

ACCESS 2016

4 Customizing Reports

Database reports summarize the data contained in tables or displayed in query results and enable you to provide information in a page layout suitable for printing. Although forms and reports serve two different purposes within the context of a relational database, the techniques used to customize them are similar. In this chapter, you will import reports from other databases and use features to create custom reports.

LEARNING OBJECTIVES

- Import a report into a database
- Add a subreport to a main report
- Create a report from a subreport
- Create calculated controls on a subreport
- Set page breaks in reports

CHAPTER TIMING

- Concepts/Develop Your Skills: 2 hrs
- Self-Assessment: 15 mins
- Total: 2 hrs 15 mins

PROJECT: BILLING CUSTOMERS

The company manager of Winchester Web Design, a small web page design company, wants you to improve its invoice report for customer billing. After reviewing invoices from several companies, the company manager has sketched out a design for the new invoice report layout. Your job is to create a sample of the new invoice report for the company's executive team.

Importing a Report into a Database

Access offers a variety of ways to create reports. In addition to using the Report Wizard or starting from scratch in Design View, you can also import reports from another database. Because most companies require some type of invoice to send with customer orders, locating a sample invoice report to import is not difficult.

Sometimes you have the report you want, but during its design it may have become corrupted, either due to inadvertent changes to the report itself or because of changes to an underlying query. That's when backups are invaluable. If a report becomes corrupted, you can restore it by importing database objects from a backup copy of a database. The record source should already match, and there should be no need to edit the properties or the field names.

Identifying Report Record Sources

Reports that you import retain two connections to their original database. The first is the source database table or query name, shown in the Record Source property and the second are the field names, which appear in report text boxes. As a result, when you import a report from another database, you often must establish new control sources to the destination database. You can accomplish this by:

- Editing the imported report's Record Source property to link to a table or query in the destination database.
- Editing, if necessary, the field names in the imported report's text boxes to match those shown in the new record source table or query.

☰ External Data→Import & Link→Access 

DEVELOP YOUR SKILLS: A4-D1

In this exercise, you will import a report from a backup copy of a database. You will rename the report and view data from an existing table using the imported report.

1. Open **A4-D1-WinWebDesign** from your **Access Chapter 4** folder and save it as **A4-D1-WinWebDesignRevised**.
2. Look in the Reports section in the Navigation pane and notice the database contains just two reports.
3. Choose **External Data→Import & Link→Access** .
4. Click **Browse**, navigate to your **Access Chapter 4** folder, choose **A4-D1-WinWebDesign-Backup**, and click **Open**.
5. Leave the storage setting as Import Tables, Queries, Forms, Reports, Macros, and Modules into the Current Database and click **OK**.
6. Click the **Reports** tab, choose **Customer Invoices**, and click **OK**.
7. Leave the Save Import Steps checkbox unchecked and click **Close** in the Get External Data dialog box.

8. Double-click the **Customer Invoices** report to open it in **Report View**.
9. If necessary, scroll down and then notice the empty space between the Customer Information and signature blocks.

Adding a Subreport to a Main Report

Subreports display subsets of data in reports and are derived from related database tables, similar to subforms on forms. However, a subreport can display table data by using a table, query, form, or another report as its source object. Forms are frequently created before reports and they often already display the desired data needed in a report. For these reasons, it is often best to use a subform as the basis of a subreport to streamline report design and layout.

The screenshot shows a report titled "Winchester Web Design Invoices". The report contains a subform for invoice details and a table of items.

