

# What's New

Essential Studio Windows Forms

Edition 2013

Volume 1



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# Windows Forms

- All BI Products

## MDX Query Binding with Drill-Up and Drill-Down Operations

In all business intelligence controls, users can perform drill-up and drill-down operations by using MDX queries to manipulate data at different levels.

	Australia	Canada	France	Germany	United Kingdom	United States	Total
	Internet Sales Amount						
▶ FY 2002	\$2,568,701.39	\$573,100.97					\$7,072,084.24
▶ FY 2003	\$2,099,585.43	\$305,010.69					\$5,762,134.30
▶ FY 2004	\$4,383,479.54	\$1,088,879.50					\$16,473,618.05
▶ FY 2005	\$9,234.23	\$10,853.70					\$50,840.63
Total	\$9,061,000.58	\$1,977,844.86					\$29,358,677.22

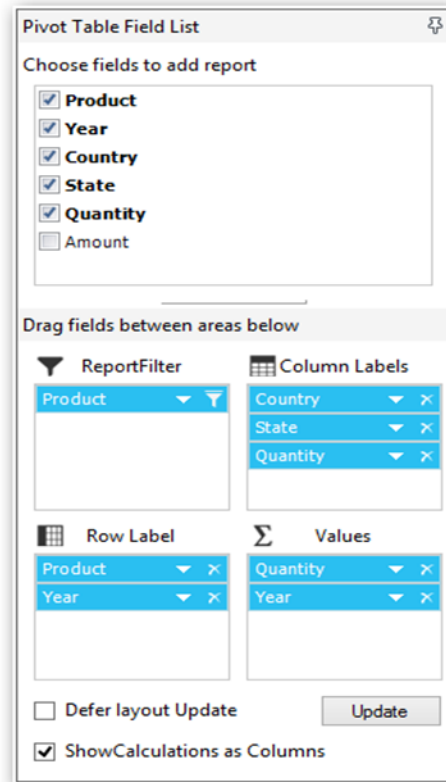
```
SELECT NON EMPTY ({{Hierarchize({{DrilldownLevel({{Customer}.
[Customer Geography].[All Customers]]}}) * {{MEASURES}.
[Internet Sales Amount]}} ) dimension properties member_type ON
COLUMNS, NON EMPTY ({{Hierarchize({{DrilldownLevel({{Date}.
[Fiscal].[All Periods]]}}) }} ) dimension properties member_type ON
ROWS FROM [Adventure Works] CELL PROPERTIES VALUE,
FORMAT_STRING, FORMATTED_VALUE
```

*Manipulating OLAP Data through MDX Queries*

- Essential BI PivotGrid

## Pivot Schema Designer

The pivot schema designer enables users to change the appearance of the pivot grid dynamically. The pivot grid view is updated according to the changes made to the pivot items in the pivot schema designer. Users can dynamically choose which fields to display in the grid, and whether fields should be displayed as column or row values.

