IBM Cognos Insight
Version 10.2.0

# *User Guide*

**Note**
Before using this information and the product it supports, read the information in "Notices" on page 105.

## Product Information

This document applies to IBM Cognos Insight Version 10.2.0 and may also apply to subsequent releases. To check for newer versions of this document, visit the IBM Cognos Information Centers (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp).

# Contents

# 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://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp). Release Notes are published directly to Information Centers, and include links to the latest technotes, techdocs, and APARs.

## 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 B, "Accessibility features," on page 91 the accessibility section in this document.

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.

## Samples disclaimer

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# Chapter 1. What's new

This section contains a list of new features for this release.

To review an updated list of environments that are supported by IBM Cognos Insight, such as operating systems, Cognos servers, and databases, see System requirements (http://www.ibm.com/support/docview.wss?uid=swg27025127).

## IBM Cognos product family

The IBM Cognos 10 family of products are right-sized for your organization and integrated together. Whether you want to deploy on a desktop, a single server, a server farm, or all three, IBM has the solution for you. Better yet, address your most pressing need now and grow your solution over time. For example:

- Start small by using Cognos Insight for data discovery and planning. Add a server to share that insight and create additional reports from larger data sets with Cognos Express®. Or combine that insight with real-time and corporate information and place insights on scorecards and interact on mobile devices with Cognos Enterprise.
- Extend organization report deployments by using Cognos Enterprise. Provision the data discovery and planning capabilities of Cognos Insight to individual desktops. Provide individuals with access to corporate information and enable them to share and distribute their data and visualizations with large user communities.

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

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

The Cognos 10 family addresses the business intelligence and performance management needs of the following entities:

- Individuals who require personal, desktop analytics with Cognos Insight.

- Departments, business units, or midsize organizations with workgroups who require integrated reporting, analysis, and planning with Cognos Express.
- Enterprises that require broad analytics capabilities deployed to hundreds or thousands of people with Cognos Enterprise.

## Advanced data source intelligence

When you import data, IBM Cognos Insight uses heuristics to deduce which of your source data items are measures, dimensions, and levels.

Cognos Insight can now differentiate between number columns that are measures and number columns that do not represent values. For example, if your source data includes a Quantity column and Product number column, Cognos Insight will recognize that Quantity is a measure and Product number is a dimension or even an attribute.

Cognos Insight also now detects the most logical roll-up type for each of your measures. 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.

You can override any of the choices that Cognos Insight makes about how to map your data by using a guided import (from the **Get Data** menu, click **Import Data** or **Import Dimensions**) instead of a quick import.

**Related concepts**:

Chapter 3, “Importing data,” on page 11
You can import and map data in different ways, depending on the complexity of your data.

## Workspaces published from IBM Cognos Insight to IBM 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.

For example, when you publish a workspace that includes an explore point widget, that explore point widget appears in Cognos Workspace. With an explore point, you can explore the connections between dimensions. Each selected dimension appears in a separate explore point. When you select a member in one explore point, members in other dimensions that are associated to it are highlighted while members that are not associated to it are not highlighted.

For example, one explore point shows months and another explore point shows countries or regions. When you select December and Switzerland, you see that ski jackets are selling but beach umbrellas are not.

**Restriction:** The following items appear differently when you publish a Cognos Insight workspace and open it in Cognos Workspace:

- Action buttons that run IBM Cognos TM1® TurboIntegrator scripts do not appear.

- Text measures in crosstabs do not appear.
- 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.
- 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.
- 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.
- 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.
- 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.
- Reports that access IBM Cognos TM1 cubes and do not include at least one measure do not appear.
- Some number formats do not appear. Number formats can be adjusted to match after you publish by using any of the default formats that are available in IBM Cognos Architect.
- 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.
- Information from the overview area in Cognos Insight is available in the Cognos Workspace information bar.
- The width and depth of the bars in a bar chart may differ.
- Synchronized drilling will be turned on by default in Cognos Workspace.
- The explore pane does not appear.
- When top and bottom filters are applied to intersected dimensions, filter results may not appear in the same way.
- Comments do not appear.

**Related tasks**:

"Publishing and distributing to Cognos TM1 and Cognos BI" on page 69
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 Application portal. IBM Cognos Insight also creates a data source connection, a package, and reports in IBM Cognos Connection.

"Drilling up and down" on page 31
You can drill up and down to review different levels of your data in a crosstab or a chart.

## Tree maps

IBM Cognos Insight now includes a new chart type, tree maps. Tree maps display your data hierarchies as nested rectangles. The size and color of each rectangle tells you which element the rectangle represents and how its value compares to the values of the other elements.

Tree maps can help you identify patterns that you might not see in another chart type. For example, if you have a line chart that shows the number of invoices, number of payments, and number of unpaid invoices per customer per quarter, and then you add country or region to the context area, you will see how the numbers of each invoice status changed from quarter to quarter. However, if you display this data as a tree map, as you click through the countries or regions, you will easily see which countries or regions have the most unpaid invoices.

**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.

**Related concepts**:

"Chart types" on page 48
There are many types of charts for presenting your data in a way that is meaningful to you and your users.

## Import Cognos Business Intelligence packages

You can now import the content of packages from IBM Cognos Business Intelligence into IBM Cognos Insight, and work with that data to create workspaces.

This new feature can improve the performance of your import by leveraging the modeling that was done in Cognos BI to determine how the source data is mapped in Cognos Insight.

**Related concepts**:

Chapter 3, "Importing data," on page 11
You can import and map data in different ways, depending on the complexity of your data.

## Drill-up and drill-down capabilities

IBM Cognos Insight now offers drill-up and drill-down capabilities.

You can drill up and drill down to change the focus of your data by moving between levels of information.

Drill down to see more detail, and drill up to compare results. For example, you can drill down to examine the revenue for a single product and then drill up to compare revenue for the entire product line to other product lines.

**Related tasks**:

"Drilling up and down" on page 31
You can drill up and down to review different levels of your data in a crosstab or a chart.

## Filter to show only the top or bottom results

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

You can now use top and bottom filtering to show only the top or bottom results in your crosstab. For example, you could filter to show only the top 10 sales people by their sales revenue, or you could filter to show only the bottom three months by revenue.

**Related tasks**:

"Filtering to show top or bottom results" on page 31
You can filter to display only the top or bottom results in a crosstab.

## Add data to charts by dragging

You can now drag a data item to a chart from the content pane or a crosstab.

Previously, you had to drag data, such as a dimension or measure, to a crosstab to have it appear on the associated chart. Now you can drag data directly to the chart. This is useful when your crosstab and chart are on different tabs, or when you have disconnected the chart from the crosstab.

**Related tasks**:

"Example: Displaying different data in a crosstab and a chart" on page 53
You can use two widgets to display different data perspectives in a crosstab and a chart that use the same cube.

## Work offline from a Cognos TM1 server

When you are working in distributed mode from an IBM Cognos TM1 server, you can now set IBM Cognos Insight to work offline and then reconnect later to commit your changes.

When you are working in distributed mode and you know that you will not be able to commit your changes to the Cognos TM1 server, you can take ownership of a workspace and set Cognos Insight to work offline.

For example, if you want to make changes to a workspace when you are on an airplane, you can set Cognos Insight to work offline, and then commit the changes that you made to your workspace when you reconnect.

When you reconnect to the Cognos TM1 server, your data is merged with the data on the server. Metadata changes are not supported for working offline. When your data's structure is significantly different from the server data, you will receive an error message when you try to commit your data and have the option to save your data without committing.

**Related concepts**:

Chapter 8, “Contribute to a plan on a Cognos TM1 server,” on page 73
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.

**Related tasks**:

“Working offline from a Cognos TM1 system” on page 79
You can choose to disconnect from an IBM Cognos TM1 system when you want to make changes to a workspace on your computer and then commit the changes later.

## Customize your fiscal year

When you import data into IBM Cognos Insight, you can now set your fiscal year to begin at a specific month.

**Related concepts**:

Chapter 3, “Importing data,” on page 11
You can import and map data in different ways, depending on the complexity of your data.

## Import processes are displayed in the content pane

When you import data into IBM Cognos Insight, each import process is now displayed in the content pane so that you can run a silent or guided refresh on the data from that import process.

In previous versions, you could refresh the data in a cube only by choosing to run a silent or guided refresh on the cube. This refresh would refresh only the most recent import process. Now you can run a silent or guided refresh on each import that you made to your workspace.

For example, you import a spreadsheet into Cognos Insight to create a new workspace, and that import process appears in the content pane. Then you import a report into Cognos Insight so that you can add some data from the report into your workspace. By refreshing data from the import processes, you can refresh only the data you imported from the spreadsheet, you can refresh only the data you imported from the report.

**Related tasks**:

“Refreshing data” on page 25
When you want to update a workspace with new values from the same data source, you can refresh the data.

## Time roll-up calculations

A time roll-up calculation provides a summary of a range of dates relative to a specific date that you select. For example, a year to date calculation is a time roll-up. The time dimension that is created by IBM Cognos Insight when you import data now supports time roll-ups.

The range of dates that you specify for the time roll-up can be fixed, or the dates can change relative to the current date. The start and end dates can also be derived from the current time period based on the type of roll-up. For example, you can

create a time roll-up to display the total revenue for the current month. You can also enter specific dates to display the revenue that was earned between those dates.

**Related tasks**:

"Creating time roll-up calculations" on page 37
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.

# Chapter 2. Starting Cognos Insight

IBM Cognos Insight is available as a stand-alone product or you can provision it from IBM Cognos TM1 or IBM Cognos Business Intelligence, depending on how you can access these servers.