Winchester Web Design Invoices

Invoice Number:
 Customer ID:
 Last Name:
 First Name:
 Street Address:
 City:
 State: ZIP:
 Telephone:
 Email:

InvDate:
 Employee ID:
 Emp Last Name:
 Emp First Name:

ProdID	Description	Price	Qty	Line Total
01HP	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00
02SP	Secondary Page	\$200.00	6	\$1,200.00
05IM	Image, Custom Designed	\$40.00	11	\$440.00
*				

Record: 1 of 3 | No Filter | Search

An invoice report that uses a subform to display invoice details

Adding a Subreport

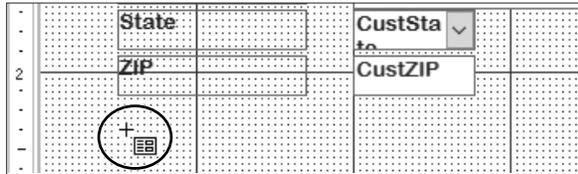
The procedures used to add a subreport to a report are basically the same as those used to add a subform to a form. You can create the subreport using the Report Wizard or add an unbound subreport control to the report. Then you identify the database object containing the fields you want to display as a subreport.

☰ Design→Controls→Subform/Subreport 

DEVELOP YOUR SKILLS: A4-D2

In this exercise, you will add a subreport to the Customer Invoices report. You will use the InvoiceDetails subform as the source for the subreport.

1. Display the **Customer Invoices** report in **Design View**.
2. Choose **Design**→**Controls**→**Subform/Subreport**  (located at the bottom of the controls list).
3. Click just below the ZIP label to insert a control and launch the **SubReport Wizard**.

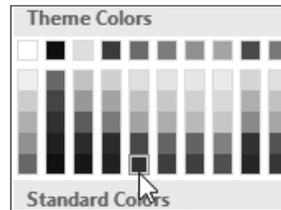


4. Choose **InvoiceDetails Subform** from the Use an Existing Report or Form option and click **Next**.
5. Click **Next** again to accept Choose from a List as the linking method.
6. Click **Finish** to accept InvoiceDetails Subform as the name.
7. Display the Property Sheet, if necessary, and click the **Data** tab.
8. Click the **Format** tab in the Property Sheet and set the following properties:

Property	Setting
Width	5.6"
Height	1.5"
Top	2.9"
Left	0.5"

9. Click the **InvoiceDetails Subform** label, which should be just below the ZIP label, and set the following properties:

Label	Property
Caption	Invoice Details
Width	1.2"
Height	0.25"
Top	2.5"
Left	0.5"
Font Name	Arial Rounded MT Bold
Font Size	10
Fore Color	Blue, Accent 1, Darker 50%



10. Switch to **Report View** to see your completed report.
11. Use the record Navigation bar and the scroll bar to review the database records.
12. Close the report, saving the changes.

Creating a Report from a Subreport

Using a subform as the record source for a subreport is convenient because the subform already includes all of the needed data. However, when a subreport uses a form as the record source, any changes made to the subreport layout are reflected in the source form. If you don't want the source form to be changed, you can save the subreport as a separate report in the database, change the main report's Record Source property to the new report object, and then edit the subreport.

Access allows you to save an existing form as a new form, and an existing report as a new report. When a subform is used as the record source for a subreport, you can open the subreport in a separate window and save it as a separate report.

☰ File → Save As → Save Object As

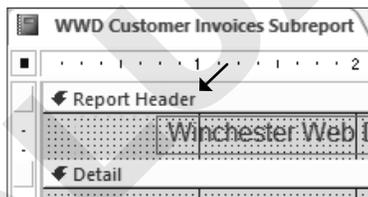
DEVELOP YOUR SKILLS: A4-D3

In this exercise, you will create and save a new report based on the subreport from the Customer Invoice Report. You will then edit the source object property in the main report to display the new subreport.

