

Getting to Know Microsoft Access 2000/XP (Sci)

Microsoft Access 2000/XP is a desktop database that is fully integrated into the Microsoft Office 2000/XP suite and allows you to take data from various sources and store it in compact and readily accessible form. Once the data is stored, it can be manipulated, displayed and exported in a number of ways. Access 2000/XP also allows you to control how data is entered into the system. This handout will guide users through the construction of a database, the management of data, the analysis of data, and the process of reporting findings. Access 2000/XP comes packaged with Microsoft Office 2000/XP Professional and Microsoft Office XP Special Edition.



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Familiarizing Yourself with Access 2000/XP's Toolbars

There are many toolbars that reside within Microsoft Access 2000/XP. The Table Design toolbar contains most of the same buttons that are on the other toolbars. Therefore, for the other toolbars, only the unique buttons will be shown and described.

TableDesign Toolbar

View - Rotate through Datasheet, Design, PivotChart, or PivotTable views

Save - Saves the table

Spelling - Checks the spelling in the table

Cut - Cuts the selected text to the Clipboard

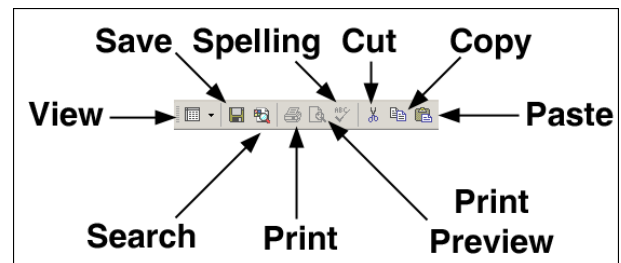
Copy - Copies the selected text to the Clipboard

Paste - Paste the selected text from the Clipboard

Print Preview - Preview table before printing

Print - Print the table

Search - Search for Office-related files on your computer



Undo - Undo previous mistakes

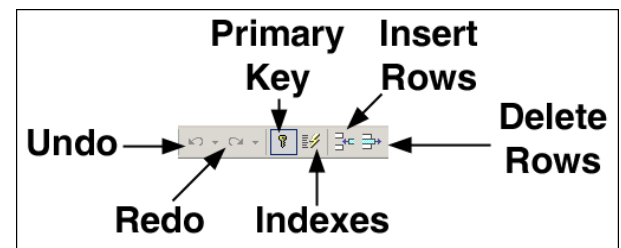
Redo - Redo the past actions in Access

Primary Key - Designate which field is the primary key

Indexes - Speeds up searching and sorting in a table

Insert Rows - Insert a row in the current table

Delete Rows - Delete a row in the current table



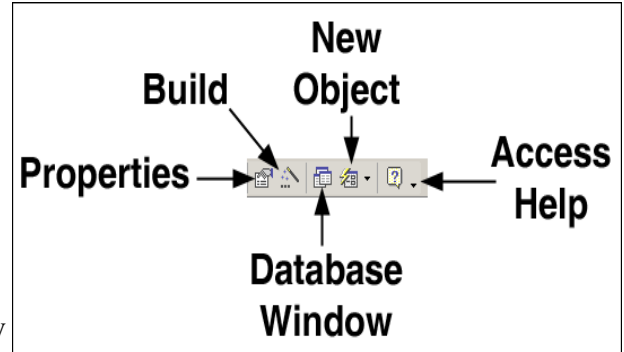
Properties - Gives properties for selected object

Build - Builds a selected field

New Object - Creates a new object in the database

Access Help - Ask Access for Help

Database Window - Returns to the main database window



FormDesign Toolbar

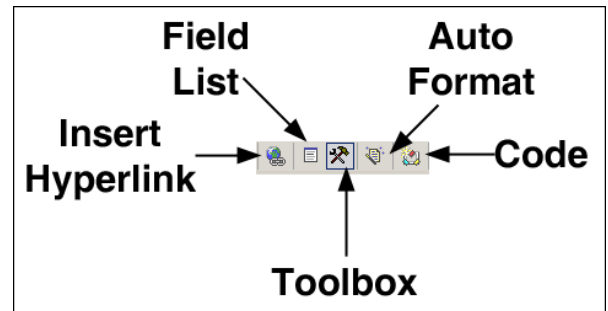
Insert Hyperlink - Converts text to a hyperlink

Field List - Provides a list of the fields in the form

Toolbox - Opens the Toolbox toolbar

AutoFormat - Automatically format the form

Code - Browse the code behind the form



Formatting (Form/Report) Toolbar

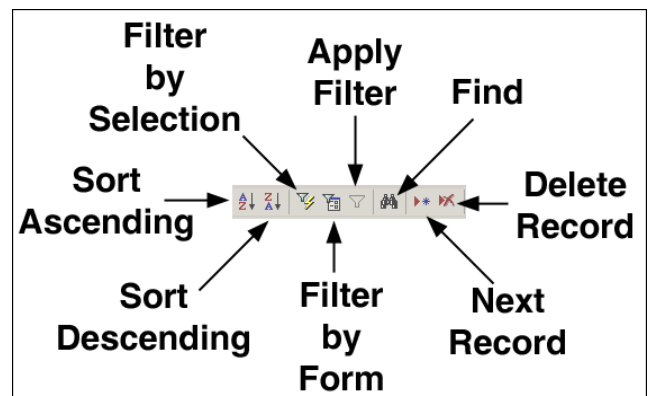
Sort Ascending - Sorts field from A to Z

Sort Descending - Sorts field from Z to A

Filter by Selection - Filters table by selected object

Filter by Form - Filters table by a field

Apply/Remove Filter - Applies or removes a filter



Print Preview Toolbar

Design View - Returns user to design view of the report

Print - Prints the report

Zoom - Zoom to Fit or 100%

One Page - Preview one page at a time

Two Pages - Preview two pages at once

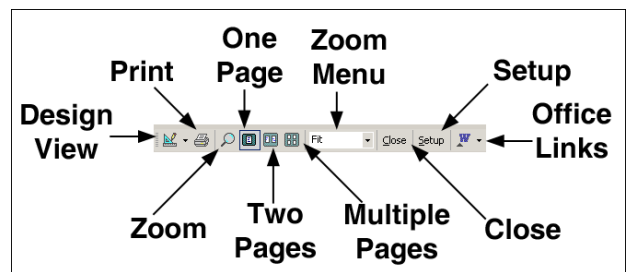
Multiple Pages - Preview multiple pages at once

