

The Art of  
**Business Intelligence**

**HYPERION ESSBASE STUDIO TUTORIAL**  
**BY EXAMPLE**  
**PART 1**

**Written by:**  
Christian Screen  
ArtOfBI.com (The Art of Business Intelligence)

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## About this Tutorial

### OBJECTIVE

This tutorial was developed so that anyone with a basic understanding of data warehousing, OLAP, and Essbase can become familiarized with the new Oracle/Hyperion Essbase Studio available with Hyperion 11x.

### SUMMARY

The default Essbase Studio examples that are included with the Essbase Studio application are limited and don't support true real world scenarios. In addition, the examples are pre-built and no direction is available on how to build an Essbase Studio model, step-by-step. This tutorial leverages a completed data warehouse based on an e-commerce store, Adventure Works, that sells bicycles and bicycle accessories. For those of you familiar with data warehousing this data is easily recognizable as the data warehouse created and used for years by Microsoft in their analytical reporting and modeling applications. We have leveraged this data as it is complete, well-defined, familiar to most, and it contains real-world data warehousing complexities. As part of the tutorial you will be required to download this database and also the Microsoft SQL Server database and management studio to administrate the server.

For the best comprehension of the tool this tutorial should be completed in one sitting. During the tutorial it is recommended to complete the steps outlined first, then review each section to gain further understanding of any area for which you may have more curiosity. Feel free to email [Christian@artofbi.com](mailto:Christian@artofbi.com) with any questions or comments regarding this tutorial.

### SOFTWARE DEPENDENCIES

In order to use this tutorial the following services must be started and functioning properly.

- Shared Services
- Essbase Services
- Essbase Studio Service
- Essbase Administration Services (EAS) (needed for running calc, and viewing outline)

### PROJECTED COMPLETION TIME: 1.5 HOURS

- Download/Set-up Example Database: 10 minutes.
- Building a MiniSchema: 15 minutes
- Building Metadata Dimension Elements: 15 minutes
- Building Metadata Hierarchies: 30 minutes
- Setting Essbase Model Properties: 10 minutes
- Deploying Cube Wizard: 5 minutes
- Drill-through: 5 minutes

## Setting-Up the Sample Data Source

### DIRECTION

In this section we will install and implement a SQL Server data warehouse and RDBMS (if not already installed on your machine). We will also run a short script that helps us prepare our star schema in advance to bringing it in as a data source for Essbase Studio.

### DOWNLOAD PROCEDURE

1. Download Microsoft SQL Server 2005 Express edition
  - a. [Download Link Page](#) (x86 version)
    - i. SQLEXPRESS.exe
2. Download Microsoft SQL Server 2005 Management Studio
  - a. [Download Link Page](#) (x86 version)
    - i. SQLServer2005\_SSMSEE.msi
3. Download Microsoft SQL Server 2005 Express edition
  - a. [CodePlex Download Link](#)
  - b. [CodePlex Download Page](#)
    - ii. AdventureWorksBI.msi

### INSTALL SOFTWARE PROCEDURE

1. Launch the SQLEXPRESS.exe file from the location from which it was saved. When prompted for security credentials select Mixed Mode Authentication and create a password for the “sa” account.  
Once complete, continue to step 2 below.
2. Launch the SQLServer2005\_SSMSEE.msi executable from the location which it was saved by double-clicking the file. Follow the prompts confirming all options and default locations. Once

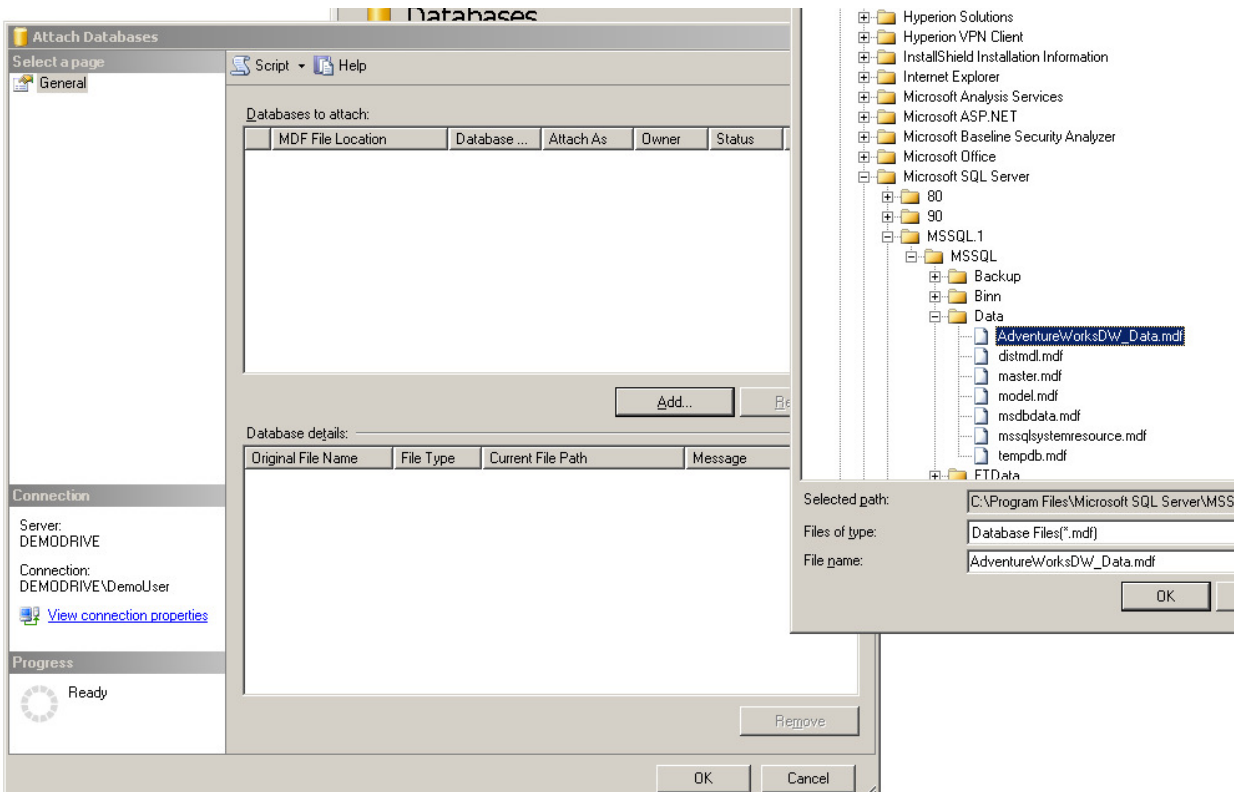
- Use Mixed Mode Authentication
- SA Password to “password”

complete, continue to step 3 below.

3. Launch the AdventureWorksBI.msi executable from the location which it was saved by double-clicking the file. Follow the prompts and accept all defaults.

At this point you have installed all necessary software required from SQL Server to serve as the relational database and to administer its functionality. The AdventureWorksBI.msi file execution will dump the source files for our actual database data onto your file system. We will now use SQL Server management Studio to attach those database files to our server so that it is available via ODBC/JDBC connectivity required by the remainder of this tutorial.

1. Open SQL Server Management Studio
  - a. Start > Programs > SQL Server 2005 > SQL Server Management Studio
2. Click “Connect” at the Connect to Server prompt
3. On the left-side of the application, in the **Object Explorer** pane the default database server will appear. Expand the tree. Expand the **Database** tree.
4. Right-Click on the **Databases** folder and select **Attach...**
5. The Attach Databases prompt appears. Click the **Add...** button
6. Navigate in the browse directory tree to the following path: **C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Data**
7. Locate the **AdventureWorksDW\_Data.mdf** file, select it, and click “OK”



8. If you wish, you may familiarize yourself with the data warehouse objects now available in the Databases list under AdventureWorksDW.

## ONE QUICK FIX REQUIRED

In order for our data source to play nicely with Essbase Studio and for the sake of this quick tutorial, we must first remove two foreign key relationships from our main fact table, `dbo.FactInternetSales`, before we continue. While still in Management Studio open a New Query (File > New > Database Engine Query), paste the code script below into the window and execute (F5) the script.

```
USE [AdventureWorksDW]
GO

IF EXISTS (SELECT * FROM sys.foreign_keys WHERE object_id =
OBJECT_ID(N'[dbo].[FK_FactInternetSales_DimTime1]') AND
parent_object_id = OBJECT_ID(N'[dbo].[FactInternetSales]'))
ALTER TABLE [dbo].[FactInternetSales] DROP CONSTRAINT
[FK_FactInternetSales_DimTime1]

IF EXISTS (SELECT * FROM sys.foreign_keys WHERE object_id =
```

```
OBJECT_ID(N'[dbo].[FK_FactInternetSales_DimTime2]') AND  
parent_object_id = OBJECT_ID(N'[dbo].[FactInternetSales]'))  
ALTER TABLE [dbo].[FactInternetSales] DROP CONSTRAINT  
[FK_FactInternetSales_DimTime2]
```

## SECTION SUMMARY

In this section we installed software necessary to leverage SQL Server to act as our database server. This was needed to leverage an existing demo data source provided by Microsoft called AdventureWorks which is typically used for their analytics software demos and tutorials. Finally, we attached the MDF data file that came from our AdventureWorksBI.msi download using SQL Server Management Studio. If there were no problems or errors, we can safely move onto the next steps in this tutorial and begin accessing this newly installed data.



## Essbase Studio – Create a Data Source

### DIRECTION

At the core of Essbase Studio (EStudio) are its data sources. A data source can be a text file (w/caveats), a CSV file (not MS Excel), OBIEE, DRM, or a Relational Database. In this section we are going to leverage our SQL Server Database AdventureWorksDW to build a data source.

### LAUNCH ESSBASE STUDIO

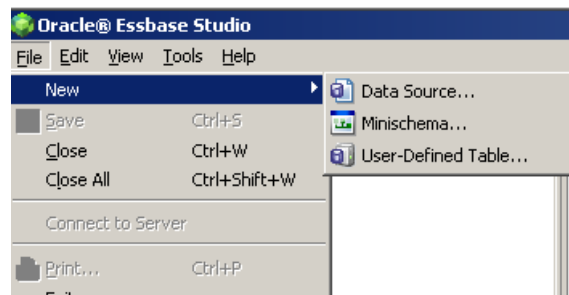
Before launching Essbase Studio please ensure that all software dependencies listed in the introduction section of this document have been met and all services started.

The easiest way to launch EStudio is from a shortcut (if available). However, you may use the program structure by Start > All Programs > Oracle EPM System > Essbase > Essbase Studio > Essbase Studio Console.

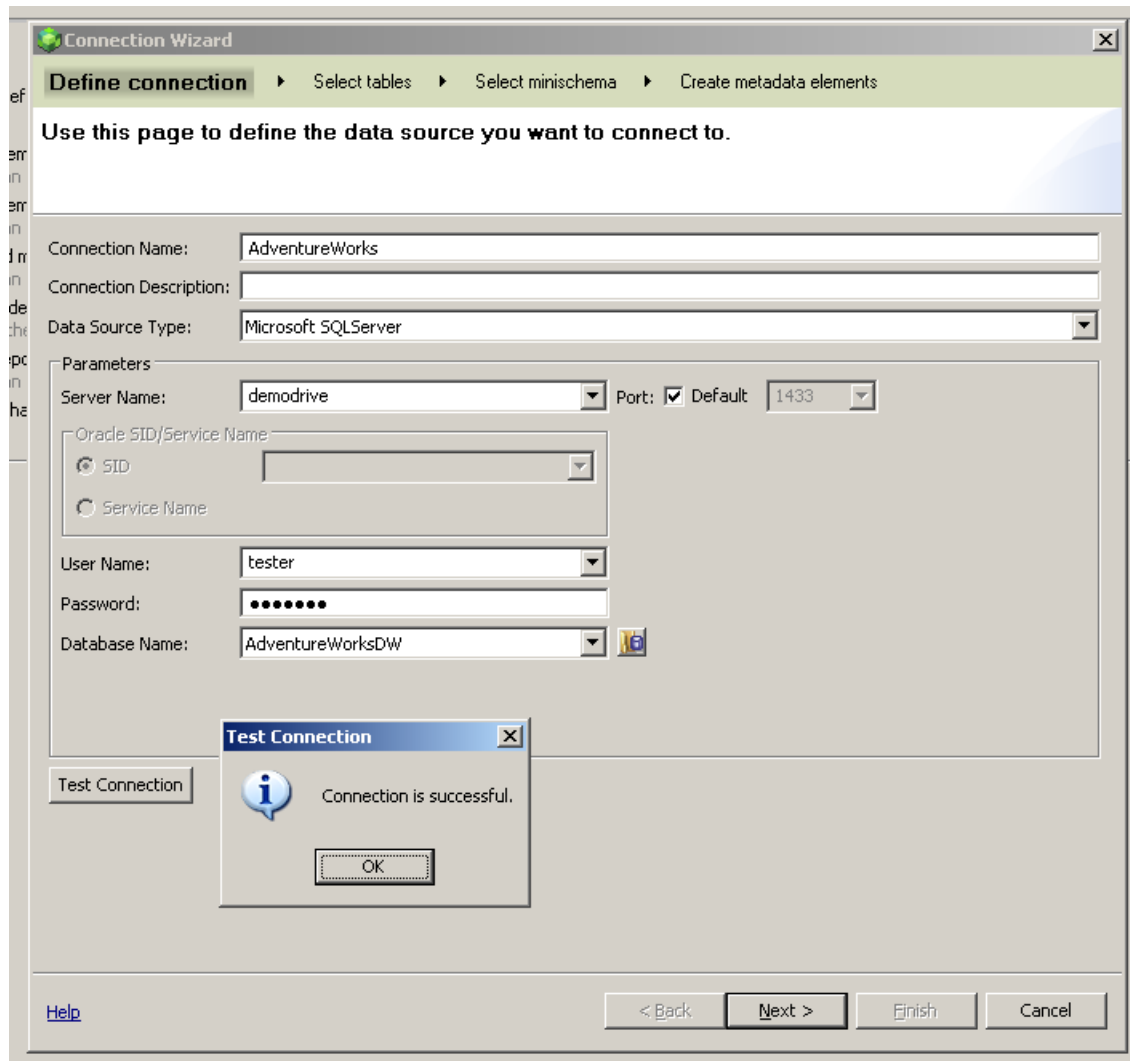
Once EStudio has been launched all designer elements are visible through the application navigation layout. For this section we will focus on creating a data source. We will expose the other application elements in future sections.

