

Cubix User Guide

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Centrix

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Cubix Introduction

What is Cubix?

Cubix is a powerful Financial & Performance Management, Planning and Business Analysis system. It uses a multi-dimensional database structure with inbuilt financial and forecasting functionality, to enable you to design and build reporting and BI applications tailored to your exact requirements.

Fundamental to any Cubix system is the database model. The model is where you define the shape of your database as well as any calculation logic that you want to apply to your data. Once the model has been created, data can be entered or imported to any combination of the elements in the database.

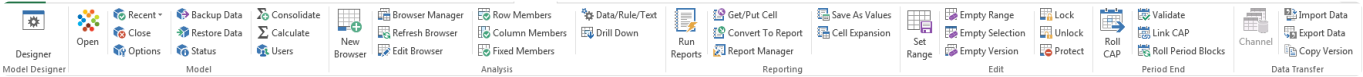
With Cubix it is very easy to analyse and report on the large amounts of data that can be stored in its models. From within Excel, Cubix allows you to view, calculate, drill into and if necessary, update and change any of the data.

The multi-dimensional nature of a Cubix model makes it very easy to dig into your data and to look at underlying results and trends any which way you like.

Starting Cubix

Although it has its own database, calculation logic and rules, Cubix operates from within Excel. This gives the user the dual benefits of one common source of data with control and integrity combined with a friendly and familiar user interface.

When you start Cubix, a session of Excel is automatically started and the Cubix control ribbon is loaded.



The Cubix ribbon gives you access to all the available options and functionality. Not all options are necessarily available for all models, it depends on which options you have decided are relevant for your particular requirements.

Quick Start Guide

To get up and running quickly, we suggest starting with the default model settings in Cubix.

The default model settings are for a simple group Profit & Loss consolidation of 8 companies split into two divisions.

As soon as Cubix is installed a new model can be generated using the default settings, or you can use the default model as a template to start your own design.

The following **Quick Start** instructions will walk you through all the steps to create a new model and start entering and reviewing data.

Generating A Default Model With No Changes

This guide will take you through the process of creating a default model in Cubix and generating a new empty database.

- Start Cubix
- From the Cubix ribbon in Excel, select **Model Designer**
- On the model designer main screen select **New**
- Enter a name and optional description for your model

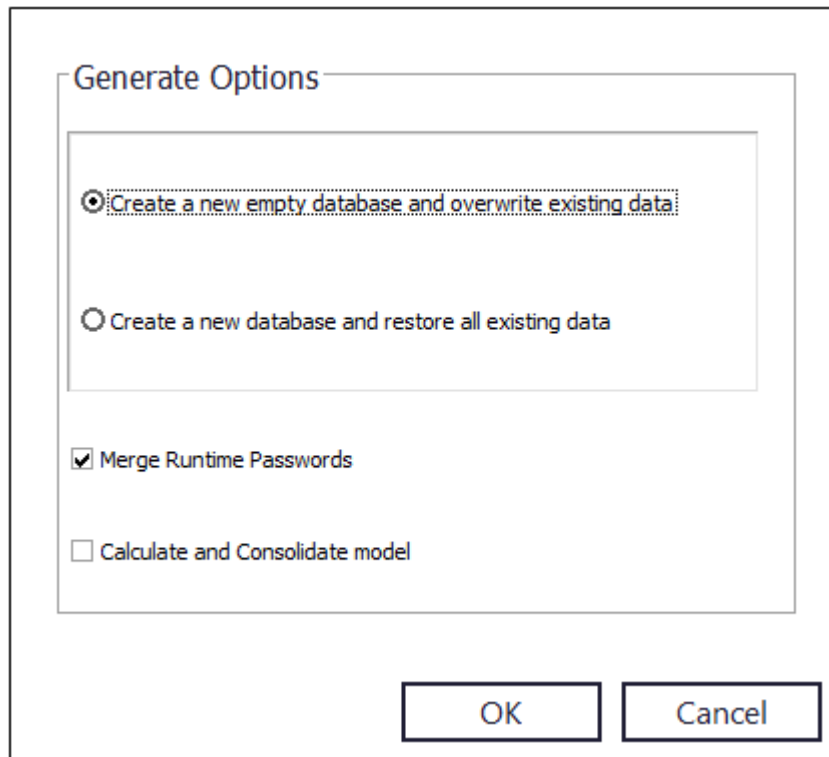
- Enter a **Designer Username**. This is the username that will be used when editing and maintaining the model.
- Click **Save**. Your new model will appear listed on the screen.
- Hover over the model tile and from the right hand side, select **Edit**

Strategic	Settings	Edit	Copy	Delete
Strategic Planning				
C:\Cubix\Models\Strategic\				Single Owner

- Type the Designer Username to log into the model



- Click on the **Generate** button
- In the **Generate Options** window make sure that **Create new database and overwrite existing data** is selected



- Click **OK**

When the generate process completes, close the log window, save and close the model and exit from model designer.

Using The Default Model As A Template

Rather than just generating your first model as per the Cubix default settings, you may want to customise the model contents to suit your own specific requirements.

- Start Cubix
- From the Cubix ribbon in Excel, select **Model Designer**
- On the model designer main screen select **New**
- Enter a name and optional description for your model

Add Model

Model Name: ⓘ ☐ Shared

Description: ⓘ

Path: ⓘ

Designer Username: ⓘ

- Enter a **Designer Username**. This is the username that will be used when editing and maintaining the model.
- Click **Save**. Your new model will appear listed on the screen.
- Hover over the model tile and from the right hand side, select **Edit**

Strategic	Settings	Edit	Copy	Delete
Strategic Planning				
C:\Cubix\Models\Strategic\				Single Owner

- Type the Designer Username to log into the model

You can now review and edit each of the default model dimensions and sets and calculation rules in turn.

- [Edit the Entity dimension](#) to change the company and consolidation structure.
- [Edit the Variable dimension](#) to change the accounts and data items in the model.
- [Edit the Product dimension](#) to add a product or departmental analysis.
- [Edit the Version dimension](#) to add or change data versions.
- [Edit the Time dimension](#) to change the model's time periods.
- [Edit the Calculation Rules](#) if needed.



You can of course also edit the **View** dimension, add **Currency Conversion** and other **Advanced** options as needed. However, the dimensions mentioned above will cover many of the requirements for a first time model set up. Please refer to the full user guide for help with advanced options and other features.

Opening the Generated Model

When the model has been generated, it can be opened from within Excel. This gives access to the data and all the relevant in-built Cubix functionality.

- From the Cubix ribbon in Excel, click on **Open** and select the model you wish to open.
- At the login screen enter the **Designer Username** you specified for the model.

The model is now open and your Excel session will have a live link to the Cubix database.

Create a Browser and Enter Some Data

Now that the model is open, you can start working with it.

At this stage the sample model is empty. The structure of all the entities, accounts, versions and time periods are all there, but there is no data stored against anything.

Create a simple browser



- From the Cubix ribbon select **New Browser**
- Confirm that you wish to create a new browser and **Save** the current Excel workbook with a new name. Perhaps **Browser1.xlsx**
- The **Edit Browser** window will appear. Click **OK** to accept the default selections.

* The Edit Browser window lets you select which elements of the Cubix model will be displayed in the rows and columns of your worksheet and which elements represent the fixed (single selections only) of the model. See [Creating A Browser](#) for more information.

Your worksheet should look like this:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Entity	Company A		Database:	QuickStart															
2	Version	Current Year Actual		Path:	C:\Cubix\Models\QuickStart\database\QuickStart.dbs															
3	CurrView	Local Currency		User:	Admin															
4	View	User Input Data																		
5	Time	Column																		
6	Variable	Row																		
7	Product	Total																		
8	Mode	Standard Period Value																		
9	Calced	Data																		
10			#Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Qtr1	Qtr2	Qtr3	Qtr4	HalfYr	TotalYr
11		Profit & Loss																		
12		Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13		Cost Of Sales																		
14		Material Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15		Subcontract Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16		Labour Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17		Other COS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18		Total COS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19		Gross Margin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20		Gross Margin %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21		Production Costs																		
22		Direct Labour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23		Indirect Labour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24		Salaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25		Production Overheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26		Sales & Admin Costs																		
27		Sales & Admin Staff Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28		Marketing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29		Travel & Entertaining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30		Stationery & Office Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31		Communication	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32		Training & Recruitment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33		Legal & Professional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34		Computer Maint & Licenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35		Sales & Admin Overheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36		Total Overheads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37		EBIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38		EBIT %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A look around the browser

Lets have a look at the different parts of the browser sheet and see what they mean and what can be done with them.

	A	B
1	Entity	Company A
2	Version	Current Year Actual
3	CurrView	Local Currency
4	View	User Input Data
5	Time	Column
6	Variable	Row
7	Product	Total
8	Mode	Standard Period Value
9	Calced	Data

The Fixed Section

The fixed section tells you what data has been selected for display. In this instance it is telling us that:

- we are looking at the data for the **Company A**
- for the **Current Year Actual** version
- in **Local Currency**
- and we are looking at the original **Input** level data (rather than adjustment or net level data).
- It tells us that the **Time** periods are shown in the columns
- and that the data **Variables** (accounts) are shown in the rows.
- We are looking at the **Total** of all products
- and all of this is for the **periodic monthly data** rather than the cumulative year to date data.
- The final row is telling us that we are looking at the data, rather than the calculation rules or any text that might be stored in the model.

A double click on any of the fixed section items in column B will open a window which allows a different selection to be made. For example, double click on **Company A** and selecting **Company C** from the list will change and refresh the browser to show any data for Company C.

The row and column headers

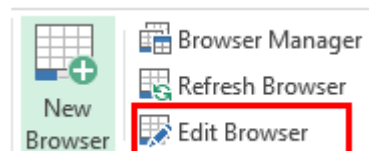
As mentioned above this simple default browser view has time periods in the columns and variables in the rows. Whereas all the fixed items only allow for one selection per dimension, in the rows and columns you can select multiple items.

A double click on any column header will open a window showing what is currently selected and allowing you to change that selection. Similarly a double click on any row heading will allow the row selections to be changed.

Edit Browser. Making all selection changes together.

When first creating the browser the **Edit Browser** was displayed. This window allows you to make all your selection changes together in one go and then refresh the browser based on those new selections.

It can be called up at any time either by double clicking in column A of the Fixed Section (cells A1 to A8)



or by clicking on the **Edit Browser** option on the Cubix ribbon.

See [Changing A Browser](#) for more information.

The Data Section

That leaves the main portion of the browser where the actual data values are displayed.

To start with, whilst there is no data in the model, all that will be displayed are zeros. However, you may notice different colours being used in the various cells. Cubix uses colour coding to identify the type of value being displayed as follows:

Colour	Meaning
Black	Consolidated Values
Red	Calculated Values
Blue	Input Values
Purple	Intercompany Values
Green	Profile Values (forecasting)
Yellow	Empty cells

In the sample model browser you will notice that some of the cells relating to Sales and Cost of Sales are red. This is because they are the result of a calculation within Cubix. In this case, we are looking at the **Total Product** and as these items are originally entered at an individual product level, what we are seeing is the result of the sum of all products.

Browsers can be used to enter data, but only for cells which accept input data. It is not possible to enter a value into a calculated (red) cell or a consolidated (black) cell, however, an empty (yellow) or previously input (blue) cell can be updated by just typing a value and pressing enter.

Try entering some data in different browser views either by typing values into each cell or by pasting a



range of data and using the **Set Range** option to post that range of data into the model.

Other Useful Links

Once you have started with your first model, you may like to refer to the following topics to further explore Cubix.

- [Drill Down](#)
- [Editing Data](#)
- [Reports](#)
- [Data Transfer](#)

For full details on how to build and expand models, please refer to the [Cubix Model Designer](#). The Full User Guide can be found [here](#)

Cubix Model Designer

Overview

Before you can load or enter any data and perform any analysis and reporting, you need to design and build your model. The model designer is where you create your Cubix business models.

Each model consists of 8 dimensions that together make up the structure for all the data held in the Cubix database.

The model designer takes you through each dimension in turn, allowing you to set them up with all the relevant items needed to meet your reporting, consolidation and analysis requirements.

The Dimensions

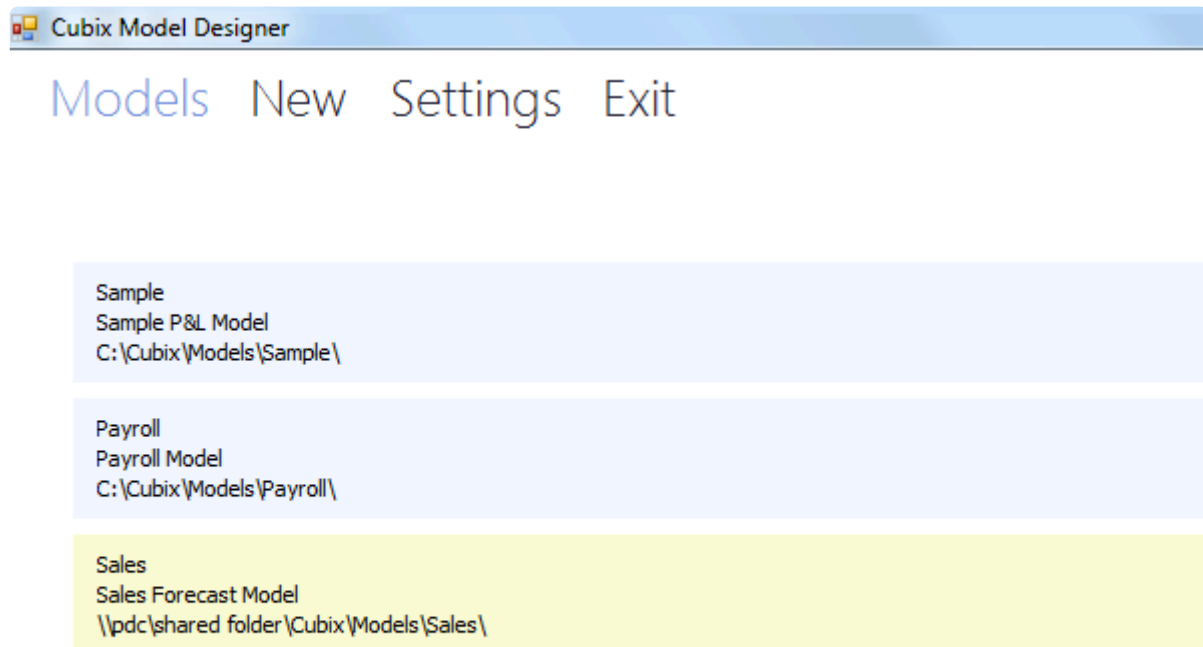
Each model will have the following dimensions:

- Entities
- Variables
- Products
- Versions
- Time
- View
- Mode
- Currency View

In addition to the key dimensions, you can set up calculation rules, currency conversions and if necessary, advanced financial features such as journal processing and inter-company balance management.

Adding a new model

The Cubix Model Designer home page lists any models to which you have designer access. This includes models that you have created yourself on a local PC or network drive and it includes models that someone else has created and then given you designer access to, known as **Joint Ownership** models.



List of Models

To add a new model...

From the model designer home screen click **New**

Edit Model Settings

Model Name: ⓘ ☐ Joint Owner

Description: ⓘ

Path: Browse ⓘ

Designer Username: ⓘ

Enter a name and description for the model. and if desired, select an alternative the path to store the model and its data.

* Throughout Cubix, item names should be no more than 30 characters, must start with an alpha character and cannot contain spaces. Descriptions can usually be anything up to 60 characters and have no restrictions on spaces or special characters.

Enter a **Designer Username**. This is the ID that will be needed by anybody who wishes to open the model in the designer. To control access to your models, it is recommended to invent a new Designer Username rather than using an existing Windows log-on ID which may be well known. The Designer Username can be shared with anybody you wish to grant joint ownership to and can be changed at any time.

If you wish the model to have joint ownership with one or more other designer users, tick the **Joint Owner** box. Click [here](#) for more information on Joint Ownership and Sharing of models and data.

Click **Save** and the model will be added to the list of available models.

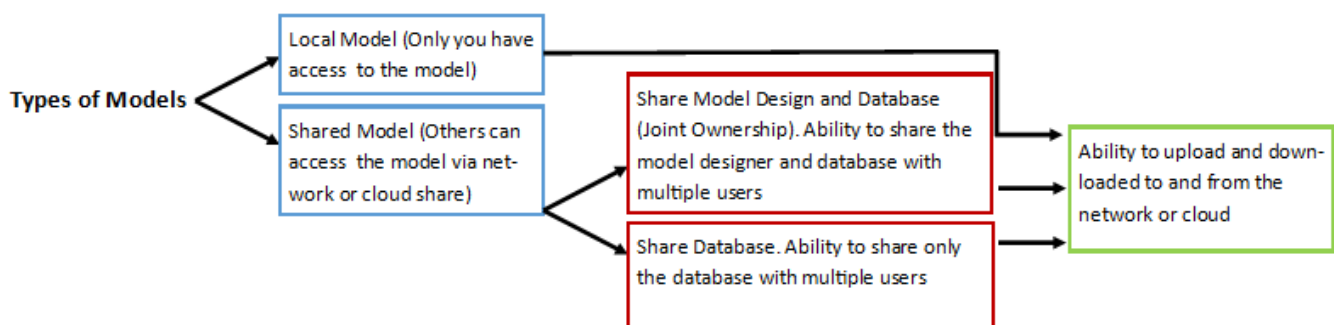
Hover over a model in the list to select options to Edit, Copy, Delete or change model settings.

Model Sharing

Any model that is created in Cubix can be shared to a network or cloud based location and accessed by anybody with the Cubix software installed on their machine, providing they have been added as a valid user in the model. See [Adding Users](#). They can have access to the model designer, data in the model and will be able to analyse and report on it as a full Cubix user. This is referred to as **sharing** a model.

There are two ways a model can be shared:

- Share Model Design and Database (Joint Ownership)
- Share Database



Share Model Design and Database (Joint Ownership)

In this type of share users have access to both the designer and the runtime.

The design and maintenance of a model can be made the responsibility of more than one user by assigning **Share Model Design and Database (Joint Ownership)**. With Joint Ownership a model will appear in the model list for designated users, who will be able to edit it in the model designer once they have been advised of the Designer Username for that model.

Users will also be able to access the database in excel and use Cubix to create and analyse reports etc.

Share Database

In this type of share users have access to the runtime.

Assign **Share Database** so that the designer is only able to be edited by one user, all other users will only be able to view the database in excel. The model may well have been designed and created by one person and the design definitions will reside with that one user on their machine, accessed with a specific designer username that they designated when first creating the model. This means no other user can access the model's designs.

Setting a model up for sharing

Change Default Settings

Before changing an individual model's settings you must change the application settings to specify a configuration and default location for network and/or cloud shared models. This should be done for all users who have access to Cubix and need access to the model. These settings should be the same for all users.

From the Cubix Model Designer main screen, select the **Settings** option found at the top.

In the settings window, set a path for either the **Configuration file path for joint owner and shared databases** (Network Shared) and/or **Configuration file path for cloud share databases** (Cloud Shared) and for either the **Default location for joint owner models** (Network Shared) and/or **Default location for cloud databases** (Cloud Shared).

Change Default Settings

Configuration file path

Configuration file path for single owner databases:

Configuration file path for joint owner and shared databases:

Configuration file path for cloud share databases:

Models default path

Default location for single owner databases:

Default location for joint owner databases:

Default location for cloud share databases:



This is a one time only activity. Once these settings have been made, they will apply for all shared models.

Change Individual Model Settings

For the model(s) you wish to share the designer and database, you need to edit the individual model settings by hovering over the model's tile and select 'Settings'. In here tick either the **Share Model Design and Database (Joint Owner)** or **Share Database** box depending on your preferred sharing option.

Next select whether the model will be **Cloud** or **Network** shared. Depending on which option you choose, the new shared model that will be created will use the paths defined in the default settings.

Check the path is now correct, **Save**, confirm the process.

Edit Model Settings

Model Name: ⓘ

Description: ⓘ

Path: Browse ⓘ

Designer Username: ⓘ

☒ Share Model Design and Database (Joint Owner)
☒ Share Database

Share Types

☐ Cloud share
☒ Network share

Save

Cancel

Export

This will move the model's path from your local path to your shared path defined in the default settings. Once the model has been changed to a shared model there will no longer be a local copy. You can then use the **Download** button on the shared model to create a local copy again. From this point you can either use the shared model in Cubix and use the download feature to keep the models the same or use the local model in Cubix and use the upload feature to keep the two models the same, these features are explained below.

Upload and Download

You can upload and download any model to either a shared network or cloud. This is done using the **Upload** or **Download** button found within a model's tile in the model designer.

When uploading a local private model this will still remain a private model in the shared area. This is mainly used for backup purposes.

If you have local and shared versions of the same model you can use both upload and download. If you have made changes to the local model and want to see the changes in the shared model use upload. If you have made changes to the shared model and want to see the changes in the shared model use download.

When selecting **Upload** there will be an option to select **Cloud Share** or **Network Share**, select the correct option for your model and continue. After retrieving the directory you will be given the option to choose which files are to be uploaded, select the files you want to copy across ensuring you don't take any files you don't want to overwrite in the shared model. **Upload** and wait for the process to finish.

Selecting **Download** from a shared model will start retrieving the directory, like **Upload** select the files that are to be downloaded ensuring you don't tick any files you don't want to overwrite in the local model. Click **Download** and wait for the process to finish.



Upload and Download will overwrite the existing files selected therefore take care when using these features as data or any changes can be lost in the process.

Dimensions

Each Cubix model has the following eight dimensions:

Dimension	Description
Entity	Company, Divisions, Business Locations or Groups
Version	Actuals, Budgets, Forecast etc.
Time	Periods – Months ,Quarters etc.
Variable	Profit and Loss, Balance Sheet lines, Data Items etc.
Product	Additional Detail for Variables
Currency View	Local or Base (Reporting) Currency
Mode	Periodic Value or Year to Date
View	Original Input, Adjustment or Net

In addition to the key dimensions, you can set up calculation rules, currency conversions and if necessary, advanced financial features such as journal processing and inter-company balance management.

The process of building a model is to work through each dimension in turn and add in the individual elements that define your content and business structure. This first time you edit a new model, a wizard will help you through each dimension in turn. If you wish to bypass the wizard, just click on the **Exit Wizard** button to the bottom right.

Entity Dimension Members

Entities are the first important dimension in any Cubix model. These are the discreet units that make up your business structure and could be companies, business units, physical locations, departments or any other such organisational unit.

There are 3 types of entity, Input, Elimination and Consolidated.

Input Entities

All models will have at least one and usually many input entities. These represent the units for which data are entered or loaded into the Cubix model.

Elimination Entities

Elimination entities are optional. They are most commonly used in financial consolidation models to enable elimination of inter-company transactions and consolidation adjustments.

Consolidated Entities

Consolidated entities are used for totals and subtotals of underlying input entities and are organised in **paths**. For example for regional totals or holding company consolidations. Each model must have at least one consolidated entity at the top level, however, many more can be included to give many levels of sub consolidation.

By default a new model will include one consolidation path called 'Management' with one consolidated entity called 'Consol1'.

Find:

 0 of 0

Entity

Drag a column header here to group by that column

	Name	Description	Type	Management Path Parent
1	LDN	London	Input	South
2	MAN	Manchester	Input	North
3	LED	Leeds	Input	North
4	GLA	Glasgow	Input	Scotland
5	EDI	Edinburgh	Input	Scotland

For each entity, enter the following information:

- **Name** – A reference name for the entity. This must be unique and must not contain any spaces or special characters.

- **Description** – A description for the entity.
- **Path Parent** – The parent consolidated entity for the current entity for each consolidation path defined.

* You will need to go back to your input entities after adding consolidated entities so that the newly added consolidated entities can be assigned as parents to the input entities.

Input

Elimination

Consolidated

Hierarchy

Management

Segment

Customer

Find:

0 of 0

Entity				
	Name	Description	Type	Management Path Parent
▶ 1	Group	Group	Consolidated	Group
2	Europe	Europe	Consolidated	Group
3	Asia	Asia	Consolidated	Group
4	Africa	Africa	Consolidated	Group
5	North_America	North America	Consolidated	Group
6	South_America	South America	Consolidated	Group

Consolidated entities in the Management Path

* All input and elimination type entities must have a parent consolidated entity. Consolidated entities are added in the same way as input entities, on the relevant page and for the appropriate path, and each consolidated entity must also have a parent entity. For more information on paths [click here](#).

Changing The Consolidation Hierarchy

When you have entered some input and consolidation entities and set the relevant consolidation parents, you can view and re-arrange the structure using the **Hierarchy** view.

Input Elimination Consolidated Hierarchy Management

The hierarchy view enables you to move any entity or group of entities to different positions within the structure. For example you can:

- Move an individual entity higher or lower in the list.
- Move an individual entity into a different sub consolidation level with a different parent.
- Move an entire sub consolidation level into a different consolidation level.

Name	Description	Type	Consolidation Path	Management Path Parent
▼ Group	Group Total	Consolidated	Management	Group
▼ Retail	Retail Outlets	Consolidated	Management	Group
▼ National	National Outlets	Consolidated	Management	Retail
CyclesRUs	Cycles R Us	Input		National
BikeShop	The Bike Shop	Input		National
Greens	Greens Leisure	Input		National
Harolds	Harolds Department Stores	Input		National
Outdoor	The Outdoor Adventure Co	Input		National
Wheelers	Wheeler Cycle Shops	Input		National
▼ Independents	Independent Outlets	Consolidated	Management	Retail
London	London Region Independents	Input		Independents
South	Southern Region Independents	Input		Independents
West	Western Region Independents	Input		Independents
North	Northern Region Independents	Input		Independents
Scotland	Scotland Independents	Input		Independents
▼ Direct	Direct Sales	Consolidated	Management	Group
Mail	Mail Order Sales	Input		Direct
OnLine	Online Sales	Input		Direct
Factory	Production Facility	Input		Group

Click on the row of the item you wish to move and drag it to its new position.

To drop an entity into a new consolidation level, make sure the **green** arrow is showing and drop the entity over the new consolidation parent.

Name	Description	Type
▼ Group	Group Total	Consolidated
▼ Retail	Retail Outlets	Consolidated
National	National Outlets	Consolidated
Outdoor	The Outdoor Adventure Co	Input
BikeShop	The Bike Shop	Input
Greens	Greens Leisure	Input
Harolds	Harolds Department Stores	Input


To drop an entity into position under another entity, make sure the **blue** arrow is showing and drop the

entity in the desired position



Independents	Independent Outlets	Consolidated
London	London Region Independents	Input
South	Southern Region Independents	Input
Outdoor	The Outdoor Adventure Co	Input
North	Northern Region Independents	Input
Scotland	Scotland Independents	Input

After making any changes to the hierarchy, be sure to click **Save**.

 If you have multiple consolidation paths in your model, you can select and edit the hierarchy views for each path separately.

Variable Dimension Members

Variables are the accounts or data items that you want to have in your model. They can include financial and non financial items, calculated items, KPIs, ratios, statistics or any other type of numeric data that you may want.

Find:

 0 of 0

Variable						
	Name	Description	Type	Has Product	Product Set	Precision
▶ 1	blank		HEADING	<input type="checkbox"/>		2
2	hRevenue	Revenue xxxxx	HEADING	<input type="checkbox"/>		2
3	PL_41	Revenues from direct sales	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
4	PL41_Unit_Price	Direct sales Unit Price	TRANSACTION	<input checked="" type="checkbox"/>	Products	2
5	PL41_Units	Direct Units Sold	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
6	PL_42	Revenues from sales to Re-sellers	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
7	PL42_Unit_Price	Re-seller Unit Price	TRANSACTION	<input checked="" type="checkbox"/>	Products	2
8	PL42_Units	Re-seller Units Sold	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
9	Tot_Units	Total Units Sold	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
10	Tot_Unit_Price	Total Unit Price	TRANSACTION	<input checked="" type="checkbox"/>	Products	2
11	Product_Revenue	Total Product Revenue	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
12	PL_43	Commissions earned	TRANSACTION	<input checked="" type="checkbox"/>	OTH_Income	2
13	PL_44	Dividends earned	TRANSACTION	<input checked="" type="checkbox"/>	OTH_Income	2
14	PL_45	Earnings from investments	TRANSACTION	<input checked="" type="checkbox"/>	OTH_Income	2
15	PL_46	Other income	TRANSACTION	<input checked="" type="checkbox"/>	OTH_Income	2
16	PL_47	Interest earned	TRANSACTION	<input checked="" type="checkbox"/>	OTH_Income	2
17	PL_49	Sales discounts	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
18	Financial_Income	Financial Income	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
19	PL_4	Total Revenue	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2
20	hCOS	Cost Of Sales	HEADING	<input type="checkbox"/>		2
21	PL_601	Raw Material	TRANSACTION	<input checked="" type="checkbox"/>	Revenue	2

Variables

For each variable you want in your model, you need to enter the following information:

- **Name** – A reference name for the variable. This must be unique and must not contain any spaces or special characters.
- **Description** – A description for the variable
- **Type** – Either **Heading**, **Transaction** or **Balanced**
 - A **Heading** type variable does not hold data, it just acts as a spacer in the list of variables.
 - A **Transaction** type variable is for data that cumulates over time. For example a cost account where the costs from period 1 are added to the costs from period 2 in order to determine the cumulative total as at period 2.
 - A **Balanced** type variable is for data where cumulation does not take place. For example a cash balance account which is used to report the closing balance as at the end of each period.

- **Has Product** (optional) – Tick this box if the variable is to be further split for analysis according to the Product dimension
- **Product Set** (optional) – The set of Products to be used for analysis for this variable. For more information on Products and Product Sets see.....
- **Precision** – The number of decimal places for this variable



At this stage it doesn't matter if a variable is for input or is to be calculated. All variables are set up the same way. The calculations are defined in the [Rules Editor](#)

Product Dimension Members

The Product dimension provides for a further break down of data according to products or similar groupings. Although it is called the Product dimension, it is not restricted to product analysis. It can be used to split data according to any sub-grouping you like, such as departments, business lines or asset categories.

Every Cubix model must have at least one product defined and every new model will come with a default product named 'Total'. This can be renamed if necessary.

Products can be assigned to particular Variables and data input is restricted to valid combinations only. For more information about assigning product sets see.....

Find:

0 of 0

Product

Drag a column header here to group by that column

	Name	Description	Auto Sum
▶ 1	Total	Total	<input checked="" type="checkbox"/>
2	Electrical	Electrical Goods	
3	Software	Software	
4	Services	Services	
5	OTH_IN	Other Income	
6	Marketing	Marketing	
7	Sales	Sales	
8	Development	Development	
9	Exec	Executive	
10	Client	Client Services	
11	Admin_HR	Admin/HR	
12	Finance	Finance	
13	NoDept	No Dept	

Product Editor

- For each product you want in your model, you need to enter the following information:
- **Name** – A reference name for the product. This must be unique and must not contain any spaces or special characters.
 - **Description** – A description for the product.
 - **Auto Sum** – Select this if you want all of the defined products to be automatically summed together to give a Total. If you want to create your own calculation logic for the products leave this un-ticked.

Version Dimension Members

A Cubix model can hold multiple versions of data. Typically these would be for the current year actual, one or more versions for prior years historic data, current budget and perhaps a number of forecasts. The final number and nature of the versions needed in any model is entirely dependent on the reporting and analysis requirements.



You would normally only have one version for current actual data, but you can have multiple history, forecast and budget versions.

Find:

0 of 0

Version

	Name	Description	Type	Cycle	Time Link	Roll Link	Actual Link	Rule Set	Input As YTD	Lock Control	Lock Forecast	Validate All Periods
1	History	Prior Year	HISTORY	2011		Actual		Actrules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Actual	Current Year Actual	ACTUAL	2012	History			Actrules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	PrevFcst	Previous Forecast	FORECAST	2012				ForRules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	ActFor	Rolling Forecast	ACTFOR	2012			Actual	ForRules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Budget_CY	Current Year Budget	FORECAST	2013		Budget_NY		Actrules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Budget_NY	Next Year Budget	FORECAST	2013				Actrules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Scenario_NY	Next Year Scenario	FORECAST	2014				ForRules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	FC_Var	Forecast Variance	FORECAST	2013				Actrules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Bud_NY_Prev	Next Year Budget - Previous Submission	FORECAST	2013				ForRules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Bud_NY_Var	Next Year Budget - Submission Variance	FORECAST	2013				ForRules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Versions

For each version you want in your model, you need to enter the following information:

- **Name** – A reference name for the version. This must be unique and must not contain any spaces or special characters.
- **Description** – A description for the version.
- **Type** – Either History, Actual, Forecast or ActFor

Type	Used For
History	Versions that will hold historic data
Actual	Version that will hold the current actual data. This version type includes additional functionality to control period end closing and rolling forward of balances.
Forecast	All versions used to hold fixed forecast or budget type data
ActFor	A special blended type which mixes actual data up to the last closed period with fixed forecast data for future periods.

- **Cycle** (optional) – A text field which can be used to associate a year number to a version
- **Time Link** (optional) – Establishes a link to the last period of another version. For example the current year version would have a link to the prior year version so that Cubix knows that the first period of the current year follows on from the last period of prior year.
- **Roll Link** (optional) – Establishes links between versions that determine how data is rolled over at

the end of the year. Data flows from the Roll Linked version. For example the prior year version would have a Roll Link with the current year actual version, signifying that at the end of the year the current year data will be rolled to the prior year version.

- **Actual Link** (optional) – Only applicable for ActFor version types. This determines which version contains the actual data to be blended with the forecast.
- **Rule Set** – ActRules or ForRules, the set of calculation rules to be applied in this version.

[More information on calculation rules and rule sets](#)

- **Input As YTD** – If un-ticked, this option specifies that data for this version will be entered or loaded on a periodic value basis and the Cubix will calculate the cumulative position. If ticked, this option specifies that the data for this version will be entered or loaded on a cumulative basis and that Cubix will calculate the periodic values.

This setting is linked to the applied rule set. So if the option is changed for a particular version, it will also be changed for all other versions that use the same rule set.

- **Lock Control** -
- **Lock Forecast** – Only available for ActFor versions. Specifies that the forecast periods are to be locked when the version is locked. If unchecked, only the actual periods will be locked when the version is locked.
- **Validate All Periods** – Only available for ActFor and forecast versions. Specifies that all periods are to be validated. If unchecked in an ActFor version, only the actual periods will be validated. (Only applicable if validation rules have been defined for the model).

Time Dimension Members

The Time dimension defines the time periods in your model. These can be months, weeks, days, quarters, full years, in fact any kind of periodic division you like.

by default any new model starts with 12 months running January to December, a half year total and a full year total. These can be re-arranged if necessary to reflect a different financial year calendar.