Zoom Menu - Zooms Viewpoint to specified ranges

Close - Closes the Print Preview

Setup - Returns to the main database window

Office Links - Provides links to other Office 2000/XP products



QueryDesign Toolbar

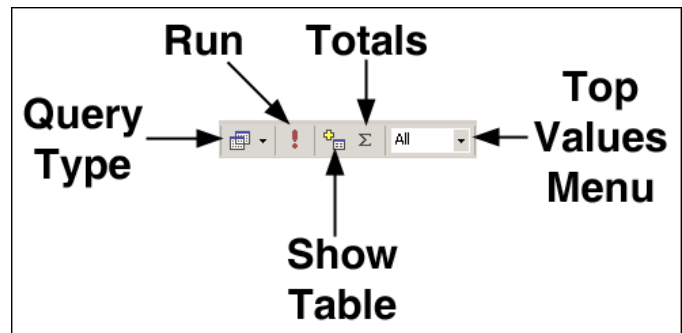
Query Type - Select a query type

Run - Runs the query

Show Table - Show the table behind the query

Totals - Provides totals from the query

Top Values Menu - Shows a percentage of the table



Database Window Toolbar

Office Links - Provides links to other Office 2000/XP products

Analyze - Analyze relationships in database

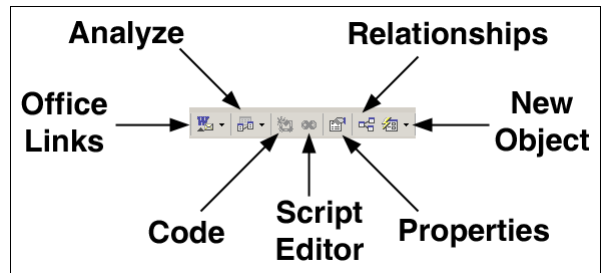
Code - Browse the code behind the form

Script Editor - Edit database with Script Editor

Properties - Gives properties for selected object

Relationships - View current relationships in database

New Object - Edit database with Script Editor



ReportDesign Toolbar

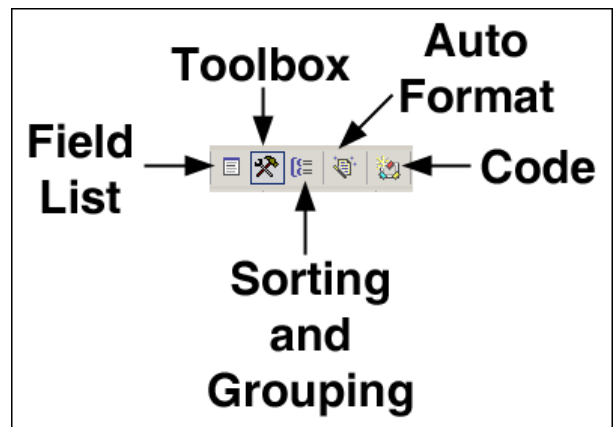
Field List - Provides a list of the fields in the report

Toolbox - Opens the Toolbox toolbar

Sorting and Grouping - Creates a new object in the database

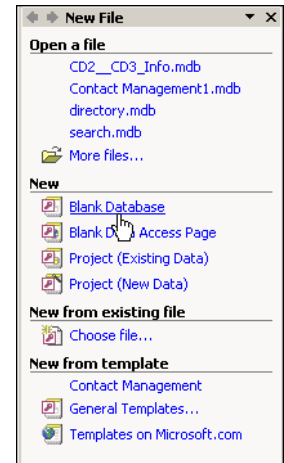
Auto Format - Automatically format the report

Code - Browse the code behind the report

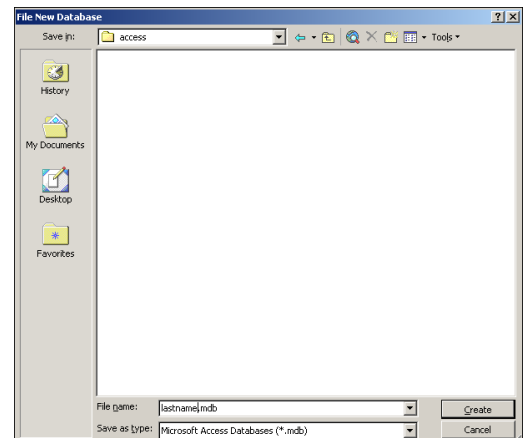


Creating Your First Database

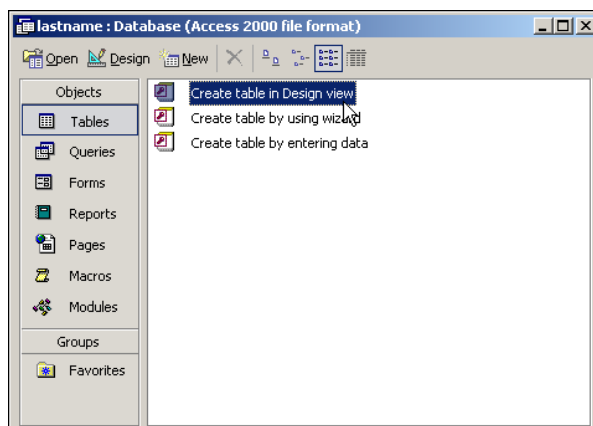
1. Open Microsoft Access by clicking **START > OFFICE XP(2000) PROFESSIONAL > MICROSOFT ACCESS**.
2. In Access, click **FILE > NEW** to create a new database. This will open the **NEW FILE** task pane in XP. This pane will be located on the right side of the program window.
3. In Access 2000, click the **BLANK ACCESS DATABASE** radio button and click **OK**. In Access XP, click the **BLANK DATABASE** link located under the **NEW** section.



4. In the **FILE NEW DATABASE** dialog box, browse to the **DESKTOP > ACCESS** folder, type **YOUR LAST NAME** as the file name (e.g. **lastname.mdb**), and then click the **CREATE** button.



Creating Tables in Access 2000/XP



5. **CLICK** the **TABLES** button under the **OBJECTS** panel.
6. **DOUBLE-CLICK** the **Create table in Design view** to start creating a new table.

