

A Matter of Form

Access Forms

to make
Reporting
a Snap
(or a Click)

- Session #45
- Technical Track

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VUGM

The logo for Endeavor User 2003 features a stylized red graphic of three slanted parallel lines to the left of the text. The word "Endeavor" is in a large, italicized serif font, and "User" is in a smaller, bold serif font below it. The year "2003" is in a smaller serif font to the right of "User".

Uses of Forms

You can use Access forms to create an interface to your reports and queries.

You can add:

Vendor Productivity
Buttons to initiate reports and queries

Chemistry
Biochemistry
Black Cultural Center
Chemistry
Consumer & Family Sciences
Digital Learning Collaboratory
Earth & Atmospheric Sciences
Electronic Resource
Engineering

Electronic Monographs 03
Electronic Serials 03
Engineering 03
Exchange 03
Fiscal Order 03
Gift 03
Information Access 03

Combo Boxes, List Boxes and Option Groups to facilitate selecting criteria

Circulation Statistics
 All Circulation
 Reserve Circulation
 Non-Reserve Circulation

Form Examples

Fiscal control panel : Form

Serials Invoices

Monograph Invoices

Fund Snapshot Report

Fund Summary Report

Voyager Payments Report

Quit

Simple control panel

DLC Menu

Equipment Charge Counts

Average Charge Times

Equipment Inventory

Overdue Equipment

Quit

Check for charged items

Item Barcode

Patron Barcode

GO

Control panel with options

Serials Request Form Creation

Request Form

Transfer/Withdrawal Request Form (brown)

Cancellation Request Form (blue)

Change Notification Form (yellow)

BIB ID # 57163

International journal of systematic bacteriology.

Ames, Iowa : Iowa State University Press. [1966]-c1999.