Time				
	Name	Description	Type	Cumulative Reset
1	Jan	January	PERIOD	<input checked="" type="checkbox"/>
▶ 2	Feb	February	PERIOD	<input type="checkbox"/>
3	Mar	March	PERIOD	<input type="checkbox"/>
4	Apr	April	PERIOD	<input type="checkbox"/>
5	May	May	PERIOD	<input type="checkbox"/>
6	Jun	June	PERIOD	<input type="checkbox"/>
7	Jul	July	PERIOD	<input type="checkbox"/>
8	Aug	August	PERIOD	<input type="checkbox"/>
9	Sep	September	PERIOD	<input type="checkbox"/>
10	Oct	October	PERIOD	<input type="checkbox"/>
11	Nov	November	PERIOD	<input type="checkbox"/>
12	Dec	December	PERIOD	<input type="checkbox"/>
13	Q1	Qtr 1	TOTAL	<input checked="" type="checkbox"/>
14	Q2	Qtr 2	TOTAL	<input type="checkbox"/>
15	Q3	Qtr 3	TOTAL	<input type="checkbox"/>
16	Q4	Qtr 4	TOTAL	<input type="checkbox"/>
17	HalfYr	Half Year	TOTAL	<input checked="" type="checkbox"/>
18	TotalYr	Total Year	TOTAL	<input checked="" type="checkbox"/>

Time editor

For each time period in your model, you need to enter the following information:

- **Name** – A reference name for the period. This must be unique and must not contain any spaces or special characters.
- **Description** – A description for the period
- **Type** – Either Period, Total, OpenBal or Spread.

Type	Used For
Period	A standard time period running in sequence with other periods
Total	A time period used for calculations such as quarters and year totals etc. or for additional periods that are outside the standard calendar sequence
OpenBal	A special type of period used in financial models to bring forward opening balances from the prior year closing. If used, the OpenBal should come immediately prior to the first Period type in the time dimension. A version must be Time Linked in order to bring forward balances. For more information on time linking and opening balances see.....

Spread	A particular period type used in conjunction with the in-built forecasting features of Cubix which allows automatic spreading of forecast targets over time periods.
--------	--

- **Cumulative Reset.** Specifies which periods represent the start of time based accumulation. The first standard time period would normally be a cumulative reset point as would the first of any quarterly totals.

View Dimension Members

The View dimension supports the posting of adjustment data in Cubix, either directly to a particular cell or through the use of the journal module. [Click here for more information on the journal module.](#)

Original source data is loaded or entered into the '**Input**' view. Adjustments are posted to the '**Adjust**' view and the final '**Net**' view presents the net result of input + adjustment.

View		
	Name	Description
► 1	Input	User Input Data
2	Adjust	Adjustments
3	Net	Net

Views

There can only be up to 3 View members and they must be named Input, Adjust and Net. You are free, however, to change the descriptions to suit your own preferences.

The inclusion of Adjust and Net views is automatic if the Journal and/or Inter Company Balance modules are enabled. However, whilst they can still be included without these modules being enabled and utilised for the direct input of adjustments, it is recommended to remove them if they are not needed.

Mode Dimension

The Mode dimensions is a system controlled dimension which enables the model to hold and calculate both Periodic and Year To Date or cumulative data for any time period.

Mode			
	Name	Description	
▶ 1	Value	Standard Period Value	
2	YTD	Year to date value	


Mode

It is not possible to make any changes to this dimension.

The Currency Module

The Currency module in Cubix enables input level data in a variety of currencies to be converted to a standard reporting currency (or Base Currency).

To enable the journal module, click on the power icon in the Currency Members tile.

Currency Members 

With the currency module enabled, each entity can have a local currency assigned, each variable an exchange rate type assigned (e.g. Average Rate, Closing Rate, Opening Rate etc.) and the model as a whole, two or more currency views defined.

Together these three elements enable source local currency data to be converted to a common base currency using exchange rates that are entered or loaded into the model for the appropriate currency, period and exchange rate type and version.



After enabling and setting up the currency module, you will need to revisit the Entity and Variable dimensions to add the appropriate currencies to the entities and the appropriate exchange rate types to the variables.

Inbuilt Currency Conversion or a Dedicated Rule

The default currency conversion for Cubix is to take the local currency value for a particular time period and convert it to the Base Currency using whatever exchange rate has been entered for that period. This method is suitable in many instances, however, there is a scenario where this standard method would not give the desired result.


For Profit & Loss accounts, the entered or loaded local currency values are normally converted using an average exchange rate for the period. The standard conversion method handles this fine when the data has been entered in periodic value mode. However, if the data has been entered in cumulative Year To Date mode, The standard method would convert the Year To Date local currency value using the exchange rate for just the current month. In this instance a special rule can be written to correctly handle the currency conversion. See [Currency Conversion Rule](#) for more information.

Currencies

The currency list should contain all the local currencies you need to have for your model. Each currency is identified with a unique name and an appropriate description.

Currency		
	Name	Description
▶ 1	NA	Not Applicable
2	GBP	Pound Sterling
3	EURO	Euro
4	USD	U.S. Dollars
5	AUD	Australian Dollars

Currencies

 Remember to review your entity dimension and assign local currencies to your input and elimination entities. [Entity Dimension Members](#)

Currency View

The currency view defines which currency data is being viewed at any time.

Currency View			
	Name	Description	DefaultCurrency
1	LOCALCURRENCY	Local Currency	
2	BASECURRENCY	Base Currency	GBP
▶ 3	EuroView	Euros	EURO

Currency View

All models, even those not using the currency module, will have a Local Currency view. This shows the entity data as loaded in it's original currency.

Models using the currency module will also have a Base Currency view. This shows the data in the defined reporting currency for the model. The currency to be used as the base currency should be selected from a list of the available currencies.

Further currency views can be added, each with a different default currency, and these will show all data converted to that particular currency using the appropriate exchange rates.



When the currency module is enabled, consolidated entities only show data for the Base Currency and any additional currency views. It is not valid to show consolidated local currency data.

Rate Type

Alongside the different currencies, each variable can have a different exchange rate type assigned.

The rate type determines which variant of an exchange rate will be used when the conversion to the Base Currency takes place. For example, Average for profit & loss accounts and Closing for balance sheet accounts.

Rate Type		
	Name	Description
▶ 1	Opening	Opening
2	Closing	Closing
3	Average	Average

Exchange Rate Type



Remember to review your variable dimension and assign the appropriate rate types.
[Variable Dimension Members](#)

FX Variables

FX variables hold the resulting foreign exchange fluctuation or differences that result when summed variables are converted using different Rate Types (e.g. Average rate and Closing rate)

To handle that exchange difference, and ensure that any subsequent calculations show the correct converted amount, **FX variables** are inserted into the variables list.

Once you establish where the cross currency conversions are occurring between the variables, insert a new variable immediately above the affected calculated variable.

This new variable should take the same name as the calculated variable with **FX** as a prefix and it should be assigned as an **FXVar**.

49	BS_ShareCap	Share Capital	BALANCED	<input type="checkbox"/>		2	Closing	<input type="checkbox"/>
50	BS_SharePrem	Share Premium A/c	BALANCED	<input type="checkbox"/>		2	Closing	<input type="checkbox"/>
51	BS_Reserve	P&L Reserve	BALANCED	<input type="checkbox"/>		2	Closing	<input type="checkbox"/>
52	BS_Reserve_Add	P&L Reserve Current Year	BALANCED	<input type="checkbox"/>		2	Average	<input type="checkbox"/>
53	FXBS_TotEquity	FX on Total Equity	BALANCED	<input type="checkbox"/>		2	Closing	<input checked="" type="checkbox"/>
54	BS_TotEquity	Total Equity	BALANCED	<input type="checkbox"/>		2	Closing	<input type="checkbox"/>

In the generated model, this new variable will hold any exchange differences as a result of the differing rate types. When viewing data on this variable, it will only display values in Base Currency. There is no calculation of exchange differences in Local Currency.

Sets

Sets are a very useful feature of Cubix. They are a means of combining members of a dimension into meaningful groups for processing, printing and reporting.

A Variety of Uses

A dimension may contain hundreds of items, however, when browsing or analysing data, you probably don't want to have to keep scrolling through long lists of items to find just one. This is where sets aid navigation through the data. They can be used as a filter when making selections. For example from a list of entities, you might create regional sets, so when looking for data for France, you can select from a set containing just the European entities rather than scrolling through a longer list of all entities.

Similarly accounts can be grouped into sets which can not only help you find the particular items you are looking for, but can also present data in a predefined layout and order.

Sets can also be useful when creating calculation rules. By combining certain items into sets, one single calculation rule can be applied to just those specific items. [See more about rules.](#)

Sets can be referenced in reports so that a single report template can show different content depending on which set has been selected.

Sets are optional but if desired can be created for **Entity**, **Variable**, **Product**, **Version** and **Time**.

For each dimension, the Sets input screen consists of 3 elements.

The screenshot displays the 'Entity Sets' input screen with three main panes and a set of navigation icons at the bottom.

- Entity Sets (Left Pane):** A table listing existing sets.

	Name	Description
1	DefaultSet	Default Set
2	Management	Management
3	Europe	Europe
4	InputEntities	Input Entities
5	Consols	Consolidation Entities
6	Segment	Segment
7	Customer	Customer
- Entity Set Members (Middle Pane):** A table showing the members of the selected set (Europe).

	Name	Description
1	Europe	Europe
2	France	France
3	UK	UK
4	Germany	Germany
5	LUX	Luxembourg
- All Members (Right Pane):** A table listing all available dimension members.

	Name	Description
1	Australia	Australia
2	Canada	Canada
3	USA	USA
4	Brazil	Brazil
5	France	France
6	UK	UK
7	Germany	Germany
8	HK	Hong Kong
9	SA	South Africa
10	LUX	Luxembourg
11	GUY	Guyana
12	Group	Group
13	Europe	Europe
14	Asia	Asia
15	Africa	Africa
16	North America	North America

Navigation icons at the bottom include arrows for switching panes, and buttons for 'Insert', 'Add', 'Delete', and 'Save' (repeated under the first two panes), and 'Add Members' (under the third pane).

Sets

- The list of sets
- The contents of the current set
- All the dimension members available that can be included in the current set.

Add or insert sets as necessary in the left hand pane and use the list in the right hand pane to select which items are to be included in the set. Click **Add Members** to add them to the middle pane.

The set members in the middle pane can be re-arranges to appear in any order, regardless of the order they appear in the right hand list. Also individual items can be added multiple times to one set.

Rules

Rules are the means by which calculations for variables, time periods, products and other dimensions are defined. They can be very broad, applying to all entities or all time periods or all variables, or can be very specific, only applying to one particular data cell if it meets certain conditions.

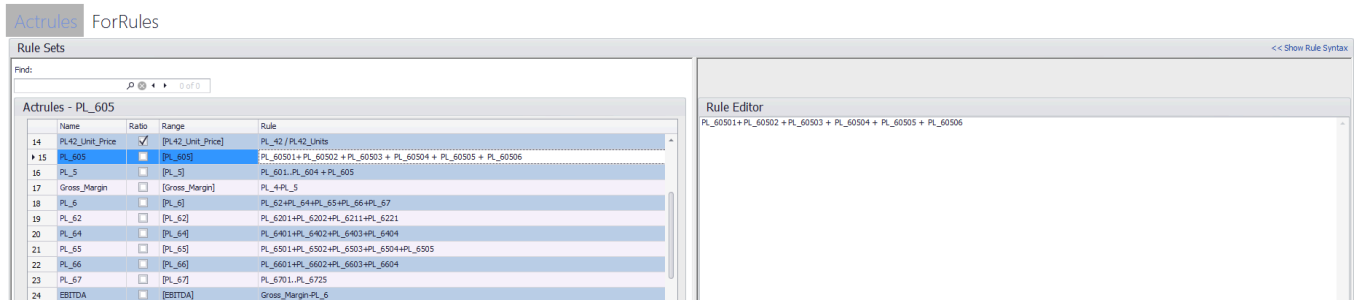
Understanding Rules

You can think of an individual rule as similar to a cell formula in a spreadsheet. For example, a rule may define how a Quarterly total is calculated or how Net Assets is calculated. In the rule you stipulate which variables (or cell references) will be used in the calculation and how the calculation is to be performed. A key difference between Cubix rules and a spreadsheet formula is that the rules logic is stored separately from the data. This means that a rule can be defined and written once, but applied to many different data slices in the Cubix model.

There are two distinct rule sets in Cubix. **ActRules** and **ForRules**. Each data version is assigned a rule set, so having two rules sets available allows for different versions such as forecasts and actuals, to be calculated differently.

Adding Rules

Rules are inserted or added to the current selected set and each will have a name, a range and the actual calculation to be performed.



Rules editor

The Rules Editor screen is split into two panes. The left side being a list of all the rules in the current selected set and the right side being a larger edit window for the current selected rule.

Name

Each rule within a set must have a unique name. Whilst the name of the rule could be anything, it is good practice to give it the same name or a similar name to the item that you are calculating. So a rule that calculates the total revenue might be called 'TotRevenue'

Range

The range specifies the address or range of cells where the calculation will apply. Cubix rules work on the basis of 'Range by Exception'. This means that when defining a range, if a particular dimension is not mentioned in the range, then all members of that dimension are affected by the calculation.

The range of a calculation must include at least one element, and that can be a member or set from any of the following dimensions: Variable, Product, Time, View or Mode. Using a member Set in the range allows one rule to be applied to a selection of items. [Click here for more information on sets.](#)

Examples of Rule Range

Range	Dimensions in Range	Impact
[Product_Revenue]	Variable	The Product_Revenue variable will be calculated for all entities, for all products, for all time periods, for all data views, for both periodic and cumulative modes.
[TotalYr]	Time	The Total Year time period will be calculated for all variables, for all entities, for all products, for all data views, for both periodic and cumulative modes.
[CF0002][Value]	Variable & Mode	The variable CF0002 will be calculated for all entities, for all products, for all time periods, for all data views, but only for the periodic mode

[PL_67][Jan][Input]	Variable, Time & View	The variable PL_67 will be calculated for all entities, for all products, for January only, for the input data view only, for both periodic and cumulative modes
---------------------	--------------------------	--



The elements of a range can be defined in any order and can include set names instead of individual members.

The Rule

This is the actual calculation that will be performed on the specified range. A rule can include all the normal operators (+ – * /) plus some functions and references which are specific to Cubix.

Ratio

Tick the ratio box if the formula needs to be resolved after all aggregation and consolidation calculations. This will ensure items such as percentages are correctly calculated for consolidated entities and are not just aggregations of underlying percentage values.

Rule Precedence

It may be the case that more than one rule could reference a particular cell. In this instance rule overlaps can occur. For example a rule that calculates the total year, applied to all variables will overlap with a rule that calculates the total revenue variable, applied to all time periods. Cubix resolves this conflict by the use of a Precedence Principle. The rule that applies is the one that appears furthest up the list of rules. It is important to consider the notion of rule precedence, particularly when writing rules across multiple dimensions.

Basic Rule Syntax

The syntax for writing rules in Cubix is quite straightforward and many models need little more than the basic numeric operators in their rules. However, more complex calculations can be achieved using for example conditional clauses, lookup references and relative dimension members.

Simple Rule Syntax

Syntax	Description
*	Multiply by
/	Divide by
+	Add
–	Subtract
..	Sum through. This function sums all items in the member list found between and including the items mentioned in the rule.

Cell Specs

As well as specifying the range a rule will be applied to, the function of a rule can be narrowed using Cell Specs. Cell Specs are similar to ranges, but they are entered as part of the rule itself and therefore are more related to what is being applied, rather than where it is being applied.

In their simplest form, Cell Specs are a list of dimension members, separated by a colon : For example

Sales:Jan:Input or **Budget:LocalCurrency**



If there are identical member names in different dimensions it is advisable to specify a dimension:name combination in the middle of a cell spec, such as **Sales:Time:Dec**. This will avoid miscalculation if another dimension contained a member with the same name.

Some Examples of Cell Specs

Jan	This simply returns the January Time period value for the current variable, view, entity, version, and product.
Sales or :Sales	The colon preceding Sales is used to separate one dimension member from another.
Sales:Jan	This will get the January Sales value for the current entity, version, and product, regardless of the current time period and regardless of the variable.
Sales:Time:Jan	This is the same as above, except the dimension is specified for Jan. This will be essential when two dimensions have

	members with the same name.
Budget:LocalCurrency:Sales:HalfYr:Net:YTD	The Cell Specs can be made as specific as required to narrow down the range to be calculated.

Conditional Rules

Sometimes a Rule should be calculated only if a given condition is met. Alternatively, you may want a rule to apply only to a specific Entity or for a particular Time period. This can be achieved with a conditional **IF** statement.

The syntax for a conditional statement is:

```
If(Evaluation, Result if True, Result if False)
```

For example, we may want to test if the current entity is UK, if it is (i.e. True) then perform one calculation, if it's not (i.e. False) then perform another calculation.

In order to perform a test we need to compare one value against another. This can be achieved by using a Logical Test Operator. These allow us to test if one value is equal to, greater than, less than, and so on compared to another value.

Here are the valid Logical Test Operators in Cubix.

Operator	Description
==	Equal to (note the use of double equals signs)
!=	Not equal to
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to

So an example might be to set a certain tax rate if the entity is UK. The rule might look as follows:

```
If (Entity==@UK, 20, 25)
```

If the entity is UK, then the tax rate is 20, otherwise it is 25.

Using the Logical OR and AND Operators

To provide conditional functions with greater flexibility, it is possible to test for multiple conditions rather than just one. Cubix uses the following operators to test for multiple conditions:

Operator	Description
	Logical OR. Will apply when either or any of the conditions are satisfied. That is, Cubix will return the True argument when any of the OR conditions are met.

&&	Logical AND. Will apply only when all of the conditions are satisfied. That is, Cubix will return the True argument when all of the AND conditions are met.
----	---

Taking the above example, we may want our UK Tax Rule to use a different rate only in the Actual version compared to historical versions. The rule will require two conditions.
The rule statement would look as follows:

```
If (Entity==@UK && Version==@Actual, 20, 25)
```

Currency Conversion Rule

If your model requires a special currency conversion rule to handle the conversion of cumulative Profit & Loss accounts using an average exchange rate for the month, here's how to set it up.

- Create a variable set called **PLVars** containing all the P&L type accounts that need to be converted.
- Add the following rule to the **ActRules** set

Name = CurrCalc

Range = [PLVars][input][YTD]

```
if(currview == @localcurrency, @input,  
if(time == @Jan, localcurrency:ytd / @CurCCR,  
(localcurrency:ytd - localcurrency:ytd:time[:>-1]) / @CurCCR + ytd:time[:>-1]))
```

Make sure the rule is placed below any time or product calculations in the rule set.

Member Look Up

In the conditional rule example the “@” symbol was used, as in:

```
If(Entity==@UK, 20, 25)
```

For this rule to work requires Cubix to lookup the entity at the time of calculation to see if it is the UK. In relation to dimension members or attributes @ tells Cubix that you are providing the name of the item you want to reference (as opposed to its position in the list). So the above example could be read as:

```
If the current Entity has the name UK then...
```

The alternative is to use the index value. The index value is the position the items holds in the dimension list. (Note: When counting the members in the list Cubix is zero based. It starts counting at zero not one).

So if the list of entities contained **France, Germany, UK, Australia, New Zealand** and **Japan** (in that order) the above example could also be written as:

```
If(Entity==2, 20, 25)
```

This example could be read as:

```
If the current Entity is item 2 in the list of Entities then...
```

However, this does make the rules more difficult to read and interpret. Also, changes to the model structure may affect the accuracy of the rules. For example, the rule could become invalid if an entity was inserted into the model, causing the UK to now become item 3 in the list.

Using @Input in Rules

Sometimes you may want to create a rule that tests for a certain condition and when that condition is not met, to treat that cell as an input cell rather than a calculated cell (which won't allow input).

The means of achieving this is by using @input in your rule. @Input tells Cubix to treat that portion (or argument) of the rule as user input rather than a calculated value.

This way you can have the best of both worlds; have a rule apply to a variable, if the rule does not apply then allow user input.

Attribute Look Up

It is also possible to refer to a Dimension's attributes (columns) in a rule. For example:

1. You may want to perform a calculation on any entities that have a Parent called Europe in the first consolidation path (hierarchy). Here the attribute is **Parent1**, and its value is **Europe**.
2. You may want a particular calculation to occur only for Consolidated entities. Here the attribute is **Entity Type** and its value is **Consolidated**.

It is possible to perform the above examples by referring to the attributes of members. The Entity dimension can include the following attributes:

Type	LocalCurrency	ConsPath	Parent1
Parent2	Parent3	Parent4	Parent5
Parent6	Parent7	Parent8	Parent9

To refer to these attributes within a rule we use the caret symbol, **^**. However, the way the value is nominated differs. There are two methods of referring to attributes within rules:

1. Attributes that refer to members of a dimension.
2. Attributes that refer to system defined properties.

Attributes that Refer to Members of a Dimension

Example One above required us to evaluate the parent of each entity. To perform this evaluation we can refer specifically to the Parent Name as follows:

```
If(Entity^Parent1==@Europe, Result if True, Result if False)
```

We are able to refer to **@Europe** by name (as text) because Europe is a member of the entity dimension. This makes the Rule easier to read. When you refer to an item by name, precede the name with the **@** symbol. The same approach can be used for any attribute value that is a member of another dimension.

Attributes that Refer to System Defined Properties

If you are referring to an attribute item that is not a specific member of a dimension, you refer to the item by its index value (i.e. position), not by its name.

For example, you may want to perform a calculation on all Consolidated entities only. You might write the rule as follows:

```
If(Entity^Type==1, Result if True, Result if False)
```



Cubix uses a zero base for index values so the first item in any list has the value zero, the second item has index value of 1 and so on. In the list of possible entity types, **Input** is the first item, value 0 and **Consolidated** is the second item, value 1.

Attribute rules must use the exact name of the relevant attribute. A list of all the available attributes, the name to use in the rule and the return values can be found [here](#)

Time Rules

You may noticed that new models include two default rules at the start which calculate the half year and full year totals.

Let's have a look at the Total Year rule.

```
if( Variable^type == 2 || Mode == 1, DEC , JAN + FEB + MAR + APR + MAY + JUN  
+ JUL + AUG + SEP + OCT + NOV + DEC )
```

This rule calculates the Year Total column as can be seen by the part that is adding JAN +FEB + MAR etc. However, this is a conditional rule with two possible outcomes. If we think about how the Year Total should be calculated for different variable types, we would expect **Transaction** type accounts to be summed, but **Balanced** type accounts to reflect the closing value as at the last month.

Also, if we think about the rule again from the point of view of **Periodic Value** versus **Year To Date**, we would only expect to sum the monthly periodic values. We would not want to sum each month's YTD values. It is these two conditions that the rule is checking for before deciding which result to give. It can be translated as:

```
If the variable type is Balanced OR  
if the mode is YTD,  
then return December's value (i.e. closing Balanced value or YTD Transactiona  
l value)  
Otherwise return JAN + FEB + MAR + APR etc.
```

The rule for the First Half Year is very similar, except that it only sums up to June.

Other Rule Functions

There are a number of other functions that can be used in Cubix rules:

Syntax	Description
;	Comment indicator. Any text after the comment will not be interpreted as part of the rule. Use this to include comments explaining complex rules.
Round(N1,N2)	Round N1 to N2 decimal places
@CAP	Returns the index number of the Current Actual Period (CAP). Only available in Actual and ActFor versions
@Input	Sets the cell to allow input
@NA	Returns a blank cell
@CurCCR	Returns the current currency rate
[-1]	Relative member. Returns the value of the member according to the relative index number. i.e. Product[-1] returns the value from the product one position earlier in the list.
Time[: -1]	Relative time period, using the opening balance (if available)
Time[> -1]	Relative time period, ignoring the opening balance
Time[:> -1]	Relative time period, using the opening balance as a logical time period

Rules Summary

Rules In Summary:

- Rules are created in Rule Sets, which in turn are assigned to Versions.
- Rules are applied to a cell range. The range assumes every member of each dimension is selected unless a dimension member or set is specifically included in the rule range.
- Be wary of using index numbers in rules, because if the dimension members change, the rules may give invalid results.
- Consider and check the implications any structure changes may have on the rules when you make them.
 - Re-arranging dimensions may impact rules that use the sum through function (..),
 - New members may need to be included in sets if sets are used in rule ranges,
 - New rules may be required where there are specific calculations relating to specific variables or products.
- Remember the principal of rule precedence. Rules higher up the list in a rule set take priority over those further down when there is an overlap of rule ranges.
- Ratio rules are always calculated last

List of Attributes

This is a list of all the attributes that can be used in rules and their return values:

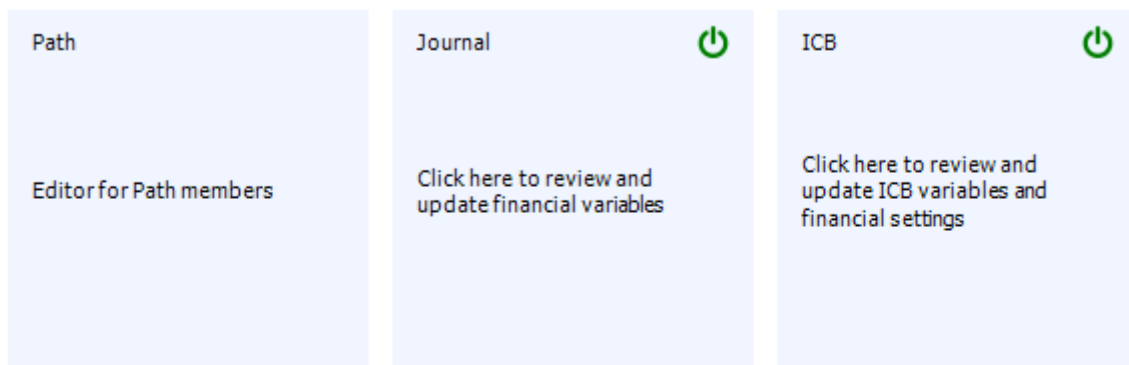
Dimension Attributes

Dimension	Attribute Name	Description	Returns
Entity	Type	The type of entity – input, consolidated or elimination	0 = input, 1 = consolidated, 2 = elimination
Entity	LocalCurrency	The local currency of the entity	The index number of the currency code.
Entity	Parent1 thru Parent10	The name of the parent entity in the relevant path. The first consolidation path refers to parent1, the second path to parent2 and so on.	The index number of the parent entity.
Entity	ConsPath	The name of the path for particular consolidated and elimination entities	The index number of the path.
Variable	Type	The type of variable	0 = heading, 1 = transaction, 2 = balanced
Variable	HasProduct	Does the variable have a product dimension split	0 = False, 1 = True
Variable	ProductSet	The Product Set associated with this variable	The index number of the product set

Advanced Features

The advanced features in Cubix include the use of multiple consolidation hierarchies (paths), the Journal module for the processing and tracking of adjustments, and the Inter-Company (ICB) module for managing, balancing and eliminating inter-company transactions.

The use and set up of the advanced features is optional.



Settings:

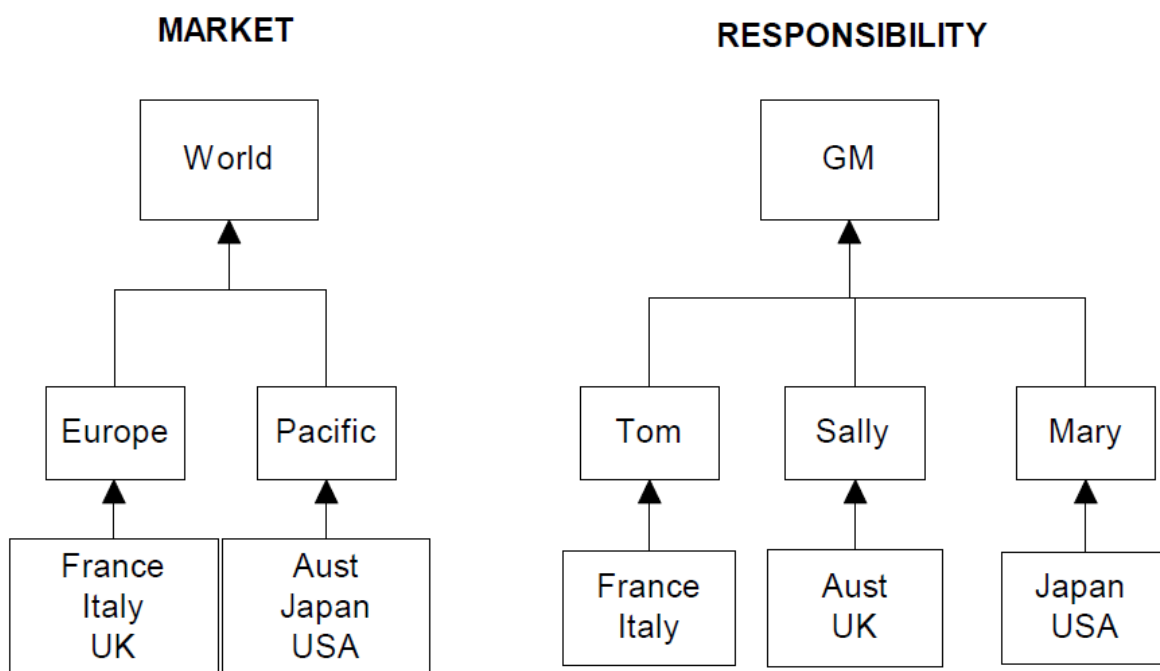
☐ Implied Balance ☐ Auto Balance ☐ Auto Reverse ☐ Auto Post Journals Materiality:

Using Multiple Consolidation Paths

All [entities](#) in a Cubix model are part of a consolidation path. That consolidation path consists of one or more input type entities and one or more consolidated entities. It may also include elimination type entities.

But what if you want to consolidate your data in a number of different ways? You may need one structure that reflects your management consolidation and another that reflects a legal consolidation. This is where multiple consolidation paths come into play.

With multiple paths, each path includes the same input type entities but has its own consolidated and elimination entities. So the same underlying entity data can be consolidated in different ways, such as in the below example.



Alternate Consolidation Paths

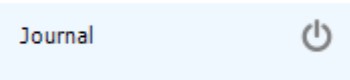
Adding Paths

The first step is quite straightforward. Select the **Paths** option from the **Advanced** menu and add or insert the additional paths required, up to a maximum of 10, giving each one a meaningful name.

Once the path has been added, you must return to the original **Entity** dimension and add the necessary consolidated and elimination entities for the new path and make sure each input type entity has been assigned the appropriate parent from the new path.

Journal Module

The Cubix journal module enables full financial double entry journal adjustments to be posted directly into a model. Using journals is optional. If it is required it must be switched on when designing and building the model and further attributes will need to be configured in the variables dimension.



To enable the journal module, click on the power icon in the journal tile.

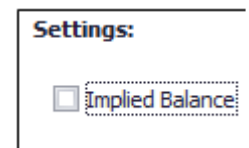
With the journal module enabled, the variable dimension must be edited to set the appropriate attributes. The variable list can be accessed directly from the journal menu tile.

In the variable list, two additional columns will be displayed. **Is Financial** and **Is Debit**. All the financial variables should be identified by ticking 'Is Financial'. That is any variable where you may want to apply financial double entry journals.

The financial variables then need to be identified as either Debit or Credit. Debit variables are selected by ticking 'Is Debit'. Any financial variables where 'Is Debit' remains un-ticked are assumed to be Credit variables.

Implied Balance

With the journal module enabled, the implied balance setting on the Advanced Features screen determines how positive and negative values are treated in relation to the financial account debit/credit settings.



When Implied Balance **is not** selected (un-ticked), Debit adjustments will always be posted as a positive figure and Credit adjustments will always be posted as a negative figure, regardless of the designated account type. So if your model design is to show all credits as negative values, do not select Implied Balance.

When Implied balance **is** selected (ticked), the posting will assume that all financial values are entered as positive figures and will follow the following posting rules:

- Posting a debit value to a debit account = positive value
- Posting a credit value to a credit account = positive value
- Posting a debit value to a credit account = negative value
- Posting a credit value to a debit account = negative value

If your model design is to show all financial values as positive values, regardless of whether they are debits or credits, make sure Implied Balance is selected.

Input, Adjust and Net Views

When the journal module is enabled, the [View dimension](#) will be amended to include two additional views, **Adjust** and **Net**. All journals are posted to the Adjust view, keeping them separate from the original Input view. A calculation rule is also automatically added in order to calculate the Net view which

displays the net result after all adjustments.

Intercompany Balance Module

The Intercompany (ICB) module in Cubix allows for the recording and management of intercompany transactions in a model. This includes reporting on all balances and differences, the automatic balancing of non-matched values and the elimination of inter and intra company amounts at sub-consolidation and full consolidation level. The ICB module is an optional feature and should only be enabled if it is required for a particular model.

If it is required it must be switched on when designing and building the model and further attributes will need to be configured in the variables dimension.

ICB



To enable the ICB module, click on the power icon in the journal tile.

When the ICB module is enabled, the Journal module will be automatically enabled also, if it is not already active. The journal module is required as part of the ICB process to raise and post any automatic balancing adjustments and elimination adjustments.

With the ICB module enabled, the variable dimension must be edited to set some additional attributes. The variable list can be accessed directly from the ICB menu tile.

In the variable list, some additional columns will be displayed. If the journal module had not previously been set up, please refer to the [journal](#) section for guidance on how to do this.

The columns relating specifically to ICB are as follows:

Is ICB	Identifies the variable as an intercompany type. You should only identify those variables that will be used to hold intercompany data. A variable can only hold one type of data. If it has been identified as an ICB variable, ALL entries against that variable must be entered or loaded as ICB data, complete with partner company information.
Paired ICB	Select a valid ICB variable as the pairing for this variable. This field indicates which ICB variable this variable will be matched with when calculating differences. Each ICB variable must match with either another variable (for example Inter Company Receivables matches with Inter Company Payables) or itself (for example Inter Company Loans).
Dominant Rank	Select one of the 4 types that control how this variable (and ultimately which entity) is to be affected in any automatic balancing that is performed. (See below)
Reciprocal Variable	Select a valid non-ICB variable. The Auto Balance function allows the user to automatically adjust ICB variances between entities and below a specific materiality. This is done by raising a journal, one side of which effects the nominated ICB variable and the other to a non-ICB (or reciprocal) variable.

Find:

 0 of 0

Variable												
	Name	Description	Type	Has Product	Product Set	Precision	Is Financial	Is Debit	Is ICB	Dominant Rank	Reciprocal Variable	Paired ICB
1	P01000	Management Charges Payable	TRANSACTION	<input type="checkbox"/>		2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Dominant / Will Not Change		P01100
2	P01100	Management Charges Receivable	TRANSACTION	<input type="checkbox"/>		2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Submissive / Change	P01200	P01000
3	P01200	Other Management Charges	TRANSACTION	<input type="checkbox"/>		2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
4	P01999	Total Management Charges	TRANSACTION	<input type="checkbox"/>		2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Intercompany Variables

Dominant Rank, Reciprocal Variable and Auto Balance

The Auto Balance feature in Cubix will calculate any intercompany differences and then post an adjusting journal to remove the difference. To do this it needs to know where to post the adjustment.

The **Dominant Rank** and **Reciprocal Variable** define this. The Dominant Rank determines which entity will be changed to bring its ICB value to a match and the Reciprocal Variable defines which variable will take the opposite side of any ICB adjustment.

There are four options for Dominant Rank. Two relate to instances where one ICB variable is paired with another different ICB variable and two relate to instances where an ICB variable is paired with itself.