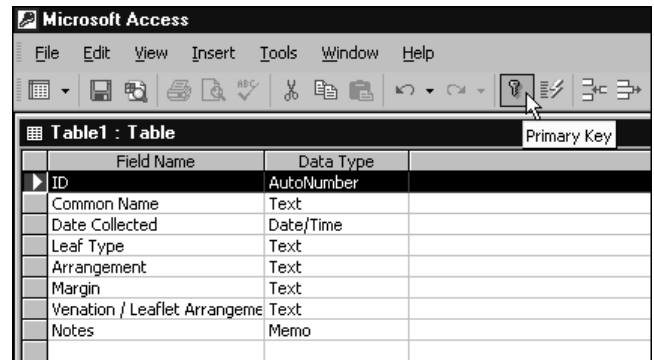
7. In the Design View for Table 1, enter the **Field Names** and select the **Data Type** for each Field Name exactly like the image shown to the right.

Field Names are the column headings for an Access table.

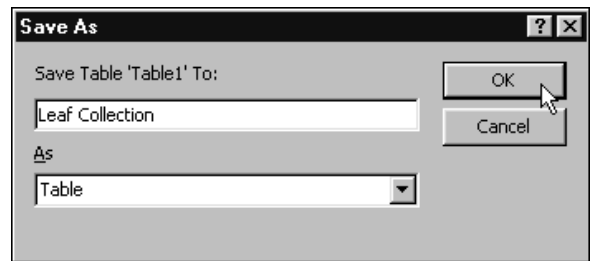
The **Data Type** determines the kind of values users can store in the field.

Table1 : Table		
	Field Name	Data Type
	ID	AutoNumber
	Common Name	Text
	Date Collected	Date/Time
	Leaf Type	Text
	Arrangement	Text
	Margin	Text
	Venation / Leaflet Arrangeme	Text
	Notes	Memo

8. **CLICK** the **GREY SQUARE** to the left of the **ID field**.
9. **CLICK** the **PRIMARY KEY button** located on the **TABLE DESIGN toolbar**.



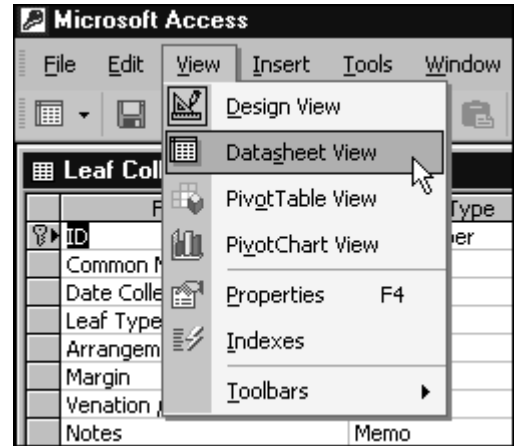
10. **Click FILE > SAVE AS** to save Table 1 to our database. In the **Save As** window, type **Leaf Collection** for the table name. Click the **OK button** to return to the Design view of the table.



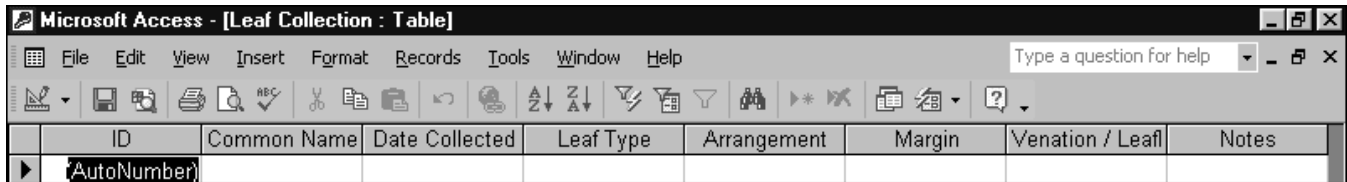
Leaf Collection : Table		
	Field Name	Data Type
	ID	AutoNumber
	Common Name	Text
	Date Collected	Date/Time
	Leaf Type	Text
	Arrangement	Text
	Margin	Text
	Venation / Leaflet Arrangeme	Text
	Notes	Memo

11. If your table has been saved and designed correctly, you should have the same settings as shown in the image on the left.

12. Click **VIEW > DATASHEET VIEW** to start entering data into the table.



13. You should see a blank table with field names similar to the image shown below.



14. Enter the information shown on the image on the next page into the datasheet of the table. Use the **TAB** key on the keyboard to move between fields. Use the **ENTER** key to move to a new record. Close the table to return to the main database window.

In the **ID** field, you do not have to type a number for each record. Since we set the data type to **AutoNumber**, Access will automatically enter in a number for each record.

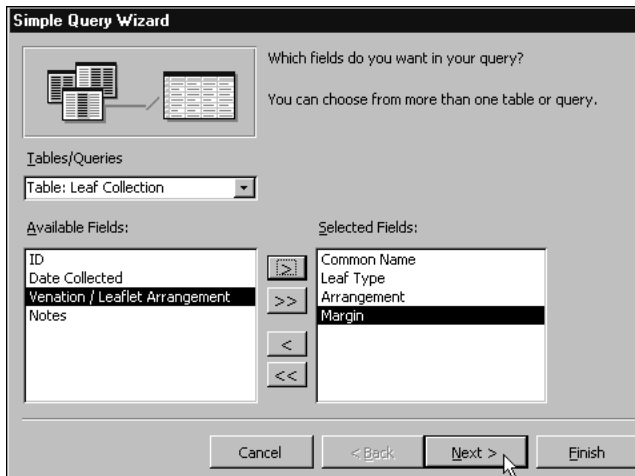
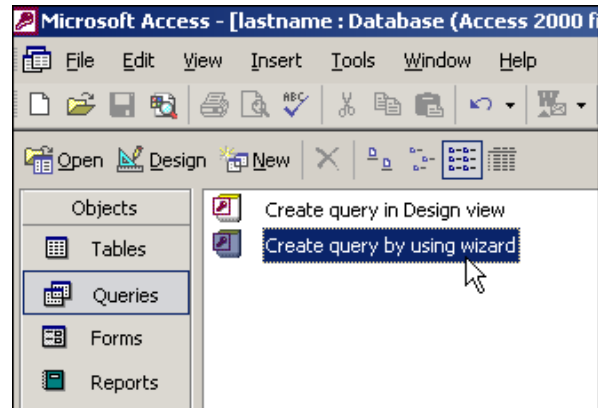
Did You Know?