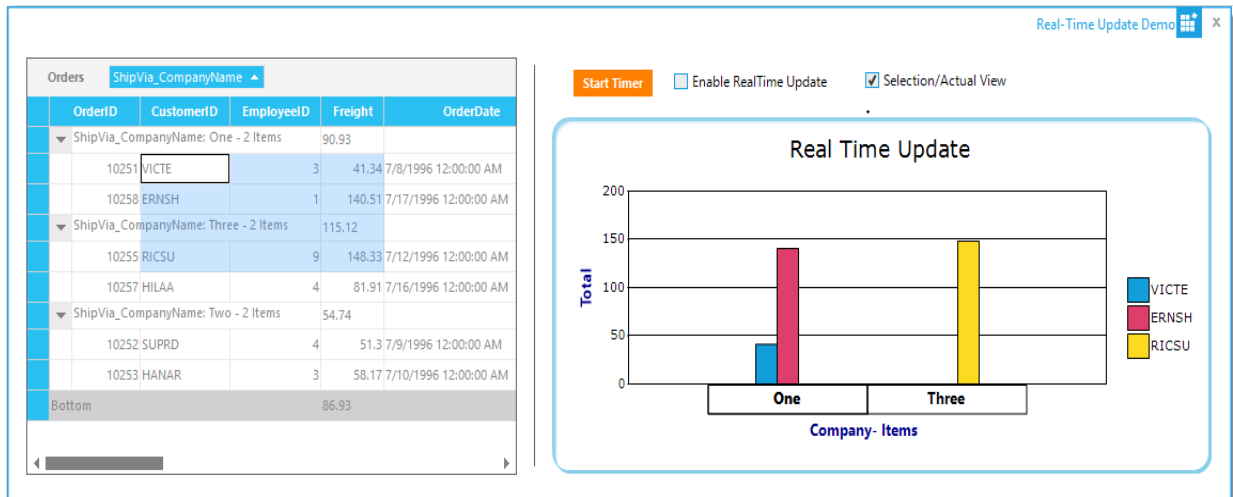


*Pivot Schema Designer*

## ■ Essential Grid

### Binding Charts to GridGrouping and GridDataBound Controls

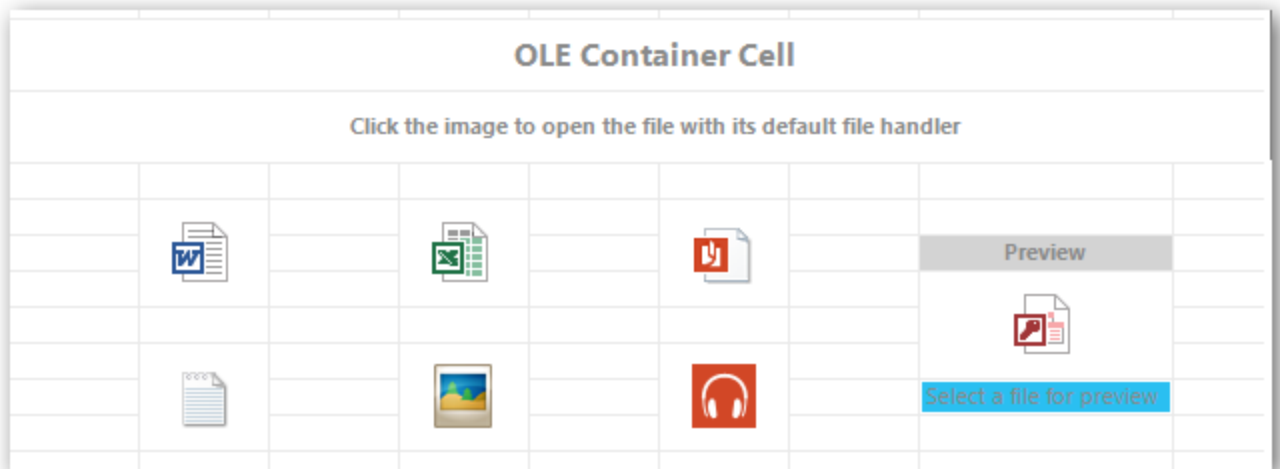
Charts can be created based on real-time values found in the GridGrouping control or GridDataBound control. When binding values from a grid to a chart, using the selection view and the actual view, you can specify which columns and rows will be bound to the x-axis or y-axis.



**Binding a Grid to a Chart**

### Embedding OLE Objects in Cells

Object Linking and Embedding (OLE) objects can be bound to associated icons that are embedded in grid cells. When the cell is clicked, the associated file will be opened with its default application.



**Embedded OLE Objects**

## Multiple Filters for Single Columns

Multiple filters can be applied to a single grid column simultaneously, improving end-user access to specific information. As many filters as needed can be applied, and three categories of filters are enabled:

- **Dynamic filter**, which employs a number of preset operators.
- **Display-member filter**, which filters by the values contained within the column.
- **Excel-like filter**, which uses a checklist of values and allows multiple items to be selected.

The image displays two side-by-side screenshots of a data grid titled "Orders: 10 Items".

The left screenshot, labeled "Filtered Column", shows a grid with columns "OrderID", "Customers", and "Quantity". The "Customers" column is highlighted in orange, and a filter icon is visible in the "OrderID" column header. The data rows are filtered to show only those with "Customers" values of "James Dickey", "Mark Twain", or "William Bronk".

The right screenshot, labeled "Dynamic Filter", shows the same grid with a dropdown menu open over the "Customers" column. The menu lists various filter operators: "StartsWith", "EndsWith", "Equals", "NotEquals", "LessThan", "LessThanOrEqualTo", "GreaterThan", "GreaterThanOrEqualTo", "Match", "Like", and "Expression MATCH". The "EndsWith" operator is currently selected.