Dominant Rank	Meaning
Dominant / Will Not Change	Used when paired with another ICB variable. Means that values on this ICB variable will not be changed. The change will be made to the entity with the paired variable.
Submissive / Change	Used when paired with another ICB variable. Means that values on this ICB variable will be changed.
Greater / Change	Used when paired with itself. Means that the entity with the greater value will be changed.
Lesser / Change	Used when paired with itself. Means that the entity with the smaller value will be changed.



All ICB variables that are nominated to possibly be changed by the Auto Balance, must have a Reciprocal Variable identified. This is a non ICB variable where the opposite side of any ICB adjustment will be posted.

Other ICB Settings

The Advanced Features screen holds some settings relating specifically the ICB module.

Settings:
☐ Implied Balance
 ☐ Auto Balance
 ☐ Auto Reverse
 ☐ Auto Post Journals
 Materiality:

- **Auto Balance** – Enable the Auto Balance feature for this model.
- **Auto Reverse** – Specifies that all journals created by the Auto Balance function will be reversing.
- **Auto Post Journals** – If this option is on, all journals created by the Auto Balance function will be automatically posted.
- **Materiality** – This figure sets the default threshold below which ICB discrepancies will be automatically balanced – for instance, if you set the materiality to 30, all ICB discrepancies less than 30 units of the BASE currency will be automatically removed by double-entry journals. The actual materiality value used can be over written by users at the time of processing. This is the default value.

Adding Users

When you create a Cubix model for your own personal use, you can choose to use the Designer Username as you login ID or you can add a specific user ID for that purpose.

If you want to share the model with other Cubix users by creating it on a shared network location, you will need to add a user ID for each user who will be accessing the model.



From the main model editor screen, click on the **Users** icon.

Add the number of users you require, giving each one a unique name, an appropriate description and optionally, a password. Your users will then be able to log on to the generated model using the IDs you have created.



The adding of other user IDs relates to shared access to generated models. This is different to having joint design ownership of a model. (See [Joint Ownership](#))

Validation and Generation

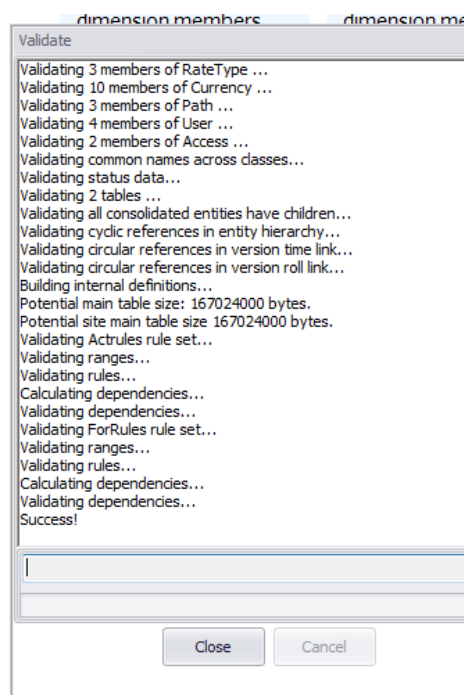
Validation



Validation is the process of checking all the dimension definitions and rules etc. that have been added in the model designer to make sure they all conform the Cubix requirements.

The process can be run at any time, and will check for items such as conflicting or duplicated dimension member names, calculation rules referring to invalid cell ranges and sets containing items that don't exist.

The validation window will show progress through checking each element and will list any errors found. The most recent validation log file can be viewed at any time by clicking on the **View Log** button.



Generation



Generation is the final step to make when creating or amending a model design. This is where all the definitions and rules are compiled into a live model which can be accessed by users. If a model change has been detected and a validation has not been run, the generate process will first of all run a full

validation.

There are two Generate methods and two options to consider.

The screenshot shows a 'Generate Options' dialog box. Inside, there are two radio buttons. The first one, 'Create a new empty database and overwrite existing data', is selected with a black dot. The second one, 'Create a new database and restore all existing data', is not selected. Below the radio buttons are two checkboxes. The first checkbox, 'Merge Runtime Passwords', is checked with a black tick. The second checkbox, 'Calculate and Consolidate model', is not checked. At the bottom right of the dialog box are two buttons: 'OK' and 'Cancel'.

- **Create a new database and overwrite existing data** will generate a new empty model. If a version of that model already exists, it will be overwritten and any data will be lost. This is the default option when creating **new** models.
- **Create a new database and restore all existing data** will firstly take a backup of any data in the existing model, then generate the new updated model and restore the data from the backup. This is the recommended option to use when generating updated or changed versions of an existing model.



Any data relating to a dimension member that existed in a previous version of a model but has now been removed, will not be restored in the new model.

- **Merge Runtime Passwords** should be ticked when generating an updated model, so that any user passwords previously set are maintained.
- **Calculate and Consolidate Model** when ticked will fully re-calculate and consolidate all the restored data as the final step in the generate process. If this is not ticked a user will need to run a full calculate and and consolidate in Cubix to ensure the data is up to date.

Generate Rules

If a change has been made to some calculation rules, but no other model changes made, the **Generate Rules** option is available. This will updated the calculation logic in the final model without the need for a full generate and restore of data. For large models this can be very useful.

Exporting & Importing Models

By default, models are created and generated on local PCs and laptops. Additionally, it is possible to set models up on shared network drives and give other users access to them, both as data users and model designers.

However, there may be instances where a model needs to be copied or moved to a separate Cubix installation and this can be achieved using the export and import options.

Export Model

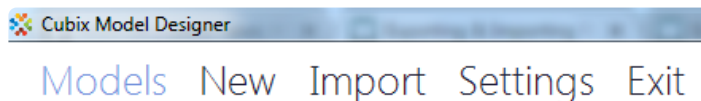
From the model designer main screen, hover on the tile of the model you wish to export and select **Settings**.



On the settings screen, select **Export** and select a location to store the export. A zip file will be created containing the model definitions and the most recent data backup files. This zip file can then be sent or transferred to the PC where it needs to be imported.

Import Model

From the model designer main screen, select **Import**.



Locate the zip file containing the exported model and click **Open**. The model will be added to the list of models on that machine.



Note that the imported model will not be generated. Once it has been added to the list of models, it will need to be edited and generated before it can be used on the new machine. Also, the data will need to be restored separately using the restore option on the Cubix menu ribbon. (See [Restore Data](#))

Copying and Deleting Models

Copy Model

It is possible to make a copy of an existing model. The copy might then be used as the basis for a new model, without the need to recreate all the definitions from scratch.

From the model designer main screen, hover on the tile of the model to be copied, and select **Copy**.



When prompted give the model a new name, description, path and designer user name and click **Save**.

A new model will be added to the list.

Delete Model

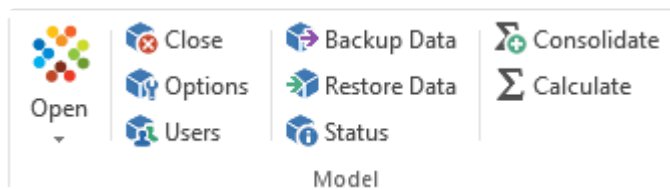
Models can be deleted by selecting the **Delete** option. This will remove all of the files relating to the model, including data and reports, so take care when using this option. If you think you might want to use or refer to this model at some point in the future, consider [exporting](#) the model first and keeping the export zip file archived.

Working With Models

Just as in Excel you might have different workbooks for different purposes, in Cubix you can have different models for different purpose. Perhaps a model for monthly financial consolidation and reporting and a separate one for budgeting or forecasting. (Equally, you could combine both functions into one Cubix model).

Models may be local and private to you, existing only on your laptop or PC, or they may be shared on a network location where multiple Cubix users can access them.

Each model has its own structure and definitions, its own calculation logic and importantly its own data.



Model Menu

Open A Model

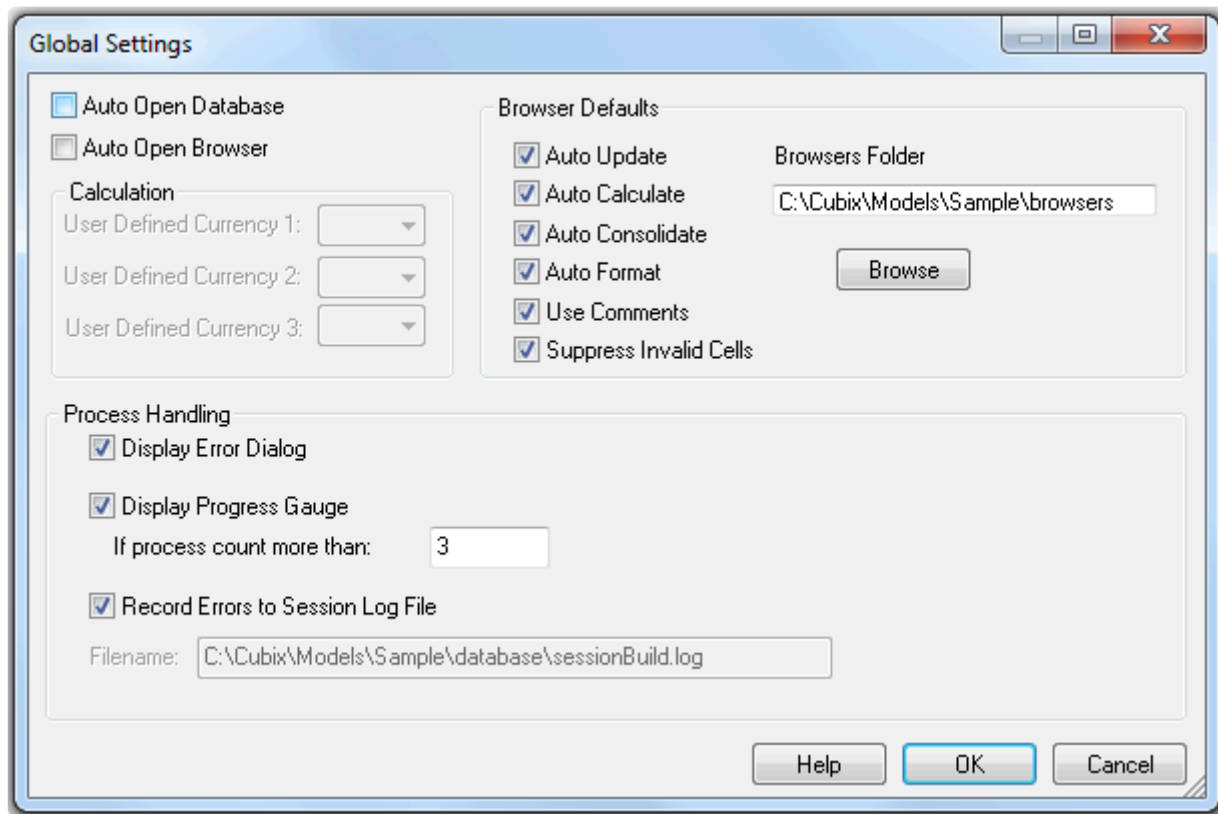
Before you can work with any of the data in a model, it must be opened. This establishes the connection between that particular model's database and Excel.

Click on the **Open** icon and select the model you wish to open.

In the log In screen, enter the user name and password for the model.

Global Options

Global options are default settings applicable in the current model.



General

Auto Open Database	The current model will automatically open every time you start Cubix.
Auto Open Browser	The last browser(link) you were viewing for the selected model will open every time you start Cubix.

Browser Defaults

Auto Update	Select this option to control the default behaviour for browsers. Auto Update acts as master control for the three options beneath it – if it is off, the other three options will be unavailable.
Auto Calculate	If selected, browsers will automatically calculate any data required for the entity and version being displayed.
Auto Consolidate	If selected, browsers will automatically consolidated any data required for the entity and version being displayed.
Auto Format	If selected browsers will be formatted when displayed. (Uses different colours to represent values that are input, calculated, consolidated, etc).
Use Comments	If selected, cells with comments will be identified using the default Excel comment indicator.

Suppress Invalid Cells	If selected, browsers will not display rows for invalid cell combinations.
Browsers Folder	Select a default folder in which to store browser workbooks for this model.

Process Handling

Display Error Dialog	Select this to display error messages for processes that cannot be completed successfully. With this option not selected, the process will ignore errors and continue trying to complete without giving a warning.
Display Process Gauge	Select this option to have Cubix display a progress gauge while running certain processes. Enter a number to specify how many processes should cause a progress gauge to be displayed.
Record Errors to Session Log File	Select this option to have Cubix record process errors to a file.

Backup and Restore Data

You can take a backup of all data in a model at any time. The backed up data is stored in the model's backup folder, usually **\Cubix\Models\modelname\backup**

The main backup file will be called **_Main.bak**. If your model includes foreign currency conversions, there will also be a backup file for all the exchange rate data called **_CurRat.bak**

When you take a backup, any previous backup files will be renamed as **_Mainxx.bak** and **_CurRatxx.bak**, where xx represents the next available sequential number for backup files.

So the first time you take a backup the files will be called **_Main.bak** and **_CurRate.bak**. When you take the next backup, the old backup files will be renamed as **_Main1.bak** and **_CurRat1.bak** and kept. When you take the next backup, **_Main1.bak** and **_CurRat1.bak** will remain as they are, and the more recent backup files will become **_Main2.bak** and **_CurRat2.bak**. In this way, Cubix builds up and keeps a history of the backups taken.

All other users must be logged out of the model before taking a backup. You can check which users are logged in from the [Users](#) window. You can also log them off from here, however, extreme caution should be used when doing this.



It is usually not necessary to keep all historic backups. However, you may want to keep some, such as at year end, in which case the two backup files from that point in time can be copied and stored elsewhere.

Restoring data from a backup

When restoring data from a backup, Cubix will always look for the file called **_Main.bak**, and if required for the model, **_CarRat.bak** and try to restore from those.

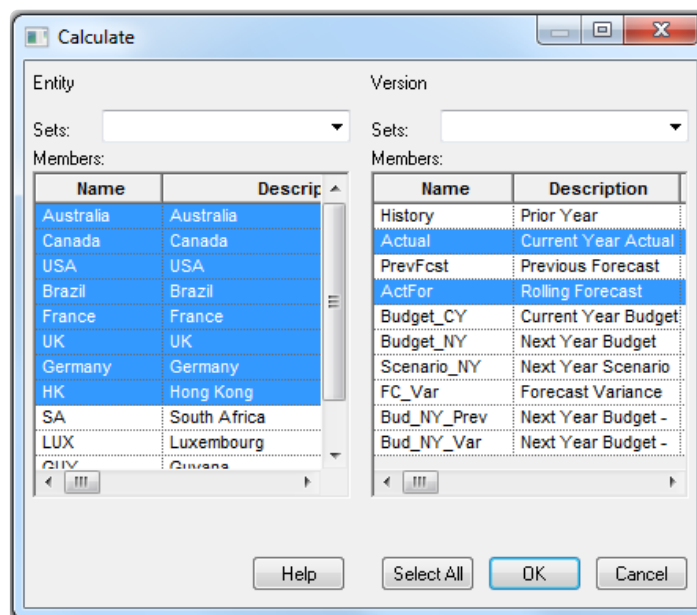
If you wish to restore data from an earlier backup, simply locate the appropriate backup files and rename them by removing the trailing number so that they become **_Main.bak** and **_CurRat.bak**. Then run the restore process as before.

Calculate and Consolidate

Calculate

When viewing data in browsers, as long as the browser has been set to Auto Calculate, any calculations required for the data to be displayed will be performed. However, a browser may have a limited view, perhaps just one entity, so any calculations required to other entities will not be automatically performed unless that other entity is selected for viewing in a browser.

When many changes to underlying data have been made, perhaps after importing a data file, rather than having to call each entity into a browser view, calculation of data can be manually controlled using the **Calculate** option.



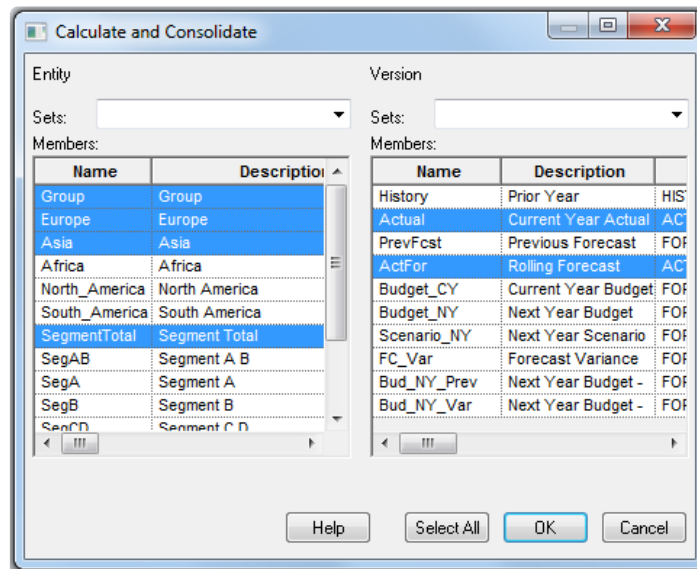
Calculate Entities

Select the entities and versions you wish to calculate and click OK.

Consolidate

The Calculate option will work for input level entities. i.e. those entities where data has been entered or loaded. To perform consolidations of the data up to and including the top level company, choose

Consolidate



Consolidate Entities

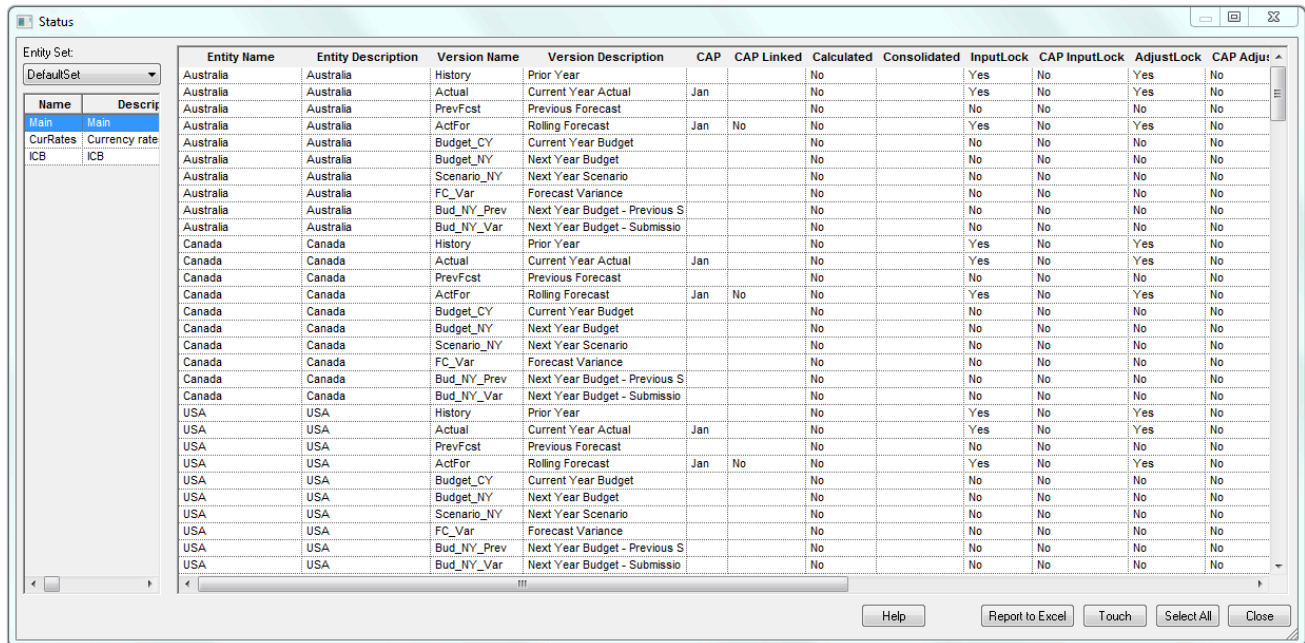
The consolidate option, only shows consolidated type entities. Select the entity to which you wish to consolidate and the versions and click OK. Note that the consolidate option will also perform any required calculations on underlying input type entities.

- ✿ If you want to perform a full calculate and consolidate of one or more versions, use the **Consolidate** options and select all entities and whichever version(s) you require. Cubix will check all entities in the model, but only perform calculations where they are required. This is a simple way to ensure all data is fully up to date.

Status and Users

Status

The Status window provides information about the model on an entity and version basis.



The Status window displays a table with the following columns: Entity Name, Entity Description, Version Name, Version Description, CAP, CAP Linked, Calculated, Consolidated, InputLock, CAP InputLock, AdjustLock, and CAP Adjust. The table lists data for Australia, Canada, and USA, with various versions such as History, Actual, PrevFcst, ActFor, Budget_CY, Budget_NY, Scenario_NY, FC_Var, Bud_NY_Prev, and Bud_NY_Var. The table is filtered by the 'DefaultSet' entity set.

Entity Name	Entity Description	Version Name	Version Description	CAP	CAP Linked	Calculated	Consolidated	InputLock	CAP InputLock	AdjustLock	CAP Adjust
Australia	Australia	History	Prior Year			No		Yes	No	Yes	No
Australia	Australia	Actual	Current Year Actual	Jan		No		Yes	No	Yes	No
Australia	Australia	PrevFcst	Previous Forecast			No		No	No	No	No
Australia	Australia	ActFor	Rolling Forecast	Jan	No	No		Yes	No	Yes	No
Australia	Australia	Budget_CY	Current Year Budget			No		No	No	No	No
Australia	Australia	Budget_NY	Next Year Budget			No		No	No	No	No
Australia	Australia	Scenario_NY	Next Year Scenario			No		No	No	No	No
Australia	Australia	FC_Var	Forecast Variance			No		No	No	No	No
Australia	Australia	Bud_NY_Prev	Next Year Budget - Previous S			No		No	No	No	No
Australia	Australia	Bud_NY_Var	Next Year Budget - Submissio			No		No	No	No	No
Canada	Canada	History	Prior Year			No		Yes	No	Yes	No
Canada	Canada	Actual	Current Year Actual	Jan		No		Yes	No	Yes	No
Canada	Canada	PrevFcst	Previous Forecast			No		No	No	No	No
Canada	Canada	ActFor	Rolling Forecast	Jan	No	No		Yes	No	Yes	No
Canada	Canada	Budget_CY	Current Year Budget			No		No	No	No	No
Canada	Canada	Budget_NY	Next Year Budget			No		No	No	No	No
Canada	Canada	Scenario_NY	Next Year Scenario			No		No	No	No	No
Canada	Canada	FC_Var	Forecast Variance			No		No	No	No	No
Canada	Canada	Bud_NY_Prev	Next Year Budget - Previous S			No		No	No	No	No
Canada	Canada	Bud_NY_Var	Next Year Budget - Submissio			No		No	No	No	No
USA	USA	History	Prior Year			No		Yes	No	Yes	No
USA	USA	Actual	Current Year Actual	Jan		No		Yes	No	Yes	No
USA	USA	PrevFcst	Previous Forecast			No		No	No	No	No
USA	USA	ActFor	Rolling Forecast	Jan	No	No		Yes	No	Yes	No
USA	USA	Budget_CY	Current Year Budget			No		No	No	No	No
USA	USA	Budget_NY	Next Year Budget			No		No	No	No	No
USA	USA	Scenario_NY	Next Year Scenario			No		No	No	No	No
USA	USA	FC_Var	Forecast Variance			No		No	No	No	No
USA	USA	Bud_NY_Prev	Next Year Budget - Previous S			No		No	No	No	No
USA	USA	Bud_NY_Var	Next Year Budget - Submissio			No		No	No	No	No

Status Window

The status includes information on whether data has been calculated, consolidated or locked, the last user to edit the data and when it was edited etc.

The status window is also used to manually reset entities to require a re-calculation. This can be useful if you want to run an iterative calculation or just want to be sure that everything has been fully calculated.

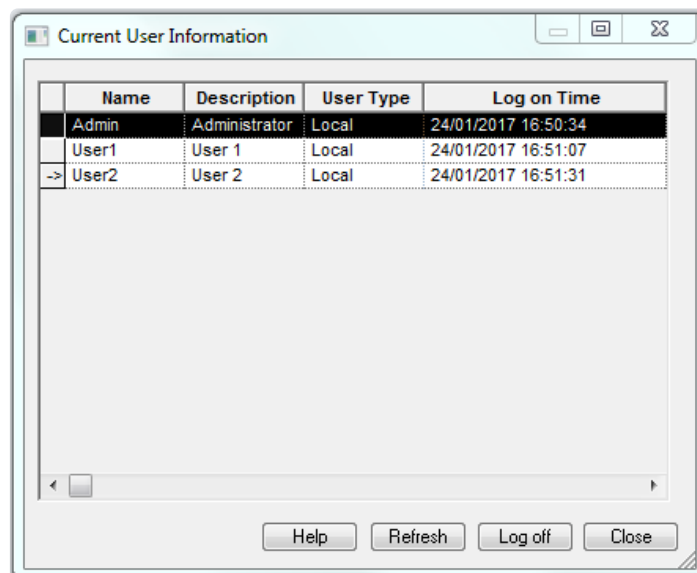
Select the entities and versions to be reset and click the **Touch** button.



The data in the Status window can be sorted by right clicking on a column header. It can also be filtered by selecting from a particular entity set, if entity sets have been defined in your model. (See [Sets](#))

Users

The users window will display a list of all currently logged on users.



Logged In Users

If necessary, users can be forcibly logged off from this window, however, extreme care should be taken when doing this. It should only be used if it is certain that the user is not in the middle of a data entry or calculate or consolidate process.

Viewing & Analysing Data

This section describes the various functions in Cubix which allow you to recall, view and analyse data in the model.

Data Browsers Introduction

Using a browser is the quickest and easiest way of viewing and interacting with data in a Cubix model.

A browser is an Excel sheet with an underlying live link to the Cubix database. It allows you to pick and choose which dimensions from your model are displayed in columns and rows in the sheet, and which individual dimension members are shown. It displays all the selected data as values in the sheet yet retains dynamic links to the underlying model so that at any time, the content of the browser can be changed and refreshed and, where the model structure permits, the data can be drilled in to.

	A	B	C	D	E	F	G	H	I	J	K
1	Entity	United Kingdom		Database: Sample							
2	Version	Current Year Actual		Path: C:\Cubix\Models\Sample\database\SAMPLE.dbs							
3	CurrView	Local Currency		User: User1							
4	View	User Input Data									
5	Time	Column									
6	Variable	Row									
7	Product	Total									
8	Mode	Standard Period Value									
9	Calced	Data									
10			#Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
11		Revenue									
12		Sales	9870	11431	10235	11354	0	0	0	0	0
13		Other Revenue	619	699	735	876	0	0	0	0	0
14		Total Revenue	10489	12130	10970	12230	0	0	0	0	0
15		Cost of Sales									
16		Materials	3824	3917	3705	3935	0	0	0	0	0
17		Labour	2924	2454	2724	3417	0	0	0	0	0
18		Total Cost of Sales	6748	6371	6429	7352	0	0	0	0	0
19		Gross Margin	3741	5759	4541	4878	0	0	0	0	0
20		Gross Margin %	0.36	0.47	0.41	0.4	0	0	0	0	0
21		Operating Expenses									
22		Sales & Marketing									

Example of a browser

If a user has the appropriate access rights, they can also use a browser to input and update data values.

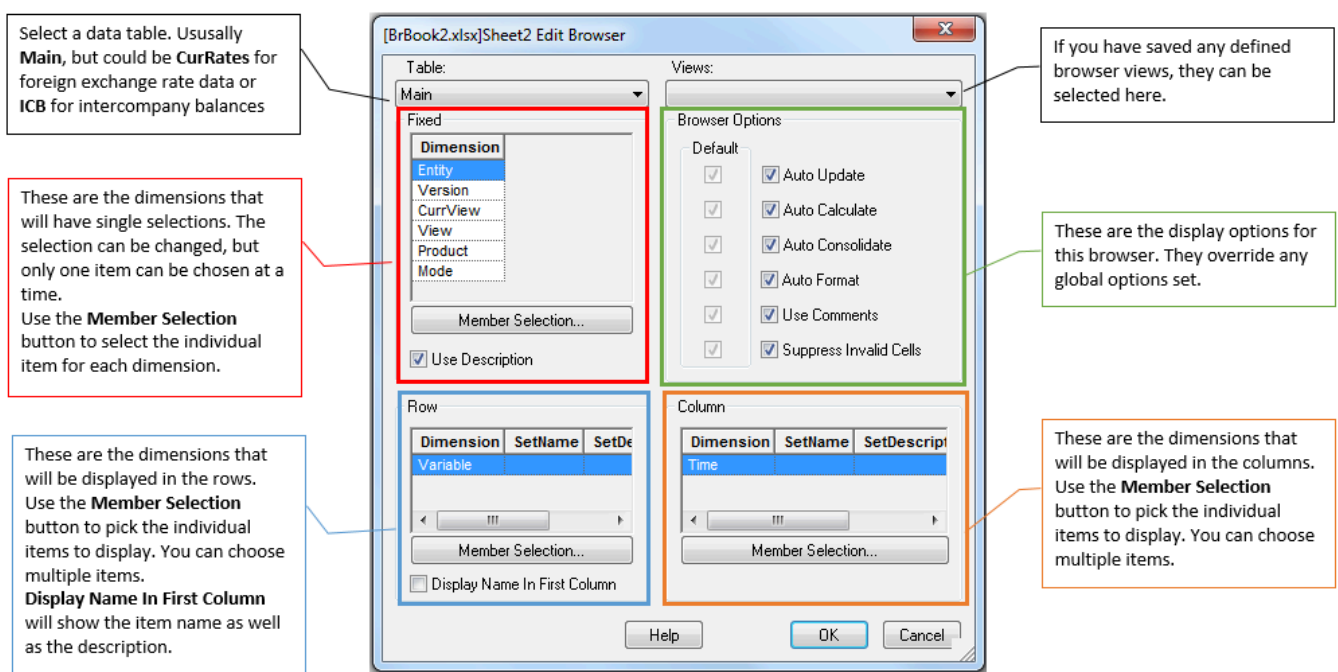
Creating A Browser

A browser is created on an Excel worksheet in a saved workbook. If you have an Excel workbook already open, the browser will be created on the current sheet. If you don't have a workbook open, a new one will be created first and you will be prompted to save it.

* Browsers are always created in saved files. You can choose to save the file permanently with a name that is relevant to what you are doing, or you can use a temporary file name and overwrite it each time you create a browser. It depends how you want to work with browsers; whether you want to keep them or just start anew each time.

* An alternative to creating and storing lots of different browser workbooks is to use Views to hold your browser definitions and recalling and switching between different views, all within the same browser file. See [Creating Saved Views](#) for more information.

Clicking on **New Browser** will open the **Edit Browser** window. The Edit Browser window allows you to make your initial selections for what to display.



Edit Browser Window

A browser has **Fixed** dimensions, **Row** dimensions and **Column** dimensions and it is the combination of members chosen for each dimension that determines what data is displayed.

Fixed Dimensions

The fixed dimensions are those for which there will only be one item selected at a time. Although they are known as fixed dimensions, each selection can be changed at any time to change the displayed data. This can be done by highlighting the dimension to change and clicking the **Member Selection**

button.

The Member Selection Window

The **Member Selection** window is common for fixed, row and column selections. It displays all the available members for the dimension and allows you to select the ones you want. The list of available members can be filtered by choosing a **Set** first. Then only the members that exist in that set will be listed for selection.

With fixed dimension, only one member for each dimension can be selected. For rows and columns, multiple members can be selected.

Row and Column Dimensions

The row and column dimensions are those that will be displayed in the rows and columns of the worksheet. Multiple members can be selected and the selections can be changed at any time.

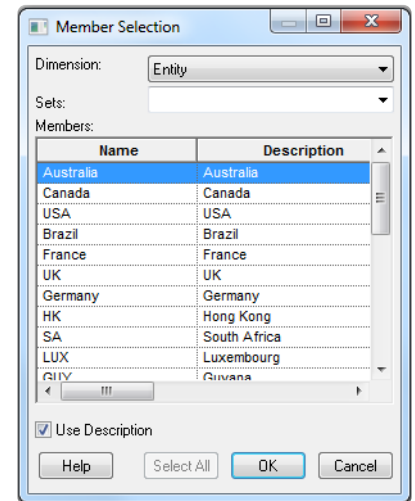
With the rows, there is an extra option **Display Name In First Column**. Every item in Cubix is defined with a reference Name and a Description. Ticking this option will display both the name and description for the row members. For all other dimensions, either the name or description will be displayed depending on the setting of **Use Description**.

Changing the Fixed, Row and Column Dimensions.

The dimensions that appear in the rows and columns can be changed around. Any of the available dimensions can appear in any section of a browser. To move a dimension from one place to another, select the dimension to move and either drag and drop your selection to where you want it to appear, or right click and select **Move To Fixed**, **Move To Rows**, or **Move To Columns** as appropriate.

Nested Dimensions

When you create a new browser, the starting position is to have one dimension in the rows, one dimension in the columns and all the others as fixed dimensions. However, it is possible to have multiple 'nested' dimensions in the rows and columns. Just select the other dimensions you want to have in the rows or columns and move them using drag and drop or the right click menu options. The order of nested dimensions will change the way your data is displayed. See the following example:



Time before Mode

Column

Dimension	SetName	SetDescription
Time		
Mode		

Member Selection...



Variable	Time		Jan		Feb		Mar	
	Mode		Value	YTD	Value	YTD	Value	YTD
Revenue								
Revenues from direct sales			318725.8	318725.8	319174.3	637900.1	308538.8	946438.9
Direct sales Unit Price								
Direct Units Sold			2834.19	2834.19	3001.85	5836.04	2843.86	8679.9
Revenues from sales to Re-sellers			209373.9	209373.9	191862.9	401236.8	208631.8	609868.5

Mode before Time

Column

Dimension	SetName	SetDescription
Mode		
Time		

Member Selection...



Variable	Mode		Value		YTD			
	Time		Jan	Feb	Mar	Jan	Feb	Mar
Revenue								
Revenues from direct sales			318725.8	319174.3	308538.8	318725.8	637900.1	946438.9
Direct sales Unit Price								
Direct Units Sold			2834.19	3001.85	2843.86	2834.19	5836.04	8679.9
Revenues from sales to Re-sellers			209373.9	191862.9	208631.8	209373.9	401236.8	609868.5

The order in which the nested dimensions appear can be changed by using the right click menu and selecting shift up or shift down.

Changing a Browser

Once you have the browser displayed on your Excel worksheet, you can change the layout and contents by double clicking on certain cells.