A **record** is a collection of data about a person, a place, an event, or some other item. Records are the logical equivalents of rows in a table.

Leaf Collection : Table						
ID	Common Name	Date Collected	Leaf Type	Arrangement	Margin	Venation / Notes
1	White Oak	8/31/01	Simple	Alternate	Lobed	Pinnate Whiskey barrels are made from the wood of the white oak.
2	Red Maple	10/31/01	Simple	Opposite	Lobed	Palmate Has a winged fruit called a samara (helicopter seeds).
3	Flowering Dogwood	9/15/01	Simple	Opposite	Entire	Pinnate Showy white "petals" are actually modified leaves called bracts.
4	Pecan	11/1/01	Compound	Alternate	Toothed	Pinnate Well known for its nut production in the south.
5	Poison Ivy	10/31/01	Compound	Opposite	Toothed	Pinnate Contains the same chemical irritant as poison oak and poison sumac.
6	White Poplar	9/15/01	Simple	Alternate	Lobed	Palmate Leaves have a fuzzy white underside.
7	Buckeye	9/15/01	Compound	Opposite	Entire	Palmate Large fruit capsules contain seeds that are toxic to humans.
*	(ref)					

Creating Queries in Access 2000/XP

1. In the main database window, under **OBJECTS**, click **QUERIES**, and then double-click **Create query by using wizard**.



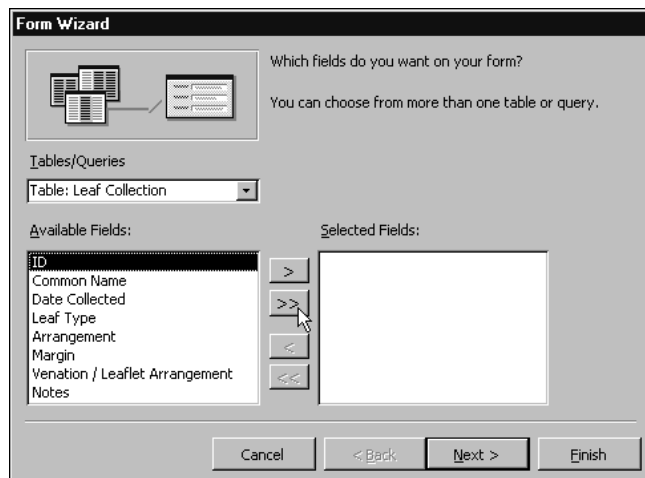
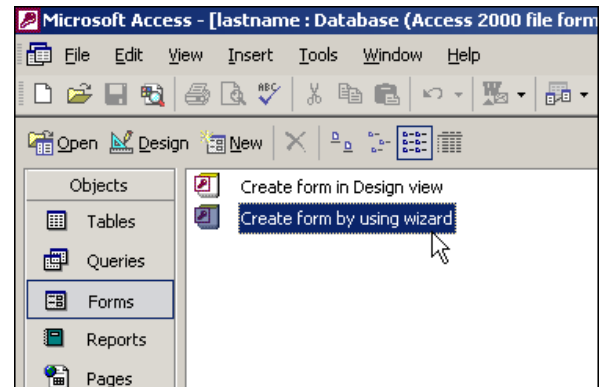
2. Move the fields **COMMON NAME**, **LEAF TYPE**, **ARRANGEMENT**, and **MARGIN** by selecting each field and then clicking the single right arrow. Click **NEXT** to continue to the next screen.
3. On the next screen in **ACCESS XP**, leave the query type set to **Detail**. Click the **NEXT** button to continue to the next screen.
4. Give the query a name like **Leaf Collection**. Click **FINISH** to complete the query wizard.

5. This process will yield a select query that looks similar to a table. Close the query. You may or may not be prompted to save the query. If you are prompted, click **YES** to save the query.

Leaf Collection Query : Select Query				
	Common Name	Leaf Type	Arrangement	Margin
▶	White Oak	Simple	Alternate	Lobed
	Red Maple	Simple	Opposite	Lobed
	Flowering Dogw	Simple	Opposite	Entire
	Pecan	Compound	Alternate	Toothed
	Poison Ivy	Compound	Opposite	Toothed
	White Poplar	Simple	Alternate	Lobed
	Buckeye	Compound	Opposite	Entire
*				

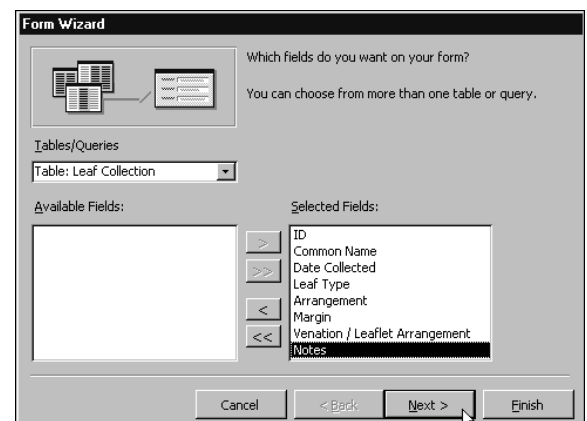
Creating Forms in Access 2000/XP

1. In the main database window, under **OBJECTS**, click **FORMS**, and then double-click **Create form by using wizard**.

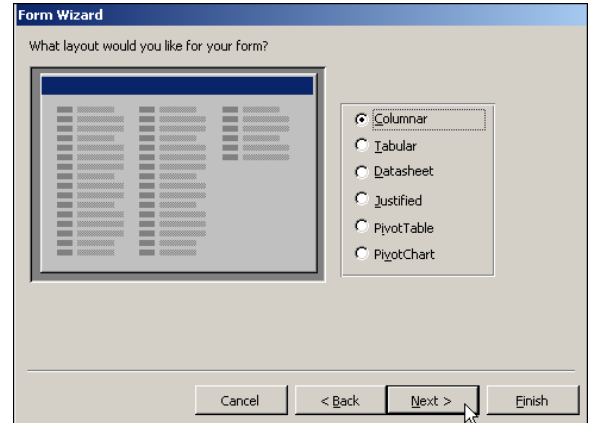


2. For this form, we want all the fields in our table to be used. Therefore, click the **DOUBLE RIGHT ARROWS** to move all the fields to the Selected Fields column.