*Filtered Column*

*Dynamic Filter*

Orders: 10 Items

OrderID	Customers	Quantity
	(All)	
4629	William Wordsworth	86
3884	Mark Twain	54
1656	James Dickey	85
	Emiley Dickinson	
	William Bronk	
3839	Mark Twain	93
3951	Mark Twain	91
3752	Mark Twain	61
4801	Mark Twain	52
4335	Emiley Dickinson	86
3004	Emiley Dickinson	59
2000	Emiley Dickinson	66

**Display-Member Filter**

Orders: 9 Items

OrderID	Customers	Quantity
4801	Mark Twain	52
3004	Emiley Dickinson	59
3752	Mark Twain	61
2000	Emiley Dickinson	66
1656	James Dickey	85
4629	William Bronk	86
4335	Emiley Dickinson	86
3951	Mark Twain	91
3839	Mark Twain	93

Sort A to Z

Sort Z to A

Clear Filter From Quantity

Text Filters

Select All

52

54

59

61

66

85

86

OK Cancel

**Excel-Like Filter**

## Placeholders for Content Exceeding Cell Borders

When the content of a cell exceeds the cell's borders, characters can be displayed instead of numbers or letters to indicate that the content outstretches the cell's dimensions. By default, the number sign (#) will display, but other characters can be specified. Content can be converted based on whether it is numeric, alphabetic, or both. This function can also be disabled, allowing the original content to display.

	A	B	C	D	
1	100300300	#####	row0 col2	row0 col3	rc
2	103950919	#####	row1 col2	row1 col3	rc
3	107689062	#####	row2 col2	row2 col3	rc
4	111515765	#####	row3 col2	row3 col3	rc
5	115432064	#####	row4 col2	row4 col3	rc
6	119438998	row5 c	row5 col2	row5 col3	rc
7	123537601	row6 c	row6 col2	row6 col3	rc
8	127728912	row7 c	row7 col2	row7 col3	rc
9	132013967	row8 c	row8 col2	row8 col3	rc
10	136393802	row9 c	row9 col2	row9 col3	rc
11	140869456	row10	row10 col2	row10 col3	rc
12	145441963	row11	row11 col2	row11 col3	rc
13	150112362	row12	row12 col2	row12 col3	rc






**Characters for Letters**

	A	B	C	D
1	#####	!!!!!!!!!!	row0 col2	row0 c
2	!!!!!!!!!!	#####	row1 col2	row1 c
3	^^^^^	#####	row2 col2	row2 c
4	\$\$\$\$\$\$\$	#####	row3 col2	row3 c
5	@@@@	#####	row4 col2	row4 c
6	1194389	row5 col	row5 col2	row5 c
7	1235376	row6 col	row6 col2	row6 c
8	1277289	row7 col	row7 col2	row7 c
9	1320139	row8 col	row8 col2	row8 c
10	1363938	row9 col	row9 col2	row9 c
11	1408694	row10 c	row10 col2	row10
12	1454419	row11 c	row11 col2	row11

**Custom Characters for Letters and Numbers**

## Rendering Images in Header Cells

Along with text, header cells in a grid can render images to represent the type of data contained in a column.

Employees <small>Drag a column header here to group by that column.</small>				
 EmployeeID	 LastName	 FirstName	 Title	 BirthDate
1	Davolio	Nancy	Sales Representative	12/8/1968 12:00:00 AM
2	Fuller	Andrew	Vice President, Sales	2/19/1952 12:00:00 AM
3	Leverling	Janet	Sales Representative	8/30/1963 12:00:00 AM
4	Peacock	Margaret	Sales Representative	9/19/1958 12:00:00 AM
5	Buchanan	Steven	Sales Manager	3/4/1955 12:00:00 AM

**Header Cells with Images**

## Fitting Multiple Grids on a Printed Page

Multiple grids can be printed continuously, one after another, on the same page. The number of columns printed on a page can be specified. When the columns fill the width

of the page, a new grid is created for the remaining columns and printed on the same page as the first grid.

All the columns of a grid can be forced to print on a single page, and a grid can be forced to print evenly across a specified number of pages.

Col0	Col1	Col2	Col3	Col4	Col5	Col6	Col7	Col8	Col9
00	01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108	109
110	111	112	113	114	115	116	117	118	119
120	121	122	123	124	125	126	127	128	129
130	131	132	133	134	135	136	137	138	139
140	141	142	143	144	145	146	147	148	149
150	151	152	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169
170	171	172	173	174	175	176	177	178	179
180	181	182	183	184	185	186	187	188	189
190	191	192	193	194	195	196	197	198	199