Double click A1-A8 to display Edit Browser dialog

Double-click B1..B8 to change the set or members of the chosen dimension

Double click this area to change the Column Member Selection

Double click B9 to toggle view between Date, Rule and Text

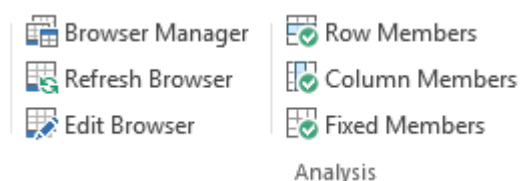
Double click this area to change the Row Member Selection

Click on any of the buttons on the sheet to view relevant dialog box

	A	B	C	D	E	F	G	H
1								
2	Entity	Entity	French Operations					
3	Version	Vers.	This Year Actual results					
4	CurrView	Curr.	Local Currency					
5	View	View	User input data					
6	Time		Input Months Only					
7	Variable		Overheads					
8	Product	Prod.	Total Product Consolidation					
9	Mode	Mode	Year to date value					
10	Calced		Data					
11	Var.		Time	JAN	FEB	MAR	#APR	MAY
12		Payroll		116	238	367	500	500
13		Rent & Hire		22	40	66	89	89
14		Telephone		16	35	56	75	75
15		Travel		16	32	51	68	68
16		Advertising		38	70	107	134	134
17		Electricity		15	31	46	62	62
18		Insurance		16	32	49	65	65
19		Consumables		19	41	63	85	85
20		Other Expenses		10	25	38	51	51
21								
22		Overheads		268	544	843	1129	1129

- Double clicking on any of the dimension names in column A will open the original **Edit Browser** window.
- Double clicking on any of the current selected members in column B will open the **Member Selection** window for that dimension. You can choose another member to change your browser contents.
- Double clicking on any of the row member descriptions in column B will open the **Member Selection** window for the rows.
- Double clicking on any of the column member names in row 11 will open the **Member Selection** window for the columns.
- Double clicking on the word **Data** in cell B9 will change the display to show either the data values, the names of any applied calculation rules or any stored text.

These windows to allow changes to the browser can also be opened directly from the Cubix menu. Use the Edit Browser, Row Members, Column Members and Fixed Members options as appropriate.



Colour Coding of Browser Data

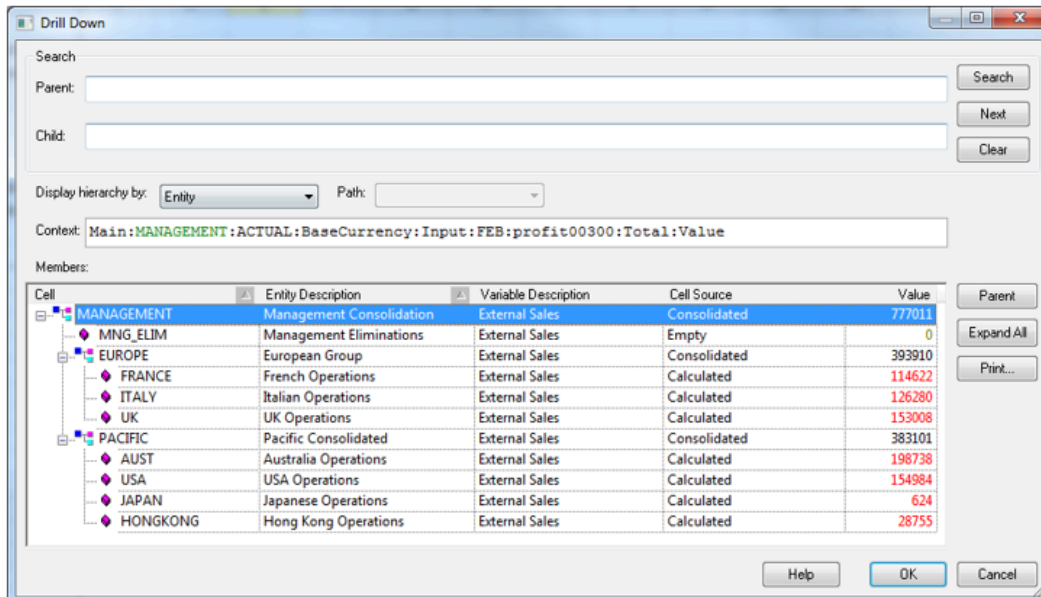
You may notice as you change your browser views, that the data values displayed can have different colours. Cubix uses colour coding to identify the type of value being displayed as follows:

Colour	Meaning
Black	Consolidated Values
Red	Calculated Values
Blue	Input Values
Purple	Intercompany Values
Green	Profile Values (forecasting)
Yellow	Empty cells

Drill Down

Browsers support drill down from calculated or consolidated value to the underlying input level values.

A value in a consolidated entity, such as a Company Total entity, comes from the consolidation of a number of underlying entities. A double click in a browser on any consolidated value will open a Drill Down window showing the values from all the underlying entities that make up the total.



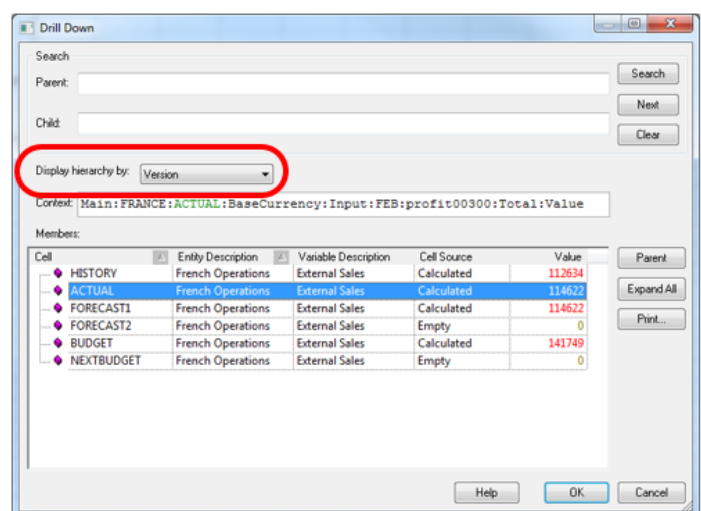
Similarly, a double click on a calculated value will open a Drill Down window showing the underlying values that make up the calculated result.

With a Drill Down window open, you can select any of the rows and click OK to have the browser refreshed to show the data of the selected item.

Drill Across and Drill Up

Using the 'Display hierarchy by:' selection, it is possible to drill across the model to see the same selected data item, by any chosen dimension.

For example, having drilled down from the Management Consolidation total and selected France as the item of particular interest, changing to **Display hierarchy by Version** will display the selected data item alongside the same item from the other versions in the model.



When viewing Drill Down data by entity, it is possible to navigate back up through the hierarchy by selecting the appropriate **Path** (if there is more than one) and clicking on the **Parent** button.

Other Browser Functions

Showing Next Mode

Cubix has three ways of viewing the values in the browser, known as modes (this is not the same as the Mode dimension). These are:

- **Data** This shows you the actual value or result in the browser cells. If Auto Format is activated, the data cells will appear appropriately coloured.
- **Rule** This mode shows you the Calculation Rule that applies to each cell as opposed to the value. This is similar to viewing a calculation's formula in the Formula Bar or Edit Bar.
- **Text** You may apply comments or text notes to any cells. Text mode displays the text associated with browser cells.

Double click in cell B10 to toggle through the three modes. Alternatively, select the option **Data/Rule/Text** in the Analysis group of the ribbon.

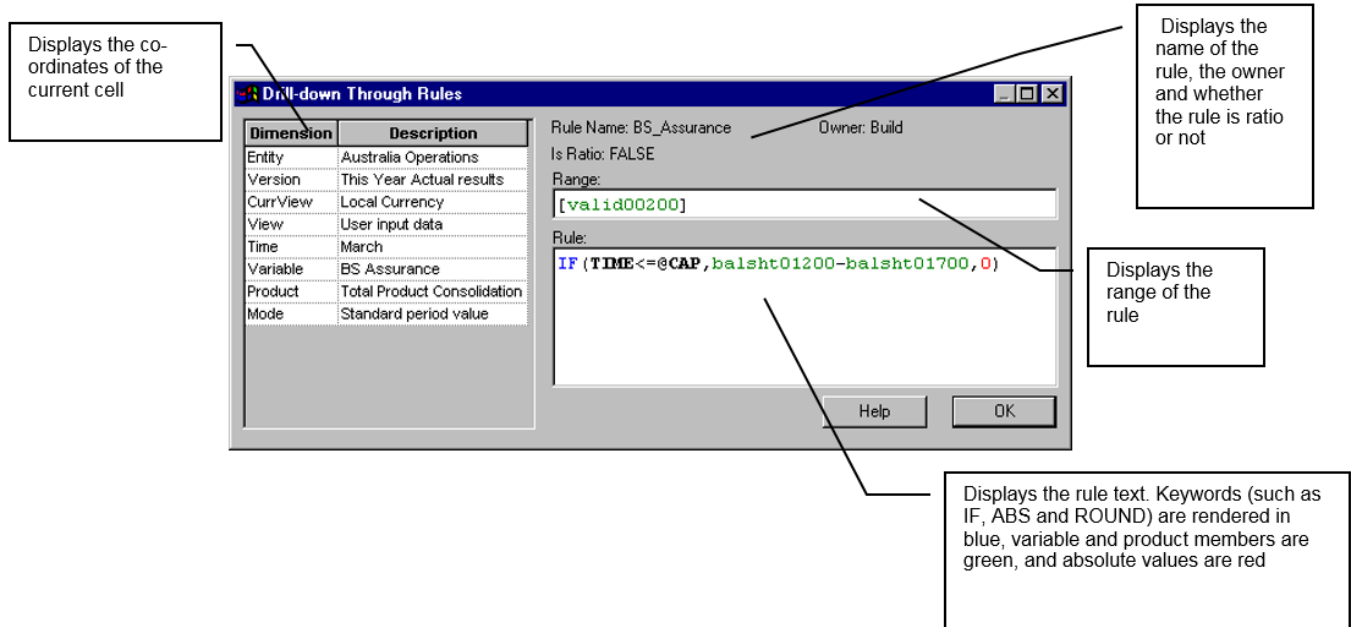
For example, Rule will show the name of the rule that applies in each cell for the current browser, such as in the following diagram:

	A	B	C	D	E
1	Entity	United Kingdom		<u>Database:</u>	Sample
2	Version	Current Year Actual		<u>Path:</u>	C:\Cubix\Models\
3	CurrView	Local Currency		<u>User:</u>	Build
4	View	User Input Data			
5	Time	Column			
6	Variable	Row			
7	Product	Total			
8	Mode	Standard Period Value			
9	Calced	Rule			
10			#Jan	Feb	Mar
11		Revenue			
12		Sales	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
13		Other Revenue	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
14		Total Revenue	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
15		Cost of Sales			
16		Materials	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
17		Labour	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
18		Total Cost of Sales	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
19		Gross Margin	PRODUCT_CONS	PRODUCT_CONS	PRODUCT_CONS
20		Gross Margin %	GM_pct	GM_pct	GM_pct
21		Operating Expenses			
22		Sales & Marketing			
23		Salaries & Wages			
24		Commissions			
25		Advertising			
26		Other			
27		Total Sales & Marketing	Total_Sales_Mark	Total_Sales_Mark	Total_Sales_Mark
28		General Expenses			

Browser rule view

Viewing Rule Text

If you are looking at the rule view in the browser and you want to know the actual contents of a rule, you can “drill-down” by Double-clicking on the rule name. This will open the Drill-down Through Rules dialog box.



When you have finished examining the rule, click OK to close the dialog box and return to the browser.

Refresh Browser

A browser shows the data at the time it was opened, created or changed. If it has been open for a while and other users may have been loading or changing data in Cubix, you may want to refresh your browser to ensure it is displaying the most up to date information.

In the Analysis group in the ribbon select Refresh Browser

Creating Saved Views

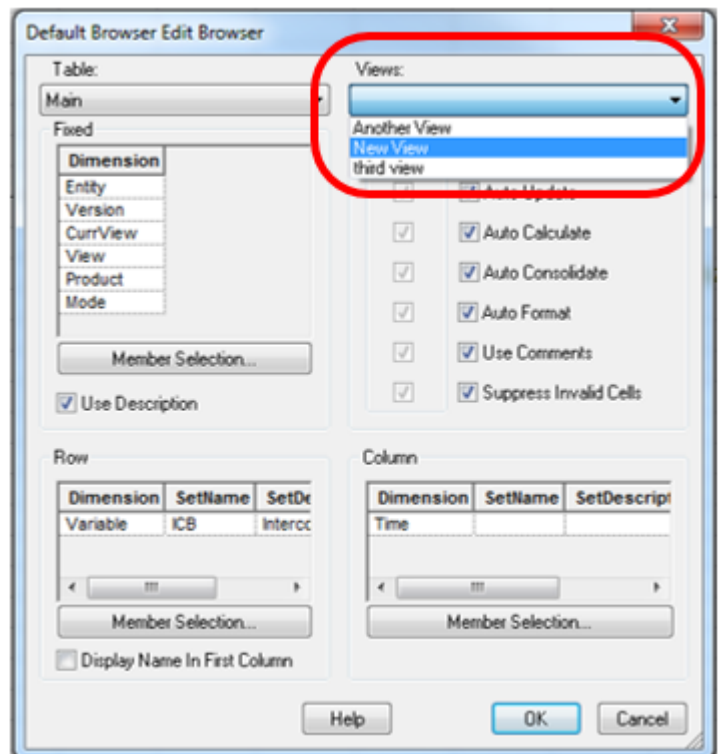
Views are user defined and stored browser settings. They allow regularly used browser layouts to be saved and easily recalled at any time.

Views are used when creating or changing browsers. In the **Edit Browser** window, they can be selected from the **Views** list and on clicking OK, that browser will be created or updated with the settings as defined when the view was created.

Using views is a very efficient way of working with browsers as it enables very quick changes to pre-defined layouts without the need to open multiple workbooks.

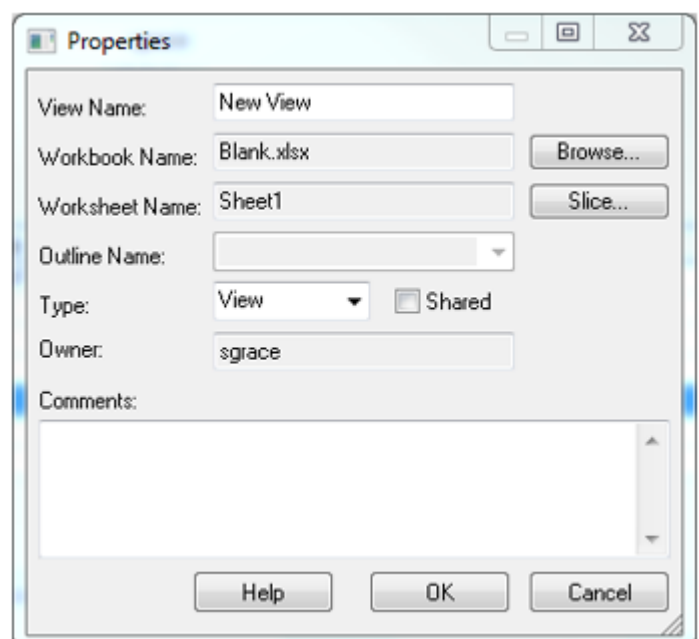
To Create a View

- Open a blank workbook
- From the Analysis group in the ribbon, select **Browser Manager**.
- Click Add and click on **No** to the message "Do you wish to create a new workbook for the new browser?"
- OK to continue.



A Properties dialog box will appear. Enter a name for the view

- For Type, ensure **View** is selected from the drop-down list
- Click Slice to set the dimensions for the view
- By default, views are associated to individual users, however, they can be shared with all users by ticking **Shared**.
- Click OK to confirm your selections and create the new view. This will not open a browser or view on the workbook, however, it will be available for you when you next create or change a browser.



The difference between a Browser and a View

- A Browser is an Excel workbook with a direct link to the Cubix data

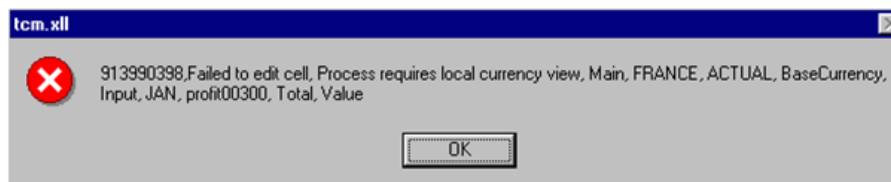
- A View is a definition for the layout of a browser
- Multiple browsers can be opened at the same time, but each one resides on a different worksheet or workbook
- Multiple Views are available for selection in each browser file, but can only be selected one at a time within each individual browser file.
- A View can only be opened as part of a browser. A view cannot be highlighted from the manager window and opened directly.

Editing Data

The Browser link to the data in the Cubix model is a two way connection. As well as viewing the data already in the model, browsers can be used to edit and submit data into Cubix. There are certain restrictions and controls applied to data entry. It is governed according to some or all of the following:

- **Data Locking.** Combinations of Entity and Versions can be locked, preventing any changes to data.
- **Protection.** Any entity and version data can be temporarily protected by a user to prevent other users making any changes. (Usually applied for short term use only).
- **Calculated Cells.** It is not possible to enter data into cells which contain a calculation rule.
- **Consolidated Data.** It is not possible to enter data into consolidated entities.

If you attempt to edit values during one of the above circumstances, an error message similar to this will be displayed:



This message indicates that you may not edit the browser while in **Base Currency** view. In this situation, you would need to change the browser currency view to **Local Currency** before editing values.

Entering Data in a Browser

Data can be entered into Cubix by typing a value directly into a cell on a browser sheet. As soon as you press Enter, the value you typed is sent to the database and if the browser is set to auto-calculate, it will refresh any affected calculated values.

Entering values to a range

When pressing enter on a single value, that piece of data is submitted directly to the database. However, some Excel functions relating to entering and editing values behave slightly differently in that the changes will occur on the face of the spreadsheet but will not automatically update the Cubix database. In particular, when you paste values onto a browser sheet, they are initially merely placed on the Excel sheet.

There are two Cubix functions, **Set Range** and **Empty Range** which are used to handle this situation.



Set Range

To send a range of data into Cubix, highlight the range on the excel sheet and click the **Set Range** button.

Empty Range

The **Delete** key is another function that does not directly communicate with the underlying Cubix database. If you try to delete some values from the face of a browser using the Delete key, they will disappear from the sheet, but will not be removed from the database. The next time the browser is refreshed, the values will re-appear.

To remove values from the database, highlight the range on the excel sheet and click the **Empty Range** button.

! As with any function that deletes or removes data, take care when using Empty Range. It will remove any data in the highlighted range and once it has gone, it has gone unless you have an earlier backup file.

* As with entering values directly in a browser, Set Range and Empty Range will not work if the selected data is locked or protected and will not work on calculated or consolidated data.

Clearing Data from Cubix

Zero versus empty data

There is a distinction in Cubix between a zero value and an empty cell. A zero value can be entered and is recognised as valid data. An empty cell, will display as zero in a browser or report, however, it is not the same as a zero value. This distinction is particularly important when it comes to handling Year To Date values and calculations.

If a cell is empty, the Year To Date value from the previous period will be carried forward as the Year To Date for the current period. If, however, the current period Year To Date has been entered as zero, the previous period Year To Date will effectively be reversed to give the Year To Date value of zero.

See [Other Browser Functions](#) for details of the colours used to signify the different data in a cell.

Emptying a range of data

Similarly to how a range of entered values needs to be **set** to send them to the Cubix database, there is a particular function to clear a range of data.

The **Delete** key does not remove values from Cubix. If you try to delete some values from the face of a browser using the Delete key, they will disappear from the sheet, but will not be removed from the database.

To remove the data completely from Cubix, in a browser, highlight the range of data to be cleared and select **Empty Range** from the ribbon.

Emptying Large Selections Of Data

The Empty Range function allows you to remove data for any cells that exist in an open browser. If you need to remove a large amount of data this can be very inefficient because it would require either a very large browser or for you to keep changing browser selections and emptying smaller sets of data. There are two other options available for emptying some or all of the data in a Cubix model.

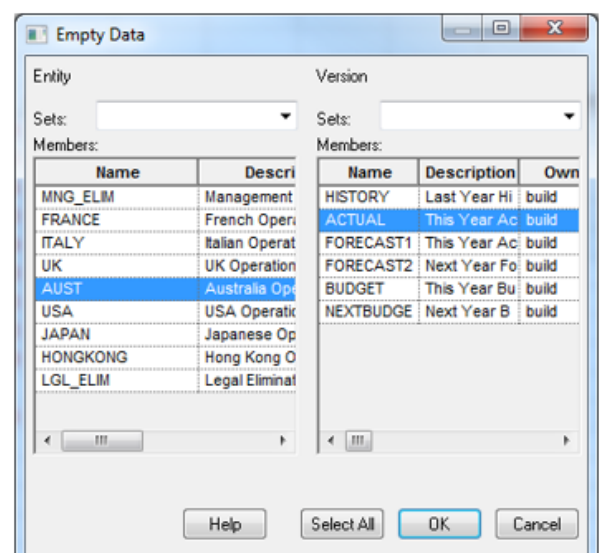
Empty Version enables you to remove all data for one or more entities, for one or more versions.

From the ribbon click the **Empty Version** button.



In the Empty Data window select one or more entities and one or more versions. Use the Select All button if necessary.

Click OK.



The **Empty Selection** function allows you to be more specific as to which data is to be emptied.

From the ribbon click the **Empty Selection** button.

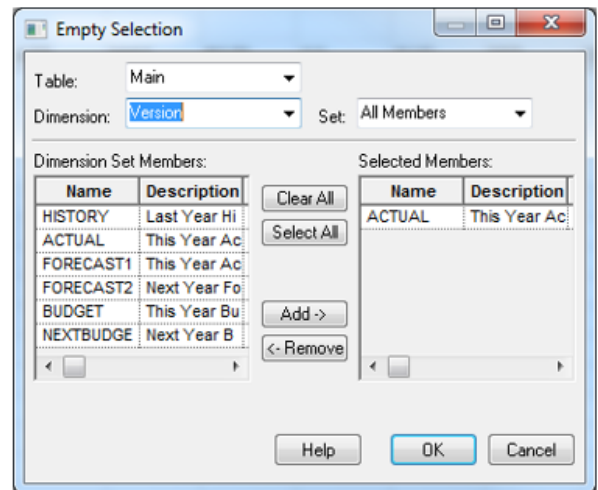


In the Empty Selection window, choose each dimension in turn from the **Dimension** drop-down and make your selections of dimension members to be emptied.

All the available dimension members are shown in the left hand list and those selected to be emptied are shown in the right hand list.

Use the **Clear All / Select All** and **Add-> / <- Remove** buttons to make your selections.

When you have selected all the combinations for the data you wish to clear, click OK



The Empty Version and Empty Selection functions should be used with care. Once the data has been removed it can only be recovered from back-up files.

Calculating and Consolidating Data

By default, if Auto-Update or Auto-Calculate are selected as browser options, Cubix will re-calculate and if necessary re-consolidate data every time the browser is refreshed.

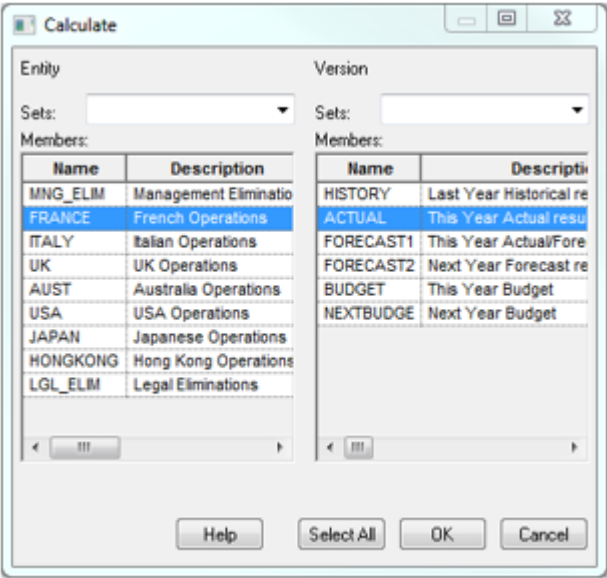
That calculation, however, is limited to only what is required to correctly display the browser. If, for example, your browser is only displaying one of a number of products, only calculations relating to that one product will be performed, until the browser view is changes such that a different product is displayed. You can, however, force a calculation of all data at anytime.


Calculate Data

On the Cubix menu click **Calculate**.  Calculate

The selection window that opens allows you to choose which entities and which versions to calculate. All selected entities and versions will be checked and any requiring re-calculation will be processed.

If your browser is set not to Auto-Calculate, you can also force a re-calculation of the displayed data browser by double clicking on cell A9



 If cell A9 says **Uncalced**, this indicates that some data has changed and the browser needs to be re-calculated to reflect the change.

Consolidate Data

The calculate option performs a full recalculation of all rules in the selected input and/or elimination entities. It does not have any impact on the consolidation level entities in the model. To update these, a separate calculation & consolidation must be performed.

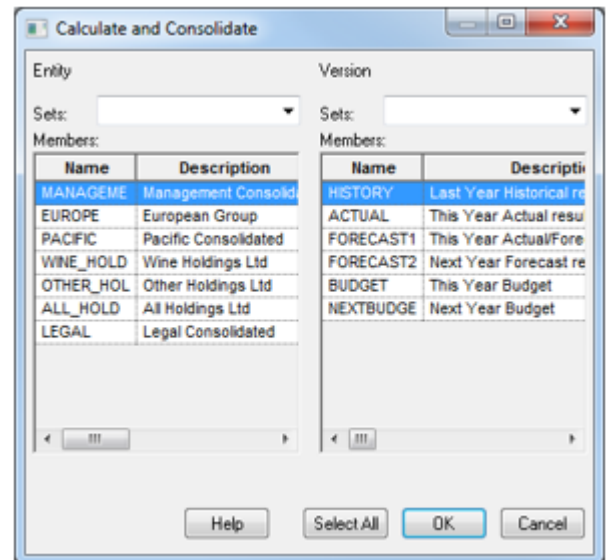
As with calculate, a consolidate process will automatically take place if a browser includes a consolidated entity in its display and it detects that something has changed that will affect that consolidated data.

Click on the **Consolidate** button in the ribbon.



Notice that the consolidate window only shows the consolidation entities in the left hand pane. This process will also perform a recalculation of all underlying entities where Cubix has detected data changes since the last calculation.

Consolidation will be performed up to the level selected. If the top level entity is selected, the whole model, including sub-consolidations will be consolidated. If just a sub-consolidation entity is selected, only entities up to and including that level will be affected.



! If your model has more than one consolidation path, make sure at least the top level entity for each path is selected if you wish to perform a full consolidation.

Currencies and Exchange Rates

Cubix includes a currency module to convert original local currency data to a base reporting currency and further consolidation currencies if required.

The conversion functionality handles any number of currencies and conversion rate types and can also be configured to automatically calculate exchange differences.

If the currency module has been enabled, your model will have both a **Local Currency** view and a **Base Currency** view. It may also have additional Currency views if they were configured as part of the model design. If the currency module is not enabled in your model, you will only have one Local Currency view for all data.

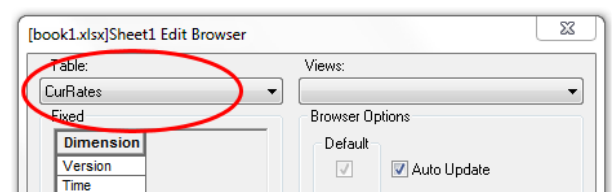
! It is possible to view the data for all all entities in Base Currency. In Local Currency, it is only possible to see the data form Input and Elimination type entities. Selecting a Consolidated Entity and Local Currency view will not display any data as this is an invalid data combination. It is not meaningful to consolidate multiple different local currencies.

The Currency Table

Exchange rates in Cubix are stored in a table called **CurRates**, separate from the Main data table.

The 'Currency Rates' table provides the conversion rates for all currency calculations. It contains four dimensions. These are: **Version**, **Time**, **Rate Type** and **Currency**

The Currency Rates table is accessible via a browser, in the same manner as a main table browser. Select the CurRates table.



	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4										
5										
6	Currency	Column								
7	RateType	RateType	Opening rate							
8	Version	Version	This Year Actual results							
9	Time	Time	Input Months Only							
10			Data							
11										
12										
13										
14	March			1	0.7903	91.9519	1.2633	0.542	1098	1.26
15	#April			1	0.791	92.102	1.2622	0.5431	1086	1.27
16	May			1	0.7875	92.2822	1.2678	0.5426	1099	1.22
17	June			1	0.7947	91.8918	1.2563	0.5427	1143	1.22
18	July			1	0.7859	91.5815	1.2544	0.5418	1110	1.21
19	August			1	0.7945	92.082	1.2567	0.5401	1101	1.23
20	September			1	0.7951	91.5314	1.2557	0.5412	1106	1.24
21	October			1	0.7956	91.1411	1.2549	0.5417	1087	1.22
22	November			1	0.7959	90.9609	1.2544	0.5419	1076	1.24
23	December			1	0.7976	91.051	1.2518	0.5419	1092	1.23
24										
25										
26										
27										

Exchange Rate Input

Values are entered into Cubix for each exchange rate for each **Rate Type**, **Version**, **Currency** and **Time** period.

The **Base Currency** value is calculated by taking the **Local Currency** value and dividing it by the appropriate exchange rate value from the currency table.



The configuration of which entities use which local currency and which variables are converted using which rate types is all managed as part of the model design and build. See [The Currency Module](#)

The only requirement of an end user is to ensure the exchange rate values are entered into the CurRates table.

FX Variables

Exchange differences resulting from the conversion of local currency values with differing rate types can be automatically calculated in Cubix. The differences are calculated on special variables, identified by being named 'FXcalcvar', where 'calcvar' represents the name of an existing calculate variable where the exchange difference needs to be included. See [Exchange Differences](#)


In the example below, Shareholders' Equity is affected by an exchange difference. This is calculated on the variable **FX_BS3010** and shows in the Base Currency column.


	A	B	C	D	E
1	Entity	Australia			
2	Version	Current Year Actual			
3	CurrView	Column			
4	View	User Input Data			
5	Time	January			
6	Variable	Row			
7	Product	Total			
8	Mode	Standard Period Value			
9	Calced	Data			
10		Variable	CurrView	LOCALCURRENCY	BASECURRENCY
11	BS_3000	Net assets		687,846	443,772
12	BS_22	Equity			
13	BS_3001	Share capital		880,965	568,365
14	BS_3002	Share premium account		0	0
15	BS_3003	Retained earnings		0	0
16	BS_3004	Current Period		-193,119	-127,052
17	BS_3005	Other reserves		0	0
18	FXBS_3010	FX on Shareholders equity			2,459
19	BS_3010	Shareholders' equity		687,846	443,772
20	BS_3015	Non-controlling interests		0	0
21	BS_3999	Total equity		687,846	443,772
22					

Locking and Unlocking Data

Cubix includes data locking and unlocking functionality which assists in maintaining data integrity. The Lock feature can be used to prevent changes being made to results after they have been finalised.

To Lock Data

To lock the data in Cubix, select **Lock** on the ribbon.  Lock Then select the entities, versions and views you wish to lock and click OK.

 If the model uses validation rules and/or Authorise & Accept control, data can only be locked if it passes validation and has been fully authorised and accepted.

In addition to the user controlled lock, Actual version data is automatically locked by the system when a user performs a Current Actual Period roll (Roll CAP).

To Unlock Data

To unlock data, click the Unlock button on the ribbon.

Security Unlock

Entity

Sets:

Members:

Name	Description
Australia	Australia
USA	USA
Canada	Canada
Brazil	Brazil
France	France
UK	UK
Germany	Germany
GUY	Guyana
HK	Hong Kong
SA	South Africa

Version

Sets:

Members:

Name	Description
History	Prior Year
Actual	Current Year Actual
PrevFcst	Previous Forecast
ActFor	Rolling Forecast
Budget_CY	Current Year Budget
Budget_NY	Next Year Budget
Scenario_NY	Next Year Scenario
FC_Var	Forecast Variance
Bud_NY_Pre	Next Year Budget -
Bud_NY_Var	Next Year Budget -

View

Sets:

Members:

Name	Description
Input	User Input
Adjust	Adjustment

☐ Unlock CAP Only

Help

Select All

OK

Cancel

 Unlock

In the **Security Unlock** screen, select the entities, versions and views to be unlocked and click OK. When unlocking the Actual version, you have the choice of unlocking all periods up to the current period, or just the Current Actual Period (CAP) by ticking **Unlock CAP Only**.

Reports

While the Browser has many benefits, its predefined layout makes custom management reports based on browsers limiting.

However, Cubix provides a number of Excel functions that can be used in any spreadsheet cell to help you create completely customised reports.

Comparing the Browser and Customised Reports

The browser provides an easy to manipulate way to view and enter your data. However, for management reporting purposes it does have some limitations. These include:

- The browser's layout is predefined and cannot be changed.
- Whilst cell formatting can be applied, it is overwritten if the browser view is changed.
- Additional Excel formulae and functionality can only be included on separate sheets or outside the browser data area.

Fulfilling your reporting requirements with the Cubix Excel functions, however, provides many advantages over the browser. These include:

- Presentation. You may layout or arrange your reports in any fashion you wish, utilising your spreadsheet's inherent formatting and graphing capabilities.
- Once created, the same report may be used for each period it needs to be reported. You don't need to re-create the report each time.
- Additional Excel formulae, functions and controls can be added to the report.
- Reports can be managed within the Cubix using the **Report Manager** so that core reports can be easily accessed by all users.

Creating a Report

To create a new report from scratch, start by making sure the relevant Cubix model is open and open a new blank workbook.

Cubix includes a number of Excel based functions that can be used to retrieve data from the database into cells on the report template.

The most widely used of these is the **Get Cell** function which retrieves values. There are also functions that retrieve names and descriptions, set details and member attributes. These functions can be used in conjunction with Excel cell references and other formulae to create very specific yet flexible reports.

Get Cell

The Get Cell function is the most widely used function. It allows any number in your model to be accessed on your spreadsheet.

An example of the syntax for the get cell function is as follows:

```
=TCM_GCV8("Main", "France", "HISTORY", "LocalCurrency", "Input", "Jan", "PL.10020", "Total", "Value")
```

The above rule will return from the **Main** table the monthly **Value** of the **Total** product of variable **PL.10020** in period **January** and **Input** view and **Local Currency** of Version **History** for Entity **France**.


This formula may appear complex at first. Remember, however, that Cubix is a multi-dimensional model and requires a reference to each dimension to get the appropriate value. You might want to think of the formula as a series of coordinates that point to the specific value you are retrieving.

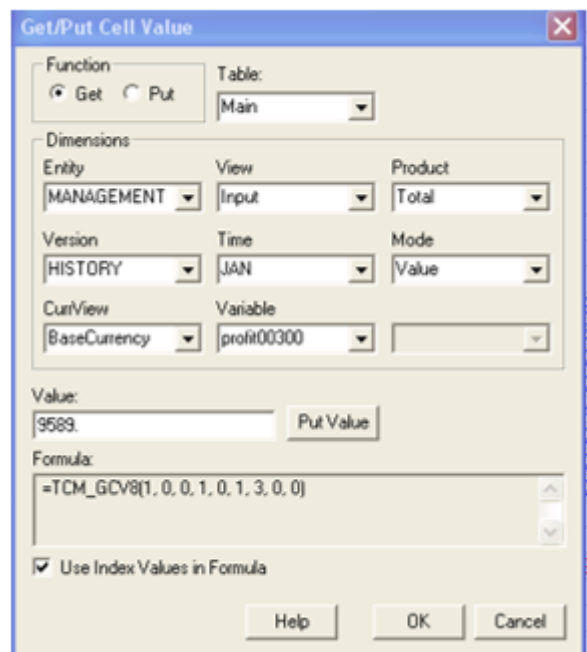
To assist in writing these rules a wizard can be accessed by double clicking on any blank cell in your spreadsheet whilst Cubix is running.

