An ABeCedary of Access Tips

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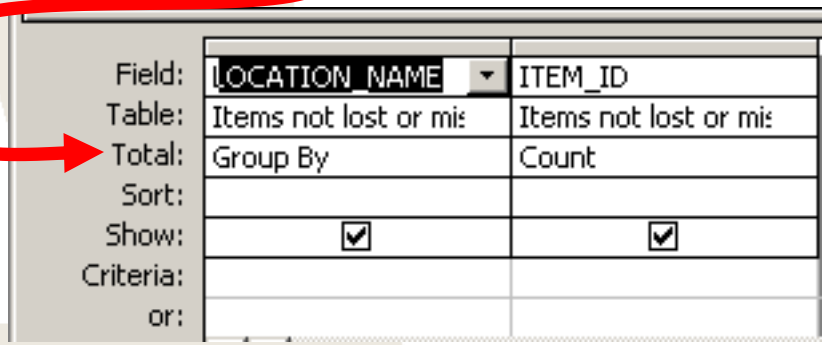
Open Design New

A is for

AGGREGATE FUNCTIONS

Click the sigma (Σ) to get the "Total:" line.



For each unique combo of "Group By" lines, you'll get one record in your results.

```
Agriculture Lib  35543
Chemistry Lib     8664
Engineering Lib 193455
Geology Lib       3643
Humanities Lib  242576
Life Sci Lib     57344
Mathematics Lib  16634
...
```

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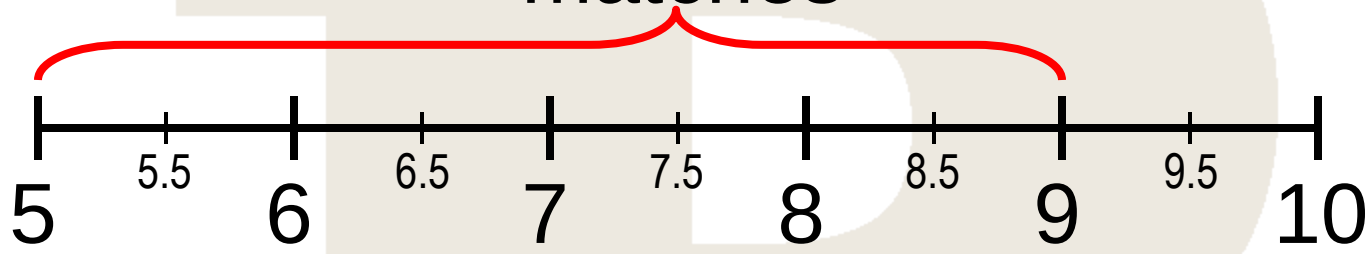
B is for BETWEEN OPERATOR

Between is inclusive at both ends:

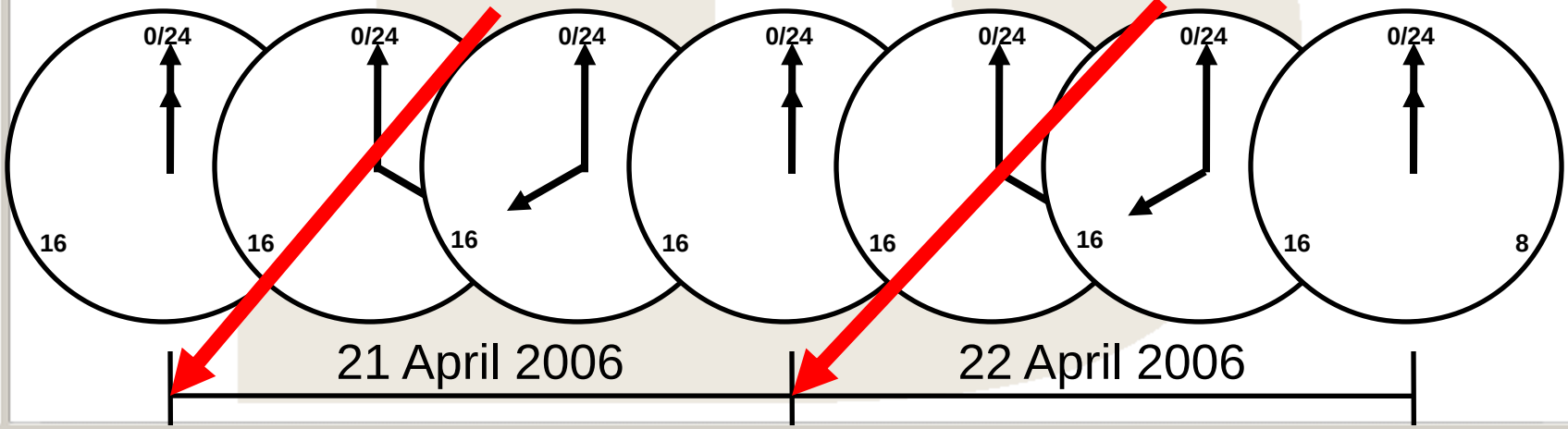
`Between 5 and 9`

matches



But a date range runs from midnight at the start of the first day to midnight of the last:

`Between #4/21/2006# And #4/22/2006#`



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C is for CRITERIA

In your criteria, the In operator executes much faster than the Or operator

Instead of:

LOCATION_ID
MFHD_MASTER
Where
☐
"41" Or "46" Or "51" Or "63" Or "83"

Use:

LOCATION_ID
MFHD_MASTER
Where
☐
In ("41","46","51","63","83")

Better yet, make your query self-documenting by using text fields, not idiot numbers:

LOCATION_CODE
LOCATION
Group By
☑
In ("main","sci","law","med","engr")

