



XempleX Professional™ 3.0

Guided Tour



Introduction

Xemplex Professional™ is a desktop graphical modelling and integration tool for business process management and business intelligence analysis. Xemplex Enterprise Broker™ expands on the functionality in Xemplex Professional to provide multi-user support, version control and a range of other benefits.

This document is an introduction to the Xemplex Professional desktop environment. See also the *Xemplex Enterprise Broker™ Guided Tour*. Additional information about Xemplex™ solutions is available at www.xemplex.com.

The Xemplex world

Xemplex **models** graphically and realistically represent business processes and the logic required to translate business data into meaningful business intelligence. This use of images—rather than code or scripts—makes auditing and troubleshooting significantly easier.

Xemplex models can draw on data from databases, spreadsheets and applications (Figure 1).

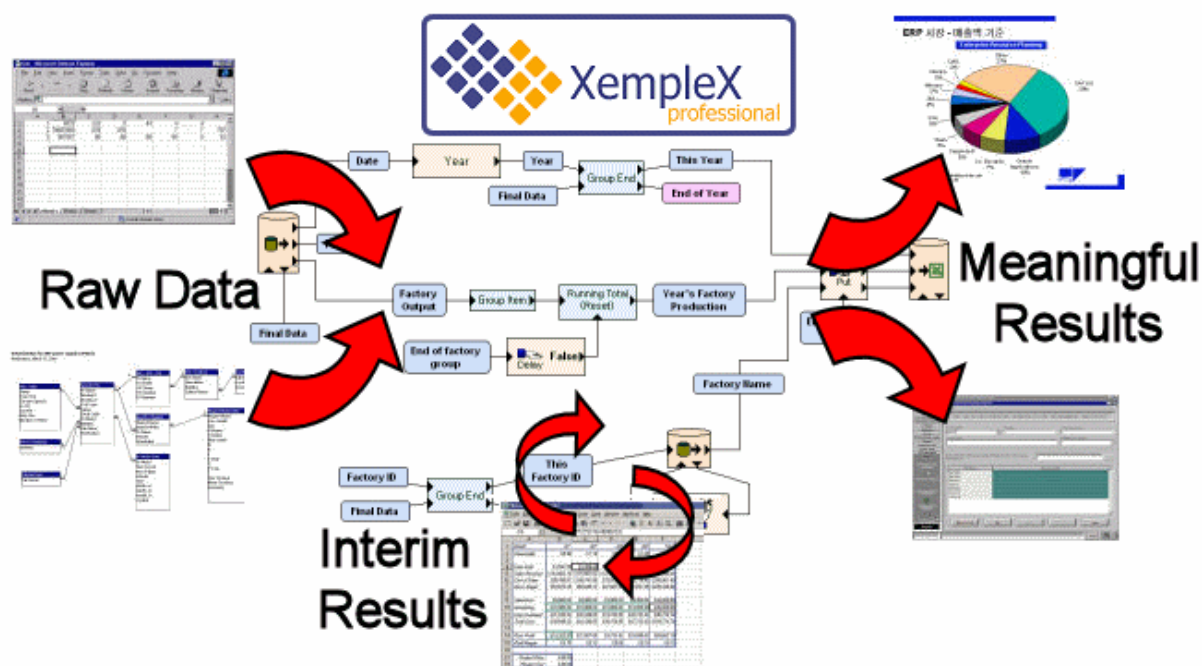


Figure 1. A Xemplex model interacts with data from a range of sources.

Databases and spreadsheets are good at storing and displaying data. However, they fail to represent business logic in a way that is visible and easily understood by every user. Spreadsheets are particularly prone to error because of the importance placed on the position of data. No-one should have to update their underlying business logic simply because they want to change the appearance of a report.

Xemplex Professional lets databases and spreadsheets do what they do best—store and display data—but takes responsibility for the intelligence behind the process.

Xemplex Professional provides both the visible logic and middleware functionality to integrate a range of diverse data storage and display systems into a single unified business intelligence and process modelling system.