Instead of writing each of the dimension members in the function, they can be selected and the resulting formula will be entered into the chosen cell on the spreadsheet.

Use Index Values in Formula displays the resulting formula as a series of numbers that relate to the position of each dimension member in the underlying Cubix model structure. Un-tick this to display the formula in a more friendly text format.

The Get Cell window can also be opened from the

Cubix menu ribbon by clicking on  Get/Put Cell in the Reporting group.



✿ Each of the dimensions in a Cubix model is initially defined as a list of items. As part of that definition, each item is given a unique name, such as an account number or company code, and a description (or long name). The descriptions do not need to be unique. Cubix also gives each item in the list a number. This index number corresponds to the position of the item in the list and it can be used to reference dimension members alongside or instead of the item's name.

However, you need to be aware that Cubix starts counting at zero. So the first item in a dimension has an index number of 0, the second item has an index number of 1 and so on.

! Index numbers can be useful when designing reports as they can help make reports very flexible, however, they should be used with care, because if the underlying model structures changes, the index numbers for dimension members might change. What was previously item number 11 in a dimension might now turn out to be item number 16. Any references to index number 11 may return incorrect values.

Using Excel Cell References with Cubix Functions

Once you have created your basic Get Cell function, you can enhance its capabilities by using references to Excel cells in place of the 'hard coded' parameters.

Starting with the following formula:

```
=TCM_GCV8("Main","France","HISTORY","LocalCurrency","Input","Jan","PL.10020","Total","Value")
```

The Excel template will show the value for January. But what if you wanted to show the value for February or March or so on in adjacent columns? You would need to create further formulas referencing those particular months.

Rather than writing a new formula for each cell, the one above can be adjusted so that instead of the fixed reference to "Jan", it would refer to a cell in the workbook. Then depending on the contents of the referenced cell, the TCM function would retrieve different data.

✕ ✓ <i>fx</i> =TCM_GCV8("Main","France","HISTORY","LocalCurrency","Input","Jan","PL.10020","Total","Value")												
	A	B	C	D	E	F	G	H	I	J	K	L
1												
2		Jan	Feb	Mar	Apr	May	Jun					
3												
4		9560										
5												

Get Cell formula with fixed parameters

The formula would now look like this:

```
=TCM_GCV8("Main","France","HISTORY","LocalCurrency","Input",B2,"PL.10020","Total","Value")
```

By referencing cell B2, the formula can be simply copied across into cells C4 to G4 and each time it will retrieve data for the month as defined in row 2

✕ ✓ <i>fx</i> =TCM_GCV8("Main","France","HISTORY","LocalCurrency","Input",B2,"PL.10020","Total","Value")												
	A	B	C	D	E	F	G	H	I	J	K	L
1												
2		Jan	Feb	Mar	Apr	May	Jun					
3												
4		9560	9752	9947	10146	10348	10556					
5												

Get Cell formula with referenced paramters

Any of the parameters that make up the TCM Get Cell formula can be replaced with Excel cell references. Whenever the contents of one of the referenced cells changes, any formulas that use that

reference will update and retrieve new values.



Cell references can be the simple address of the cell, e.g. **B2**, can include fixing of rows and/or columns, e.g. **B\$2** or **\$B\$2**, can be on other sheets, e.g. **Sheet2!\$B\$2**, or can be defined range names, e.g. **MthName**



When using Cubix names directly in a formula, the name should be enclosed in double quotation marks ("Jan"). Cell references or range names should not have quotation marks.

Other Useful Report Functions

The TCM_GCV8 function is the most widely used in reports as it retrieves individual values from the database. There are many other functions that can also be used in reports to retrieve other information to help make your reports even more flexible and dynamic.


The most commonly used functions are:

Function	Description
TCM_MemberDescription	Retrieves the description of a dimension member given its name or index number
• Syntax	=TCM_MemberDescription(Dimension, Index Number or Member Name)
• Example	=TCM_MemberDescription("Entity","Aust")
TCM_MemberName	Retrieves the name of a dimension member given its index number
• Syntax	=TCM_MemberName(Dimension, Index Number)
• Example	=TCM_MemberName("Entity",5)
TCM_MemberIndex	Retrieves the Index number of a dimension member given its name
• Syntax	=TCM_MemberIndex(Dimension, Member Name)
• Example	=TCM_MemberIndex("Entity","Aust")
TCM_MemberCount	Returns the number of members in a particular dimension
• Syntax	=TCM_MemberCount(Dimension)
• Example	=TCM_MemberCount("Variable")
TCM_SetName	Retrieves the name of a dimension set given its index number
• Syntax	=TCM_SetName(Dimension, Index number)
• Example	=TCM_SetName("Variable",3)
TCM_SetDescription	Retrieves the description of a dimension set given its name or index number
• Syntax	=TCM_SetDescription(Dimension, Set Name or Index number)
• Example	=TCM_SetDescription("Variable", "PL")
TCM_SetMemberIndex	Retrieves the dimension index number of a member of a set given its set index number
• Syntax	=TCM_SetMemberIndex(Dimension, Set, Member)
• Example	=TCM_SetMemberIndex("Variable", "PL", 5)

Converting Browsers to Reports

A quick way to get started with a new report is to convert a browser.

A browser can be created and sliced and diced until it roughly resembles the layout and data wanted for your report.

Then click on Convert To Report  Convert To Report in the ribbon and each cell in the browser will be changed into an Excel function to retrieve the appropriate data. Once your spreadsheet is populated with formulas, you can start to re-arrange it and add formatting etc. to get to your final output.

 Remember to save your new report file after converting and customising it.

A few things to consider when converting browsers.

- The fixed dimension members at the top of the browser are given range names which are referred to in the cell formulas
- The name and description contents are all converted to use a combination of MemberName and MemberDescription functions. You may decide to overwrite these with fixed values later if appropriate.
- Because each cell has to be processed individually, large browsers can take some time to convert. It is advisable to create and convert a smaller browser first and then use copy and paste to extend the formulas as needed for the final report.

Set Based Reports

In simple reports the contents of rows and columns are to an extent predefined and the Get Cell formulas return data based on specific definitions for each row or column.

For example the rows might contain variables (accounts) and each row of the template is for a particular variable.

However, using sets, it is possible to create reports where the end user can have some choice over what is displayed in the rows and/or columns.

Sets in Cubix are groupings of dimension members that are created as part of the original model design. Once created they can be used in browsers and reports to filter the data or to present it in a certain layout.

A common use of sets is to organise variables into groups such as P&L accounts, Balance Sheet accounts and Cash Flow accounts.

A set based report allows the end user to select which set (or sets) to use on the report. This could be one report in which the user can choose from different account layouts. Perhaps a summarised versus a detailed profit & loss statement or different layouts to reflect different accounting standards.

The design of a set based report is very similar to a simple member based report, except that we use set names and index numbers to determine which items to display.

Consider the following example.

The table below shows a list of variables as defined in a Cubix model alongside two variable sets.

Variable List	
Member Index No.	Item
0	External Revenue
1	Internal Revenue
2	Total Revenue
3	COGS
4	Gross Margin
5	Gross Margin %
6	Employee Costs
7	Marketing Costs
8	Property Costs
9	Finance Costs
10	IT Costs
11	Legal Costs
12	Total Costs
13	EBIT
14	EBIT %

Summary P&L Set		
Set Member Index	Item	Member Index
0	Total Revenue	2
1	Gross Margin	4
2	Gross Margin %	5
3	Total Costs	12
4	EBIT	13
5	EBIT %	14

Overheads Costs Set		
Set Member Index	Item	Member Index
0	Employee Costs	6
1	Marketing Costs	7
2	Property Costs	8
3	Finance Costs	9
4	IT Costs	10
5	Legal Costs	11
6	Total Costs	12

Variables and sets

The variable list shows all the **variable** items and their **member index** number (position) in the master list. The two set lists show the variable items that have been selected for that set, their **set member index** number, i.e. their position in that set and their member index number.

Set based reports are designed such that the first item shown is the first item in the set, the second item shown is the second item in the set and so on, regardless of which set has been selected. Using a combination of formulas it is then possible to get the real index number for each item in the set and therefore use that to only display the items that are included in the set.

Using the example above, if the **Summary P&L Set** was selected, the report would show the items with member index numbers 2,4,5,12,13 and 14 in the first 6 rows of the report, whereas if the **Overheads Costs Set** was chosen, the report would show the items with index numbers 6,7,8,9,10 and 11 in the first 6 rows of the report.

The key functions used in set based reports are:

- TCM_SetMemberIndex – to return the member index number of each item in the set
- TCM_MemberName – to return the member name from the index number
- TCM_MemberDescription – to return the member description from either the index number or name.

Example Set Based Report Setup

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						

Current Set Name

The order of items as they appear in the set.
(value entered into sheet)

The member index number of each item in the set.
Formula:
=TCM_SetMemberIndex("variable","PL",B8)

The member name of each item in the set.
Formula:
=TCM_MemberName("variable",C8)

The member description of each item in the set.
Formula:
=TCM_MemberDescription("variable",C8)

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						

Set Based Report setup



Different sets will likely contain different numbers of members. You should create your report to cater for the maximum number of members needed for the biggest set that will be used. This may result in rows returning **#REF!** when using a set with fewer members than the number of rows on the report. In this situation, Excel conditional formatting works well to hide the display of any cells that are in error.

Fixed Layout Reports versus Set Based Reports

Fixed Layout Reports	Set Based Reports
Can be very simple to create	Slightly more complex to set up
May require maintenance when new dimension members are added in Cubix	Limited maintenance needed if new dimension members are added to Cubix sets appropriately
Very flexible layout. Any value can be placed in any spreadsheet cell	Can be very dynamic, but are based on list of items
Page breaks and print layouts can be fixed to provide consistent printed output	May require additional formatting to manage the display of sets of different sizes

Report Manager

The Report Manager provides a mechanism for storing and linking reports to the Cubix menu ribbon. Doing this offers a number of benefits over just opening Excel report files direct from a local or network location.

- Reports can be organised in categories according to their purpose, making it easier to find the one you want
- Other users can access the reports and you can be sure that they are all using the same version
- Users can immediately see all the reporting options available to them
- Multiple report selections can be made up front and then all reports run in one batch

Setting Up The Report Manager

The Report Manager window consists of 3 sections.

Report Manager

The top part is where you define a reports folder where the Excel report files are stored and an export folder location which is where output files are stored if you select the **Export Values** option when running reports.

The middle section is where you can create report categories. The idea behind report categories is that it helps organise large numbers of reports by assigning them to categories.

The third section is where you set up the parameters for each report in each category. This section should be completed as follows:

Column	Content
Report	The name to be displayed for the report in the category

Name	
Subdirectory	An optional sub folder underneath the main reports folder specified above. Use this if you want to keep each category's report files in separate folders.
File	The actual name of the Excel file for the report.
Create Workbook	If this is ticked an Excel workbook will be created for the report in the Exports folder every time the report is opened.
Entity Selection	<p>When running reports that have been set up in the Report Manager, you have the option of passing parameters relating to each of the model dimensions. So for example, at the time of running the report you can choose which month your are running it for. Or you can choose to run it for a particular product etc.</p> <p>To do this your reports need to be configured to accept the parameters (See Configuring Reports for Report Manager) and you need to specify in Report Manager which parameters are going to be passed. For Each parameter you have the option of:</p> <ul style="list-style-type: none"> • Enable Selection: To allow you to select at the time of running the report • Disable Selection: To prevent selection at the time of running the report • Or to choose a specific member for that dimension which will always be the parameter value passed
Version Selection	
CurrView Selection	
View Selection	
Time Selection	
Variable Selection	
Product Selection	
Mode Selection	



The Report Manager does not create your reports, it merely provides a mechanism for managing them. You still need to design and create your reports as per the instructions earlier in this guide.

Configuring Reports for Report Manager

Any Excel based report can be added to the Report Manager and run from the Cubix menu ribbon, however, to get the most out of it you probably want to enable the report to work with run-time parameter values.

These allow you to set the report so that you can choose certain dimension members when you come to run it.

In the Report Manager you can choose which dimensions are selectable and even predetermine the parameter values to be passed. To complete the setup, in the report files themselves, you need to assign some cells with range names to receive the parameter values.

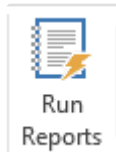
The range names should be defined with the same names as the Cubix dimensions. So the cell receiving the Entity value should be called **Entity**, the cell receiving the Time value should be called **Time** and so on. You can then use these range names in your report design as references for the Cubix formulas so that the data returned is based on the selected parameters.



It may be a good idea to set up these parameter ranges in all your reports as a matter of course. You can choose whether to use them or not, but if you do later decide to add a report to the Report Manager, they will be already configured.

Running Reports

Reports that have been set up in Report Manager can be run direct from the Cubix ribbon menu.



Select **Run Reports** from the menu and the following window will be displayed.

Run Reports

Categories:

Report Category
Budget Reports
Monthly Reports
Weekly Reports

Entity Sets:

Set Name	Set Des
DefaultSet	Default Set
Management	Management

Reports:

Report Name	SubDirectory	F
Budget Sales A	Budget\	Budget Sale
Budget Detail	Budget\	Budget Det
Budget By Prod	Budget\	Budget By I

Entities:

Name	Description	Type
CyclesRUs	Cycles R Us	Input
Group	Group Total	Consolidated
BikeShop	The Bike Sho	Input
Greens	Greens Leis	Input
Harolds	Harolds Dep	Input
Outdoor	The Outdoor	Input
Whealers	Wheeler Cvr	Input

Report Selection:

Entity: Time: April

Version: Year minus 1 Variable: Units per Person

CurView: Local Currency Product: Wheels

View: User Input Data Mode: Year to date value

Buttons: Open, Open As Template, Export Values, Print, Close

Here you can select a category and then select one of the reports from that category. Then depending on the particular configuration for the selected report you can choose your parameters (Time, Version, Product etc.)

One exception to the general parameter selection method is with Entities. Entities are listed in their own pane on the right hand side of the window.

Entity Sets:

Set Name	Set Des
DefaultSet	Default Set
Management	Management

Entities:

Name	Description	Type
CyclesRUs	Cycles R Us	Input
Group	Group Total	Consolidated
BikeShop	The Bike Sho	Input
Greens	Greens Leis	Input
Harolds	Harolds Dep	Input
Outdoor	The Outdoor	Input
Whealers	Wheeler Cvr	Input

You must always select at least one entity to run a report, but you can also select multiple entities. Selecting multiple entities will open and/or export or print a separate copy of the report for each selected entity.

Once you have made all your selections you have four options for actually producing your output.

Option	Function
Open	This will open the report file in Excel with your parameter selections.
Open As Template	This will open the original Excel template file used for the report. (See below regarding use of template files).
Export Values	This will create a new workbook of the report file in the Export folder. All Cubix formulas will be replaced with values so the export can be distributed to non Cubix users.
Print	This will open the report in the background and print the defined print range.

Template Files

Excel allows files to be saved as templates using the .xltm extension. Templates have all the standard Excel functionality, but when a user chooses to open the file, a copy is opened, rather than the original. You will notice this as each copy is given a number when it opens. So if you have a report template called Profit.xltm, when a user opens the file they will see a file called Profit1.xlsx

The benefit of using this approach is that if multiple users are accessing the same reports, there won't be any conflicts if they are trying to open it at the same time and it also helps ensure that users don't alter the original template

Journals

Cubix includes a full double-entry financial journals module.

Use of the journal module is optional per model, and if required it is enabled as part of the initial model design and setup.

With the journal module enabled, the model will have three input views available. **Input**, **Adjust** and **Net**

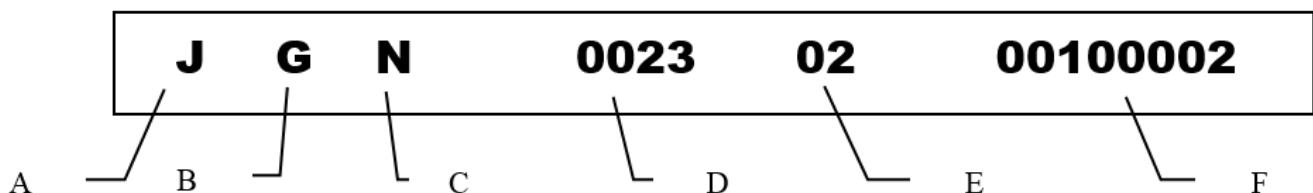
- The Input view is where all original data is stored
- The Adjust view is where all journal adjustments are held
- The Net view gives the result of Input + Adjust

This separation maintains the transparency of adjustment transactions.

To use the journal module, variables need to be fully defined with the appropriate indicator for **Financial** or **Non-Financial** and **Debit** or **Credit**.

Journal Numbering

Each time you create a journal, Cubix generates a unique Serial Number for that journal. The number, composed of several parts, contains information about the journal, as well as the unique serial number. It resembles this:



A	<p>“J” indicates a journal raised within this view.</p> <p>“L” indicates a journal resulting from a linked period</p>
B	<p>“G” indicates a general journal.</p> <p>“I” indicates an ICB journal</p>
C	<p>“N” indicates a normal journal.</p> <p>“R” indicates a reversing journal</p>
D	<p>This number represents the Entity that the journal was raised in. This example, 0023, was raised in the 24th listed entity. Remember that the numbering starts at 0 (zero).</p>
E	<p>This number represents the Version that this journal was raised in. This example, 02, was raised in the third listed version. Remember that the numbering starts at 0 (zero).</p>
F	<p>This number represents a unique Serial Number of the journal for that Entity / Version combination.</p>

Raising and Viewing a Journal

To view the journal status sheet.







1. From the menu ribbon select **Create Journals** from the ICB and Journals group.
2. From the Journal Status dialog box (shown below), select the appropriate options.
3. Once you have selected the entity and the version you want to view the journals for, any relevant journals will be presented in a grid on the right side of the window.

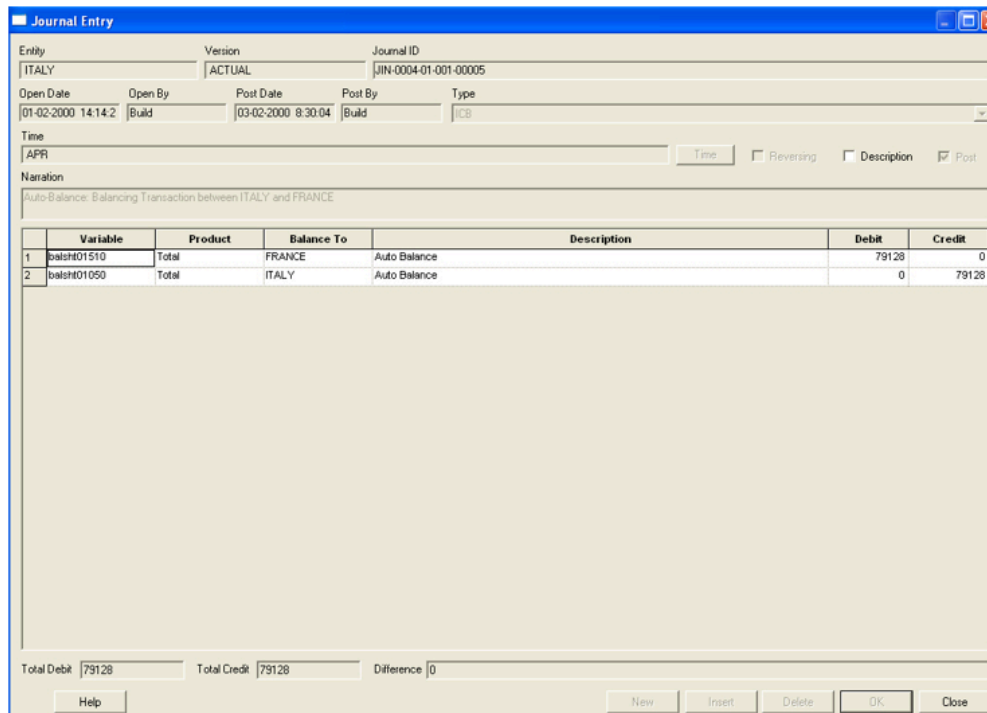
Status	ID	Description	Type	Open Date
1	JIN-0004-01-001-00005	Auto-Balance: Balancing Transaction between ITALY and FRANCE	ICB	01-02-2000 14:14:25
2	JIN-0004-01-001-00004	Auto-Balance: Balancing Transaction between ITALY and FRANCE	ICB	01-02-2000 14:14:25
3	JIN-0004-01-001-00003	Auto-Balance: Balancing Transaction between ITALY and FRANCE	ICB	01-02-2000 14:14:25
4	JIN-0004-01-001-00002	Auto-Balance: Balancing Transaction between ITALY and FRANCE	ICB	01-02-2000 14:14:25
5	JIN-0004-01-001-00001	Auto-Balance: Balancing Transaction between ITALY and FRANCE	ICB	01-02-2000 14:14:25

- From the Entity Sets drop-down select an Entity Set to view.
- The Input/Elimination Entities window presents a list of entities in the selected set. Click an entity to view or raise a journal for that entity
- From the Version drop-down select which version you want to view or raise a journal for.
- From the Sort by drop-down select how the Journals will be listed.

The Status of the journal is expressed graphically in the Status column of the display. The various symbols have the following meanings:

Symbol	Meaning
	Not balanced
	Balanced, but not posted
	Posted
	Voided

To view the full journal details, select the journal you wish to view and click **Open**. The full journal with all its entries will be displayed.



The screenshot shows the 'Journal Entry' window with the following details:

- Entity:** ITALY
- Version:** ACTUAL
- Journal ID:** JIN-0004-01-001-00005
- Open Date:** 01-02-2000 14:14:2
- Open By:** Build
- Post Date:** 03-02-2000 8:30:04
- Post By:** Build
- Type:** ICB
- Time:** APR
- Reversing:** ☐ **Description:** ☐ **Post:** ☒
- Varation:** Auto-Balance: Balancing Transaction between ITALY and FRANCE

	Variable	Product	Balance To	Description	Debit	Credit
1	balsh01510	Total	FRANCE	Auto Balance	79128	0
2	balsh01050	Total	ITALY	Auto Balance	0	79128

Total Debit: 79128 **Total Credit:** 79128 **Difference:** 0

Buttons: Help, New, Insert, Delete, OK, Close

To raise a new journal.



1. From the menu ribbon select **Create Journals** from the ICB and Journals group.
2. From the Journal Status dialog box (shown below), select the appropriate options.
3. Click **New** to open a new empty journal details screen.



If the New button is disabled, it suggests that your selection of entity and version is not available for journal entry. Probably because that particular combination is locked. Unlock the data to enable journals to be created.

- Click Time to display a list of available time periods. Select one of these, and then click OK.
- The

Reversing checkbox creates an automatic reversal of the current journal when the journal is posted. Clear the Reversing checkbox for a Normal journal.

- The **Description** checkbox displays member descriptions rather than the short names. For example, “JAN” would become “January”.
- The **Post** checkbox informs Cubix to automatically post this journal when completed.
- From the **Type** drop-down, select whether the journal will be **General** or an **ICB** (For inter-company balance adjustments & eliminations).
- Type a **Narration** to describe the purpose of the journal.
- Double-click the **Variable** field to display a selection of all Variables. Select one and click OK to return to the Journal Entry screen.
- Double-click the **Product** field to display a selection of all Products. Select one and click OK to return to the Journal Entry screen.
- The **Description** field is similar to Narration, but allows line level transaction description. (Narration, in contrast, covers all of the transactions involved in the journal).
- In the **Debit** field, enter the value that you want as the debit side of the journal.
- In the **Credit** field, enter the value that you want as the credit side of the journal.
- For ICB type journals only, double-click the **Balance To** field (not shown in screen shot above) to display a selection of all ICB entities. Double-click one of these to balance the ICB journal to this entity.

When you have finished entering the first line of the journal, press the TAB key on the keyboard or click **New** to add the next line of the journal.

Repeat this process until you have all the required lines for your journal. The “Total Debit” and “Total Credit” values at the bottom of the input screen should balance and the “Difference” should be zero.

When you have completed your journal, click **OK** to return to the journal status screen box. You will now see your new journal on the list and its status will reflect the way it was completed.



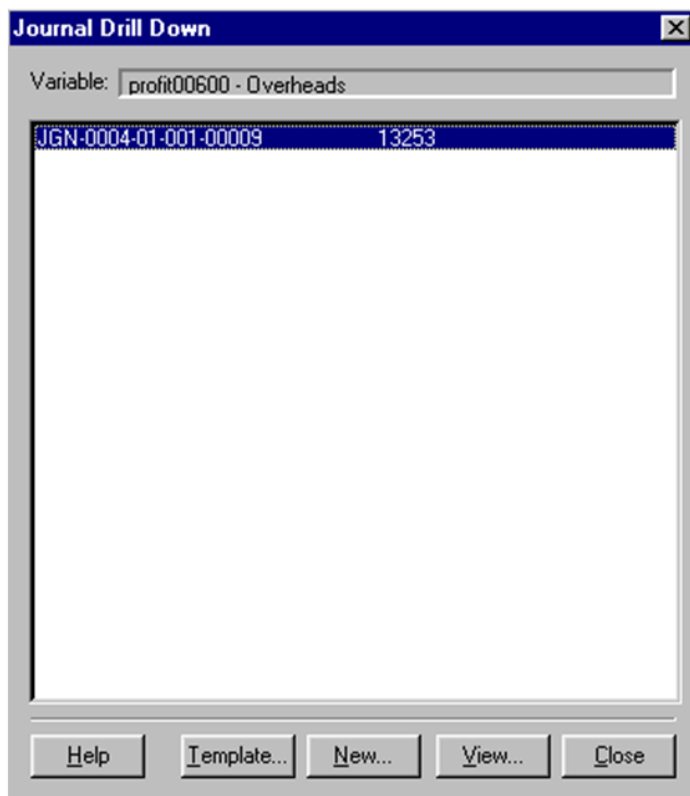
Remember that the journal will not take effect until it is posted. If you had ticked the **Post** checkbox in the journal input screen, it will have been posted when you completed it. Otherwise it will be waiting to be posted.

Journal Drill Down

When you double-click a cell in the Adjustment sheet, this activates the **Journal Drill Down** function, but only if the cell has had an adjustment made to it.

If you double-click a cell that has no journal information applied to it, it will display the journal entry dialog box – you may add a new journal entry in this way.

If you double-click a cell that does have journal data available, the **Journal Drill Down** window will appear.



This presents you with the journal ID number and the value for that variable. Click **View**, to display the full details of the journal entry.

It is possible to add a **New** journal entry here. It will automatically use the Entity and first Variable line as per the existing journal.

If suitable journal templates have been set up, you may also add journal entries via a template here.

Posting A Journal

If a journal is balanced it is ready to be posted.

To post a journal

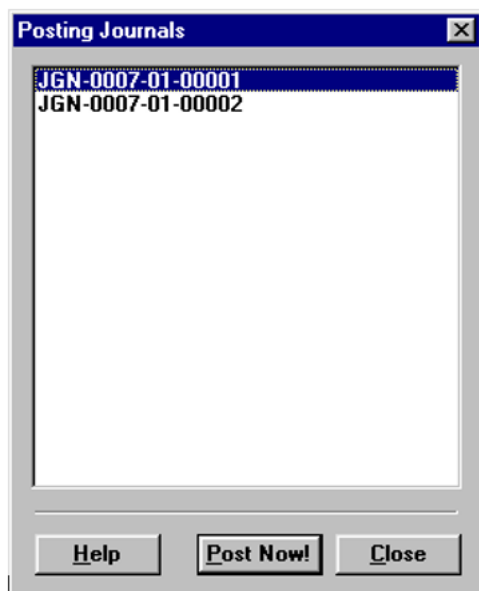
From the menu ribbon, select **Create Journals**.

Select the appropriate Entity and Version

Click **Post**

From the list of journals that appears, select the ones to post and click **Post Now**.

! Only appropriate valid Journals will appear in this list. This means they must balance and be during or prior to the CAP (Current Actual Period).



Cancelling and Voiding Journals

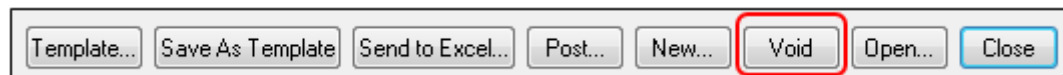
To maintain the journal numbering sequence and audit trail, it is not possible to cancel any journal except for the last on the list.

To cancel any other journal would interfere with the strict numbering system.

If you select the last journal on the list, the third button from the right will become the **Delete** button. If you click this, you can delete the journal.



If the selected journal is not the last on the list of journals, the same button will become the **Void** button. This implies that you are unable to cancel the entry, but you can make it void. It will have no effect, but it will still exist in the list and maintain the numbering sequence.



Once an entry is void it can no longer be altered in any way, although you will still be able to print and view it.

If a journal has already been posted, the Cancel and Void options will be unavailable. No further changes are possible to a posted journal.

Creating Journal Templates

If you have a number of journals that are the same each month, with the same entry lines, and even with the same values, journal templates could be very useful.

Journal templates are based on existing journals. Each time you want to raise a journal based on that template, the lines and values will be automatically populated based on the saved template. You may want to change the period and the amounts for the journal, but that will be all that is needed.

To save a journal as a template

From the **Journal Status** window, select an existing journal. You can click on **Open** to review the contents.

Click **Save As Template** and enter a name for this particular template that you can refer to each time you want to use it.



Although you may have created the template based on a journal for a specific entity, once it is saved, the template can be applied for any entity.

Applying Journal Templates

To raise a journal based on a template, select the **Create Journals** option from the menu ribbon.

Click **Template** to display the Journal Templates dialog box (shown below), showing those templates available for the Entity and Version combination chosen.

	Name	Description	Type	Occurance	Owner
1	Template3	Template No3 description goes here	General	Normal	Build
2	Template4	Journal template 4	General	Reversing	Build

If there are any predefined templates available, grouped in sets, select the appropriate set.

Select the **Use Description** checkbox to toggle between descriptions and short names for the templates.

Select the template that you want to apply, and click **Apply** to have that template journal create the journals.

To see the Details of the journal before you create it, you can click **Detail** to display the lines of the journal template

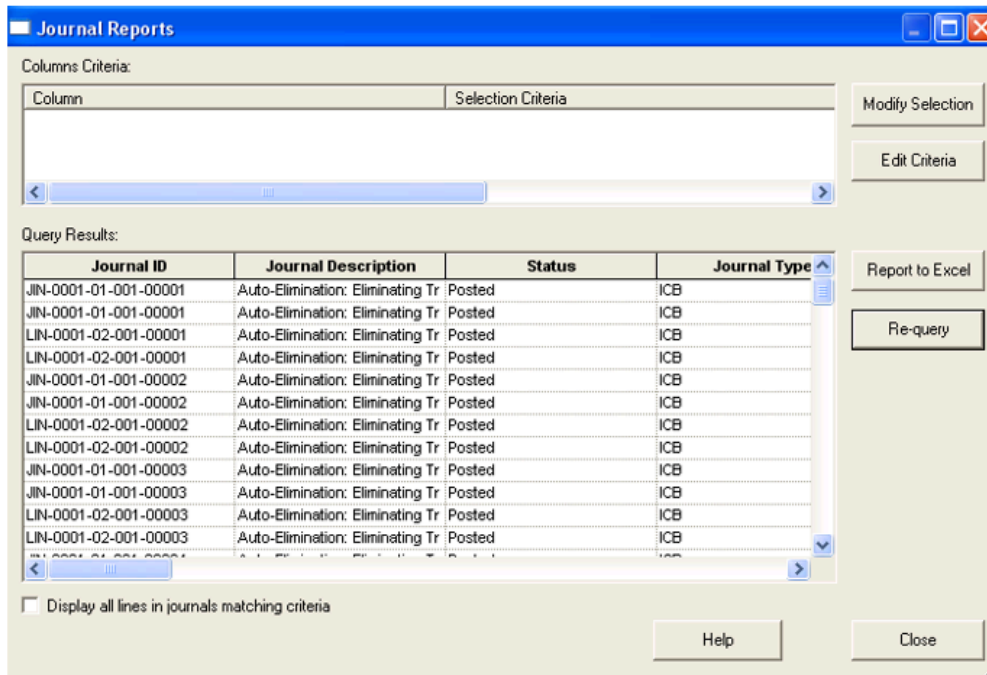
	Variable	Product	Description	Db/Cr	Source
1	profit00100	Wine	Description for Entry #1 goes here.	Credit	Cell
2	profit00100	Wine	Description for Entry #3 goes here.	Credit	None
3	profit00320	Wine	Description for Entry #5 goes here.	Credit	None

When you click **Apply** the template dialog box will close and return you to the journal status window. The new journal entries will be listed.

Journal Reporting

Journal reporting allows users to list details of journals and filter those lists based on specific criteria.

To create a journal report select **Journal Reports**  **Journal Reports** from the menu ribbon. The journal reports window will display.



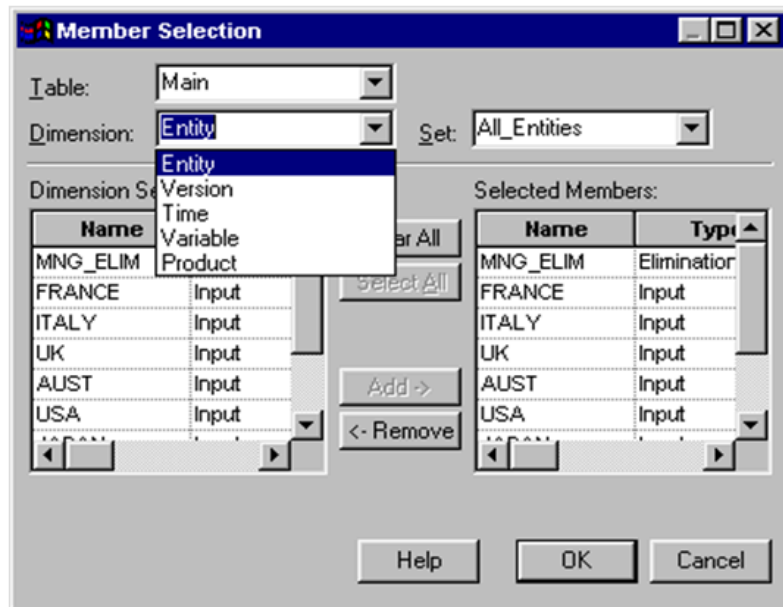
There are two sets of selections that can be made before this list of journals is displayed in the query results area of the window.

Modify selection

This allows you to specify which elements of the data should be included in the journal report. i.e. which entities, which versions, which time periods and so on.

By default, the selection is set for all entities, for the Actual version for the first time period. If you have no journals raised for that particular combination, the the report will not display anything.

Clicking on the **Modify Selection** button, enables you to work through each dimension in turn, selecting the members that should be included.



Within whichever Dimension required, click on the **Clear All** button in the centre, or highlight individual names within the **Selected Members** box on the right-hand side and click on the **Remove** button.

Highlight as many members as required from the **Dimension Selection** box on the left-hand side, then click on the **Add** button in the centre.

Once your selections have been made, click on the OK button.