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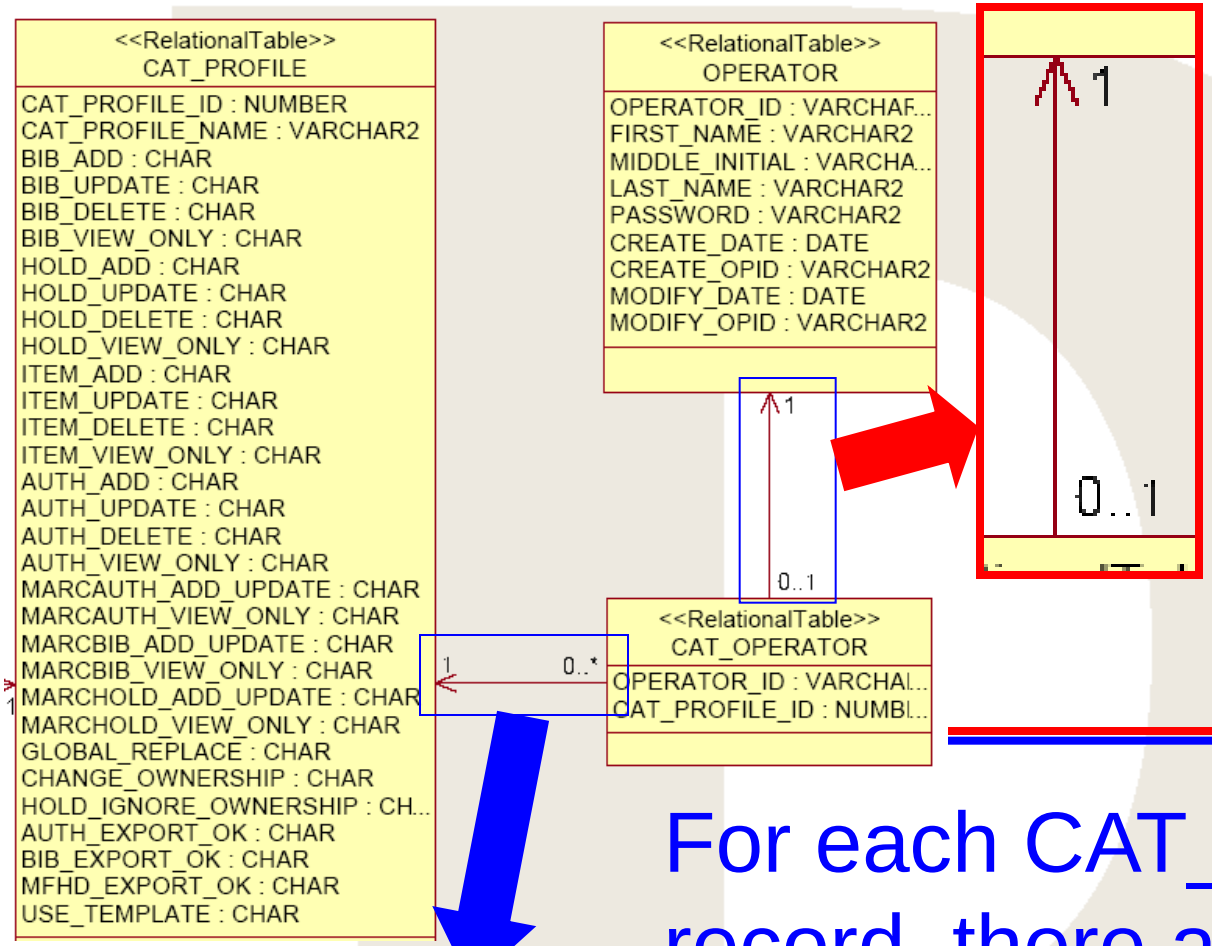
D is for

DIAGRAMS, CLASS (formerly E-R)



For each C_O rec, there is 1 OP rec. An OP rec can have 0 or 1 C_O recs.

For each CAT_PROFILE record, there are 0, 1 or more CAT_OPERATOR records. There's 1 C_P record for each C_O rec.

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E is for EXPRESSIONS

You can use expressions to get the exact results you want:

Instead of:	Perhaps you could use:
AMT	CCur(AMT/100)
DEWEYNUM	Left(DEWEYNUM, 3)
CITY	UCase(CITY)
CDATE	Month(CDATE)
LNAME	LNAME & “, ” & FNAME
#04/22/2005#	DateAdd(“yyyy”, -1, Date())
ALLOC1	ALLOC1 – ALLOCDEC
CHGS	Val(CHGS) + Val(BRWS)
GetFieldRaw(***)	Mid(GetFieldRaw(***), 4, 1)

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F is for

Format () (and other date/time functions)

```
Format(Date(), “mm/dd/yyyy”)
        --04/22/2006
Format(Date(), “dddd”)
        --Saturday
Format(Date(), “hh:mm:ss”)
        --14:18:54
Format(Date(), “hh:mm:ss ampm”)
        --02:18:54 pm
DateAdd(“m”, 3, CHARGE_DATE)
        --adds 3 months to the charge date
```

Date fields are always Date/Time fields, so you have to take that into account when you specify criteria or do comparisons.

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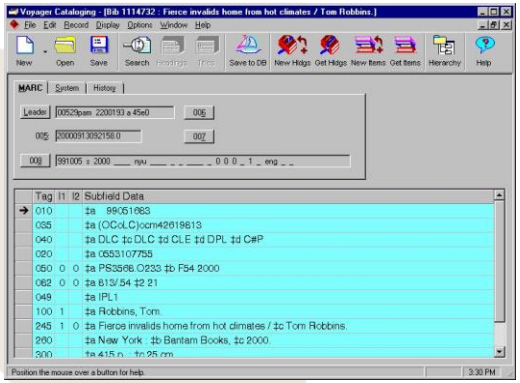
G is for

Generic Criteria In GetField*()

The three GetField* functions and GetSubField are used to get data out of the “BLOBs”. All three can handle “generic” criteria, by shortening the “Tag” parameter.



GetField(GetMFHDBLOB(MFHD_ID), “866”, 1)

--gets the first 866 field

GetFieldAll(GetBibBLOB(BIB_ID), “6”)

--gets all 6XX fields

GetFieldRaw(GetAuthBLOB(AUTH_ID), “1”, 1)

