **Update Action**.
7. Click **Apply**.

The growth percentage is applied in the directions you specified, or across the range of cells you selected.

Adjusting chart data

Adjusting your IBM Cognos Insight charts enables you to interact with your data in a chart instead of working with data only in crosstabs.

About this task

You can interact with your Cognos Insight charts by dragging the edges of bars and columns to adjust the values in bar and column charts.

For example, if you created a crosstab and column chart that represented your yearly travel budget, you could apply a **Hold** to your total and to any set values, and then drag the columns in your chart to decide how the remainder of the budget could be spent. When the total value is held and you increase one value, the other values decrease. This can help you visualize how your values relate to each other.

Procedure

1. Place your cursor at the top of the column or at the end of the row you want to adjust. A handle appears.
2. Drag the handle to adjust the data. A window appears with a text field and a slider. You can type the new value into the text field or you can adjust the slider to set the new value.

Related concepts:


“Charts” on page 85

Charts communicate comparisons, relationships, and trends. They emphasize and clarify numbers. To choose the appropriate type of chart, first define what you want the chart to communicate, and then identify the most effective chart to suit that purpose. For example, you can use a line chart to show trends.

Freezing rows or columns

When scrolling through a large data set, you can freeze the rows or columns so that you do not lose sight of the headings or other relevant data.

Procedure

1. Click the cell where you want to freeze the rows or columns.
2. Click the **Widget actions** icon  and click **Freeze Panes**.
3. Scroll through the data.

Hiding rows or columns

You can hide rows or columns that are not needed. For example, after creating a calculation, you can hide rows or columns that are used in the calculation but are not needed in the workspace.

Procedure

1. Right-click one or more rows or columns and click **Hide**.
2. To show the hidden items, right-click a row or column and click **Show all hidden**.


Suppressing empty rows or columns

You can hide an entire row or column that contain empty cells. This function is useful when adding charts because including empty cells can skew the results.

Before you begin

You must have a null row or column.

Procedure

Click the **Suppress empty cells** icon , and click **Rows or Columns**.
Note that zeros are not suppressed when you use this command because zeros are values.

For information about changing the default value in the cube, see the topic about the UNDEFVALS function in the *IBM Cognos TM1 Reference Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).


Chapter 6. Design workspaces

Add widgets to the canvas to create attractive data layouts for yourself or others.

Adding or removing tabs

Tabs make it easy to organize and browse through a workspace that contains a lot of information. For example, you could provide an overview on one tab and details on another.

Procedure

1. To add a new tab, click the **Actions** icon  and then click **New Tab**.
 2. Right-click the tab and click **Rename**.
If you want to include an ampersand (&) as part of the tab name, enter two ampersands. For example, to name a tab Revenue & Expenses, enter Revenue && Expenses.
 3. To add the ability to navigate to the tab by using a character that is in the tab name, add an ampersand (&) immediately before the character. The character is then underlined.
For example, if you name a tab &Expenses, you can later use Alt+E to navigate to the Expenses tab.
 4. To remove a tab, right-click the tab and click **Remove This Tab**.
-

Adding crosstabs

Use a crosstab to view dimensions and perform basic analysis on your data. By default, a chart is also displayed.

About this task

This task only applies to add a crosstab that is based on an existing cube to your workspace. To create a blank cube and also add a crosstab that is based on the blank cube to your workspace, from the **Insert** menu, click **New Crosstab**. A blank cube appears in the content pane and a crosstab and chart appear on the canvas. For more information about modifying the contents of the new cube, see “Editing dimensions and measures” on page 99.

Procedure

1. Complete one of the following actions:
 - Drag a cube from the content pane onto the canvas.
 - From the **Insert** menu, click **Crosstab and Chart**, and then click the cube that you want to base the crosstab and chart on.
2. To align the crosstab widget with another widget in your workspace, drag the new widget until you see dotted lines appear. The dotted lines show you where to drop the widget so that it lines up with the other widgets.

Creating pick lists

A pick list is a drop-down list within a crosstab cell. You can use a pick list to provide a number of textual choices that you or your workspace consumers can select from.

For example, your crosstab shows order revenue by country or region, and you want to add a new column to the crosstab so you can identify which revenue values are less than, equal to, or greater than what you expected. You can create a pick list so that you can choose whether the values meet your expectations.

Procedure

1. Create a new text measure. For information about creating a new text measure, see “Adding text measures” on page 104.
2. In the content pane, right-click the measures dimension, and click **Edit**.
3. Right-click the **Name** column heading, and then click **Pick List**.
4. Type the following formula in the cell where the **Pick List** column and the text measure row meet: `static:string_1:string_2:string_3 string_1, string_2, and string_3` are the choices that will appear in each cell when you double-click the cell or select it and press Enter.

Tip: If the list of choices that you want to use exists in a dimension that is in your cube, you can import it by typing the following formula:

`dimension:dimension_name.`

In our example, you could type `static:+:=:-.`

5. Close the Edit Dimension window.


Displaying different data in a crosstab and a chart

You can use two widgets to display different data perspectives in a crosstab and a chart that use the same cube.

About this task

You can have changes in the data in one widget be reflected in the other widget, or you can have the two widgets remain independent of each other. For example, you have a chart on the canvas that shows products by year and a crosstab that shows products by region. If you focus on a particular region and hide all other regions on the crosstab, the chart will also show the products for the selected region.

Procedure

1. Drag a cube from the Content pane or select it from the **Crosstab and Chart** submenu.
By default, the data is displayed in both a crosstab and a chart.
2. To hide the crosstab, click the **Change display** icon , and then click **Crosstab**.
3. Drag a different cube or the same cube from the Content pane or select it from the **Crosstab and Chart** submenu.
4. To hide the chart, click the **Change display** icon, and then click **Chart**.
5. Change which dimensions appear in the chart and in the crosstab.

6. To create a new cube that contains only the dimensions you want to keep, click **Create a new cube**, specify whether data is copied or referenced, and click **OK**. If the data is referenced, changes made in one cube are automatically made in the other cube.

What to do next

You can also create a copy of a cube and delete dimensions from the copy. Changes made to data in the original cube are reflected in the copy, and vice versa.

Related information:

“Sharing or copying dimensions” on page 99

Share a dimension to have changes in one cube reflected in the other cubes. The result is that your analysis is synchronized across the cubes and their associated crosstabs. Another option is to create a copy of the dimension in both cubes.

Charts

Charts communicate comparisons, relationships, and trends. They emphasize and clarify numbers. To choose the appropriate type of chart, first define what you want the chart to communicate, and then identify the most effective chart to suit that purpose. For example, you can use a line chart to show trends.

Related tasks:


“Adjusting chart data” on page 80

Adjusting your IBM Cognos Insight charts enables you to interact with your data in a chart instead of working with data only in crosstabs.

Adding charts

Charts communicate comparisons, relationships, and trends. They emphasize and clarify the meaning of numbers.

Procedure

1. Click the widget that you want to add a chart to.
2. Click the **Change display** icon , and then click one of the following commands:
 - **Chart** to display only a chart
 - **Split View**, and then **Crosstab on Top** or **Chart on Top** to display both the chart and the crosstab
3. If the crosstab and chart contain more than 50 series and 50 categories, navigate to the next set of data points by using the arrows in the chart.


To hide the navigation controls, click the **Change chart** icon , click **View Options**, and then click **Always Hide the Data Pagination Control**.

Chart types

There are many types of charts for presenting your data in a way that is meaningful to you and your users.

To choose the appropriate type of chart, first define what you want the chart to communicate, and then identify the most effective chart to suit that purpose.

Table 12. Types of charts

Purpose of the chart	Type of chart to use
Show trends over time.	Column chart, line chart, point chart
Compare data.	Bar chart, column chart
Show the relationship of parts to the whole or highlight proportions.	Pie chart
Show the parts that contribute to the total and compare change over time.	Stacked column chart
Show groups of related data.	Bar chart, column chart
Emphasize the magnitude of change over time.	Area chart
Show the relationship between two measures.	Scatter chart
Show the relationships between three measures.	Bubble chart
Show trends over time or compare data with two measures.	Combination chart
Identify patterns of high and low values.	Tree map

You can select the following formats for the chart types:

- standard
Standard charts compare specific values and represent discrete data, such as data for different regions or individual employees.
- stacked
Stacked charts compare the proportional contributions within a category, showing the relative value that each data series contributes to the total. The top of each stack represents the accumulated totals for each category.
- 100 percent stacked
100 percent stacked charts compare the proportional contributions across all categories, showing the relative contribution of each data series to the total. This format highlights proportions. When actual values are important, use another format.
- three-dimensional
Three-dimensional charts are a visually effective display for presentations. When exact values are important, such as for control or monitoring purposes, use another format. The distortion in three-dimensional charts can make them difficult to read accurately.

Column charts

Column charts are useful for comparing discrete data or showing trends over time.

Column charts use vertical data markers to compare individual values.

Line charts

Line charts are useful for showing trends over time and comparing many data series.

Line charts plot data at regular points connected by lines.

Pie charts

Pie charts are useful for highlighting proportions.

They use segments of a circle to show the relationship of parts to the whole. To highlight actual values, use another chart type, such as a stacked chart.

Pie charts plot a single data series. If you need to plot multiple data series, use a 100 percent stacked chart.

Bar charts

Bar charts are useful for plotting many data series.

Bar charts use horizontal data markers to compare individual values.

Area charts

Area charts are useful for emphasizing the magnitude of change over time. Stacked area charts are also used to show the relationship of parts to the whole.

Area charts are like line charts, but the areas below the lines are filled with colors or patterns.

Point charts

Point charts are useful for showing quantitative data in an uncluttered fashion.

Point charts use multiple points to plot data along an ordinal, or non-numeric, axis. A point chart is the same as a line chart without the lines. Only the data points are shown.

Scatter charts

Scatter charts are useful for showing relationships between two measures.

Scatter charts use colored circles to represent two measures for each dimension. The x-axis represents one measure, and the y-axis represents a second measure.

For example, you create a scatter chart that shows Cost and Revenue by Product. Your scatter chart consists of one circle for each Product. Each Product circle is plotted on the chart based on Cost, on the x-axis, and Revenue, on the y-axis.

Bubble charts

Bubble charts are useful for showing relationships between three measures.

Bubble charts use colored circles of different sizes to show three measures for each dimension. The x-axis represents one measure, the y-axis represents a second measure, and the size of the bubbles represent a third measure.

For example, you create a bubble chart that shows Cost, Revenue, and Quantity Sold by Product. Your bubble chart consists of one circle for each Product. Each Product circle is plotted on the chart based on Cost, on the x-axis, and Revenue, on the y-axis. The size of the circle represents the Quantity Sold for that Product.

Combination charts

Combination charts are useful for showing a comparison of two measures over time.

Combination charts include a column chart and a line chart, both on the same x-axis. The column chart represents one measure, and the line chart represents a second measure. By default, the first measure in the content pane is represented by the columns and the second measure is represented by the line. If the y-axes do not have the same range of values, the y-axis on the left of the chart displays values for the columns, and the y-axis on the right of the chart displays values for the line.

For example, you create a combination chart that shows Cost, Revenue, and Quantity Sold by Product. Your combination chart consists of columns that represent Revenue, and a line that represents Quantity Sold. Each product is represented by a column and a point on the line.

Restriction: You cannot drag columns up or down to change their values in a combination chart. Because dragging is not supported for line charts, dragging is also not supported in combination charts.

Tree maps

Tree maps are useful for showing patterns of high and low values.

Tree maps use colored rectangles of different sizes to show two measures for each dimension. A tree map is similar to a pie chart, in that the size of the rectangles identifies the proportion of the whole that is represented by each element.

For example, you create a tree map showing Revenue and Quantity Sold by Product Line and Product. Your tree map consists of several rectangles, one for each Product Line. Each Product Line rectangle contains several Product rectangles, and the size of the rectangle in proportion to the whole represents the product's Revenue, and the color of the rectangle represents the product's Quantity Sold.

Restriction: Tree maps are not available in IBM Cognos Workspace, so if you publish a workspace to IBM Cognos Business Intelligence and open it in Cognos Workspace, the tree map will not appear.


Changing chart types

To choose the appropriate type of chart, first define what you want the chart to communicate, and then identify the most effective chart to suit that purpose. For example, you can use a line chart to show trends.

About this task

To choose a chart type, consider what you want the chart to illustrate. Different chart types emphasize different things.

Procedure


1. Click the widget that contains the chart you want to work with.
2. Click the **Change chart** icon , and choose a chart type.
3. Optional: Choose a chart format, such as stacked or 3D.

4. If the crosstab and chart contain more than 50 series and 50 categories, navigate to the next set of data points by using the arrows in the chart.
To hide the navigation controls, click the **Change chart** icon, click **View Options**, and then click **Always Hide the Data Pagination Control**.

Showing or hiding totals on charts

You can display or hide the summary item in the chart.


Procedure

1. Click the widget that contains the chart you want to work with.
2. To show the total, click the **Change chart** icon , and select **Show Summaries in Charts**. To hide the total, clear **Show Summaries in Charts**.

Charting nested data

If the data in the table is nested, you have additional options when adding a chart.


Procedure

1. Click the widget that contains the chart you want to work with.
2. By default, the nested rows and nested columns are displayed in separate charts. To display them in one chart, click the **Change chart** icon  and then clear the **Matrix Charts** item.
To display one chart for each nested row or nested column, select **Matrix Charts**.
If several rows or columns are nested, the outer row or column is displayed in the chart. For example, you have three dimensions nested as rows: Years, Regions, and Products in this order. By default, Years is displayed in the chart so there is one chart for each year.
3. To hide the label for the nested rows, click the **Change chart** icon, and then click **View Options** and clear **Show Row Headers**.
4. To hide the label for the nested columns, click the **Change chart** icon, and then click **View Options** and clear **Show Column Headers**.

Using the same axis for all charts

If the charts use the same proportions, using the same axis makes it easier to compare rows and columns in the charts. However, if the charts use different proportions, such as gross profit margin and gross margin percentage, do not share the axis so that you have improved visibility into trends and variance in the charts.

Procedure

1. Click the widget that contains the chart you want to work with.
2. Click the **Change chart** icon , and select **Share Axis Across Charts**.


Changing the display of chart axes

The chart axes correspond to the rows and columns displayed in the table. To make your chart easier to read, remove axis values or change the axis ranges to fit your data.

About this task

In a crosstab and chart widget, the series axis of the chart plots the data in the columns and the category axis of the chart plots the data in the rows.


Procedure

1. Click the widget that contains the chart.
2. To hide the values on the series axis of the chart, click the **Change chart** icon , click **View Options**, and then clear **Show Series**.
3. To hide the values on the category axis of the chart, click the **Change chart** icon, click **View Options**, and then clear **Show Category**.
4. To change the axis range to begin at the lowest value in your data, click the **Change chart** icon, click **View Options**, and then click **Optimize X-axis Range** or **Optimize Y-axis Range**.

Showing or hiding the legend

The legend provides useful information and a context for the chart. However if the context is available elsewhere, you can hide the legend to conserve space.


Procedure

1. Click the widget that contains the chart you want to work with.
2. Click the **Change chart** icon , click **View Options**, and then click **Show Legends**. To hide the legend, clear **Show Legends**.

Showing or hiding the labels

You can hide the labels that appear on the horizontal and vertical axes of the chart.


Procedure

1. Click the widget that contains the chart you want to work with.
2. To show the labels on the horizontal axis, click the **Change chart** icon , click **View Options**, and then click **Show Series**. To hide the labels, clear **Show Series**.
3. To show the labels on the vertical axis, click **View Options**, and then click **Show Category**. To hide the labels, clear **Show Category**.

Hiding charts

You can hide charts by displaying only the numbers in the crosstab.


Procedure

1. Click the widget that contains the chart you want to hide.
2. Click the **Change display** icon , and then click **Crosstab**.

Adding action buttons to navigate the tabs

To guide users through the analysis that you provided in the workspace, use action buttons to go from tab to tab. For example, on the overview tab, provide buttons to go to the details on the other tabs. You can also use an image for the button.

Procedure

1. Click **Insert**, and then click **Action Button**.
If you know where you want to place the action button on the canvas, right-click the location and click **Insert Widget**, and then click **Action Button**.
2. Select the **Go To Tab** action and specify which tab to navigate to.
3. To change the label or image for the action button, click the **Style** tab.
4. Click **OK**.
5. To edit the action button, click the **Widget actions** icon  and click **Edit Properties**.


Adding action buttons that run a script

You can add a button to run an IBM Cognos TM1 TurboIntegrator script that was created by the Import wizard or by your administrator. Use a script that was created by the Import wizard to reimport data with the click of a button. If you use a script that the administrator added to the server, you must be authorized to connect to the server.

About this task

Note: This task does not apply to IBM Cognos Insight Personal Edition.


Procedure

1. Click **Insert**, and then click **Action Button**.
If you know where you want to place the action button on the canvas, right-click the location and click **Insert Widget**, and then click **Action Button**.
2. Select a script to run.
3. Set the parameters by completing each field.
4. To change the label or image for the action button, click the **Style** tab.
5. Click **OK**.
6. To edit the action button, click the **Widget actions** icon  and click **Edit Properties**.

Adding text

Use text to create a title or to add explanatory text that describes the assumptions behind your analysis. You can change the font, style, color, and size of your text.

Procedure

1. Do one of the following actions to add the text widget:
 - Double-click the canvas where you want to place the text widget.
 - Click **Insert**, and then click **Text**
 - Right-click the canvas where you want the text widget, and click **Insert Widget**, and then click **Text**.
2. Select the text that you entered and format it.
3. Optional: To override the text direction that you specified for the workspace, in a text widget, click the **Text direction** icon , and then select the text direction that you want to apply to the text in the text widget.

Adding images

You can add images to a workspace in widget, which enables you to position the image anywhere on the workspace. Or, you can add an image as a background to the current tab or to all the tabs in the workspace, which displays the image behind the widgets.

Before you begin

The following image types are supported: GIF, JPEG, BMP, and PNG.

Procedure

1. To add an image as a widget, perform the following actions:
 - a. Click **Insert > Image**.
 - b. Browse for the image and click **Open**.

Tip: If you know where you want to place the image on the canvas, right-click the location and click **Insert Widget > Image**.

2. To add a background image to the current tab, perform the following actions:
 - a. Right-click the canvas background, and click **Set Tab Background Image > Set Image**.
 - b. Browse for the image and click **Open**.
3. To add a background image to all the tabs in the workspace, including new tabs, perform the following actions:
 - a. From the **Style** menu, click **Edit Workspace Style**.
 - b. Click the **Browse for Workspace Background Image** icon beside **Background image**, and then click **Set Image**.
 - c. Browse for the image and click **Open**.

Adding web pages for additional context

Provide web content for additional information or context to the data shown in the workspace. The web page widget is opaque so you cannot view widgets that are behind or on top of it.

Procedure

1. Click **Insert**, and then click **Web Page**.

If you know where you want to place the web page on the canvas, right-click the location and click **Insert Widget**, and then click **Web Page**.
2. Browse for the web page on your hard drive or type in the URL, and click **OK**.
3. In the message about accessing the Internet, select **Permit Always** and click **OK**.

When exploring the web page, use Alt+Left arrow and Alt+Right arrow to navigate back and forth in the web page.

4. To change which web page is displayed, click the **Widget actions** icon  and click **Edit Properties**.

Modifying widgets


Customize how your widgets appear in your workspace to help you view and analyze your data.

About this task

You can do the following things to customize your workspace:

- Add a title to your widget to define it for your users.
- Add borders or a background color to a widget to customize your workspace.
- Layer widgets to save space on your canvas and to help you design a visually appealing workspace. For example, layer a text widget on top of a crosstab to highlight a specific value, or layer a logo on top of a chart to help identify the product brand.
- Align widgets with each other.