The Xemplex Professional desktop

Xemplex Professional is a Windows®-based desktop application that allows you to create, edit, view and run models and Xempls™¹. You'll learn more about models and Xempls during this tour.

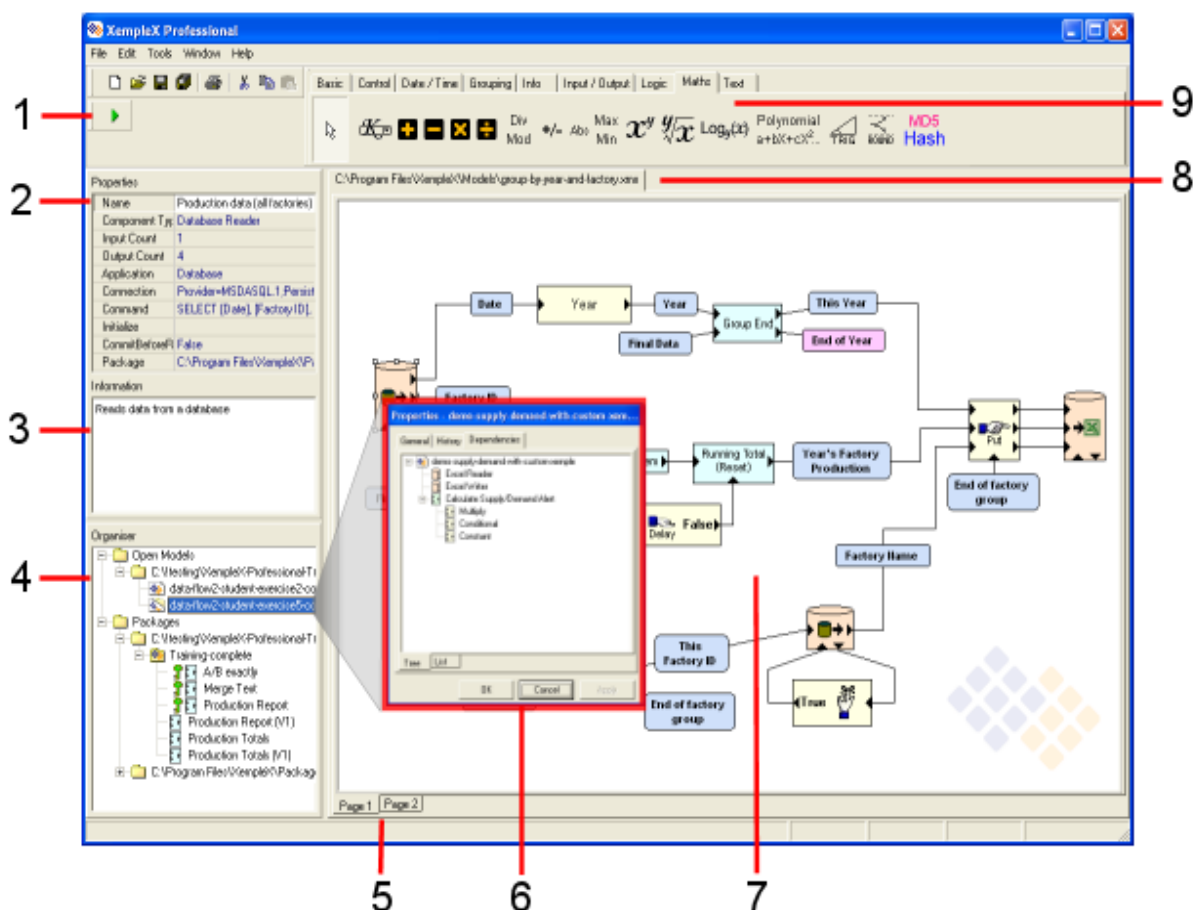


Figure 2. The main Xemplex Professional window.