### CREATE DATA SOURCE PROCEDURE (START MINISHEMA)

1. Select the Data Source... option from File > New on the file menu bar

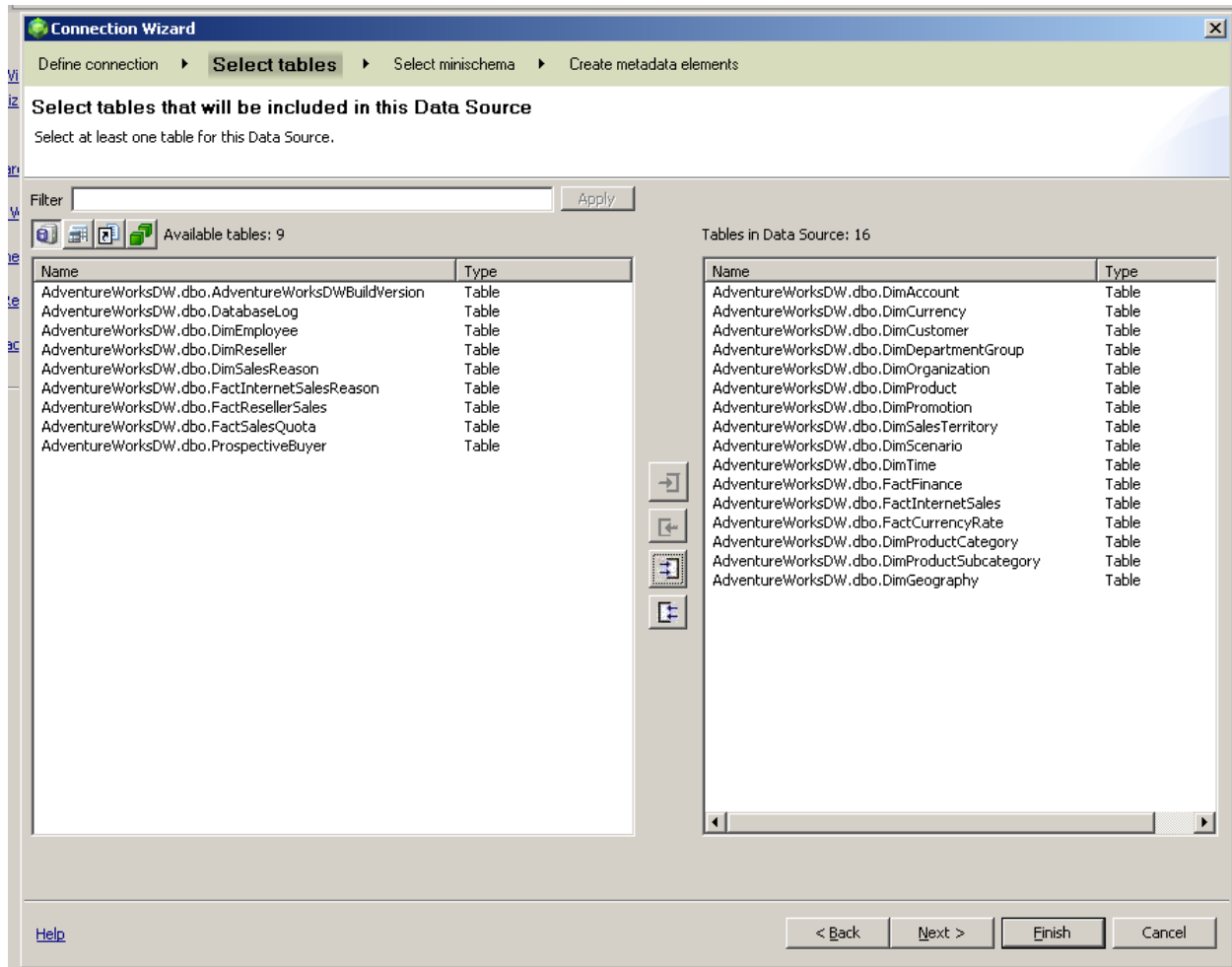


2. On the Connection Wizard Prompt complete the fields with the following information
  - a. Connection Name = AdventureWorks
  - b. Data Source Type = Microsoft SQL Server
  - c. Server Name = localhost, or the name of the server where your DB resides (The name of my machine is “demodrive”).
  - d. User Name = sa
  - e. Password = password
  - f. Database Name = AdventureWorksDW

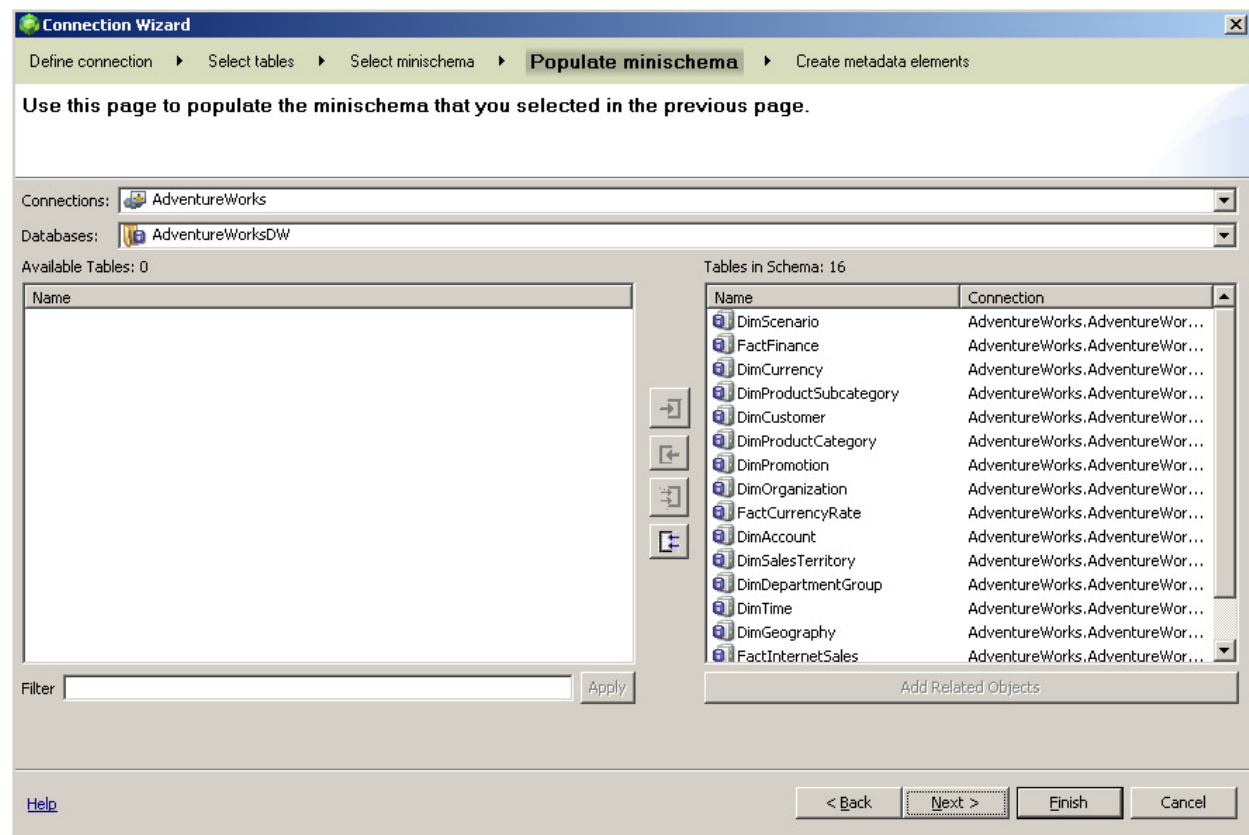


3. Test the connection and ensure that the connection is successful. If not, make sure that your username and password are set correctly. If the SA user is causing problems you may re-open SQL Server management studio and create a new user with DB\_Owner rights and use the new user credentials here.
4. Click **Next**
5. On the **Select Tables** set-up step select all objects **except** for the following:
  - a. AdventureWorksDW.dbo.AdventureWorksDWBuildVersion
  - b. DatabaseLog
  - c. DimEmployee
  - d. DimReseller
  - e. DimSalesReason
  - f. FactInternetSalesReason

- g. FactResellerSales
- h. FactSalesQuota
- i. ProspectiveBuyer



6. Click Next
7. On the **Select minischema** step choose **Create a new schema diagram**. The default name appears in the field, so do not change it.
  - a. UnCheck **Use Introspection to Detect Hierarchies**
    - i. This causes a default wizard operation to produce all dimension elements and hierarchies for us which we don't want.
8. Click Next
9. In the Populate Minischema set-up page ensure all Available tables (left) are placed into the Tables in Schema section (right)



10. Click Finish

## SECTION SUMMARY

We successfully opened Essbase Studio and created a Data Source. In addition we created a minischema based on the data source. What this section showed you was how wizard driven Essbase Studio is. It also showed you from the connection wizard that you as a modeler have control over how the modeling elements are built. We set out to create a data source, and in the second step of the Connection Wizard, after selecting tables, we could have simply clicked the Finish button to complete the data source set up. Instead we went on to the “select a minischema” step which could have been skipped entirely or started from another wizard in EStudio at a later time. We now have a data source and a minischema to work with. Let’s continue.