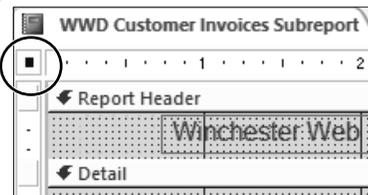
1. Open **InvoiceDetails Subform** from the Forms section of the Navigation pane.
2. Choose **File**→**Save As**→**Save Object As**→**Save As**.
3. Type **WWD Customer Invoices Subreport** as the name, choose **Report** from the **As** drop-down list, and click **OK**.
4. Close InvoiceDetails Subform.
5. Open the new **WWD Customer Invoices Subreport** in Design View.
6. Display the Property Sheet, if necessary.
7. Click the **All** tab and type **Customer Invoices Subreport** as the caption.
8. Choose **Design**→**Header/Footer**→**Title**.
9. Type **Winchester Web Design Invoice Details** in the title control and tap .
10. Set the following property values for the new title control:

Property	Setting
Width	3"
Height	0.25"
Left	1"
Font Name	Arial
Font Size	12
Text Align	Center

11. Click the **Report Header** section bar and set the Height property to **0.3"**.



12. Click the **Report Selector** button and set the Width property to **5.6"**.



13. Close the subreport, saving the changes.
 14. Open the **Customer Invoices** report in **Design View**.
 15. If necessary, display the Property Sheet and click the **Data** tab.
 16. Click on the **subreport** to select it.
 17. Click in the **Source Object** property box and choose **Report.WWD Customer Invoices Subreport** from the drop-down menu.
 18. Switch to **Report View** to see how the new subreport looks.
 19. Scroll through the report, seeing how the subreport always shows the correct invoice details.
 20. Close the Customer Invoices report, saving the changes.
-

Numbering Items in a Report

As the number of records in a table grows, the length and number of records in a report or subreport also grows. You can number the records in a report to help track the items listed. If a report is grouped, you can set the count to restart numbering at the beginning of each group.

Setting Properties to Number Items

By adding a text box to the Detail section and setting its Control Source property to $=1$, you can automatically number items in a report. In addition, you can set the Running Sum property to identify the portion of a report for which you want to count items. For example, suppose you have an invoice report that groups services by invoice number. You can set the Running Sum property to count the items in each group and then start counting again with the next group.

Numbering Subreports Separately

Access does not permit numbering items in a subreport control on a main report. However, because you saved the subreport as a separate report, you can add the numbering controls directly to the subreport by opening it in a separate window. Any edits you make when it is open as a separate item are reflected in the main report the next time you open it.

DEVELOP YOUR SKILLS: A4-D4

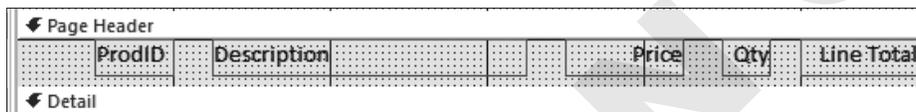
In this exercise, you will reposition the controls in the Page Header of the WWD Customer Invoices Subreport and then add a text box control to count the number of line items.

1. Display the **WWD Customer Invoices Subreport** in **Design View**.
2. Right-click the **Detail** section bar and choose **Page Header/Footer**.
3. Click the **Page Header** section bar and change the Height property to **0.3"**.

4. Select the **ProdID** label in the Detail section and use **Ctrl** + **X** to cut the control.
5. Click in the **Page Header** section and use **Ctrl** + **V** to paste the label.
6. With the **ProdID** label still selected, set both the Width and Left properties to **0.5"**.
7. Use the procedure in steps 4–6 to move the **Description**, **Price**, **Qty**, and **LineTotal** labels one at a time into the Page Header section, setting the Width and Left properties as follows:

Property	Width Setting	Left Setting
Description	2"	1.25"
Price	0.75"	3.5"
Qty	0.3"	4.5"
LineTotal	0.75"	5"

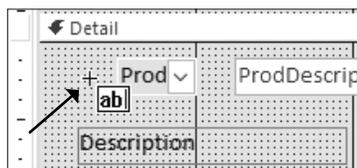
8. If necessary, click on the labels and use the up arrow **↑** key to nudge them up until they are vertically aligned with the ProdID label as shown here.