Provisioning Cognos Insight from Cognos TM1 or Cognos BI downloads and installs Cognos Insight to your computer so that you can view Cognos Insight content that your administrator or other users create. If you do not already have Cognos Insight installed on your computer, provisioning Cognos Insight installs it on your computer and then opens it. If you already have Cognos Insight installed on your computer, provisioning it opens Cognos Insight.

The following list describes the different versions of Cognos Insight and what each version is intended for. The version you use depends on whether Cognos Insight is connected to your other Cognos products, such as Cognos TM1, Cognos Express, and Cognos BI. These different versions contain similar features, and they are compatible with each other. However, you can have only one version of Cognos Insight installed on your computer at a time, so whenever you provision Cognos Insight or open a shared workspace from a server, Cognos Insight prompts you to update your installation if the server version is newer than your version.

**Personal Edition**

With Cognos Insight Personal Edition, you can create workspaces for personal use on your own computer.

Uninstall the Personal Edition if you want to install Cognos Insight Standard Edition. If you have the Personal Edition and you provision Cognos Insight from Cognos TM1 or Cognos BI, the provisioned version overwrites the Personal Edition.

**Standard Edition**

With Cognos Insight Standard Edition, you can create workspaces and share them with other Cognos Insight users.

If you have Standard Edition and you install the Personal Edition or provision Cognos Insight from Cognos TM1 or Cognos BI, the new instance overwrites the Standard Edition.

**Cognos Insight and Cognos TM1**

If you use Cognos TM1, you can provision Cognos Insight from Cognos TM1 to create workspaces and contribute to plans. Cognos TM1 administrators can publish your workspaces to Cognos TM1.

When you provision Cognos Insight or open a workspace from the Cognos TM1 server, Cognos Insight prompts you to update your installation if the Cognos TM1 server contains a newer version than the version on your computer.

**Cognos Insight and Cognos BI**

If you use Cognos BI, you can provision Cognos Insight from Cognos BI to create workspaces and share them on IBM Cognos Connection.

When you provision Cognos Insight from Cognos BI or open a shared workspace from Cognos Connection, Cognos Insight prompts you to update your installation if the Cognos BI server has a newer version than the version on your computer.

**Cognos Insight and Cognos Express**

If you use IBM Cognos Express Planner or IBM Cognos Express Advisor, you can provision Cognos Insight from Cognos Express to create workspaces, share workspaces with others, or contribute to plans.

When you provision Cognos Insight from Cognos Express or open a shared workspace from Cognos Connection, Cognos Insight prompts you to update your installation if the Cognos Express server has a newer version than the version on your computer.

## Removing workspaces from the Welcome page

You can remove the workspaces that appear as recent files on the Welcome page in IBM Cognos Insight without deleting them from your computer.

### Procedure

1. On your computer, navigate to the appropriate location depending on the way in which you installed Cognos Insight and your operating system:

   **Default location of the recent workspaces that appear on the welcome page in Cognos Insight**

   On a Windows XP operating system:

   `C:\Documents and Settings\`*`username`*`\.CognosInsight`

   On a Windows 7 operating system:

   `C:\Users\`*`username`*`\.CognosInsight`

   **Default location of the recent workspaces that appear on the welcome page in Cognos Insight**

   On a Windows XP operating system:

   `C:\Documents and Settings\`*`username`*`\.CognosInsight`

   On a Windows 7 operating system:

   `C:\Users\`*`username`*`\.CognosInsight`

2. Delete the CDD files that you want to remove from the Welcome page. This action does not delete the CDD files from your computer. It only deletes the files from the recent files list on the Welcome page.

# Chapter 3. Importing data

You can import and map data in different ways, depending on the complexity of your data.

## Importing simple data files

You can import simple data files with a Quick Import when your source data meets the following criteria:

- 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

For more information, see "Importing simple data files" on page 14.

## Importing more complex data

You can import more complex data when you are in the following situation:

- You are importing more data than a Quick Import can handle.
- You want to decide what data to import and what data not to import.
- You want to define which data items are measures and which items are dimensions.
- You want Cognos Insight to map your data for you.

For more information, see "Importing complex data" on page 15 and "Importing from a relational data source" on page 23.

## Importing and mapping data

You can import and map your source data to identify which columns will be defined as dimensions, levels, attributes, or measures. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

For more information, see "Importing and mapping data" on page 17 and "Importing from a relational data source" on page 23.

**Related concepts**:

"Advanced data source intelligence" on page 2
When you import data, IBM Cognos Insight uses heuristics to deduce which of your source data items are measures, dimensions, and levels.

"Import Cognos Business Intelligence packages" on page 4
You can now import the content of packages from IBM Cognos Business Intelligence into IBM Cognos Insight, and work with that data to create workspaces.

"Customize your fiscal year" on page 6
When you import data into IBM Cognos Insight, you can now set your fiscal year to begin at a specific month.

"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.

**Related tasks**:

"Adding a crosstab" on page 47
Use a crosstab to view dimensions and perform basic analysis on your data. By default, a chart is also displayed.

# 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.

## Restrictions

Before you import, review the following restrictions:

- 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 to 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.
- Only reports that were created in IBM Cognos Report Studio can be imported. If the report contains prompts, you must answer the prompt before you can import. Single value 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.
- You cannot schedule an import of a report when in connected mode. You must use the **Guided Refresh** command or the **Silent Refresh** command.
- 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 61.

## 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. For more information about mapping data, see "Importing and mapping data" on page 17.

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

**Dimension**
A dimension is a descriptive category of data. For example, your data might include a dimension called Products, Customer, or 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.

**Cube** A cube is a store of data within a model. It is multidimensional and contains rows, columns, and any number of pages. Unlike a spreadsheet, cubes can be sliced so that any pair of dimensions can become rows and columns, while additional dimensions become the pages. A cube must contain at least two dimensions, similar to a flat spreadsheet. A cube with three dimensions resembles a three-dimensional worksheet that consists of several flat sheets stacked behind one another. A cube with four or five dimensions is a cross between a three-dimensional worksheet and a set of query reports from a relational database. For example, a typical four-dimensional cube might contain the following dimensions: Profit and Loss, Divisions, Months, and Variance.

If you import a Cognos BI 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 IBM 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.

**Related concepts**:

Chapter 3, "Importing data," on page 11
You can import and map data in different ways, depending on the complexity of your data.

**Related tasks**:

"Importing complex data" on page 15
You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

"Importing from a relational data source" on page 23
Importing relational data requires that you understand your relational data source and how to build SQL queries. Ensure also that the ODBC connections are defined.

"Importing simple data files"
You can explore and share data quickly by using the default mappings that IBM Cognos Insight determines for your data.

"Importing and mapping data" on page 17
When your source data includes many columns, you can examine and change how IBM Cognos Insight has mapped the data to dimensions, levels, attributes, or measures. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

"Importing new dimensions to a cube" on page 21
You can import new dimensions when you want to add more data than you originally imported to an existing workspace.

# Importing simple data files

You can explore and share data quickly by using the default mappings that IBM Cognos Insight determines for your data.

## Before you begin

To review the restrictions and default mappings before you import data, see "Before you import data" on page 12.

## About this task

Use the Quick Import feature when you want to import simple data files that 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. For information about importing more complex data, see "Importing complex data" and "Importing from a relational data source" on page 23.

### Procedure

1. Click **Get Data**, and then click **Quick Import**.
2. Select the file that you want to import.

**Related concepts**:

"Before you import data" on page 12
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.

**Related tasks**:

"Importing complex data"
You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

## Importing complex data

You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

### Before you begin

To review the restrictions and default mappings before you import data, see "Before you import data" on page 12.

### Procedure

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

   **Restriction:** Two options in the **Type** list are only available when you are connected to an IBM Cognos TM1 server: **IBM Cognos TM1 Cube View** and **IBM Cognos TM1 Dimension Subset**.
2. In the **Type** field, choose the type of data source you are importing.
3. Navigate to the data source or specify the connection details for your source data.
4. Choose from the following steps based on which data source you are importing from.
5. When you are importing a Microsoft Excel file:
   a. Expand **Source Details**.
   b. Specify whether the data contains column labels.
   c. Specify whether the data is structured as a list or a crosstab.
   d. Optional: Specify the worksheet, rows, and columns to use.
6. When you are importing a delimited text file:
   a. Expand **Source Details**.
   b. Specify the delimiter, quotation mark character, and separators.

c. Optional: If you want to use the decimal separator and thousands separator for a specific locale, select that locale from the **Data Source Locale** field.

d. Specify the first row of data. You can use this field to avoid importing introductory text or multiple header rows in your text file.

e. Specify whether the data contains column labels.

f. Optional: If you are working in connected mode and you want to schedule running 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 Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73.

7. When you are importing a report that was created in IBM Cognos Report Studio:
   a. In the **Query Definition** pane, select and clear the check boxes to import only the data you want from the package.
   b. If your source report contains prompts, click **Prompts** to answer the prompts.
8. When you are importing a Cognos BI package:
   a. In the **Query Definition** area, choose the dimension that you want to import. When you import from a package, import one dimension at a time unless the dimensions share a common measure. If you choose to import 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.
   b. If your source package contains prompts, click **Prompts** to answer the prompts.
   c. Click **Preview** to view your data in the **Data Preview** area. To improve performance, the data preview does not refresh automatically.
9. When you are importing a Cognos TM1 cube view:
   a. Select **IBM Cognos TM1 Cube View** in the **Source type** field.
   b. Select the cube and view that you want to import.
10. When you are importing a Cognos TM1 dimension subset:
    a. Select **IBM Cognos TM1 Dimension Subset** in the **Source type** field.
    b. Select the dimension and subset that you want to import.
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**.