Procedure

1. To display a widget's title, click the **Widget actions** icon , and then click **Show Widget Title**. The widget's title is defined by the name of the cube. You can change the cube name and widget title by right-clicking the cube in the Content pane and renaming it.
2. To display a widget's borders, click the **Widget actions** icon, and then click **Show Widget Borders**.
3. To specify the background color for a widget, click the **Widget actions** icon, and then click **Edit Widget Style**.
4. To change the order in which widgets appear, on the widget that you want to move backwards, click the **Widget actions** icon, and then click **Send to Back**.
5. To align widgets, drag one widget towards another widget until a dotted line appears, and then drop the widget.

Tip: To move a widget without aligning it automatically with other widgets:

- a. Click the **Widget actions** icon, and then click **Move**.
 - b. Use the arrow keys on the keyboard to move the widget.
 - c. To set the widget's position, press Ctrl+Enter.
6. To remove a widget from your workspace, click the **Widget actions** icon, and then click **Remove from Workspace**.

Applying themes

Styles or themes personalize your IBM Cognos Insight workspace by having different color schemes, font styles, and designs.

Procedure

1. Click **Style**, and then click **Apply Workspace Theme**.
2. Select an existing theme or browse to a theme that you have created.
3. Click **OK**.

Customizing backgrounds

You can customize an IBM Cognos Insight workspace by specifying a background color or image. You can change the background for the current tab, or you can change the background for all tabs in the workspace.

About this task

Supported image formats include JPG, GIF, PNG, and BMP.

Procedure

1. To change the background of the current tab, right-click an empty area of the canvas, and click **Set Tab Background Color** or **Set Tab Background Image**, and then select a color or image.
2. To change the background for all tabs in the workspace, click **Style > Edit Workspace Style**, and then choose a color or background image. The background you choose will apply to all the tabs in the workspace, including new tabs.

Sharing information between widgets

When you share information between widgets, changes made in one widget are reflected in widgets of the same type, in the same workspace.

About this task

Only changes that affect the data you can see in a widget are shared with other widgets. For example, if you filter a dimension in one crosstab, the changes also appear in other crosstabs. Or, if you add a calculated column to your crosstab, that data also appears as a column in your column chart. Changes to formatting will not be shared between widgets. Changes to the names of data items are made in the cube, so they will apply to all widgets, whether the widget sharing is enabled or disabled.

Attention:

Sharing information between widgets can cause unexpected results when you copy cubes or dimensions and you choose to share dimensions.

When you copy a cube to create a new cube, you can choose to share the original cube's dimensions and measures with the dimensions and measures in the copy of the cube or you can choose to duplicate the dimensions and measures to separate the original elements from the copies.

When you copy a dimension into a different cube, you can choose to share or duplicate the dimension.

If you share dimensions and measures between cubes, and you have both cubes displayed as widgets in your workspace, the filters that you apply to the widget that represents the original cube will also apply to the widget that represents the copy of the cube. To separate the widgets so that you can filter the widgets

independently of each other, click the **Widget actions** icon  and clear the **Listen to All Widgets** option.


Procedure

In the crosstab, click the **Widget actions** icon  and select **Listen to All Widgets**.

Protecting workspaces

You can control the format of the workspace when it is published by preventing your users from moving widgets on the canvas and by hiding the toolbar on the widgets. You can add a password to the workspace.

Procedure

1. To prevent users from moving the widgets accidentally, and to hide the widget toolbars, right-click the canvas and click **Lock All Widgets**. Users can unlock the widgets to move them if necessary.
2. To add a password for your users to enter in order to use the workspace, click the **Actions** icon  and then click **Protect Workspace**. Passwords must be at least five characters, and they are case-sensitive. If you lose your password, it cannot be retrieved.

Chapter 7. Data modeling

You can complete simple modeling tasks in IBM Cognos Insight to prepare data to be shared with others.

The data that you restructure can be your personal data or it can be in an editable application on a server when you are in connected mode. For more information about working in connected mode, see “Contribute to a workspace on a Cognos TM1 server” on page 125 or “Contribute to a workspace on a Cognos Express server” on page 111.

Creating elements in the model

You can add to your model by creating cubes, dimensions, measures, and attributes in the content pane.

About this task

Cube A cube is a store of data within a model. It is multidimensional and contains rows, columns, and any number of pages. You use one or more cubes to create an application.

Unlike a spreadsheet, cubes can be sliced so that any pair of dimensions can be the rows and columns, and more dimensions can be the pages. While a cube can contain any number of dimensions, the only practical limitation is the amount of memory on the server. Typically a cube contains no more than five or six dimensions. A cube must contain at least two dimensions, similar to a flat spreadsheet. Alternatively, a cube can have three dimensions, in which case it resembles a three-dimensional worksheet that consists of several flat sheets that are stacked behind one another. A four or five-dimensional cube can be considered the same as a cross between a three-dimensional spreadsheet and a set of query reports from a relational database. For example, a typical four-dimensional cube could contain the following dimensions: Profit and Loss, Divisions, Months, and Variance.

Dimension

A dimension is a broad grouping of related data about a major aspect of your business. For example, you have a dimension that is called Products.

Measure


A measure is a performance indicator that is quantifiable and used to determine how well a business is operating. For example, useful measures are Quantity Sold or Revenue.

Attribute

An attribute is a characteristic of a dimension that is used to differentiate dimension elements. For example, useful attributes are Color or Version.

Procedure

1. Expand the content pane .

2. To create a cube, click the **New** icon , and then click **Blank Cube**. New cubes are populated with two blank dimensions and a measure folder that contains a blank measure.
3. To create a dimension, select the cube in which you want to create the dimension, click the **New** icon, and then click **Dimension**.
4. To create a measure, select the measure folder for the cube in which you want to create the measure, click the **New** icon, and then click **Measure**.
5. To create an attribute, select the dimension in which you want to create the attribute, click the **New** icon, and then click **Attribute**.


Results

To enter data into the new dimensions, measures, and attributes, see “Editing dimensions and measures” on page 99.

Duplicating cubes

Copy a cube to create a copy of the structure and contents of the cube or dimension.

Procedure

1. From the content pane , right-click the cube that you want to copy, and click **Copy**.
2. Right-click an empty part of the content pane and click **Paste**.
3. In the Copy Cube window, choose one of the following options:
 - Share the dimensions and measures in the original cube with the dimensions and measures in the new cubes. This option keeps the dimensions and measures connected, so that changes to the original dimensions and measures will also apply to the dimensions and measures in the new cube.


Attention:

Sharing information between widgets can cause unexpected results when you copy cubes or dimensions and you choose to share dimensions.

When you copy a cube to create a new cube, you can choose to share the original cube's dimensions and measures with the dimensions and measures in the copy of the cube or you can choose to duplicate the dimensions and measures to separate the original elements from the copies.

When you copy a dimension into a different cube, you can choose to share or duplicate the dimension.

If you share dimensions and measures between cubes, and you have both cubes displayed as widgets in your workspace, the filters that you apply to the widget that represents the original cube will also apply to the widget that represents the copy of the cube. To separate the widgets so that you can filter


the widgets independently of each other, click the **Widget actions** icon  and clear the **Listen to All Widgets** option.

- Duplicate the dimensions and measures to the new cube. This option separates the dimensions and measures, so that changes to the original dimensions and measures do not apply to the dimensions and measures in the new cube.

Sharing or copying dimensions

Share a dimension to have changes in one cube reflected in the other cubes. The result is that your analysis is synchronized across the cubes and their associated crosstabs. Another option is to create a copy of the dimension in both cubes.

Procedure

1. From the content pane , expand the cube that contains the dimension that you want to copy.
2. Drag the dimension to the other cube.
3. In the Copy Dimension window, choose one of the following options:
 - Share the original dimension and the new dimension. This option keeps the dimensions connected, so that changes to the original dimensions will also apply to the new dimension.


Attention:

Sharing information between widgets can cause unexpected results when you copy cubes or dimensions and you choose to share dimensions.

When you copy a cube to create a new cube, you can choose to share the original cube's dimensions and measures with the dimensions and measures in the copy of the cube or you can choose to duplicate the dimensions and measures to separate the original elements from the copies.

When you copy a dimension into a different cube, you can choose to share or duplicate the dimension.

If you share dimensions and measures between cubes, and you have both cubes displayed as widgets in your workspace, the filters that you apply to the widget that represents the original cube will also apply to the widget that represents the copy of the cube. To separate the widgets so that you can filter

the widgets independently of each other, click the **Widget actions** icon  and clear the **Listen to All Widgets** option.

- Duplicate the dimensions. This option separates the dimensions, so that changes to the original dimension do not apply to the new dimension.

Related information:

“Displaying different data in a crosstab and a chart” on page 84

You can use two widgets to display different data perspectives in a crosstab and a chart that use the same cube.

Editing dimensions and measures

When editing a dimension or measure in IBM Cognos Insight, you can edit its attributes, change the order of its child items, create a hierarchy of items, or add items. You can also change how the data in a dimension is displayed.

Procedure

1. In the content pane, right-click the dimension or measure that you want to edit, and click **Edit**.
2. If you want to edit the system-defined attributes, right-click the **Name** label in the header and select the attribute.

The following system-defined attributes are available, depending on whether you selected a dimension or measure:

- **Pick List** is used to define a list of values for the measure. This attribute is applicable to measures only.
 - **Format** is used to define the format of a measure. This attribute is applicable to measures only.
 - **Caption** is the caption that is used for the item.
 - **Weight** is a factor that is applied to change a positive value to a negative value. This factor is usually negative one. For example, if the unit price for a product is 50 euros and the discount is 5 euros, when a weight of -1 is applied to the discount, the calculation result is negative.
 - **Index** defines the order of the items in the dimension. If you change the order of an item, the index value changes to reflect the new order.
 - **Invariant Name** is the system name for the item.
 - **Level** is the level of the item in the hierarchy.
3. If you want to define a new attribute, right-click the header and click **Add a new attribute**. Name the new attribute and define whether its type is numeric, text, or alias.
An alias adds data that can be used as an alternate name for an item, such as a name in another language.
 4. If you want to change the order of items, right-click the item and click **Move Up** or **Move Down**.
 5. If you want to nest items under other items, right-click the item and click **Promote Selected Members** or **Demote Selected Members**.
 6. If you want to rename an item in the dimension, select the item and type a new name.

Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

7. Click **Close**.
8. If you want to change how the data for the dimension is displayed, right-click the dimension, click **Show Totals**, and then click one of the following commands:
 - **Show Totals Leading** to display totals at the start of a group and to view the members as a hierarchy that you can collapse and expand.
 - **Show Totals Trailing** to display totals at the end of a group. This is useful for financial data.
 - **Don't Show Totals** to hide the members that display a total.
 - **Show as Flat List** to view the members as a flat list.

Changing the format of measures

The format of measures is defined by the IBM Cognos Insight workspace user's preferences. For example, if a user has set their operating system to German (Germany), measures will be displayed with the standard formatting for German. You can specify formatting for measures to add formatting options or override the user preferences.

Procedure

1. To change the format of a measure, right-click a row or column header that represents the measure, and then click **Format *selected measure* Data**. The *selected measure* identifies the measure to which you will apply formatting.
2. To change the format of multiple measures, click the row or column headings that represent the measures, then right-click the selection and click **Format All Highlighted Measures**. You can only apply formatting to 100 measures at once. This limit is in place to avoid performance issues.
3. Select the format style and options for the measure. As you select options, the examples in the **Samples** pane change to display the results of your selections according to your culture. However, when other users open the workspace, they will see your customizations according to their cultures. For example, the standard in French (Canada) is to put the currency symbol after the number, preceded by a space. In English (Canada), the standard is to put the currency symbol before the number with no space. So if you customized the format of a Revenue measure to display two decimal places, in French (Canada), users would see 3000,00 \$ and in English (Canada), users would see \$3,000.00.

Restriction: If you are connected to IBM Cognos TM1, version 10.1.1 or previous, you will see the previous formatting options, which do not include some of the following formats and settings. To format measures when you are connected to IBM Cognos TM1, version 10.1.1 or previous, see the *IBM Cognos Insight User Guide*, version 10.2.0.1, on the IBM Cognos Insight information center (<http://pic.dhe.ibm.com/infocenter/cinsight/v10r2m0/index.jsp>).

Table 13. Format styles and options for measures

Format style	Options
General	The General format has no specific formatting. You can use this option to clear formatting that you have set for a measure.
Number	<p>On the Basic tab, you can set the following options:</p> <ul style="list-style-type: none">• Specify the number of decimal places.• Define groups of digits.• Choose to show a zero value as blank. <p>On the Advanced tab, you can choose to inherit the user's preference for negative numbers, as set by their operating system format, or display negative numbers in parentheses or with a minus sign.</p>

Table 13. Format styles and options for measures (continued)

Format style	Options
Currency	<p>On the Basic tab, you can set the following options:</p> <ul style="list-style-type: none"> • Select a specific currency and change how the number and currency symbol are displayed. • Choose a custom currency format. For example, if you want to identify this measure with a prefix that your company uses to identify Canadian currency, you can select Custom currency and type CAD in the text field. • Specify the number of decimal places. • Define groups of digits. • Choose to show a zero value as blank. <p>On the Advanced tab, you can choose to inherit the user's preference for negative numbers, as set by their operating system format, or display negative numbers in parentheses or with a minus sign.</p>
Date	<p>You can choose a date pattern and whether to use four digits or two digits to express years. For example, 8/25/13 or Aug 25, 2013.</p>
Time	<p>On the Basic tab, you can choose a time pattern. For example, 7:00 AM or 7:00:00 AM GMT.</p> <p>On the Advanced tab, you can choose to use a 24-hour clock.</p>
Date and Time	<p>On the Basic tab, you can choose a date and time pattern and whether to use four digits or two digits to express years. For example, 8/25/13 4:55 PM or Aug 25, 2013 4:55:23 PM.</p> <p>On the Advanced tab, you can choose to use a 24-hour clock.</p>
Percentage	<p>On the Basic tab, you can set the following options:</p> <ul style="list-style-type: none"> • Specify the number of decimal places. • Define groups of digits. • Choose to show a zero value as blank. <p>On the Advanced tab, you can choose to inherit the user's preference for negative numbers, as set by their operating system format, or display negative numbers in parentheses or with a minus sign.</p>
Text	<p>Text is a string format. No other choices are available.</p>
Custom	<p>You can use a custom defined number or date template. CAUTION: Custom formatting patterns are saved with the data. When other users see this data, their user preferences will be overridden by this pattern. Use custom formatting patterns only when the format you need is not available from the Format types list.</p>

4. To remove formatting from a measure, right-click any cell that represents the measure and then click **Clear Format of Measure** *selected measure*.

Adding members to dimensions

You can add members to dimensions by adding rows and columns to a crosstab at different levels.

Procedure

1. Complete one of the following actions, depending on where in the dimension you want to add the new member:
 - To add a blank member, right-click where you want to add a new member, and then click **Insert**.
 - To create a parent member for several existing members, Ctrl+right-click the members and click **Insert Parent**.
 - To add a child member, right-click the member that you want to be the parent member and click **Insert Child**.
 - To duplicate an existing member, right-click the member that you want to duplicate, and click **Duplicate Member**.
2. To rename the new member, right-click the member and click **Rename**.

Important: When you rename a data item, you are renaming it in the cube, not just in the current widget. Therefore, the new name will be reflected in every widget that includes this data item.

Related tasks:

“Searching for data” on page 60

When a dimension contains many elements, you can use an explore point to search for an element.

Expanding hierarchies to display all members

In a hierarchy, members are organized into a tree structure in the crosstab, with each member that has one or more parent members and an arbitrary number of child members. You can show or hide all levels of the hierarchy, or you can show only the members at a specified level.

Procedure

1. If the dimension is not viewed as a hierarchy in the crosstab, right-click the dimension and click **Show Totals**, and then click **Show Totals Leading**.
2. To view the child members of one parent member, click the plus sign next to the parent member.


For example, you want to see the months under the first quarter of the year.
3. To show all members, right-click the dimension and click **Expand to Level** and then select the level that you want to show.

For example, you want to see all months under all quarters, not just for one quarter. If you want to see all days of the year, you expand to the lowest level in the dimension.

Organizing dimensions into a hierarchy

Dimensions can be organized into a hierarchical structure, with each dimension representing a different level of the hierarchy. For example, you have separate dimensions for days, months, and quarters. You group them into a dimension called year.

Procedure

1. Click the content pane icon  and then click **Data**.
2. Right-click the cube that contains the dimensions you want to organize into a hierarchy and click **Group Dimensions**.

3. Enter a name for the grouped dimension.
4. Select the dimensions that you want to include in the grouped dimensions.
The order of the dimensions defines the order of the hierarchy.
5. Specify whether data is copied from the original cube or whether data is referenced from the original cube.
6. Click **OK**.

Adding text measures

Use a text measure to describe a measure or add other comments about a measure. For example, you add a text measure to explain the significance of the variance between forecast revenue and actual revenue for each product line.


Procedure

1. In the content pane, right-click the measures dimension, and click **Edit**.
2. In the **Name** column, right-click the row where you want the new text measure to appear, and click **Insert New Text Member**.
3. Type a name for the text measure, and click **Close**.
4. Drag the text measure from the content pane to the crosstab where you want it to appear.
5. Type the appropriate text in the cells of the text measure.

Adding and viewing comments in cells

Use comments to note for others the significance of the cell value, such as why the variance between forecast revenue and actual revenue for a product is high. You can view all comments that were added to a cell. You can also browse all comments that were added to all cells in the selected crosstab.

About this task

If you are working in distributed mode or connected mode and have taken ownership of a node, you can add comments to cells but the comments are not visible to everyone who has access to that cell until you commit all your changes by clicking the **Commit** icon .

If you are working in distributed mode or connected mode and someone else has taken ownership of a node, you can add comments to cells and your comments are immediately visible to everyone who has access to that cell.

For information about working in connected and distributed modes, see “Contribute to a workspace on a Cognos TM1 server” on page 125.

Procedure

1. Right-click the cell where you want to add a comment and click **Comment**, and then click **Add Comment**.
2. Type the comment in the field.
3. Click **OK**.
4. To view the comments in one cell, pause the pointer over the cell.
5. To view all comments, right-click any cell and click **Browse All Comments**.



6. If you want to delete a comment, in the **Browse All Comments** dialog box, select the comment, and click **Delete**.

In order to delete comments, the workspace must not be published and you must be working in personal mode, that is, not in connected mode or distributed mode.

Organizing cubes into folders

When you organize the cubes into folders, you make it easier to find and understand the data.

Procedure

1. In the content pane , click the **New** icon  and select **Folder**.
2. Add cubes to the folder.

Deleting items

If you delete a member, measure, or dimension that is shared in several cubes, it is deleted from all cubes. You can also delete the entire cube. You must keep a minimum of two dimensions or one dimension and one measure. You can also create copies of a cube with each copy containing different dimensions.

Procedure

Complete one or more of the following actions:

Important: You cannot use the Undo commands to revert these deletions.

Table 14. How to delete items


Goal	Action
Remove a member from a dimension.	Right-click the member in the crosstab and click Delete from Dimension .
Delete a measure.	Click the measure in the Content pane and click the Delete icon  .
Delete a cube.	Click the cube in the Content pane and click the Delete icon.

Table 14. How to delete items (continued)

Goal	Action
Delete a dimension.	<p>In the Content pane, click the dimension and click the Delete icon.</p> <p>If you want to delete more dimensions, add them to the Removed Dimensions field in the Remove Dimensions from Cube window.</p> <p>Specify the value to keep for each deleted dimension. For example, you are creating a dimension for each sales region. You remove the sales regions that are not applicable but you keep the total for all sales regions.</p> <p>Complete one of the following actions:</p> <ul style="list-style-type: none"> • To delete the selected dimensions from the current cube, click Apply changes to current cube and click OK. • To create a new cube that contains only the dimensions you want to keep, click Create a new cube, specify whether data is copied or referenced, and click OK.

