



In this section the User will learn...

- The principles of grouping records in Discoverer 11g Plus



This section deals with one of Discoverer's fundamental functions, the ability to group values together according to the distinctiveness of the records ...

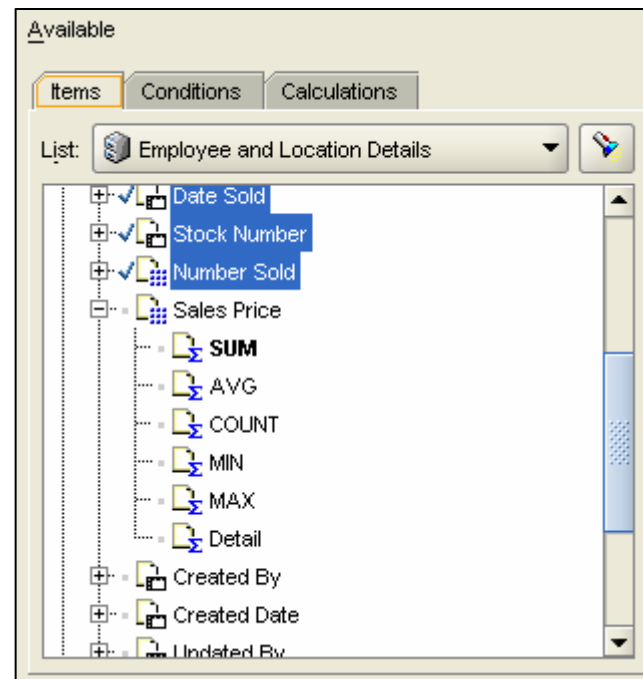
Aggregation is very closely linked to Totals, except in this case only the Totals are displayed and the individual data which makes up the Total is removed.

In order for Aggregation to occur it is best that at least one 'Data point' item has to be selected, Data points have already been examined when Cross-Tab Worksheets were introduced, Cross-Tabs are a good example of aggregation.

Aggregation - Data Points in Discoverer 11g Plus



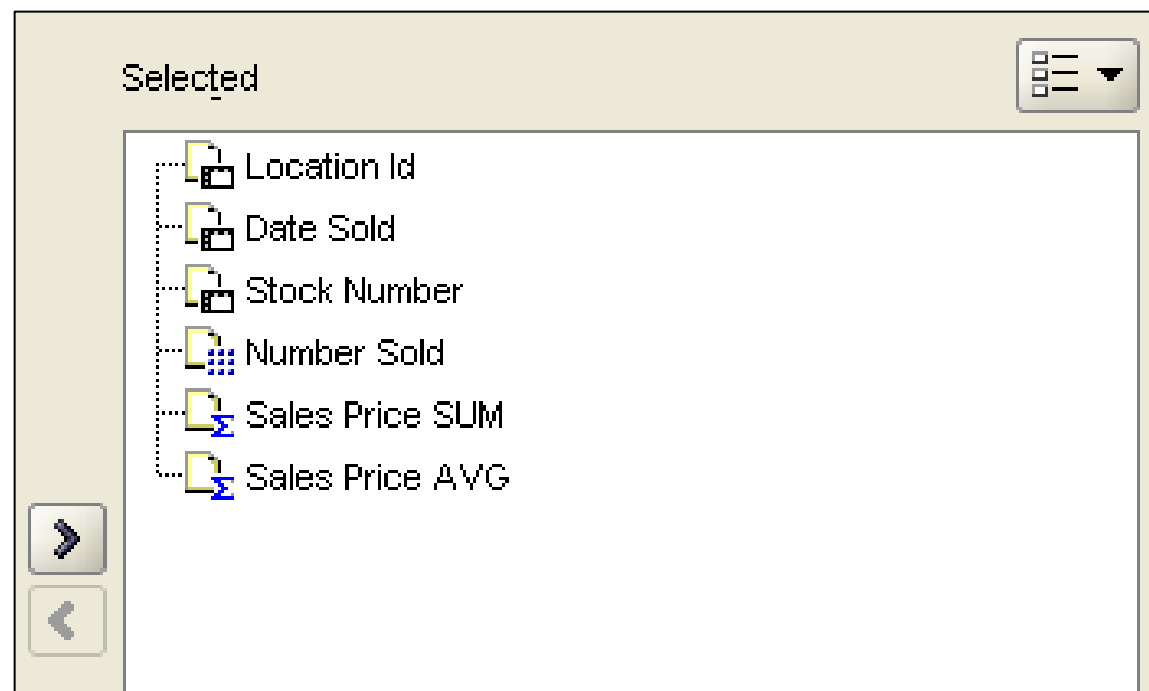
It is the responsibility of the Discoverer Administrator to decide which Items are Data Points, once they have been created the User can select which behaviour when aggregating is required, as a general rule, Data Points default to Sum for the Administrator, however the following are available (the default is made bold) ...