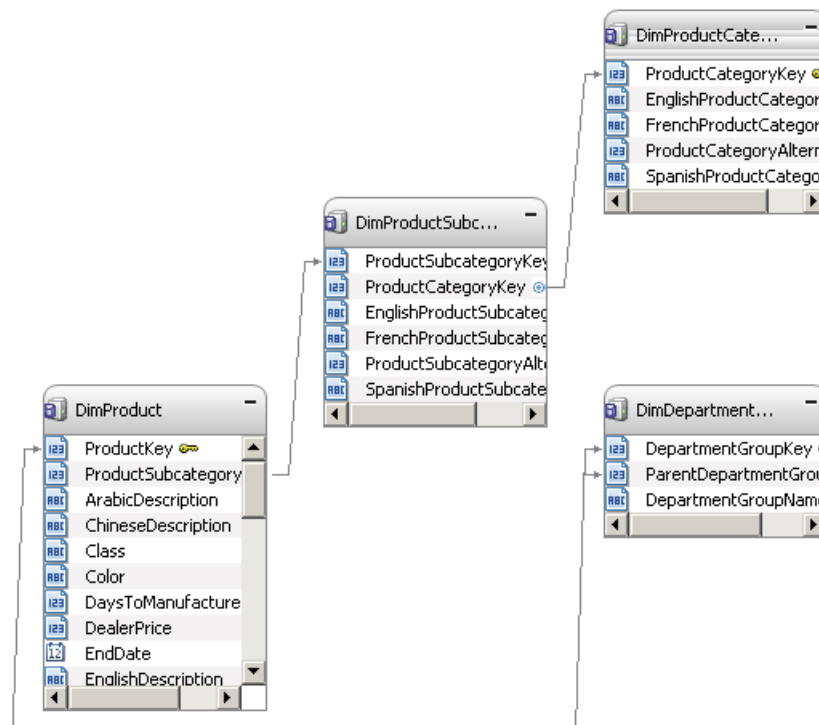
## Chillin' with the MiniSchema

### DIRECTION

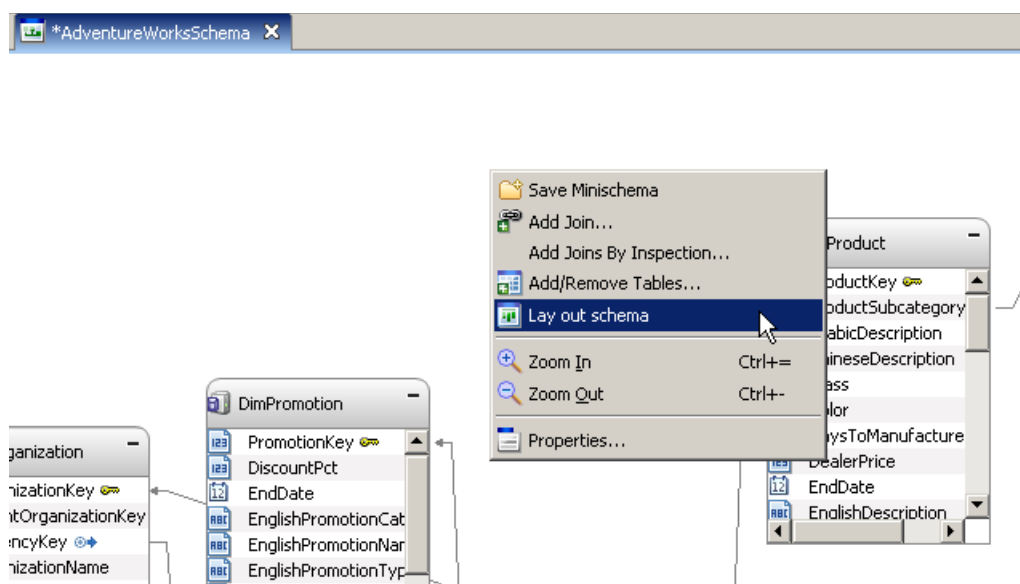
The MiniSchema may be best described as an Entity-Relationship-Diagram (ERD) that federates and plays nicely with other data sources. You may model a minischema using multiple fact tables and/or multiple data sources (which should be related in some way) in order to create the relationships that will eventually become an Essbase model/outline. You can also have multiple minischemas depending on what your final Essbase models' business needs are. In this section we'll only inspect the minischema and use the auto layout option just to get our feet wet. During class training we will dive into minischemas with more detail.

### MINISHEMA WINDOW LAYOUT

The first thing to notice in our EStudio environment after finishing the connection wizard is the minischema layout that appears. One should note that in a well prepared datawarehouse such as the one provided by AdventureWorksDW that EStudio automatically recognizes the explicit foreign key / primary key relationships and creates our joins (i.e. 1.n, 1.1, etc.) for us.



In our example and for the sake of this tutorial our modeling is done. But to get an understanding of how we would use a flat file source, etc. that doesn't have FK/PK relationships, right-click anywhere in the minischema to see the options available to you.



While you have the options window open, select the Lay out schema option. As you can see, clicking this option conducts auto formatting for the layout of your minischema diagram. This is a handy option to ensure the best visibility of your objects when modeling.

## SECTION SUMMARY

In this section we looked at the minischema environment and used the Lay out schema option to format our diagram layout. There are many tips and tricks that can be expressed here in the minischema window but most of them have no major weight on the remainder of this tutorial so for now for the sake of brevity they will be left out expect in a classroom training environment.

## Organizing Metadata

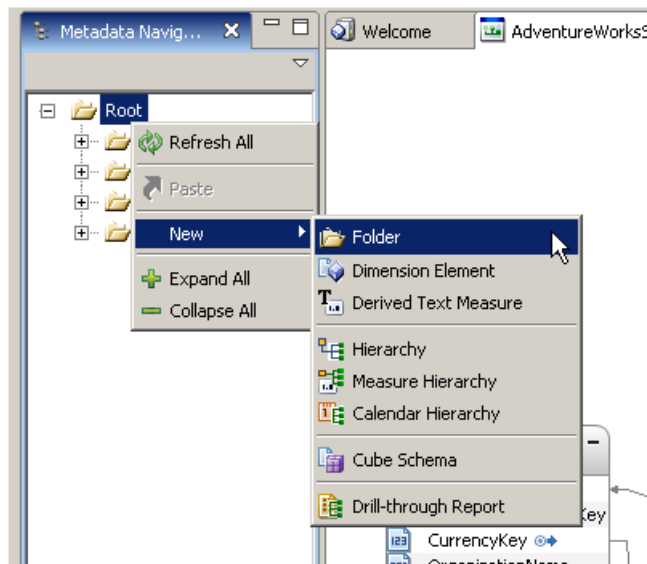
### DIRECTION

This is a quick section aiming to relay what should be a best practice – organizing metadata. All metadata, which includes hierarchies, Essbase models, cube schemas, dimension elements, derived text measures, and drill-through reports are considered metadata. Since EStudio can house multiple objects of each kind of metadata across subject areas, etc. it should be common-sense to organize the Metadata Navigator with a logical structure. In this section we will organize a folder structure for our AdventureWorks analysis so that we isolate it from any other projects that arise down the road.

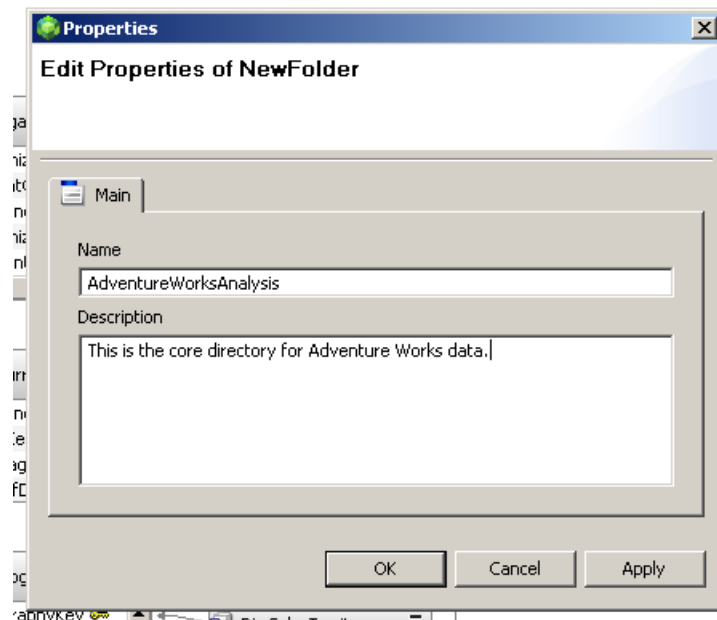
In EStudio locate the Metadata Navigator pane on the left-side of the EStudio application to begin.

### METADATA NAVIGATOR STRUCTURING PROCEDURE

1. Right-click on the Root folder and select New > Folder

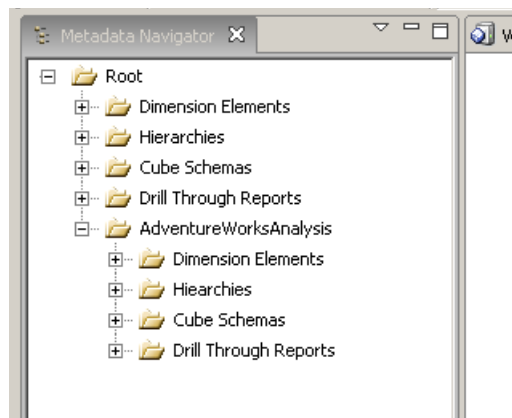


2. In the Name field for the Properties prompt enter **AdventureWorksAnalysis** and click “OK”



3. Right-Click on the AdventureWorksAnalysis folder and create four new child folders under it with the following names:
  - a. Dimension Elements
  - b. Hierarchies
  - c. Cube Schemas
  - d. Drill Through Reports

When complete it should look like the image below.





## **SECTION SUMMARY**

In this section we begin to understand what the Metadata Navigator section is and what it contains. We learned a best practice and have set up our Metadata Navigator to specifically delineate this project from any other.

## DIMENSION ELEMENTS

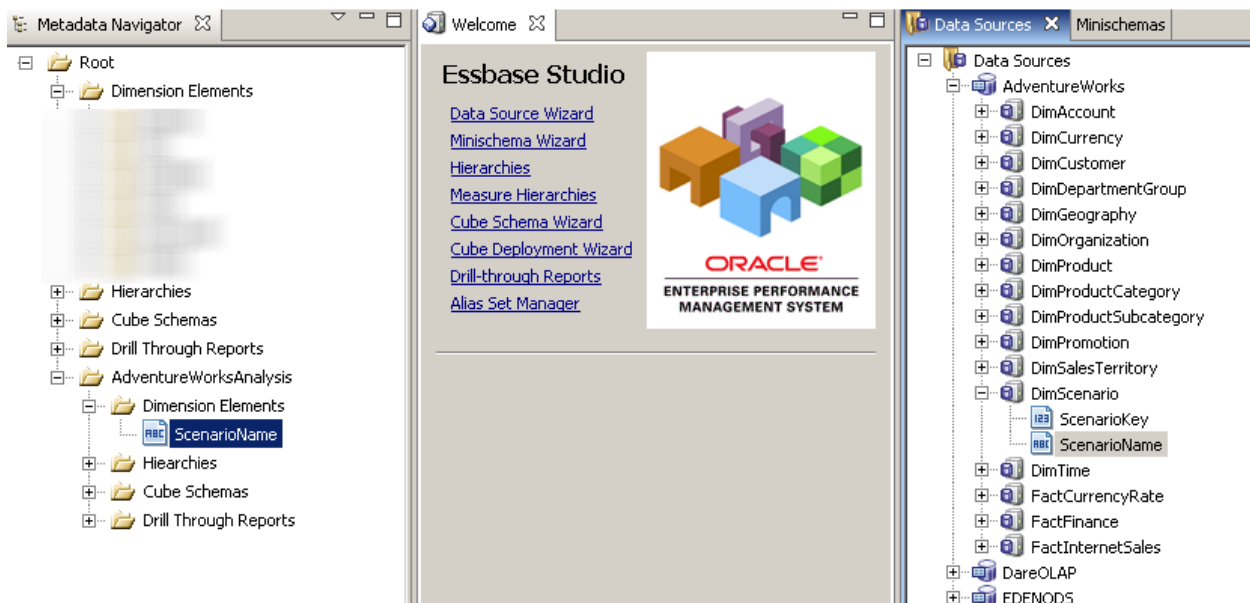
### DIRECTION

After creating the Metadata Navigator structure in the last section we now need to fill it with meaningful content to continue modeling our project. In this section we will add Dimension Elements to our Metadata. Dimension Elements are best defined as being analogous to what we recognize as members in the OLAP world. There are two ways to add Dimension Elements to our metadata. The first is to drag a column from a data source. The second, is to right-click on a Metadata Navigator folder and select New > Data Element. We will be using both.

### POPULATE DIMENSION ELEMENTS PROCEDURE

Since Dimension Elements are similar to OLAP members we only need to select a few from our data source columns. We do not need every column from every table that we have brought over in our data source. To get started, set up your environment so that both the MetaData Navigator (left-side) and the Data Sources pane (right-side) can be seen simultaneously and follow below:

1. Expand **Data Sources > AdventureWorks > DimScenario**. Select **ScenarioName** and drag it over to the **AdventureWorksAnalysis > Dimension Elements** folder.