If you are working in distributed mode and delete data, the data is still available on the server until you submit the data. This is because the data is stored locally in distributed mode.


Chapter 8. Export and print workspaces

You can share the workspaces that you create in IBM Cognos Insight with other people by exporting to various file types or by printing them on paper.

Exporting crosstabs to CSV files

To back up your data to another location, transfer your dimensions from the crosstab to a CSV file. You can view and edit the file in a Microsoft Excel spreadsheet.

Procedure

1. In the crosstab, click the **Widget actions** icon  and click **Export to > Export to CSV File**.
2. Enter a file name, and click **Save**.

Exporting data to Microsoft Excel spreadsheets

To export the data in an IBM Cognos Insight widget to a Microsoft Excel spreadsheet, use the **Quick Export**.


Procedure

Click the **Widget actions** icon  and click **Export to > Quick Export**. The crosstab data is exported, and a Microsoft Excel spreadsheet opens, displaying the crosstab data.

Creating an export process

If you plan to regularly export the data in an IBM Cognos Insight widget to a Microsoft Excel spreadsheet, you can create an export process. Then you can run the export process whenever you want to export the data. You can also share export processes with colleagues.

Procedure

1. Click the **Widget actions** icon  and click **Export to > Export to Microsoft Excel**.
2. To create an export process, perform the following steps:
 - a. Click **New**.
 - b. In the **Name** field, enter a name for this export process. This is the name you will use to identify this export process when you want to run it again, so the name should be descriptive and unique.
 - c. In the **Available** list, select the cubes that you want to export data for, and click **Next**.
 - d. Click the dimensions in each cube, and then move elements from the **Included** list to the **Available** list to include the elements in the exported data.

- e. If a dimension is shared between cubes and you want to export the same elements from each copy of the dimension, select the elements from one dimension that you want to export, and then click **Apply to All**. The same elements will be exported from the dimension in other cubes.
 - f. To include all the elements in a dimension, including elements that may be added after you create the export process, click the dimension and then select the **Include all** check box.
 - g. Click **Next**.
 - h. Use the up and down arrows to identify which dimensions will appear in the spreadsheet rows, columns, and pages. For example, if you have chosen to include the Product, Country or Region, Year, and Measures dimensions in the spreadsheet, you can put Country or Region and Product on the rows of the spreadsheet, Measures on the columns, and Years on the pages to put each year on a different tab of the spreadsheet.
 - i. Click **Next**.
 - j. Choose whether to merge cells and run the export, and then click **Finish**.
3. To run an export process, select the process and click **Run**.
 4. To export an export process, click **Export**, and save the export process file to your computer.
 5. To import an export process, such as an export process you received from a colleague, click **Import**, and select the export file from your computer.


Exporting workspaces to PDF files

Export the current tab of a workspace to a new PDF file or as a new page in an existing PDF file to obtain a snapshot of the current view of your workspace.

About this task

The PDF that you create by exporting includes everything that appears on the current tab, including the current view of the canvas, the filters that you have applied, and any other changes that you have made. For example, if your workspace tab includes a very long crosstab, scroll down or scroll up to display the crosstab rows that you want to appear in the PDF.

Procedure

From the tab and view that you want to export, click the **Actions** icon , and then complete one of the following actions:

- To export to a new PDF file, click **Export to PDF > Create file**. A navigation window appears where you can enter a file name and choose a location on your computer in which to save the file.
- To append the exported workspace tab as a page at the end of an existing PDF, click **Export to PDF > Append to file**. A navigation window appears where you can choose the PDF file to add the workspace tab to.

Printing widget data

You can print the data in a widget as a hard copy. You can choose the parts of the dimensions in context that you want to print.

Procedure

1. Click the **Widget actions** icon  and click **Print Data**.


Restriction: The following steps only apply if the widget includes dimensions in context. If the widget only has dimensions in the rows and columns, you will not be prompted to change the dimensions in context.

2. To print the data as it is filtered in the widget, click **Finish**. For example, if a crosstab widget displays Products in the rows, Months in the columns, and Shipped Quantity as the measure in context, you can print the data as it appears in the crosstab, filtered to display only the Shipped Quantity measure.
3. To change the dimensions in context in the printed copy, select the elements that you want to appear in the printed copy, and click **Next**. For example, if a crosstab widget displays Products in the rows, Months in the columns, and Shipped Quantity as the measure in context, you can change the measure that is in context to another measure in the cube, such as Revenue, and print the widget with Revenue in context.
4. To exclude certain pages from the printed data, clear the check boxes for the pages that you want to exclude.
5. Click **Finish**
6. Click **Print**.

Printing workspace tabs

Print the current tab of a workspace to obtain a hard copy snapshot of your workspace.

Procedure

1. Click the tab that you want to print, and ensure that the widgets are displaying the content that you want to appear in the printed copy. For example, if you want to print the data for only one product line, ensure that your workspace is filtered to show only that product line.
2. Click the **Actions** icon , and then click **Print**. A preview of the pages of your printed tab appears.
3. To change the orientation of the printed pages, click **Portrait** or **Landscape**. To print some pages, select the check boxes for the pages that you want to print.
4. To resize the workspace tab to print on only one page, select the **Fit to one page** check box.
5. To add information about your workspace to the header and footer of the printed pages, select the **Include header and footer** check box. The information in the header and footer includes the workspace file name, the tab name, the page number, and the date and time that you printed.
6. To change your printer or its settings, click **Advanced**.
7. Click **Print**.

Deleting workspaces from your computer

If you no longer need an IBM Cognos Insight workspace, you can remove the workspace from your computer.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Chapter 9. For Cognos Express users

You can share the workspaces that you create in IBM Cognos Insight with other people by sharing them on the IBM Cognos Express server.

Contribute to a workspace on a Cognos Express server

When your IBM Cognos Express server administrator distributes an enterprise-wide plan in a Cognos Insight workspace, you can review, analyze, and update the portion of the plan that was assigned to you.


Adding your contribution

You need to contribute data to your part of a plan, such as the Sales Division, Marketing Division, Development Division, or Cost Center.

About this task

Each part of the plan is known as a node. In connected or distributed mode, you can take ownership of a node from any level.

Procedure

1. Open IBM Cognos Insight from the IBM Cognos TM1 Applications portal in connected or distributed mode.
2. Click the **Take ownership** icon .
3. Explore and analyze the data.
4. Enter or select data.



The administrator may have defined a list of values for you to select from.

The administrator may have provided more information about the views included in the plan in IBM Cognos TM1 Performance Modeler. To view this information, click **Help**, and then click **View Help**. If the administrator did not add help text in Cognos TM1 Performance Modeler, the **View Help** dialog box is empty. If you are not connected to a Cognos TM1 server, the **View Help** option is not available on the **Help** menu.

Committing or resetting the data

To share your contribution with others while continuing to make changes, commit your contribution. Commit enables you to take your personal changes that are highlighted in blue and make them part of the base data. Your colleagues who have access to the plan can view your contribution. If you want to revert your changes to the last committed data, reset all data.


Procedure

1. To share your contribution with others while continuing to make changes, click the **Commit** icon .
2. To revert to the last committed data, click the **Widget actions** icon  and click **Reset All Data**.

Submitting your contribution

When the IBM Cognos TM1 or IBM Cognos Express administrator has deployed an approval application, you enter data and then submit your contribution as final. Submit locks the data.

Procedure

When you are finished with your contribution, click the **Submit** icon . The **Submit** icon is enabled only if all changes have been committed.


Results

The reviewer can now take ownership of your contribution and review it.

Rejecting a submission

A submission is ready to be reviewed. As a reviewer, you can view the latest committed changes. If you do not approve of certain data, you can reject the submission. This means another user can take ownership of the submission and make the necessary corrections.

Procedure

1. Open the submission to review.
2. Explore and analyze the data that was submitted to you.
3. If you do not approve of the submitted changes, click the **Reject** icon .

Working offline from a Cognos TM1 or Cognos Express system

When you are working in IBM Cognos Insight in distributed mode, disconnect from an IBM Cognos TM1 or IBM Cognos Express system to make changes to a workspace on your computer and then commit the changes later.

Before you begin


Working offline is only available when you start Cognos Insight in distributed mode from the IBM Cognos TM1 Applications portal.


About this task

When you know that you will not be able to commit your changes to the Cognos TM1 or Cognos Express server, you can take ownership of a workspace and then set Cognos Insight to work offline.

For example, if you plan to work in an area with no Internet connection, you can save a local copy and then set Cognos Insight to work offline. You can work on your local copy while disconnected from the server. Then, when you reconnect, you can commit any changes that you made to your workspace to the Cognos TM1 or Cognos Express server.

Procedure

1. Click the **Actions** icon , and then click **Work Offline**. A check mark appears beside the **Work Offline** menu item.

2. When you want to reconnect to the Cognos TM1 or Cognos Express server, click the **Actions** icon, and then click **Work Offline**. The check mark beside the **Work Offline** menu item disappears, indicating that you are connected.
3. Commit your changes by clicking the **Commit** icon . Your data is merged with the data on the server.

Sharing workspaces to Cognos Express

Sharing a workspace from IBM Cognos Insight adds a copy of your workspace to IBM Cognos Connection on the IBM Cognos Express server for other users to download and use on their computers.

Before you begin

To share a workspace, you must have permission to add files to the IBM Cognos Express server. You can use Cognos Connection to control access to the workspace.

Restriction: You can share only workspaces with a file size of 5 MB or less.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

Shared workspaces cannot be edited directly in Cognos Connection. When your colleagues access the workspace from Cognos Connection, it opens in their installation of IBM Cognos Insight.

The following figure shows the workflow for sharing from Cognos Insight. When you share a workspace from Cognos Insight to Cognos Express, the workspace file (CDD) appears in IBM Cognos Connection for other users to open in Cognos Insight.

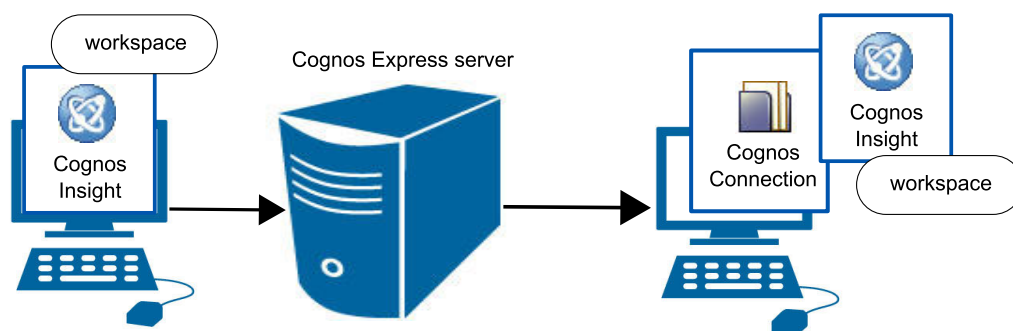



Figure 8. Sharing workspaces to Cognos Express

Procedure

1. Click the **Actions** icon  and then click **Share**. If you are sharing a new workspace, Cognos Insight prompts you to save the workspace before proceeding.

CAUTION:

When you click **Share**, any changes you made to an existing workspace are automatically saved.

2. In the **IBM Cognos system URL** field, specify the Cognos Express system that you want to use.
3. Log in as Anonymous or using your Cognos Express credentials.
4. Specify the name and location of the workspace document.

CAUTION:

If you choose a workspace name that exists on the server, the original workspace are overwritten.

5. Click **Next** to review your choices.
6. Click **Finish** when you are ready to share the workspace.

Deleting workspaces as a Cognos Express user

If you no longer need an IBM Cognos Insight workspace, you can remove the workspace from IBM Cognos Express.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.
- If you shared the workspace on IBM Cognos Connection, delete the workspace from Cognos Connection.

For more information, see the *IBM Cognos Connection User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Chapter 10. For Cognos Express administrators

IBM Cognos Express administrators can publish and distribute workspaces that were created in IBM Cognos Insight to the Cognos Express server for Cognos Express users to access.

Connecting to a Cognos Express system

IBM Cognos Express administrators can connect to a Cognos Express system when they want to import dimensions or cubes, publish a workspace, or contribute to a plan.


Before you begin

Only Cognos Express administrators can connect to a Cognos Express system.

About this task

All views and applications that were created in IBM Cognos TM1 Architect and IBM Cognos TM1 Performance Modeler appear.

Procedure

1. Click the **Actions** icon , and then click **Connect to IBM Cognos TM1**.
2. In the **IBM Cognos TM1 system URL**, specify the URL to the Cognos Express server. The URL is case sensitive.
3. Enter your credentials for the specified system.
4. Click **Next**.
5. Choose a planning server and application.
6. Click **Finish**.

Publishing workspaces to Cognos Express

Publishing a workspace from IBM Cognos Insight copies the data in your workspace to the Cognos Express server and creates an application in the IBM Cognos TM1 Applications portal.

Before you begin

Only Cognos Express administrators can publish workspace content to Cognos Express.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

When you publish your workspaces and cubes, other users who have access to the Cognos Express server can access your workspaces from the IBM Cognos TM1

Applications portal and work with them in Cognos Insight. The underlying data is stored on the Cognos Express server, and Cognos Insight is used to connect to the server.

Restriction: By default, Cognos Insight does not publish when more than 10 Cognos TM1 servers are running at one time. This configuration prevents users from overloading the system resources.

The following figure shows the workflow for publishing from Cognos Insight. When you publish a workspace from Cognos Insight to Cognos Express, the data in your workspace is copied to the Cognos Express server, and an application is added to the IBM Cognos TM1 Applications portal.

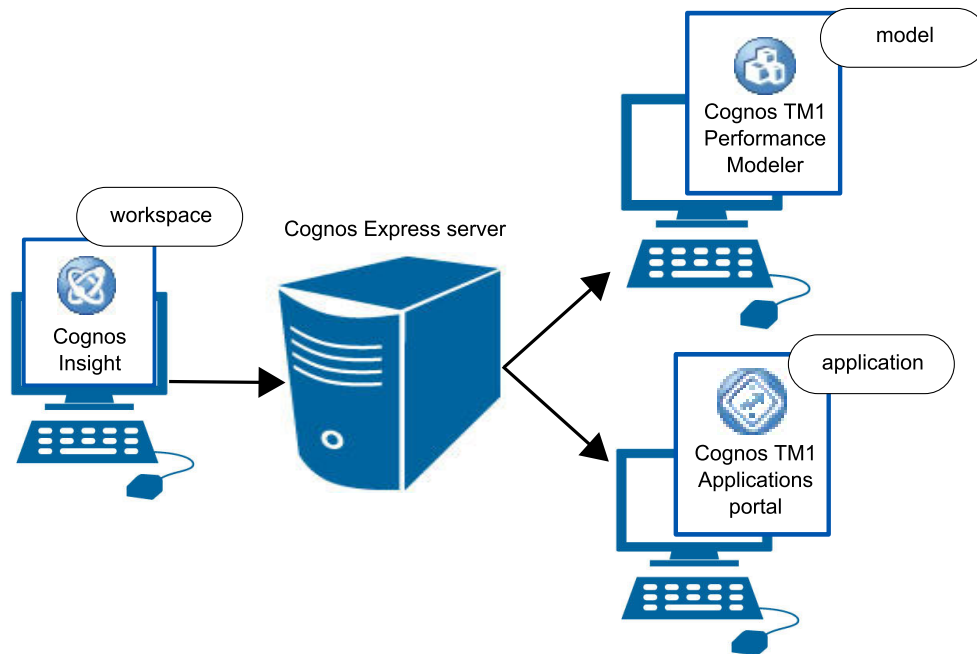



Figure 9. Publishing workspaces to Cognos Express

Procedure

1. Click the **Actions** icon  and then click **Publish**. If you are publishing a new workspace, Cognos Insight prompts you to save the workspace before proceeding.

CAUTION:

When you click Publish, any changes you made to an existing workspace are saved.

2. Click the **Publish** option.
3. In the **IBM Cognos TM1 system URL** field, specify the Cognos Express system that you want to use.
4. Enter your credentials for the specified system. If the Cognos TM1 Application server uses Cognos Access Manager, you can log in as Anonymous or as another user.
5. Specify the name of the Cognos application that you want to create.

Attention: The application name must be unique.

6. Optional: If you want to publish a responsibility application type, select the dimension that controls access to the data. If you want to publish a central application type, do not select a dimension.

A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.

A central application type is used by a small group of users who share central planning or analysis.

For more information about application types, see Chapter 10, “For Cognos Express administrators,” on page 115

7. Click **Next** to review your choices.
8. Click **Finish** when you are ready to publish the workspace.

Publishing and distributing workspaces to Cognos Express

Publishing and distributing a workspace copies the data in your workspace to the IBM Cognos Express server and creates an application in the IBM Cognos TM1 Applications portal. IBM Cognos Insight also creates a data source connection, a package, and reports in IBM Cognos Connection.

Before you begin

To publish and distribute a workspace, you must have administrator rights on the Cognos Express server.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

When you publish and distribute a workspace, users on the Cognos Express server can access your data as an application on the Cognos TM1 Applications portal, and users on the Cognos Express server can open workspaces in IBM Cognos Workspace or IBM Cognos Workspace Advanced and reports in IBM Cognos Report Studio.

The following figure shows the workflow for publishing and distributing from Cognos Insight. When you publish and distribute a workspace from Cognos Insight to Cognos Express, the data in your workspace is copied to the Cognos Express server, an application is added to the IBM Cognos TM1 Applications portal, and a data source connection, a package, and reports are added to IBM Cognos Connection.

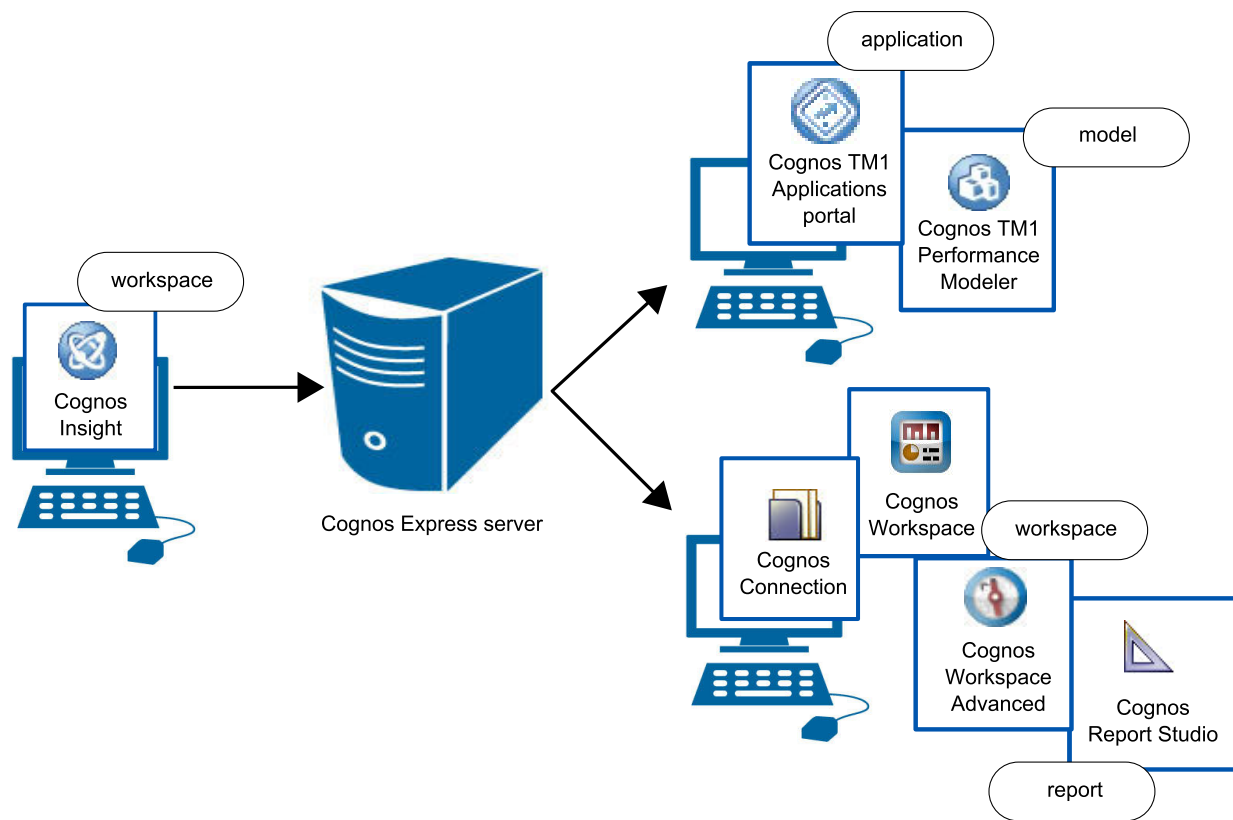


Figure 10. Publishing and distributing workspaces to Cognos Express

Each time you publish and distribute a workspace, Cognos Insight creates a Cognos TM1 server service. Each new Cognos TM1 server service impacts the performance of Cognos TM1 server. You can avoid this performance issue by working in connected mode, which means that you are connected to the Cognos TM1 server, so you can commit your changes to the server without republishing them. For information about working in connected mode, see “Contribute to a workspace on a Cognos Express server” on page 111.