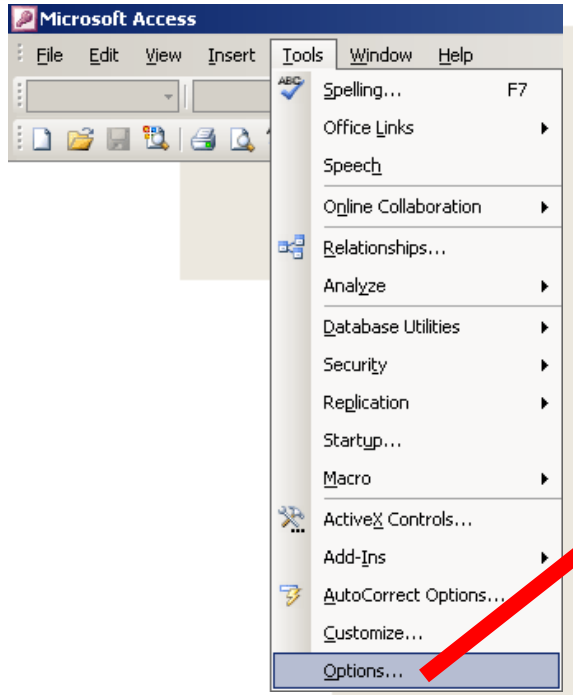
--gets the first (only) 1XX field

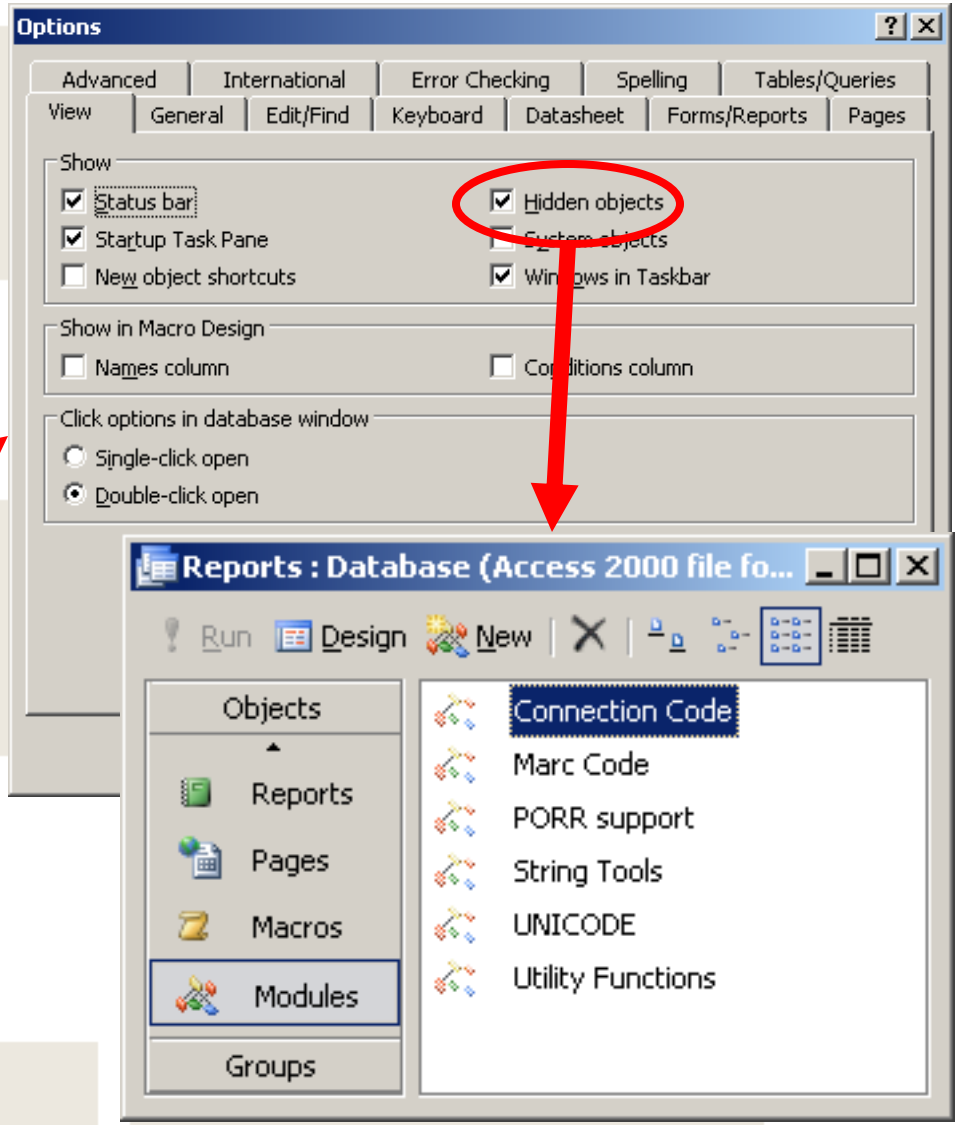
GetSubField(**stuff****, “”, 1)**

--gets the first subfield (whatever it is)

H is for

HIDDEN OBJECTS





Changing the View→Hidden Objects option to "On" allows you to see and change hidden modules

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I is for

IIf () FUNCTION

In programming languages, you may use code like this for a "conditional":

```
if (sun = up) then
  "day";
else
  "night";
```

In Access, the IIf() (Immediate If) function does the same thing:

```
IIf(sun = up, "day", "night")
```

You can find lots of uses for it in queries:

```
PH: IIf([PHONE_NUMBER] Is Null,
    "NO PHONE", [PHONE_NUMBER])
```

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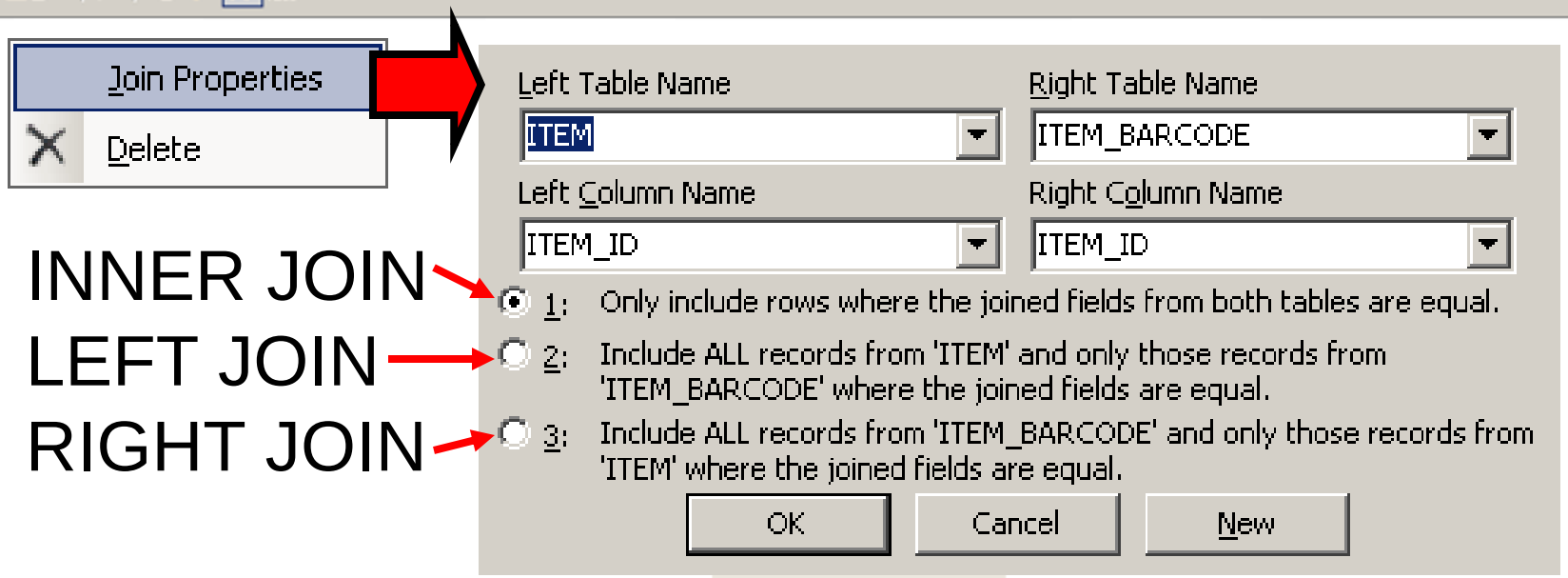
J is for JOINS: INNER, LEFT & RIGHT



SAMPLE TABLES

ITEM

ITEM_ID	more fields
1	yadda...
2	blah...