Add criteria

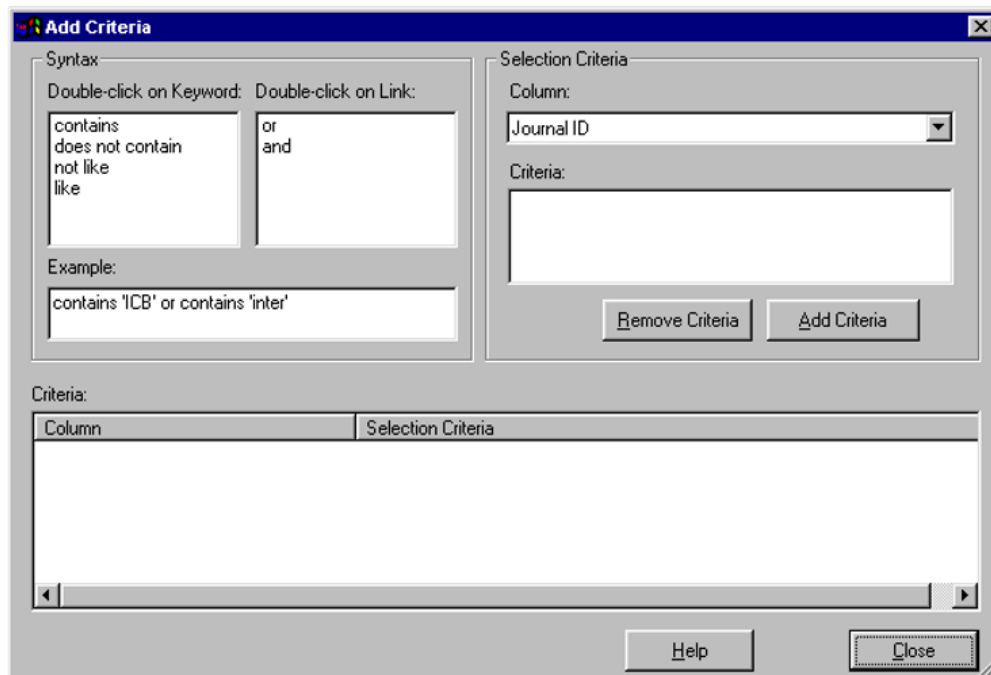
The criteria here allows for extra filtering on the data from the selected dimension members.

Once the selections and criteria have been set, click **Re-query** to populate the list of journals that match the settings.

The report can be exported to an Excel worksheet by clicking on the **Report to Excel** button.

Data Filtering

Adding data filtering to either the Journal or ICB reports uses the following window.



To compile your Criteria selection, first choose an item from the Column drop-down list (e.g. Journal ID). If you select one of the following items, the Criteria area will display a drop-down list:

- Status
- Journal Type
- Journal Occurrence.

There are limited options for these fields. Highlight the items required, click on the **Add Criteria** button and your choices will appear in the Criteria area at the bottom of the window.

You may Add as many Criteria items as you wish – as long as it remains a logical search.

If you are selecting date fields (Open or Post), you must select the **Start** and **End** dates for the journal search.

All other Column fields will display the Syntax area. Double click on the Keyword required and then type in what you wish the search to be based on.

You do not need to worry about punctuation or spaces, as the system will automatically add in whatever is required.

If you wish to base the search on more than one item, double click on the appropriate Link word and then repeat the procedure for Keywords.

When a section of the search is based on more than one word in one line (e.g. when using Contains or

Not Like) the text you type in must have inverted commas around it. For example, 'testing journal' as below:

Column	Selection Criteria
Journal Description	not like 'testing journal'

Once complete, click on the **Add Criteria** button for your choices to appear in the Criteria area at the bottom of the window.

Syntax

There are a number of considerations when compiling your Selection Criteria. The Syntax chosen must be logical and you should attempt to create a 'sentence' that does not result in the exclusion of all journal entries.

For example, if you made the following selection:

Edit Criteria

Syntax:

Double-click on Keyword: contains
does not contain
not like
like

Double-click on Link: or
and

Example:
contains 'ICB' or contains 'inter'

Selection Criteria

Column: Journal ID

Criteria: contains 0003 and contains 0008

Remove Criteria Add Criteria

Criteria:

Column	Selection Criteria
Journal ID	contains 0003 and contains 0008

Help Close

This would result in a blank display in the Journal Report area. The aim here may have been to display Journals for entity 0003 and entity 0008, but the syntax indicates that you want a Journal ID that shows both entities which is impossible. The Link word in this case should have been **or**. Note that in this instance you could also have used the Modify Selection option and specified these 2 entities.



There is an alternative method of selecting specific column criteria. In the Journal Reports screen, click your right mouse button whilst the cursor hovers over whichever column it is you wish to set criteria for. Select the **Edit Criteria** option. This will take you to the normal dialog box, but with the relevant Selection Criteria immediately available.

Intercompany Balances (ICB)

Cubix includes an Inter Company Balance (ICB) module which enables identification and elimination of all inter-company or business trading activities and balances to produce consolidated enterprise results.

If it is required, the ICB module is enabled as part of the initial model design and the variables to be treated as inter-company, along with the rules for processing and balancing them are defined at that time.

In brief, ICB processing works as follows:

- For the defined ICB variables, each entity's data is entered against a partner entity.
- Each ICB variable must have a paired variable. This can be another ICB variable or it can be itself.
- When ICB matching takes place, the values for each pair of variables are compared across the entities with Cubix performing currency conversions as necessary to reconcile the data in the Base Currency.
- For entity & variable pairings where the values don't match, journals can be raised to adjust one side of the ICB transaction such that it matches, the other side of the adjustment being posted to a non ICB variable.
- The Auto-Balance feature can be used instead of manually raising journals. This feature will automatically raise and if requested, post balancing journals according to some predefined rules.
- Once balanced, journals can be created and posted to eliminate ICB values at the appropriate consolidation level. These can be created manually or using the Auto-Eliminate process.

Viewing the ICB Table

The ICB values and differences are stored in a dedicated table within Cubix.

This **ICB** table is similar to the Main data table in that it is made up of a number of dimensions, and indeed it shares some of the dimensions of the main table. However, there are some important differences.

ICBEnt1 is the entity in whose books the value is entered: the 'From' entity.

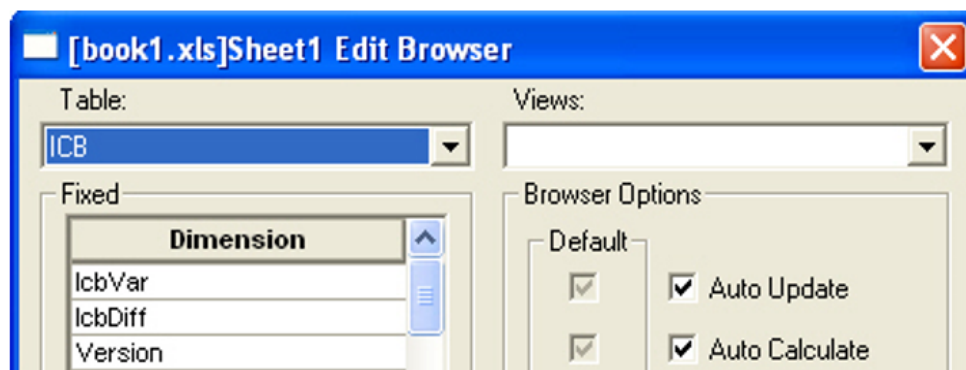
ICB Ent2 is the partner entity they are selecting the value for: the 'To' entity.

ICBVar is similar to the variable dimension, but only contains ICB type variables.

ICBDiff shows either the original value or the calculated matching difference.

The data in the ICB table can be viewed in a browser, just like the data in the main table. Create a browser, but instead of using the main table, select the ICB table.

Then complete your selections from the available dimensions.



You cannot edit the table in the same way as you would the other tables. The appropriate cells need to be double-clicked to enter data.

The View can be navigated in the same way as all other tables – using the Slice 'n' Dice option or double-clicking a Member to access the Member Selection dialog box.

Entering ICB Data

ICB data can be manually entered into Cubix via a browser. This can be a browser on either the main table or the ICB table.

Unlike with normal Cubix data, you cannot enter ICB data directly, by just typing in a value or by copying and pasting. Because of the need to record each value against a partner entity, you need to **double click** on the cell in the browser top open the ICB input window.

The top part of the window shows the information for the cell you double-clicked. On the left hand side is listed all the available partner entities.

- Double-click the entity you want the ICB to balance for. This will place it in the list to the right.
- In the **Amount** field, type the relevant amount.
- Repeat this process for as many entities as are required.
- When you have finished, click **OK** (or you can click **Cancel** to exit this screen without registering any changes).



ICB data in browsers is displayed in purple. You can double click on any ICB value to display and edit the input details.

Adjustments to ICB Data

To make changes to ICB data you could either choose to edit the original value or post an adjustment journal.

ICB journals are created in the same way as standard journals.

1. From the menu ribbon **Create Journals**. The journal status window will appear.
2. Select your entity and version and click **New**
3. From the Type drop-down, select **ICB**.
4. Complete the journal details just as you would for an ordinary journal.

As you have selected the ICB Type of journal – the **Balance To** column will appear.

- If you have selected a non-ICB variable in a line of the journal, the Balance To column will automatically contain the entity which the journal is raised for.
- If the variable is an ICB Variable, double-clicking the **Balance To** column will display a list of possible partner entities to which the ICB journal can be made. Select one of these, and click **OK**.



An ICB Journal can only contain one ICB Variable. The other side of the adjustment must be to a non ICB variable.



The quickest way to view the adjustments that need to be made is to view the ICB table in a browser with the **DIFFERENCE** view in the ICBDiff dimension. This will display the differences in the ICB figures. The difference figures are the amounts you will need to adjust to achieve inter-company balancing.

Auto Balance

If it has been enabled for your model, the Auto-Balance option can be run to automatically create and if desired, post balancing journals, up to a chosen materiality level.

The Auto-Balance process will match up all ICB data and where there are differences create a journal to adjust one of the entries to bring the pairing into balance.

The way the adjustment is posted is determined by the set up of the model and will follow the following criteria.

For ICB variables paired with another ICB variable	One of the paired variables will have been defined as Dominant and the other will have been defined as Submissive . The Submissive variable is the one that will change.
For ICB variables paired with themselves	The variable will be set as either Greater / Change or Lesser / Change . If it is set to Greater / Change , the adjustment will be made to the entity where this variable is greater in value, and vice versa for variables set to Lesser / Change .



For each ICB variable that is set to allow changes, a reciprocal non-ICB variable will have been designated. This will be the account where the other side of the adjustment will be posted.

To run the Auto-Balance

Select **ICB Auto Balance** in the menu ribbon from the ICB and Journals group

Auto Balancing Wizard - Entity Selection

Select a single entity for auto balancing.

Dimension:

Name	Description	
MANAGEMENT	Management Consolidation	Bu
EUROPE	European Head Office	Bu
PACIFIC	Pacific Consolidated	Bu
LEGAL	Legal Consolidated	Bu

Help < Back Next > Cancel

ICB Auto-Balance

Select the **Consolidated** entity for the level you wish to balance.

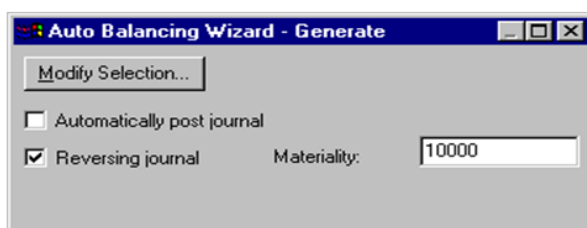
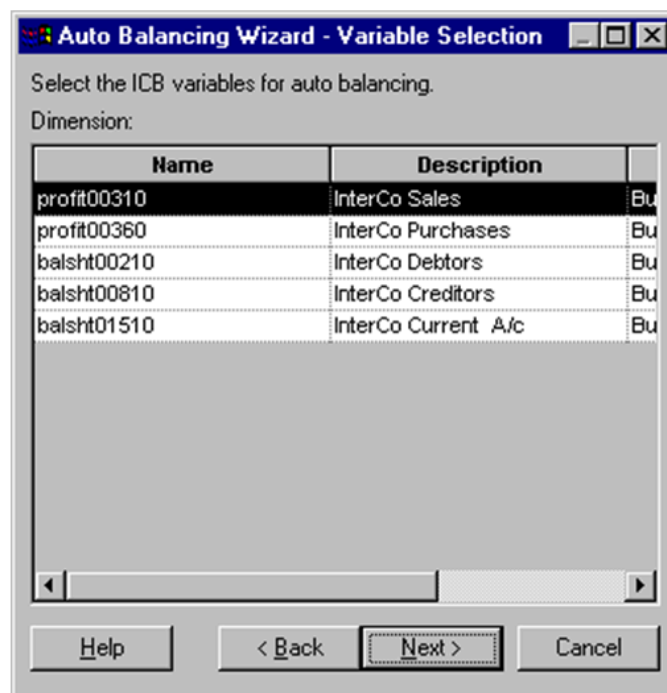
This may be either an immediate parent entity, a higher sub-consolidation entity, or the top level consolidation entity. Auto-Balance will process all entities below the selected consolidation entity.

Click **Next**

Select the **Time** period and **Version** you wish to process.

From the next screen, the ICB variable involved in the transactions should be selected. You may select one or both of the ICB variables from each pairing, or indeed select all variables to process all pairings.

Click **Next**



On the final screen, **Modify Selection** will allow you to go back through your entity, time, version and variable selections.

Select whether or not you require a **Reversing Journal** and if you wish to **Automatically Post** the Journal. (If you are balancing P&L type accounts with Year To Date input, you will probably want to use reversing journals, so that the following month's balance calculation is not affected by this adjustment)

Set the **Materiality** value. Enter the threshold below which ICB differences will be balanced. For example, if you set Materiality to 10000, all ICB differences below 10000 of the base currency units will be adjusted.

Click **Generate** to start. The Auto-Balance process will identify ICB differences and create journals to adjust the differences. An example of this is shown below:

Journal Entry

Entity: ITALY Version: ACTUAL Journal ID: JIN-0004-01-001-00001

Open Date: 10-10-1997 13:59:26 Open By: Build Post Date: 10-10-1997 13:59:57 Post By: Build Type: ICB

Time: JAN ☐ Reversing ☐ Description ☐ Post

Narration: Auto-Balance: Balancing Transaction between ITALY and FRANCE

	Variable	Product	Balance To	Description	Debit	Credit
1	balsh00810	Total	FRANCE	Auto Balance	0.00	500.00
2	profit00630	Total	ITALY	Auto Balance	500.00	0.00

Total Debit: 500.00 Total Credit: 500.00 Difference: 0.00

Example Auto-Balance Journal



If you have chosen not to **Auto-Post** the journals from this process, you will need to post them manually. This allows the opportunity to review and edit the journals first.

Auto Eliminate

Once Auto-Balancing has been completed, it is necessary to follow-up with the **Auto-Elimination** process.

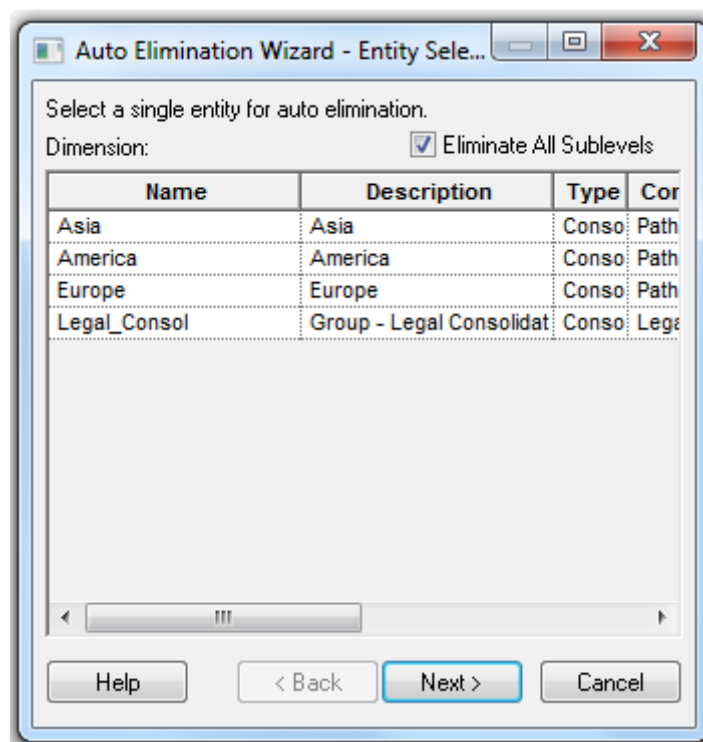
This is done in order to zero out Inter-Company ('internal') transactions at a consolidated level by raising and posting journals to an **elimination entity** at the consolidated level.

The elimination process can either be performed at just the selected consolidation level, or at all sub-consolidation levels up to and including the selected level.

The process for Auto Elimination is similar to that of Auto-Balancing.

From the menu ribbon, select **ICB Auto Eliminate**

In the first window you will notice that the only entities listed are the consolidated entities which include elimination entities.



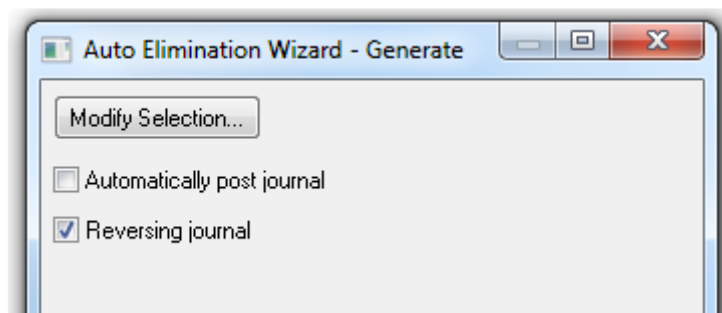
Select the **Consolidated Entity** required, and if necessary, tick **Eliminate All Sublevels** to include eliminations at all sub consolidation levels.

Click **Next** to continue.

From the following windows, select the **Time** periods, **Versions** and **ICB Variables** that require Auto-Elimination.

Finally select if you want to have **Reversing Journals** and if you want to **Auto Post** the journals.

Click **Generate** to run the elimination process.



! You may encounter a message telling you that a particular entity/version combination is locked and that the process wants to unlock that data in order to proceed. Click **Yes** or **Yes All** if you are happy to proceed. Any data that is unlocked data will be re-locked as the process completes.

ICB Reporting

ICB reporting allows users to list details of all inter company transactions and filter those lists based on specific criteria.

To create an ICB report select ICB Reports from the menu ribbon.

You will be asked if you want to collate the ICB information. This step gathers all the ICB transactions and matches and calculates any difference. You should run this to make sure your reports include all the latest up to date data.

! Depending on the number of ICB variables and the number of entities in your model, the collation can take a while to complete. If you are aware that there have been no changes since the last time the data was collated, or at the very least, no changes to the data you want to look at on the report, then it is not necessary to run this every time.

The ICB reports window will display.

The screenshot shows the 'ICB Reports' window. It has a title bar with standard window controls. The main area is divided into two sections: 'Columns Criteria' and 'Query Results'.

Columns Criteria: This section contains a table with two columns: 'Column' and 'Selection Criteria'. The first row shows 'Final Balance Status' under 'Column' and 'All' under 'Selection Criteria'. To the right of this table are three buttons: 'Modify Selection...', 'Edit Criteria', and 'Cons Entity...'. Below the table is a horizontal scrollbar.

Query Results: This section contains a table with the following headers: 'Entity 1', 'Entity 2', 'Variable 1', 'Variable 1 Description', 'Variable 2', 'Variable 2 Description', 'Time Description', 'Local Value 1', and 'L'. The body of the table is currently empty. Below the table is a horizontal scrollbar.

At the bottom of the window, there are four buttons: 'Help', 'Report to Excel', 'Re-query', and 'Close'.

ICB Reports Window

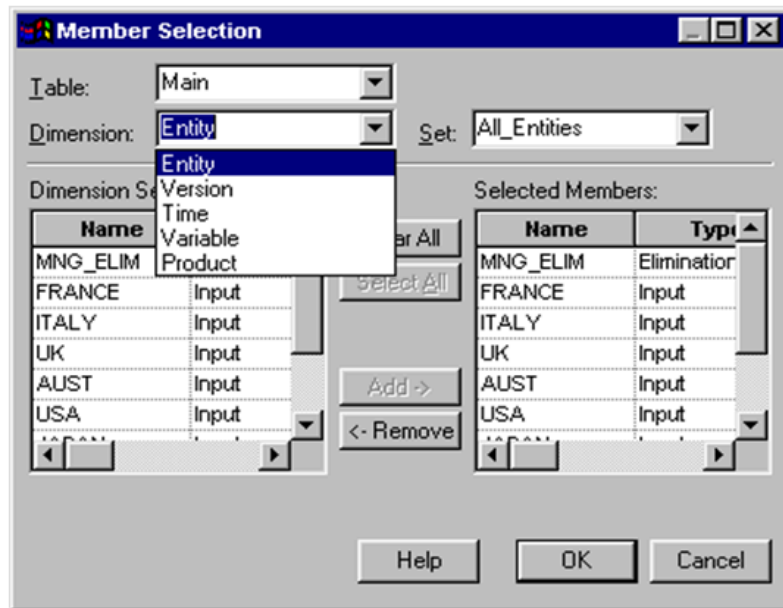
There are two sets of selections that can be made before this ICB report is displayed in the query results area of the window.

Modify selection

This allows you to specify which elements of the data should be included in the ICB report. i.e. which

entities, which versions, which time periods and so on. By default, the selection is set for all entities, for all versions for all time periods.

Clicking on the **Modify Selection** button, enables you to work through each dimension in turn, selecting the members that should be included.



Within whichever Dimension required, click on the **Clear All** button in the centre, or highlight individual names within the **Selected Members** box on the right-hand side and click on the **Remove** button.

Highlight as many members as required from the **Dimension Selection** box on the left-hand side, then click on the **Add** button in the centre.

Once your selections have been made, click on the OK button.

Add criteria

The criteria here allows for extra filtering on the data from the selected dimension members.

Once the selections and criteria have been set, click **Re-query** to populate the list of ICB transactions that match the settings.

The report can be exported to an Excel worksheet by clicking on the **Report to Excel** button.

See [Data Filtering](#) for more information on using the Add Criteria options.

Once the selections and criteria have been set, click **Re-query** to populate the report.

The key columns on the report are as follows:

Column	Description
Entity 1	The Entity where the transaction was posted
Entity 2	The partner Entity with whom the balance is held
Variable 1	The ICB variable for the value in Entity 1
Variable 2	The paired ICB variable
Version	The data version of the particular transaction
Time	The time period of the particular transaction

Product	The product of the particular transaction
View	The data view. This shows the original transaction in the Input view. Any balancing adjustments will be shown in the Adjust view and the final adjusted amounts will be shown in the Net view.
Local Value 1	The posted value in Entity 1 in entity 1 local currency
Local Value 2	The posted value in Entity 2 in entity 2 local currency
Base Value 1	The value in Entity 1 converted to base currency
Base Value 2	The value in Entity 2 converted to base currency
Final Balance Status	Indicates whether the transaction is balanced or unbalanced
Difference	The value of any differences in base currency



Ultimately, the data that needs to balance is the Base Currency Net view. When the input view is not balanced, the adjustments are posted to the **Adjust** view, so even with the adjustments in, the **Input** view will remain unbalanced. You might want to use the **Modify Selection** option to only show the Net view.

The report can be exported to an Excel worksheet by clicking on the **Report to Excel** button.

Period End Processing

The Period End menu group contains a number of features relating to the closing of the financial period and the closing of the year.

Although these features do not need to be used for all models, it is recommended that models designed for financial consolidation and reporting use at least the time based features, **Roll CAP** and **Roll Period Blocks**.

The Period End options are:

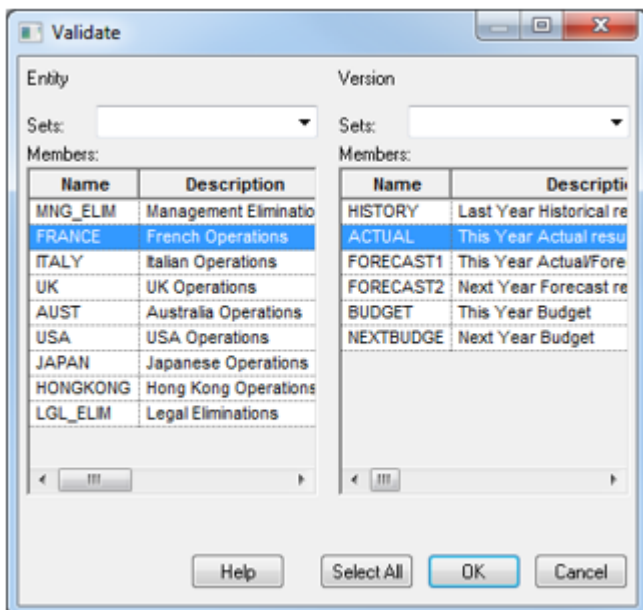
Option	Description
Validate	Runs a routine to check all data for the month against defined validation rules.
Lock	Allows specific combinations of entity and version data to be locked.
Authorise and Accept	Optional workflow type module that allows data submitted by subsidiaries to be flagged when it is ready for Head Office review.
Roll CAP	Closes the current period and rolls the CAP (Current Actual Period) identifier on one month.
Roll Period Blocks	Closes the full year and runs a roll-over process to prepare for a new financial year.


Validate Data

Special validation rules can be defined for each model which are then used to test actual period submissions before allowing the period to be closed and locked.

There is no limit to what can be validated, the only criteria is that the rule must evaluate to zero for valid data.

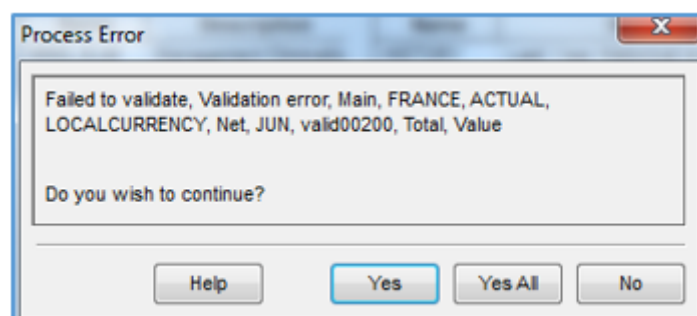
The validation rules are created as part of the initial model design and typically would include a check to make sure the balance sheet is balanced and perhaps that certain data sub analyses aggregate back to match the known total for that item. See [Rules](#)



To Validate data, click on the **Validate** button in the ribbon.  Validate
 Choose the entities and version to be checked
 Click OK

If there are no validation errors, a Process Completed Message will be displayed.

If, however, some of the data does not pass validation a message will be displayed telling you which entity, version, time period and product combination failed and on which validation rule. Click **Yes** to continue and move onto the next check, click **Yes All** to continue without displaying any further individual validation errors, or click **No** to stop the validation process.



Validation error for a particular entity.

You can then use a browser to display the validation accounts and to make any necessary data adjustments to resolve the differences.

- ! If you choose **Yes All** to continue through the validation checks without displaying any further messages, the details of all the validation errors can be found listed in a log file in the Cubix model 'database' folder. This will usually be similar to the following:

\Cubix\Models\model_name\database\sessionuserid.log

Where model_name is the name of the current model and userid is the user name of the user running the validation process.

- ! If an entity has failed validation, the Roll CAP or Roll Period Blocks processes cannot be run for that entity.

Roll CAP

You may have noticed that one of the Time period cells has a hash (i.e. #) next to the month name. This indicates that that time period is the **Current Actual Period (CAP)** for that entity.

The CAP is active in Actual and Actual/Forecast type versions and represents the first open period. At the end of the period, when all data has been loaded, entered, and if necessary validated, the CAP can be rolled to the next period.

Roll CAP will roll the Current Actual Period (CAP) forward to the next period, locking the current period in the process. It will also update data in Actual/Forecast versions with the latest Actual data, overwriting the Forecast data for that same period. The following window will appear to confirm the rolling of the CAP.

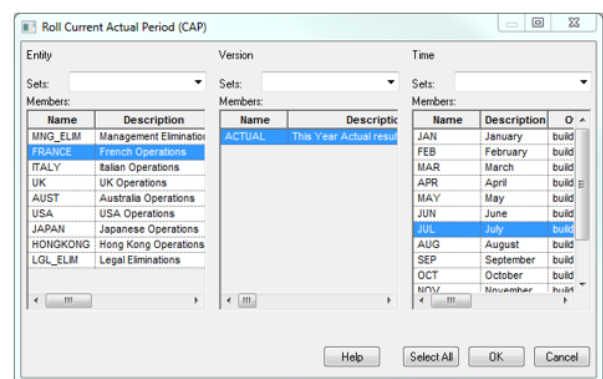


Select the **Roll CAP** button on the ribbon.

Choose the entities, and if necessary, the versions to be rolled.

Select the period you wish to roll to.

Click OK



Roll Current Actual Period

Roll CAP can be performed for all or selected entities. Entities in the model can have different CAPs, however, if you select to run a Roll CAP for all entities, they will all be rolled to the selected period.

It is not possible to roll the CAP in consolidated entities. The consolidated entities inherit their period status from their underlying input entities.



It is possible to Roll CAP over several months at once. e.g. from January to June. Just select the target month and everything will be rolled up to that month.



If validation rules have been defined, it is not possible to Roll CAP for any entities that have failed validation.

Link CAP

Sometimes you may want to update a rolling forecast (Actual/Forecast) version with the latest actual data, but are not yet ready to run a complete Roll CAP. Instead you can use the **Link CAP** option.



This will create a link between the **Actual** and **Actual/Forecast** versions but leave the existing Current Actual Period open in the Actual version.

Similar to the the Roll CAP option, Link CAP can be run for all or selected entities.

Roll Period Blocks

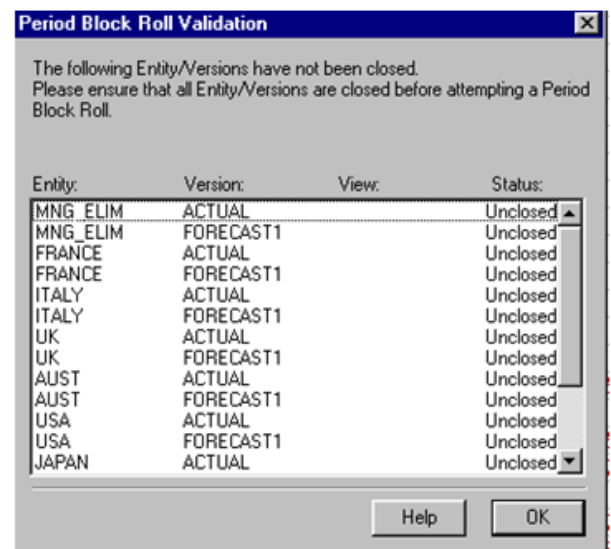
Roll Period Blocks is the end of year function to roll all data into new and appropriate versions ready for the new year and to empty the Actual version and reset the **Current Actual Period** back to the first period.

The relationship between versions is defined as part of the Cubix model design, see [Versions](#), and will be specific to your business requirements, however, typical definitions include:

- Actual data being rolled into Prior Year Data
- Prior Year Data being rolled into Prior Year -1 Data etc.
- Next Year Budget being rolled into Current Year Budget

For the Roll Period Block to run successfully, all Actual data must be rolled to the **Closed** period and all other data versions must be locked.

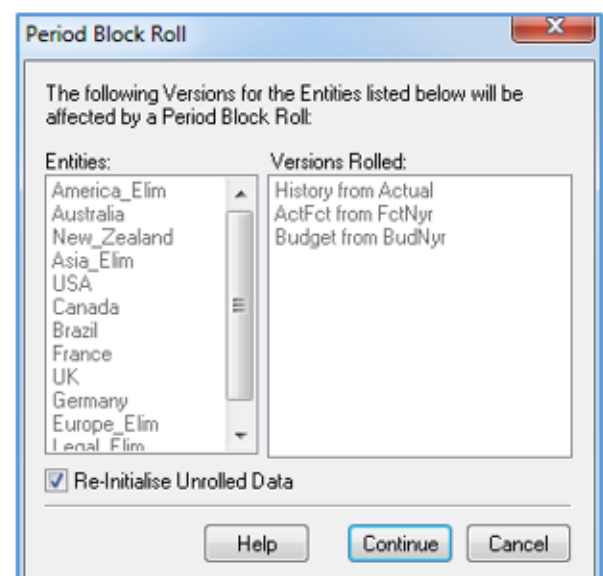
The process will first of all check the status of all the data and advise of any entities and versions that are not closed or are unlocked.



If all data is closed and locked, a confirmation window will display showing which data is about to be moved to where.

There is also the option to **Re-Initialise Unrolled Data**. This option will empty the data from any versions that have not been defined as part of the roll process and have not had any new data rolled into them.

Once all the data has been rolled, you will be asked if you wish to **pre-consolidate all entities**. If selected, this will run a full consolidation of the model so that all calculations and consolidations are up to date with the newly rolled values.



Data Transfer

Cubix offers a number of functions to help with the loading and moving of data into and out of models.

There is a **Copy Version** feature which will copy data for selected entities from one version to another.

There is **Export Data** which takes selected data from a model into a .csv format flat file.


There is **Import Data** which takes data from a .csv format file and imports it into the model.

Channel is a utility that will take source data in a flat file format and map and convert it into a format that can be imported into Cubix.

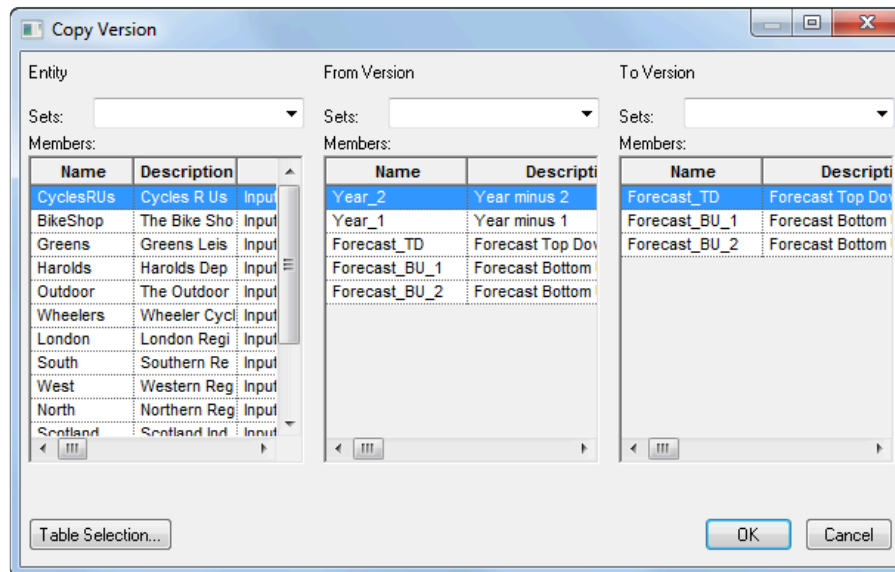
DTU is a separately available data transfer utility that offers enhanced features over Channel, including the ability to connect directly to SQL Server database sources, to schedule transfers to run at certain times and to perform direct transfers between two Cubix models.

Copy Version

Copy version is a simple feature in Cubix that enables data from one version to be copied directly into another version. It is particularly useful with forecast and scenario versions where it can be used to take data from a previous forecast into a new version as a starting position.