By default, Cognos Insight does not publish if more than 10 Cognos TM1 servers are running at a time. This configuration prevents users from overloading the system resources.

Procedure

1. Click the **Actions** icon , and then click **Publish**.

CAUTION:

When you click Publish, any changes you made to an existing workspace are saved.

2. Click the **Publish & Distribute** option.
3. In the **IBM Cognos TM1 system URL** field, specify the Cognos Express system that you want to use.
4. Enter your credentials for the specified system.

If the Cognos TM1 planning service uses Cognos Access Manager, you can log in as Anonymous or as another user.

5. Specify the name of the Cognos application that you want to create.

Attention: The application name must be unique.

6. If you want to publish a responsibility application type, select the dimension that controls access to data. If you want to publish a central application type, do not select a dimension.

A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.

A central application type is used by a small group of users who share central planning or analysis.

For more information about application types, see Chapter 10, “For Cognos Express administrators,” on page 115.

7. Click **Next**.
 8. In the **IBM Cognos system URL** field, specify the Cognos Express server that you want to use.
 9. Log in as Anonymous or as another user.
 10. Click **Next** to review your choices:
 - You can change the names of the reports.
 - You can change the name or location of the package that contains the reports.
- CAUTION:**
If you choose a package name that exists on the server, the original package is overwritten.
11. Click **Finish** when you are ready to publish the workspace.

Workspaces published from Cognos Insight to Cognos Workspace

A workspace that was created in IBM Cognos Insight can be published to an IBM Cognos Business Intelligence server and then used in IBM Cognos Workspace.

When you publish Cognos Insight workspaces to Cognos BI, the workspace appears in Cognos Workspace almost the same way that it appeared in Cognos Insight. The following information describes the differences you might see when you publish a Cognos Insight workspace and then open it in Cognos Workspace.

General differences

- Action buttons that run IBM Cognos TM1 TurboIntegrator scripts do not appear.
- Web page widgets that include URLs that are not listed in the safe domains list do not appear. The issue can be resolved by adding the domains to the safe domains list in IBM Cognos Configuration or IBM Cognos Administration.
- Report widgets that are published from Cognos Insight do not populate the list of values for slider filters and check box controls in Cognos Workspace.
- Reports that access IBM Cognos TM1 cubes and do not include at least one measure do not appear.
- Some number formatting does not appear. Number formats can be adjusted to match after you publish by using any of the formatting options that are available in Cognos Workspace.
- Fonts may appear smaller in Cognos Workspace than they appear in Cognos Insight. This occurs when the font DPI setting in your Microsoft Windows operating system is larger than the font DPI setting in your Web browser. To resolve this issue, change your Microsoft Windows operating system DPI to 96, which is the default for most web browsers.

- Information from the overview area in Cognos Insight is available in the Cognos Workspace information bar.
- Synchronized drilling will be turned on by default in Cognos Workspace.
- The explore pane does not appear.
- Comments do not appear.

Differences in crosstabs

- Text measures in crosstabs do not appear.
- Resizing of rows and columns is not preserved.
- If you hide a nested intersection in Cognos Insight, the other nested intersections for those dimensions will be hidden in Cognos Workspace. For example, if product lines are nested in years, and you hide the 2011 revenue for Golf Equipment in your Cognos Insight crosstab, when you open the workspace in Cognos Workspace, the revenue for Golf Equipment is hidden for all years.
- If you expand or collapse a nested intersection in Cognos Insight, the other nested intersections for those dimensions will be expanded or collapsed in Cognos Workspace. For example, if product lines are nested in years, and you collapse the 2012 revenue to show only the total for all product lines, when you open the workspace in Cognos Workspace, all product lines in all years will be collapsed.
- Totals that are set to **Show Totals Trailing** may not appear. Trailing totals will be preserved only for dimensions that have been drilled down or drilled up on in Cognos Insight. If trailing totals are not preserved, totals will appear leading in Cognos Workspace.
- When top and bottom filters are applied to intersected dimensions, filter results may not appear in the same way.
- Crosstab and chart widgets do not appear if the chart is a tree map.

Differences in charts

- Chart scales may differ. The data that appears in Cognos Workspace will be correct, but Cognos Workspace may display a different range of values on an axis, which changes the scale of the chart.
- The width and depth of the bars in a bar chart may differ.
- Crosstab and chart widgets do not appear if the chart is a tree map.
- Bubble charts do not appear if a measure is plotted on the series or category axis.

Maintain a published application

After publishing an application to an IBM Cognos TM1 or IBM Cognos Express server, you have a number of options to maintain it.

If the modeler has defined views in IBM Cognos TM1 Performance Modeler or in IBM Cognos TM1 Architect and you publish an editable application, all views in the Cognos TM1 or Cognos Express server are included as part of the application. If the application is not editable, you can change the layout only.

For more information about editable applications, see the *IBM Cognos TM1 Performance Modeler User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

You can perform the following actions to maintain a published application:

- Schedule a process that imports data. For more information, see the topics about chores in the *IBM Cognos TM1 User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).
- Connect to the Cognos TM1 or Cognos Express server to make changes on the server. These changes are made immediately on the server and cannot be undone. If you try to update a workspace by publishing it again without connecting to it first, you will create a second application using the same cube, and you will receive an error message that indicates that the validation logic has failed.
- Add or remove cubes, dimensions, measures, levels, or attributes. These changes are made immediately on the server and cannot be undone.
- Add or remove data. These changes are made immediately on the server and cannot be undone.
- Make changes to the layout of the workspace. If you make changes to the layout, you must republish the workspace because layout changes are not made immediately on the server.

Designing a contribution experience

After an application is created in IBM Cognos TM1 Performance Modeler, you can enhance it in IBM Cognos Insight for your contributors and reviewers.

Review the different application types and then use the procedures to design a contribution experience.

Application types

When designing the application in Cognos TM1 Performance Modeler, the modeler defines the application type.

Responsibility

The responsibility application type is based on a reporting structure, such as the structure of your business, department, or enterprise. Changes can be made without having to be submitted and approved. The responsibility application type is used for rolling forecasts or continuous planning processes where there is no defined end date.

Central

The central application type is used by a small group of users who equally share the task of performing central planning or analysis. Taking ownership is an option, not enforced as in the other application types. Changes cannot be locked.

Approval

The approval application type is based on a reporting structure, such as the approval or reporting structure of your business, department, or enterprise. After a change has been submitted, the application is locked for any new changes until the approving person has rejected the change.

Applications that are created in Cognos Insight can be either a responsibility application type or a central application type. You cannot create an approval application type in Cognos Insight but you can use Cognos Insight to enhance one that was created in Cognos TM1 Performance Modeler.

Procedure

1. Connect to an IBM Cognos TM1 application and log on as the administrator.
2. Explain your plan and detail each individual's responsibilities on the first tab to help them contribute to the plan.

The administrator may have provided more information about the views included in the plan in Cognos TM1 Performance Modeler. To view this information, click **Help**, and then click **View Help**. If the administrator did not add help text in Cognos TM1 Performance Modeler, the **View Help** dialog box is empty. If you are not connected to a Cognos TM1 or IBM Cognos Express server, the **View Help** option is not available from the **Help** menu.

3. Present your findings as starting points to a deeper analysis. Add your requirements for contributors to explain exceptions that are highlighted in the data.
4. Add additional tabs that are required for your plan and include action buttons to guide users through the different tabs or to run processes.
5. Add text, images, and web pages that provide additional context to the plan or analysis.

If your users will be working in multiple languages, include text widgets and web pages in each language.

6. To prevent your users from moving the widgets and to hide the toolbar from them, right-click the canvas and click **Lock All Widgets**.
7. Publish the workspace.

Results

For all application types, your users can do the following actions:

- Analyze data by sorting, swapping rows and columns, suppressing empty cells, resizing cells, and working with charts.
- Run scripts from action buttons, if you provided them with these buttons.
- Contribute to the slice of the plan that you have granted them access to.
- Use explore points to analyze data.

For the central application type, your users can also do the following actions:

- Design the workspace; you can navigate, minimize, and maximize the widgets that the administrator has prepared for you unless the administrator has locked the widgets, but you cannot add new content of your own
- Import data.
- Restructure data.

For the approval and responsibility application types, your users cannot do the following actions:

- Design the workspace; they can navigate, minimize, and maximize the widgets that you have prepared for them unless you have locked the widgets, but they cannot add new content of their own.
- Import data, unless you provide them with an action button to do so.
- Restructure data, unless you provide them with an action button to do so.

Creating a Cognos Planning Service archive


You can create an archive of the data directory and layout when you want to move the IBM Cognos TM1 or IBM Cognos Express server.

About this task

The following two archive files are created when you create an archive:

- A data directory file for the system administrator to transfer to another machine and to start a Cognos TM1 process against it
- An application file that can be imported into the Cognos TM1 Applications portal

Procedure

1. Click the **Actions** icon  and then click **Publish**.
2. Click **IBM Planning Service Archive**.
3. In the **Destination directory** field, specify the location where the archive will be stored.
4. Specify the name of the application that you want to create.
5. If you want to archive a responsibility application type, select the dimension that will control access to data. If you want to archive a central application type, do not select a dimension.

A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.

A central application type is used by a small group of users who equally share the task of performing central planning or analysis.

For more information about application types, see Chapter 12, “For Cognos TM1 administrators,” on page 137 or Chapter 10, “For Cognos Express administrators,” on page 115.

6. Click **Next** to review what will be archived.
7. Click **Finish** when you are ready to create the two archive files.

Deleting workspaces as a Cognos Express administrator

If you no longer need an IBM Cognos Insight workspace, you can remove the workspace, application, server, data source, package, and report from the IBM Cognos Express server.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.
- If you shared the workspace on IBM Cognos Connection, delete the workspace from Cognos Connection.

For more information, see the *IBM Cognos Connection User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

- If you published and distributed the workspace, delete the application from the Cognos TM1 Applications portal, delete the server instance from Cognos Express, and delete the data source, package, and report from Cognos Connection.

For more information, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Chapter 11. For Cognos TM1 users

IBM Cognos Insight workspaces can be stored as applications on an IBM Cognos TM1 server. If you have permission to access the application on the IBM Cognos TM1 Applications portal, you can open the workspace in Cognos Insight from the portal.

There are two modes that you can use to edit a workspace from the Cognos TM1 Applications portal. The Cognos TM1 server administrator determines the connection modes that are available in IBM Cognos Insight.

You can access a workspace from the Cognos TM1 Applications portal by working in distributed mode or connected mode, or by working offline and committing your changes when you reconnect. The mode that you are working in is indicated in the Cognos Insight title bar. The following list describes distributed mode, connected mode, and working offline.

Distributed mode

Distributed mode is useful when many users need to access the same workspace, with each user working on a part of the workspace, or plan. When you work in distributed mode, data is copied from the shared Cognos TM1 server on request, and you can work with the copy that is stored locally on your computer. The data is regularly updated on your computer from the server. When you are finished, you must commit and submit your changes to the server.

Connected mode

Connected mode is useful when you are working with a large volume of data and only small amounts of data are updated frequently. Data is kept on the Cognos TM1 server, and you work directly on the server data. You cannot save data locally on your computer.

Working offline

If you are working on a workspace in distributed mode, you can choose to disconnect from a Cognos TM1 server when you want to make changes on your local computer and commit the changes later.

Contribute to a workspace on a Cognos TM1 server

When your IBM Cognos TM1 server administrator distributes an enterprise-wide plan in a Cognos Insight workspace, you can review, analyze, and update the portion of the plan that was assigned to you.


Adding your contribution

You need to contribute data to your part of a plan, such as the Sales Division, Marketing Division, Development Division, or Cost Center.

About this task

Each part of the plan is known as a node. In connected or distributed mode, you can take ownership of a node from any level.

Procedure

1. Open IBM Cognos Insight from the IBM Cognos TM1 Applications portal in connected or distributed mode.
2. Click the **Take ownership** icon .
3. Explore and analyze the data.
4. Enter or select data.



The administrator may have defined a list of values for you to select from.

The administrator may have provided more information about the views included in the plan in IBM Cognos TM1 Performance Modeler. To view this information, click **Help**, and then click **View Help**. If the administrator did not add help text in Cognos TM1 Performance Modeler, the **View Help** dialog box is empty. If you are not connected to a Cognos TM1 server, the **View Help** option is not available on the **Help** menu.

Committing or resetting the data

To share your contribution with others while continuing to make changes, commit your contribution. Commit enables you to take your personal changes that are highlighted in blue and make them part of the base data. Your colleagues who have access to the plan can view your contribution. If you want to revert your changes to the last committed data, reset all data.


Procedure

1. To share your contribution with others while continuing to make changes, click the **Commit** icon .
The **Commit** icon is enabled only if you have changed or entered data.
2. To revert to the last committed data, click the **Widget actions** icon  and click **Reset All Data**.

Submitting your contribution

When the IBM Cognos TM1 or IBM Cognos Express administrator has deployed an approval application, you enter data and then submit your contribution as final. Submit locks the data.

Procedure

When you are finished with your contribution, click the **Submit** icon .
The **Submit** icon is enabled only if all changes have been committed.


Results

The reviewer can now take ownership of your contribution and review it.

Rejecting a submission

A submission is ready to be reviewed. As a reviewer, you can view the latest committed changes. If you do not approve of certain data, you can reject the submission. This means another user can take ownership of the submission and make the necessary corrections.

Procedure

1. Open the submission to review.
2. Explore and analyze the data that was submitted to you.
3. If you do not approve of the submitted changes, click the **Reject** icon .

Scorecard widgets

Scorecard widgets are objects that can be created in IBM Cognos TM1 Performance Modeler. When you connect to a Cognos TM1 server, you can add scorecard widgets to IBM Cognos Insight workspaces.

Scorecard widgets can include the following objects that you can add to a Cognos Insight workspace: impact diagrams, strategy maps, and custom diagrams.

Impact Diagram

Impact diagrams define the relationships between metrics of three types: impacting metrics, a focussed metric, and impacted metrics.

Impact diagrams use traffic lights to show you how each metric is performing. Yellow diamonds represent neutral values, green circles represent positive values, and red squares represent negative values. Beside each traffic light is a trend indicator. Arrows indicate an increase or decrease, and a dash signifies no change has occurred.

Line styles in an impact diagram indicate whether the impact is positive or negative.

The following figure is an example of an impact diagram. This example does not reflect exactly what appears in Cognos Insight. In the example, the following elements are displayed:

- The focused metric is Profit.
- The status of the Profit metric is Excellent and the trend is No Change.
- The focused metric is impacted by the following two metrics: Expenses and Revenue.
- The Expenses metric negatively impacts the focused metric, and the status of the Expenses metric is Excellent and the trend is Getting Better.
- The Revenue metric positively impacts the focused metric, and the status of the Revenue metric is Excellent and the trend is No Change.
- The focused metric is impacting the following two metrics: Research funding and Bonuses.
- The focused metric positively impacts the Research funding metric, and the status of the Research funding metric is Excellent and the trend is No Change.
- The focused metric positively impacts the Bonuses metric, and the status of the Bonuses metric is Excellent and the trend is Getting Better.

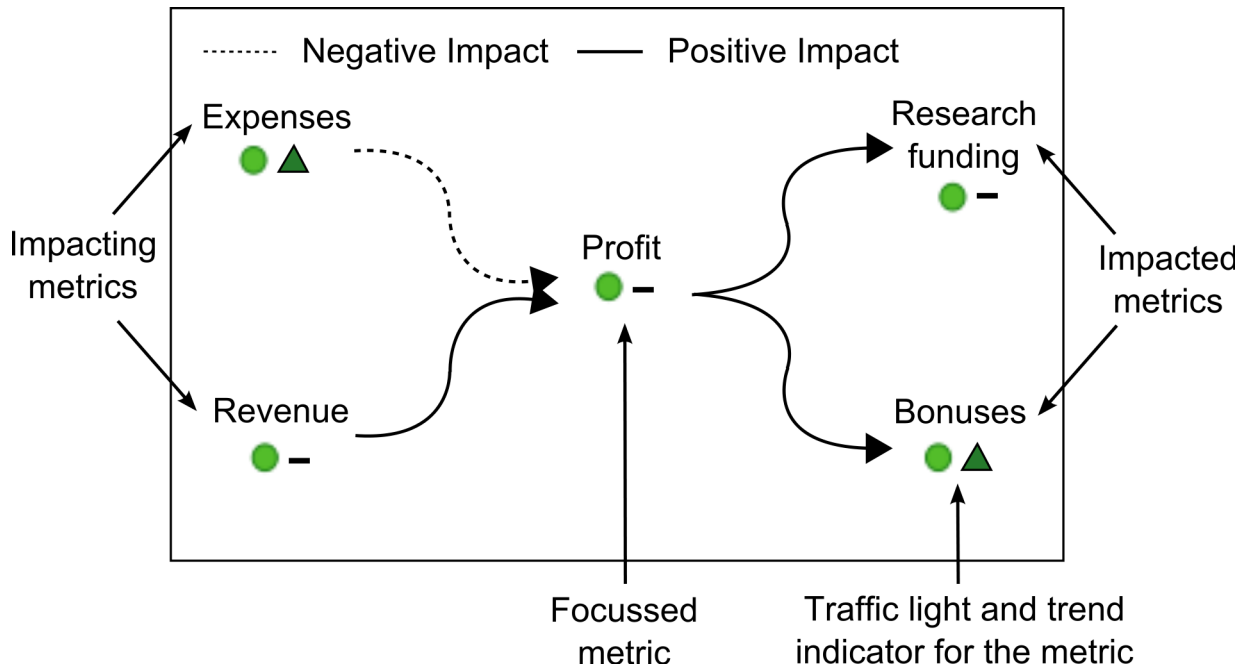


Figure 11. Example of an impact diagram

Strategy Map

Strategy maps include business perspectives and objectives, the positive or negative performance of which is indicated by red, yellow, and green traffic lights.