2. Now continue to move more data source columns to the Dimension Elements folder by using the table/object list below:

DimCurrency

-CurrencyName

DimCustomer

-EmailAddress

DimGeography

- EnglishCountryRegionName

- City

- StateProvinceName

DimProduct

-Class

-Color

-Size

-EnglishProductName

DimProductCategory

- EnglishProductCategoryName

DimProductSubCategory

- EnglishProductSubCategoryName

DimPromotion

-EnglishPromotionCategory

-EnglishPromotionName

DimSalesTerritory

-SalesTerritoryCountry

-SalesTerritoryRegion

-SalesTerritoryGroup

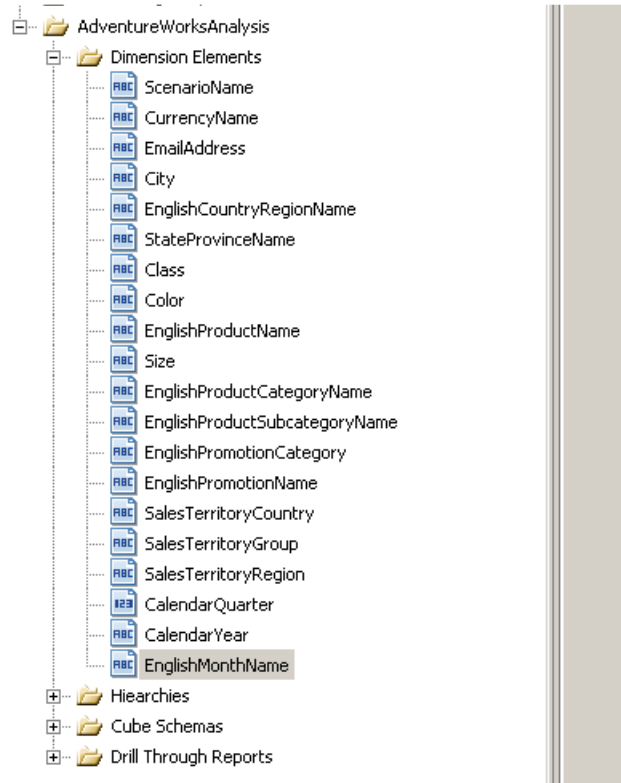
DimTime

- CalendarYear

- CalendarQuarter

-EnglishMonthName

3. Your completed Dimension Elements folder so far should appear as the image below:



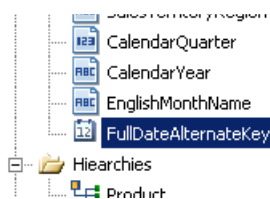
As you have probably noticed, we have yet only to move data source columns which describe the data into the dimensional elements folder. What about Time and the Data? These elements must also be placed as Dimension Elements and we start below with Time Dimension Elements.

Please note that setting up time or an account structure here does not define any relation to the final Essbase outline Account or Time dimension labeling.

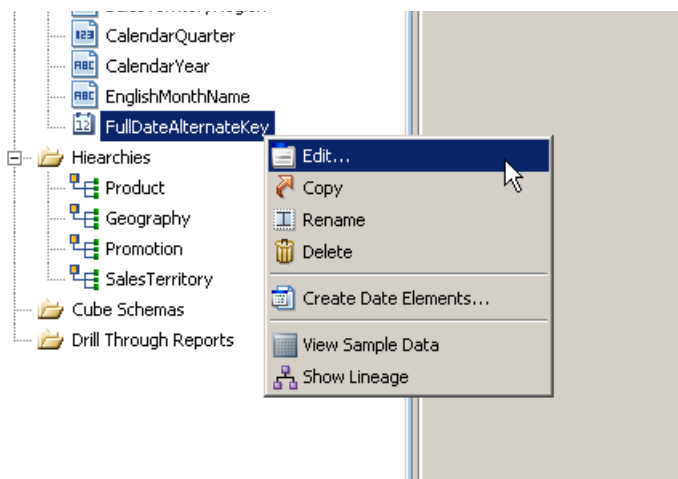
## POPULATE TIME DIMENSION ELEMENTS

Below we will continue with the dragging of data source columns to the Data Elements folder exercise as above.

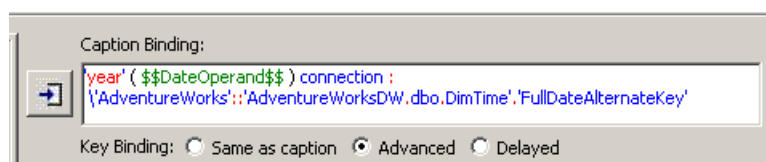
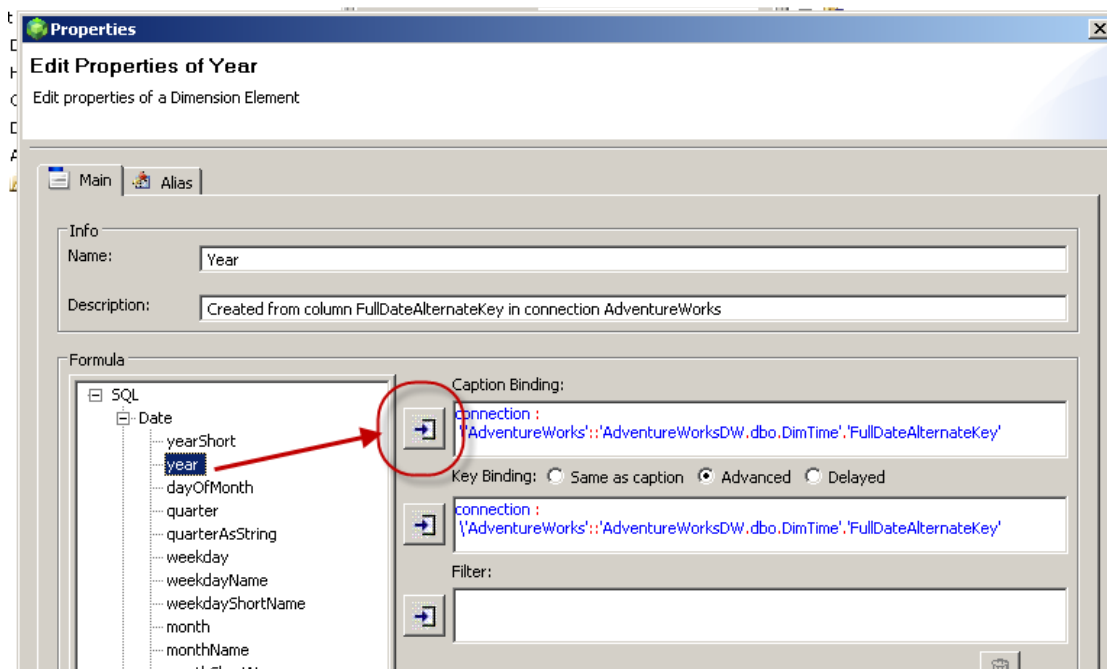
1. From the data sources panel under AdventureWorksDW > DimTime, drag FullDateAlternateKey to the Dimension Elements folder.



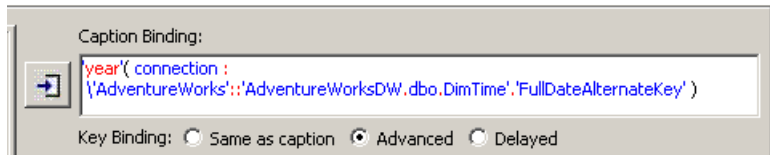
2. Right-click **FullDateAlternateKey** and select **Edit...**



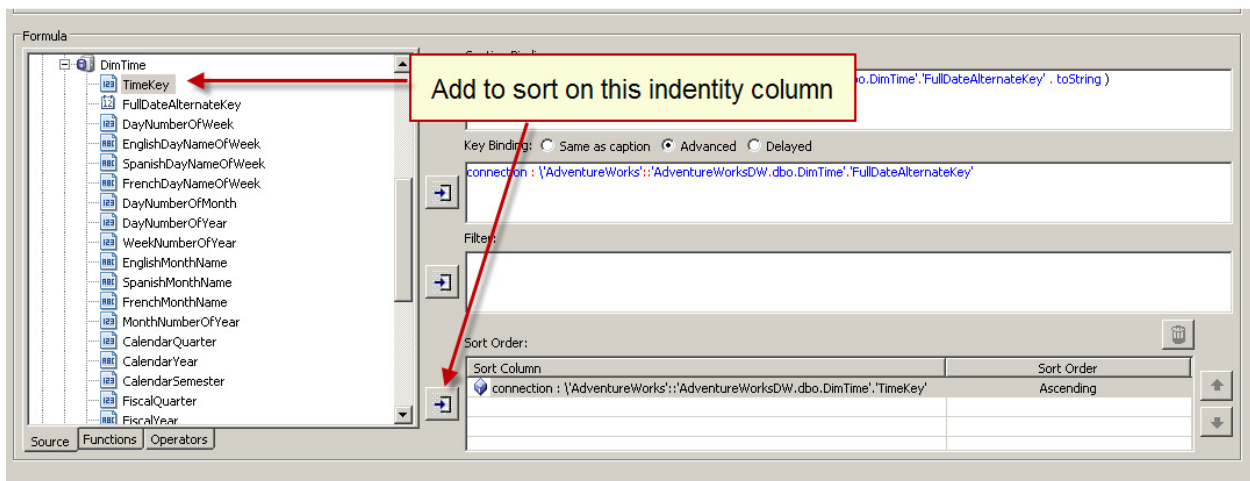
3. In the **Properties** prompt change the Name field to **Year**
4. In the **Caption Binding** field delete the “.toString” text from end the existing text as this is not needed
5. Select the **Functions** tab on the formula panel and select **SQL > Date > year**
6. Click the **arrow button** move the year selection to the **Caption Binding** field



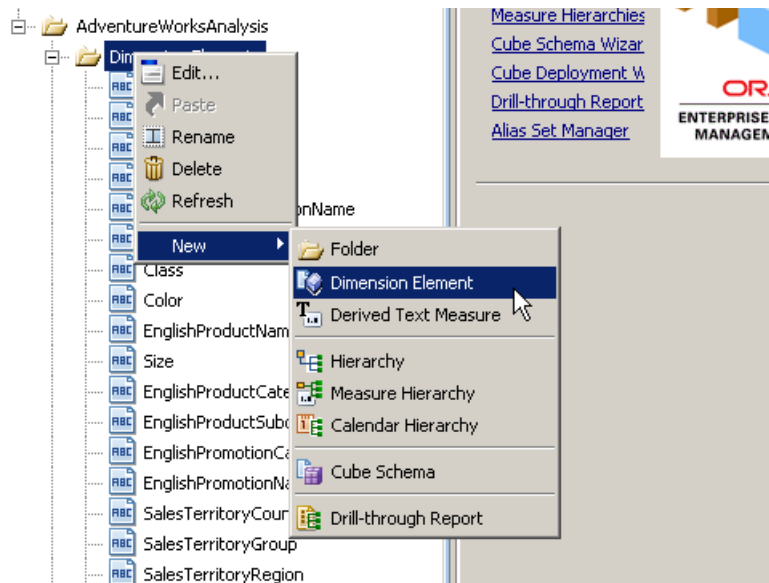
7. Remove the **\$\$\$DateOperand\$\$\$** text then cut (ctrl + x) the full blue text “**connection....fullDateAlteratekey**” that was already there and paste (ctrl + v) it inside the parenthesis.



8. In order to sort this column properly later in the time hierarchy we need to move the **TimeKey** column from the data source to the Sort Order section. On the **Source** tab select **DimTime > TimeKey** and use the arrow button to move it.

