

Understanding DataEase Selection Filters

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There are two ways to set a filter in a form. The first is the basic method of doing a record selection by way of an Alt+F5, the menu choice Query...Select Records, or by clicking the Find button on the button bar. All three of these will take you to a cleared screen where you can enter selection criteria in pretty much the same way as you would in DFD.

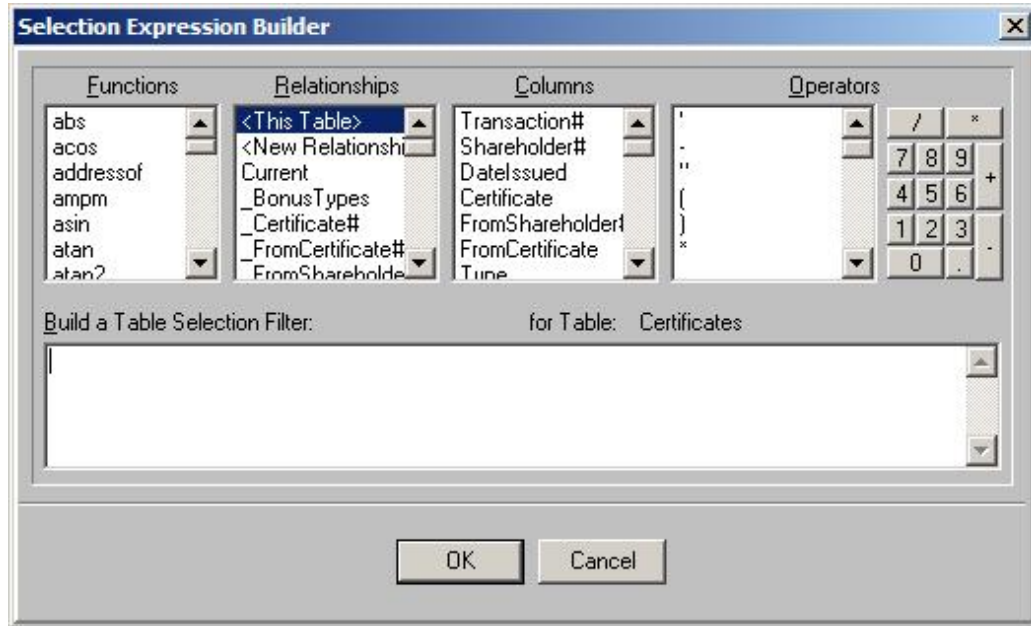
The screenshot shows the 'Certificates' form in the DataEase Stocks application. The form is titled 'Certificates' and has a menu bar with 'File Edit View Goto Query Reports Procedures Help'. The form contains several input fields and dropdown menus. The 'Date Issued' field is set to '07/27/2006'. The 'Type' dropdown is set to 'Common'. The 'Shares' dropdown is set to 'Participating'. The 'Price per Share' field is empty. The 'Total' field is empty. The 'Value' field is empty. The 'Surrendered' field is empty. The 'Reason' field is empty. The 'Bonus' field is empty. The 'Original Issue' checkbox is unchecked. The '1/20 Reverse' checkbox is unchecked. In the bottom right corner, there is a table titled 'Certificates from Multiple Shareholders' with columns 'Transaction', 'Shareholder', and 'Shares'. The table has five rows, with the first row containing empty fields.

| Transaction | Shareholder | Shares |
|-------------|-------------|--------|
| | | |
| | | |
| | | |
| | | |
| | | |