Perspectives

Perspectives are areas of your business that you can use to group your business objectives. Four perspectives are included by default in Cognos TM1 Performance Modeler when you create a strategy map: Financial, Customer, Internal Business Processes, and Learning and Growth. You can also create your own perspectives.

Objectives

Objectives are the individual goals that you have within each perspective. In the following example, the financial perspective includes two objectives: grow revenue and lower operating costs.

Traffic lights

Traffic lights appear on objectives and perspectives to represent the performance of the objective or perspective. Yellow diamonds represent neutral values, green circles represent positive values, and red squares represent negative values.

In an objective, individual metrics are represented by traffic lights and numbers. In the following example, the Lower operating costs objective contains three metrics with traffic lights: one green circle represents advertising, one yellow diamond represents salaries, and one red square represents overhead costs.

These traffic lights are summarized in an objective traffic light, located beside the objective title, that signifies the overall performance of the objective. In the following example, the green circle beside the Lower operating costs objective signifies that the objective is performing positively overall.

The objective traffic lights are then summarized for each perspective to represent how the entire perspective is performing. In the following example, the yellow diamond beside the Financial perspective indicates that the perspective is performing neutrally overall.

The following figure is an example of a strategy map. This example does not reflect exactly what appears in Cognos Insight. In the example, the following elements are displayed:

- There are four perspectives: 1. Financial, 2. Customer, 3. Internal Processes, 4. Learning & Innovation.
- The status of the Financial perspective is Average. The Financial perspective has the following objectives:
 - The status of the Grow Revenue objective is Average with the following metric values:
 - The status of the Expenses metric is Average.
 - The status of the Profit metric is Average.
 - The status of the Lower Operating Costs objective is Excellent with the following metric values:
 - The status of the Hiring Cycle metric is Excellent.
 - The status of the Product Cost metric is Average.
 - The status of the Administration Cost metric is Poor.
- The status of the Customer perspective is Excellent. The Customer perspective has the following objectives:
 - The status of the Improve Brand Awareness objective is Excellent.
 - The status of the Memorable Shopping Experience objective is Excellent with the following metric values:
 - The status of the Cost of Employee Training metric is Excellent.
- The status of the Internal Processes perspective is Excellent. The Internal Processes perspective has the following objectives:
 - The status of the Improve Vendor Process objective is Excellent.
 - The status of the Improve Brand Management Process objective is Excellent.
 - The status of the Improve Supply Chain objective is Excellent.
- The status of the Learning & Innovation perspective is Average. The Learning & Innovation perspective has the following objectives:
 - The status of the Grow Revenue objective is Excellent.
 - The status of the Employee Development objective is Average with the following metric values:
 - The status of the Product Cost metric is Average.
 - The status of the Expenses metric is Poor.
- The objectives are connected as follows:
 - The Improve Brand Awareness objective in the Customer perspective is connected to the Grow Revenue objective in the Financial perspective.
 - The Improve Brand Awareness objective in the Customer perspective is connected to the Grow Revenue objective in the Learning & Innovation perspective.
 - The Improve Brand Management Process objective in the Internal Processes perspective is connected to Employee Development objective in the Learning & Innovation perspective.

- The Improve Supply Chain objective in the Internal Processes perspective is connected to the Memorable Shopping Experience objective in the Customer perspective.
- The Employee Development objective in the Learning & Innovation perspective is connected to the Improve Brand Management Process objective in the Internal Processes perspective.
- The Lower Operating Costs objective in the Financial perspective is connected to the Grow Revenue objective in the Financial perspective.

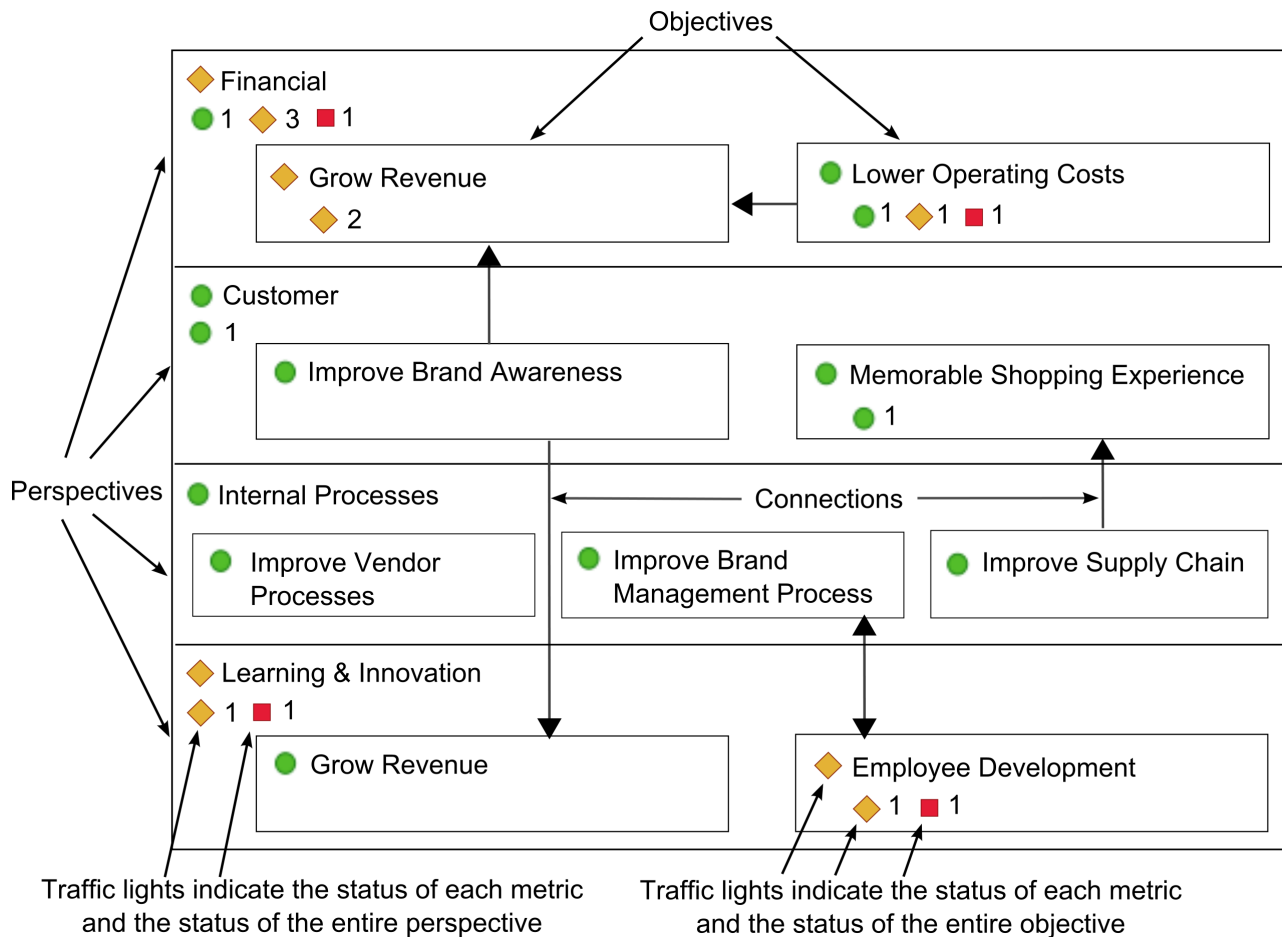


Figure 12. Example of a strategy map

Custom Diagram

This diagram consists of a custom background graphic on which you can place data points when you create the diagram in Cognos TM1 Performance Modeler. These diagrams include dimensions, traffic lights, and trend indicators.

Custom diagrams include at least one dimension, called the primary dimension, and can include two dimensions to provide data points that represent intersections of data. In the following example, the primary dimension is the metrics dimension, which includes two metrics: profit and revenue. The secondary dimension is geography. The custom diagram displays data representing the intersections between metrics and geographical locations.

Custom diagrams also include traffic lights, which signify how the intersection of the metric with the dimension is performing. Yellow diamonds represent neutral values, green circles represent positive values, and red squares represent negative values. The trend indicators beside the traffic lights signify whether performance has improved or declined. In the following example, Revenue in Italy is positive, but it has declined.

The following figure is an example of a custom diagram. This example does not reflect exactly what appears in Cognos Insight. In the example, the following elements are displayed:

- The diagram uses a world map for the background image.
- There are 12 data points on the diagram:
 - The status of the Revenue - Canada data point is Excellent and the trend is Getting Better.
 - The status of the Revenue - France data point is Poor and the trend is Getting Worse.
 - The status of the Revenue - United States data point is Excellent and the trend is Getting Better.
 - The status of the Revenue - Italy data point is Excellent and the trend is Getting Worse.
 - The status of the Revenue - India data point is Excellent and the trend is Getting Better.
 - The status of the Revenue - Australia data point is Excellent and the trend is Getting Better.
 - The status of the Revenue - Brazil data point is Average and the trend is Getting Worse.
 - The status of the Profit - North America data point is Excellent and the trend is Getting Better.
 - The status of the Profit - Europe data point is Average and the trend is Getting Worse.
 - The status of the Profit - South America data point is Average and the trend is Getting Worse.
 - The status of the Profit - Australia data point is Average and the trend is Getting Better.
 - The status of the Profit - Asia data point is Excellent and the trend is Getting Better.

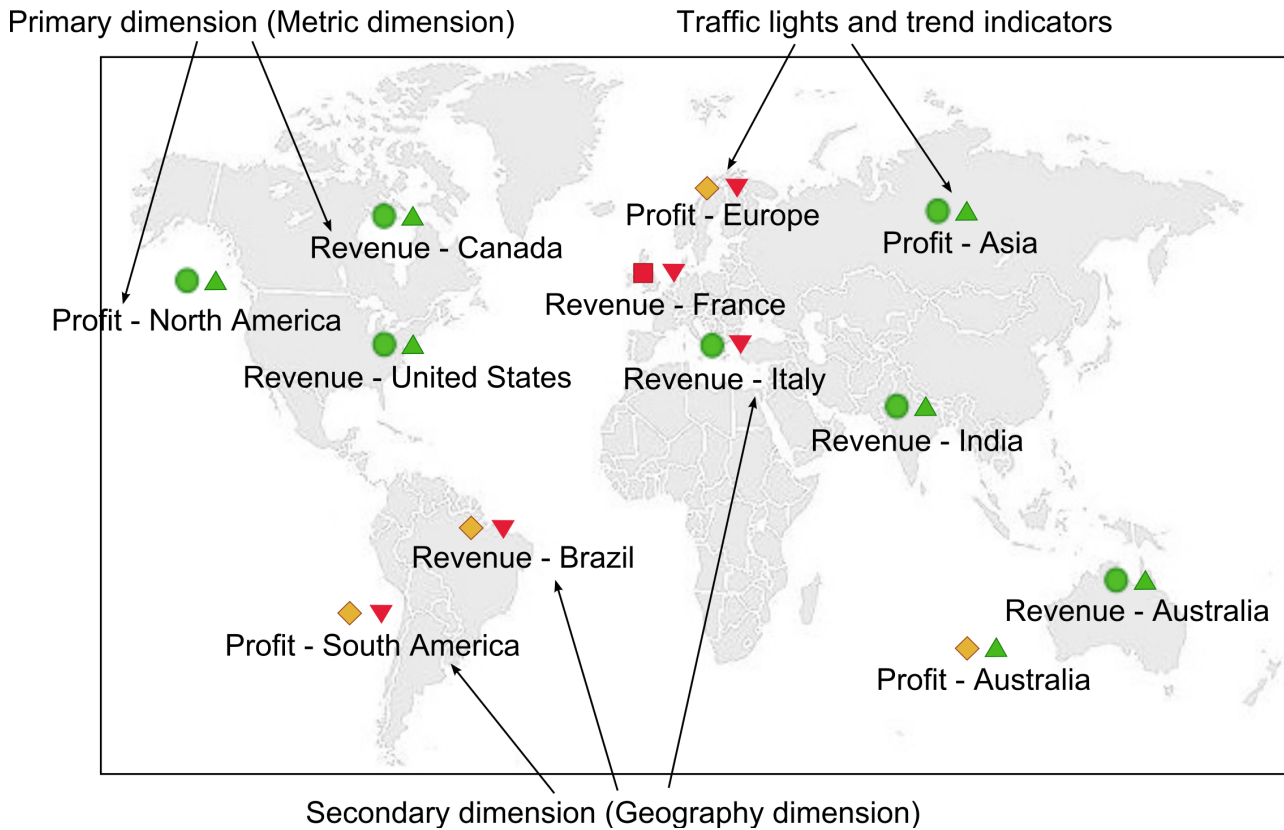


Figure 13. Example of a custom diagram




Adding scorecards

When you connect to an IBM Cognos TM1 server in IBM Cognos Insight, you can view and use scorecards that you create in IBM Cognos TM1 Performance Modeler in your workspace.

About this task

Scorecards that are created in Cognos TM1 Performance Modeler appear in the Cognos Insight content pane in a **Scorecards** folder, which has the same contents as the **Scorecards** folder in Cognos TM1 Performance Modeler. You can use these scorecards in your workspace in the same way as you would use other cubes: drag them to the canvas and manipulate the data that is displayed.


The objects that appear in Cognos Insight depend on how the scorecard was defined in Cognos TM1 Performance Modeler. The following diagrams may be available:

- Impact diagram 
- Strategy map 
- Custom diagram 

Procedure

1. From the content pane, drag an object from the **Scorecards** folder onto the workspace.

Tip: You can also add objects to the workspace by double-clicking them in the content pane.

2. To filter the data that appears in a scorecard object, click a different element in the list in the widget overview area. The scorecard widgets in your workspace automatically synchronize with each other, so if you change the data in one widget, the data that appears in the other widgets changes as well. For example, the metrics cube widget, which appears as a crosstab and chart in your workspace, displays revenue by month by metric. Also on your workspace is a strategy map, which displays the same data in a different way. When you filter the data that appears in the crosstab and chart to display the data for only the month of January, the strategy map also changes to display only the data for the month of January.
3. To stop a widget from changing the data that is displayed to synchronize with the other widgets, click the **Widget actions** icon , and then clear the **Listen to all Widgets** item.

Importing external data into a plan

When you access IBM Cognos Insight from IBM Cognos TM1 in connected or distributed mode, you can import data to the plan from an ASCII file on your computer.

Add local data to a plan to create a local link to a source file on your computer. This link maps the columns in your local file to the dimensions in the cube that you are working with in Cognos Insight. Then, when you run the local link, the data from the source file appears in the crosstab that you are working on in Cognos Insight.

You cannot use this method to make changes to the structure of a Cognos Insight cube. For example, this method applies only to updating data in existing dimensions, not adding or removing dimensions.

Restriction: You can import data to a plan only when the plan is a responsibility type application or an approval type application.

Procedure

1. From the **Get Data** menu, click **Import Cell Data**.
2. To create a new local link, in the Get Data window, click **New**.
3. Enter a name for the local link that you are creating. The name of the link should identify the cube that you are linking to.
4. Enter a description for the link that you are creating. The description of the link should describe the contents of the cube that you are linking to.
5. In the **Data source type** list, click **ASCII**. ASCII files are currently the only supported file type.
6. Click **Next**.
7. In the **Target View** list, click the cube that you want to import the data into, and click **Next**.

8. In the **Source** field, click the ellipsis button (...), navigate to the file that you want to import, and open the file.
9. If necessary, modify the details about the source file, including how the values are delimited and the text qualifier. The **Preview** pane displays the data that you are importing.
10. Optional: Change the row number in the **Start import at row** field.
11. To identify the row that includes column headers, type the row number in the **Rename columns using row** field.
12. To specify which columns should be mapped as dimensions, select the columns and click **Dimension**. Any rows or columns that you do not map to an existing dimension in the cube will be imported as values. The column names appear in the **Source dimensions** list. The dimensions that already exist in the cube are listed in the **Target dimensions** list.
13. Click **Next**.
14. Map the columns in the ASCII file to the target dimensions in the Cognos Insight cube in the following ways:
 - To manually map the columns to dimensions, click the dimension in the **Source dimensions** list, click the dimension in the **Target dimensions** list to which you want to map, and then click **Map**.
 - To automatically map the columns to dimensions by using the names of the dimensions, click **Map All**. Any dimensions that do not have a match are left in the **Source dimensions** or **Target dimensions** lists. When you click dimensions in the **Mapped source dimensions** or the **Mapped target dimensions** list, the **Preview Members** panes display the elements within the source and target dimensions.
 - To edit an existing mapping, perform the following actions:
 - a. Click an item in the **Mapped source dimensions** list, and then click **Edit**.
 - b. To manually map columns to dimensions, click **Manually map**, click the dimensions in the **Source Items** and **Target Items** lists, and then click **Add**.
 - c. To map columns using only a part of the column header, click **Substring** and identify the characters to use. For example, if the source file includes full month names, such as January, and the target cube includes three-letter month codes, such as Jan, you can use a substring to select only the first three characters of the month names in the source items.
15. Click **Next**.
16. To map a target dimension that was not mapped to a column, click the target dimension in the **Unmapped target dimensions** list, and move measures from the **Available** list to the **Included** list using the arrows.
17. Click **Finish**.
18. Click the link that you created in the **Local Links** list, and click **Run**.
19. To save a local link to send to other users, in the Get Data window, click **Save As**. For example, you have imported data from your time sheet into the cube, but you know that other employees will have to do the same with their time sheets, so you save the local link so that other employees can use the same mappings with their local files.

Results

If the source data and target data do not match, an error message appears telling you where the data does not match.

If the data matches, the imported data appears in the crosstab in blue. You can now commit the data or undo the import.

Viewing related data

If links are defined in the cube, then when you are working in IBM Cognos Insight in connected or distributed mode, you can access additional details from another cube.

IBM Cognos TM1 administrators create links from one cube to another in IBM Cognos TM1 Performance Modeler. These links identify related data in another cube. Cognos Insight users can then view the related data from a Cognos Insight workspace.

For example, you are contributing to a plan in Cognos Insight, and the crosstab displays Revenue by Product line by Date. Product A has very low revenue in 2012 Q4, so you request details about the cell at the intersection of Product A and 2012 Q4. The administrator has linked the cube you are working in to a cube with data about training. When you request details about the cell at the intersection of Product A and 2012 Q4, a window appears that includes information about the number of training days each sales representative took in 2012. You see that all sales representatives spent two weeks in November of 2012 learning the new sales software system. This explains the lower revenue for that quarter.

Procedure

To view related data in Cognos Insight, right-click a cell in a crosstab, click **Get Detail**, and then click a cube name to drill to. The cubes that are available are the cubes that the Cognos TM1 administrator has defined links to. The related data appears in a new window.

Working offline from a Cognos TM1 or Cognos Express system

When you are working in IBM Cognos Insight in distributed mode, disconnect from an IBM Cognos TM1 or IBM Cognos Express system to make changes to a workspace on your computer and then commit the changes later.

Before you begin



Working offline is only available when you start Cognos Insight in distributed mode from the IBM Cognos TM1 Applications portal.

About this task

When you know that you will not be able to commit your changes to the Cognos TM1 or Cognos Express server, you can take ownership of a workspace and then set Cognos Insight to work offline.

For example, if you plan to work in an area with no Internet connection, you can save a local copy and then set Cognos Insight to work offline. You can work on your local copy while disconnected from the server. Then, when you reconnect, you can commit any changes that you made to your workspace to the Cognos TM1 or Cognos Express server.

Procedure

1. Click the **Actions** icon , and then click **Work Offline**. A check mark appears beside the **Work Offline** menu item.
2. When you want to reconnect to the Cognos TM1 or Cognos Express server, click the **Actions** icon, and then click **Work Offline**. The check mark beside the **Work Offline** menu item disappears, indicating that you are connected.
3. Commit your changes by clicking the **Commit** icon .
Your data is merged with the data on the server.