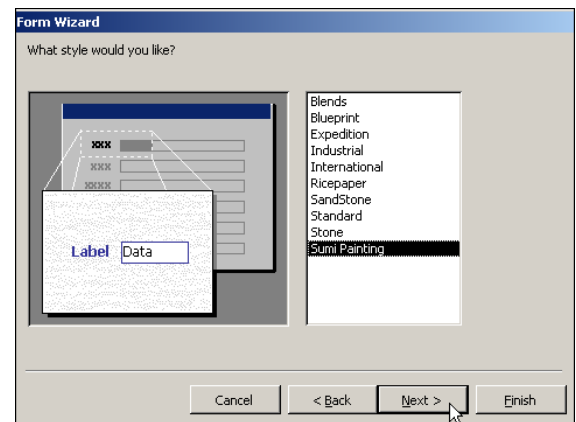
3. Click the **NEXT** button to continue to the next screen of the wizard.



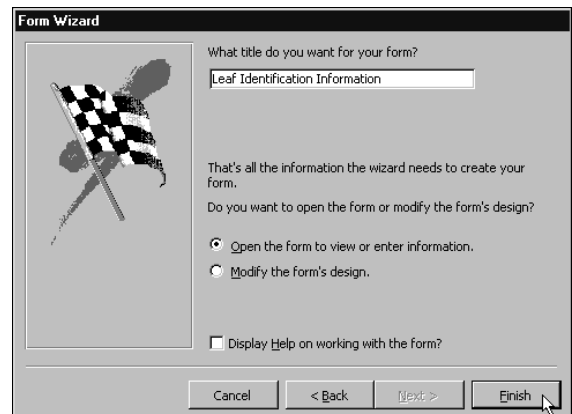
4. Click the radio button selecting **COLUMNAR** for the layout of the form. Click the **NEXT** button to continue to the next screen of the wizard.



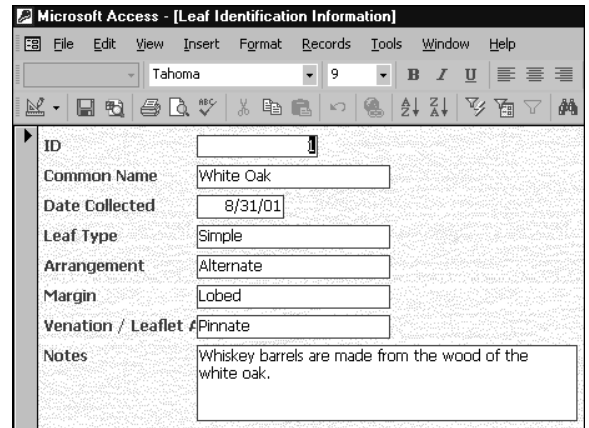
5. Choose a style that you want the form to look like in this example. You will get a preview by clicking on any of the styles. Once you have chosen a style, click the **NEXT** button to continue to the next screen of the wizard.



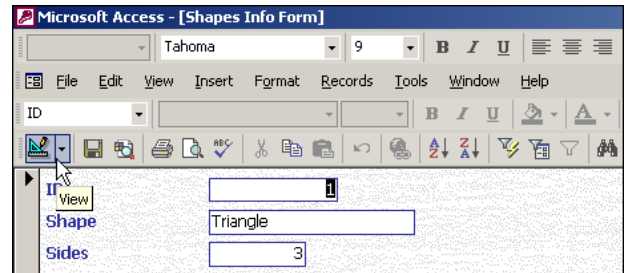
6. Name the form **Leaf Identification Information**. Click the **FINISH** button to complete the wizard.



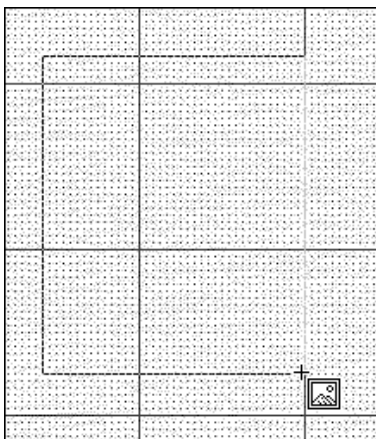
7. This will bring you to the **FORM VIEW** of the form. From this point, you can see the first record that was entered in to our table. Now, we need to modify the look of our table to make it more visually aesthetic.



8. Click the **VIEW** button to select the **DESIGN VIEW**. This will take us to the screen where users can modify all layout aspects of their form.

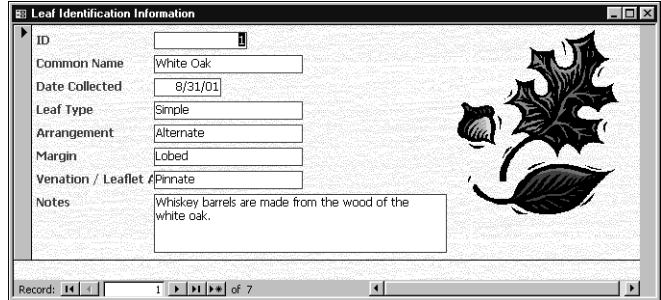


9. Now, we want to insert an image onto our form. Click the **IMAGE** button located on the **TOOLBOX floating toolbar**. If you do not have the Toolbox, click **VIEW > TOOLBOX**.



10. Once the **IMAGE** button is selected, draw a box in the open space of the form. An **INSERT PICTURE** window will appear. Select the **leaf.jpg** located in the Access folder on your desktop. Size and move the picture as needed.

- Once the form is to your liking, click **VIEW > FORM VIEW** to see the finished product.

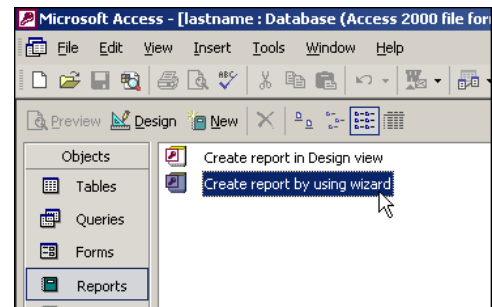


- To move between records, click the **right or left arrows** located in the bottom left of the form window.