OK

CLEAR

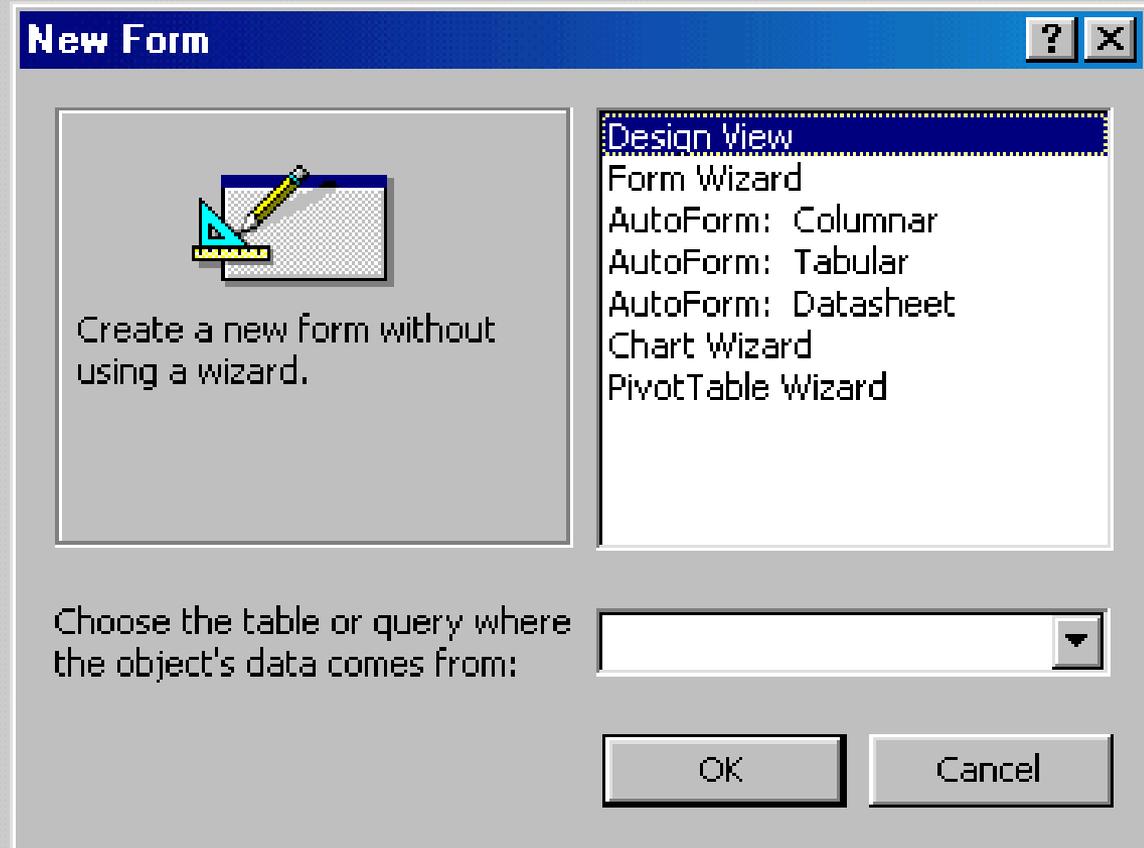
CANCEL

life.peri	589.905 In8
vetm	589.905 In8
stor	589.905 In8

Record selector

Creating a Form

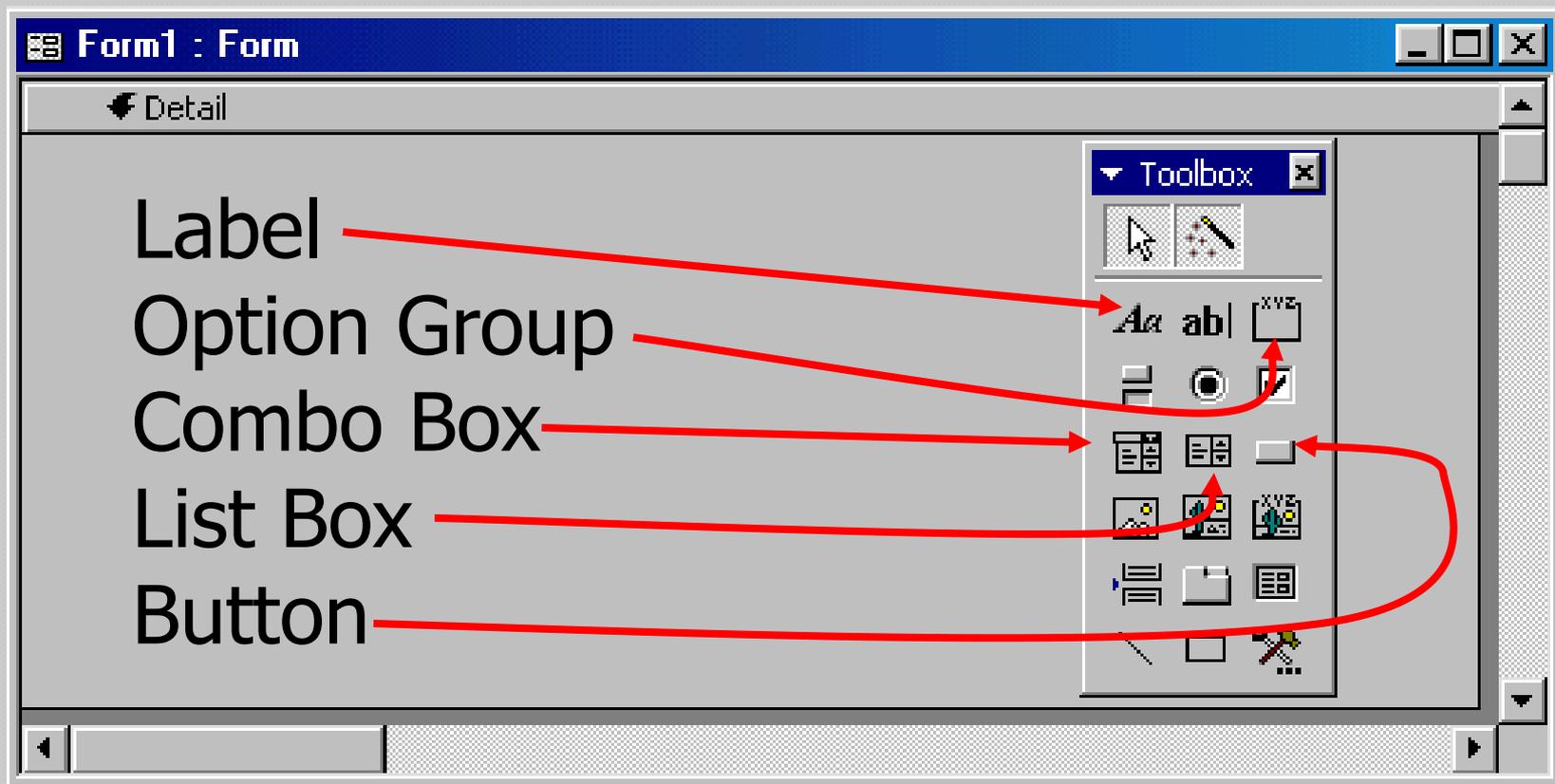
Forms appear to have been designed primarily for data entry and display, not for running reports, so the wizards aren't very helpful in creating Control Panel type forms.