1. **Run Button.** Runs the selected model.
2. **Properties Window (1).** Displays detailed technical properties and options for the Xemplet selected in the Drawing Board.
3. **Information Window.** Displays a description of the currently selected Xemplet
4. **Organiser.** Manages open models and available Xempls. Provides access to Xemplex Enterprise Broker functions.
5. **Page Tabs.** Allows you to lay out large models over a number of pages.
6. **Properties Window (2).** Displays historical and overview information about any item in the Organiser.

¹ Xempls are sometimes referred to as **Components**.

7. **Drawing Board.** The area in which models are drawn.
8. **Model/Xemplet Tabs.** Allows you to navigate between several open models, or to view Xemplet details.
9. **Xemplet Tool Bars.** Displays Xemplets in icon form.

Help is available in a number of places:

- The **Help** menu
- Right click any Xemplet in the Tool Bar and select **Help**.

What *is* a XempleX model, exactly?

A XempleX model is like a flowchart that represents a business process or calculation—but with added brains. Where a flowchart simply *describes* a process, a XempleX model additionally *applies* that process to real data and produces results you can actually use.

For example, the simple XempleX model in Figure 3 produces a 'Supply/Demand Alert' of "True" or "False" by comparing the number of widgets sold in a month, with the number of widgets produced that month. The model describes a simple decision-making process.

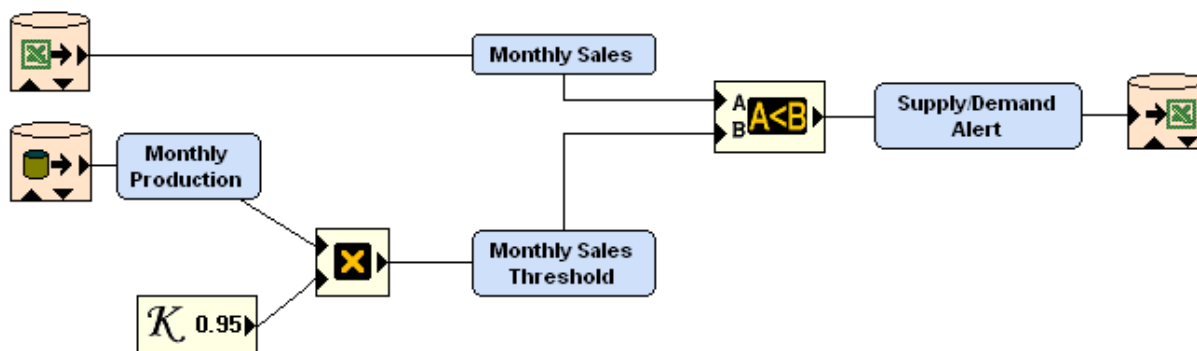


Figure 3. The 'Supply/Demand Alert' XempleX model compares sales and production figures.

When you run the model you apply that decision-making process to any set of monthly production and sales figures the model is given (Table 1).

Month	Widgets sold	Month	Widgets produced	Month	Supply/Demand Alert
January	100	January	100	January	False
February	50	February	100	February	True
March	58	March	60	March	False
...

Table 1a. XempleX model input 'Monthly Sales'. Monthly Widget Sales data is in a spreadsheet filled by a Sales Manager.

Table 1b. XempleX model input 'Monthly Production'. Monthly Widget Production data is in a database populated by an automated factory control system.

Table 1c. XempleX model output 'Supply/Demand Alert'. Monthly Widget Supply/Demand Alerts are added to a management dashboard spreadsheet by the XempleX model.

Table 1. Sales and Production data used as inputs by the 'Supply/Demand Alert' XempleX model. The sales and production data come from two different sources, and the model writes out the results to a third location.



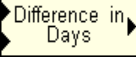
If the raw data is not available in a form that your model needs, you can extend your model to rearrange the raw data first.

You do not have to write code or use a complicated scripting language, nor does the model generate code. It is a *purely* graphical language: you draw a picture, connect the data, then click Run. It's that simple.

About Xemplets

XempleX models are constructed of building blocks called **Xemplets**. Xemplets are icons that visually represent connections to data, parts of calculations and logic steps.