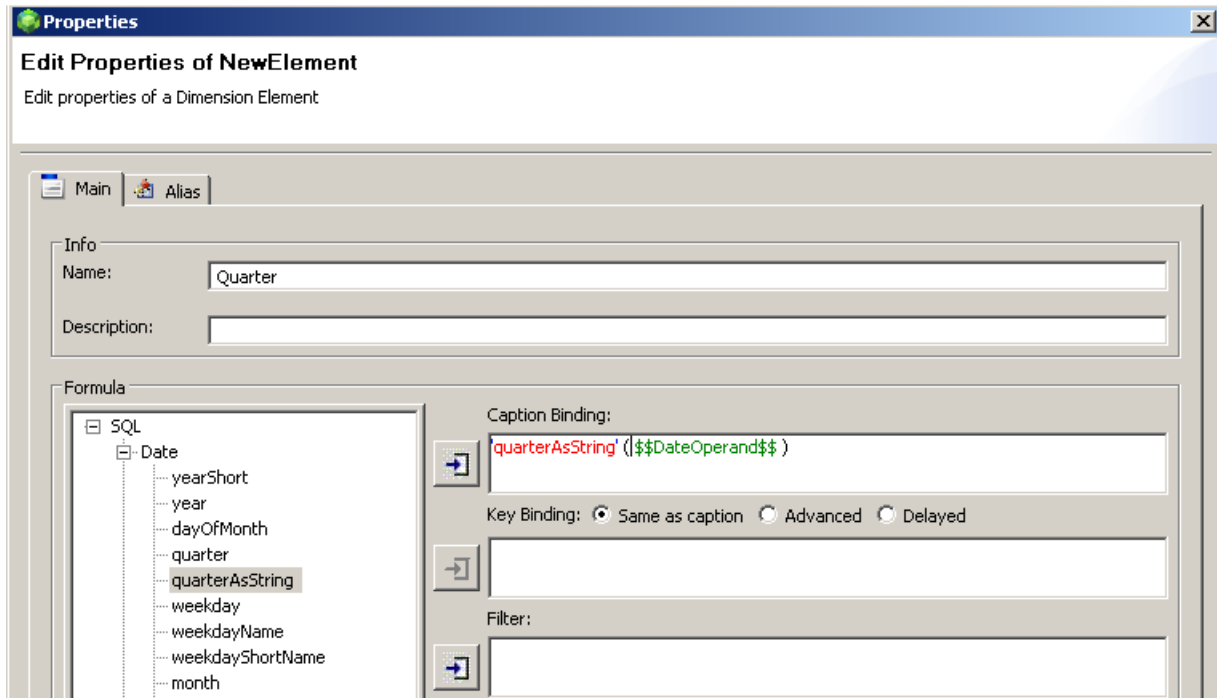


9. Click “OK” to close the Properties prompt
10. We just completed the year level dimension element from a source column. Now we will create a shell Dimension Element without the dragging from a data source.  
Right-click on the Dimension Elements folder and select **New > Dimension Element**

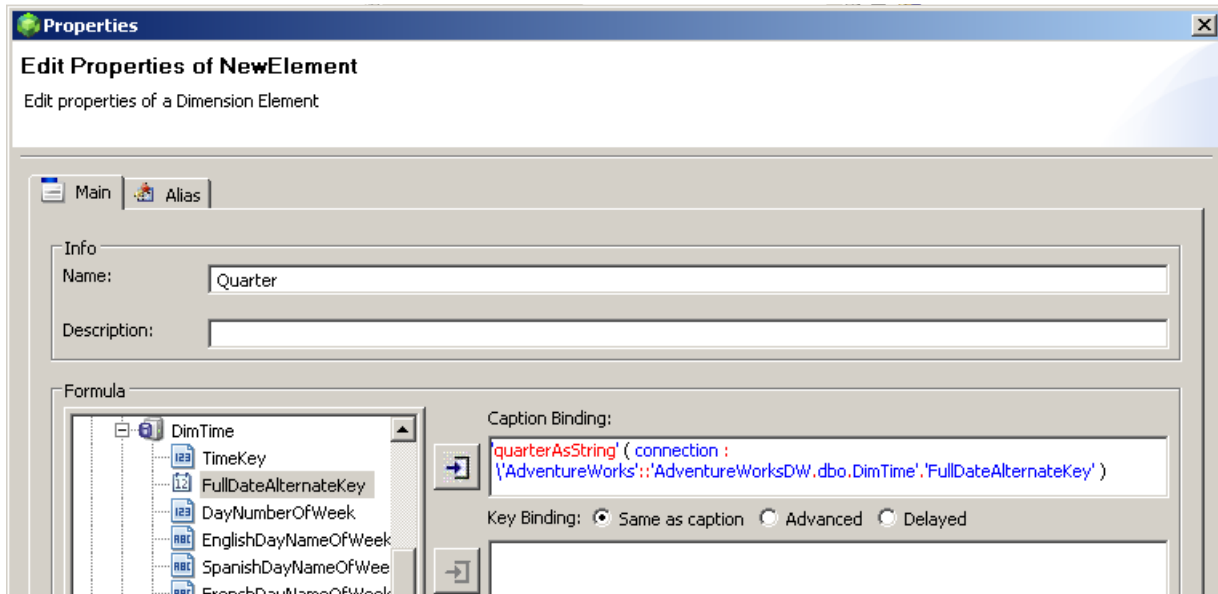


11. In the **Properties** prompt type **Quarter** into the Name field.

12. Select the **Functions** tab, select **SQL > Date > quarterAsString** and use the arrow to move this function into the **Caption Binding** field.

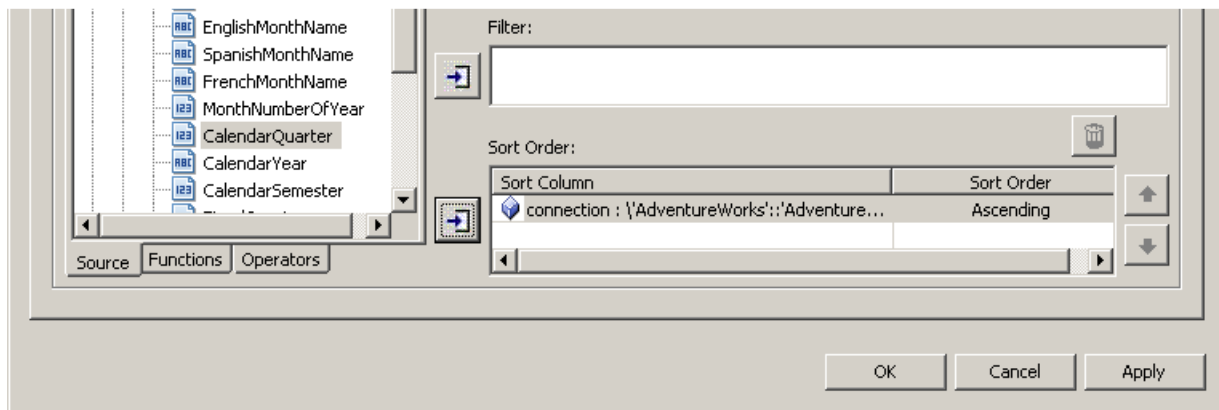


13. Highlight the text **\$\$DateOperand\$\$**, select the Source tab and pick the data source column **DimTime > FullDateAlternateKey**. Click the selection arrow. Using the selection arrow should overwrite the \$\$DateOperand\$\$ text with the full blue identifier string for the selected DimTime column.



14. Select the column **CalendarQuarter** from the same dimension, DimTime, and move this column into **Sort Order** field.

15. Click Apply and then click OK



16. Complete **steps 8 through 11** for the **Month** dimension element. Replace the function **quarterAsString** with **monthShortName**. No sort column is necessary.

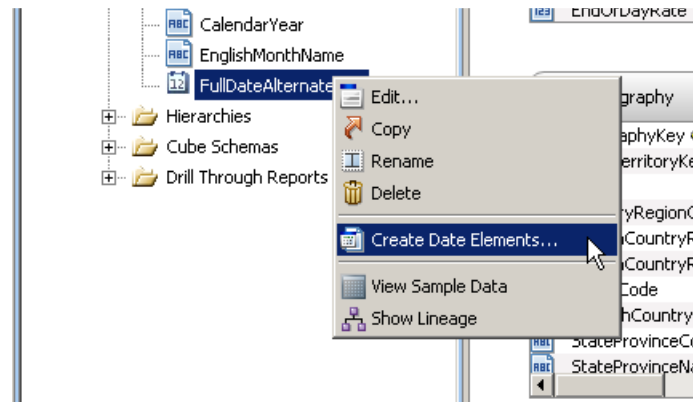
This above approach to looking at creating time related Dimension Elements was so that you could understand that functions are available to modify the captions and logic for each element. However, this is a better and cleaner way to create Time dimension elements. Here are the quick steps for EStudio mastery:

1. Delete the **Year**, **Quarter**, and **Month** dimension elements you just created. It's okay, it

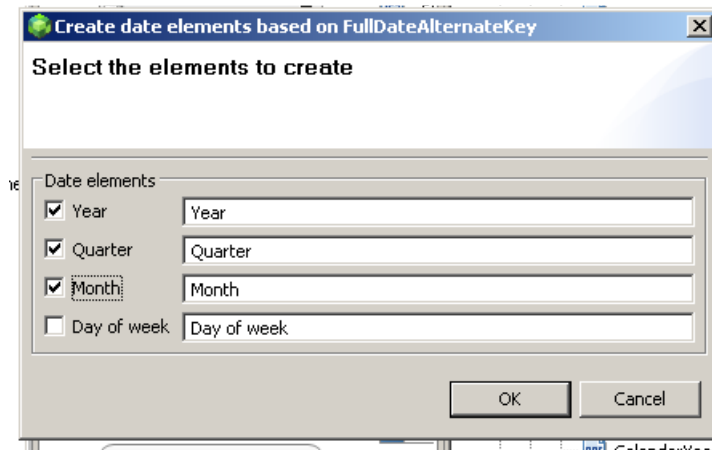


won't hurt. (right-click each and select delete)

2. From the Data Sources pane drag **DimTime > FullDateAlternateKey** over to the **AdventureWorksAnalysis > Dimensions Elements** folder again.
3. Right-Click on the **FullDateAlternateKey** element and select **Create Date Elements...**



4. In the prompt check the checkboxes for Year, Quarter, and Month



5. Click OK. As you will see the time related dimension elements were created for you automatically simply because EStudio recognized FullDateAlternateKey as a date data type. If you wish to inspect the new date elements you will see they are just like the ones we previously created with the exception of the Sort Order column.

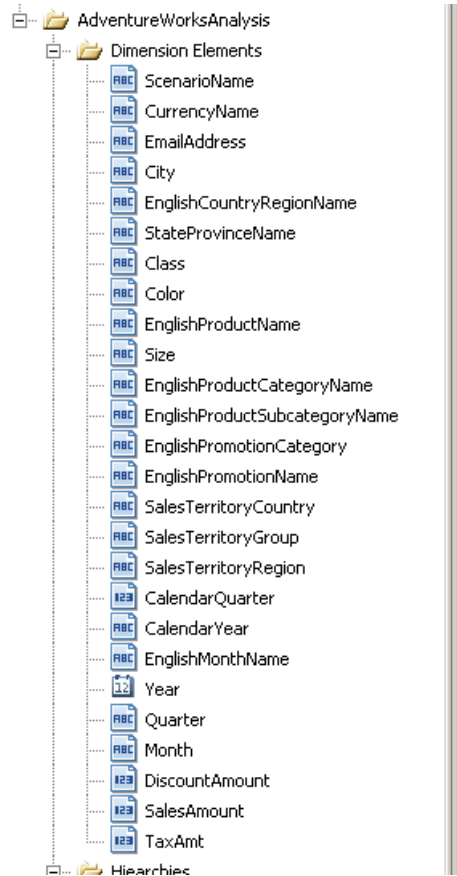
## POPULATE DATA (MEASURES) DIMENSION ELEMENTS

We are just about finished with setting up the dimension elements.

Drag the following elements from our data source **AdventureWorksDW > FactInternetSales** over to the Dimension Elements table.

- DiscountAmount

- SalesAmount
- TaxAmt



Your final Dimension Elements folder should appear similar to the above image.

## SECTION SUMMARY

In this section we learned how to use both methods of creating dimension elements. There was even a smarter approach to creating date elements that we discovered saves us time. We also looked at leveraging inherent functions that assist EStudio modeling. At this point you should have a decent understanding about what dimension elements are and how they differ from data source columns and how they relate to our modeling efforts.

## Hierarchy Building

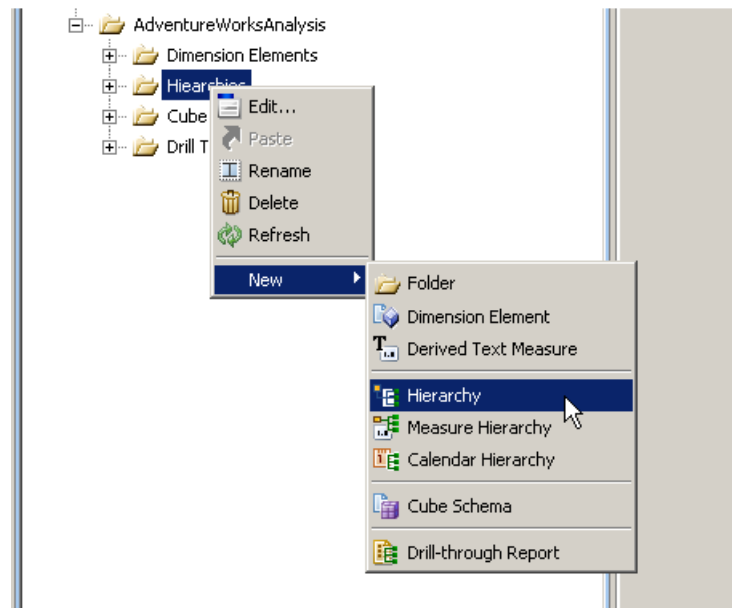
### DIRECTION

In this section we aim to build several hierarchies using dimension elements from the previous section. It is important to note that these hierarchies will become the basis for our Essbase outline dimensions. Creating hierarchies is a drag-and-drop operation. One can even create alternate hierarchies. Our example stays basic and creates only a single hierarchy for each.