Go straight to Design View

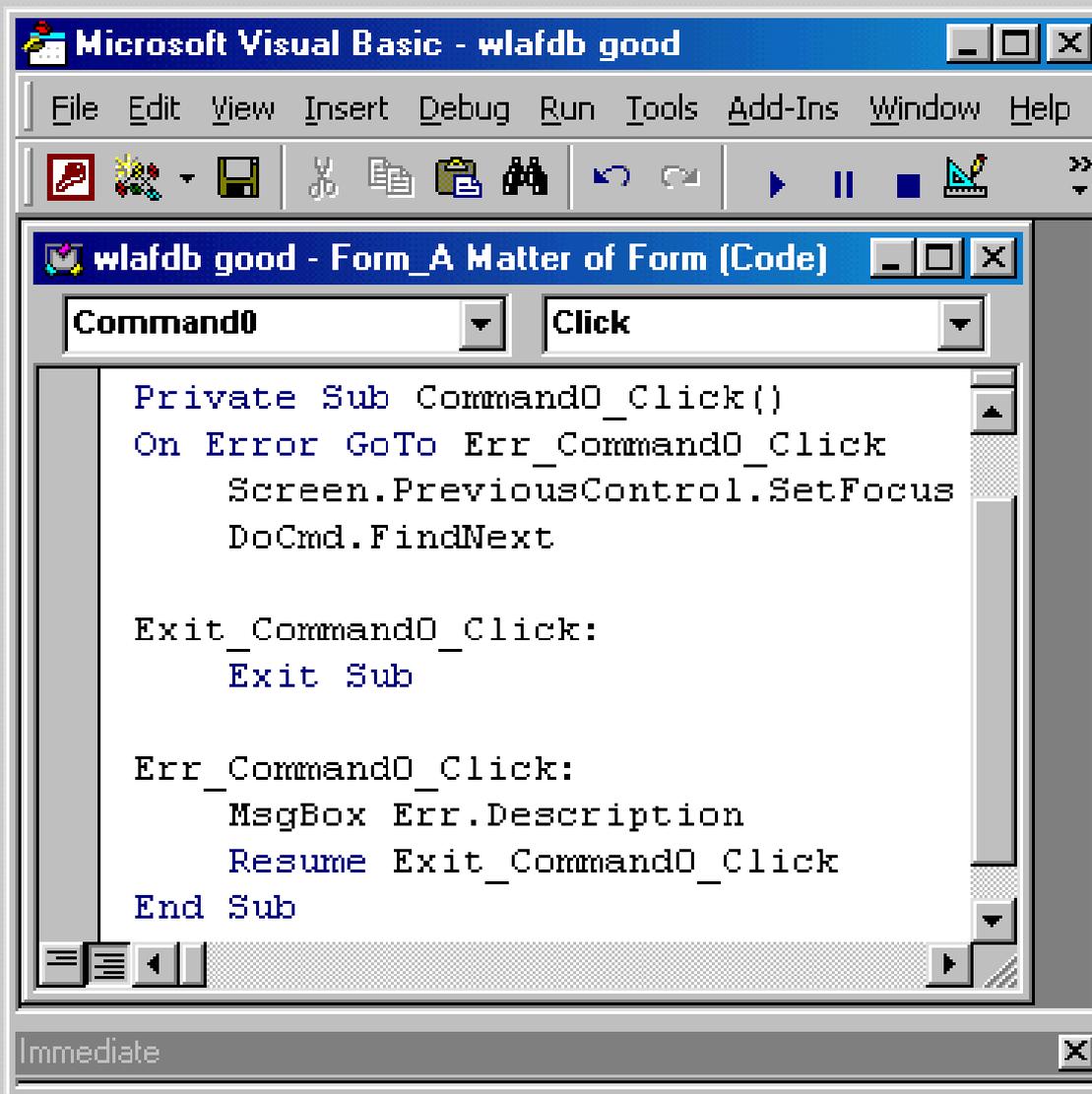
Filling Your Form

A new, blank form is about as empty as a thing can be. Use tools from the toolbox to fill it.



Event Procedures

Behind every successful button is an Event Procedure. This is an expression, macro or Visual Basic code that is executed when you click.



CLICK ME!



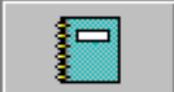
Wizard as Teacher

```
Private Sub btnSuDocs_Click()  
Dim stDocName As String  
    stDocName = "Circ Transactions by SuDocs"  
    DoCmd.OpenReport stDocName, acPreview  
End Sub
```

By trying the various actions in the wizard, you can learn how actions are coded in Visual Basic

Command Button Wizard

Sample:



What action do you want to happen when the button is pressed?

Different actions are available for each category.

Categories:

- Record Navigation
- Record Operations
- Form Operations
- Report Operations**
- Application
- Miscellaneous

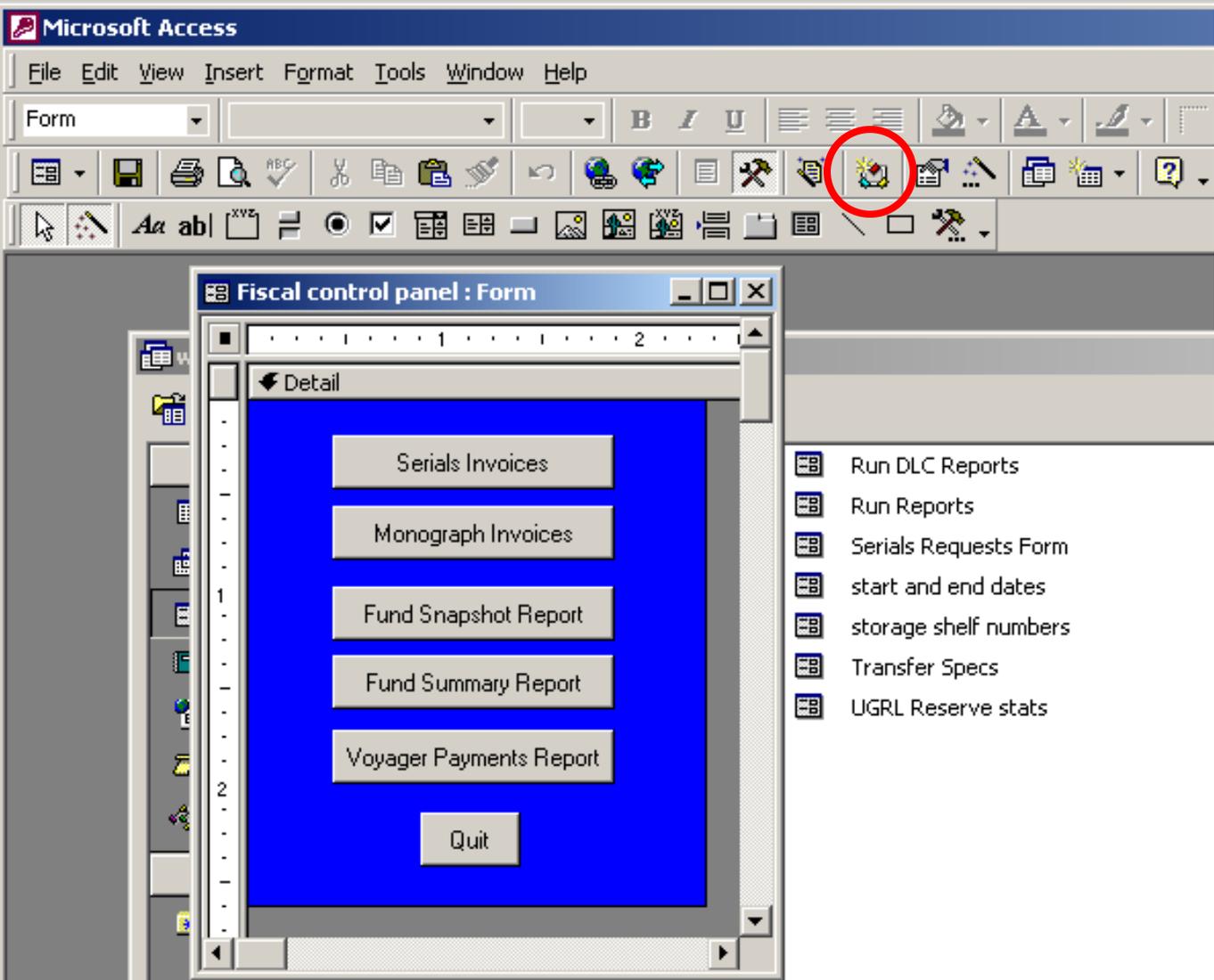
Actions:

- Mail Report
- Preview Report**
- Print Report
- Send Report to File

Cancel < Back Next > Finish

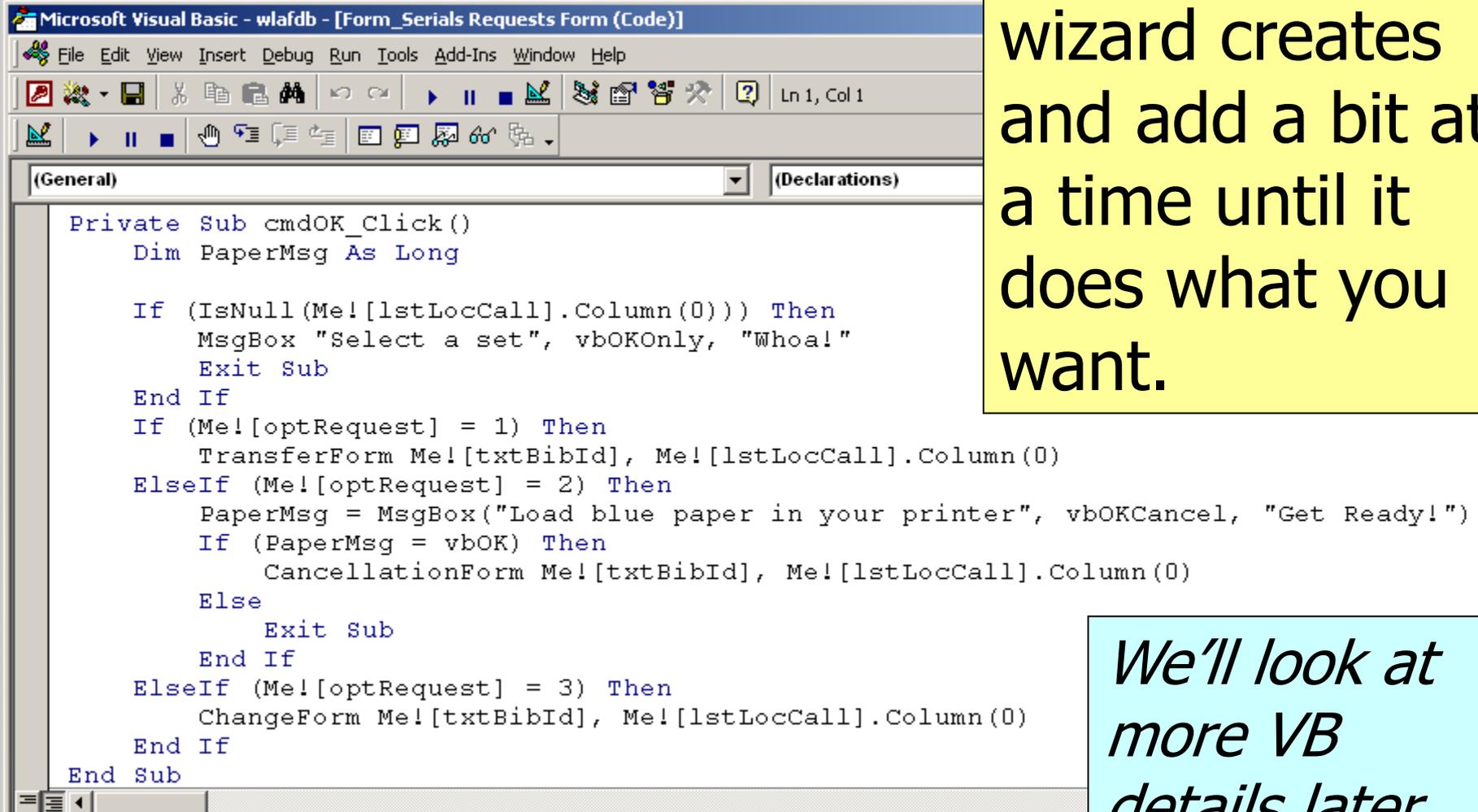
Looking at Code

Get to Visual Basic by clicking the Code icon in the toolbar.



Extending Code

You can start from what the wizard creates and add a bit at a time until it does what you want.