ITEM_BARCODE

ITEM_ID	other flds
1	junk...
3	trash...

ITEM INNER JOIN ITEM_BARCODE

ITEM.ITEM_ID	more fields	ITEM_BARCODE.ITEM_ID	other flds
1	yadda...	1	junk...

ITEM LEFT JOIN ITEM_BARCODE

ITEM.ITEM_ID	more fields	ITEM_BARCODE.ITEM_ID	other flds
1	yadda...	1	junk...
2	blah...	<Null>	<Null>

ITEM RIGHT JOIN ITEM_BARCODE

ITEM.ITEM_ID	more fields	ITEM_BARCODE.ITEM_ID	other flds
1	yadda...	1	junk...
<Null>	<Null>	3	trash...

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K is for KEY FIELDS

Key fields are the ones that uniquely identify specific records in a table. Sometimes they are simple, sometimes they are composite. Some examples:

Table	Key field(s)
BIB_TEXT	BIB_ID
LEDGER	LEDGER_ID
BIB_MFHD	BIB_ID & MFHD_ID
FUND	LEDGER_ID & FUND_ID
SERIAL_ISSUES	COMPONENT_ID & ISSUE_ID
FINE_FEE	FINE_FEE_ID
FREQUENCY	FREQUENCY_CODE

L is for

Like OPERATOR

Use the Like operator in your criteria to match patterns for text fields. A star will match any sequence of 0 or more chars.

Criterion	Matches
Like “main*”	“main”, “maintain”, “main street”…
Like “*refe”	“refe”, “ugrl,refe”, “phys,refe”…
Like “h*er”	“her”, “helecopter”, “his mother”…
Like “*ser*”	“ser”, “serial”, “loser”, “reserves”…

You can even use this when you prompt for criteria by concatenating an asterisk:

Like [Fund name prefix:] & “*”

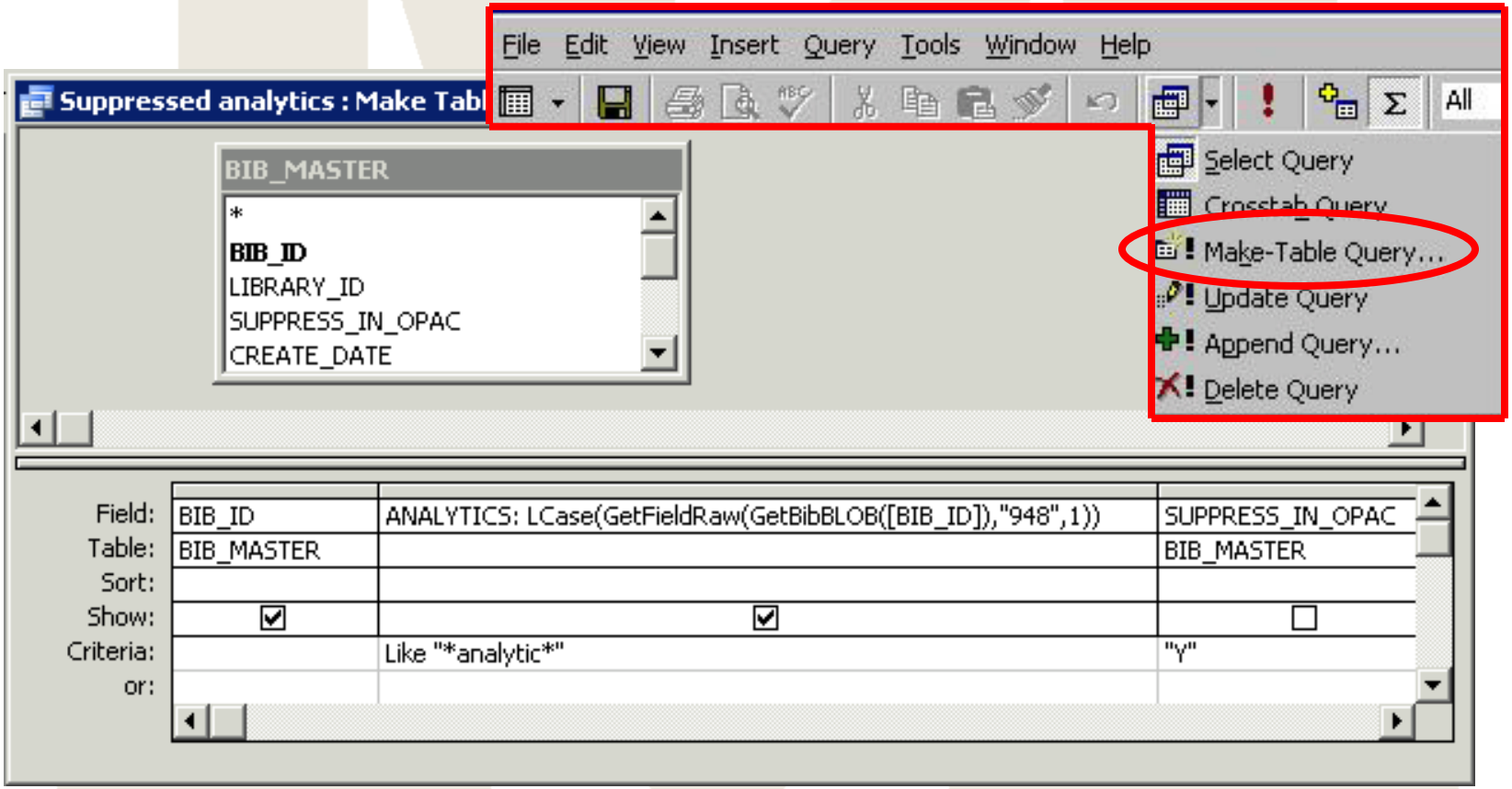
Like [First initial of patron surname?] & “*”

Open Design New

M is for

MAKE TABLE QUERIES

If a query (such as a BLOB query) is going to run a long time, you can use a “Make Table” query to keep the results so you don’t have to run it twice.