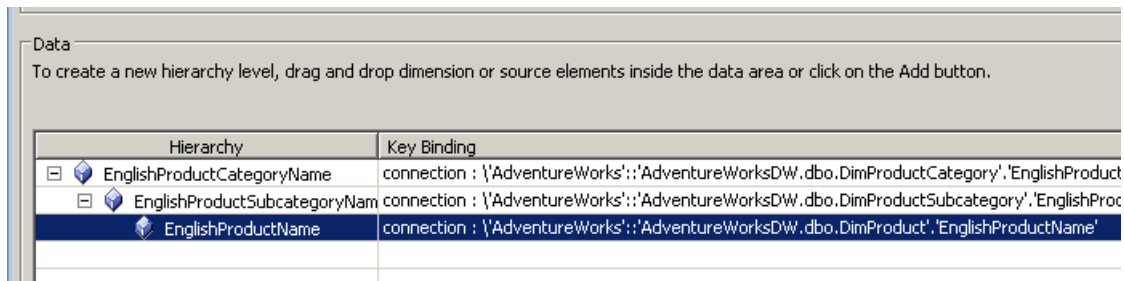
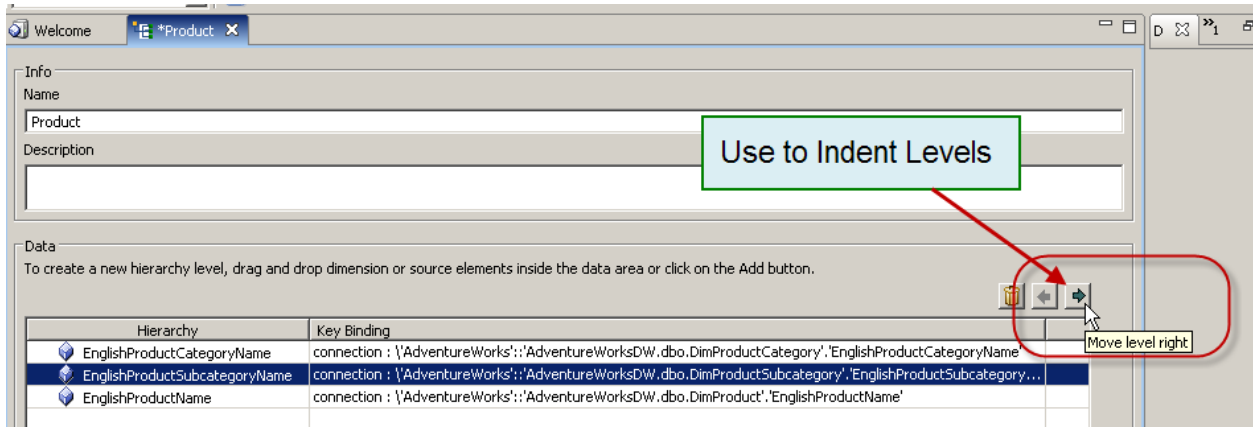
### HOW TO HELP A HIERARCHY HAPPEN?

Follow the steps below.

1. In the metadata Navigator right-click on the **AdventureWorksAnalysis > Hierarchies** folder and select **New > Hierarchy**.

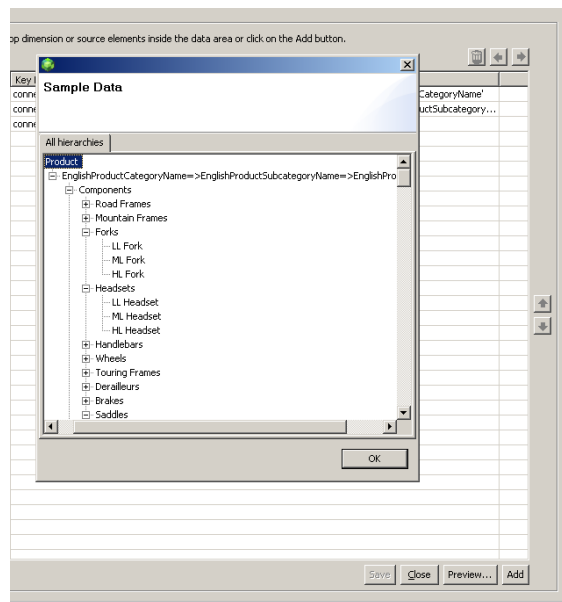


2. In the new hierarchy window type Product in the name field.
3. Drag the following dimension elements into the Hierarchy column in the following order:
  - a. EnglishProductCategoryName
  - b. EnglishProductSubCategoryName
  - c. EnglishProductName
4. Utilize the “Move Level Right” arrow button to move the EnglishProductSubcategoryName and EnglishProductName in a staggered fashion under EnglishProductCategoryName.



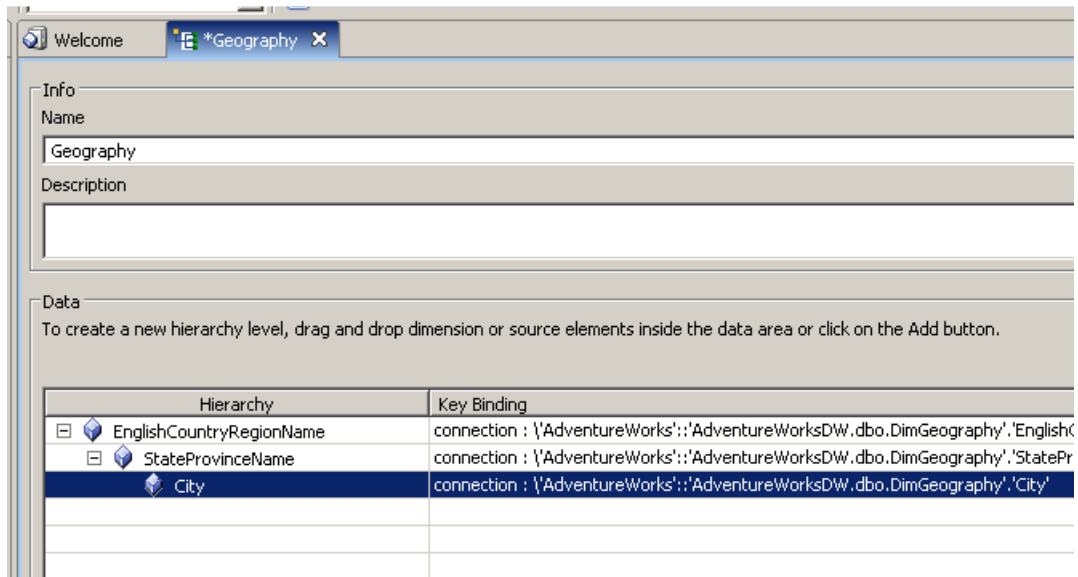
5. Click **Save** and then **Preview...**

Here you see a representation of the hierarchy as it will appear in your Essbase cube.



6. Conduct the steps 1 through 5 to create the following hierarchy names with following Dimension Elements and structure:

- *Geography*
  - EnglishCountryRegionName
    - StateProvinceName
      - City
- *Promotion*
  - EnglishPromotionCategory
    - EnglishPromotionName
- *SalesTerritory*
  - SalesTerritoryGroup
    - SalesTerritoryCountry
      - SalesTerritoryRegion
- *Time*
  - Quarter
    - Month
- *Year*
  - Year



The screenshot shows the 'Promotion' dimension configuration window. The 'Info' section has 'Name' set to 'Promotion'. The 'Data' section contains a table with the following hierarchy and key binding:

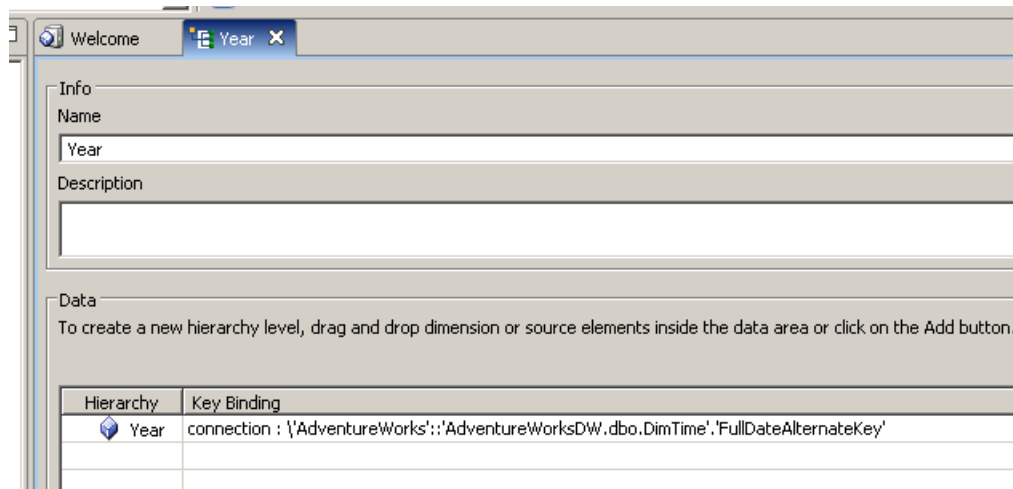
Hierarchy	Key Binding
EnglishPromotionCategory	connection : '\AdventureWorks\AdventureWorksDW.dbo.DimPromotion', 'EnglishPromotionCategory'
EnglishPromotionName	connection : '\AdventureWorks\AdventureWorksDW.dbo.DimPromotion', 'EnglishPromotionName'

The screenshot shows the 'SalesTerritory' dimension configuration window. The 'Info' section has 'Name' set to 'SalesTerritory'. The 'Data' section contains a table with the following hierarchy and key binding:

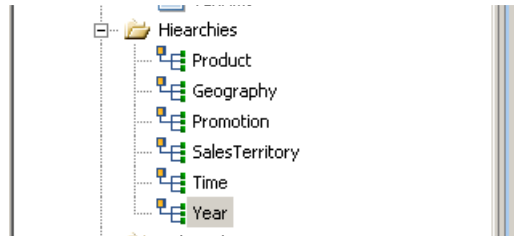
Hierarchy	Key Binding
SalesTerritoryGroup	connection : '\AdventureWorks\AdventureWorksDW.dbo.DimSalesTerritory', 'SalesTerritoryGroup'
SalesTerritoryCountry	connection : '\AdventureWorks\AdventureWorksDW.dbo.DimSalesTerritory', 'SalesTerritoryCountry'
SalesTerritoryRegion	connection : '\AdventureWorks\AdventureWorksDW.dbo.DimSalesTerritory', 'SalesTerritoryRegion'

The screenshot shows the 'Time' dimension configuration window. The 'Info' section has 'Name' set to 'Time'. The 'Data' section contains a table with the following hierarchy and key binding:

Hierarchy	Key Binding
Quarter	'quarterAsString'( connection : '\AdventureWorks\AdventureWorksDW.dbo.DimTime', 'FullDateAlternateKey' )
Month	'monthShortName'( connection : '\AdventureWorks\AdventureWorksDW.dbo.DimTime', 'FullDateAlternateKey' )



7. Your final Hierarchies folder should appear as follows:



Using the Create Date Elements approach saves us time initially but you will see as we continue that the sorting of members is not correct since the latter option does not automatically generate the Sort Order field value(s). We can come back and do this later but you now know how from the manual operations we started off with for creating our Time dimension elements.

## SECTION SUMMARY

This section was one of the most straightforward when compared all elements required in order to create a full EStudio model. The drag and drop interface of creating a new hierarchy is a nice feature. There are some other possibilities such as creating alternate hierarchies, etc. that you can play around with right now or at a later time. Ultimately the main concept to take away from this section is that if our modeling (minischema and/or datawarehouse) is set up properly in advance, this section is a breeze.