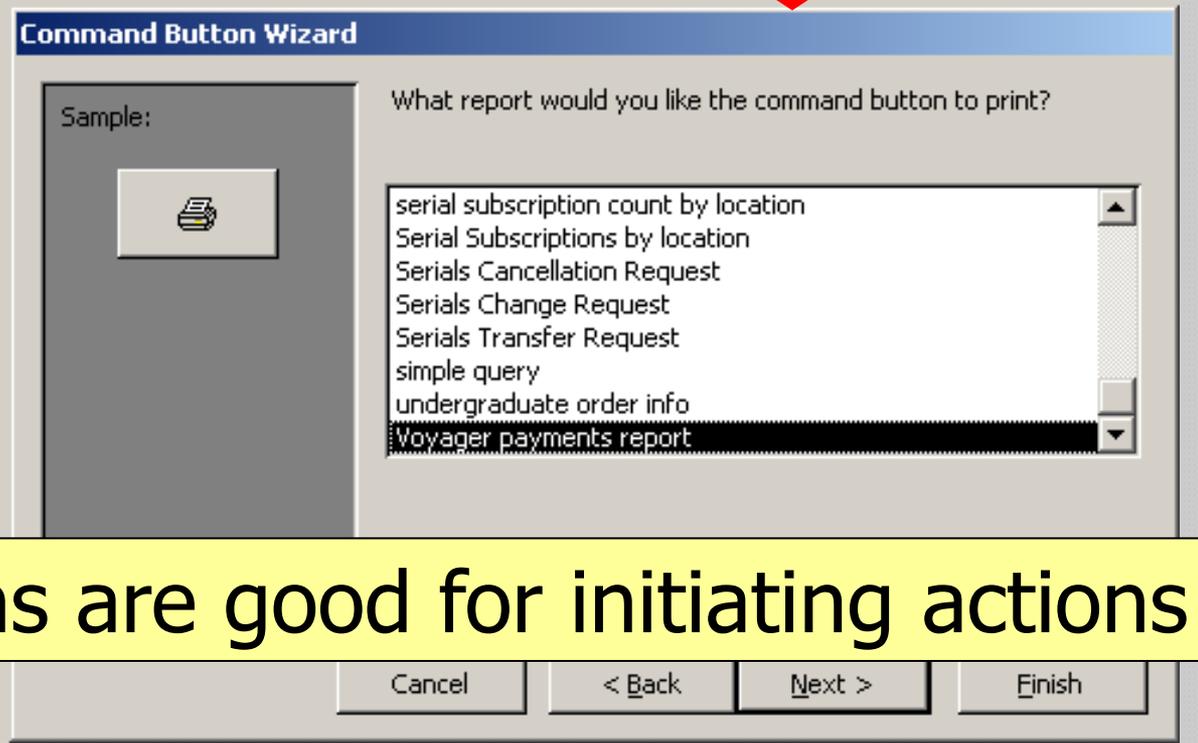
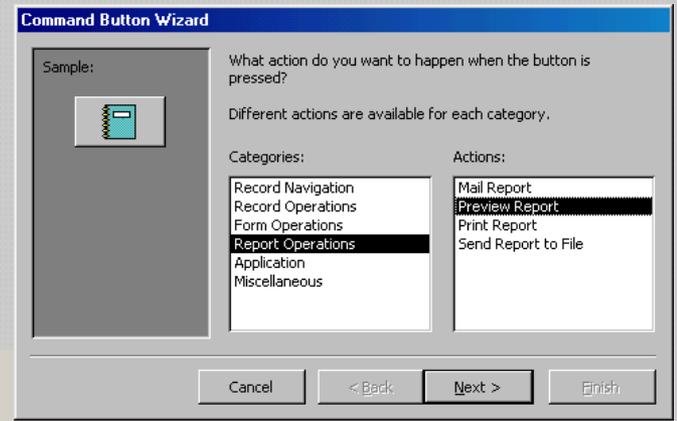
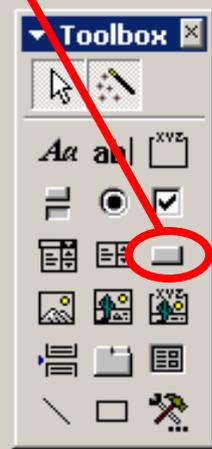
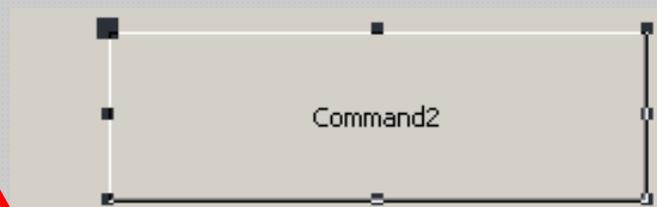


```
Private Sub cmdOK_Click()  
    Dim PaperMsg As Long  
  
    If (IsNull(Me![lstLocCall].Column(0))) Then  
        MsgBox "Select a set", vbOKOnly, "Whoa!"  
        Exit Sub  
    End If  
    If (Me!.optRequest = 1) Then  
        TransferForm Me![txtBibId], Me![lstLocCall].Column(0)  
    ElseIf (Me!.optRequest = 2) Then  
        PaperMsg = MsgBox("Load blue paper in your printer", vbOKCancel, "Get Ready!")  
        If (PaperMsg = vbOK) Then  
            CancellationForm Me![txtBibId], Me![lstLocCall].Column(0)  
        Else  
            Exit Sub  
        End If  
    ElseIf (Me!.optRequest = 3) Then  
        ChangeForm Me![txtBibId], Me![lstLocCall].Column(0)  
    End If  
End Sub
```