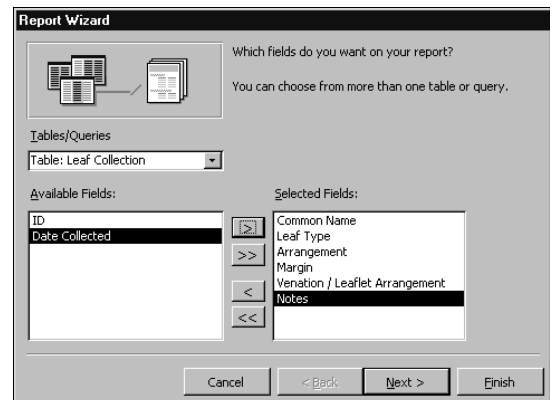


Creating Reports in Access 2000/XP

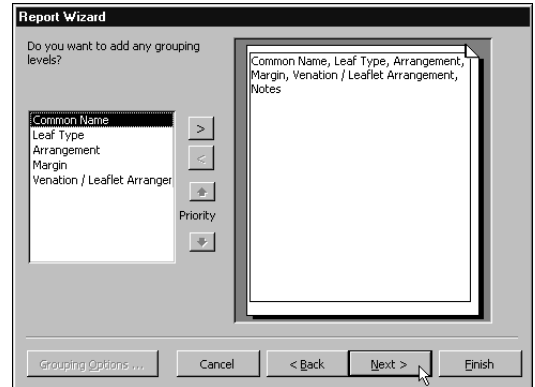
- In the main database window, under **OBJECTS**, click **REPORTS**, and then double-click **Create report by using wizard**. Make sure you select the table not the query when choosing which data is being used for the report.



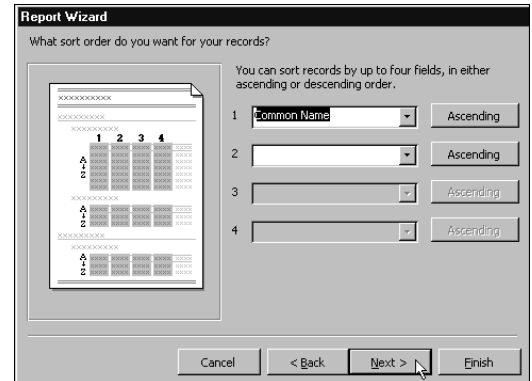
- Select the **COMMON NAME, LEAF TYPE, ARRANGEMENT, MARGIN, VENATION/ LEAFLET ARRANGEMENT, and NOTES** fields by clicking on each Available Field and clicking the right arrow. Click the **NEXT** button to progress to the next screen.



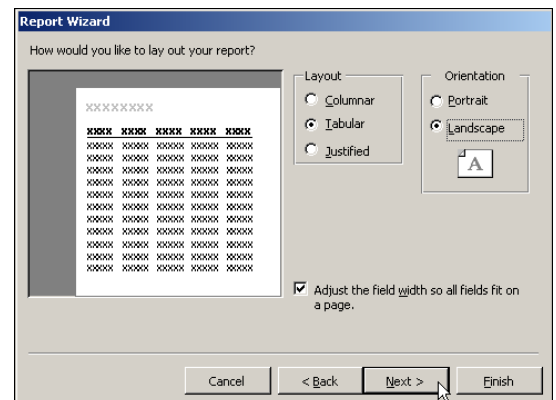
3. Create a hierarchy for the records, if appropriate. Click the **NEXT button** to continue to the next screen.



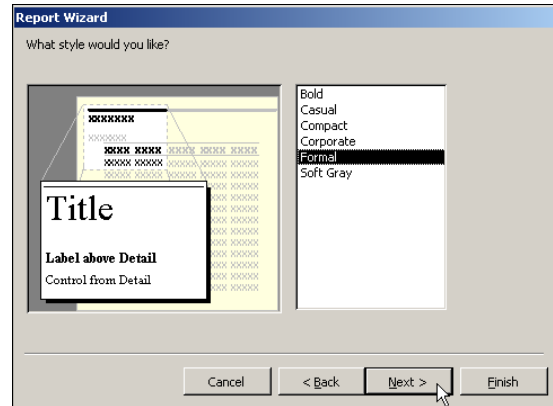
4. Select a sort order for the fields. In the first list box, click **Common Name**. The Ascending button is selected as the default sort order. Click the **NEXT button** to continue to the next screen.



5. Click the radio button for the **TABULAR Layout option**. Click the radio button to change the Orientation to **LANDSCAPE**. Click the **NEXT button** to continue to the next screen.

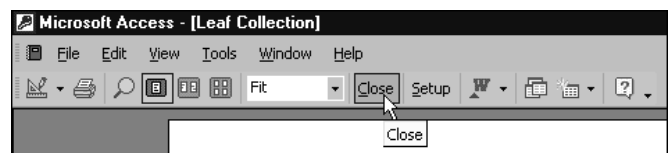


6. In the list, click the **style** that you want for the report. Click the **NEXT** button to continue to the next screen.



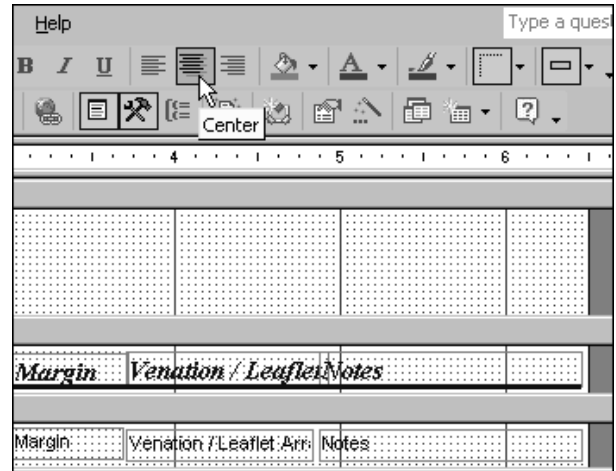
7. Type a **title** for the report. Click the radio button to **Preview the Report**. Click the **FINISH** button to continue to complete the Report Wizard.

8. After previewing the report, click the **CLOSE** button located on the **Print Preview** toolbar.



The last action will return the user to the **Design View** of the report. After previewing the report, you might have noticed that some fields may look better by having a center alignment.