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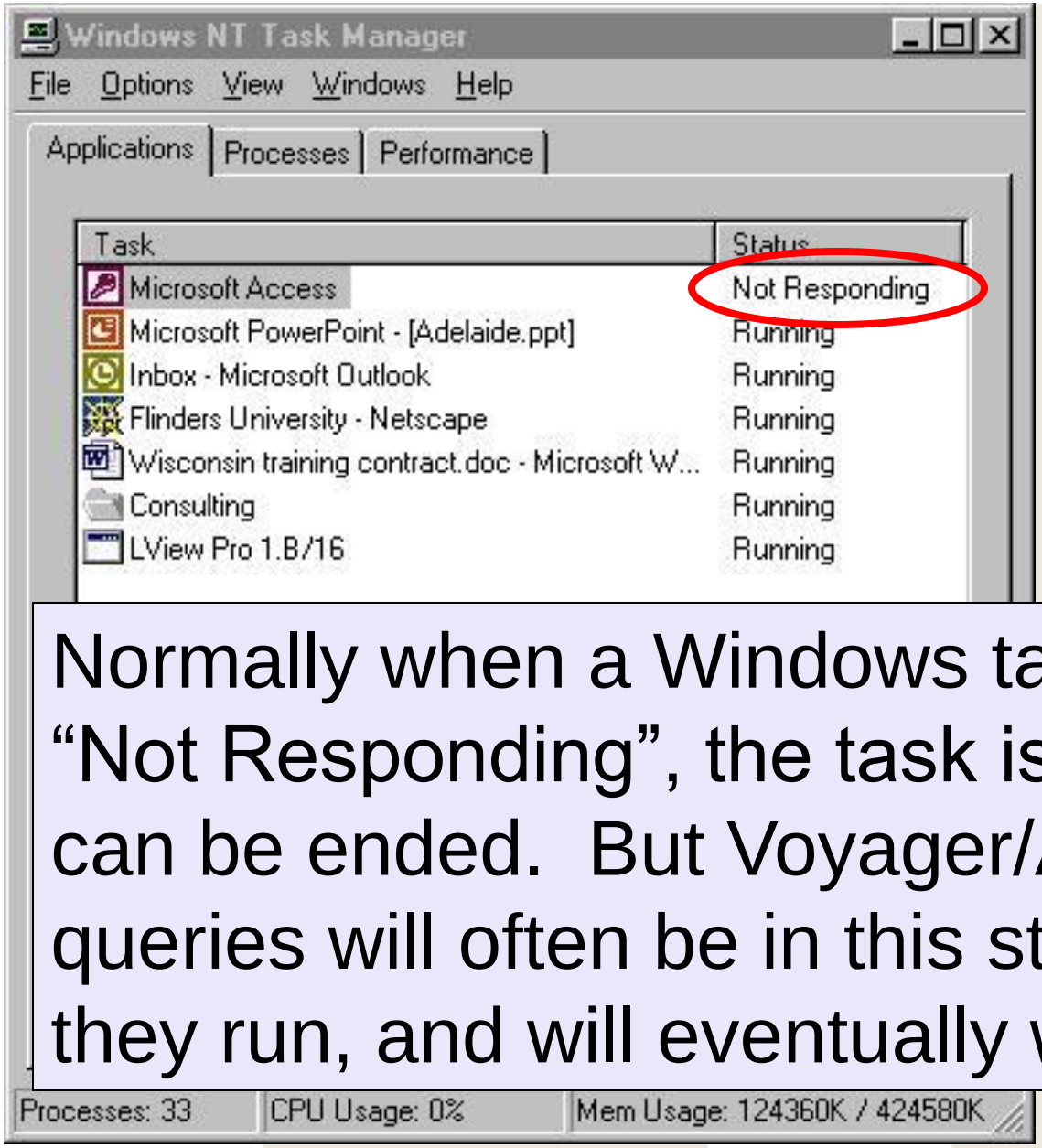
N is for NOT RESPONDING



Normally when a Windows task status is “Not Responding”, the task is frozen and can be ended. But Voyager/Access queries will often be in this status as they run, and will eventually wake up.

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O is for

Or (AND OTHER BOOLEAN OPERATORS)

For criteria on a single field, type the Boolean operators into the Criteria line.

OR "Permanent" Or "Temporary"

AND Is Not Null And >Date()

NOT Like "main*" And Not "main,refe"

For "OR'ed" criteria on multiple fields, also use the "or:" line and lines below it.

Field:	BIB_ADD	HOLD_ADD	ITEM_ADD	AUTH_ADD
Table:	CAT_PROFILE	CAT_PROFILE	CAT_PROFILE	CAT_PROFILE
Sort:				
Show:	☑	☑	☑	☑
Criteria:	"Y"			
or:		"Y"		
			"Y"	
				"Y"

Open Design New

P is for

PROMPTING FOR CRITERIA

The easiest way to make your queries more flexible is to substitute prompts for "hard-code" criteria beneath fields.

Instead of:	**Try using:**
>= #4/1# And < #5/1#	>= [Starting date:] And < [Ending date:]
"stacks"	[Location code:]
> 500	< [Minimum Amount?]
Like "*refe"	Like "*" & [Subloc:]
In("abm", "Abm", "ABM")	UCase([Initials?]) *and UCase(field), too*