In the Data Transfer section of the menu ribbon select **Copy Version**  Copy Version

The Copy Version window has three panes.



Copy Version

The left hand pane lists all the input type entities. Select which entities you wish to copy data for. Use a right click to select all entities

The middle pane lists all the versions. This is where you select the version you wish to copy data from. Select the one you want.

The right hand pane lists all the available versions that you can copy data into. Select the one you want.

! Whilst you can copy data from any version, you can only copy into **Forecast** type versions. You cannot copy into **Actual** or **History** type versions. This is to maintain the integrity of Actual and Historic data.

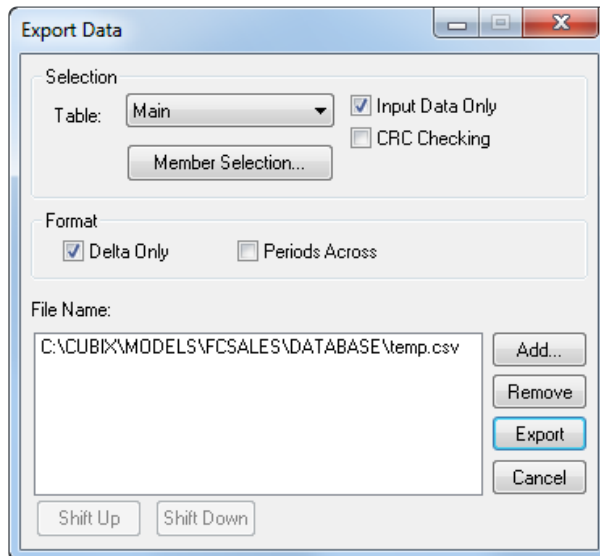
Click OK to start the copy process. This may take several minutes to complete, depending on the size of the model. You will see a progress bar as the process runs.

! If the target version is locked for any or all of the entities, then that data will not be copied. To be certain that the copy will complete successfully, you might want to unlock the target version first.

Export Data

The Export Data function allows you to select a particular combination of data dimension members and to export all data for that selection to a .csv format file.

When you select the **Export Data** option from the menu ribbon you are presented with the following window.

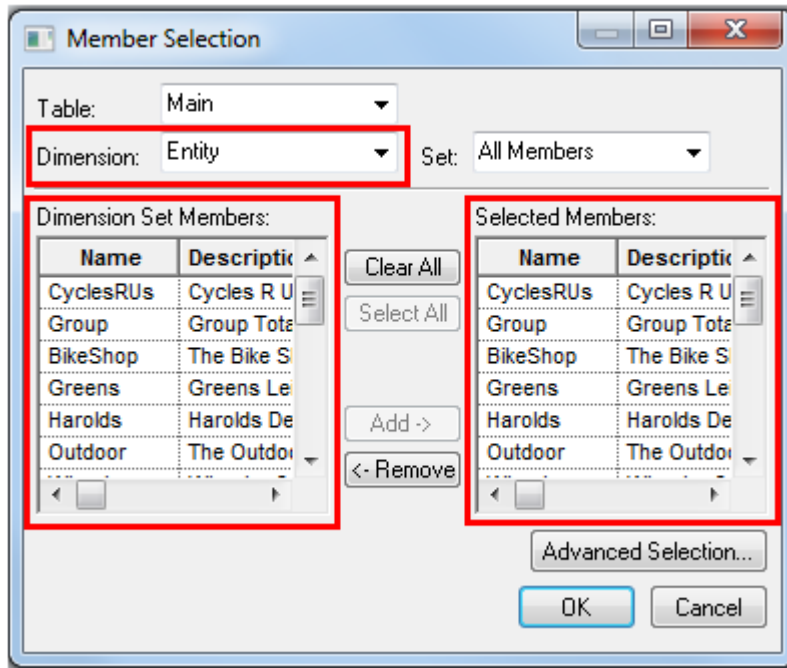


Export Data

The **Table** selection allows you to choose which database table the data is coming from. In most cases this would be **Main**. If you specifically want to export exchange rate data from the Currency table, change this to select **CurRates**

Member Selection

This button takes you to another window where you can choose exactly which combination of dimension members you want to have in your export.



Member Selection

Use the **Dimension** drop down to pick each dimension in turn. For each dimension, the left hand pane shows all the available members and the right hand pane shows the current selection. Use the **Clear All**, **Select All**, **Add** and **Remove** buttons to change the right hand pane so that it only contains the members you want to export.

Repeat this process for each dimension until you have something selected for all.



Be sure to check each dimension. If you miss one, you may end up exporting the wrong data or even no data at all.

Advanced Selection

The Advance Selection button contains options to be even more selective about the data exported. It includes the following:

Toolbox Data	Data relating to forecasting – profiles & spread values	Default
Input Data	Values that have been input or loaded into Cubix	Default
Calculated Data	Values that have been calculated in Cubix	
Consolidated Data	Data from consolidated entities	
Expansion Cell Data	Aggregated totals from cell expansion data	
Journal Data	Values that are the result of journal adjustments	
ICB Data	Values that are the aggregation of Intercompany input	
Cell Text	Text stored against cell values	Default
Empty Data	An entry in the export file for cells that do not contain any data	

Expansion Details	Details of cell expansion transaction entries	Default
Journal Details	The full Journal detail for each adjustment entry	Default
ICB Details	The full details of Intercompany transactions	Default
Profile Details	The details of any forecast profiles	
Authorisations	The details of any authorisations recorded against actual data	



By default all Input level data and details of any journals, intercompany transactions, cell expansion records and cell text are exported. Calculated and Consolidated values are not exported unless you specifically select those options in the advanced screen. If a certain member combination has no data (i.e. empty) it will not appear in the export file unless you specifically request to include Empty Data.

Finalising Selections

When all data selections have been made, click OK to return to the first Export Data window. Here you have a couple more options to choose before starting the export.

Firstly, if you have changed the default data options using the **Advanced Selection** button, you will notice that the 'Input Data Only' tick box is greyed and cannot be changed. You have overridden that option with your own selections.

CRC Checking. If ticked will add a security check to the bottom of the export file. If the resulting csv file is edited in any way, the file won't be accepted if being re-imported into Cubix. If the file is being imported into another system, this check will have no impact.


Format – Delta Only specifies that the export will not repeat dimension names in sequential output rows until the name changes. For example if the first data record is from entity UK, the first column might well state the entity name (UK). If the second record is also from the entity UK, the first column of the second row would be blank. It is assumed to be the same as the row above. This repeats until the exporting entity changes. It is often easier to work with export files when all records are complete, so it is usually recommended to un-tick Delta Only.

Periods Across. If exporting data from multiple time periods, this option will put each period into a different column. If un-ticked, all the data would be exported in one column with a time reference for each record. Again it is often easier to work with export files with the time periods in separate columns, but it may depend on how the file is to be used and personal preference.

Finally click **Add** to specify a name and location for the export file and click **Export** to start the process.

Import Data

The Import Data function reads data from a csv format file and loads it into Cubix. The file to be imported has to be in a certain format (see [Format of Export/Import Files](#))

Select **Import Data**  from the menu ribbon and locate and select your import file.

You can import from multiple files by clicking **Add** and selecting more files.

When you are ready click **Import** and the added files will be processed in turn and any data they contain imported into Cubix.

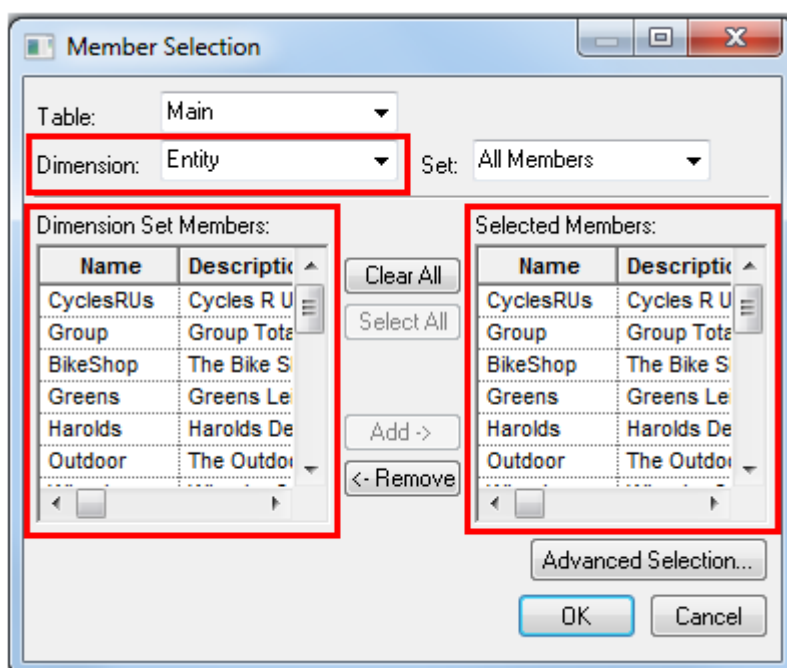
A few things to be aware of when importing data.

- Any data found in the import file will overwrite data already in Cubix. However, if you have a value in Cubix, but there is no record for that piece of data in the import file, the original Cubix value will remain. If you are re-importing an updated version of something that was previously imported, you might want to consider clearing the Cubix data first. (See [Clearing Data](#))
- It is not possible to import into locked entities and versions. You will need to unlock Cubix first.
- It is not possible to import into calculated cells or into consolidated entities. Calculations and consolidations take place within Cubix.

If your import file contains more data than you wish to import, for example data for multiple time periods, when you only wish to import one month, you can restrict the import using the **Member Selection** button.

Member Selection

This button takes you to another window where you can choose exactly which combination of dimension members you want to import.



Member Selection

Use the **Dimension** drop down to pick each dimension in turn. For each dimension, the left hand pane shows all the available members and the right hand pane shows the current selection. Use the **Clear All**, **Select All**, **Add** and **Remove** buttons to change the right hand pane so that it only contains the members you want to import.

Repeat this process for each dimension until you have something selected for all.



Be sure to check each dimension. If you miss one, you may end up importing the wrong data or even no data at all.

Format of Export/Import Files

Data exported from, and data to be imported to Cubix must follow a certain format. There should be a **[HEADER]** section which gives information about the dimensions and describes what data is in which column in the **[DATA]** section. The **[DATA]** section itself contains all the main cell values exported or to be imported. Then there will be a number of other **[SECTIONS]** containing journal, ICB, cell expansion or cell text data, depending on what was selected or on what is being imported.

Example of Header section.

[HEADER]		
Entity	0	<-- denotes that the Entity reference will be in the first column of the data (TCM uses zero based indexes, so starts counting with zero)
Variable	1	<-- denotes that the Variable reference will be in column 2 of the data
Product	2	<-- denotes that the Product reference will be in column 3 of the data
Mode	3	<-- denotes that the Mode reference will be in column 4 of the data
Jan	4	<-- denotes that the Value for time period Jan will be in column 5 of the data
Feb	5	<-- denotes that the Value for time period Feb will be in column 6 of the data
Mar	6	<-- continues logic for remaining months...
Apr	7	<--
May	8	<--
Jun	9	<--
Jul	10	<--
Aug	11	<--
Sep	12	<--
Oct	13	<--
Nov	14	<--
Dec	15	<--
Table	Main	<-- the name of the data table in TCM
Version	Actual	<-- the selected version for the data
CurrView	LOCALCURRENCY	<-- the selected CurrView for the data
View	Input	<-- the selected View for the data
User	sgrace	<-- the user who exported the data. Not required when importing data.
Site	DefaultSet	<-- the entity set for the user who exported the data. Not required when importing data
EmptyText	NA	<-- the text string used to signify empty data
Toolbox	TRUE	<-- was planning profile data included (TRUE or FALSE)
Input	TRUE	<-- was input data included (TRUE or FALSE)
ExpandDetail	TRUE	<-- was cell expansion detail included (TRUE or FALSE)
JournalDetail	TRUE	<-- was journal detail included (TRUE or FALSE)
ICBDetail	TRUE	<-- was ICB detail included (TRUE or FALSE)
Text	TRUE	<-- was cell text included (TRUE or FALSE)

Data File [HEADER] Section



When importing a file from another source, a good tip to get the correct header section, is to first of all create an export file in the format you want to import and then copy and paste the header from the export into your import file. You may need to tweak it slightly, to make sure the columns are aligned with the header numbers for example, but this will give a good starting position.

Example of Data section.

After the header comes the main **[DATA]** section. This will contain the references and values in the column order as described in the header.

[DATA]

Australia,Rev.10010,Services,Value,33,33,33,33,33,33,34,NA,NA,NA,NA,NA
Australia,Rev.10030,Services,Value,224,224,224,224,224,234,234,NA,NA,NA,NA,NA
Australia,Rev.10050,Products,Value,1500,1563,444,1840,1766,1775,1820,3333,NA,NA,NA,NA
Australia,PL.10020,Products,Value,6063,6184,6308,6434,6562,6694,6828,NA,NA,NA,NA,NA
Australia,PL.10020,Services,Value,3031,3092,3154,3217,3281,3347,3414,NA,NA,NA,NA,NA
Australia,PL.10020,Projects,Value,1819,1855,1892,1930,1969,2008,2048,NA,NA,NA,NA,NA
Australia,PL.10020,Other,Value,1213,1237,1262,1287,1312,1339,1366,NA,NA,NA,NA,NA
Australia,PL.10030,Products,Value,0,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA
Australia,PL.10030,Services,Value,455,464,473,483,492,502,512,NA,NA,NA,NA,NA
Australia,PL.10030,Projects,Value,606,618,631,643,656,669,683,NA,NA,NA,NA,NA
New_Zealand,Rev.10010,Services,Value,12,13,13,13,13,13,13,NA,NA,NA,NA,NA
New_Zealand,Rev.10030,Services,Value,265,265,265,265,265,265,265,NA,NA,NA,NA,NA
New_Zealand,PL.10020,Products,Value,6063,6184,6308,6434,6562,6694,6828,NA,NA,NA,NA,NA
New_Zealand,PL.10020,Services,Value,3031,3092,3154,3217,3281,3347,3414,NA,NA,NA,NA,NA
New_Zealand,PL.10020,Projects,Value,1819,1855,1892,1930,1969,2008,2048,NA,NA,NA,NA,NA
New_Zealand,PL.10020,Other,Value,1213,1237,1262,1287,1312,1339,1366,NA,NA,NA,NA,NA
New_Zealand,PL.10030,Services,Value,455,464,473,483,492,502,512,NA,NA,NA,NA,NA
New_Zealand,PL.10030,Projects,Value,606,618,631,643,656,669,683,NA,NA,NA,NA,NA
New_Zealand,PL.10070,Products,Value,4547,4638,4731,4825,4922,5020,5121,NA,NA,NA,NA,NA
USA,PL.10020,Products,Value,6063,6184,6308,6434,6562,6694,6828,NA,NA,NA,NA,NA
USA,PL.10020,Services,Value,3031,3092,3154,3217,3281,3347,3414,NA,NA,NA,NA,NA
USA,PL.10020,Projects,Value,1819,1855,1892,1930,1969,2008,2048,NA,NA,NA,NA,NA
USA,PL.10020,Other,Value,1213,1237,1262,1287,1312,1339,1366,NA,NA,NA,NA,NA
USA,PL.10030,Services,Value,455,464,473,483,492,502,512,NA,NA,NA,NA,NA
USA,PL.10030,Projects,Value,606,618,631,643,656,669,683,NA,NA,NA,NA,NA
USA,PL.10070,Products,Value,4547,4638,4731,4825,4922,5020,5121,NA,NA,NA,NA,NA
USA,PL.10070,Services,Value,2577,2628,2681,2734,2789,2845,2902,NA,NA,NA,NA,NA
USA,PL.10070,Projects,Value,1819,1855,1892,1930,1969,2008,2048,NA,NA,NA,NA,NA
USA,PL.10070,Other,Value,758,773,788,804,820,837,853,NA,NA,NA,NA,NA
USA,PL.10330,Total,Value,83,83,83,83,83,83,83,NA,NA,NA,NA,NA
USA,PL.10380,Total,Value,40,40,40,40,40,40,40,NA,NA,NA,NA,NA
USA,PL.10390,Total,Value,20,20,20,20,20,20,20,NA,NA,NA,NA,NA

Example of [DATA] section.

In this example, we know from the header section that the entity reference is in the first column. (Australia, New_Zealand, USA)

Next comes the variable (Rev.10010, Rev.10030, PL.10020 etc.)

The third column is the product reference (Services, Products, Projects, Other)

The next column is the mode reference. In this extract it is all just Value, but in other instances it might be YTD also.

Then comes the data, one value for each month.

NA represents empty values.



Channel

Channel is the name of the data acquisition module in Cubix which enables you to acquire data from files produced by other systems, in almost any text format, match the input fields and values to Cubix variables and manipulate the data into a format ready for importing. This matching process is called “mapping”. A common use for Channel is to convert data from a General Ledger system output files, and import it into Cubix.

Understanding Channel

Channel is a utility that allows the manipulation of text files between different formats. It goes beyond simple manipulation to “mapping”. Mapping is the process of assigning variables and values from an input (or source) file to equivalents in an output (or destination) file, even though the files may be in quite different formats.

This is beneficial for retrieving data from a general ledger for spreadsheet manipulation in a preferred format. More importantly, it facilitates the retrieval of data from various sources into a CSV file format that Cubix can easily import.

The greatest advantages are the savings in time and the reassurance of greater accuracy as compared to keying the data manually or copying and pasting data.

The Steps Involved in Channelling

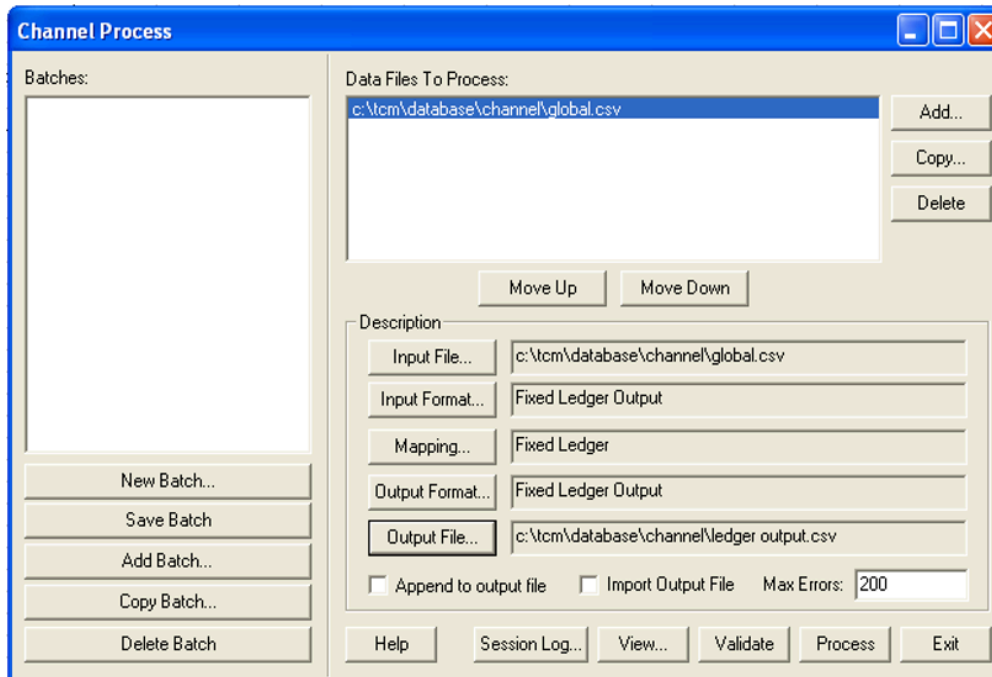
The process of “Channelling” data files involves five distinct steps. These are:

- Nominating the Input file/s.
- Defining the Input file formats
- Mapping the Variables
- Defining the Output file formats
- Nominating the Output file

Most of the steps, including nominating files’ formats and mapping, can be saved for repetitive usage.

The Main Channel Screen

When you first start Channel, you will be presented with the following screen.



Channel files are created and stored in batches so that different processes can be defined for different source files. When setting up a new channel process, make sure you first create a new batch for.

- **Batches** lists the sets of files Channel will manipulate
- **New Batch** allows you to add another batch of files to the list for processing.
- **Save Batch** allows you to save a batch.
- **Add Batch** allows you to add a previously created batch.
- **Copy Batch** allows you to copy an existing batch.
- **Delete Batch** allows you to delete a batch from the list.
- **Data Files to Process** lists source Input files Channel will manipulate
- **Input File** nominates the location of the source or original data file. This may have originated from SAP, your general ledger application or your mainframe.
- **Input Format** stores information telling Channel about the layout or format of the source file.
- **Mapping** allows you to nominate which values in the input file should be matched to corresponding values in the output file. The name or title for corresponding values may be different. Mapping also allows you to nominate processes on the data such as sign reversing (turning credits from you GL into positive values), summarising data from you source system (many to one mapping) and rounding of source system values (e.g. round to thousands).
- **Output Format** stores information telling Channel about the layout or format of the destination or output file.
- **Output File** nominates the destination or output file where Channel will copy all the manipulated data to.
- **Add** allows you to add another input file to the list for processing.
- **Copy** allows you to duplicate an input file's parameters (input & output format, mapping etc). The file itself it not copied.

- **Delete** removes an input file from the list of files to process. It does not actually remove or delete the file from the disk drive.
- **Move Up / Move Down** allows you change the order of files to process.
- **Append to output file** allows you to append the resulting file to an existing file.
- **Import output file** allows you to automatically import the nominated output file into Cubix. Note that to import a file produced by Channel, the file must be a valid Cubix Import format including any necessary header detail.
- **Max errors** allows you to nominate the maximum number of errors to detect in a Channel process before stopping the process validation.
- **Process** allows you to validate and process the selected data file(s) and process(s).
- **Validate** allows you to validate the definition of the selected data file(s) and process(s).
- **View** allows you to view the selected input file (uses your default Windows viewer, e.g. Notepad).
- **Session log** displays the current session log file. This will contain any errors detected during process/validation.
- **Lock Structure** prevents changes to the structural components of the data acquisition process. Users are able to update the content of the formats and mappings.

Input Files

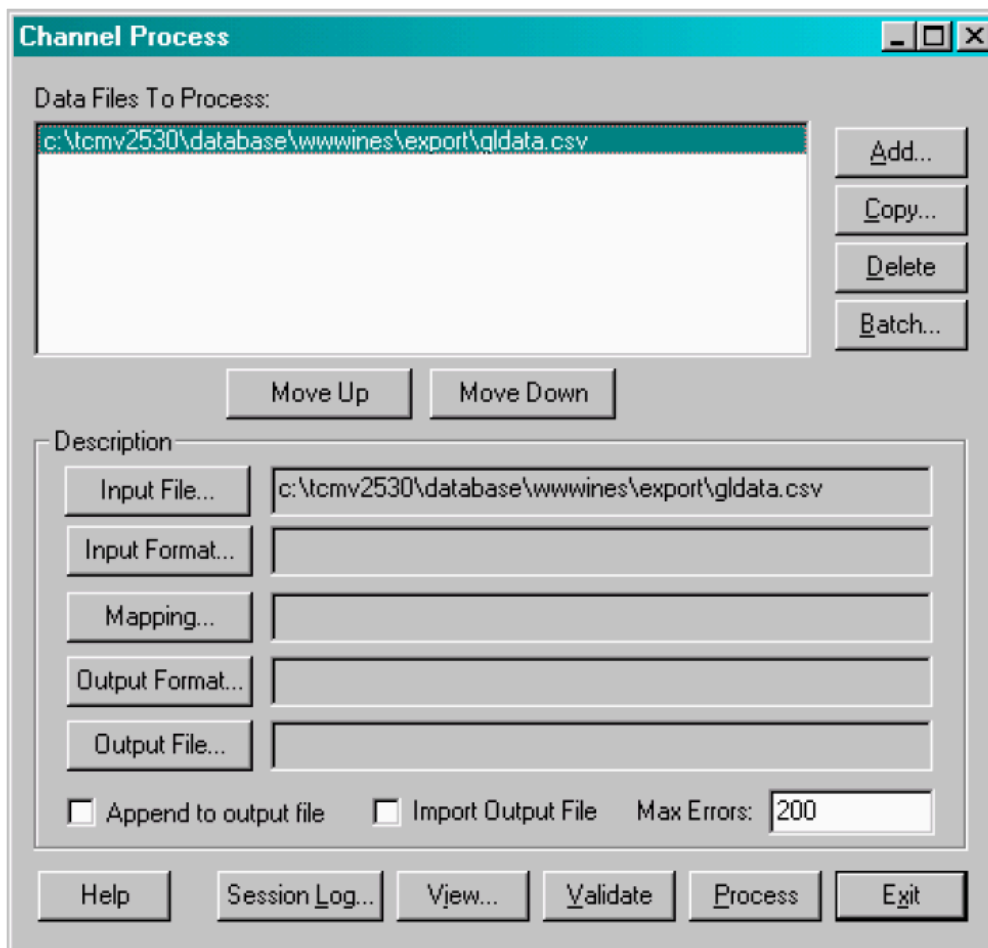
Nominating an Input File

The first step is to nominate an Input file. This file will need to have an Input Format defined and then be mapped.

To Nominate an Input File

1. Choose Add from the main Channel screen.
2. Locate and select the appropriate text file and choose Open.

This will return you to the Channel Process dialog box, with the name of the file you selected as an entry in the 'Data Files for Processing' box. You will notice that all the options below are greyed out. Highlight the filename to indicate that you wish to process it and the options will become available to you, enabling you to continue. This will also place your chosen filename in the 'Input File...' area.



Define an Input Format

Once a text file has been selected, the format of the source file needs to be defined. The basic file structure also needs to be established. Text files will either be fixed width or delimited.

Fixed Width files	reserve a set amount of spaces for each field (or column) in the data file. Channel will divide the fields according to the widths you nominate.
Delimited files	separate (or delimit) each field with a keyboard character such as a comma, tab or quotation marks. Channel will divide the fields according to the delimiter you nominate.

Click the **View** button to view the data in the selected file to check if it is fixed width or delimited.

Start defining the input format.

1. Choose **Input Format**
2. From the Format Selection dialog box either select an existing entry or create a **New** format.

New	Creates a new (blank) format that you can then populate or acquire the settings for
Edit	Modify the currently selected format
Add	Similar to an import, this function allows you to bring format files from another copy of Channel for you to use. When you click this button Channel will display the File Open dialog box – this will allow you to select the file you want to use. Channel will then copy this file to your Formats directory and add it to your list of available formats
Delete	Allows you to remove the currently selected format or formats
Copy	Makes a copy of the currently selected format, and opens it for editing – by default it will be called “Copy of format”

In the Format dialog box which appears (shown below), select and enter the appropriate options.

- In the **Name** field, enter a appropriate name for the format.
- From the **Data Type** options, nominate whether the file is Fixed Width or Delimited.
- If you select Delimited you must also select **Delimiter** and **Text Qualifier**.

Delimiter	specifies the character that separates the fields in the data file. You can select from the preset choices from the Delimiter dropdown, or enter your own into the box.
Text Qualifier	specifies the character used to mark sections of a field that contain text. For example, if you were creating a comma delimited output file, yet some fields contained commas within the text, selecting " as the text qualifier would place quotations around text with commas. This is useful when creating comma delimited files for import.

- **Supports Delta** is an option primarily designed for use with imports from other Cubix models. Essentially it means that the name of a member is not repeated in a field until it actually changes in the file.
- **Keep White Space** is an option to allow text fields that have spaces or tabs in them to keep the spaces or tabs. Usually when working with identifiers it is not necessary to have this on. There may be situations where some pre-processing is required and fields need to be joined, or split, thus needing this option on.

The **Layout area** holds several options.

- Select whether the data file is section based (does the data reside in a separately named section

of the file?) or if the data is only one section of the file. Depending on whether this checkbox is on or off, different options will be available.

Section based	If you select section based layout, enter the name of the section that contains the data in the box provided. This option is provided mainly for use with exports from other Cubix models. The DATA section of the export file can be specified for processing, avoiding the sections reserved for status information and so on.
Non-section based	If your input file contains a section that contains the data you are interested in, and you know the line number that this data starts and ends on, you can specify these line numbers and Channel will only use the data in this section of the file. By default, the first line value is 0, and last line is blank – this will include everything in the file. If you want the whole file, you can ignore this option.

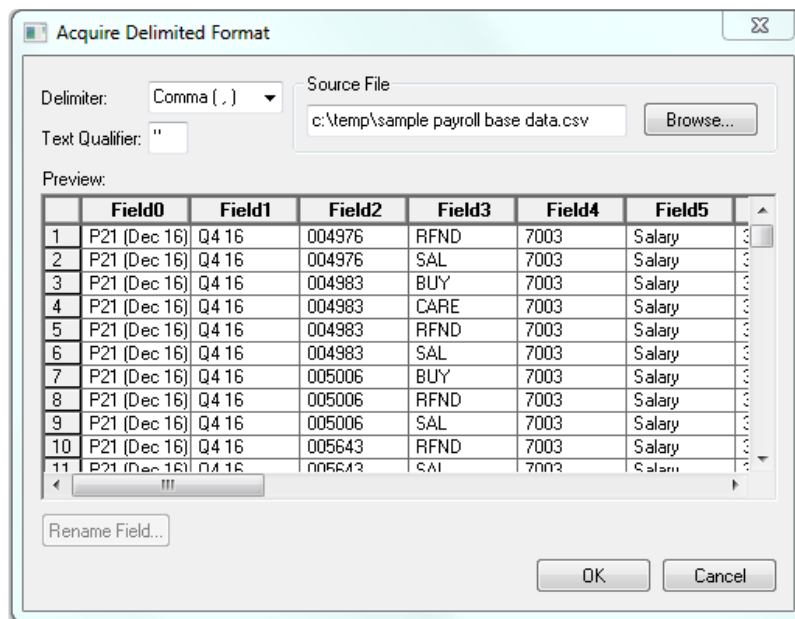
- **End of Line** allows you to nominate what sort of character marks the end of a line. The Windows system uses and carriage return (CR) and a Line Feed (LF) characters. UNIX systems, in contrast, use only the carriage return.
- The **Fields** area lists the fields in the data file, the data type each field contains, its width and so on. The options available here depend on whether Fixed Width or Delimited was chosen.
- **New** creates a new field to be included in the import format.
- **Delete** removes a field from the list. The input format will only read data columns or fields of the source file that are listed in the Fields list.
- The **Acquire** command allows for a simple and efficient manner to automatically define the individual fields in the data file.
- **Ignore Lines** allows you to tell Channel which lines contain irrelevant or useless data. Ignored lines may begin with or contain specific characters, or they may be blank.
- **Data Filters** allow you to process the data in the input fields according to text and rules that you can specify.

Acquiring Input Fields

Channel provides the Acquire function to provide an easier way to capture and set up the fields from a source file.

Click on the **Acquire** button and one of two windows will be displayed.

Acquire Delimited Format

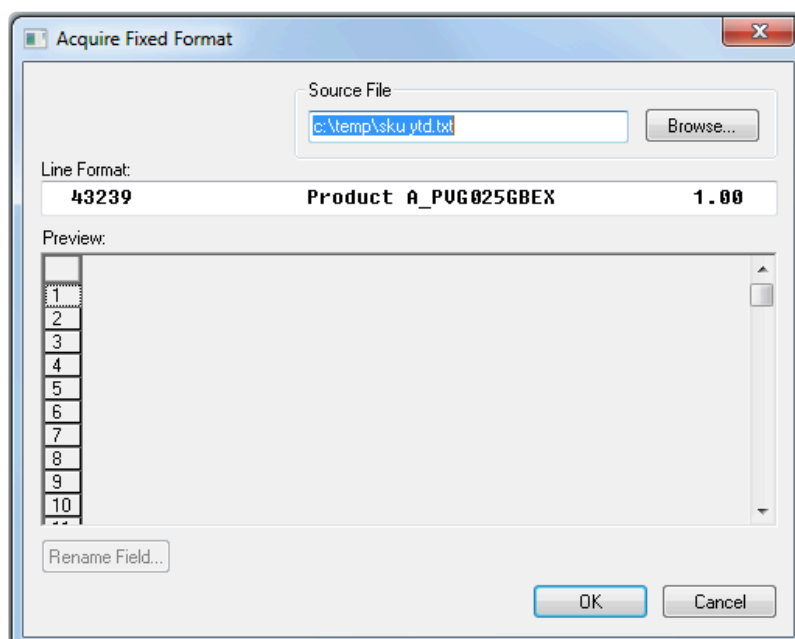


The **Acquire Delimited Format** dialog box is shown. It includes a **Delimiter** dropdown set to **Comma (,)**, a **Text Qualifier** set to **"**, and a **Source File** text box containing **c:\temp\sample payroll base data.csv** with a **Browse...** button. A **Preview** table displays the data from the file, with columns labeled **Field0** through **Field5**. The preview shows 11 rows of data. At the bottom, there is a **Rename Field...** button and **OK** and **Cancel** buttons.

	Field0	Field1	Field2	Field3	Field4	Field5
1	P21 (Dec 16)	Q4 16	004976	RFND	7003	Salary
2	P21 (Dec 16)	Q4 16	004976	SAL	7003	Salary
3	P21 (Dec 16)	Q4 16	004983	BUY	7003	Salary
4	P21 (Dec 16)	Q4 16	004983	CARE	7003	Salary
5	P21 (Dec 16)	Q4 16	004983	RFND	7003	Salary
6	P21 (Dec 16)	Q4 16	004983	SAL	7003	Salary
7	P21 (Dec 16)	Q4 16	005006	BUY	7003	Salary
8	P21 (Dec 16)	Q4 16	005006	RFND	7003	Salary
9	P21 (Dec 16)	Q4 16	005006	SAL	7003	Salary
10	P21 (Dec 16)	Q4 16	005643	RFND	7003	Salary
11	P21 (Dec 16)	Q4 16	005643	SAL	7003	Salary

When acquiring from a delimited source file, the fields are automatically identified and added. They can be renamed to something more meaningful if desired.

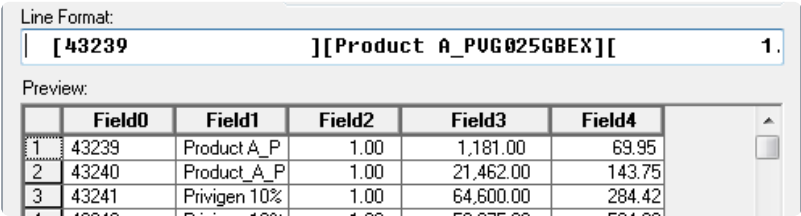
Acquire Fixed Format



The **Acquire Fixed Format** dialog box is shown. It includes a **Source File** text box containing **c:\temp\sku_ytd.txt** with a **Browse...** button. Below this is a **Line Format** section showing a sample line: **43239** **Product A_PUG025GBEX** **1.00**. A **Preview** table shows a list of line numbers from 1 to 10. At the bottom, there is a **Rename Field...** button and **OK** and **Cancel** buttons.

Line	Field
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

When acquiring from a fixed source, the fields need to be identified.
To start with, no fields are shown but a preview of the content of the first line of the source file is shown in the Line Format box. If you want to preview other lines, click on the line number at the left side of the preview grid.
The next step is to begin the process of marking fields. Fields are marked by square brackets enclosing the field, like this: [Content of the field]



The fields can be renamed to something more meaningful if desired.
Once all fields have been acquired, click OK to return to the Format screen which will now list all the fields.

