Aggregate functions: Avg, Count, Sum, Min, Max, StDev

Use of aggregate functions: Total, Group By

Calculated Fields: use of Expressions

Examples of expressions that calculate or manipulate dates, and then use the result as criteria

<table>
<thead>
<tr>
<th>Field</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequiredDate</td>
<td>Between Date() And DateAdd(&quot;m&quot;,3,Date())</td>
</tr>
<tr>
<td>OrderDate</td>
<td>&lt;Date()-30</td>
</tr>
<tr>
<td>OrderDate</td>
<td>Year([OrderDate])=1996</td>
</tr>
<tr>
<td>OrderDate</td>
<td>DatePart(&quot;q&quot;,[OrderDate])=4</td>
</tr>
<tr>
<td>OrderDate</td>
<td>Year([OrderDate])=Year(Now()) And Month([OrderDate]) =Month(Now())</td>
</tr>
<tr>
<td>OrderDate</td>
<td>Year(Date()) - Year([OrderDate])</td>
</tr>
</tbody>
</table>

Expression Examples
Examples of manipulating text values in forms, reports, and data access pages. The following table lists examples of expressions that you can use in calculated controls on forms, reports, and data access pages.

= "N/A" Displays N/A.

="[FirstName] & " " & [LastName] Displays the values of the FirstName and LastName fields separated by a space.

=Left([ProductName], 1) Uses the Left function to display the first character of the value of the ProductName field.

=Right([AssetCode], 2) Uses the Right function to display the last 2 characters of the value of the AssetCode field.

=Trim([Address]) Uses the Trim function to display the value of the Address field, removing any leading or trailing spaces.

=IIf(IsNull([Region]), [City] & " " & [PostalCode], [City] & " " & [Region] & " " & [PostalCode])
Uses the IIf function to display the values of the City and PostalCode fields if Region is Null; otherwise, it displays the values of the City, Region, and PostalCode fields, separated by spaces.

Examples of performing arithmetic operations in forms, reports, and data access pages. The following table lists examples of expressions that you can use in calculated controls on forms, reports, and data access pages.

=[Subtotal]+[Freight] The sum of the values of the Subtotal and Freight fields.

=[RequiredDate]-[ShippedDate] The difference between the values of the RequiredDate and ShippedDate fields.
The product of the value of the Price field and 1.06 (adds 6 percent to the Price value).

The product of the values of the Quantity and Price fields.

The quotient of the values of the EmployeeTotal and CountryTotal fields.

Examples of manipulating and calculating dates on forms, reports, and data access pages. The following table lists examples of expressions that you can use in calculated controls on forms, reports, and data access pages.

- `Date()` Uses the Date function to display the current date in the form of mm-dd-yy, where mm is the month (1 through 12), dd is the day (1 through 31), and yy is the last two digits of the year (1980 through 2099).
- `Format(Now(), "ww")` Uses the Format function to display the number of the week of the year the current date represents, where ww is 1 through 53.
- `DatePart("yyyy", [OrderDate])` Uses the DatePart function to display the four-digit year of the value of the OrderDate field.
- `DateAdd("y", -10, [PromisedDate])` Uses the DateAdd function to display a date that is 10 days before the value of the PromisedDate field.
- `DateDiff("d", [OrderDate], [ShippedDate])` Uses the DateDiff function to display the variance in days between the values of the OrderDate and ShippedDate fields.

Examples of using aggregate functions in forms and reports. The following table lists examples of expressions you can use in calculated controls on forms and reports.

- `Avg([Freight])` Uses the Avg function to display the average of the values of the Freight control.
- `Count([OrderID])` Uses the Count function to display the number of records in the OrderID control.
- `Sum([Sales])` Uses the Sum function to display the sum of the values of the Sales control.
- `Sum([Quantity]*[Price])` Uses the Sum function to display the sum of the product of the values of the Quantity and Price controls.
- `=[Sales]/Sum([Sales])*100` Displays the percentage of sales, determined by dividing the value of the Sales control by the sum of all the values of the Sales control.
Examples of returning **one of two values** on forms, reports, and data access pages. The following table lists examples of expressions that you can use in calculated controls on forms, reports, and data access pages.

=IIf([Confirmed] = "Yes", "Order Confirmed", "Order Not Confirmed")
Uses the IIf function to display the message "Order Confirmed" if the value of the Confirmed field is Yes; otherwise, it displays the message "Order Not Confirmed."

=IIf(IsNull([Country]), " ", [Country])
Uses the IIf function to display an empty string if the value of the Country field is Null; otherwise, it displays the value of the Country control.

=IIf(IsNull([Region]), [City] & " " & [PostalCode], [City] & " " & [Region] & " " & [PostalCode])
Uses the IIf function to display the values of the City and PostalCode fields if Region is Null; otherwise, it displays the values of the City, Region, and PostalCode fields.

=IIf(IsNull([RequiredDate] - [ShippedDate]), "Check for a missing date", [RequiredDate] - [ShippedDate])
Uses the IIf function to display the message "Check for a missing date" if the result of subtracting ShippedDate from RequiredDate is Null; otherwise, it displays the difference between the values of the RequiredDate and ShippedDate fields.