Xemplets are batched in groups called **Packages**. XempleX Professional includes several Packages of standard Xemplets, but most importantly you can also create and publish your own Xemplets.

Xemplets can be very simple. For example, a **Constant** Xemplet  is used to represent a fixed value (in this case the number 6). Other Xemplets perform more complex operations such as reading data from a database,  or processing date and time information. 

The raw detail in models (e.g. financial calculations) can be collapsed into your own Xemplets. Xemplets allow you to build high level models that are easy to read, with all the details a mouse click away. Your Xemplets can be used several times within that particular model, or published for use in other models.

XempleX Enterprise Broker is a suite of tools to help organisations manage their Xemplets, and allows you to share Xemplets and models with other users. More information about the publication process and Xemplet management across the enterprise can be found at www.xemplex.com.

Building models

When you build a model you tell XempleX where to find the raw data (Inputs), what to do with it (Logic) and where to put the results (Output) (Figure 4). How you build your model—including the sequence—is up to you. Start with what you know.

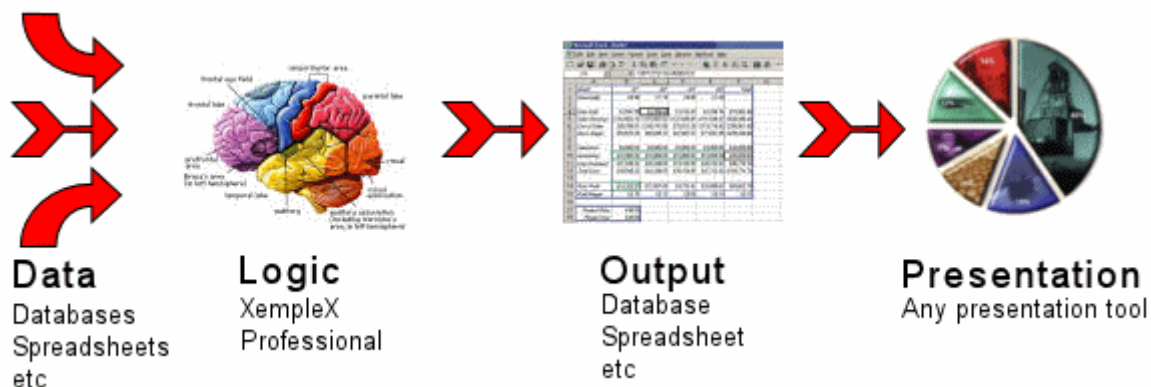


Figure 4. XempleX Professional sits between data sources and presentation tools. Models do not store data or results.

Figure 5 illustrates the basic steps to build a model:

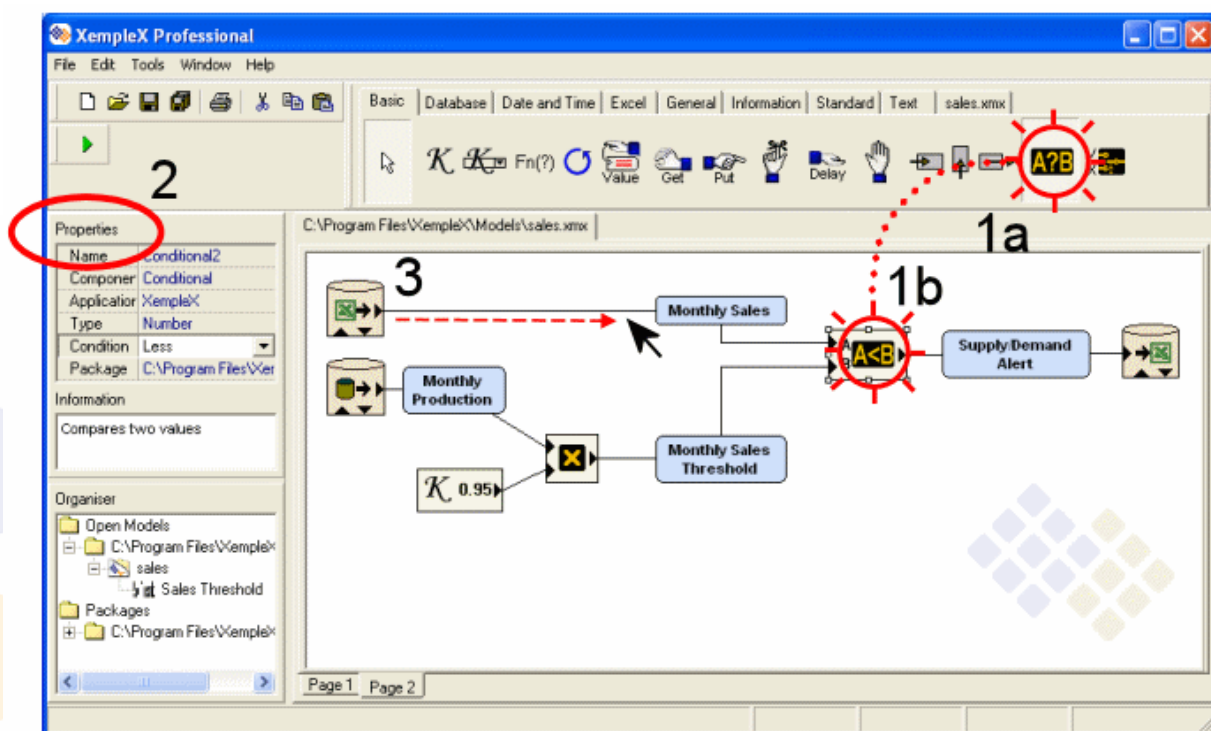


Figure 5. The basic steps to build a model: 1a. Select Xempls. 1b Add Xempls, 2. Set options, and 3. Link the Xempls together in sequence with connections.

1. Add Xempls. (a) Click to select the Xemplet on the Tool Bar, then (b) click on the Drawing Board where you want to add it. You can also drag Xempls from the Organiser to the Drawing Board.
2. Set Xemplet options in the Properties window.
3. Use **Connections** to join the Xempls together in sequence. Drag the mouse from the output **Connector** of one Xemplet to the input Connector of another.

Xempls called **Named Values** (e.g. Monthly Production) are added to the model to represent inputs, outputs and interim values within the model. These can be text, numbers, DateTime values or Boolean values (True or False). Named Values are the key to making your model easy to follow.

The model in Figures 3 and 5 sets **Supply/Demand Alert** to “True” if **Monthly Sales** are less than 95% of **Monthly Production**.

This model has two inputs from external data sources, as seen in the top left corner of the model. Monthly Sales data is an input read by an **Excel Reader Xemplet**, and the Monthly Production data is an input read by a **Database Reader Xemplet**. Sample figures are shown in Table 1.

The Supply/Demand Alert is the “True” or “False” output calculated by the model. A Supply/Demand Alert value for each month is written into a spreadsheet by an **Excel Writer Xemplet**, as seen on the far right of the model.

Reader and Writer Wizards in XempleX Professional help you to select specific files and data (see Figure 6).

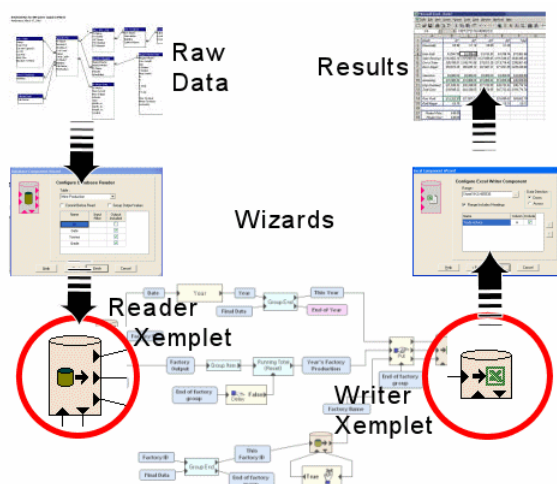


Figure 6. Reader and Writer Xempls feature Wizards to help you to select data sources for inputs and destinations for results. To review the details of Reader or Writer Xemplet in an existing model, right click the Xemplet and choose **Wizard**.