**Related concepts**:

"Before you import data" on page 12
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.

**Related tasks**:

"Importing simple data files" on page 14
You can explore and share data quickly by using the default mappings that IBM Cognos Insight determines for your data.

"Importing from a relational data source" on page 23
Importing relational data requires that you understand your relational data source and how to build SQL queries. Ensure also that the ODBC connections are defined.

"Refreshing data" on page 25
When you want to update a workspace with new values from the same data source, you can refresh the data.

"Creating cubes, dimensions, and measures" on page 59
In addition to importing, you can create a cube, dimension, or measure.

## Importing and mapping data

When your source data includes many columns, you can examine and change how IBM Cognos Insight has mapped the data to dimensions, levels, attributes, or measures. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

### Before you begin

To review the restrictions and default mappings before you import data, see "Before you import data" on page 12.

### Procedure

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

   **Restriction:** Two options in the **Type** list are only available when you are connected to an IBM Cognos TM1 server: **IBM Cognos TM1 Cube View** and **IBM Cognos TM1 Dimension Subset**.
2. In the **Type** field, choose the type of data source you are importing.
3. Navigate to the data source or specify the connection details for your source data.
4. When you are importing a Microsoft Excel file:
   a. Expand **Source Details**.
   b. Specify whether the data contains column labels.
   c. Specify whether the data is structured as a list or a crosstab.
   d. Optional: Specify the worksheet, rows, and columns to use.
5. When you are importing a delimited text file:
   a. Expand **Source Details**.
   b. Specify the delimiter, quotation mark character, and separators.
   c. Optional: If you want to use the decimal separator and thousands separator for a specific locale, select that locale from the **Data Source Locale** field.
   d. Specify the first row of data. You can use this field to avoid importing introductory text or multiple header rows in your text file.

e. Specify whether the data contains column labels.

f. Optional: If you are working in connected mode and you want to schedule running 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 Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73.

6. When you are importing a report that was created in IBM Cognos Report Studio:

   a. In the **Query Definition** pane, select and clear the check boxes to import only the data you want from the package.

   b. If your source report contains prompts, click **Prompts** to answer the prompts.

7. When you are importing a Cognos BI package:

   a. In the **Query Definition** area, choose the dimension that you want to import. When you import from a package, import one dimension at a time unless the dimensions share a common measure. If you choose to import 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.

   b. If your source package contains prompts, click **Prompts** to answer the prompts.

   c. Click **Preview** to view your data in the **Data Preview** area. To improve performance, the data preview does not refresh automatically.

8. When you are importing a Cognos TM1 cube view:

   a. Select **IBM Cognos TM1 Cube View** in the **Source type** field.

   b. Select the cube and view that you want to import.

9. When you are importing a Cognos TM1 dimension subset:

   a. Select **IBM Cognos TM1 Dimension Subset** in the **Source type** field.

   b. Select the dimension and subset that you want to import.

10. Click **Advanced**.

    By default, Cognos Insight maps your data as described in "Before you import data" on page 12. 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. 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.

12. You can review the properties of the entire 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 you have chosen for empty cells, select the **Replace empty strings with default values** check box.

e. If your source data does not contain any measures, 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. Select the dimension in the **Target Items** pane.

b. If you are importing a dimension with multiple levels and the member names are not unique, in the **Properties** pane, select the **Qualify member names** check box and specify a character for the separator.

An example of non-unique members at the same level is the Years dimension. Each year contains a first quarter and each first quarter contains January. An example of non-unique members at different levels is the North America dimension. Ontario is listed as a city in California and Ontario is listed as a province in Canada.

If member names are unique, clear the **Qualify member names** check box.

c. To include a total summary for this dimension, ensure that the **Create total element** check box is selected.

d. 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.

e. 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.

f. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the children 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 includes the following Product components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.

g. 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**.
    c. Specify the data type for the attribute.
    d. Select the dimension and level that this attribute belongs to.
    e. Optional: Define the attribute as an alias. 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.
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 61.
    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 for Employee Name that concatenates Last Name and First Name, define the following expression:

       ```
       v_Expression = v_Last_Name_0 | ',' | v_First_Name_1;
       ```

       For more information about formulas for the expression, see the *IBM Cognos TM1 Reference Guide*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the Cognos TM1 information center for your version.
    d. Click **Preview** to see the results of the expression.
    e. Use the calculated column to create new dimensions, levels, or attributes, or to map parent or child items in a parent-child hierarchy.
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**.

**Related concepts**:

"Before you import data" on page 12
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.

## Importing new dimensions to a cube

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

### Before you begin

To review the restrictions and default mappings before you import data, see "Before you import data" on page 12.

### 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 month has been added to the report. You can refresh the data in your workspace to include the new month.

## Procedure

1. Click **Get Data**, and then click **Import Dimensions**
2. In the **Data Source** area, select the data type and define where Cognos Insight can access the source data. For more information about the different data types and their locations, see "Importing complex data" on page 15.
3. In the **Columns** pane, select only the dimensions you want to import.
4. To make changes to the way in which the new dimensions are mapped, click **Advanced**.
5. 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.
6. To customize the properties of the new dimension, select the dimension in the **Mapping** field and complete the following actions:
   a. Click **Show Properties**.
   b. If you are importing a dimension with multiple levels and the member names are not unique, select the **Qualify member names** check box and specify a character for the separator. If member names are all unique, clear the **Qualify member names** check box.

      An example of non-unique members at the same level is the Years dimension. Each year contains a first quarter and each first quarter contains January. An example of non-unique members at different levels is the North America dimension. Ontario is listed as a city in California and Ontario is listed as a province in Canada.
   c. To create a member that calculates a total for the dimension, ensure that the **Create total element** check box is selected.
   d. 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 in 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.
   e. Optional: Specify how to sort the components within the elements. Component sorting determines the order of the children 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 includes the following Product components: Tents, Sleeping Bags, and Lanterns. You can sort these components alphabetically by name or leave them in this order.

f. Specify how this import will update existing data. New values can be added to existing values or new values can replace existing values.

7. To define a level, complete the following actions:
   a. Select the item in the **Mapping** field.
   b. In the **Properties** pane, click **Level** under **Mapping Type**.
   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.
8. To add a member attribute to a level, complete the following actions:
   a. Select the item in the **Mapping** field.
   b. Click **Attribute** under **Mapping Type**.
   c. Specify the data type for the member attribute.
   d. Select the dimension and level that this member attribute belongs to.
   e. Optional: Define the member attribute as an alias. An alias adds data that can be used as an alternative name for a member, such as a name in another language. Each alias must have a unique name.
9. Click **Import**. The new dimension appears in the content pane in the **All Dimensions** list.
10. 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.

**Related concepts**:

"Before you import data" on page 12
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.

## Importing from a relational data source

Importing relational data requires that you understand your relational data source and how to build SQL queries. Ensure also that the ODBC connections are defined.

### Before you begin

To review the restrictions and default mappings before you import data, see "Before you import data" on page 12.

### 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 .

## Procedure

1. Click **Get Data**, and then click **Import Data**.
2. In the **Source type** field, select **Relational data source (ODBC)**.
3. Select an ODBC relational data source from the list that is defined for your system.
4. Open the Query Builder. If the Query Builder does not display your tables and columns, you may still be able to type the SQL for the query.
5. 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.
6. 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*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the Cognos Business Intelligence information center for your version.
7. 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.
8. If you are satisfied with the query, click **OK**.
9. To preview the data that is returned by the query that you created manually or in the Query Builder, click **Refresh**.
10. To map the dimensions, click **Advanced**.

    For information about mapping, see "Importing complex data" on page 15.
11. If you are satisfied with the settings, click **Import**.

**Related concepts**:

"Before you import data" on page 12
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.

**Related tasks**:

"Importing complex data" on page 15
You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

# Refreshing data

When you want to update a workspace with new values from the same data source, you can refresh the data.

## About this task

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 a silent or guided refresh on the data that you imported in a specific import process. You can also edit an import process when you perform a guided refresh.

## Procedure

1. To open the content pane, click the content icon  .
2. If the **Data** pane is closed, click **Data**.
3. 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 **Silent Refresh**, and then choose the import process that you want to refresh. The import processes are identified by the data source from which you imported. If you choose a Silent Refresh, you do not have any more steps to complete.
   - To define different mappings than you defined when you imported this cube, click **Guided Refresh**, and then choose the import process that you want to refresh. The import processes are identified by the data source from which you imported. Then go to step 4.

   **Tip:** You can also refresh data by expanding the **All Imports** folder in the content pane and right-clicking the import process that you want to refresh.
4. In a guided refresh, complete the following actions for each import process that you want to refresh:
   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 **Target 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.

   For more information about mapping the source to the target, see "Importing complex data" on page 15.
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.

5. Complete one of the following actions:
   - If you want to 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 to 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, see the topics about chores in the *IBM Cognos TM1 User Guide*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the Cognos TM1 information center for your version.

**Related concepts**:

"Import processes are displayed in the content pane" on page 6
When you import data into IBM Cognos Insight, each import process is now displayed in the content pane so that you can run a silent or guided refresh on the data from that import process.

**Related tasks**:

"Importing complex data" on page 15
You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

## 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 menu icon  , and then click **My Preferences**.
   b. In the **System type** box, select the type.
   c. In the **System gateway URI**, specify the URL. The URL is case-sensitive.
   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.