Deleting workspaces as a Cognos TM1 user

If you no longer need an IBM Cognos Insight workspace, you can remove the workspace and data from your computer.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Chapter 12. For Cognos TM1 administrators

Administrators of IBM Cognos TM1 servers can deploy applications to enable users to work with data in IBM Cognos Insight workspaces.

If the modeler has defined views in IBM Cognos TM1 Performance Modeler or in IBM Cognos TM1 Architect and you publish an editable application, all views in the IBM Cognos TM1 server are included as part of the application. If the application is not editable, you can change the layout only.

For more information about editable applications, see the *IBM Cognos TM1 Performance Modeler User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Connecting to a Cognos TM1 system

Administrators can connect to an IBM Cognos TM1 system when they want to import dimensions or cubes, publish a workspace, or contribute to a plan.


Before you begin

Only Cognos TM1 administrators can connect to a system.

About this task

All views and applications that were created in Cognos TM1 Architect and IBM Cognos TM1 Performance Modeler appear.

Procedure

1. Click the **Actions** icon , and then click **Connect to IBM Cognos TM1**.
2. In the **IBM Cognos TM1 system URL**, specify the URL. The URL is case sensitive.
3. Enter your credentials for the specified system.
4. Click **Next**.
5. Choose a planning server and application.
6. Click **Finish**.

Publishing workspaces to Cognos TM1

Publishing a workspace from IBM Cognos Insight copies the data in your workspace to the IBM Cognos TM1 server and creates an application in the IBM Cognos TM1 Applications portal.

Before you begin

Only Cognos TM1 administrators can publish workspace content to Cognos TM1. If you are republishing an existing workspace, connect to the Cognos TM1 server, choosing the application that you created when you published the workspace. If you try to update a workspace by publishing it again without connecting to it first,

you will create a second application using the same cube, and you will receive an error message that indicates that the validation logic has failed.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

Important: If you want to publish a workspace to a multitier Cognos TM1 server, see “Publishing workspaces to a multitier Cognos TM1 server” on page 139.

When you publish your workspaces and cubes, other users who have access to the Cognos TM1 server can access your workspaces from the IBM Cognos TM1 Applications portal and work with them in Cognos Insight. The underlying data is stored on the Cognos TM1 server, and Cognos Insight is used to connect to the server.

Restriction: By default, Cognos Insight does not publish when more than 10 Cognos TM1 servers are running at one time. This configuration prevents users from overloading the system resources.

The following figure shows the workflow for publishing from Cognos Insight. When you publish a workspace from Cognos Insight to Cognos TM1, the data in your workspace is copied to the Cognos TM1 server, and an application is added to the IBM Cognos TM1 Applications portal.

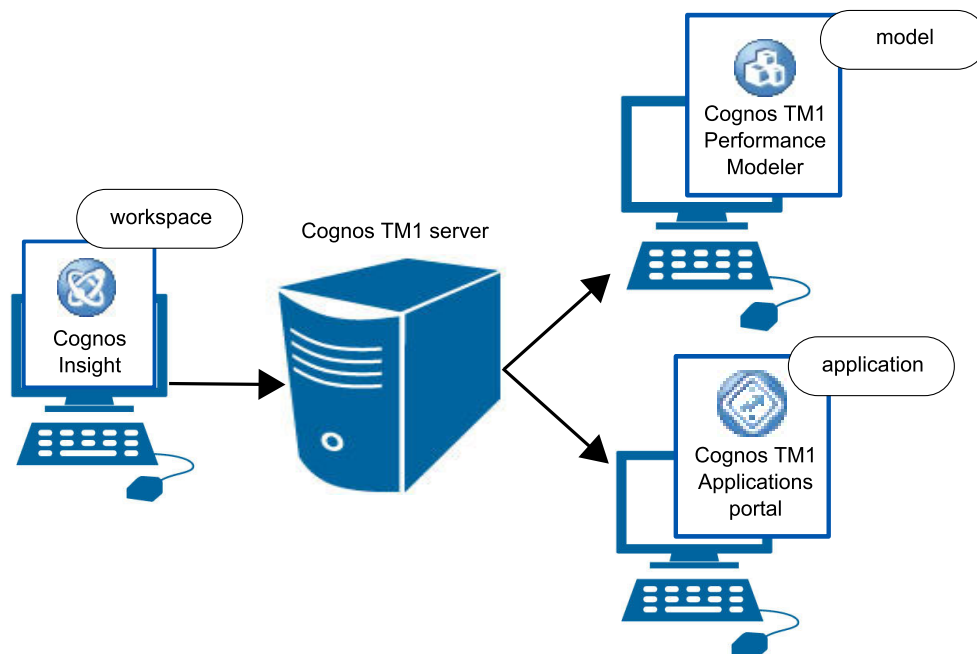



Figure 14. Publishing workspaces to Cognos TM1

Procedure

1. Click the **Actions** icon  and then click **Publish**. If you are publishing a new workspace, Cognos Insight prompts you to save the workspace before proceeding.

CAUTION:

When you click **Publish**, any changes you made to an existing workspace are saved.

2. Click the **Publish** option.
3. In the **IBM Cognos TM1 system URL** field, specify the Cognos TM1 system that you want to use.
4. Enter your credentials for the specified system. If the Cognos TM1 Application server uses Cognos Access Manager, you can log in as Anonymous or as another user.
5. Specify the name of the Cognos application that you want to create.
Attention: The application name must be unique.
6. Optional: If you want to publish a responsibility application type, select the dimension that controls access to the data. If you want to publish a central application type, do not select a dimension.
A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.
A central application type is used by a small group of users who share central planning or analysis.
For more information about application types, see Chapter 12, “For Cognos TM1 administrators,” on page 137
7. Click **Next** to review your choices.
8. Click **Finish** when you are ready to publish the workspace.

Publishing workspaces to a multitier Cognos TM1 server

The **Publish** and **Publish and Distribute** options in IBM Cognos Insight place data on the same computer as the IBM Cognos TM1 Applications server. If you want IBM Cognos TM1 data to be published to a data tier that is independent from the Cognos TM1 Applications server, use the **IBM Planning Service Archive** option when you publish a workspace.

Before you begin

Only Cognos TM1 administrators can publish workspace content to Cognos TM1.

About this task

If the Cognos TM1 server is not on the same computer as the Cognos TM1 Applications server, when you use the **Publish** or **Publish and Distribute** options, you might receive the following error message:


```
An exception occurred on the server. Please contact your System administrator.  
:java.lang.IllegalArgumentException: The file: \bin64\tm1s.exe does not exist.
```

This error occurs because the **Publish** and **Publish and Distribute** options make requests to the Cognos TM1 Application server to start a new Cognos TM1 server, and these requests can be fulfilled only if the Cognos TM1 server is on the same computer as the Cognos TM1 Applications server.

Use the following steps when you publish or publish and distribute a workspace to a multitier Cognos TM1 server for the first time. When you need to make updates to your workspace, connect to the Cognos TM1 server, and then you can publish or publish and distribute without repeating these steps.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

Procedure

1. Click the **Actions** , and click **Publish**.
2. On the first page of the wizard, click **IBM Planning Service Archive** in the lower left of the wizard.
3. Specify the information requested, including the destination directory, application name, and control dimension information, and finish the steps in the wizard. The destination directory will contain two ZIP files that are named according to the application name you specified: *application_name.zip* and *application_name.data.zip*.
4. Move the *application_name.data.zip* file to the Cognos TM1 server.
5. Move the *application_name.zip* file to the Cognos TM1 Applications server.
6. On the Cognos TM1 server, unzip the *application_name.data.zip* to a directory that will contain the Cognos TM1 data files.
7. Add a subdirectory to the directory that you unzipped the *application_name.data.zip* file to, and name the subdirectory *tunit*.
8. Find and edit the *tmls.cfg* file to add the following properties:

```
ServerName=server_name
AdminHost=administrator_computer_name
DataBaseDirectory=PortNumber=port_number
AllowSeparateNandCRules=T
ForceReevaluationOfFeedersForFedCellsOnDataChange=T
DistributedPlanningOutputDir=.\tunit
IntegratedSecurityMode=1
```

9. Specify values for the properties that you just added:
 - a. **ServerName** Enter the name of the application that is specified when publishing.
 - b. **AdminHost** Enter the name of the Cognos TM1 server administrator's computer.
 - c. **DataBaseDirectory=PortNumber** Enter the port number of the Cognos TM1 server. When you install a Cognos TM1 server, the default port number is 12345. Valid port values are between 000 and 49151.
 - d. **IntegratedSecurityMode** Enter a number for the security mode.
The security mode can be changed later if you are using CAM security. You can then specify values for **ServerCAMURI** and **ClientCAMURI**. The following default values are used for CAM authentication:

```
ServerCAMURI=http://localhost:9300/p2pd/servlet/dispatch
ClientCAMURI=http://localhost/ibmcognos/cgi-bin/cognos.cgi
```
10. Add a new Cognos TM1 Server Instance in IBM Cognos Configuration, and then start the new service.

Tip: You can also start the Cognos TM1 server by starting *tmls.exe* or *tmlsd.exe* from the *Cognos_TM1_installation_location/bin* folder.

11. Use Cognos TM1 Architect to set up the security on the new server. The username for the new Cognos TM1 server is *admin* and the password is blank. You should set a password as soon as possible to secure the server.
12. Save the security changes.

13. In the Cognos TM1 Applications portal, go to the **IBM Cognos TM1 Application Configuration** page and add the Cognos TM1 server.
14. Click **Import Applications** to import the application.
15. On the **Import Application** page, specify the Cognos TM1 server that was created, and browse to the location of the application_name.zip file.

Tip: If you are using Cognos TM1, version 10.1, and you receive an error when you import the application, create a webapps/pmpsvc/desktop folder if it does not exist in the IBM Cognos TM1 Applications server install.

Results

Now that you have published the workspace, connect to the Cognos TM1 server from Cognos Insight to make updates.

CAUTION:

If you repeat these steps for the same workspace, you will create a second application on the Cognos TM1 Applications portal.

Publishing and distributing workspaces to Cognos TM1 and Cognos BI

Publishing and distributing a workspace copies the data in your workspace to the IBM Cognos TM1 server and creates an application in the IBM Cognos TM1 Applications portal. IBM Cognos Insight also creates a data source connection, a package, and reports in IBM Cognos Connection.

Before you begin

To publish and distribute a workspace, you must have administrator rights on the Cognos TM1 server, and you must have access to the **Cognos Insight** capability and the **Report Studio** capability on the Cognos BI server.

If you are republishing an existing workspace, connect to the Cognos TM1 server, choosing the application that you created when you published the workspace. If you try to update a workspace by publishing it again without connecting to it first, you will create a second application using the same cube, and you will receive an error message that indicates that the validation logic has failed.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

Important: If you want to publish and distribute a workspace, and you have a multitier Cognos TM1 server, follow the instructions in “Publishing workspaces to a multitier Cognos TM1 server” on page 139 as well as these steps.

When you publish and distribute a workspace, users on the Cognos TM1 server can access your data as an application on the Cognos TM1 Applications portal, and users on the Cognos BI server can open workspaces in IBM Cognos Workspace or IBM Cognos Workspace Advanced and reports in IBM Cognos Report Studio.

The following figure shows the workflow for publishing and distributing from Cognos Insight. When you publish and distribute a workspace from Cognos

Insight to Cognos TM1 and Cognos BI, the data in your workspace is copied to the Cognos TM1 server, an application is added to the IBM Cognos TM1 Applications portal, and a data source connection, a package, and reports are added to IBM Cognos Connection.

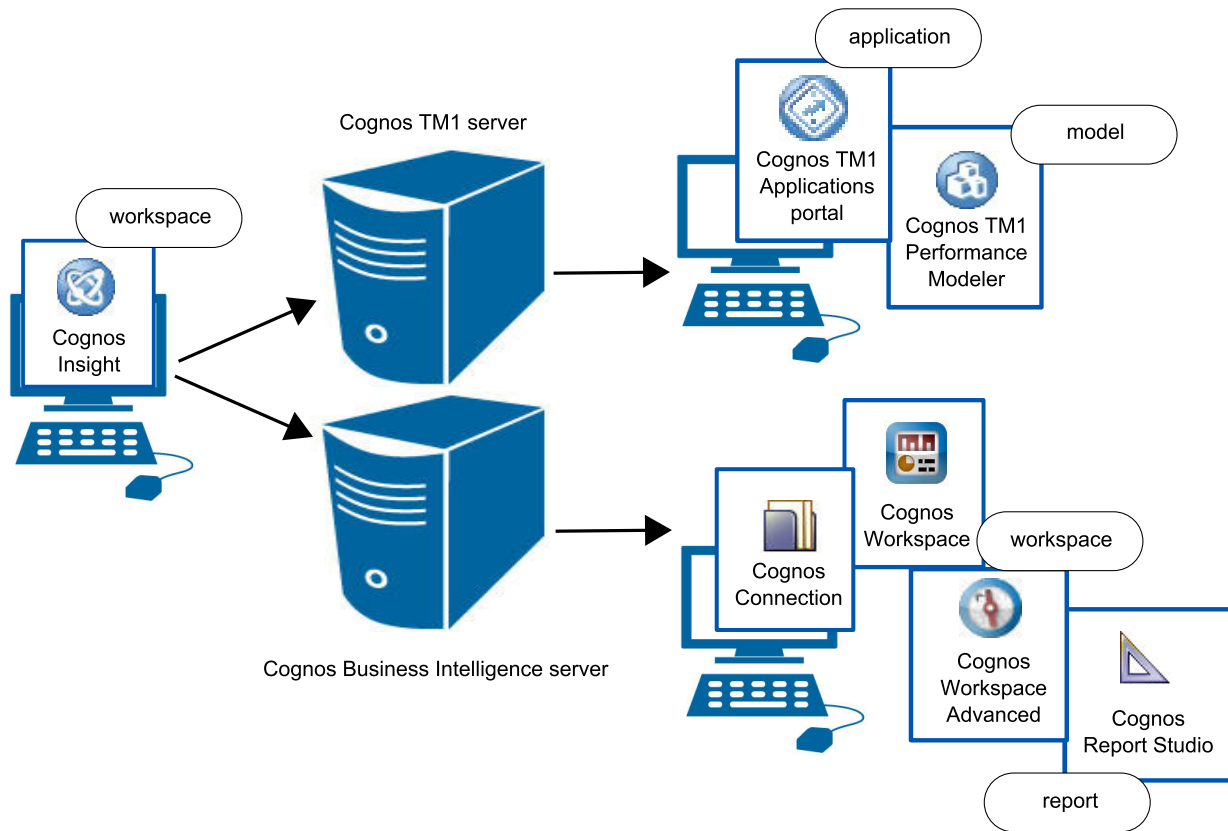



Figure 15. Publishing and distributing workspaces to Cognos TM1 and Cognos BI

Each time you publish and distribute a workspace, Cognos Insight creates a Cognos TM1 server service. Each new Cognos TM1 server service impacts the performance of Cognos TM1 server. You can avoid this performance issue by working in connected mode, which means that you are connected to the Cognos TM1 server, so you can commit your changes to the server without republishing them. For information about working in connected mode, see “Contribute to a workspace on a Cognos TM1 server” on page 125.

By default, Cognos Insight does not publish if more than 10 Cognos TM1 servers are running at a time. This configuration prevents users from overloading the system resources.

Procedure

1. Click the **Actions** icon , and then click **Publish**.
CAUTION:
When you click Publish, any changes you made to an existing workspace are saved.
2. Click the **Publish & Distribute** option.
3. In the **IBM Cognos TM1 system URL** field, specify the Cognos TM1 system that you want to use.

4. Enter your credentials for the specified system.
If the Cognos TM1 planning service uses Cognos Access Manager, you can log in as Anonymous or as another user.
5. Specify the name of the Cognos application that you want to create.
Attention: The application name must be unique.
6. If you want to publish a responsibility application type, select the dimension that controls access to data. If you want to publish a central application type, do not select a dimension.
A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.
A central application type is used by a small group of users who share central planning or analysis.
For more information about application types, see Chapter 12, “For Cognos TM1 administrators,” on page 137.
7. Click **Next**.
8. In the **IBM Cognos system URL** field, specify the Cognos BI server that you want to use.
9. Log in as Anonymous or as another user.
10. Click **Next** to review your choices:
 - You can change the names of the reports.
 - You can change the name or location of the package that contains the reports.

CAUTION:
If you choose a package name that exists on the server, the original package is overwritten.
11. Click **Finish** when you are ready to publish the workspace.

Workspaces published from Cognos Insight to Cognos Workspace

A workspace that was created in IBM Cognos Insight can be published to an IBM Cognos Business Intelligence server and then used in IBM Cognos Workspace.

When you publish Cognos Insight workspaces to Cognos BI, the workspace appears in Cognos Workspace almost the same way that it appeared in Cognos Insight. The following information describes the differences you might see when you publish a Cognos Insight workspace and then open it in Cognos Workspace.

General differences

- Action buttons that run IBM Cognos TM1 TurboIntegrator scripts do not appear.
- Web page widgets that include URLs that are not listed in the safe domains list do not appear. The issue can be resolved by adding the domains to the safe domains list in IBM Cognos Configuration or IBM Cognos Administration.
- Report widgets that are published from Cognos Insight do not populate the list of values for slider filters and check box controls in Cognos Workspace.
- Reports that access IBM Cognos TM1 cubes and do not include at least one measure do not appear.
- Some number formatting does not appear. Number formats can be adjusted to match after you publish by using any of the formatting options that are available in Cognos Workspace.

- Fonts may appear smaller in Cognos Workspace than they appear in Cognos Insight. This occurs when the font DPI setting in your Microsoft Windows operating system is larger than the font DPI setting in your Web browser. To resolve this issue, change your Microsoft Windows operating system DPI to 96, which is the default for most web browsers.
- Information from the overview area in Cognos Insight is available in the Cognos Workspace information bar.
- Synchronized drilling will be turned on by default in Cognos Workspace.
- The explore pane does not appear.
- Comments do not appear.

Differences in crosstabs

- Text measures in crosstabs do not appear.
- Resizing of rows and columns is not preserved.
- If you hide a nested intersection in Cognos Insight, the other nested intersections for those dimensions will be hidden in Cognos Workspace. For example, if product lines are nested in years, and you hide the 2011 revenue for Golf Equipment in your Cognos Insight crosstab, when you open the workspace in Cognos Workspace, the revenue for Golf Equipment is hidden for all years.
- If you expand or collapse a nested intersection in Cognos Insight, the other nested intersections for those dimensions will be expanded or collapsed in Cognos Workspace. For example, if product lines are nested in years, and you collapse the 2012 revenue to show only the total for all product lines, when you open the workspace in Cognos Workspace, all product lines in all years will be collapsed.
- Totals that are set to **Show Totals Trailing** may not appear. Trailing totals will be preserved only for dimensions that have been drilled down or drilled up on in Cognos Insight. If trailing totals are not preserved, totals will appear leading in Cognos Workspace.
- When top and bottom filters are applied to intersected dimensions, filter results may not appear in the same way.
- Crosstab and chart widgets do not appear if the chart is a tree map.

Differences in charts

- Chart scales may differ. The data that appears in Cognos Workspace will be correct, but Cognos Workspace may display a different range of values on an axis, which changes the scale of the chart.
- The width and depth of the bars in a bar chart may differ.
- Crosstab and chart widgets do not appear if the chart is a tree map.
- Bubble charts do not appear if a measure is plotted on the series or category axis.

Maintain a published application

After publishing an application to an IBM Cognos TM1 or IBM Cognos Express server, you have a number of options to maintain it.

