

Access 2003: Aggregate Queries

This is a query that allows you to obtain aggregates or totals in a query. The functions available are Sum, Avg, Min, Max, Count, StDev, or Var, or other functions, First and Last. If you add a calculated field that includes one or more of the aggregate functions, choose Expression in the calculated field's Total.


You can create an aggregate query with the Simple Query Wizard or the Design View. If you use Design View, choose Query>New>Design View.

Add any tables or queries you want to use.

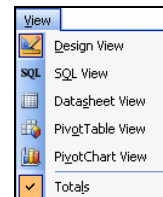
Use Query>Show Table" or click on the icon.

Choose the appropriate tables and fields.

If you choose the Simple Query Wizard, plan to modify the fields in the Design View. If you have specific criteria for the totals or functions, enter them in the field's criteria.

Click on the Totals icon on the toolbar. 

Or use View>Totals.

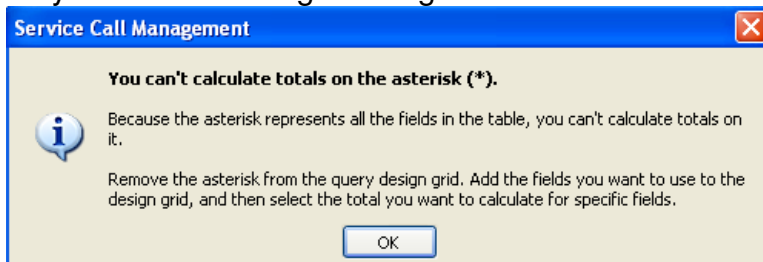


Either way, a Totals row will show up in the field area.

Field:	CompanyName	PaymentAmount	
Table:	Customers	Payments	
Total:	Group By	Group By	▼
Sort:		Group By	▲
Show:	<input checked="" type="checkbox"/>	Sum	☰
Criteria:		Avg	
or:		Min	
		Max	
		Count	
		StDev	
		Var	▼

For each relevant field, click its cell in the Total row, and then choose one of the functions.

When adding the fields, if the asterisk field is used in order to show all fields, you may see the following message.



When using the Total function, you must add all fields individually. In this example, the chosen fields are CompanyName & PaymentAmount. Here are the results with this query setup.

Field:	CompanyName	PaymentAmount
Table:	Customers	Payments
Sort:		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		
or:		

	Company Name	Payment Amount
▶	Wide World Importers	\$190.03
	Wide World Importers	\$37.80
	Coho Vineyard & Winery	\$152.28
	Coho Vineyard & Winery	\$50.44
	Coho Vineyard & Winery	\$59.70
	Fourth Coffee	\$204.25
	Fourth Coffee	\$59.70
	Northwind Traders	
	Alpine Ski House	\$252.67

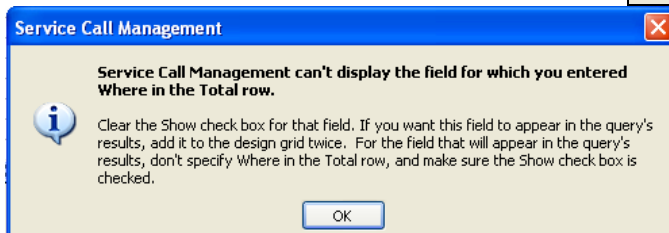
The Totals function is added. The data is sorted by Company Name and then Payment Amount, ascending.

Field:	CompanyName	PaymentAmount
Table:	Customers	Payments
Total:	Group By	Group By
Sort:	Ascending	Ascending
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		
or:		

	Company Name	Payment Amount
▶	Alpine Ski House	\$252.67
	Coho Vineyard & Winery	
	Coho Vineyard & Winery	\$50.44
	Coho Vineyard & Winery	\$152.28
	Fourth Coffee	\$59.70
	Fourth Coffee	\$204.25
	Northwind Traders	
	Wide World Importers	\$37.80
	Wide World Importers	\$190.03

In this setup, there will be a count of the companies whose payments are between \$100 and \$200. However, a message shows up.

Field:	CompanyName	PaymentAmount
Table:	Customers	Payments
Total:	Count	Where
Sort:		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		Between 100 And 200
or:		



In order to make the query work, the PaymentAmount field must be added twice, once for manipulation & once for show. Here are the results.

Field:	CompanyName	PaymentAmount	PaymentAmount
Table:	Customers	Payments	Payments
Total:	Count	Group By	Where
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:			Between 100 And 200
or:			

CountOfCompanyName	Payment Amount
1	\$152.28
1	\$190.03

Field:	CompanyName	PaymentAmount	
Table:	Customers	Payments	
Total:	Group By	Sum	
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:			
or:			

Here is a setup where the sum of all payments made by a company is calculated.

Company Name	SumOfPayment
Alpine Ski House	\$252.67
Coho Vineyard & Winery	\$202.72
Fourth Coffee	\$263.95
Northwind Traders	
Wide World Importers	\$227.83

Field:	CompanyName	PaymentID	PaymentAmount
Table:	Customers	Payments	Payments
Total:	Group By	Count	Avg
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:			
or:			

Here is a setup where the average of all payments made by a company is calculated.

There is also a count of the number of payments made by the company.

Company Name	CountOfPayment	AvgOfPaymentA
Alpine Ski House	1	\$252.67
Coho Vineyard & Winery	2	\$101.36
Fourth Coffee	2	\$131.98
Northwind Traders	0	
Wide World Importers	2	\$113.92