**Related tasks**:

"Connecting to a Cognos TM1 system" on page 79
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.

# Chapter 4. Analyzing data

When you explore, sort, and nest data, 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.

## Exploring data

Explore the connections between dimensions by dragging dimensions to the canvas. Each dimension then appears in a separate Explore Point. When you select a member in one Explore Point, members in other dimensions that are associated to it are highlighted while members that are not associated to it are not highlighted. For example, one Explore Point shows months and another Explore Point shows products sold in Europe. When you select July, you see that sunglasses are selling but winter jackets are not. You can also explore a hierarchy by expanding it to the level that you specify.

### Exploring connections between dimensions

You want to see how your dimensions are related and where they are not connected. For example, you want to see which customers buy one product but not a related product. You can then promote the related product to these customers.

#### Procedure

1. Click the content icon  , and then click **Data**.
2. Drag each dimension that you want to work with onto the canvas.

   To view Explore Points for all dimensions and measures without dragging them onto the canvas, click **Explore**, and then click **View Explore Pane**.

   Members that do not contain data are not in bold while members that contain data are in bold.

   By default, all Explore Points are flat. You can view them as a hierarchy.
3. Select one or more members in each Explore Point or in the Explore pane to explore and analyze the dimensions.

   If you select one member in one Explore Point, members that are associated to it are highlighted while members that are not associated to it are not highlighted.

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

   **Tip:** When you select two or more members in an Explore Point, the cells in widgets with crosstabs sometimes display the calculated values and sometimes display #N/A. For more information and troubleshooting tips, see "Multi-selection in an explore point displays #N/A in some cells" on page 85.

   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.

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.

4. If you do not want members to appear at top of the Explore Point, click **Explore**, and then click **Disable Bubble Up**.

**Related tasks**:

"Returning to the original results"
Clear the selections in the Explore Points to return to the original results. You can then use a new combination of Explore Points to further analyze the data or perform other tasks.

## Searching for members

When a dimension contains many members, you can use an Explore Point to search for a member.

### 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" on page 62
You can add members at the same level as the member that you select in the dimension.

## Returning to the original results

Clear the selections in the Explore Points to return to the original results. You can then use a new combination of Explore Points to further analyze the data or perform other tasks.

### Procedure

1. 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 Point, click **Explore**, and then click **Clear All Explore Points**.
2. If you want to hide the Explore pane, click **Explore** > **Hide Explore Pane**.

**Related tasks**:

"Exploring connections between dimensions" on page 29
You want to see how your dimensions are related and where they are not connected. For example, you want to see which customers buy one product but not a related product. You can then promote the related product to these customers.

## Drilling up and down

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

### About this task

You can drill down to see more detail about the children of the data in your workspace. For example, you can review revenue for each product line and then drill down to analyze the revenue for each product.

You can drill up to compare the results of the parent data in your workspace. For example, you can examine revenue for a single product and then drill up to see revenue for the entire product line for comparison.

You can drill up or down on a row or column heading, or you can drill on a crosstab cell. If you drill on a crosstab cell that appears within a row and a column, you can choose whether you want to drill up or 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**.

You can also drill up or down on the labels and data elements of your chart, such as the legend labels, the axis labels, or the columns in a column chart.

### Procedure

1. Click the data item on which you want to drill so that the cell, row or column, or chart element is selected.
2. Right-click the data item, and click **Drill up** or **Drill down**, and then click the data item on which you want to drill. If only the **Drill down** option appears when you right-click the data item, that means that the data item has no parent, so you cannot drill up. If only the **Drill up** option appears when you right-click the data item, that means that the data item has no children, so you cannot drill down.
3. 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***.

**Related concepts**:

"Workspaces published from IBM Cognos Insight to IBM Cognos Workspace" on page 2
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.

"Drill-up and drill-down capabilities" on page 4
IBM Cognos Insight now offers drill-up and drill-down capabilities.

## 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 choose to do the following with your crosstab:

- 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**.

**Related concepts**:

"Filter to show only the top or bottom results" on page 5
You can filter a crosstab to show only the top or bottom results.

## 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**.

## Nesting, slicing, and dicing data

Swap dimensions in the crosstab to analyze information from different viewpoints and understand it better.

### Procedure

1. To nest a dimension under another dimension or to change which dimensions appear in the rows, columns, or context, drag a dimension from one row, column, or context to another.
2. To change the context, click the arrow of the dimension in the overview area to display the list and select the level of detail that you want.
3. To change the view of the data, click the swap icon  .

## Displaying values as a percentage

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' percentage of the total.

### Procedure

To display cell values as a percentage of a total value, right-click a cell, click **Show Totals**, 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.

## 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:

- 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, ['budgetversion2'].
- 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.

### 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.
   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 double-clicking the new 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.

## Exception highlighting

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 click **Compare**.

   A new row or column 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.
3. 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.
4. 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_dimension'] - ['second_dimension'] / ['first_dimension'] * 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.

## 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 Totals** 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**.

**Related concepts**:

"Time roll-up calculations" on page 6
A time roll-up calculation provides a summary of a range of dates relative to a specific date that you select. For example, a year to date calculation is a time roll-up. The time dimension that is created by IBM Cognos Insight when you import data now supports time roll-ups.

## Calculating the highest contribution

When analyzing the relative contribution of each data item to the total, it can be helpful to locate the highest contribution.

### About this task

The steps use revenue listed for each product line by month as example data. You want to discover which month contributes the most revenue so that you can plan larger shipments for that month.

### Procedure

1. Select one or more measures. For example, select the Months column.
2. Right-click the measures and click **Rollup**, and then click **Maximum**.

## Calculating the lowest contribution

When analyzing the relative contribution of each data item to the total, it can be helpful to locate the lowest contribution.

### About this task

The steps use revenue listed for each product line by month as example data. You want to discover which month contributes the least revenue so that you can plan additional sales promotions for that month.

### Procedure

1. Select one or more measures. For example, select the Months column.
2. Right-click the row or column and click **Rollup**, and then click **Minimum**.

## 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.

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

You can view and edit all the calculations that are defined in a workspace.

### Before you begin

Before editing the calculations, ensure that you understand what can be changed in the calculation. For more information about rules, see the *IBM Cognos TM1 Reference Guide*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the CognosTM1 information center for your version.

### Procedure

1. Click the widget actions icon and click **Set Cube Rules**.
2. Make the required edits to the calculations.
3. When you are done, click **OK**.

**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 generated rule statement that drives this graphic display is shown below. 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.

```
['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
 )
);
```

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*.

You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the Cognos TM1 information center for your version.

**Related tasks**:

"Editing all calculations" on page 39
You can view and edit all the calculations that are defined in a workspace.

## Adding currency symbols to measures

You can assign a currency symbol, such as a euro or dollar sign, to measures.

### Procedure

1. Right-click the measure that you want to edit, and click **Edit and Move**.
2. Right-click the **Name** label in the header and click **Format**.
3. Double-click a cell under the **Format** field to display the **Format** dialog box where you can make the required format changes.
4. Select the **Number** format style.

5. Click the **Advanced** tab and enter the currency symbol of your choice in the **Prefix** fields.
6. Click **OK** and then click **Close**.

## Entering data

You can enter in your data directly into the 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, double-click the cell, type the new values, and press Enter or use the arrow keys.

   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 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 Cognos TM1 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.

   When you commit your changes by clicking the commit icon  , the changed values are saved on the 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. Optional: Use the following commands to enter data in a cell. These commands are processed when you press Enter and can be applied 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.<br><br>For example, 5K results in 5000 being entered in the cell. |
| M | Enters the value in millions.<br><br>For example, 10M results in 10,000,000 being entered in the cell. |
| Add, + | Adds a number to the cell value.<br><br>For example, Add50 adds 50 to the cell value. |
| Sub | Subtracts a number from the cell value.<br><br>For example, Sub50 subtracts 50 from the cell value. |
| Increase, Inc, > | Increases the cell value by a number used as a percentage.<br><br>For example, inc6 or 6> increases the cell value by 6%. |

*Table 2. Commands for entering data (continued)*

| Command | Description |
|---|---|
| Decrease, Dec, < | Decreases the cell value by a number used as a percentage.<br><br>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.<br><br>For example, Mul50 multiplies each cell value by 50. |
| Divide, Div | Divides each cell value by a number.<br><br>For example, Div50 divides each cell value by 50. |
| Grow | Applies compound growth to the percentage that you enter.<br><br>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.<br><br>For example, the number in the cell is 10. Entering Pow3 raises 10 to 1000. |
| > | Copies the value to the right to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| < | Copies the value to the left to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| \| | Copies the value down to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| ^ | Copies the value up to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| : ( a colon) | Stops copying. |

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

**Related tasks**:

"Adding your contribution" on page 74
You need to contribute data to your part of a plan, such as the Sales Division, Marketing Division, Development Division, or Cost Center.

# Duplicating a member

When performing a what-if analysis, you want several copies of the same member.

## Procedure

Right-click the member that you want to duplicate, and click **Duplicate Member**.

**Related tasks**:

"Adding members" on page 62
You can add members at the same level as the member that you select in the dimension.

# Spreading data

You can use data spreading to distribute a number evenly or proportionally to a reference cell.

You cannot use data spreading in an Explore Point if you have selected multiple members.

## Spreading data equally across cells

You can use data spreading to evenly distribute a number across a range of empty cells. You can exclude cells from the data spread so that the data in the selected cells does not change.