If the modeler has defined views in IBM Cognos TM1 Performance Modeler or in IBM Cognos TM1 Architect and you publish an editable application, all views in the Cognos TM1 or Cognos Express server are included as part of the application. If the application is not editable, you can change the layout only.

For more information about editable applications, see the *IBM Cognos TM1 Performance Modeler User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

You can perform the following actions to maintain a published application:

- Schedule a process that imports data. For more information, see the topics about chores in the *IBM Cognos TM1 User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).
- Connect to the Cognos TM1 or Cognos Express server to make changes on the server. These changes are made immediately on the server and cannot be undone. If you try to update a workspace by publishing it again without connecting to it first, you will create a second application using the same cube, and you will receive an error message that indicates that the validation logic has failed.
- Add or remove cubes, dimensions, measures, levels, or attributes. These changes are made immediately on the server and cannot be undone.
- Add or remove data. These changes are made immediately on the server and cannot be undone.
- Make changes to the layout of the workspace. If you make changes to the layout, you must republish the workspace because layout changes are not made immediately on the server.

Designing a contribution experience

After an application is created in IBM Cognos TM1 Performance Modeler, you can enhance it in IBM Cognos Insight for your contributors and reviewers.

Review the different application types and then use the procedures to design a contribution experience.

Application types

When designing the application in Cognos TM1 Performance Modeler, the modeler defines the application type.

Responsibility

The responsibility application type is based on a reporting structure, such as the structure of your business, department, or enterprise. Changes can be made without having to be submitted and approved. The responsibility application type is used for rolling forecasts or continuous planning processes where there is no defined end date.

Central

The central application type is used by a small group of users who equally share the task of performing central planning or analysis. Taking ownership is an option, not enforced as in the other application types. Changes cannot be locked.

Approval

The approval application type is based on a reporting structure, such as the approval or reporting structure of your business, department, or enterprise. After a change has been submitted, the application is locked for any new changes until the approving person has rejected the change.

Applications that are created in Cognos Insight can be either a responsibility application type or a central application type. You cannot create an approval application type in Cognos Insight but you can use Cognos Insight to enhance one that was created in Cognos TM1 Performance Modeler.

Procedure

1. Connect to an IBM Cognos TM1 application and log on as the administrator.
2. Explain your plan and detail each individual's responsibilities on the first tab to help them contribute to the plan.

The administrator may have provided more information about the views included in the plan in Cognos TM1 Performance Modeler. To view this information, click **Help**, and then click **View Help**. If the administrator did not add help text in Cognos TM1 Performance Modeler, the **View Help** dialog box is empty. If you are not connected to a Cognos TM1 or IBM Cognos Express server, the **View Help** option is not available from the **Help** menu.

3. Present your findings as starting points to a deeper analysis. Add your requirements for contributors to explain exceptions that are highlighted in the data.
4. Add additional tabs that are required for your plan and include action buttons to guide users through the different tabs or to run processes.
5. Add text, images, and web pages that provide additional context to the plan or analysis.

If your users will be working in multiple languages, include text widgets and web pages in each language.

6. To prevent your users from moving the widgets and to hide the toolbar from them, right-click the canvas and click **Lock All Widgets**.
7. Publish the workspace.

Results

For all application types, your users can do the following actions:

- Analyze data by sorting, swapping rows and columns, suppressing empty cells, resizing cells, and working with charts.
- Run scripts from action buttons, if you provided them with these buttons.
- Contribute to the slice of the plan that you have granted them access to.
- Use explore points to analyze data.

For the central application type, your users can also do the following actions:

- Design the workspace; you can navigate, minimize, and maximize the widgets that the administrator has prepared for you unless the administrator has locked the widgets, but you cannot add new content of your own
- Import data.
- Restructure data.

For the approval and responsibility application types, your users cannot do the following actions:

- Design the workspace; they can navigate, minimize, and maximize the widgets that you have prepared for them unless you have locked the widgets, but they cannot add new content of their own.
- Import data, unless you provide them with an action button to do so.
- Restructure data, unless you provide them with an action button to do so.

Creating a Cognos Planning Service archive


You can create an archive of the data directory and layout when you want to move the IBM Cognos TM1 or IBM Cognos Express server.

About this task

The following two archive files are created when you create an archive:

- A data directory file for the system administrator to transfer to another machine and to start a Cognos TM1 process against it
- An application file that can be imported into the Cognos TM1 Applications portal

Procedure

1. Click the **Actions** icon  and then click **Publish**.
2. Click **IBM Planning Service Archive**.
3. In the **Destination directory** field, specify the location where the archive will be stored.
4. Specify the name of the application that you want to create.
5. If you want to archive a responsibility application type, select the dimension that will control access to data. If you want to archive a central application type, do not select a dimension.

A responsibility application type is based on a reporting structure, such as the structure of your business. It does not have a defined end date, such as rolling forecasts or continuous planning processes. You cannot lock this application.

A central application type is used by a small group of users who equally share the task of performing central planning or analysis.

For more information about application types, see Chapter 12, “For Cognos TM1 administrators,” on page 137 or Chapter 10, “For Cognos Express administrators,” on page 115.

6. Click **Next** to review what will be archived.
7. Click **Finish** when you are ready to create the two archive files.

Deleting workspaces as a Cognos TM1 administrator

If you no longer need an IBM Cognos Insight workspace, you can remove the application from IBM Cognos TM1.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.
- If you published the workspace to IBM Cognos TM1, delete the application and the server instance from Cognos TM1.

For more information, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Chapter 13. For Cognos BI users

You can share the workspaces that you create in IBM Cognos Insight with other people by sharing them on the IBM Cognos Business Intelligence server.

Sharing workspaces to Cognos BI

Sharing a workspace from IBM Cognos Insight adds a copy of your workspace to IBM Cognos Connection on the IBM Cognos Business Intelligence server for other users to download and use on their computers.

Before you begin

To share a workspace, you must have permission to add files to the IBM Cognos Business Intelligence server. You can use Cognos Connection to control access to the workspace.

Restriction: You can share only workspaces with a file size of 5 MB or less.

You can create and save connections to IBM Cognos Business Viewpoint, IBM Cognos Express, IBM Cognos TM1, and IBM Cognos BI in **My Preferences**. For more information, see “Set Cognos Insight preferences” on page 11.

About this task

Shared workspaces cannot be edited directly in Cognos Connection. When your colleagues access the workspace from Cognos Connection, it opens in their installation of IBM Cognos Insight.

The following figure shows the workflow for sharing from Cognos Insight. When you share a workspace from Cognos Insight to Cognos BI, the workspace file (CDD) appears in IBM Cognos Connection for other users to open in Cognos Insight.

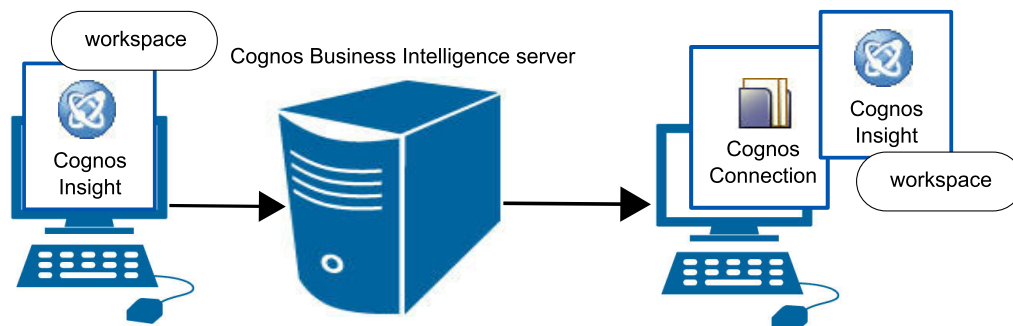



Figure 16. Sharing workspaces to Cognos BI

Procedure

1. Click the **Actions** icon  and then click **Share**. If you are sharing a new workspace, Cognos Insight prompts you to save the workspace before proceeding.

CAUTION:

When you click **Share**, any changes you made to an existing workspace are automatically saved.

2. In the **IBM Cognos system URL** field, specify the Cognos BI system that you want to use.
3. Log in as Anonymous or using your Cognos BI credentials.
4. Specify the name and location of the workspace document.

CAUTION:

If you choose a workspace name that exists on the server, the original workspace are overwritten.

5. Click **Next** to review your choices.
6. Click **Finish** when you are ready to share the workspace.

Deleting workspaces as a Cognos BI user

If you no longer need an IBM Cognos Insight workspace, you can remove the workspace from your computer and from the IBM Cognos Business Intelligence server.

Procedure

Perform all of the following actions that apply:

- If you saved the workspace to your computer, delete the workspace, or CDD file, from your computer. The CDD file contains the model and data in your workspace and the layout of your workspace.
- If you shared the workspace on IBM Cognos Connection, delete the workspace from Cognos Connection.

For more information, see the *IBM Cognos Connection User Guide*. To access this document, open the information center for your product and version from the Cognos information center (<http://pic.dhe.ibm.com/infocenter/cogic/v1r0m0/index.jsp>).

Remember: The user data for Cognos Insight workspaces is stored separately from the workspaces themselves. The user data includes log files, themes, PNGs of recent workspaces, and the Cognos TM1 cubes that are created when you create or change a workspace. You cannot delete data for a single workspace. You can only delete all user data at once. If you want to delete this user data, such as when you are uninstalling Cognos Insight, delete the `.CognosInsight` folder for your environment:

- On a Microsoft Windows XP operating system: `C:\Documents and Settings\user name\.CognosInsight`
- On a Microsoft Windows 7 operating system: `C:\Users\user name\.CognosInsight`

Appendix A. Accessibility features

IBM Cognos Insight's accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products.

For best results, use the following environment to take advantage of accessibility in IBM Cognos Insight:

- Microsoft Windows 7 operating system or later
- Internet Explorer 9 web browser or later
- JAWS 14 screen reader or later

Keyboard shortcuts

IBM Cognos Insight includes keyboard shortcuts to help you navigate Cognos Insight and perform tasks using only a keyboard.

You might also want to turn high contrast on in your operating system so the lines in diagrams and charts in the application are more visible.

The following keyboard shortcuts are based on U.S. standard keyboards.

- “Importing data”
- “General” on page 152
- “Tabs” on page 153
- “Canvas” on page 154
- “Application bar” on page 155
- “Content pane” on page 155
- “Crosstab and chart widgets” on page 156
- “Scorecard widgets” on page 159
- “Explore points” on page 159
- “Action button widgets” on page 160
- “Text widgets” on page 160
- “Dimension Editor” on page 161
- “Query Builder” on page 161

Importing data

Table 15. Keyboard shortcuts for the import wizard

Applies to	Action	Shortcut keys
Data Mapping step	Map an element to a dimension.	Mapping an element to a dimension has multiple steps: 1. Press Tab to select Dimension . 2. Press the right arrow to select Level , and then quickly press the left arrow to select Dimension .

Table 15. Keyboard shortcuts for the import wizard (continued)

Applies to	Action	Shortcut keys
Data Mapping step	Map an element to a level.	Mapping an element to a level has multiple steps: 1. Press Tab to select Dimension . 2. Press the right arrow to select Level .
Data Mapping step	Map an element to a measure.	Mapping an element to a measure has multiple steps: 1. Press Tab to select Dimension , and then quickly press the right arrow to select Measure .
Data Mapping step	Map an element to an attribute.	Mapping an element to an attribute has multiple steps: 1. Press Tab to reach the Attribute Name field. 2. Press Shift+Tab to select Attribute . 3. Press the left arrow to select Measure , and then quickly press the right arrow to select Attribute .

General

Table 16. General keyboard shortcuts

Applies to	Action	Shortcut keys
General	Perform the command for an active command button.	Enter Spacebar
General	Move forward to the next item in the tab index order. Cycle to the first tab index when at the end.	Tab
General	Move backward to the previous item in the tab index order. Cycle to the last tab index when at the beginning.	Shift+Tab If Shift+Tab does not work, press Tab to cycle forward until you reach the item that you want.
Check boxes	Select or clear the check box.	Spacebar
Radio buttons	Move to the next radio button and select it.	Right arrow and then down arrow
Radio buttons	Move to the previous radio button and select it.	Up arrow and then left arrow
Tree controls	Move to the next node in the tree.	Down arrow
Tree controls	Move to the previous node in the tree.	Up arrow
Tree controls	Expand the current tree node.	Right arrow
Tree controls	Collapse the current tree node.	Left arrow
Tree controls	Move to the first node in a tree control.	Home

Table 16. General keyboard shortcuts (continued)

Applies to	Action	Shortcut keys
Tree controls	Move to the last node in a tree control.	End
Menus	Navigate down a menu and select a menu item.	Down arrow and then Enter
Menus	Navigate up a menu and select a menu item.	Up arrow and then Enter
Menus	Open a menu.	Shift+F10
Menus	Close an open menu.	Esc
Scrolling	Scroll down.	Down arrow Page Down
Scrolling	Scroll up.	Up arrow or Page Up
Application bar	Set focus to the application bar.	F6
Application bar	Navigate to items in the application bar.	Tab or Shift-Tab
Application bar	Open the application bar item's menu.	Spacebar
Application bar	Close the application bar item's menu.	Esc
Content pane	Open and close the content pane.	Ctrl+F4
Explore pane	Open and close the Explore pane.	Ctrl+F3
Menu	Display a window's menu.	Alt+Spacebar
Application window	Move the application window.	Moving an application window has multiple steps: <ol style="list-style-type: none"> 1. To open the window's menu, press Alt+Spacebar. 2. Select Move and press Enter. 3. To move the window, use the arrows and Ctrl+arrows. 4. To stop moving the window, press Enter.
Application window	Resize the application window.	Resizing an application window has multiple steps: <ol style="list-style-type: none"> 1. To open the window's menu, press Alt+Spacebar. 2. Select Size and press Enter. 3. To resize the window, use the arrows and Ctrl+arrows. 4. To stop resizing the window, press Enter.

Tabs

The following table identifies the keyboard shortcuts that are available when the focus is on the tabs.

Table 17. Keyboard shortcuts for tabs

Applies to	Action	Shortcut keys
Navigate	Move forward to the next tab.	Ctrl+Shift+right arrow
Navigate	Move backward to the previous tabs.	Ctrl+Shift+left arrow
Navigate	Navigate to the left tab or right tab.	Left and right arrows
Reposition	Move the current tab one tab to the right.	Shift+Page up
Reposition	Move the current tab one tab to the left.	Shift+Page down
Rename	Rename the current tab.	F2

Canvas

The following table identifies the keyboard shortcuts that are available when focus is on the canvas.

Table 18. Keyboard shortcuts for the canvas

Applies to	Action	Shortcut keys
Widget navigation	Move forward to the next widget on the same level and within the canvas according to the tab index order.	Right arrow
Widget navigation	Move backwards to the previous widget on the same level and within the canvas according to the tab index order.	Left arrow
Widget navigation	Move to the child level of the current widget (widget content).	Tab
Widget context toolbar	Move focus to the on demand toolbar for the selected widget.	F10
Widget mode	Show the widget's menu items.	Shift+F10
Widget mode	Move the selected widget.	<p>Moving a widget has multiple steps:</p> <ol style="list-style-type: none"> 1. To open the widget's menu, press Alt+Spacebar. 2. Select Move and press Enter. 3. To move the widget, use the arrows and Ctrl+arrows. 4. To stop moving the widget, press Enter. <p>Tip: To move a widget without aligning it automatically with other widgets:</p> <ol style="list-style-type: none"> 1. Click the Widget actions icon, and then click Move. 2. Use the arrow keys on the keyboard to move the widget. 3. To set the widget's position, press Ctrl+Enter.

Table 18. Keyboard shortcuts for the canvas (continued)

Applies to	Action	Shortcut keys
Widget mode	Resize the selected widget.	Resizing a widget has multiple steps: <ol style="list-style-type: none"> 1. To open the widget's menu, press Alt+Spacebar. 2. Select Size and press Enter. 3. To resize the widget, use the arrows and Ctrl+arrows. 4. To stop resizing the widget, press Enter.
Widget mode	Exit the Move or Resize Mode.	Esc

Application bar

The following table identifies keyboard shortcuts that are available when focus is in the application bar.

Table 19. Keyboard shortcuts for the application bar

Applies to	Action	Shortcut keys
Application bar	Create a workspace.	Ctrl+N
Application bar	Open a workspace.	Ctrl+O
Application bar	Close a workspace.	Ctrl+F4
Application bar	Save a workspace.	Ctrl+S
Application bar	Save a workspace with a different name or in a different location.	Ctrl+Shift+S
Application bar	Undo the last action.	Ctrl+Z
Application bar	Redo the last action.	Ctrl+Y
Application bar	Open the <i>IBM Cognos Insight User Guide</i> .	F1
Application bar	Activate the Help menu.	Alt+H
Application bar	Move forward to the next control in the application bar.	Tab
Application bar	Move backwards to the previous control in the application bar.	Shift+Tab

Content pane

The following table identifies keyboard shortcuts that are available when focus is in the content pane.

Table 20. Keyboard shortcuts for the content pane

Applies to	Action	Shortcut keys
Navigation	When the application toolbar's content pane button is in focus, open or close the content pane.	Enter
Toolbar	Move between the Data and Toolbox panes within the content pane.	Tab or Shift-Tab
Toolbar	Move forward to the next toolbar control.	Right arrow
Toolbar	Move backwards to the previous toolbar control.	Left arrow
Toolbar	View the menu items for toolbar controls.	Down arrow
Tree control	Move forward to the next node in the tree.	Down arrow
Tree control	Move backwards to the previous node in the tree.	Up arrow
Tree control	Expand the current tree node.	Right arrow
Tree control	Collapse the current tree node.	Left arrow
Tree control	Go to the first node in a tree control.	Home
Tree control	Go to the last node in a tree control.	End
Menu Items	List the menu items for the items in the content pane.	Shift+F10
Menu Items	Insert an explore point onto the canvas.	Inserting an explore point has multiple steps: 1. In the content pane, navigate to the dimension using the up and down arrows. 2. To insert the dimension as an explore point, press Shift+F10 and then Enter.
Menu Items	Insert selected item onto Canvas.	Inserting an item has multiple steps: 1. With the item in focus, open the menu by pressing Shift+F10. 2. To insert the item, press Insert.

Crosstab and chart widgets

The following table identifies keyboard shortcuts that are available when you are working in a crosstab or chart widget.