We'll look at more VB details later

Buttons

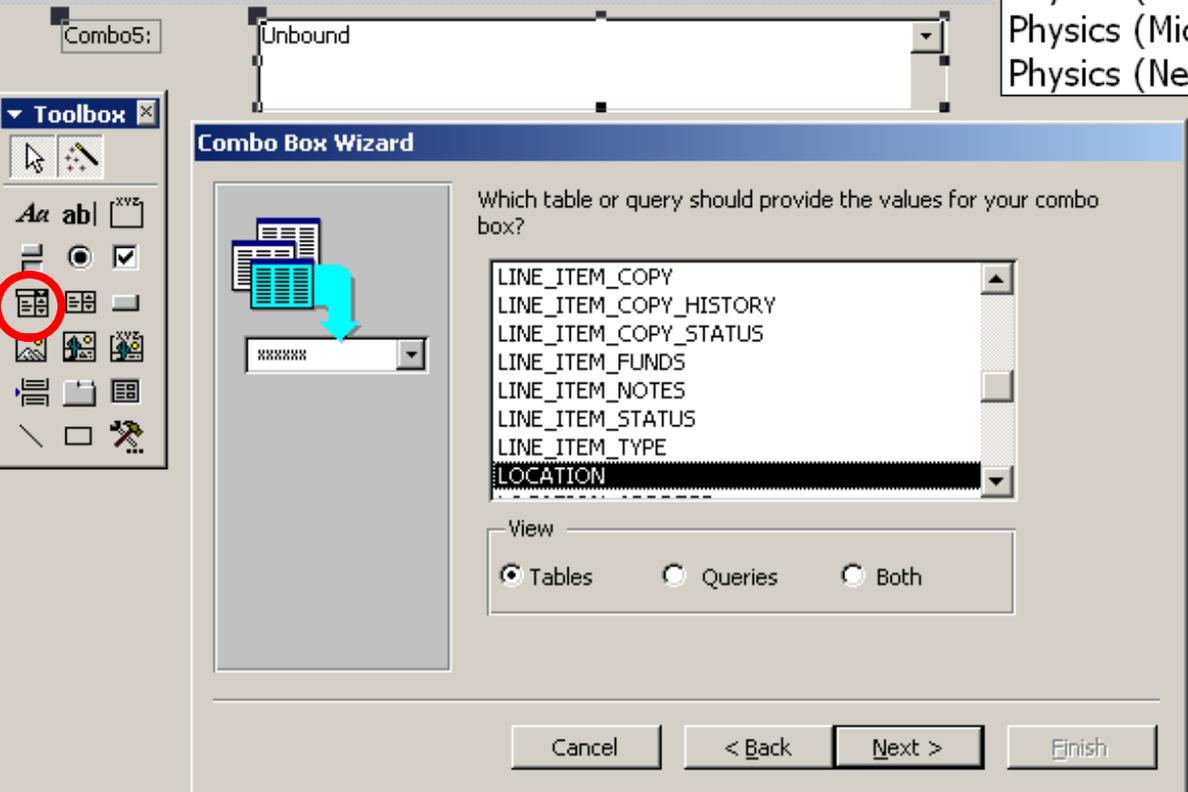
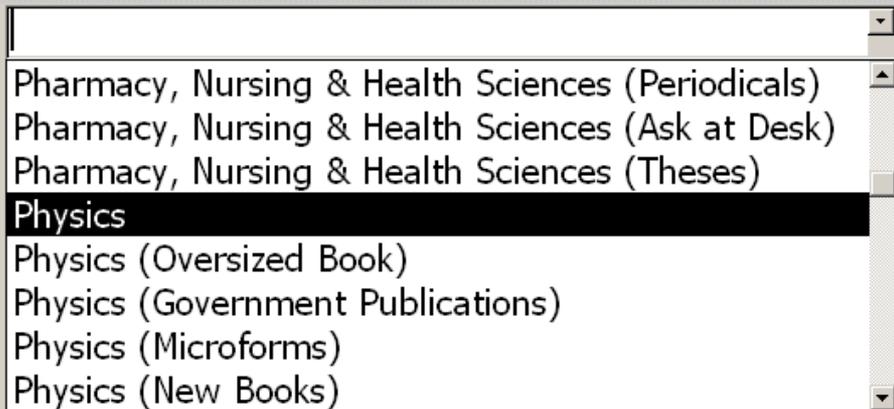
Choosing Command Button from the toolbar walks you through the Command Button Wizard



Buttons are good for initiating actions

Combo Boxes

Combo Boxes let you select items from a list



There is a Combo Box Wizard that helps you set up the value list

Combo Box Data

Format Data Event Other All

Control Source

Input Mask

Row Source Type Table/Query

Row Source SELECT [LOCATION].[LOCATION_ID], [LOCATION].[LOCATION_DISPLAY_NAME] FROM [LOCATION] ...

Bound Column 1

Limit To List Yes

The "Row Source" property of a Combo Box is a query that you can change. If you click on the ellipsis, it shows you the query and you can alter it as you wish.

SQL Statement : Query Builder

LOCATION

*

LOCATION_ID
LOCATION_CODE
LOCATION_NAME
LOCATION_DISPLAY_NAME

Field:	LOCATION_ID	LOCATION_DISPLAY_NAME
Table:	LOCATION	LOCATION
Sort:		
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		
or:		

List Boxes

Ledger

Library General 03
Veterinary Medicine 03
Management 03

List Box Wizard

How wide would you like the columns in your list box?

To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

Hide key column (recommended)

LEDGER_NAME
Engineering 03
Cons Fam Sci 03
Deans Fund 03
Liberal Arts 03
Education 03
Replacement 03
Science 03

Cancel

< Back

Next >

Finish



List Boxes are similar in concept to Combo Boxes, but I find them more restrictive and usually use Combo Boxes, instead. List Boxes have their own wizard.

Option Groups

Option Groups provide groups of mutually exclusive choices. These are great for overall selections that may determine what parameters are necessary.

Sort Options

- Ledger name/Fund name
- Original Allocation
- Expenditures to Date
- Fund Balance

Option Group Wizard

An option group contains a set of option buttons, check boxes, or toggle buttons. You can choose only one option.

What label do you want for each option?

Label Names:	
	Ledger name/Fund name
	Original Allocation
	Expenditures to Date
▶	Fund Balance
*	

Cancel < Back Next > Finish

Option Group Wizard

What type of controls do you want in the option group?

Sample

Ledger name/Fund n.

Original Allocation

Expenditures to Date

Option buttons

Check boxes

Toggle buttons

What style would you like to use?