### About this task

For example, you want to distribute the number 60 across 12 cells. With equal spreading, each cell contains the number 5.

### Procedure

1. If you want to exclude cells from the data spread, right-click the cells and click **Hold**.

   To include the cells, right-click them and click **Release** or **Release All**.
2. Select the aggregate cell, such as the total, for the cells where you want to enter data.
3. Enter the number that you want to spread across these cells and click Enter.

   For information about commands to use when entering data in a cell, see "Entering data" on page 41.
4. In the **Data Spread** dialog box, click **Equal Spread**.
5. Click **OK**.

**Related tasks**:

"Spreading data proportionally across cells"
You can use data spreading to distribute a number across cells proportional to a reference cell. The reference cell must share the same consolidations as the cell from which you initiate spreading. You can exclude cells from the data spread so that the data in these cells does not change.

## Spreading data proportionally across cells

You can use data spreading to distribute a number across cells proportional to a reference cell. The reference cell must share the same consolidations as the cell from which you initiate spreading. You can exclude cells from the data spread so that the data in these cells does not change.

### About this task

For example, in the first quarter of the year, your organization hired 100 new employees in Brazil: 10 were hired in January, 20 in February, and 70 in March.

Argentina hired 400 new employees in the same proportions as Brazil. When you use relative proportional spreading, the value 400 is spread across the quarter this way:

- January contains 40, which is 10% of 400
- February contains 80, which is 20% of 400
- March contains 280, which is 70% of 400

### Procedure

1. If you want to exclude cells from the data spread, right-click the cells and click **Hold**.

   To include the cells, right-click them and click **Release** or **Release All**.
2. Select the aggregate cell, such as the total, for the cells where you want to enter data.
3. Enter the number that you want to spread across these cells and click Enter.

   For information about commands to use when entering data in a cell, see "Entering data" on page 41.
4. In the **Data Spread** dialog box, click **Relative Proportional Spread**, and select the member to use as the reference cell.
5. Click **OK**.

**Related tasks**:

"Spreading data equally across cells" on page 43
You can use data spreading to evenly distribute a number across a range of empty cells. You can exclude cells from the data spread so that the data in the selected cells does not change.

## 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 now 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 48
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*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the CognosTM1 information center for your version.

## Exporting data

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** > **Export to CSV File**.
2. Enter a file name, and click **Save**.

## Printing

You can print the entire contents of your crosstab. However, sometimes you do not need to print all dimensions and may want to print a select portion.

### Procedure

1. In the crosstab, click the widget actions icon and click **Print**.
2. Do one of the following actions:
   - If you want to print the entire dimension, click **Finish**.
   - If you want to print a portion of your dimension, specify the parts of the dimension that you want to print, click **Next**, and then click **Finish**.
3. Click **Print**.

# Chapter 5. Designing a workspace

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 menu 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 a crosstab

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

### Procedure

1. Click **Insert** > **New Crosstab**.

   If you know where you want to place the crosstab on the canvas, right-click the location and click **Insert Widget**, and then click **New Crosstab**.

   If you have imported data, drag a cube from the Content pane or select it from the **Crosstab and Chart** submenu.

   **Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.
2. Enter your data.
3. To specify the background color for this widget, click the widget actions icon  and click **Edit Widget Style**.
4. To have this widget appear behind other widgets, click the widget actions icon and click **Send to Back**.
5. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

**Related concepts**:

Chapter 3, “Importing data,” on page 11
You can import and map data in different ways, depending on the complexity of your data.

# 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 44
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 a chart

Charts communicate comparisons, relationships, and trends. They emphasize and clarify 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** 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**.

**Related concepts**:

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

## 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 3. Types of charts*

| Purpose of the chart | Type of chart to use |
|---|---|
| Emphasize the magnitude of change over time | Area chart |
| Show trends over time | Column chart, line chart, point chart |
| Compare data | Bar chart, column chart |
| Show the relationship of parts to the whole | Pie chart |

*Table 3. Types of charts (continued)*

| Purpose of the chart | Type of chart to use |
|---|---|
| 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 |
| Highlight proportions | Pie 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.

## 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.

You can select the following formats: stacked, 100 percent stacked, or three-dimensional.

## Bar charts

Bar charts are useful for plotting many data series.

Bar charts use horizontal data markers to compare individual values.

You can select the following formats: standard, stacked, 100 percent stacked, or three-dimensional.

## 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.

You can select the following formats: standard, stacked, 100 percent stacked, or three-dimensional.

## 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.

You can select the following formats: standard, stacked, or three-dimensional.

## 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.

You can select the following formats: standard or three-dimensional.

## 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.

You can select the standard format.

## 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.

You can select the standard format.

**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.

**Related concepts**:

"Tree maps" on page 4
IBM Cognos Insight now includes a new chart type, tree maps. Tree maps display your data hierarchies as nested rectangles. The size and color of each rectangle tells you which element the rectangle represents and how its value compares to the values of the other elements.

**Related tasks**:

"Adding a chart" on page 48
Charts communicate comparisons, relationships, and trends. They emphasize and clarify numbers.

"Changing the chart type"
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.

## Changing the chart type

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**.

**Related concepts**:

"Chart types" on page 48
There are many types of charts for presenting your data in a way that is meaningful to you and your users.

## Showing or hiding the total on a chart

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**.

## Showing or hiding the values on the axes

The chart axes correspond to the rows and columns displayed in the table. The series axis plots the data in the columns and the category axis plots the data in the rows.

### Procedure

1. Click the widget that contains the chart you want to work with.
2. To show the values on the axis that is plotting the columns in the table, click the change chart icon  , click **View Options**, and then click **Show Series**. To hide the values, clear **Show Series**.
3. To show the values on the axis that is plotting the rows in the table, click **View Options**, and then click **Show Category**. To hide the values, clear **Show Category**.

## 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 a chart

You can hide the chart 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**.

# Example: 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. Or

### 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 concepts**:

"Add data to charts by dragging" on page 5
You can now drag a data item to a chart from the content pane or a crosstab.

**Related tasks**:

"Sharing or copying a dimension" on page 60
Share a dimension to have changes in one crosstab reflected in the other crosstabs. The result is your analysis is synchronized across the crosstabs. Another option is to create a copy of the dimension in both crosstabs.

## 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** > **Action Button**.

   **Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.
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**.
6. To have this widget appear behind other widgets, click the widget actions icon and click **Send to Back**.
7. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

## 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 re-import 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.

### 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**.

**Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.

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**.
7. To have this widget appear behind other widgets, click the widget actions icon and click **Send to Back**.
8. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

## 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**.

   **Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.
2. Select the text that you entered and format it.
3. To have this widget appear behind other widgets, click the widget actions icon and click **Send to Back**.
4. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

## Creating a pick list

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 a text measure” on page 64.
2. Right-click the new text measure and click **Edit and Move**.
3. To view the pick list attribute in the table, right-click the **Name** column heading, and then click **Pick List**.
4. In the **Name** column, double-click the **Member Measures1** cell to replace it with a suitable name for your pick list. In our example, you could type `+/- expected revenue`.
5. Type the following formula in the cell where the **Pick List** column and the pick list 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:+:=:-`.
6. Close the Edit Dimension window.

## Adding images

Images add a visual impact to the workspace. The image types .gif, .jpeg, .bmp, and .png are supported.

### Procedure

1. Click **Insert**, and then click **Image**.

   If you know where you want to place the image on the canvas, right-click the location and click **Insert Widget**, and then click **Image**. If you want to add an image as a background for your workspace, be aware that images will not resize when users resize their IBM Cognos Insight window. Image size can also appear incorrectly depending on the user's screen resolution.

   **Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.
2. Browse for the image and click **Open**.

   To replace the image, delete it and add a new one.
3. To have this widget appear behind other widgets, click the widget actions icon  and click **Send to Back**.
4. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

## Adding a web page 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**.

**Tip:** To display grid lines to help you position your widgets, press and hold the Shift key while dragging objects around the workspace.

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**.
5. To have this widget appear behind other widgets, click the widget actions icon and click **Send to Back**.
6. To prevent the widget from being moved and to hide the toolbar, click the widget actions icon and click **Lock Widget**.

   You can also right-click the canvas and click **Lock All Widgets**.

## Applying themes

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

### Procedure

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

## Changing the background color of a workspace

If you choose not to apply one of the IBM Cognos Insight themes, you can specify the background color for your workspace.

### Procedure

1. Click **Style**, and then click **Edit Workspace Style**.
2. Change the background color for your workspace.
3. Click **OK**.

## 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.

### Procedure

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

## Protecting the workspace

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 your users from moving the widgets and to hide the toolbar from them, right-click the canvas and click **Lock All Widgets**.
2. To add a password for your users to enter in order to use the workspace, click the actions menu 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 6. Restructuring your data

You can complete simple modeling tasks 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 Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73.

## Creating cubes, dimensions, and measures

In addition to importing, you can create a cube, dimension, or measure.

### 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 comprise the rows and columns while additional dimensions comprise 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 will contain 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 consisting of several flat sheets 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 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 may be Quantity Sold or Revenue.

### Procedure

1. Click the content icon  and then click **Data**.
2. If you want to create a cube, click the new icon  and select **Blank Cube**.
3. If you want to create a dimension, click the new icon and select **Dimension**.
4. If you want to create a measure, click the new icon and select **Measure**. Right-click the measure and click **New**, and then click **Measure**.

**Related tasks**:

"Importing complex data" on page 15
You can import complex data when you want to choose what data to import and let IBM Cognos Insight do most of the mapping. The source data can be a file, an IBM Cognos Report Studio report, a package, a cube view, a dimension subset, or a relational data source.