9. Click the **TEXT BOX** for the fields that you want to align. Click the **CENTER** button to align those fields. You can also space fields by dragging and dropping them to any location that you feel is appropriate.



10. Change the **Title of the Report** from 'Leaf Collection' to '[YOUR NAME]'s Digital Leaf Collection'. You may have to resize the title text box in order for the text to fit properly. Resize the text box in the same manner that you would resize an image.



11. Click the **VIEW** button located on the **Formatting Toolbar** to view the changes in the layout of the report.



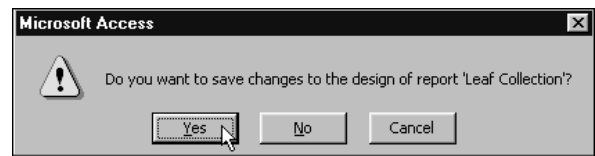
12. If the Report looks like you want it, click **FILE > CLOSE** to close the report. If not, click the **VIEW** button on the Formatting toolbar to return to the design view of the form.

[YOUR NAME]'s Leaf Collection

Common Name	Leaf Type	Arrangement	Margin	Venation/ Leaflet Arr.	Notes
Buckeye	Compound	Opposite	Entire	Pinnate	Large fruit capsules contain seeds that are toxic to humans.
Flowering Dogwood	Simple	Opposite	Entire	Pinnate	Showy white "petals" are actually modified leaves called bracts.
Hickory	Compound	Alternate	Toothed	Pinnate	Well known for its nut production in the south.
Red-bellied Woodpecker	Compound	Opposite	Toothed	Pinnate	Contains the same chemical found in poison oak and poison sumac.
Red Maple	Simple	Opposite	Lobed	Palmate	Has a winged fruit called a samara (discopod seeds).
White Oak	Simple	Alternate	Lobed	Pinnate	White oak barrels are made from the wood of the white oak.
White Poplar	Simple	Alternate	Lobed	Palmate	Leaves have a fuzzy white underside.

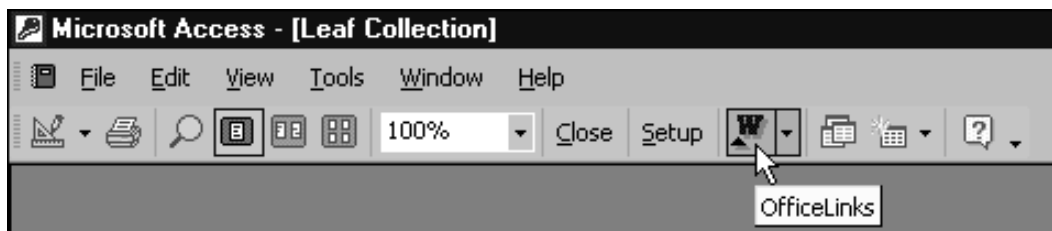
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13. If you made changes to the report, you may be asked to save the changes to the report. If so, click the **YES** button to save the report.



Exporting an Access 2000/XP Report to Word 2000/XP

1. With the Report open in **Preview Mode**, click the **OFFICE LINKS** button on the **Print Preview** toolbar. This will export the Access Report to a new Word 2000/XP document. The document will be in Rich Text format (.rtf) that can be saved later in Word format (.doc).



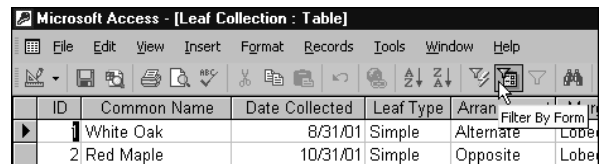
Using Filters in Access 2000/XP

A filter is a set of criteria applied to your data in order to display a subset of that data set. Primarily, you use a filter to temporarily view or edit records that contain a specific item. The rest of the records from the datasheet are hidden from view. The main two ways that users filter records are:

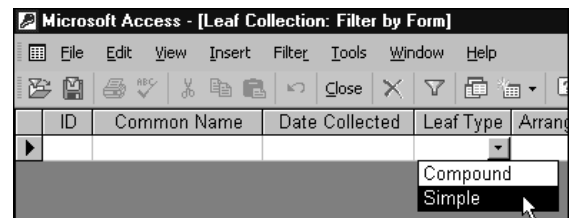
1. **Filter By Form** - Use this option when you want to choose the values you're searching for from a list without scrolling through all the records, or when you want to specify multiple criteria at once.
2. **Filter By Selection** - Use this option when you can easily find and select the value you want the filtered records to contain.

To Filter by Form

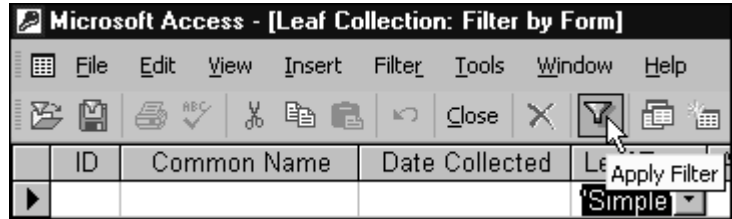
1. Open the table by clicking **TABLES** in the main database window under **OBJECTS**. Then, double-click the **Leaf Collection** table.
2. With the table open in the Datasheet view, click the **FILTER BY FORM** button located on the **TABLE DATASHEET toolbar**.



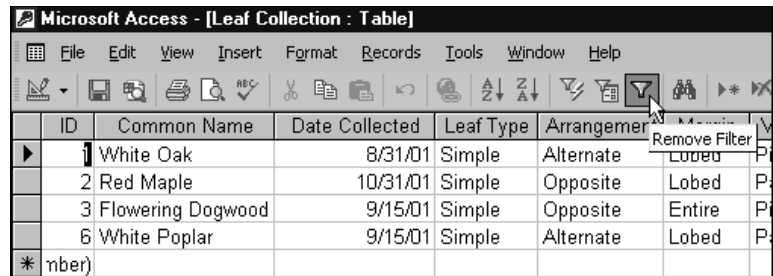
3. Click the field that you want to specify the criterion that records must meet to be included in the filtered set of records. For example, click the **LEAF TYPE** field and click **Simple** on the list.