Etched Shadowed

Flat Sunken

Raised

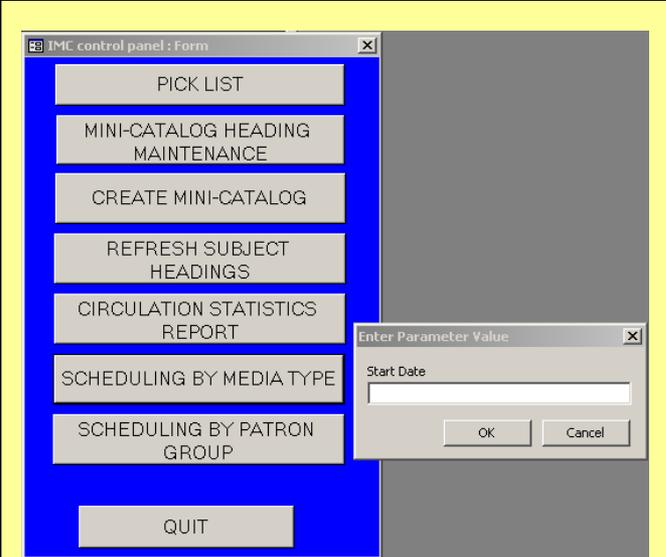
Cancel < Back Next > Finish



There is a wizard for Option Groups, too.

Parameters

There are several clunky ways to pass parameters from forms to queries and reports:



Start the query and let it get its own parameters

```
Private Sub Form_Close()
  Dim DB As Database
  Dim PathTBL As TableDef
  Dim PathRST As Recordset

  DeleteTable "htmlpath"
  Set DB = CurrentDb
  Set PathTBL = DB.CreateTableDef("htmlpath")
  PathTBL.Fields.Append PathTBL.CreateField("path", dbText)
  DB.TableDefs.Append PathTBL
  Set Pathrst = PathTBL.OpenRecordset(dbOpenTable)
  PathRST.AddNew
  PathRST![path] = Me!Text1.Value
  PathRST.Update
  PathRST.Close
End Sub
```

Save the form input to a table, and link the table into the query

LOCATION_CODE
PERMLOC
<input checked="" type="checkbox"/>
[Forms]![Control Panel]![txtLocCode]

Make the query get data from the (open) form

A Better Way

```
Dim DB As Database 1  
Dim PatQDf As QueryDef  
  
Set DB = CurrentDb 2 3  
Set PatQDf = DB.QueryDefs("Patron info")  
PatQDf.Parameters("Barcode") = txtBarcode  
PatQDf.Execute 5 4
```

You can call a query from Visual Basic after setting its "Parameters" property.

1. Declare Database and QueryDef type variables with "Dim"
2. Set the Database variable to the predefined value, "CurrentDb"
3. Set the QueryDef variable to the desired query by name from the QueryDefs collection of the Database
4. Set any needed query parameters from fields in the form with the "Parameters" property of the QueryDef
5. Then you can run your query; this one uses the "Execute" method, because it is a Make Table Query

Visual Basic

Object properties:

```
DB.QueryDefs("PO Minimal")  
MinQuery.Parameters("[PO Number?]")  
MinRecs.EOF
```

Object methods:

```
DB.CreateTableDef("PO_ID Table")  
PPHRecs.AddNew  
MinRecs.Close
```

Combinations:

```
POIDTbl.Fields.Append  
DB.TableDefs.Delete
```

Visual Basic's object-orientation means that objects (such as databases, queries, combo boxes and buttons) have properties that can be read or set and methods that can be applied.

More on Methods

Methods often are part of more complex code

The Append method needs a field, and CreateField needs a name and a type:

```
POTbl.Fields.Append POTbl.CreateField("PO_ID", dbText)
```

OpenRecordset needs a mode parameter and produces a value that can be assigned to a Recordset type variable:

```
Set BibRST = BibQry.OpenRecordset(dbOpenForwardOnly)
```

Here the parentheses specify one member of the QueryDefs collection, which is then executed:

```
DB.QueryDefs("ugr1, resv charge totals").Execute
```

Some methods don't really apply to an object, so there is a special "DoCmd" object that stands in:

```
DoCmd.OpenReport "PO, Single Ship-To", acPreview
```

Control Properties

Wow `em with interactive forms

```
Private Sub optChooseReport_AfterUpdate ()
```

```
  If (optChooseReport = 1) Then
```

```
    cmbFISCAL_YEAR.Visible = True
```

```
    lblFISCAL_YEAR.Visible = True
```

```
    txtSTART_DATE.Visible = False
```

```
    txtEND_DATE.Visible = False
```

```
  ElseIf (optChooseReport = 2) Then
```

```
    cmbFISCAL_YEAR.Visible = False
```

```
    lblFISCAL_YEAR.Visible = False
```

```
    txtSTART_DATE.Visible = True
```

```
    txtEND_DATE.Visible = True
```

```
  ElseIf (optChooseReport = 3) Then
```

```
    cmbFISCAL_YEAR.Visible = True
```

```
    lblFISCAL_YEAR.Visible = True
```

```
    txtSTART_DATE.Visible = True
```

```
    txtEND_DATE.Visible = True
```

```
End If
```

```
End Sub
```

CONTROL PANEL : Form

Choose Report

- Budget Summary
- Financial Summary
- PO Obligation Transfer

FISCAL YEAR: 2002

RUN REPORT QUIT

CONTROL PANEL : Form

Choose Report

- Budget Summary
- Financial Summary
- PO Obligation Transfer

START DATE: 10/1/2002

END DATE: 9/30/2003

RUN REPORT QUIT

CONTROL PANEL : Form

Choose Report

- Budget Summary
- Financial Summary
- PO Obligation Transfer

FISCAL YEAR: 2002

START DATE: 10/1/2002

END DATE: 9/30/2003

RUN REPORT QUIT

A Small Problem

I have not found a way to pass

query parameters directly to a Report that is based on the query. I have had to run a Make Table query, then base the report on the results.