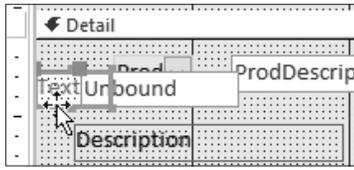
9. Set these property values for the text boxes in the **Detail** section:

Text Box Control	Width	Top	Left
ProdID	0.5"	0.1"	0.5"
ProdDescription	2"	0.1"	1.25"
Price	0.75"	0.1"	3.5"
Qty	0.3"	0.1"	4.5"
LineTotal	0.75"	0.1"	5"

10. Click the **Detail** section bar and set the Height property to **0.5"**.
11. Click the **Selection Type menu** button **▼** at the top of the Property Sheet and choose **Report**.
12. Set the Width property to **6"**.
13. Switch to **Report View**.
14. Switch to **Design View** and choose **Design**→**Controls**→**Text Box** .
15. Click to the left of the *ProdID* text box in the Detail section to position the new box in that area.



16. Click the label of the new text box and tap **Delete** to remove it.



17. Click the new text box control and set these property values using the **All** tab in the Property Sheet:

Property	Setting
Name	txtCount
Width	0.3"
Top	0.1"
Left	0.1"

18. Click the **Data** tab and set the Control Source property to **=1** and the Running Sum property to **Over Group**.
19. Switch to **Report View** and scroll through the report.
20. Close the WWD Customer Invoices Subreport, saving the changes.
21. Display the **Customer Invoices** report in **Design View**.
22. Click the **InvoiceDetails Subform** to select it and set the Width property to **6"**.
23. Switch to **Print Preview** and use the Navigation bar to review the various report pages.
24. Close Print Preview and then close the Customer Invoices report, saving the changes.

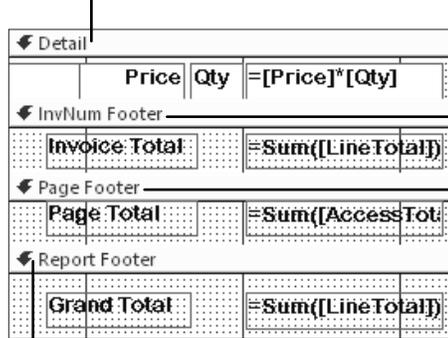
Creating Calculated Controls on a Subreport

Reports summarize data contained in tables and queries to present useful, organized information. This typically means that calculated fields must be added to a report for subtotals, grand totals, and averages.

Positioning Calculated Controls

Calculated controls are built in reports by using the Control Source property of an unbound text box control to which you add a formula. The placement of the calculated control determines how Access performs the calculation.

Calculated control in a Detail section performs a calculation for each detail line.



Calculated control in a Group Footer calculates the total for the group.

Calculated control in a Page Footer calculates the total for the page.

Calculated control in a Report Footer calculates the total for the entire report.

DEVELOP YOUR SKILLS: A4-D5

In this exercise, you will add a calculated control to the Report Footer section of the WWD Customer Invoices Subreport.

1. Display the **WWD Customer Invoices Subreport** in **Design View**.
2. Click the **Report Footer** section bar and set the Height property to **0.3"**.
3. Choose **Design**→**Controls**→**Text Box** .
4. Click anywhere in the **Report Footer** section.
5. Click the **All** tab in the Property Sheet.
6. Set the following properties for the new control:

Property	Setting
Name	CustomerTotal
Control Source	<code>=Sum([Price]*[Qty])</code>
Format	Currency
Height	0.25"
Top	0"
Left	4.75"

7. Click the new text box label and set the following property values:

Property	Setting
Caption	Invoice Total
Width	1.2"
Height	0.25"
Top	0"
Left	3"
Fore Color	Text Dark

8. Close and save the changes to the subreport.
9. Display the **Customer Invoices** report in **Report View**.

Growing a Subreport

When the number of records or amount of data displayed in a subreport varies, you can set the Can Grow property setting to allow the subreport space to expand so more data displays vertically. You can also change the orientation of the print layout to allow more horizontal space on each report page.