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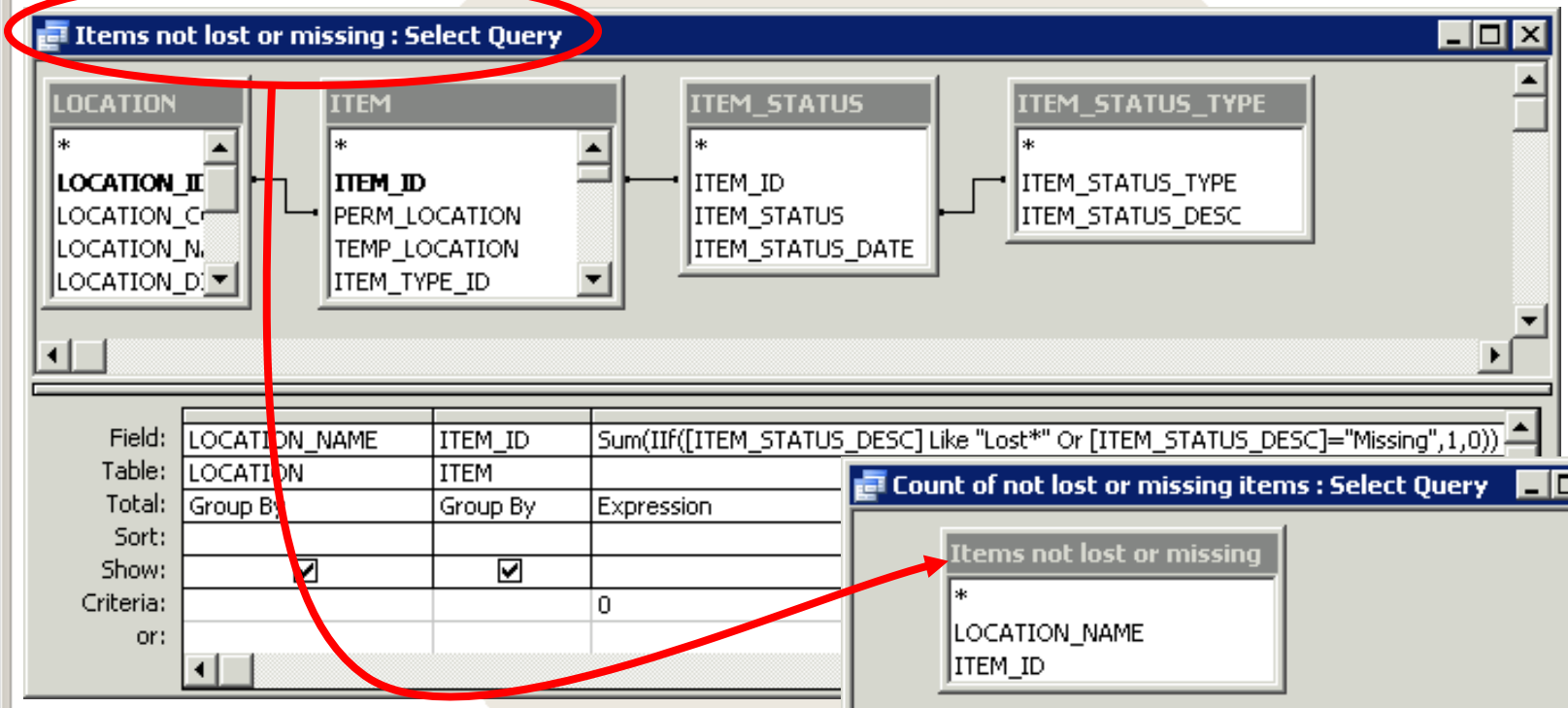
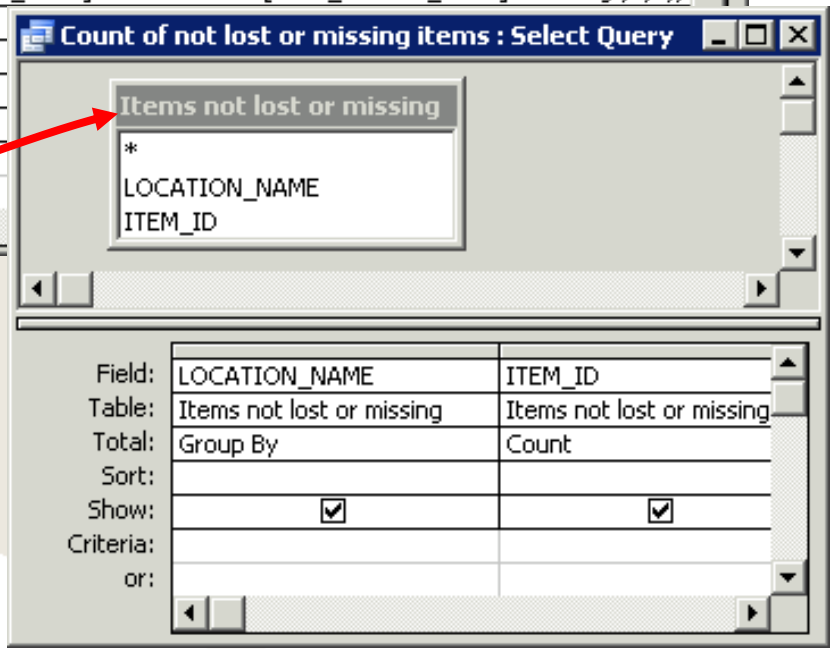
Q is for

QUERIES WITH SUBQUERIES

The results of a query looks just like a table, so you can use a query in a query



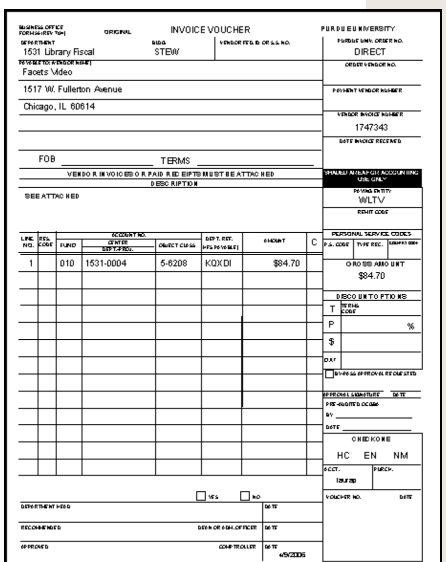


An Abecedary of Access Tips : Alan Manifold, Purdue University, EndUser 2006

R is for

REPORTS AND FORMS

Reports can finish off a project nicely. With a bit of Visual Basic, a form can add a lot.