Aggregation - Data Points in Discoverer 11g Plus



In the previous example the User has displayed the Data Points available by opening the Item clicking on the plus sign, to select an individual Data Point move the aggregating type to the right rather the Item itself. In this example the User has selected both the Sum and the Avg ...





Sum - Adds up all the values

Count - Counts how many values

Max / Min - The largest and the smallest values

Avg - The mean value

Detail - This will 'freeze' the aggregation and effectively stop it happening, Detail retains the original value and will never aggregate.

Aggregation – Example of Aggregation in Discoverer 11g Plus



In this example the User has selected Sales Details, note that each record is unique ...

▶ Location Id	▶ Date Sold	▶ Stock Number	▶ Number Sold SUM
2	30-OCT-2001	18	2
2	05-DEC-2001	10	1
2	15-DEC-2001	11	20
2	10-JAN-2002	24	1
2	16-JAN-2002	22	4
3	10-JAN-2002	13	10
3	05-FEB-2002	15	1
3	15-FEB-2002	2	2
3	05-MAR-2002	12	10
3	23-MAR-2002	9	2
8	12-JAN-2001	14	1
8	26-MAR-2001	5	20
8	26-MAR-2001	7	20
8	10-OCT-2001	18	1
8	13-OCT-2001	1	6



Aggregation – Example of Aggregation in Discoverer 11g Plus

By removing a column the data will have duplicates, if there is a Data Point, Discoverer will aggregate the values, here the User has removed the Location ID and all the sales will aggregate for the particular date ...

▶ Date Sold	▶ Stock Number	▶ Number Sold SUM
17-FEB-1998	1	15
12-AUG-1999	10	20
14-AUG-1999	1	3
14-AUG-1999	2	1
14-AUG-1999	8	1
15-AUG-1999	3	4
04-OCT-1999	5	30
11-NOV-1999	26	6
18-NOV-1999	6	4
02-FEB-2000	5	18
12-JAN-2001	14	1
16-MAR-2001	22	10
26-MAR-2001	5	20
26-MAR-2001	7	20
26-MAR-2001	18	1



Aggregation – Example of Aggregation in Discoverer 11g Plus

As long as a Data Point remains in the selection the aggregating will continue, until finally it is only the Data Point left ...

▶ Date Sold	▶ Number Sold SUM
17-FEB-1998	15
12-AUG-1999	20
14-AUG-1999	5
15-AUG-1999	4
04-OCT-1999	30
11-NOV-1999	6
18-NOV-1999	4
02-FEB-2000	18
12-JAN-2001	1
16-MAR-2001	10
26-MAR-2001	41
03-APR-2001	50
07-APR-2001	4
20-APR-2001	10
18-MAY-2001	10