## Sharing or copying a dimension

Share a dimension to have changes in one crosstab reflected in the other crosstabs. The result is your analysis is synchronized across the crosstabs. Another option is to create a copy of the dimension in both crosstabs.

### Procedure

1. Click the content icon and then click **Data**.
2. Expand the cube that contains the dimension you want to copy.
3. Drag the dimension to the other cube.
4. Specify whether the dimension is shared between the cubes or a copy of the dimension is created.

**Related tasks**:

"Example: Displaying different data in a crosstab and a chart" on page 53
You can use two widgets to display different data perspectives in a crosstab and a chart that use the same cube.

## Editing a dimension or measure

When editing a dimension or measure, you can edit its attributes, change the order of members, create a hierarchy of members, or add members. You can also change how the data in a dimension is displayed.

### Procedure

1. Right-click the dimension or measure that you want to edit, and click **Edit and Move**.
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_Default** is the caption that is used for the member.
   - **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 members in the dimension. If you change the order of a member, the index value changes to reflect the new order.
   - **Invariant Name** is the system name for the member.

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 a member, such as a name in another language.

4. If you want to change the order of members, use the move icons  .
5. If you want to nest members under other members, use the promote and demote icons  .
6. If you want to rename a member in the dimension, double-click 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.

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 as Flat List** to view the members as a flat list.
   - **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.

**Related tasks**:

"Changing the format of measures"
You can change the number of decimal places, remove the decimal places for a measure, add a percentage sign, or add a currency symbol.

## Changing the format of measures

You can change the number of decimal places, remove the decimal places for a measure, add a percentage sign, or add a currency symbol.

### Procedure

1. To change the format of a measure, right-click any cell that represents the measure and then click **Format Measure *selected measure***. 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:

*Table 4. Format styles and options for measures*

| Format style | Options |
|---|---|
| Number | On the **Simple** tab, you can specify the number of decimal places, set the use of a thousands delimiter, choose to show a negative number in brackets, and choose to show a zero value as blank.<br><br>On the **Advanced** tab, you can type a prefix or suffix to be shown with the value. For example, you can type `EUR` in the **Prefix** field to display the characters EUR in front of the number values. |
| Date/Time | You can change the date and time formats. For example, Date: dd mm yy, Time: hh mm, or Date and Time: dd/mm/yy hh:mm AM. |
| Text | Text is a string format and the member type is set to string. No other choices are available. |
| Custom | You can use a custom defined template. |

For more information about formats, see the *IBM Cognos TM1 Performance Modeler User Guide*. You can access this guide by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the CognosTM1 information center for your version.

4. To remove formatting from a measure, right-click any cell that represents the measure and then click **Clear Format of Measure** ***selected measure***.

**Related tasks**:

"Editing a dimension or measure" on page 60
When editing a dimension or measure, you can edit its attributes, change the order of members, create a hierarchy of members, or add members. You can also change how the data in a dimension is displayed.

## Adding members

You can add members at the same level as the member that you select in the dimension.

### Procedure

1. Right-click the member where you want to add a new member, and then click **Insert**. You can also add a child member or a parent member. For more information, see "Organizing members into a hierarchy."
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**:

"Duplicating a member" on page 42
When performing a what-if analysis, you want several copies of the same member.

"Searching for members" on page 30
When a dimension contains many members, you can use an Explore Point to search for a member.

## Organizing members into a hierarchy

In a hierarchy, members are organized into a tree structure, with each member having one or more parent members and an arbitrary number of child members.

### Procedure

1. To view the members as a hierarchy that you can collapse and expand, right-click a member or dimension and click **Show Totals**, and then click **Show Totals Leading**.
2. Do one or more of the following actions:
   - To group members under a parent member, 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**.
3. If you want to rename a new member, right-click it 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**:

"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.

"Organizing dimensions into a hierarchy" on page 64
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.

## 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. If you want to make the members 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.

**Related tasks**:

"Organizing members into a hierarchy" on page 62
In a hierarchy, members are organized into a tree structure, with each member having one or more parent members and an arbitrary number of child members.

## 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 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**.

**Related tasks**:

"Organizing members into a hierarchy" on page 62
In a hierarchy, members are organized into a tree structure, with each member having one or more parent members and an arbitrary number of child members.

## Adding a text measure

Use a text measure to describe a measure or add other comments about the 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 crosstab, right-click the measure where you want to add the text measure, and click **Insert Text Measure**.
2. Add text to the cells.

## 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 Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73.

### 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. Click the content icon  and then click **Data**.
2. Click the new icon  and select **Folder**.
3. Add cubes to the folder.

## Deleting an object

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 cannot undo deletions. 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:

*Table 5. Deleting a member, dimension, measure, or cube*

| 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 5. Deleting a member, dimension, measure, or cube (continued)*

| Goal | Action |
| --- | --- |
| Delete a dimension | In the Content pane, click the dimension and click the delete icon.<br><br>If you want to delete more dimensions, add them to the **Removed Dimensions** field in the **Remove Dimensions from Cube** window.<br><br>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.<br><br>Complete one of the following actions:<br>• To delete the selected dimensions from the current cube, click **Apply changes to current cube** and click **OK**.<br>• 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 7. Share, publish, and distribute workspaces

Workspaces that you create in Cognos Insight can be shared or published to IBM Cognos TM1 or IBM Cognos Business Intelligence for others to work with.

How you use the workspaces you create in Cognos Insight depends on the access that your administrator grants you. For more information about each role within the IBM Cognos family, see "IBM Cognos product family" on page 1.

The following list provides an overview of the ways that you can share your workspaces with others. These options are available from the actions menu  in Cognos Insight.

**Share** Sharing a workspace adds a copy of your workspace to IBM Cognos Connection on the Cognos BI server for other users to download and use on their computers. Shared workspaces cannot be edited directly within Cognos Connection. To share a workspace, your must have been granted permissions by your administrator to add files to the Cognos BI server.

**Publish**
Publishing a workspace copies the data in your workspace to the Cognos TM1 server and creates an application in the IBM Cognos Application portal. Other users who have access to the Cognos TM1 server can then view your data or open the workspace from the Cognos Application portal. To publish a workspace, you must have administrator rights on the Cognos TM1 server.

**Publish and distribute**
Publishing and distributing a workspace publishes your data and workspace as defined in the previous definition, and Cognos Insight also creates a data source connection, a package, and reports in Cognos Connection. Other users on the Cognos TM1 server can access your data in Cognos TM1, work with your workspaces in Cognos Insight, and view the reports in IBM Cognos Workspace Advanced and IBM Cognos Workspace. To publish and distribute a workspace, you must have administrator rights on the Cognos TM1 and Cognos BI servers.

## Sharing a workspace on Cognos Connection

Sharing a workspace adds a copy of your workspace to IBM Cognos Connection on the Cognos BI server for other users to download and use on their computers.

### About this task

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.

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.

### Procedure

1. Click the actions menu 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.

## Publishing a workspace to a Cognos TM1 server

Publishing a workspace copies the data in your workspace to the Cognos TM1 server and creates an application in the IBM Cognos Application portal.

### About this task

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 Application 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.

Only Cognos TM1 administrators can publish workspace content to Cognos TM1.

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.

### Procedure

1. Click the actions menu 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 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 9, "Maintain workspaces on a Cognos TM1 server," on page 79
7. Click **Next** to review your choices.
8. Click **Finish** when you are ready to publish the workspace.

**Related concepts**:

"Maintain a published application" on page 80
After publishing an application to an IBM Cognos TM1 server, you have a number of options to maintain it.

**Related tasks**:

"Creating a Cognos Planning Service archive" on page 82
You can create an archive of the data directory and layout when you want to move the IBM Cognos TM1 server.

## Publishing and distributing 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 Application portal. IBM Cognos Insight also creates a data source connection, a package, and reports in IBM Cognos Connection.

### About this task

When you publish and distribute a workspace, other users on the Cognos TM1 server can access your workspace data on the server, work with your workspaces in Cognos Insight, and view your reports and workspaces in IBM Cognos Workspace or IBM Cognos Workspace Advanced on the IBM Cognos Business Intelligence or IBM Cognos TM1 server.

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 Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73.

**Restriction:** Some items are displayed differently when you publish a Cognos Insight workspace and open it in Cognos Workspace. For more information, see "Workspaces published from IBM Cognos Insight to IBM Cognos Workspace" on page 2.

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 menu 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 9, "Maintain workspaces on a Cognos TM1 server," on page 79.
7. Click **Next**.
8. In the **IBM Cognos system URL** field, specify the Cognos BI system 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.**
    - You can change the credentials for the Cognos BI system by using the **advanced options**.
11. Click **Finish** when you are ready to publish the workspace.

**Related concepts**:

"Workspaces published from IBM Cognos Insight to IBM Cognos Workspace" on page 2
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.

## Deleting workspaces

If you no longer need a workspace, you can remove the workspace, application, server, package, and report from IBM Cognos Business Intelligence or IBM Cognos TM1 by following the steps in this topic.

## Procedure

Do all of the following that apply:

- If you shared a workspace on IBM Cognos Connection, delete the workspace from Cognos Connection.

  For more information, see the *IBM Cognos Connection User Guide*. You can access the IBM Cognos Business Intelligence documentation by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the information center for your product and version.
- If you published a workspace to the IBM Cognos TM1 Applications portal, delete the application from the portal, and then delete the server instance that was created.