Table 21. Keyboard shortcuts for crosstab and chart widgets

Applies to	Action	Shortcut keys
View tabs	Navigate between the tabs in a crosstab widget.	Left or right arrow Tab or Shift+Tab
On demand toolbar	Move focus to the on demand toolbar.	F10
Overview area	Move from the on demand toolbar to the overview area.	Tab

Table 21. Keyboard shortcuts for crosstab and chart widgets (continued)

Applies to	Action	Shortcut keys
Overview area	Navigate the dimensions in the overview area.	Left and right arrows
Overview area	List the members of the dimension that is in focus in the overview area. The list will appear in a drop down.	Alt+down arrow
Overview area	Close the drop down that shows the members of a dimension in the overview area.	Esc
Overview area	Switch the context of the dimension that is in focus in the overview area.	Up and down arrows and then Enter
Overview area	Move the dimension that is in focus in the overview area to columns.	Ctrl+C
Overview area	Move the dimension that is in focus in the overview area to rows.	Ctrl+R
Overview area	Move the dimension that is in focus in the overview area to context.	Ctrl+T
Overview area	Move the selected dimension to the left.	Ctrl+left arrow
Overview area	Move the selected dimension to the right.	Ctrl+right arrow
Crosstab	Move from the overview area to a crosstab.	Tab
Crosstab	Show the menu items for row/column headers.	Shift+F10
Crosstab	Show the menu items for cells.	Shift+F10
Crosstab	Widen the column width in a crosstab.	Adjusting column width has multiple steps: 1. With focus on a column header, press Shift+F10. 2. Use the up and down arrows to choose Expand to . 3. Press Enter.
Crosstab	Expand or collapse a node in column or row headers.	Enter
Crosstab	Navigate the cells in a crosstab.	arrows or Tab and Shift+Tab
Crosstab	Edit member captions (row and column headings).	F2
Chart	Move to the chart from the crosstab.	Ctrl+Tab

Table 21. Keyboard shortcuts for crosstab and chart widgets (continued)

Applies to	Action	Shortcut keys
Chart	Change the chart type.	<p>Changing the chart type has multiple steps:</p> <ol style="list-style-type: none"> 1. To open the Widget actions menu, press F10. 2. To reach the Change chart icon, press the right arrow. 3. To open the chart types menu, press the down arrow. 4. To select a chart type, press the down arrow. 5. To navigate the chart types, use the up or down arrows. 6. To select a chart type, press Enter. 7. To reach the list of charts for a given chart type, press Tab. 8. To navigate the list of charts, press the spacebar. 9. To select a chart, press Enter. 10. To reach the chart options list, press Tab. 11. To exit the chart types menu, press Esc.
Cell	Enter a new cell value.	Type the value and press Enter
Cell	Enter the value as thousands.	<p>K</p> <p>For example, entering 5K enters 5000 in the cell.</p>
Cell	Enter the value as millions.	<p>M</p> <p>For example, entering 10M enters 10,000,000 in the cell.</p>
Cell	Add a number to the cell value.	<p>+, Add</p> <p>For example, entering +50 adds 50 to the cell value.</p>
Cell	Subtract a number from the cell value.	<p>-, Sub</p> <p>For example, entering Sub50 subtracts 50 from the cell value.</p>
Cell	Increase the cell value by a percentage.	<p>Inc, Increase</p> <p>For example, entering Inc6 increases the cell value by 6%.</p>
Cell	Decrease the cell value by a percentage.	<p>Dec, Decreases</p> <p>For example, entering Dec6 decreases the cell value by 6%.</p>

Table 21. Keyboard shortcuts for crosstab and chart widgets (continued)

Applies to	Action	Shortcut keys
Cell	Spread the value to the right.	> For example, entering 1000> spreads the value 1000 to all columns to the right.
Cell	Spread the value down.	 For example, entering 1000 spreads the value 1000 to down all rows.
Cell	Hold the cell value from data spreads.	Hold, Hol
Cell	Release held cells.	Release, Rel

Scorecard widgets

The following table identifies keyboard shortcuts that are available when you are working in a scorecard widget.

Table 22. Keyboard shortcuts for metrics widgets

Applies to	Action	Shortcut keys
On demand toolbar	Move focus to the on demand toolbar.	F10
Overview area	Move from the on demand toolbar to the overview area.	Tab
Overview area	Navigate the dimensions in the overview area.	Left and right arrows
Overview area	List the members of the dimension that is in focus in the overview area. The list will appear in a drop down.	Spacebar
Overview area	Close the drop down that shows the members of a dimension in the overview area.	Esc
Overview area	Switch the context of the dimension that is in focus in the overview area.	Up and down arrows and then spacebar
Overview area	Expand the currently selected item in a drop down list.	Right arrow
Overview area	Collapse the currently selected item in a drop down list.	Left arrow
Overview area	Move from the overview area to the interactive chart graphic area.	Tab

Explore points

The following table identifies keyboard shortcuts that are available when you are working with explore points.

Table 23. Keyboard shortcuts for explore points

Applies to	Action	Shortcut keys
Content pane	Insert an explore point on the canvas by choosing a dimension in the content pane.	Inserting an explore point has multiple steps: 1. In the content pane, select a dimension using the up and down arrows. 2. To open the menu, press Shift+F10. 3. Press Insert.
Menu items	View the menu items for a facet.	Shift+F10
Explore point	Navigate the list of members for an explore point.	Up and Down arrows
Explore point	Select or clear a member in an explore point.	Ctrl+Spacebar
Explore point	Select another member in an explore point.	Up and down arrows and then Ctrl+Spacebar.
Explore point	Select a member in an explore point, clearing all previous selections.	Spacebar
Explore point	Show explore point members in hierarchical mode.	Press Shift+F10 and choose Show Hierarchy
Explore point	Collapse or expand a node in a facet when in hierarchical mode.	Enter

Action button widgets

The following table identifies keyboard shortcuts that are available when focus is in an action button widget.

Table 24. Keyboard shortcuts for action button widgets

Applies to	Action	Shortcut keys
Action button	Invoke the action.	Spacebar

Text widgets

The following table identifies keyboard shortcuts that are available when you are working with text widgets.

Table 25. Keyboard shortcuts for text widgets

Applies to	Action	Shortcut keys
Text	Highlight text for formatting.	Shift+right arrow
Toolbar	With text highlighted, set focus on text widget toolbar.	F10
Toolbar	Navigate to major landing areas in the toolbar.	Tab
Toolbar	From a major landing area, navigate to items in the toolbar.	Right or left arrow

Table 25. Keyboard shortcuts for text widgets (continued)

Applies to	Action	Shortcut keys
Toolbar	From the font size or font type list in the text widget toolbar, choose an option.	Up or down arrow
Toolbar	From the font size or font type list, select a font setting.	Enter

Dimension Editor

The following table identifies keyboard shortcuts that are available when you are working in the Dimension Editor.

Table 26. Keyboard shortcuts for the Dimension Editor

Applies to	Action	Shortcut keys
Tree control	Open a node in the Dimension Editor tree hierarchy.	Ctrl+right arrow
Tree control	Close a node in the Dimension Editor tree hierarchy.	Ctrl+left arrow
Launch	Open the Dimension Editor when a row or item caption is in focus in the content pane.	Shift+F10 and then select Edit
Edit	Open the menu for an item in the tree.	Shift+F10
Edit	Set an item as the child of another item.	Shift+F10 and then select Demote Selected Members
Edit	Set an item as the parent of another item.	Shift+F10 and then select Promote Selected Members

Query Builder

The following table identifies keyboard shortcuts that are available when you are working with the Query Builder.

Table 27. Keyboard shortcuts for the Query Builder

Applies to	Action	Shortcut keys
Menu items	Open a menu to navigate to major landing areas.	Ctrl+;
Menu items	From a major landing area, set focus to the Query Diagram landing area.	Ctrl+;
Data view	Refresh content in the Data View.	Tab to the refresh button, and then press Enter.

Table 27. Keyboard shortcuts for the Query Builder (continued)

Applies to	Action	Shortcut keys
Query Builder	Add a table to the query.	Adding a table to a query has multiple steps: <ol style="list-style-type: none"> 1. Press Ctrl+; and choose Metadata Explorer. 2. Use the arrows to navigate to the table. 3. Press Shift+F10 to list the menu items for the table. 4. Select Add to Query. 5. To refresh your content, tab to the refresh button and press Enter.
Query Diagram	Open the menu.	Shift+F10
Query Diagram	Set focus to a table.	Setting focus to a table has multiple steps: <ol style="list-style-type: none"> 1. To open the menu, press Shift+F10. 2. Choose Select on Diagram, and then choose Select Table.
Table	Choose table join properties.	Choosing table join properties has multiple steps: <ol style="list-style-type: none"> 1. To open the menu, press Shift+F10. 2. Choose Select on Diagram, and then choose Select Table. 3. Tab to Table header Column 4. To set focus on a row of join properties, use the up and down arrows. 5. To set focus on a join property, use the right and left arrows. 6. To edit table join properties, press the Spacebar. 7. To show a list of options, press Enter. 8. To navigate the list, use the up and down arrows. 9. To select an option in the list, press Enter.


Table 27. Keyboard shortcuts for the Query Builder (continued)

Applies to	Action	Shortcut keys
Join properties	Edit relationships between columns.	<p>Editing relationships between columns has multiple steps:</p> <ol style="list-style-type: none"> 1. Tab to Specify the relations between the columns. 2. To set focus on the relationship properties, use the up and down arrows. 3. To set focus on a relationship property, use the right and left arrows. 4. To edit relationship properties, press the Spacebar. 5. To open the list of options, press Enter. 6. To navigate the list, use the up and down arrows. 7. To select an option in the list, press Enter.

Enabling additional cues for screen readers

In IBM Cognos Insight, when you change the content of cells in a crosstab, the cell contents appear in a different color. You can specify that colored text be displayed with visual cues as well so that screen readers can announce the cues.

Procedure

1. Click the **Actions** icon  and then click **My Preferences**.
2. To specify that colored text in the crosstab will be highlighted when you use a screen reader, select the **Add visual cues to colored text** check box.
3. Click **OK**.

Troubleshoot issues with the JAWS screen reader

IBM Cognos Insight includes keyboard shortcuts to help you navigate Cognos Insight and perform tasks using only a keyboard. However, some screen readers may not work with some keyboard shortcuts. Issues and their resolutions are documented here.

JAWS announces an outdated cell state or value

In a crosstab widget, after you change a cell state or cell format using the cell menu items, JAWS announces the old cell state or formatted value. You can change a cell's state by choosing **Hold** or **Release** in the cell's menu. And you can change a cell's format values by choosing a different data format from the cell's menu, such as a percentage of the total or maximum roll-up.

To have JAWS announce the new cell state or formatted value, use the arrow key to move away from the changed cell and then return to the cell. The updated state and formatted value are announced by JAWS.

JAWS incorrectly announces the OK button in some Query Builder windows

In some cases, when you are working in a Query Builder window, JAWS announces the **OK** button, and then announces another control. If this happens, you can safely ignore the **OK** button announcement, and listen only to the subsequent part of the announcement.

JAWS does not announce new cell values

Using JAWS, when you type a new value in a cell in a crosstab and press Enter, the new value is not announced. Also, after entering the new cell value, navigating using arrow keys does not announce any cell values.

To force JAWS to announce the cell values, press Ctrl+Tab to leave the crosstab, then Ctrl+Shift+Tab to return to the crosstab. JAWS will announce the cells as you navigate using the arrow or Tab keys.

JAWS does not announce the elements in a relative proportional spread

In the Data Spread window, when you are reviewing the elements that the relative proportional spread is based on, JAWS does not announce the element names when you use the arrow keys for navigation.

Press Tab to navigate the element, and JAWS announces the element names. You can also click the **Preview** link to review a summary of the dimensions and elements. However, this summary is read only. Elements can only be edited from the Data Spread window.

JAWS does not announce date or navigation controls in a calendar

In the Time Roll-ups window and in crosstab cells, the dates and navigation controls in calendars are not announced by JAWS.

To edit a date in a time roll-up:

1. In the Time Roll-ups window, press Tab to select the fixed date option.
2. Press the down arrow to open the calendar.
3. Use the right arrow to advance one day at a time (JAWS will announce when a new month is entered), and then press Enter to select the date. JAWS will read the newly selected date, and the list of date ranges will be updated based on the new reference date selection.

To edit a crosstab cell date, type the new date in the cell. The format of the new date must match the format of existing dates.

JAWS does not announce Query Definition tree control

When you are importing a package into Cognos Insight, in the Select Data Source step of the import wizard, JAWS does not identify the Query Definition section as a tree control.

To use the tree control, perform the following actions:

- Navigate the tree with the up and down arrows.

- Expand and collapse tree items with the right and left arrows.
- Select one or more tree items with the spacebar. When an item is selected, the selected items table is automatically populated.
-

JAWS 13 does not announce items that are cleared and closed in the Query Definition tree

When you are importing a package into Cognos Insight, in the Select Data Source step of the import wizard, in the Query Definition tree control, you can select items in the tree by pressing the spacebar.

JAWS 13 announces whether open tree items are cleared or selected. JAWS 13 also announces whether closed leaf items are cleared or selected. However, for items that are cleared and closed, JAWS 13 only announces that the item is closed and does not announce whether that the item is cleared.

IBM and accessibility

See the IBM Accessibility Center for more information about the commitment that IBM has to accessibility.

The IBM Accessibility Center (<http://www.ibm.com/able>) is available online.

Appendix B. Troubleshoot a problem

Troubleshooting is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and how to resolve the problem.

Review the following table to help you or customer support resolve a problem.

Table 28. Actions and descriptions

Actions	Description
A product fix might be available to resolve your problem.	Apply all known fix packs, or service levels, or program temporary fixes (PTF).
Ensure that the configuration is supported.	Review the supported environments information at the IBM Cognos Customer Care Center (http://www.ibm.com/support/docview.wss?uid=swg2703826)
Look up error messages by selecting the product from the IBM Support Portal, and then typing the error message code into the Search support box on the right vertical menu bar (http://www.ibm.com/support/entry/portal/).	Error messages give important information to help you identify the component that is causing the problem.
Reproduce the problem to ensure that it is not just a simple error.	If samples are available with the product, you might try to reproduce the problem by using the sample data.
Ensure that the installation successfully finished.	The installation location must contain the appropriate file structure and the file permissions. For example, if the product requires write access to log files, ensure that the directory has the correct permission.
Review all relevant documentation, including release notes, technotes, and proven practices documentation.	Search the IBM knowledge bases to determine whether your problem is known, has a workaround, or if it is already resolved and documented.
Review recent changes in your computing environment.	Sometimes installing new software might cause compatibility issues.

If the items on the checklist did not guide you to a resolution, you might need to collect diagnostic data. This data is necessary for an IBM technical-support representative to effectively troubleshoot and assist you in resolving the problem. You can also collect diagnostic data and analyze it yourself.

Multi-selection in an explore point displays #N/A in some cells

When you select two or more members in an explore point in IBM Cognos Insight, the cells in widgets with crosstabs sometimes display the calculated values and sometimes display #N/A.

When you select two or more items in an explore point, the crosstabs in your workspace try to show cell values that are calculated based on the items you selected.

Cells display the calculated values correctly

The calculated values can be shown when both of the following statements are true:

- All the members in rows, columns, or context have either no calculations or have simple calculations such as addition, subtraction, multiplication, division, or average.
- If rows, columns, or context have calculated members, then there is no intersection of these calculated members. For example, if rows has a calculated member, then no member on columns can be calculated.

For example, your crosstab shows the Product Lines dimension, with members such as Microwaves and Stoves, the Revenue measure, and the Brands dimension in context and as an explore point. When you click a brand, the data that appears in your crosstab changes to show only that brand's revenue.

Cells display #N/A

Cells will display the text #N/A when you select more than one item in an explore point in the following two circumstances:

- Your crosstab includes one or more calculated members that are based on a complex calculation.
- You select more than one item in an explore point and when the crosstab includes an intersection of calculated members on columns, rows, or context.

Cells will display #N/A when you select more than one item in an explore point and when your crosstab includes one or more calculated members that are based on a complex calculation. Complex calculations are minimum, maximum, compare, or a references to a database. Continuing with our previous example, you add a summary row to the crosstab to show the minimum value in the column. Minimum is a complex calculated member. Now, when you select two or more brands in the explore point, the values in the crosstab change to #N/A.

Cells will display #N/A when you select more than one item in an explore point and when the crosstab includes an intersection of calculated members on columns, rows, or context. Continuing with our previous example, you add an Average calculation as a new column, and you add an Average calculation as a new row. Now, when you select two or more brands in the explore point, the values in the crosstab change to #N/A.

Related tasks:

[“Filtering by dimensions and attributes” on page 59](#)

Use explore points or the explore pane to filter the data that is displayed in the crosstabs and charts in your workspace. Explore points and the explore pane also identify how your dimensions and attributes are related and where they are not connected.

Cognos Insight does not start from Cognos Connection

The web browser settings that are described in this topic can affect whether your computer can access IBM Cognos Insight from IBM Cognos Connection.

If Cognos Insight does not start or install when you access Cognos Insight from Cognos Connection, try changing the following web browser settings:

- Enable JavaScript.
- Enable file downloads.
- Enable pop-ups from the Cognos Connection URL.
- Allow script initiated downloads without prompting.
- If you are using the Microsoft Internet Explorer web browser, enable MIME-sniffing.

For information about finding and changing these settings, see your web browser documentation.

Troubleshooting resources

Troubleshooting resources are sources of information that can help you resolve a problem that you are having with an IBM Cognos product. Many of the resource links provided in this section can also be viewed in a short video demonstration.

To view the video version, search for “IBM Cognos troubleshooting” through either an Internet search engine or YouTube video community.

Support Portal

The IBM Support Portal is a unified, centralized view of all technical support tools and information for all IBM systems, software, and services.

The IBM Support Portal lets you access all the IBM support resources from one place. You can tailor the pages to focus on the information and resources that you need for problem prevention and faster problem resolution. Familiarize yourself with the IBM Support Portal by viewing the demo videos.

Find the Cognos content that you need by selecting your products from the IBM Support Portal.

Searching and navigating IBM Cognos products

Access to IBM Cognos product information can now be configured in the IBM Support Portal, which provides the ability to see all of your links on a single page.

Best practices for searching and navigating for IBM Cognos product information are available on the IBM Cognos Support Portal and Technote Search Best Practices page.

Gathering information

Before contacting IBM Support, you will need to collect diagnostic data (system information, symptoms, log files, traces, and so on) that is required to resolve a problem. Gathering this information will help to familiarize you with the troubleshooting process and save you time

Information on what data to collect is available in the form of MustGather technotes.

Problem determination

Several IBM Cognos problem determination tools are available to diagnose and troubleshoot common problems.

These tools can be downloaded from the Cognos Diagnostic Utilities page. IBM Education Assistant provides video and other training resources on some of these diagnostic tools on the IBM Education Assistant Problem Determination website.

Service requests

Service requests are also known as Problem Management Reports (PMRs). Several methods exist to submit diagnostic information to IBM Software Technical Support.

To open a PMR or to exchange information with technical support, view the IBM Software Support Exchanging information with Technical Support page. PMRs can also be submitted directly by using the Service requests (PMRs) tool, or one of the other supported methods detailed on the exchanging information page.

Cognos Customer Center

The IBM Cognos Customer Center provides Cognos-specific information, updates, and troubleshooting resources.

To view Cognos troubleshooting information, access the Cognos Customer Center, and view the information under "Contacting Support" or "Troubleshooting Tips".

Fix Central

Fix Central provides fixes and updates for your system's software, hardware, and operating system.

Use the pull-down menu to navigate to your product fixes on Fix Central . You may also want to view Fix Central help.

Knowledge bases

You can find solutions to problems by searching IBM knowledge bases.

You can use the IBM masthead search by typing your search string into the Search field at the top of any ibm.com page.

Cognos Information Centers

IBM Cognos Information Centers include documentation for each release. This documentation is also available through product help menus.

Cognos Information Centers, including translated documentation, are available at IBM Cognos Business Intelligence and Performance Management.

To find links to the latest known problems and APARs, access the Release Notes available in each Information Center.

IBM Redbooks

IBM Redbooks[®] are developed and published by IBM's International Technical Support Organization, the ITSO.

IBM Redbooks provide in-depth guidance about such topics as installation and configuration and solution implementation.

Proven Practices documentation

Created by Cognos experts from customer experiences Business analytics proven practices, provides verified technical information in specific technology environments.

As a troubleshooting resource, Business analytics proven practices provides easy access to the top ten most popular practices for Business Intelligence and Financial Performance Management, in addition to videos and other information: Cognos Proven Practice documentation.

Software support and RSS feeds

IBM Software Support RSS feeds are a quick, easy, and lightweight format for monitoring new content added to websites.

After you download an RSS reader or browser plug-in, you can subscribe to IBM product feeds at IBM Software Support RSS feeds.

Forums and communities

IBM Cognos product forums offer a place to share ideas and solutions with your peers in the IBM Cognos community.

Active Cognos forums are available at Cognos forums and communities.

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