A	B	C	D	E	F	G	H	I	J
1	100gr-T	100gr-T	100gr-T	100gr-T	100gr-T	100gr-T	100gr-T	100gr-T	100gr-T
2	200gr-T	200gr-T	200gr-T	200gr-T	200gr-T	200gr-T	200gr-T	200gr-T	200gr-T
3	300gr-T	300gr-T	300gr-T	300gr-T	300gr-T	300gr-T	300gr-T	300gr-T	300gr-T
4	400gr-T	400gr-T	400gr-T	400gr-T	400gr-T	400gr-T	400gr-T	400gr-T	400gr-T
5	500gr-T	500gr-T	500gr-T	500gr-T	500gr-T	500gr-T	500gr-T	500gr-T	500gr-T
6	600gr-T	600gr-T	600gr-T	600gr-T	600gr-T	600gr-T	600gr-T	600gr-T	600gr-T
7	700gr-T	700gr-T	700gr-T	700gr-T	700gr-T	700gr-T	700gr-T	700gr-T	700gr-T
8	800gr-T	800gr-T	800gr-T	800gr-T	800gr-T	800gr-T	800gr-T	800gr-T	800gr-T
9	900gr-T	900gr-T	900gr-T	900gr-T	900gr-T	900gr-T	900gr-T	900gr-T	900gr-T
10	1000gr	1000gr	1000gr	1000gr	1000gr	1000gr	1000gr	1000gr	1000gr
11	1100gr	1100gr	1100gr	1100gr	1100gr	1100gr	1100gr	1100gr	1100gr
12	1200gr	1200gr	1200gr	1200gr	1200gr	1200gr	1200gr	1200gr	1200gr
13	1300gr	1300gr	1300gr	1300gr	1300gr	1300gr	1300gr	1300gr	1300gr
14	1400gr	1400gr	1400gr	1400gr	1400gr	1400gr	1400gr	1400gr	1400gr
15	1500gr	1500gr	1500gr	1500gr	1500gr	1500gr	1500gr	1500gr	1500gr
16	1600gr	1600gr	1600gr	1600gr	1600gr	1600gr	1600gr	1600gr	1600gr
17	1700gr	1700gr	1700gr	1700gr	1700gr	1700gr	1700gr	1700gr	1700gr
18	1800gr	1800gr	1800gr	1800gr	1800gr	1800gr	1800gr	1800gr	1800gr
19	1900gr	1900gr	1900gr	1900gr	1900gr	1900gr	1900gr	1900gr	1900gr
20	2000gr	2000gr	2000gr	2000gr	2000gr	2000gr	2000gr	2000gr	2000gr

**Printed Page with Two Different Types of Grids**

AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN
21	2100gr	2100gr	2100gr	2100gr	2100gr	2100gr	2100gr	2100gr	2100gr
22	2200gr	2200gr	2200gr	2200gr	2200gr	2200gr	2200gr	2200gr	2200gr
23	2300gr	2300gr	2300gr	2300gr	2300gr	2300gr	2300gr	2300gr	2300gr
24	2400gr	2400gr	2400gr	2400gr	2400gr	2400gr	2400gr	2400gr	2400gr
25	2500gr	2500gr	2500gr	2500gr	2500gr	2500gr	2500gr	2500gr	2500gr
26	2600gr	2600gr	2600gr	2600gr	2600gr	2600gr	2600gr	2600gr	2600gr
27	2700gr	2700gr	2700gr	2700gr	2700gr	2700gr	2700gr	2700gr	2700gr
28	2800gr	2800gr	2800gr	2800gr	2800gr	2800gr	2800gr	2800gr	2800gr
29	2900gr	2900gr	2900gr	2900gr	2900gr	2900gr	2900gr	2900gr	2900gr
30	3000gr	3000gr	3000gr	3000gr	3000gr	3000gr	3000gr	3000gr	3000gr

AO	AP	AQ	AR	AS
31	3100gr	3100gr	3100gr	3100gr
32	3200gr	3200gr	3200gr	3200gr
33	3300gr	3300gr	3300gr	3300gr
34	3400gr	3400gr	3400gr	3400gr
35	3500gr	3500gr	3500gr	3500gr
36	3600gr	3600gr	3600gr	3600gr
37	3700gr	3700gr	3700gr	3700gr
38	3800gr	3800gr	3800gr	3800gr
39	3900gr	3900gr	3900gr	3900gr

A	B	C	D	E	F	G	H	I	J
1	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
2	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
3	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
4	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
5	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
6	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
7	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
8	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
9	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
10	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
11	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
12	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
13	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc
14	grc	SEC	grc	SEC	grc	SEC	grc	SEC	grc

**Printed Page with Two Types of Grids: The First Uses a Column Break**