Completing the Format

With the input fields acquired and listed in the format window, the final step is to remove any that are not required and to specify the type of data in each field.

The format window will look similar to this.

Format

Name:

Data Type:

☒ Delimited ☐ Fixed Length

Delimiter:

Text Qualifier:

☐ Supports Delta

☐ Keep White Space

Layout

☐ Section Based

First Line:

Last Line:

Section Name:

End of Line:

Fields:

	Name	Type	Number
1	Period	Text	0
2	Qtr	Text	1
3	Employee	Text	2
4	Item	Text	3
5	Account	Text	4
6	Type	Text	5
7	CC	Text	6
8	Field7	Text	7
9	Field8	Text	8
10	Field9	Text	9
11	Field10	Text	10
12	Amount	Text	11
13	Field12	Text	12
14	Field13	Text	13

A source file may contain additional fields containing information that is not needed in Cubix or for the mapping process. These fields can be deleted from the list and their data will not need to be processed through the mapping.

Many of the data fields will contain text and reference information such as company codes, cost centres and accounts which will define where the data goes to in Cubix. However, at least one of the fields will contain the values that you ultimately want to load into Cubix. These fields containing the values should have their type changed to **Value**

	Name	Type	Number
1	Period	Text	0
2	Qtr	Text	1
3	Employee	Text	2
4	Item	Text	3
5	Account	Text	4
6	Type	Text	5
7	CC	Text	6
8	Field7	Text	7
9	Field8	Text	8
10	Field9	Text	9
11	Field10	Text	10
12	Amount	Value	11
13	Field12	Value	12

The format is now ready, but there are a couple of other features that you might need for file processing.

Excluding Lines

Click the **Ignore Lines** button to display the Ignore lines dialog box – this allows you to specify lines that should not be processed.

Click the **New** button to make a new entry. Having done that, click the **Ignore Option** cell for that entry to present a list of available options to use as criteria for ignoring a line.

There are three ignore options:

Starts With	If the line starts with the specified text, ignore it
Contains	If the line contains the specified text, ignore it
Empty line	If the line is empty, ignore it

Data Filtering

Data Filters allow you to process the data in the input fields according to text that you can specify.

Click the **New** button to create a new entry. Click the **Option** cell of this entry to see a list of the options available for filtering of data.

The options are:

Prefix	If the data is preceded by the specified text, apply the specified rule
Suffix	If the data is followed by the specified text, apply the specified rule
Equals	If the data is the same as the specified text (or number), apply the specified rule
Brackets	If the data is contained within brackets, apply the specified rule

Type the text you want to use for the filter option directly into the Text field.

Rule serves as a multiplier – the default value is 1, thereby having no effect on the data. You can enter

decimals into this field, thus enabling you to use the Rule to divide by numbers as well (for example, if you wanted to filter by dividing certain data by 1000, you could enter a value of .001 in the Rule field).



Examples of the use of the Data Filters option: We want to take data from a General Ledger system, which represents positive values as normal, but represents negative values as a positive value inside brackets, hence -65000 would appear in our file as (65000). We want to use this data in our model, in which negative values are represented as negative numbers. Hence, we want to turn (65000) into -65000. In the Data Filters dialog, we create a new filter, choose the option Brackets, and enter a value of -1 in the Rule cell. Any data contained in brackets will be multiplied by -1 (i.e. will become negative)

Mapping

Mapping is the process of assigning dimensions in the Input file to corresponding dimensions in the Output file. This needs to account for dimensions having different names on different systems or not even existing at all in one system.

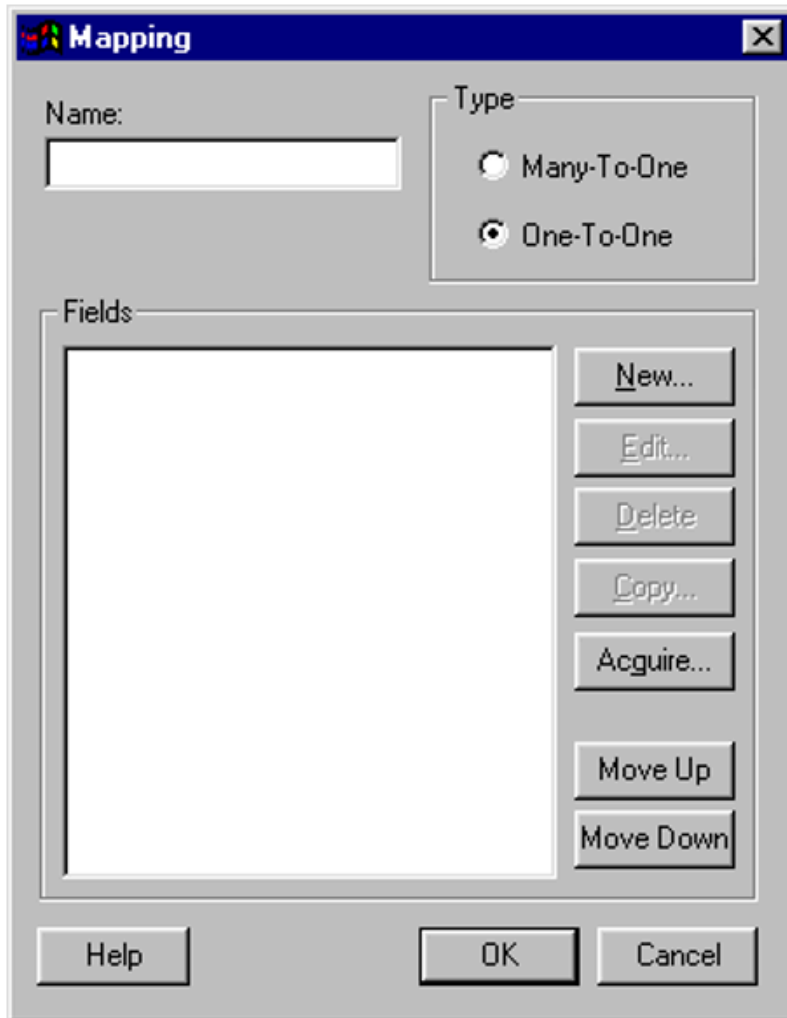
From the main Channel Process dialog box, click the **Mapping** button. This will display the Mapping Selection dialog box.

Because we have no mappings defined yet, this box is empty. As new mappings are defined they are added here. The buttons on this box are:

New	Adds a new blank mapping, and opens it for editing
Edit	Opens the selected mapping for editing
Add	Add a mapping from an external source (such as another copy of Channel). It functions rather like an import function. If you click this button it will display a standard file open dialog box – select the mapping file that you want to use and click OK. This mapping will now be available within this copy of Channel.
Delete	Deletes the selected mapping. You can select more than one mapping to delete.
Copy	Creates a copy of the selected mapping and opens it for editing – by default, its name will be Copy of mapping.
OK	Accepts selected mapping for the current process you are working on and closes the dialog box
Close	Closes the dialog box without saving changes

New Mapping

Clicking **New** to create a new mapping will open the following window.



Name	Enter a unique name for this mapping
Type	This allows you to specify whether the mapping will be: One-To-One – every line in the input file will have a matching line in the output file Many-To-One – lines that refer to the same members will be consolidated into one line – in this example, two lines that specify the same product and variable will be combined as one line, data fields being accumulated
New	Adds a new blank mapping field, and opens it for editing
Edit	Opens the selected mapping field for editing
Delete	Deletes the selected mapping field. You can select more than one mapping field to delete.
Copy	Creates a copy of the selected mapping field and opens it for editing – by default, its name will be Copy of mapping.
Acquire	Allows you to acquire the mapping fields from a defined input format
Move Up	Moves the selected mapping field up in the list – the order that fields appear in this mapping will dictate their order in the output file
Move Down	Moves the selected mapping field down in the list
OK	Accepts selected mapping fields for the current mapping you are working on and closes the dialog box

Cancel	Closes the dialog box without saving changes
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Defining the Mapping

For each field in the input file, every different item should be mapped to an item for the output file. For example you may need to map account codes from the source system to the variable names used in your Cubix model. Such as:

Input Name	Output Name
ABC12	Profit00100
ABC12	Profit00100
ABC13	Profit00200
ABC14	Profit00300

The mappings can be defined manually one by one, or by using the **Acquire** option to populate with all the source file members, leaving just the output names to be specified.

Defining Mapping Manually

Manual definition of mapping is not the most efficient method, particularly when there are lots of different possible input names in a field. However, where only a few items exist, it can be as quick, if not quicker to add them manually rather than using the full acquire process (described below)

From the Mapping window, click **New** to add a new field. The **Mapping Field** window is used as follows:

Mapping Field

Field Name:

Type

☐ Unmapped Reference ☒ Mapped Reference

☐ Assumed Reference ☐ Member Data ☐ Data

Maps:

Input Name	Output Name	Rule
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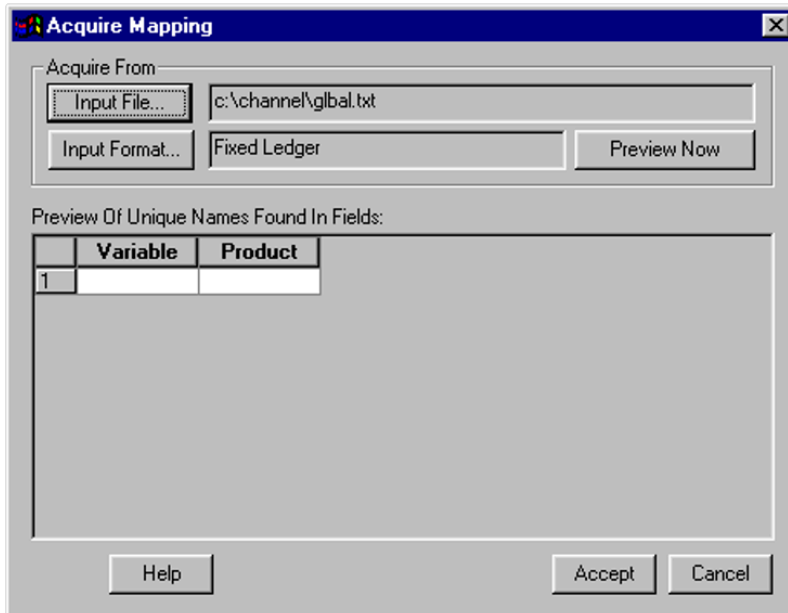
Help New Delete OK Cancel

Name	Enter a name for this mapping field
Type	There are five options available for the type of mapping that will be applied to this field. They are: Unmapped Reference – this field contains reference data (i.e. specifies what the data fields on this line refer to) and the names are not changed by the mapping. That is the names that come in are the same as the names that go out. Mapped Reference – this field contains reference data but the names are mapped so the output names can be different to the input names. Assumed Reference – this field contains reference data but the output is fixed to one particular name. Member Data – this field contains data (as opposed to the reference information in other fields). Data fields are not used to define mapping, but rather are the result of the process which will be loaded into Cubix. Data – this field contains the actual data values to be processed. You MUST include a mapping for data fields when the mapping is a “Many to One” type mapping. This tells Channel what fields to process the summarisation on. For a “One to One” type mapping, identifying the data fields is not normally necessary.
New	Adds a new field – this is where you specify input names of members and map them to corresponding output names
Delete	Deletes the selected member. You can select more than one member to delete.
Copy	Creates a copy of the selected mapping field and opens it for editing – by default, its name will be Copy of mapping.
OK	Accepts the member names for the current mapping field you are working on and closes the dialog box
Cancel	Closes the dialog box without saving changes (for instance, if you had changed the member names for the current mapping field, then clicked Close this change would not be saved)
Input Name	Type the name of the input member name or names – for instance, if you want to map variables called “Sales” and “Costs” you would need to name these on individual lines
Output Name	Type the name that you want each input name to correspond to in the matching Output Name field – for instance, if you want input name “Sales” to become output name “Total Sales” you would make a new entry, type “Sales” as the input name, and then type “Total Sales” as the output name
Rule	Specify an optional rule for each entry – this allows you to convert specified members during the mapping process. The rule works by multiplying the data specified by the line’s input name by the value specified in Rule.

Once you have manually specified every expected member for the first mapping field, click OK and return to the Mapping dialog, and create a mapping field for every field in the input file, then repeat for each one the process of matching input names to output names.

Defining Mapping using Acquire

From the Mapping dialog box, click the Acquire button. This will display the Acquire Mapping dialog box.



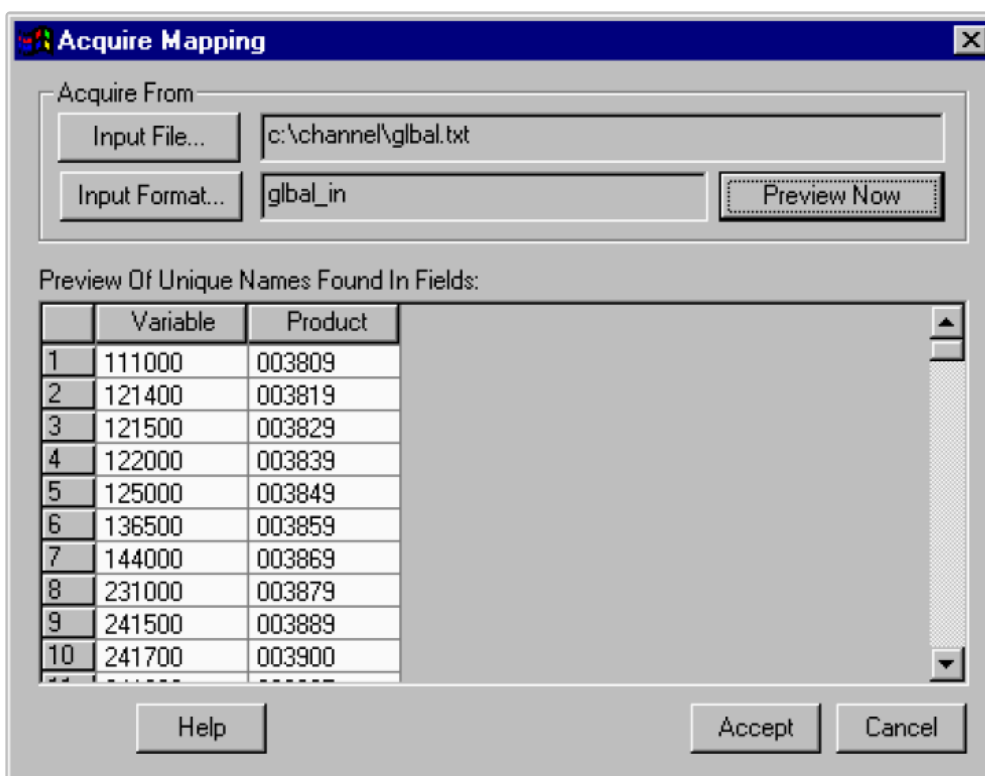
The **Input File** is selected. This is the source file you are wanting to map.

The **Input Format** is selected. This is the format you defined to go with the input file.

Because the **Acquire** function has already analysed the input format, it has recognised which fields are text type (in this instance Variable & Product) and determined that these are the reference fields to be mapped.

Click the **Preview Now** button to start the process of acquiring the unique names found in the fields.

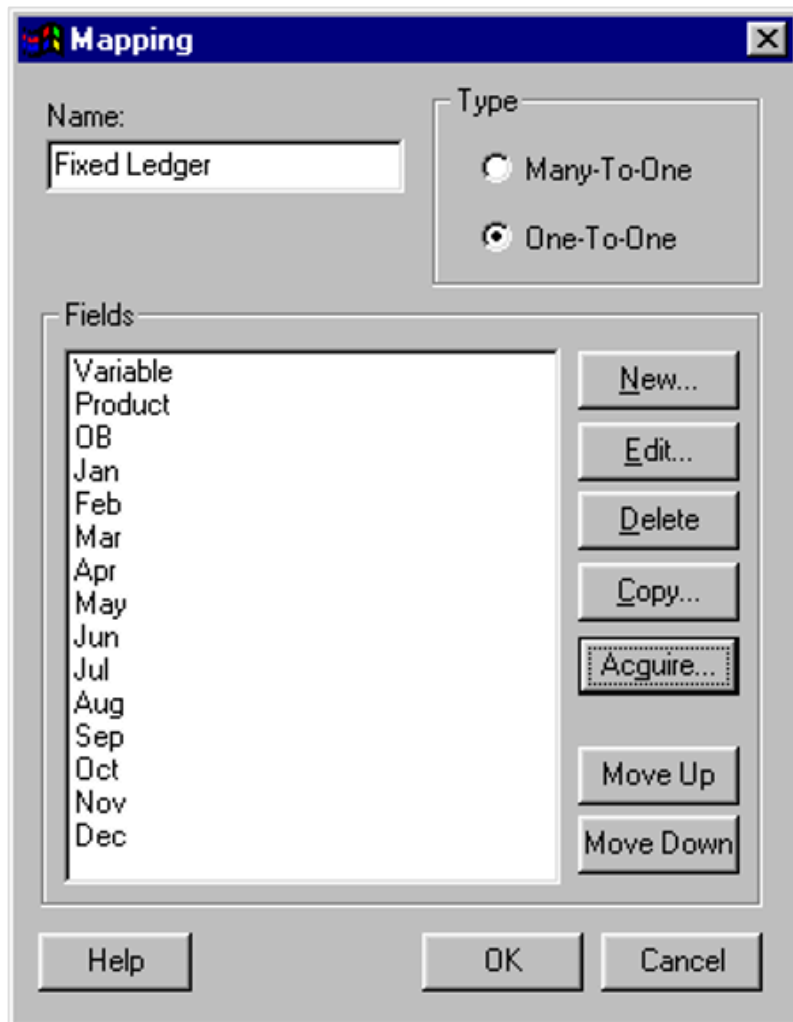
Click **OK** and the names found will be displayed in the grid on the Acquire Mapping dialog, similar to below.



If the names found are correct, click **Accept** to return to the Mapping dialog box.

Your input file will include at least one field marked as Data type. Channel recognises that it is not necessary to acquire the names in these fields (as they are data, not reference), but as they are included in your format they need to be included in the mapping process. You will be prompted to confirm that you wish to include these in your mapping.

Click **Yes** to include these data fields as part of the mapping. When you return to the Mapping dialog you will see the new fields included in this mapping.



The image shows a 'Mapping' dialog box with a blue title bar and a close button. It contains a 'Name' field with the text 'Fixed Ledger'. To the right, under the 'Type' label, are two radio buttons: 'Many-To-One' and 'One-To-One', with 'One-To-One' selected. Below these is a 'Fields' section containing a list box with the following items: Variable, Product, OB, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, and Dec. To the right of the list box are several buttons: 'New...', 'Edit...', 'Delete', 'Copy...', 'Acquire...' (which is highlighted with a dashed border), 'Move Up', and 'Move Down'. At the bottom of the dialog are three buttons: 'Help', 'OK', and 'Cancel'.

Pairing Input Names and Output Names

Now that the fields to be mapped have been acquired and defined, all that remains is to tell Channel how each item in the fields should be mapped. For instance, should they be mapped to something with the same name or to a different name.

In turn, select each field to be mapped and click the **Edit** button. The **Mapping Field** window is displayed.

Mapping Field

Field Name:

Type:

☐ Unmapped Reference ☒ Mapped Reference

☐ Assumed Reference ☐ Member Data ☐ Data

Maps:

	Input Name	Output Name	Rule
1	111000		1
2	121400		1
3	121500		1
4	122000		1
5	125000		1
6	136500		1
7	144000		1
8	231000		1
9	241500		1
10	241700		1
11	241800		1
12	242000		1
13	246000		1
14	251000		1
15	251500		1

Help New Delete OK Cancel

If the acquire function has been used, or if you have already manually entered some mapping details, this window will already be partially populated and any text type fields will be marked as **Mapped**.

All of the unique names found during the acquire are in the **Input Name** field and the Rule column is set at a default value of 1.

To complete the mapping, **Output Names** need to be entered against every **Input Name**. This can be done manually by entering the required name against the appropriate Input Name, or the full list can be copied and pasted into Excel using Ctrl-C and Ctrl-V, to be completed and then copied and pasted back into the Mapping Table..

The **Rule** value allows member values to be converted during the mapping process. The rule works by multiplying the data specified by the line's input name by the value specified in Rule. For example if you wanted to reverse the sign of all values from a certain Input Name, you would set the Rule to -1.

This process should be repeated for all reference fields in the Mapping Field list. Data fields do not need to be mapped.

Output Format

The output format is used to specify the layout of the final output file. This is very similar to creating an Input Format. You are stating which columns you need in your output file and in which order.

To define an output format, click the **Output Format** button. This will display the **Format Selection** dialog box.

The Format Selection dialog lists input formats and output formats together and if you want all the same columns in the same order, it could be that an input format you have already defined is suitable as an output format too.

However, it is often the case that the number of columns being output and/or the order of the columns differs. In which case a good starting point is to make a copy of an input format and to then change that as necessary.

Click the **Copy** button – this will make a copy of the currently selected format and open it for editing. You can then make the changes necessary for the output and save the format with a new meaningful name.

Format

Name:

Data Type:

☐ Delimited ☒ Fixed Length

Delimiter:

Text Qualifier:

☐ Supports Delta

Layout

☐ Section Based

First Line:

Last Line:

Section Name:

End of Line:

Fields:

	Name	Type	Number	
1	Variable	Text	0	0
2	Product	Text	1	6
3	OB	Value	2	1
4	JAN	Value	3	2
5	FEB	Value	4	3
6	MAR	Value	5	4
7	APR	Value	6	6
8	MAY	Value	7	7
9	JUN	Value	8	8

New...
Delete
Acquire...
Move Up
Move Down

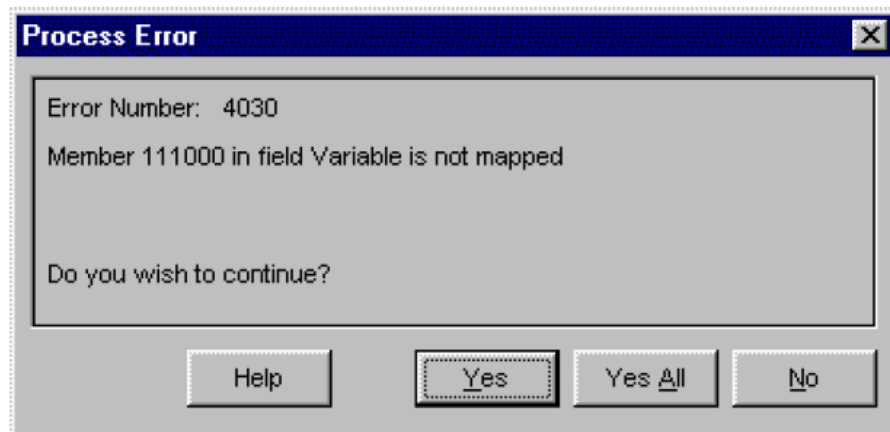
Ignore Lines... Data Filters...

Help OK Cancel

Validating and Processing

Once the input and output formats and the mappings have been established, you are ready to process. As a first step, you may want to try to validate first – this will check the formats and the mappings, checking for un-mapped fields, fields mapping to inappropriate types of fields, and so on. Unlike the option to process, validate does not actually process all of the files – it simply examines the structures.

Click the **Validate** button. If there are areas of the process that have not been correctly set up, you will see a process error dialog box, alerting you to the area that requires attention. It will look something like this...



This message is telling us that an item has been found in the variable field in the input file, but that it hasn't been included in the mapping. The mapping table will need to be updated to include this member. You can click **No** to stop the validation at this point, **Yes** to continue the validation, stopping at each subsequent errors are found or **Yes All** to continue validation skipping over any further errors. All errors encountered are recorded in the **Session Log** file which can be viewed from the main channel window.

If validation is successful you can continue on to run the full process.

Channel Processing

Make sure all fields in the main channel screen have been completed, including the name and location of the input file and output file.

Append to output file allows you to append the resulting data from a channel process file to an existing output file. You may want to do this if you are processing a number of different source files with the same layouts to be loaded into Cubix in one go.

Import output file allows you to automatically import the nominated output file into Cubix. Note that to import a file produced by Channel, the file must be a valid Cubix Import format including any necessary header detail.



To create a seamless process which maps and loads data in one action, create a header

section file and process that through the mapping with unmapped references as the first file in a batch. Then process all the data files and for each one select **Append to output file**. For the last file in the list also select **Import output file**

Planning & Forecasting

As well as using ActFor version types for rolling forecasts and using the rules to create assumption and driver based budgets and forecasts, Cubix includes some special planning and forecasting tools which can be used to manipulate and test forecasts creating what-if scenarios and alternative outcomes.

Profiler

The **Profiler** function allows you to create forecast data based on a source set of data from within the Cubix model, such as prior year actual perhaps, with a function or value applied to produce the new forecast.

The functions that can be applied include:

- Set To Value
- Add
- Copy
- Grow By
- Grow To (Linear)
- Grow To (By Constant %)
- Trend

These are explained in more detail in the following **Profiler** section.

Auto Profile

The **Auto Profile** function is similar to the Profiler function in that it allows forecasts to be populated based on source data, however, it also offers the capability to Spread a value back across preceding time periods. Once the Auto Profile has been set and applied to a line of data the target value can be easily changed by entering a new figure, but the profile method and rules remain constant.

Top Down Budgeting (TDB) Outlines

Top Down Budgeting enables you to take existing values and change a higher level figure such as in a consolidation entity or a calculated cell, and have that change cascade down through the hierarchy from the point at which you made the change, changing child values accordingly.

Top Down Budgeting outlines can be applied directly to the data or saved as a set of named outlines to be applied at a later time.

Profiler

The profiler function allows you to define a target data range and then populate that range with forecast values based on a series of mathematical functions.

Profile values can never over-write pre-existing values – if a cell contains input data, or calculated data, or adjustment data, the cell will not accept the profiler data. The only exception to this rule is other profiler values, which can be replaced by new profiler values.

Once a profile has been created, the information about that profile is stored permanently with the database, and cannot be deleted or modified unless the data resulting from that profile has been removed from the model. This provides a useful way to keep track of exactly what steps were taken to produce profile values.

Creating A New Profile

In a browser, select the range of cells that you want to apply the profile to (you can change these specifications from the profile dialog box later if you wish). From the **Planning** group on the Cubix menu ribbon, select **Profile**. This will present the Profiler dialog box.

Profile [New]

Profile Name:

Applied:

Function:

- ☒ Set To Value
- ☐ Add
- ☐ Copy
- ☐ Grow By
- ☐ Grow To (Linear)
- ☐ Grow To (By Constant %)
- ☐ Trend

Value:

Source Selection

Table: Main

Dimension:

Selected Members:

From Period: JAN

To Period: JAN

Modify Selection...

Target Selection

Table: Main

Dimension: Entity

Selected Members:

FRANCE

From Period: JAN

To Period: JAN

Empty Data Modify Selection...

Help OK Cancel Apply

Profiler Functions

Each profile can be created using one of seven functions. These functions combine (where necessary) with source data and an input value to populate the target range with forecast data. The seven profiler functions are:

Set to	Sets the target to the value specified. Value can be positive or negative, but cannot be a
--------	--

Value	percentage.
Add	Takes the values from the source selection, adds the value specified, and copies the result to the target selection. Value can be an absolute value (e.g.. 200) or a percentage (e.g.. 50%, which would be the original value plus 50% of original value)
Copy	Copies the values from the source selection to the target selection. Ignores any user-supplied Value
Grow By	Grows the selected cells by the Value, starting from the value in the first period. This can be an absolute value (e.g.. 200) or a percentage (e.g.. 50%)
Grow To (Linear)	Grows the selected cells to the Value specified, by a constant amount each period. Value can be an absolute (e.g.. 200) or a percentage (e.g.. 150%).
Grow To (By Constant %)	Grows the selected cells to the Value specified, by a constant percentage each period. Value can be an absolute (e.g.. 200) or a percentage (e.g.. 150%). This function will not work if the first value is 0.
Trend	Populates the target cells such that the total of the selected periods equals the specified value. The populated figures will be distributed based on the trend of the source data range.

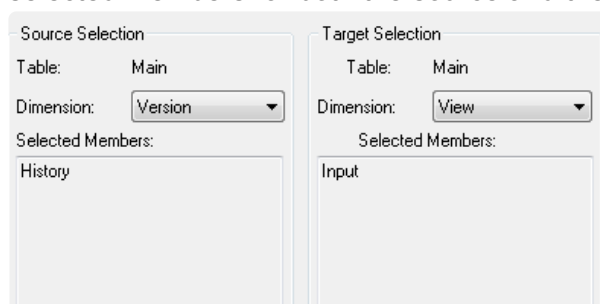
For the functions that require one, enter a **Value** in the box

Some of the functions require the selection of a source data range. For these functions the middle section of the Profiler dialog box will be enabled. Here you can select exactly the range of source data that will be used as the basis for the output of this particular profile to the target range.

Similarly, the right hand section of the Profiler dialog box shows the target range. This is where the forecast results will be populated. The target range will likely already be defined from the browser settings, but you can check it here and change it if necessary.

Modifying the Source and Target Selections

The **Dimension** drop down boxes allow you to select each dimensions in turn and review the currently selected members for both the source and the target ranges.



The screenshot shows two side-by-side panels for 'Source Selection' and 'Target Selection'. Both panels have a 'Table:' dropdown set to 'Main'. The 'Source Selection' panel has a 'Dimension:' dropdown set to 'Version' and a 'Selected Members:' list box containing 'History'. The 'Target Selection' panel has a 'Dimension:' dropdown set to 'View' and a 'Selected Members:' list box containing 'Input'.

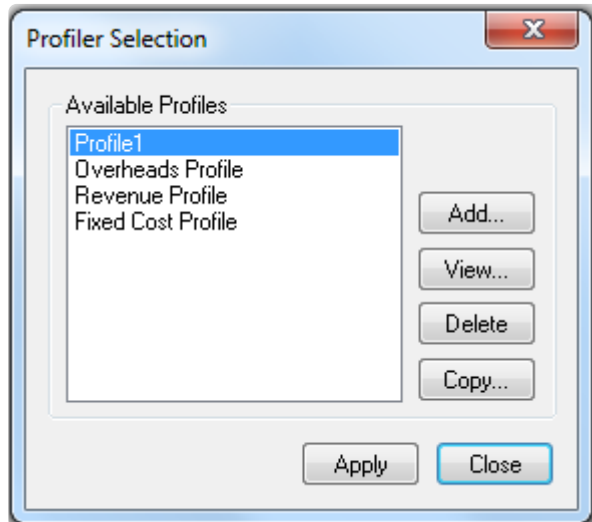
Click **Modify Selection...** to make changes to the current or default data ranges. The **Member Selection** window is displayed.

In the Member Selection window, you can choose each dimension in turn and make a selection of which members will be included in your data range.

When all your selections have been made you can choose to **Apply** it directly to the database or just click **OK** to save the profile for later use.

Apply, Modify, Copy or Delete an Existing Profile

The **Apply Profiles** option from the Planning menu lists all the defined and saved profiles.



From here you can:

- Apply a saved profile
- Add a new profile
- View and edit an existing profile
- Delete an existing profile
- Create a copy of an existing profile to use as the basis for a new profile



It is not possible to delete a profile whilst there is data in the model that derives from that profile. If you wish to remove a profile, it's data range must be emptied first by viewing the profile and clicking on the **Empty Data** button.

Auto Profile

The **Auto Profile** feature in Cubix allows you to change values in the **Spread** column in a Forecast or ActFor type Version. This results in an instant change in values across the time periods for the appropriate variable. Auto Profile data is also recalculated automatically if values are input directly, if source data changes and if the **Always Calculate** option is switched on (in the Auto Profile dialog box).

Auto Profile differs from Profiler due to the automatic application and the 'Periodicity' of the profile. This means that by applying an Auto Profile via the Spread column it will automatically be applied to the Variable it is 'attached to', across all Time Periods. It will also take into consideration any value that may have been input directly into cells.

Spread Column

To use the auto profile function your model must include a **Spread** type time period. This is part of the time dimension, more details [here](#). The Spread column is typically used to enter a target value for the total of the periods (i.e. the total for the year) which is then allocated or 'spread' back across the preceding time periods.

To enter a spread value you must have a browser open showing the range you wish to profile. You can then either double click on a cell in the Spread column or, with at least one cell in the range selected, click on **Auto Profile** from the Cubix Planning menu.

Auto Profile Functions

Auto Profile

Function

☐ Set To Value
 ☐ Grow By
 ☐ Change In Account

☐ Copy
 ☐ Grow To (By Constant %)
 ☐ Multiple

☐ Grow To (Linear)
 ☐ Trend
 ☐ Grow By Account

☐ Add
 ☒ Spread
 ☐ Reduce By Account

Source Rule

Value:

☐ Treat as Percentage (%)

☒ Always Calculate
 ☐ Apply As Input
 ☐ Keep Spread Value

The default function for Auto Profile is **Spread**. This takes the entered value and spreads it equally over the available time periods.

All of the available functions are as follow:

Function	Action
Set To Value	Will set each available time period for the current variable to the Value specified.
Copy	Copies values from a range defined by the Source Rule into the selected variable. See below for details on how to define a source rule.
Grow To (Linear)	A Target Value (either as an absolute or as a percentage of the first value) is specified to which the values grow over the time periods.
Add	The Value, either as an absolute or as a percentage will be added to the values in defined in the Source Rule
Grow By	Within the same Variable line, will take the value of the previous Time Period and increase it by a Value (either as an absolute or a percentage figure).
Grow To (By Constant %)	A Target Value (either as an absolute or as a percentage of the first value) is specified to which the values grow over the time periods. Similar to Grow To, but the rate of growth is a constant % over the time periods.
Trend	Allocates the target value over the time periods using the source rule to determine a data range to use as a distribution profile.
Spread	Spreads the entered value equally across the available time periods.
Change In Account	Populates from a starting value with each subsequent period value representing the same percentage change as the source rule data.
Multiple	Multiplies the source rule data by the entered value
Grow By Account	Takes an entered starting value and grows it each period by the amount in the equivalent source rule data.
Reduce By Account	Takes an entered starting value and reduces it each period by the amount in the equivalent source rule data.

Source Rule

The **Source Rule** is required with some of the functions where a data source needs to be specified. For example, if you have selected the 'Copy' function, you must specify where to copy that data from. The Rule Wizard button accesses a wizard that assists in the creation of a Rule. This can be used for any function that requires source data.

When activated, the Source Rule field can be used as a selection drop down to choose another variable from the same data view as the source. This can be useful where for instance you may want to profile a cost based on revenue or perhaps where you have a variable containing a predefined allocation profile (4-4-5 or working days or something similar) to be used for certain items.

Rules to define a source data range are written on the format of dimension member names separated by a colon (:). They also follow the principle of 'Range by Exception'. This means that unless a dimension

member is specifically mentioned in the rule, the dimension members of the current data selection will be used.

So for example:

- Entering `Actual` in the rule, where 'Actual' is the name of a version, will define the Actual data for the current browser settings as your source data.
- Entering `History:PL500` in the rule would define the data from the 'History' version for variable 'PL500'