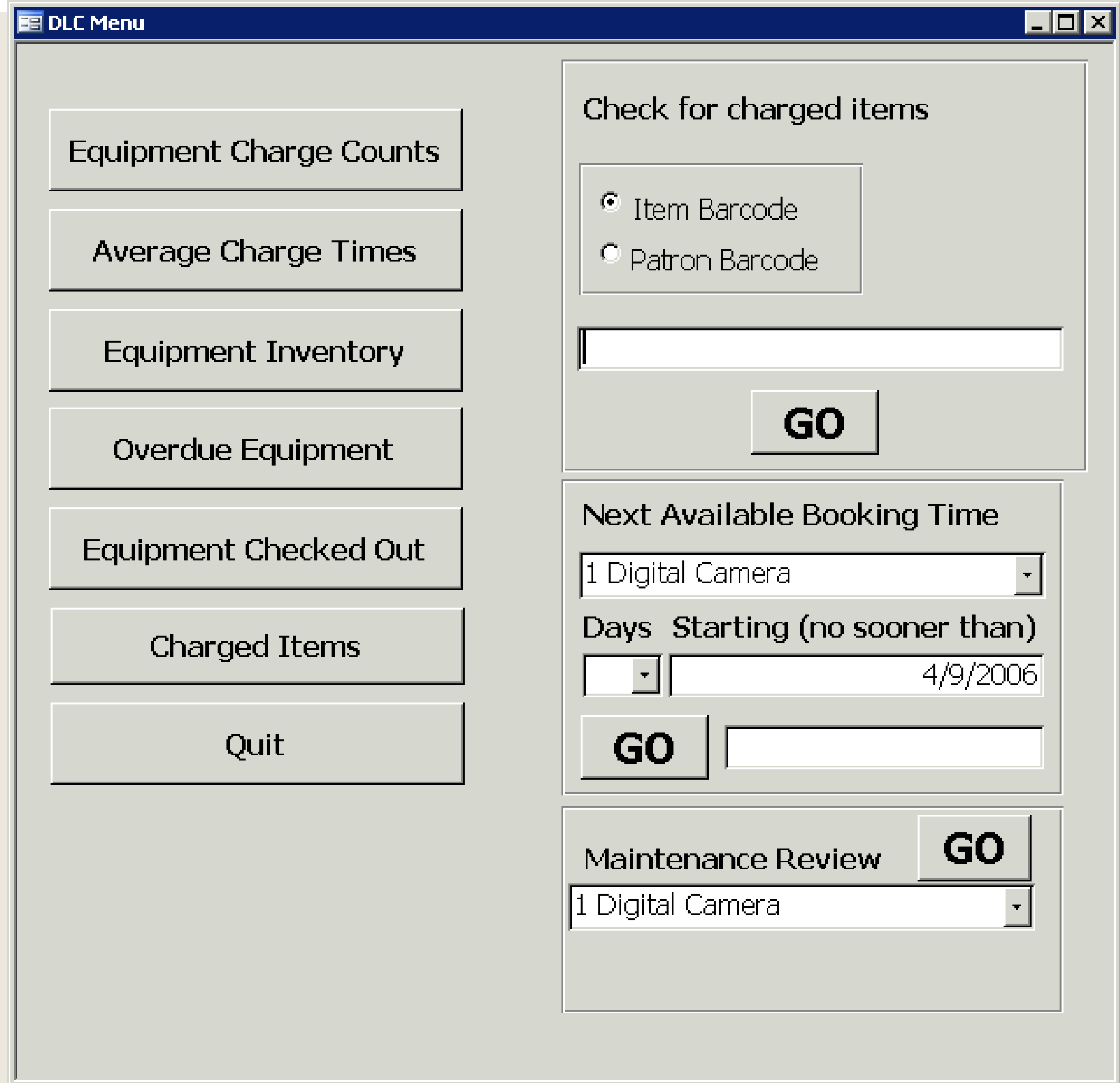


INVOICE VOUCHER — PURDUE UNIVERSITY — ORIGINAL

DEPARTMENT: 1531 Library Fiscal
BLDG.: STEW
PURDUE UNIV. ORDER NO.: DIRECT
PAYABLE TO (VENDOR NAME): Facets Video
1517 W. Fullerton Avenue
Chicago, IL 60614
VENDOR INVOICE NUMBER: 1747343
FOB ____ TERMS ____
VENDOR INVOICES OR PAID RECEIPTS MUST BE ATTACHED
DESCRIPTION: SEE ATTACHED
PAYING ENTITY: WLTV

LINE NO.	REF. CODE	FUND	CENTER DEPT.-PROJ.	OBJECT CLASS	DEPT. REF.	AMOUNT	C
1		010	1531-0004	5-6208	KQXDI	$84.70	

GROSS AMOUNT: $84.70



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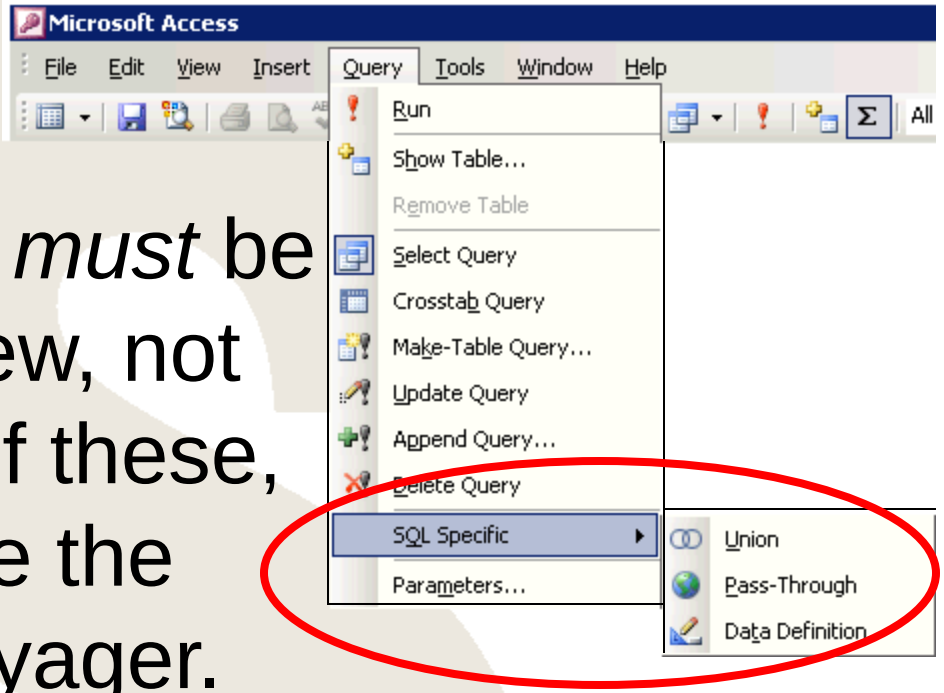
S is for

SQL-SPECIFIC QUERIES

Some queries are "SQL Specific", which means they *must* be created in SQL View, not in Design View. Of these, UNION queries are the most useful for Voyager.




```
SELECT * FROM [<query 1>]
UNION ALL
SELECT * FROM [<query 2>]
UNION ALL
SELECT * FROM [<query 3>];
```

Do queries in Design View, then UNION them with this syntax.

T is for TEXT FIELD FUNCTIONS

Use text functions with IIf() to do fancy text processing:

Our sample field:

```
MNOTE = "Fixed call #//abm"
```

Sample call	Returns
`InStr(MNOTE, "//")`	13
`Mid(MNOTE, 7, 4)`	"call"
`Mid(MNOTE, 15)`	"abm"

```
IIf(MNOTE, "//") <> 0,
  Mid(MNOTE, InStr(MNOTE, "//") + 2),
  "Not revised")
```

Open Design New

U is for utf8to16 () FUNCTION

Since Oracle encodes UNICODE fields in utf8 and Access uses utf16, we have to convert them.