To open a spreadsheet directly from your model, double-click the Excel Reader or Writer Xemplet.

Running models

To run a model, open the model file with XempleX Professional, then click the **Run** button in the top left corner of the screen.

Creating new Xempls

In this model, the **Monthly Sales Threshold** calculation can be turned into a new Xemplet. This will enable you to use the calculation again elsewhere in the same model.

To make a new Xemplet, follow these three simple steps:

1. Use the mouse to select the relevant section of a model.

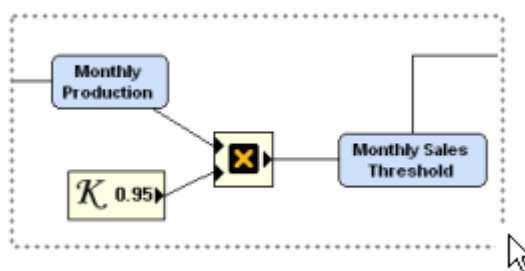


Figure 7a. Select a section of the model with the mouse.

2. Right click and choose Create Xemplet.

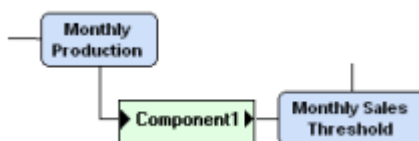


Figure 7b. When a section of a model is first converted into a Xemplet it looks like this. Note that the Named Values that are the inputs and the outputs of the new Xemplet are still visible in the model.

3. Give your new Xemplet a name in the Organiser (see also Figure 9).



Figure 7c. The newly renamed Xemplet in place in the model.

Figure 8 shows how the model now appears with the new Xemplet in place. To view more details in a model, double-click a Xemplet (this is called 'drilling down'). The insides of the Xemplet are displayed on a new tab.

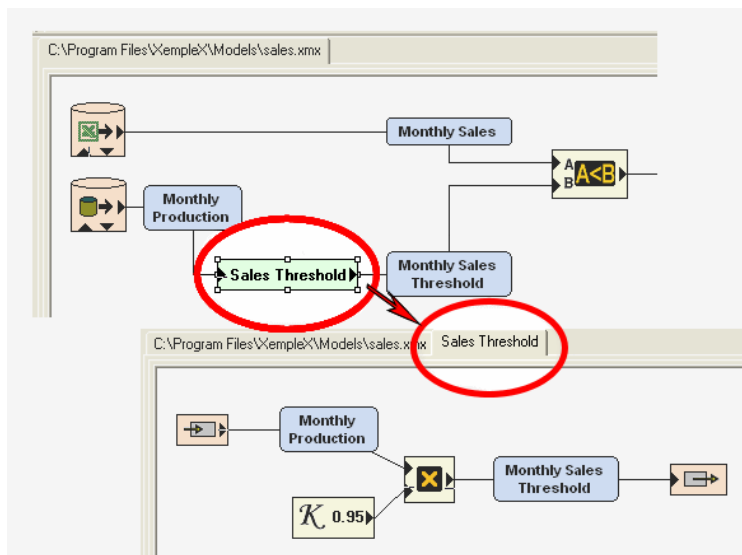


Figure 8. The **Monthly Sales Threshold** calculation now embedded in a new Xemplet called **Sales Threshold**. Note that the Named Values that represent the inputs and outputs of the Xemplet appear in both the model view and the Xemplet view.

Your new Xemplet can be used as many times as you like in that model, but to be used in your other models it has to be published in a Package.

Publishing Xempls

Publishing allows you to use a Xemplet in more than one model. Once you have created a Xemplet in a model, go to the Organiser and select or create a new Package.

Publication is then simply a matter of dragging your Xemplet from the Open Model to the Package (Figure 9). You have the option to add your new Xemplet to a Toolbar, or you can access it from the Organiser.