  For more information, see the Cognos TM1 documentation. You can access the documentation by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the information center for your product and version.
- If you published and distributed a workspace to IBM Cognos Business Intelligence and IBM Cognos TM1, delete the application from the portal, delete the server instance from Cognos TM1, and delete the package and report from Cognos BI.

  For more information, see the Cognos BI documentation. You can access the documentation by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the information center for your product and version.

# Chapter 8. Contribute to a plan 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.

There are two modes that can be used when contributing to a plan, and different application types are available for each mode. The Cognos TM1 server administrator determines the application type and connection modes that are available in IBM Cognos Insight. The mode that you are working in is indicated in the Cognos Insight title bar.

You can contribute to a plan by working in distributed mode or connected mode, or by working offline and committing your changes when you reconnect:

**Distributed mode**
: Cognos TM1 administrators can enable distributed mode when there are large numbers of users, each working on separate parts of the plan. 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 by the server. When you are finished, you must commit and submit your changes to the server by clicking the commit icon  .

**Connected mode**
: Cognos TM1 administrators can enable connected mode when there is a large volume of data with small amounts of data that are updated frequently. Data is kept on the Cognos TM1 server. 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 system when you want to change workspaces on your local computer and commit the changes later.

## What all Cognos Insight users can do in distributed mode and in connected mode

You can do the following things in distributed mode and in connected mode, regardless of the application type:

- Analyze data by sorting, swapping rows and columns, suppressing empty cells, resizing cells, and working with charts.
- Run scripts from action buttons. If the workspace includes action buttons that run Cognos TM1 scripts, you can run the scripts in Cognos TM1.
- Use explore points to analyze data.
- Contribute to the slice of the plan that you have access to.
- Delete data. If you are working in distributed mode, you are working with a slice of data that is stored on your computer. Therefore, any data that you delete is still available on the server until you submit the data to the server.
- If the workspace widgets are not locked, you can work with, minimize, and maximize the widgets.

### What Cognos TM1 administrators can do in distributed mode and connected mode

When Cognos TM1 administrators are connected to a responsibility or approval hierarchy application type, they are actually working as contributors to the plan instead of as administrators. Cognos TM1 administrators can do the following things in distributed mode and in connected mode in these application types:

- Design the workspace. You cannot add new content to the widgets or add or remove workspaces or workspace content.
- Import data. You can import data only if the workspace includes an action button to run a script that imports data.
- Restructure your data. You can change the shared logic and metadata of the model only if the workspace includes an action button to restructure the data.

When Cognos TM1 administrators are connected to a central application type, they have different abilities depending on whether the application definition is editable or not editable. Cognos TM1 administrators can do the following things in distributed mode and in connected mode when they are connected to a central application type:

- Design the workspace. You can add new content to the widgets and add or remove workspaces or workspace content.
- Import data. If the application definition is not editable (**Enable Import Cube** is set to **No**), then you can import data only if the workspace includes an action button to run a script that imports data. If the application definition is editable (**Enable Import Cube** is set to **Yes**), then you can import data and use an action button to run a script that imports data.
- Restructure your data. If the application definition is not editable (**Enable Import Cube** is set to **No**), then you can change the shared logic and metadata of the model only if the workspace includes an action button to run a script that restructures the data. If the application definition is editable (**Enable Import Cube** is set to **Yes**), then you can change the shared logic and metadata of the model.

**Related concepts**:

"Work offline from a Cognos TM1 server" on page 5
When you are working in distributed mode from an IBM Cognos TM1 server, you can now set IBM Cognos Insight to work offline and then reconnect later to commit your changes.

**Related tasks**:

"Working offline from a Cognos TM1 system" on page 79
You can choose to disconnect from an IBM Cognos TM1 system when you want to make changes to a workspace on your computer and then commit the changes later.

## 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.

### Before you begin

To add your contribution to a plan, you must first connect to the IBM Cognos TM1 server on which the plan resides. For more information about connecting to a server, see "Connecting to a Cognos TM1 system" on page 79.

### About this task

Each part of the plan is known as a node. In connected mode, you can take ownership of a node from any level. In distributed mode, you can take ownership of a node only at the child level, which is also called the leaf level.

### Procedure

1. Click the take ownership icon  .
2. Explore and analyze the data.
3. 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.

**Related tasks**:

"Entering data" on page 41
You can enter in your data directly into the 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.

## Entering data

You can enter in your data directly into the 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, double-click the cell, type the new values, and press Enter or use the arrow keys.

   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 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 Cognos TM1 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.

   When you commit your changes by clicking the commit icon  , the changed values are saved on the 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. Optional: Use the following commands to enter data in a cell. These commands are processed when you press Enter and can be applied only to the current crosstab. These commands are not case-sensitive.

*Table 6. Commands for entering data*

| Command | Description |
|---|---|
| K | Enters the value in thousands.<br><br>For example, 5K results in 5000 being entered in the cell. |
| M | Enters the value in millions.<br><br>For example, 10M results in 10,000,000 being entered in the cell. |
| Add, + | Adds a number to the cell value.<br><br>For example, Add50 adds 50 to the cell value. |
| Sub | Subtracts a number from the cell value.<br><br>For example, Sub50 subtracts 50 from the cell value. |
| Increase, Inc, > | Increases the cell value by a number used as a percentage.<br><br>For example, inc6 or 6> increases the cell value by 6%. |
| Decrease, Dec, < | Decreases the cell value by a number used as a percentage.<br><br>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.<br><br>For example, Mul50 multiplies each cell value by 50. |
| Divide, Div | Divides each cell value by a number.<br><br>For example, Div50 divides each cell value by 50. |
| Grow | Applies compound growth to the percentage that you enter.<br><br>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.<br><br>For example, the number in the cell is 10. Entering Pow3 raises 10 to 1000. |
| > | Copies the value to the right to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| < | Copies the value to the left to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| \| | Copies the value down to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| ^ | Copies the value up to all children, or leaves, of the consolidation or only to those children that contain non-zero values. |
| : ( a colon) | Stops copying. |

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

**Related tasks**:

"Adding your contribution" on page 74
You need to contribute data to your part of a plan, such as the Sales Division, Marketing Division, Development Division, or Cost Center.

## 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**.

**Related tasks**:

"Submitting your contribution"
When the administrator has deployed an approval application, you enter data and then submit your contribution as final. Submit locks the data.

## Submitting your contribution

When the 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.

**Related tasks**:

"Committing or resetting the data" on page 77
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.

## 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  .

# Chapter 9. Maintain workspaces on a Cognos TM1 server

By default, IBM Cognos Insight applications are editable, which means that you can change the layout and the data.

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*. You can access this guide by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the CognosTM1 information center for your version.

## 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.

### About this task

All views and applications that were created in Cognos TM1 Architect and IBM Cognos TM1 Performance Modeler appear. Only administrators can connect to a system.

### Procedure

1. Click the actions menu icon  , and then click **Connect to IBM Cognos TM1**.
2. In the **IBM Cognos TM1 system gateway 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**.

**Related concepts**:

"Transferring in dimensions from Cognos Business Viewpoint" on page 26
When you transfer hierarchies from IBM Cognos Business Viewpoint, the hierarchies become dimensions in IBM Cognos Insight.

**Related tasks**:

"Transferring in dimensions from Cognos Business Viewpoint" on page 26
When you transfer hierarchies from IBM Cognos Business Viewpoint, the hierarchies become dimensions in IBM Cognos Insight.

## Working offline from a Cognos TM1 system

You can choose to disconnect from an IBM Cognos TM1 system when you want to make changes to a workspace on your computer and then commit the changes later.

### Before you begin

Because you must be a Cognos TM1 server administrator to connect to a Cognos TM1 server, this task applies only to administrators.

### About this task

When you know that you will not be able to commit your changes to the Cognos TM1 server, you can take ownership of a workspace and then set Cognos Insight to work offline. For example, if you are working in an area with no Internet connection, you can set Cognos Insight to work offline. Then, when you reconnect, you can commit any changes that you made to your workspace to the Cognos TM1 server.

### Procedure

1. Click the actions menu 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 server, click the actions menu 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.

   **Restriction:** Metadata and some structural changes are not supported for working offline. When your data's structure is significantly different from the server data, you will receive an error message when you try to commit your data and have the option to save your data without committing.

**Related concepts**:

"Work offline from a Cognos TM1 server" on page 5
When you are working in distributed mode from an IBM Cognos TM1 server, you can now set IBM Cognos Insight to work offline and then reconnect later to commit your changes.

Chapter 8, "Contribute to a plan on a Cognos TM1 server," on page 73
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.

## Maintain a published application

After publishing an application to an IBM Cognos TM1 server, you have a number of options to maintain it.

You can do the following 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*. You can access these guides by opening the IBM Cognos Business Intelligence and Financial Performance Management Information Center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and choosing the CognosTM1 information center for your version.
- Connect to the Cognos TM1 server to make changes on the server. These changes are made immediately on the server and cannot be undone.
- 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.

**Related tasks**:

"Publishing a workspace to a Cognos TM1 server" on page 68
Publishing a workspace copies the data in your workspace to the Cognos TM1 server and creates an application in the IBM Cognos Application portal.

# 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 IBM 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. The central application type cannot be deployed to a distributed client.

**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 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 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 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 Application portal

## Procedure

1. Click the actions menu 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 Cognos TM1 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 9, "Maintain workspaces on a Cognos TM1 server," on page 79.
6. Click **Next** to review what will be archived.
7. Click **Finish** when you are ready to create the two archive files.