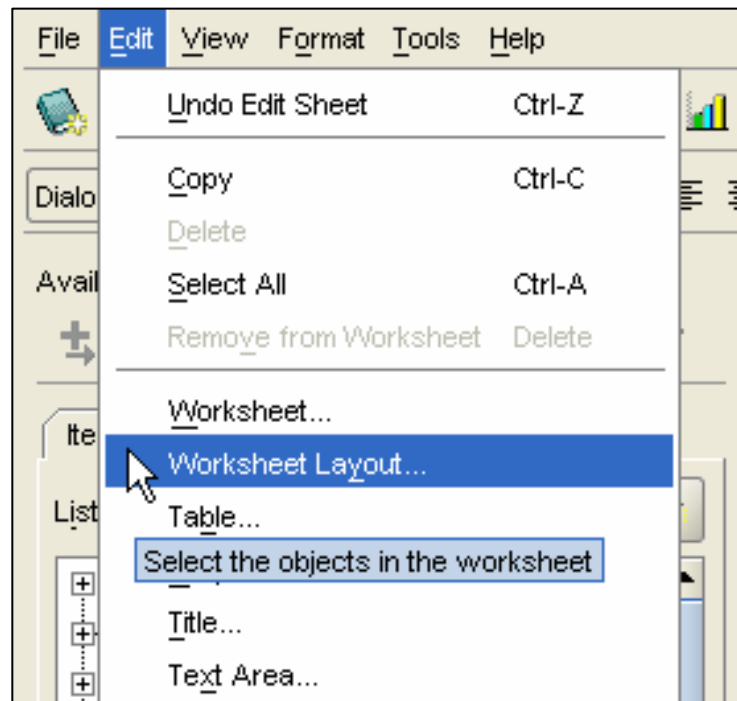
▶ Number Sold SUM
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Aggregation – Reversing Aggregation in Discoverer 11g Plus



The Aggregation can be simply reversed by the User adding more columns to the selected Worksheet.

Columns can be added via the Edit Sheet found in the Worksheet and Worksheet Layout options ...

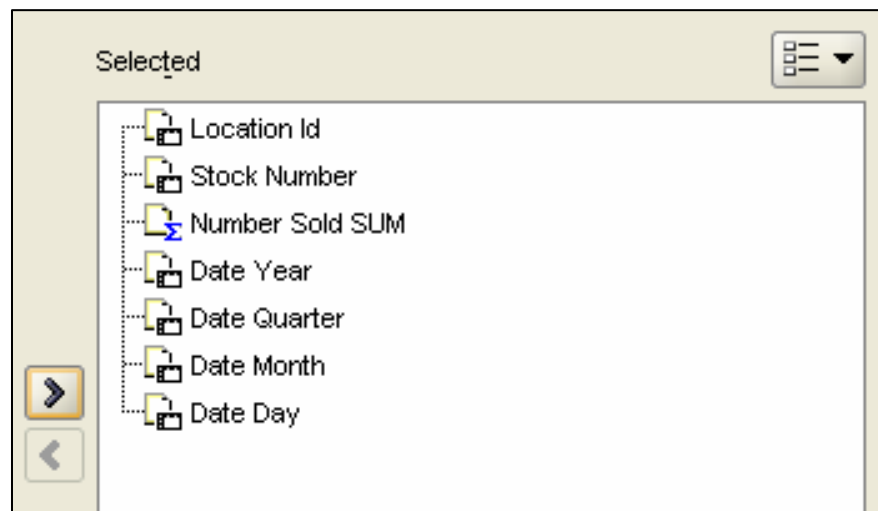




Previous examples had removed Items to produce aggregation, the Discoverer Administrator can provide a Date Hierarchy for use in aggregation, this breaks a Date into its constituent parts and can allow the User to aggregate from seconds right up to years, in most cases though days to years are preferred ...

The previous example now uses the Transaction Date hierarchy, these are displayed as separate Items which can be removed when aggregation is required ...

Aggregation – Date Hierarchies in Discoverer 11g Plus



▶ Date Year	▶ Date Quarter	▶ Date Month	▶ Date Day	▶ Location Id	▶ Number Sold SUM	▶ Stock Number
1999	Q3	Aug	14	31	1	2
1999	Q4	Oct	04	96	30	5
2002	Q1	Feb	15	3	2	2
2001	Q4	Dec	20	59	1	18
2001	Q4	Dec	20	59	1	19
2001	Q2	Apr	03	72	50	4
1998	Q1	Feb	17	96	15	1
2001	Q4	Nov	26	110	1	8
2001	Q4	Oct	10	8	1	18
2002	Q1	Feb	22	69	1	8
2001	Q4	Nov	16	59	5	2
2001	Q2	Jun	20	83	5	23
1999	Q3	Aug	12	31	20	10
1999	Q3	Aug	14	31	3	1
1999	Q3	Aug	15	31	4	3



Taking away elements of the Dates will now aggregate the Number of Sales by whatever Date element remains, the Administrator can give the breakdown of the following ...

Years

Quarters

Months

Weeks

Days

Hours

Minutes

Seconds

It is the Users responsibility to specify what is required.