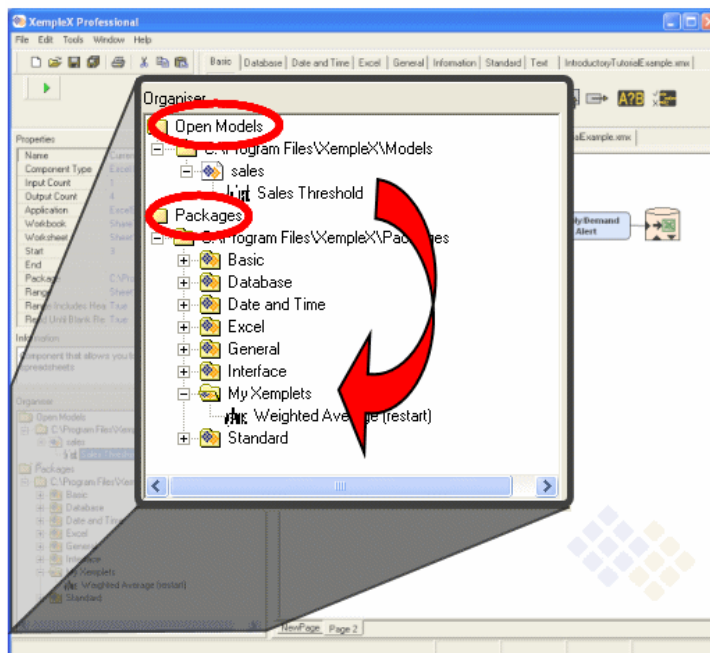


Figure 9. To publish a Xemplet, go to the Organiser and drag the Xemplet from the Open Models section into the Packages section.

The Sales Threshold Xemplet is not limited to monthly data—you could use it in other models for weekly, quarterly or annual analyses.

To share this Xemplet with other users you will need Xemplex Enterprise Broker. Xemplex Enterprise Broker provides extra support for managing, sharing, tracking and auditing your organisation’s Xemplet library.

Modifying Xemplets and models

Over time you’ll spend less time creating new models from scratch with standard Xemplets, and more time working with your own Xemplets and modifying existing models. Xemplex Professional includes several overviews of model structures to help you to understand your models. (Figure 10).

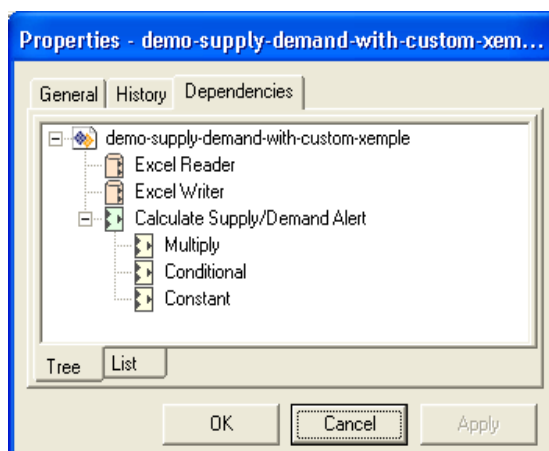


Figure 10. All the Xemplets used in a model (or Xemplet) are shown in the overview Properties window, accessed from the Organiser. This view shows the hierarchy of Xemplets at each level of the model.

Models and Xemplates can be easily modified by adding new logic or connections. For example, you may want to expand the **Sales Threshold** Xemplate to take into account advance orders. When you modify a published Xemplate, every model that uses that Xemplate will be updated.

XempleX Enterprise Broker gives you many more options for managing these updates.

Where to from here?

Most XempleX Professional installations include sample models for you to explore. These can be found in the **Examples** folder under the XempleX install location (e.g. C:\Program Files\XempleX\Examples\). Examples are also published at <http://www.xemplex.com/>

Additional product information for XempleX Professional and XempleX Enterprise Broker can be found at <http://www.xemplex.com/>

Additional user training and consultancy services are available from XempleX partners. To get in touch with your nearest consultant, contact XempleX on sales@xemplex.com or our Australian office:

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