**Related tasks**:

"Publishing a workspace to a Cognos TM1 server" on page 68
Publishing a workspace copies the data in your workspace to the Cognos TM1 server and creates an application in the IBM Cognos Application portal.

# Appendix A. Troubleshooting 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 7. 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 software environments web page (http://www.ibm.com/software/data/cognos/) |
| 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. | 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.<br><br>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.

## Cognos Insight does not provision from Cognos Connection

The web browser settings that are described in this topic can affect whether your computer can provision IBM Cognos Insight from IBM Cognos Connection.

If Cognos Insight does not launch or install when you try to provision it 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, Cognos Proven Practices provides verified technical information in specific technology environments.

As a troubleshooting resource, 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.

# Appendix B. Accessibility features

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products.

## Keyboard shortcuts

IBM Cognos Insight includes keyboard shortcuts to help you navigate using a keyboard.

You can use keyboard shortcuts to navigate through the application and perform tasks. If you are using a screen reader, you might want to maximize your window so the keyboard shortcut table is completely expanded and accessible.

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.



### General

*Table 8. General keyboard shortcuts*

| Applies to | Action | Shortcut keys |
|---|---|---|
| General | Perform the command for an active command button. | Enter<br><br>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 |
| 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 |

*Table 8. General keyboard shortcuts (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| 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 |
| 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 |
| Pop-up menus | Open a pop-up menu. | Shift+F10 |
| Pop-up menus | Close an open pop-up menu. | Esc |
| Scrolling | Scroll down. | Down arrow<br>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 |
| Pop-up menu | Display a window's pop-up menu. | Alt+Spacebar |
| Application window | Move the application window. | Moving an application window has multiple steps:<br>1. To open the window's pop-up menu, press Alt+Spacebar.<br>2. Select **Move** and press Enter.<br>3. To move the window, use the arrows and Ctrl+arrows.<br>4. To stop moving the window, press Enter. |

*Table 8. General keyboard shortcuts (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Application window | Resize the application window. | Resizing an application window has multiple steps:<br>1. To open the window's pop-up menu, press Alt+Spacebar.<br>2. Select **Size** and press Enter.<br>3. To resize the window, use the arrows and Ctrl+arrows.<br>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 9. Keyboard shortcuts for tabs*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Navigate | Cycle forward through the tabs. | Ctrl+Shift+right arrow |
| Navigate | Cycle backward through the 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 10. 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 pop-up menu items. | Shift+F10 |

*Table 10. Keyboard shortcuts for the canvas (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Widget mode | Move the selected widget. | Moving a widget has multiple steps:<br>1. To open the widget's pop-up menu, press Alt+Spacebar.<br>2. Select **Move** and press Enter.<br>3. To move the widget, use the arrows and Ctrl+arrows.<br>4. To stop moving the widget, press Enter. |
| Widget mode | Resize the selected widget. | Resizing a widget has multiple steps:<br>1. To open the widget's pop-up menu, press Alt+Spacebar.<br>2. Select **Size** and press Enter.<br>3. To resize the widget, use the arrows and Ctrl+arrows.<br>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 11. Keyboard shortcuts for the application bar*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Application bar | Create a new 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 *Cognos Insight User Guide*. | 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 12. 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 through the toolbar controls. | Right arrow |
| Toolbar | Move backwards through the toolbar controls. | Left arrow |
| Toolbar | View the pop-up menu items for toolbar controls. | Down arrow |
| Tree control | Move to the next node in the tree. | Down arrow |
| Tree control | Move 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 pop-up 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:<br>1. In the content pane, navigate to the dimension using the up and down arrows.<br>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:<br>1. With the item in focus, open the pop-up menu by pressing Shift+F10.<br>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 13. 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<br>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 |
| 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 pop-up menu items for row/column headers. | Shift+F10 |
| Crosstab | Show the pop-up menu items for cells. | Shift+F10 |
| Crosstab | Widen the column width in a crosstab. | Adjusting column width has multiple steps:<br>1. With focus on a column header, press Shift+F10.<br>2. Use the up and down arrows to choose **Expand to**.<br>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 |
| Cell | Enter a new cell value. | Type the value and press Enter |

*Table 13. Keyboard shortcuts for crosstab and chart widgets (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Cell | Enter the value as thousands. | K<br><br>For example, entering `5K` enters 5000 in the cell. |
| Cell | Enter the value as millions. | M<br><br>For example, entering `10M` enters 10,000,000 in the cell. |
| Cell | Add a number to the cell value. | +, Add<br><br>For example, entering `+50` adds 50 to the cell value. |
| Cell | Subtract a number from the cell value. | -, Sub<br><br>For example, entering `Sub50` subtracts 50 from the cell value. |
| Cell | Increase the cell value by a percentage. | Inc, Increase<br><br>For example, entering `Inc6` increases the cell value by 6%. |
| Cell | Decrease the cell value by a percentage. | Dec, Decreases<br><br>For example, entering `Dec6` decreases the cell value by 6%. |
| Cell | Spread the value to the right. | ><br><br>For example, entering `1000>` spreads the value 1000 to all columns to the right. |
| Cell | Spread the value down. | \|<br><br>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 |

## Explore points

The following table identifies keyboard shortcuts that are available when you are working with explore points.

*Table 14. Keyboard shortcuts for explore points*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Content pane | Insert an explore point onto the canvas by choosing a dimension in the content pane. | Inserting an explore point has multiple steps:<br>1. In the content pane, select a dimension using the up and down arrows.<br>2. To open the pop-up menu, press Shift+F10.<br>3. Press Insert. |

*Table 14. Keyboard shortcuts for explore points (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Menu items | View the pop-up 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 15. 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 16. 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 |
| 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 17. 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. | Shift+F10 and then select **Edit and Move** |
| Edit | Open the pop-up 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 18. Keyboard shortcuts for the Query Builder*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Menu items | From the Query Builder, open a menu to navigate to major landing areas. | Ctrl+semicolon (;) |
| Menu items | From a major landing area, set focus to the Query Diagram landing area. | Ctrl+semicolon (;) |
| Data view | Refresh content in the Data View. | Tab to the refresh button, and then press Enter. |
| Query Builder | Add a table to the query. | Adding a table to a query has multiple steps:<br>1. Press Ctrl+semicolon and choose **Metadata Explorer**.<br>2. Use the arrows to navigate to the table.<br>3. Press Shift+F10 to list the menu items for the table.<br>4. Select **Add to Query**.<br>5. To refresh your content, tab to the refresh button and press Enter. |
| Query Diagram | Open the pop-up menu. | Shift+F10 |

*Table 18. Keyboard shortcuts for the Query Builder (continued)*

| Applies to | Action | Shortcut keys |
|---|---|---|
| Query Diagram | Set focus to a table. | Setting focus to a table has multiple steps:<br>1. To open the pop-up menu, press Shift+F10.<br>2. Choose **Select on Diagram**, and then choose **Select Table**. |
| Table | Choose table join properties. | Choosing table join properties has multiple steps:<br>1. To open the pop-up menu, press Shift+F10.<br>2. Choose **Select on Diagram**, and then choose **Select Table**.<br>3. Tab to **Table header Column**<br>4. To set focus on a row of join properties, use the up and down arrows.<br>5. To set focus on a join property, use the right and left arrows.<br>6. To edit table join properties, press the Spacebar.<br>7. To show a list of options, press Enter.<br>8. To navigate the list, use the up and down arrows.<br>9. To select an option in the list, press Enter. |
| Join properties | Edit relationships between columns. | Editing relationships between columns has multiple steps:<br>1. Tab to **Specify the relations between the columns**.<br>2. To set focus on the relationship properties, use the up and down arrows.<br>3. To set focus on a relationship property, use the right and left arrows.<br>4. To edit relationship properties, press the Spacebar.<br>5. To open the list of options, press Enter.<br>6. To navigate the list, use the up and down arrows.<br>7. To select an option in the list, press Enter. |

## Highlighting data in a screen reader

You can specify that colored text in the crosstab is displayed with visual cues. The data that you enter will then be highlighted in the crosstab and when you use a screen reader.

### Procedure

1. Click the actions menu 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**.

## IBM and accessibility

See the IBM Accessibility Center (http://www.ibm.com/able) for more information about the commitment that IBM has to accessibility.

# Appendix C. Multicultural considerations

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

## When you launch Cognos Insight Standard Edition

When you install or launch Cognos Insight from your own computer, your Microsoft Windows operating system's regional preferences determine the language and cultural standards that appear in 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.

## When you launch Cognos Insight from the Cognos TM1 Applications portal

When you install or launch 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 that appear in 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*, which you can access by opening the IBM Cognos information center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and finding the applicable information center for your version of Cognos TM1.

## When you launch Cognos Insight from Cognos Connection

When you install or launch Cognos Insight from IBM Cognos Connection, either in IBM Cognos Business Intelligence, the Cognos Connection product and content languages determine the language and cultural standards that appear in Cognos Insight. For example, if you set the product language to Japanese and the content language to French (France), the Cognos Insight user interface appears in 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*, which you can access by opening the IBM Cognos information center (http://publib.boulder.ibm.com/infocenter/cogic/v1r0m0/index.jsp) and finding the applicable information center for your version of Cognos Business Intelligence.

## Cognos Insight content language

If you are not connected to a Cognos TM1 server, you can set the content language in Cognos Insight to 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.

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

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# Index

## Special characters



## A



## B



## C

# D



# E

# F



# G



# H



# I



# K



# L



# M

## N



## O



## P



## Q



## R



## S

# T



# U



# V



# W



# Z