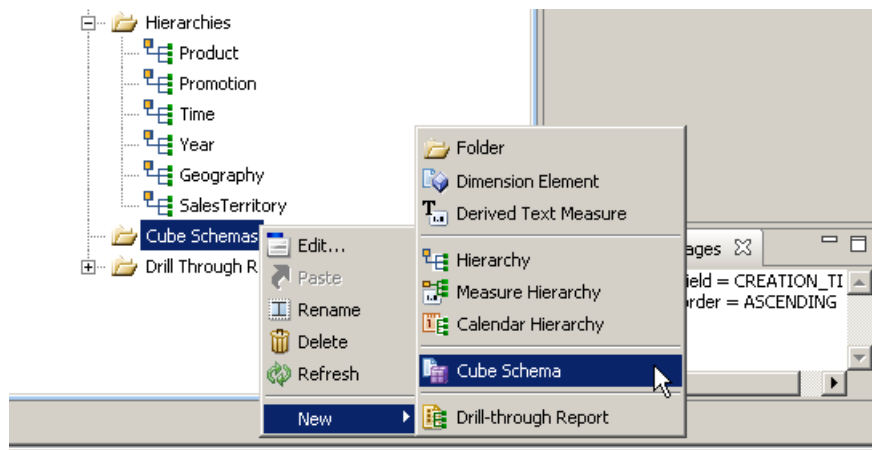
## Create a Cube Schema

### DIRECTION

So far we've been modeling the metadata that our cube/outline uses to generate itself. The MiniSchema, Dimension Elements, and Hierarchies have placed us just within reach of realizing our goal of creating a cube. This section takes a quick, no frills approach to moving our progress along.

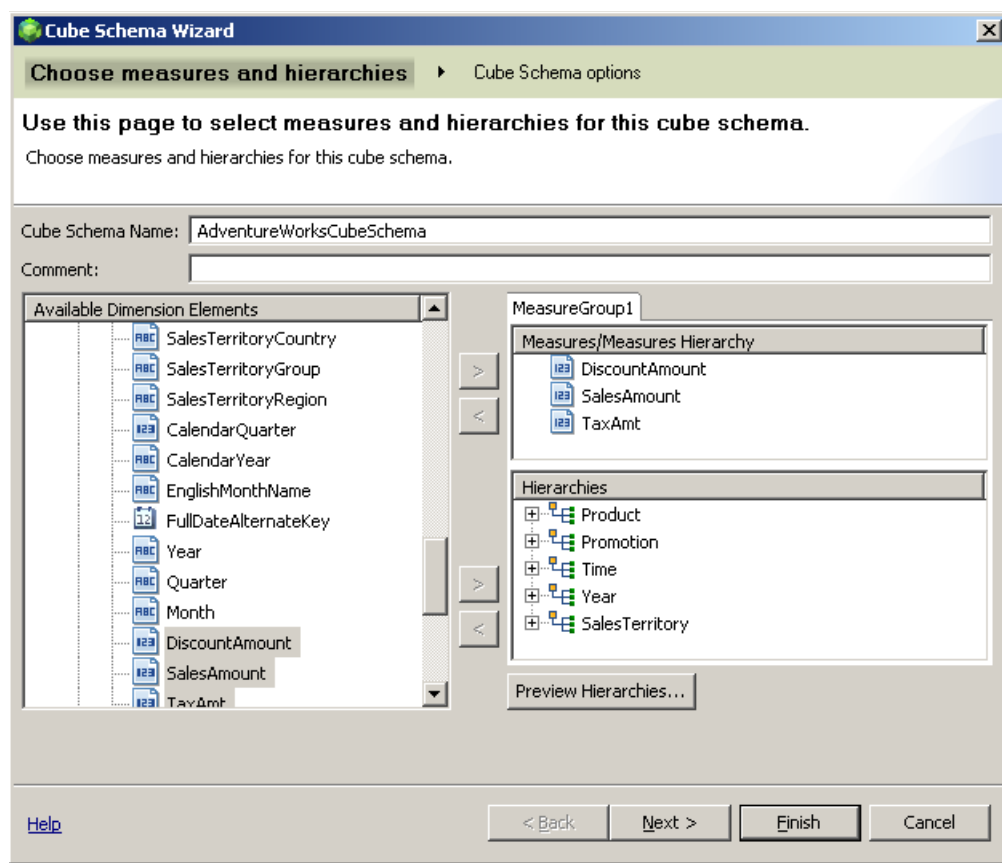
### SCHEMING ON THE SCHEMA

1. In the Metadata Navigator under our **AdventureWorksAnalysis** folder, right-click on the **Cube Schemas** folder and select **New > Cube Schema**

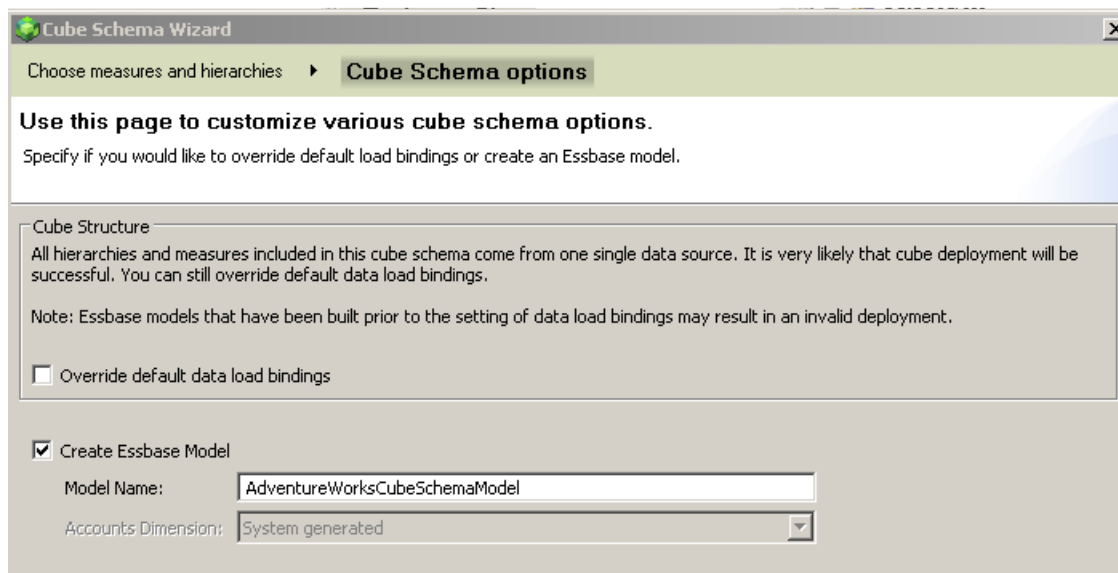


2. In the cube Schema Name field type **AdventureWorksCubeSchema**.  
From the AdventureWorksAnalysis folder move all hierarchies except **GeoGraphy** into the Hierarchies section and all Amount Dimension Elements (DiscountAmount, SalesAmount, TaxAmt) into the Measures section.

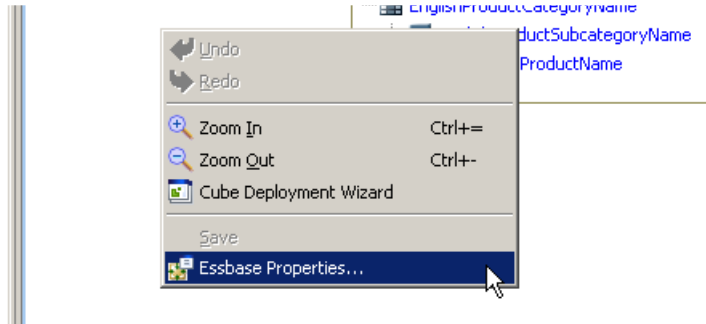




3. Click **Next**
4. In the Cube Schema options continuation **check** *Create Essbase Model* and type **AdventureWorksCubeSchemaModel** in the model name field

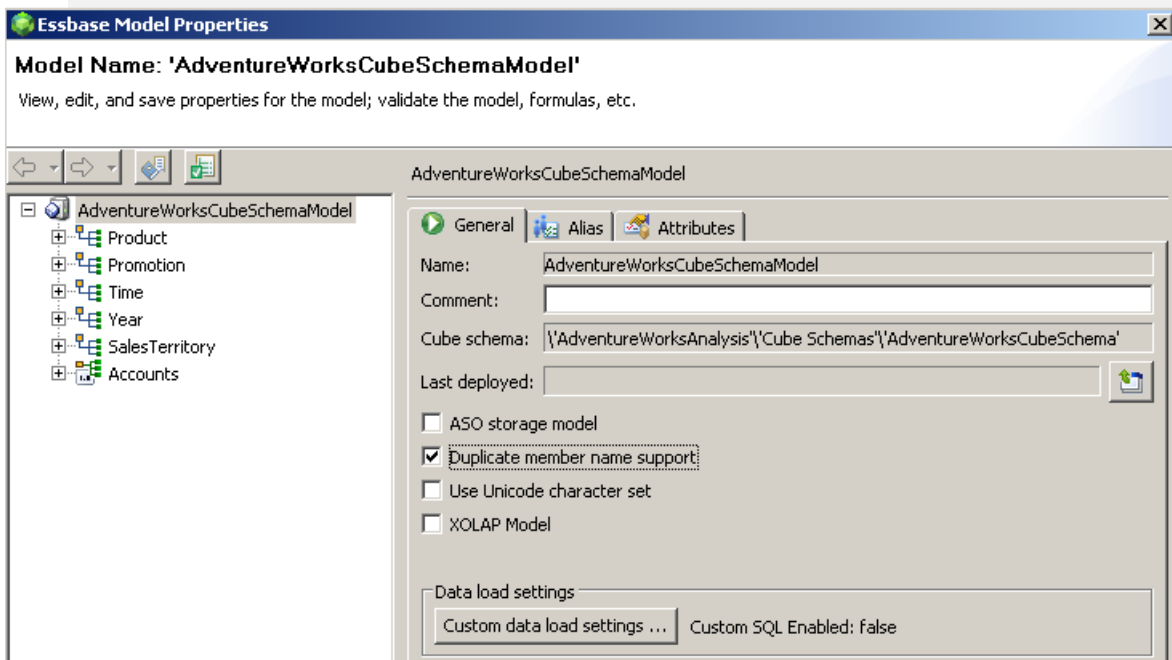


5. Click **Finish**
6. Your Essbase schema diagram will appear immediately and each dimension shows the hierarchies it has available within (notice the Accounts dimension was automatically created). Right-click in the white space and select **Essbase Properties...**



7. In the Essbase Model Properties prompt **check** the **Duplicate member name support** box.

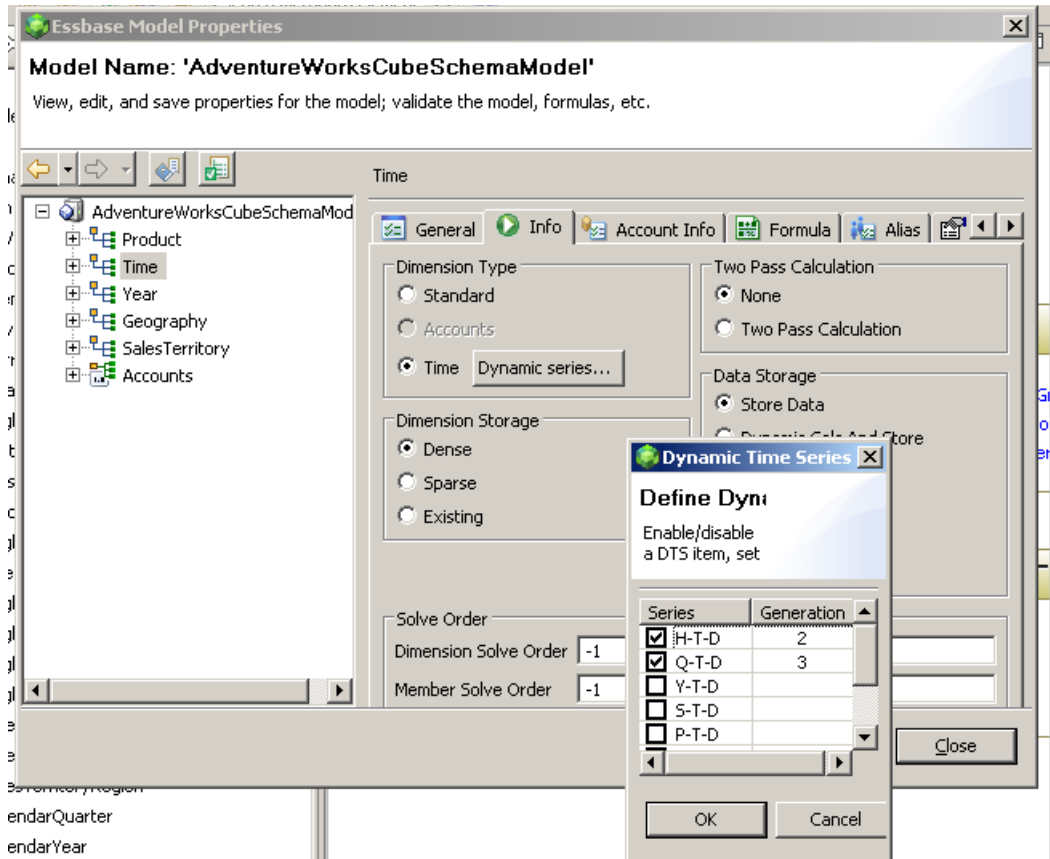
**Note:** Duplicate member name support enables the Essbase outline to contain a duplicate member name in two or more dimensions. It does not allow for a duplicate member name within the same dimension.