UTF8 `J a ¨ a ¨ s k e l a ¨ i`
`4A61CC8861CC88736B656C61CC8869`
`n e n , M a u n o`
`6E656E2C204D61756E6F`

UTF16 `J a ¨ a ¨ s k`
`004A00610308006103080073006B`
`e l a ¨ i n e n`
`0065006C00610308006900 6E0065006E`
`, M a u n o`
`002C0020004D00610075006E006F`

Converted Jääskeläinen, Mauno

No conversion JaÌˆaÌˆskelaÌˆinen, Mauno

Use a variant of this SQL*Plus query to see the query behind any given view:

```
SQL> set long 4000
SQL> select text from user_views
  2  where view_name = 'DEWEYCLASS_VW';
TEXT
--------------------------------------------------
select mfhd_id,
   substr(normalized_call_no,0,3) as class,
   substr(normalized_call_no,0,
      instr(normalized_call_no,' ')-1)
                                  as longclass
from   mfhd_master
where  call_no_type = '1'
```

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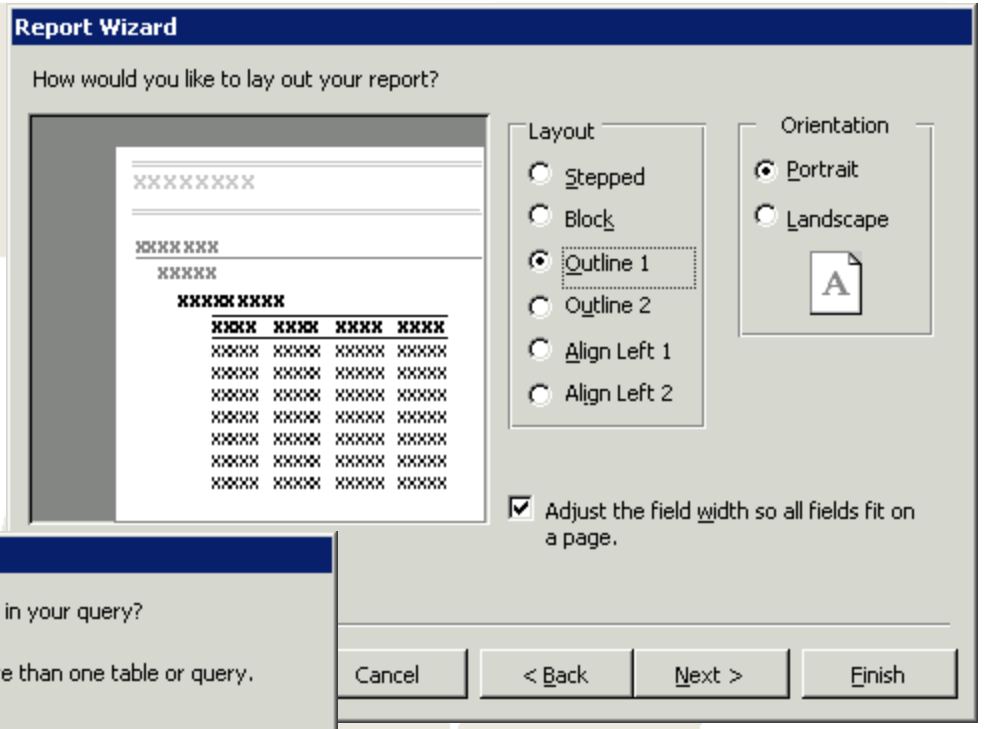
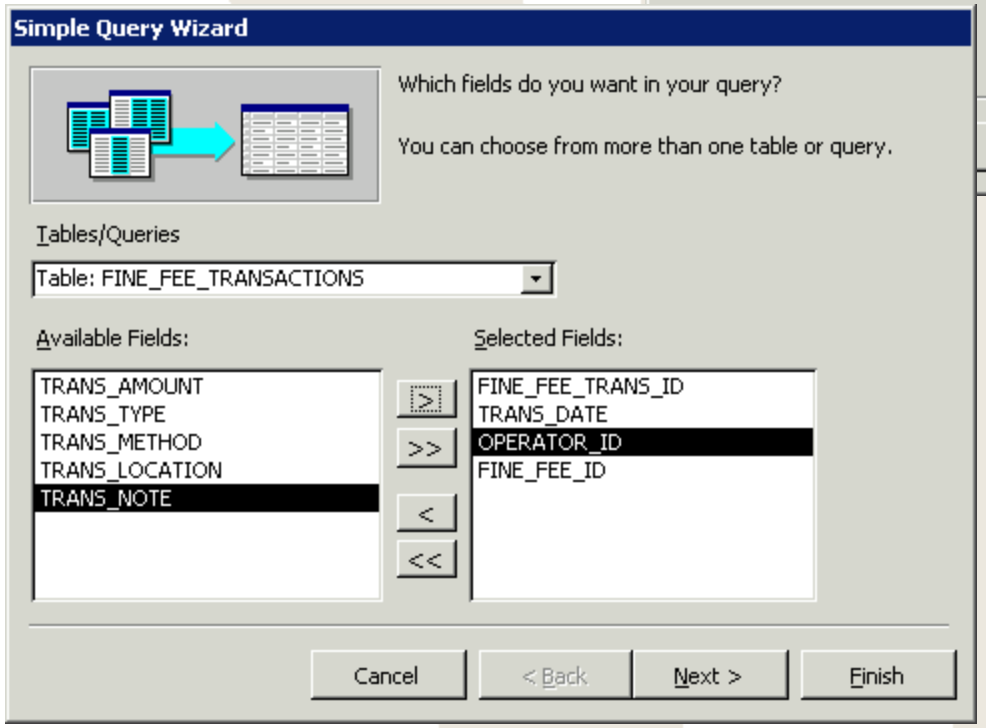
W is for WIZARDS

Report Wizard: GOOD!





Query Wizard: BAD!

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X is for

X, Active (ActiveX)

[Abecedary creators often cheat for X.]
Here, ActiveX stands for any Visual Basic.

In the (hidden) module, “Connection Code”, change this:

```
oNewTable.Connect = sConnect
oDB.TableDefs.Append oNewTable
```

To this:

```
oNewTable.Connect = sConnect
oNewTable.Attributes = dbAttachSavePWD
oDB.TableDefs.Append oNewTable
```

You won’t have to type the userid and password when you open your first table.

Open Design New

Y is for

Year () (and other Date/Time functions)

You can use date/time functions like Year, Month, Day, etc., to get specific parts of a date/time field:

```
MyDate = #4/12/2006 11:45:57 PM#
    Year(MyDate)   =  2006
   Month(MyDate)   =  4
     Day(MyDate)   =  12
 Weekday(MyDate)   =  4     (Wednesday)
    Hour(MyDate)   =  23
  Minute(MyDate)   =  45
  Second(MyDate)   =  57
```

CHGYR: Year([CHARGE_DATE])	CHARGE_DATE
	CIRC_TRANSACTIONS
☑	☑
2005	Between #1/1/2005# And #1/1/2006#

Open Design New

Z is for

ZOOM WINDOW

Work on complex expressions is easier with Zoom. Put your cursor in a field, then type Shift-F2 or right click and select Zoom.

TOTEXP: CCur((Val([expenditures])+Val([expend_pending]))/100)