- Click the **APPLY FILTER** button located on the **TABLE DATASHEET toolbar**. This will filter the Leaf Collection data set.

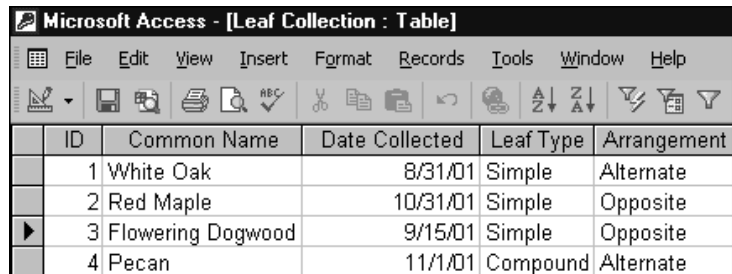


- To remove the filter, click the **REMOVE FILTER** button located on the **TABLE DATASHEET toolbar**. This will restore all hidden records to visible status in the Leaf Collection data set.

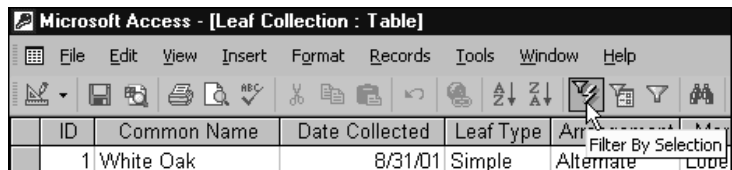


To Filter by Selection

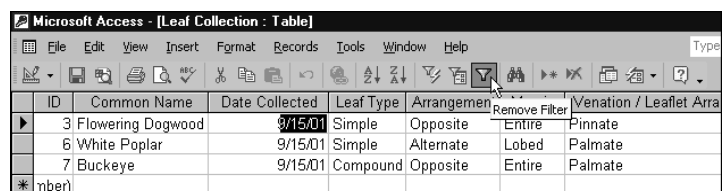
- With the table open in the Datasheet view, click the item that you want to use to filter the data. For example, click **ONE 9/15/01 in the Date Collected field**.



- Click the **FILTER BY SELECTION** button located on the **TABLE DATASHEET toolbar**.



- To remove the filter, click the **REMOVE FILTER** button located on the **TABLE DATASHEET toolbar**. This will restore all hidden records to visible status in the Leaf Collection data set.

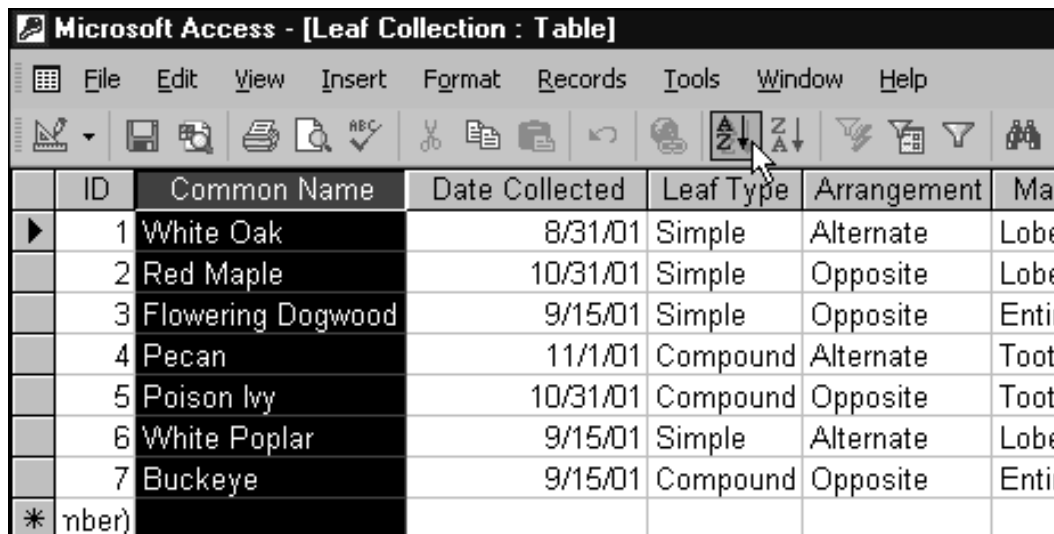


Sorting Records in Access 2000/XP

Access 2000/XP displays information in tables relative to the primary key that is created in each table. In addition, you can sort the information in such a manner that works best for that table. You can sort data in the fields of the table in ascending or descending order.

To sort records in Datasheet view

1. Open the table by clicking **TABLES** in the main database window under **OBJECTS**. Then, double-click the **Leaf Collection** table.
2. With the table open in the Datasheet view, click the **header of the COMMON NAME field** so the whole field is selected.
3. Click the **SORT ASCENDING** button on the **TABLE DATASHEET toolbar** to sort the **COMMON NAME field** from A to Z alphabetically.



ID	Common Name	Date Collected	Leaf Type	Arrangement	Ma
1	White Oak	8/31/01	Simple	Alternate	Lobe
2	Red Maple	10/31/01	Simple	Opposite	Lobe
3	Flowering Dogwood	9/15/01	Simple	Opposite	Entir
4	Pecan	11/1/01	Compound	Alternate	Toot
5	Poison Ivy	10/31/01	Compound	Opposite	Toot
6	White Poplar	9/15/01	Simple	Alternate	Lobe
7	Buckeye	9/15/01	Compound	Opposite	Entir
* nber)					

References and Links:

CNET's Access XP Tips and Tricks

<http://www.cnet.com/software/0-811003-8-5938485-10.html?tag=st.sw.811003-8-5938485-1.txt.811003-8-5938485-10>

Support Online from Microsoft Technical Support:

<http://support.microsoft.com/support/>

Microsoft Office - Access Home Page

<http://www.microsoft.com/office/access/default.htm>

WinPlanet - Getting Started with Office XP - Part 4

<http://www.winplanet.com/winplanet/tips/3730/1/>

DUMMIES.COM Office XP Resource Center

<http://www.dummies.com/OfficeXP/>

Choose a Species - University of Illinois at Urbana-Champaign

<http://woodyplants.nres.uiuc.edu>

A Guide to Deciduous Tree Knowledge

<http://www.ext.nodak.edu/extpubs/plantsci/trees/f436-4.htm>

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