8. You can configure each of the dimensions, their members, etc. by using a combination of selecting the element on the left and using the tabs on the right of the properties prompt. Start by selecting the **Time** dimension (Gen1) and selecting the **Info** tab. Make the following changes:
  - a. Dimension Type = Time
  - b. Dynamic Time Series = HTD(Gen2), QTD(Gen3)

- c. Dimension Storage = Dense
- d. Data Storage = Store Data

Click **Apply**



9. Make the following adjustments to the Year dimension and press the **Close** button to exit when finished.

- a. Dimension Type = Standard
- b. Dimension Storage = Dense
- c. Data Storage = Store Data

Click **Apply**

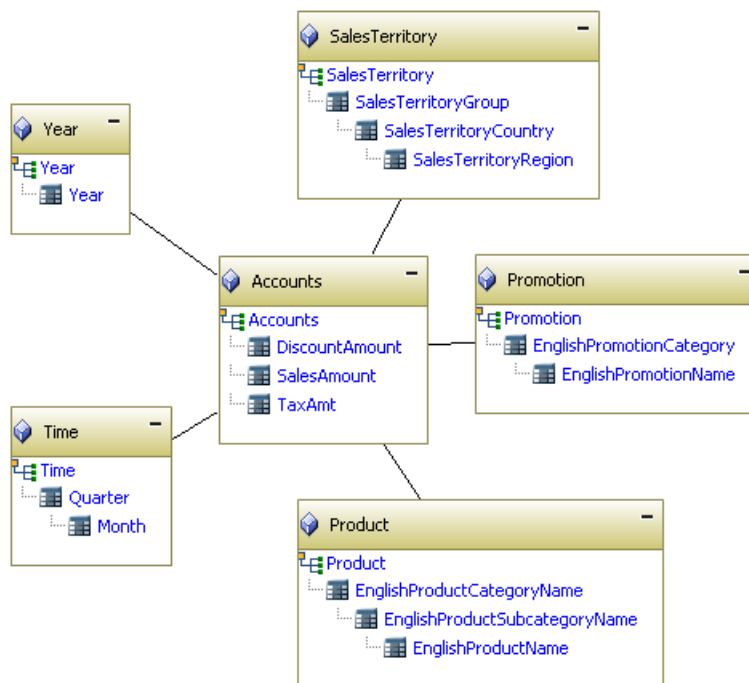
10. Click **Close**

## SECTION SUMMARY

At this point your cube schema has been developed. That was quick and painless. You may have noticed when creating the model that under the Model Name field that the Accounts Dimension dropdown list was grayed out and not selectable. This is because we did not define a detectable accounts dimension. Since our cube will basically be a sales analytics cube and not a

financial cube our accounts dimension will house our metrics (a measures dimension) that we defined on the first create Cube Schema step. EStudio is so smart that it can automatically identify this distinction and it will assign and label our measures into an accounts labeled dimension.

Once we completed the Cube Schema wizard the schema diagram window was available to us for identifying and labeling elements of the entire schema or independently configuring each dimension with elements relating to the final cube. We did just that and now we are ready to deploy this model to Essbase services.



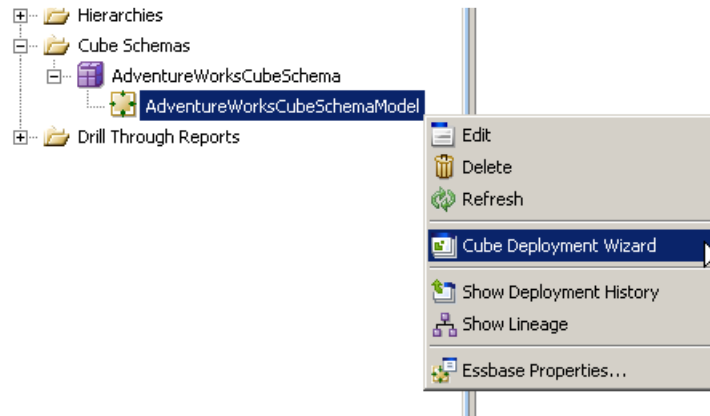
## Use the Cube Deployment Wizard (Finally)

### DIRECTION

All sections have led up to this point of deploying the cube to Essbase Services. We'll use the Cube Deployment Wizard to conduct this operation.

### DEPLOY, DEPLOY, DEPLOY

1. In the folder AdventureWorksAnalysis, expand the Cube Schemas folder, expand the AdventureWorksCubeSchema, right-click on AdventureWorksCubeSchemaModel and select **Cube Deployment Wizard**.



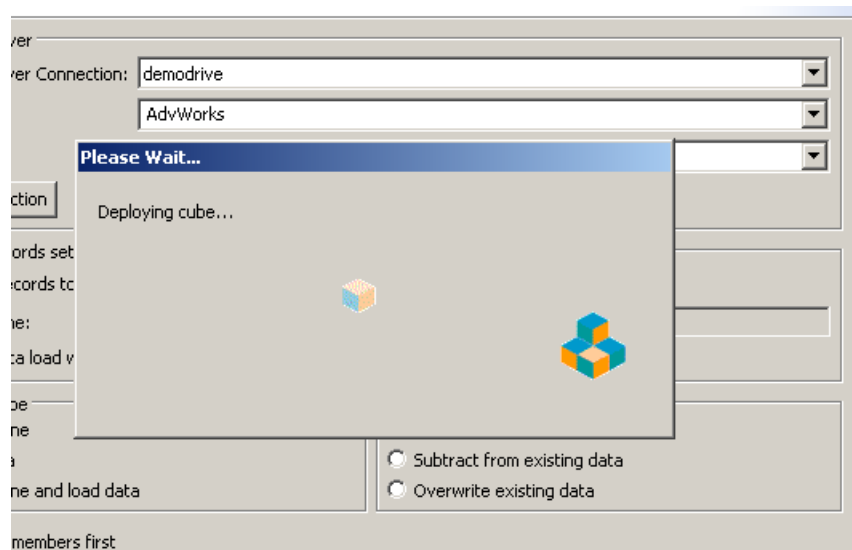
2. In the Cube Deployment Wizard select the Essbase Server connection you will deploy to (localhost if on your main machine). The name of my machine is “demodrive” as I am running a VMWare solution. Your machine name may be different so make sure you know the name of the machine hosting your Essbase server. The application and database have not been created yet so we must manually enter them here. Replace any existing text with:

Application = AdvWorks

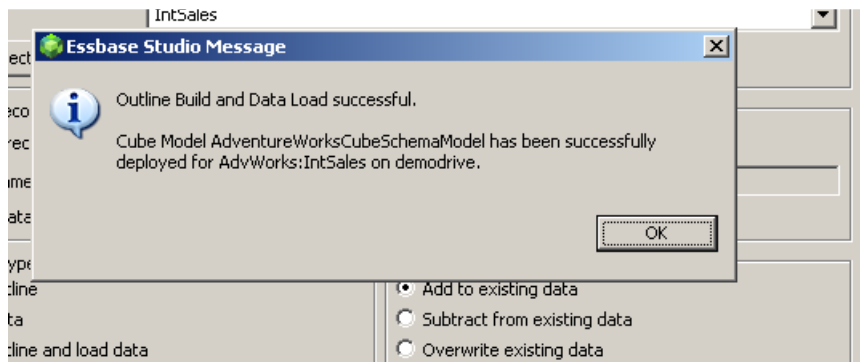
Database = IntSales

Select **Build outline and load data** from the Load task type.

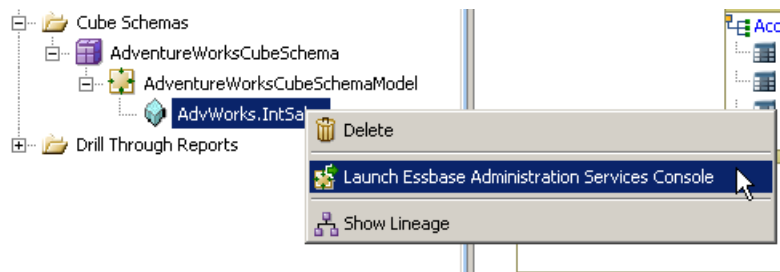
Click **Finish** to begin the deployment



3. Wait for the deployment to complete
4. Click **OK**
5. Click **Cancel**



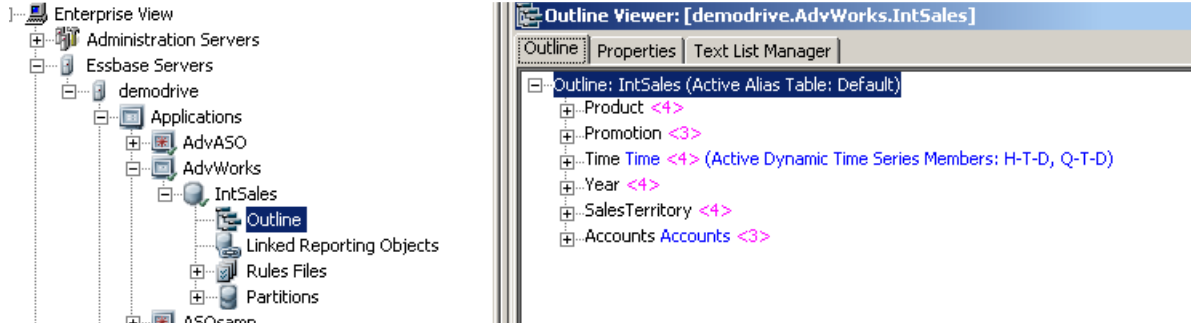
6. In the AdventureWorksAnalysis folder navigate to Cube Schemas and expand the Model, right-click on the AdvWorks.IntSales cube and select **Launch Essbase Administration Services Console**. (Ensure the EAS service has been started)



7. Login when prompted by EAS.  
(Check out the cool white background.)

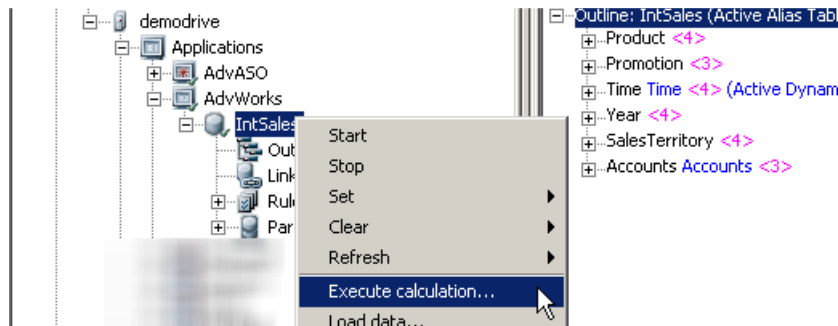
Expand the Essbase Server that you deployed to (localhost, demodrive, etc.), expand Applications, and expand the new **AdvWorks** Application and Database.

Right-click the outline and select **View**



- The deployment wizard only deployed the outline and loaded data but it did not calc our BSO cube. We need to do this to have the data loaded to blocks above level 0.

Right-Click on the database, **IntSales**, and select **Execute Calculation...**



- On the Execute Database Calculation prompt highlight the **(default)** calculation script and press the **OK** button to begin the calc.
- The calc will run quickly but it should be successful. You may now connect to your favorite Essbase analysis tool, connect to the AdvWorks/IntSales cube and run queries.

	A	B	C	D	E	F
1		Promotion	Time	Year	SalesTerritory	Accounts
2	Product	31707371.45				
3						

## SECTION SUMMARY

In this section we successfully used the cube deployment wizard to get our EStudio schema/model into Essbase Services. We were also able to calc our cube and use the new cube created in studio just like any other cube.

## Conclusion

EStudio is a great tool and clearly will be a powerful contender in the race for the prime replacement tool for Essbase modeling and administration. It is intuitive and easy to use. This document showed the basics of getting a model from a data source to a fully functioning Hyperion/Oracle Essbase outline. This document touched on basic and advanced aspects of EStudio but leaves several advanced features open to the reader's future exploration. For future development I recommend exploring the Alias Set Manager and the other tabs/functions of the Essbase Model Properties. These advanced features are slick and will be where most custom and advance work will take place when working on a real project.

If you have any questions or comments on this tutorial please let me know by commenting on this blog post or by email at [Christian@artofbi.com](mailto:Christian@artofbi.com).

Stay tuned for the next part in the series.

Enjoy.