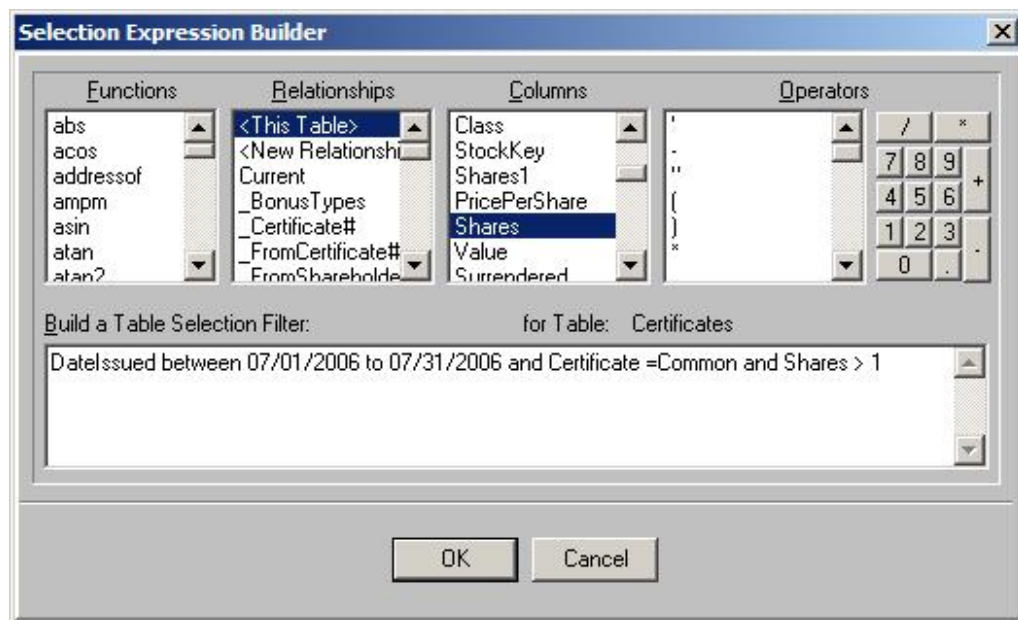
Once you have entered the selection criteria, you can then press Alt-F5 (or either of the other two options) again to return to the record view and scan through your selected records.

But sometimes, this simple approach is too simple. For example, in the above screen we are looking for records for a single date. But what if you wanted to look for records for a range of dates or where the number of shares was greater than a certain amount. While both of these things can be done using the Alt-F5 screen, there are things that cannot be done such as looking for records on one of two non-sequential dates. For that we will turn to the menu choice of Query...Selection Filter.

When you first choose this option, you will get a small box into which you can enter some selection criteria freehand. But most of the time, you will want to click the button on this dialog box that reads Expression Builder. This will open up a dialog that looks like this:



You can then use the selection boxes to enter any criteria you wish. The following is an example of a selection criteria that uses both a range of dates and a number value.



The ability to write complex selection criteria is a significant improvement over the DFD version. In addition, the Expression Builder is the foundation for many more things. In fact, this same dialog box is used to create reports.

The expression you create follows typical algebraic and Boolean notation (a fancy way of saying that you may have to put () around some things). For example, if you wanted to change this to use two dates rather than a range you would say:

```
(DateIssued =07/01/2006 or DateIssued =07/10/2006)
and Certificate =Common and Shares >1
```

It is worth noting that the Columns list includes all the fields in the Table, not just the ones on the form you are in. And like many other things in DFW, this is both good and bad depending on your point of view. The fact is that any table may have a number of fields that are never included on any user form. The major upside to this is that you may use fields that do not appear on the form in selecting which records you wish to see.

The downside is that the actual names of the fields may not be the same as they are labeled on a form. For example, the label "Date" on a form may refer to a field named "RecordDate", or it may refer to "IssueDate", or "StatementDate", or "WireDate", or some other date field in the table. All of which means that it can sometimes be a bit confusing trying to decide which field name to choose.

Generally, this is not going to be a problem, but if it is then there is a technique you can use which combines the functionality of both methods of doing searches. You can start off by using the Alt+F5 method then open the Selection Filter. When you do, you will find that whatever criteria you set with Alt+F5 is now in the Selection Filter and can be expanded or modified. This is also a way to see how a query is actually constructed. However, a warning that the "translator" tends to add in a bunch of unnecessary () which can make the query rather more difficult to read than it should be. It still works; it's just messy.