Normal case: report is based directly on query

Normal case: report is based directly on query

The screenshot shows a 'Select Query' window with fields like LOCATION_CODE, ITEM_ID, CHRON, and ITEM_TYPE_CODE. Below it is a 'Voyager Payment Report' window. A red circle highlights the 'payments in period' filter in the report window.

Special case: report is based on table created by a Make Table query

Special case: report is based on table created by a Make Table query

The screenshot shows a 'Make Table Query' window with fields like CALL_NO_TYPE, NORMALIZED_CALL_NO, and DISPLAY_CALL_NO. Below it is a 'Table' window showing a list of records with columns BIB_FORMAT, TITLE, DISPLAY_CAL, and BIB. Below that is a 'Voyager Payment Report' window. A red circle highlights the 'payments in period' filter in the report window.

BIB_FORMAT	TITLE	DISPLAY_CAL	BIB
as	World in ... hist	909 As78	67575
as	Parchment : col	810.808924 P21	846743
as	Bibliografika iz	015.47 Ak13	67664
as	Journal of Latin	390.098 J826	67714
as	AAUP bulletin.	378.06 Am3b	67734
as	AAUW journal.	378.06 As73	67748
as	Higher education	378.005 H5373	848836
as	Journal of Japar	493.005 J8265	848986
as	RQ.	020.6 Am3c	67700
as	Rand paper seri	507.2 R29p	67949

Here's the Prep

Create a Make Table query.

Create a report based on the "made table". Create a form that accepts parameters and has a "Run" or "Go" button.

Form Test Make Table Query : Make Table Query

LCCLASS_VW MFHD_ITEM Circulation Transactions (Charges)

Field: CLASS CHARGE_DATE CHARGE_DATE
 Table: LCCLASS_VW Circulation Transactions (Charges) Circulation Transactions (Charges)
 Total: Count
 Group By: Where
 Sort: Form Test Table
 Show:
 Criteria: Between [Start Date:] And [End Date:]
 or:

CLASS	Start	EndDate	CountOfCHARGE_DATE
AC	1/1/1994	1/1/2004	1
B	1/1/1994	1/1/2004	3
BD	1/1/1994	1/1/2004	4
BF	1/1/1994	1/1/2004	2
BP	1/1/1994	1/1/2004	2
BR	1/1/1994	1/1/2004	1
BS	1/1/1994	1/1/2004	1
CB	1/1/1994	1/1/2004	1

Form Test Report : Report

Circulation Transactions by L

Start Date

Class Charge Transactions

CLASS CountOfCHARGE_DATE

Page Footer: =Now() = "Page " & [Page] & " of " & [Pages]

Report Footer: Total:=Sum([CountOfCHARGE_DATE])

Report dialog box:

- Format: All
- Record Source: Form Test Table
- Filter: No
- Filter On: No
- Order By: No
- Order By On: No

Test Form : Form

Start Date 1/1/2002

End Date 1/1/2003

Run Report

Here's the Code

OnClick event procedure for button

```
Private Sub cmdRunReport_Click()  
    Dim DB As Database  
    Dim BaseQry As QueryDef  
  
    Set DB = CurrentDb  
    DeleteTable DB, "Form Test Table"  
    Set BaseQry = DB.QueryDefs("Form Test Make Table Query")  
    BaseQry.Parameters("Start Date:") = txtStartDate  
    BaseQry.Parameters("End Date:") = txtEndDate  
    BaseQry.Execute  
    DoCmd.OpenReport "Form Test Report", acPreview  
End Sub
```

Variable declarations

DeleteTable function is included in reports.mdb

Specify the query

Set query parameters from form

Execute the Make Table query

Open the report in Preview mode

Generalizing

The example had parameters from Text Boxes and used a Command Button

IMC Subject Selection : Form

Subject Headings

MULTICULTURALISM
MULTIPLE SCLEROSIS
MUNCH, EDVARD
MURAL PAINTING AND DECORATION
MURPHY, KEVIN
MUSCLES
MUSEUMS
MUSIC REVUES, COMEDIES, ETC.
MUSIC THERAPY
MUSIC, ARABIAN
MUSICAL FILMS
MUSICAL FILMS.
MUSICAL INSTRUMENTS
MUSICAL REVUES, COMEDIES, ETC.
MUSICALS.

Drama & Theater

DANCE
DANCING
DIALECTS
DRAMA
DRAMA, MEDIEVAL
GOSPEL MUSIC
MUSIC
THEATER

Serials Request Form Creation

Request Form

- Transfer/Withdrawal Request Form (brown)
- Cancellation Request Form (blue)
- Change Notification Form (yellow)

BIB ID # 35040

Psychology today.

[New York, NY, etc., Sussex Publishers, etc.]

OK

CLEAR

CANCEL

ugrl.per 150.5 P96

hsse.pe 150.5 P96

psyc 150.5 P96

Change Notification Specifics

FROM: Library

DATE: 3/13/2003

BIB ID # 35040

Call # 150.5 P96

Psychology today.

Undergraduate (Periodicals) [ugrl,peri]

v.24 (1990)-v.34 (2001)

Check type of change requested in record:

- Title Change
- Cease (no longer published)
- Split
- Merge
- Recataloging
- Reclassifying
- Added Sets
- Added Vols.
- Holdings (update, correction)

Define change below (May indicate on holdings above change in holdings)

OK

Cancel

But the principles are the same with other Form objects, such as Option Groups and Combo Boxes.

Form Properties

Since forms are designed mostly for data entry and display, the default properties are not usually what you want for a Control Panel

Property	Value
Caption	
Default View	Single Form
Views Allowed	Both
Scroll Bars	Both
Record Selectors	Yes
Navigation Buttons	Yes
Dividing Lines	Yes
Auto Resize	Yes
Auto Center	No
Border Style	Sizable
Control Box	Yes
Min Max Buttons	Both Enabled
Close Button	Yes