DEVELOP YOUR SKILLS: A4-D6

In this exercise, you will adjust the margins of the Customer Invoices report and set the Can Grow and Can Shrink properties. These properties will adjust the size of the subreport to fit the contents.

1. Display the **Customer Invoices** report in **Design View**.
 2. Choose **Page Setup**→**Page Size**→**Margins**→**Narrow**.
 3. Click on the **InvoiceDetails Subreport** to select it.
 4. Click the **Format** tab on the Property Sheet and, if necessary, set both the Can Grow and Can Shrink properties to **Yes**.
 5. Choose **File**→**Save** to save the report.
 6. Switch to **Report View** and scroll through the report.
-

Setting Page Breaks and Customizing Controls

As you view the Winchester Web Design Customer Invoices report in Report View, you may notice that the number of invoice records displayed on each screen varies depending on the number of items ordered. To ensure that each customer invoice starts on a new page, you can add a page break control. By default, when you view a report in Print Preview, data for each customer/record automatically appears on a separate page; however, multiple records appear on the same page when the report is displayed in Report View.

To add a title or general company information to an invoice, place title controls in the Page Header section rather than the Report Header, which only prints on the first page.

Positioning the Page Break Control

To ensure that each invoice record prints on a separate sheet of paper, you can set page breaks. When you set page breaks, add the break at the end of the Detail section so Access knows to start a new page before printing the next page header.

☰ Design→Controls→Insert Page Break 

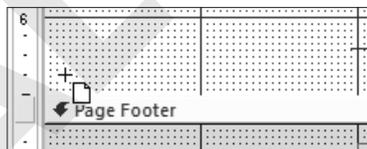
DEVELOP YOUR SKILLS: A4-D7

In this exercise, you will modify the Winchester Web Design Customer Invoice Report. You will add a title and the current date and set page breaks to print each invoice on a separate page.

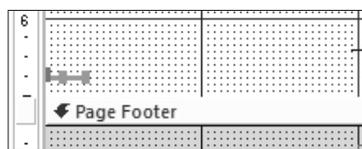
1. Display the **Customer Invoices** report in **Design View**.
2. Click the **Customer Invoice** title in the Page Header and then click again just in front of *Customer* to position the insertion point there.
3. Type **Winchester Web Design** and then press **[Shift] + [Enter]** to force *Customer Invoice* to a second line.
4. Click in an empty part of the Page Header and then click the title box to select it.
5. Set the Width property to **4 "** and the Left property to **2 "**.
6. Choose **Design**→**Header/Footer**→**Date and Time** .
7. Choose the **MM/DD/YYYY** date format, remove the check from the **Include Time** box, and then click **OK**.
8. Select the **date** control and press **[Ctrl] + [X]** to cut it from the Report Header.
9. Click the **Page Header** section bar and press **[Ctrl] + [V]** to paste the date into the Page Header.
10. Set the following properties for the date control:

Property	Setting
Width	2"
Height	0.2"
Top	0.4"
Left	5.8"

11. Scroll down to the bottom of the Detail section.
12. Choose **Design**→**Controls**→**Insert Page Break** .
13. Place the page break in the Detail section just above the Page Footer section bar.



Before



After

14. Switch to **Print Preview** and use the Navigation bar to browse the various pages.
15. Close Print Preview.
16. Choose **File**→**Close** to close the database and save the changes to the **Customer Invoices** report.

Self-Assessment

Check your knowledge of this chapter's key concepts and skills by completing the Self-Assessment. The answers to these questions can be found at the back of this book.

1. Reports can be imported from other databases. True False
2. Reports can be created from subreports. True False
3. The Can Grow property allows a subreport to expand to accommodate a varying number of records. True False
4. Page breaks are typically added to the Page Header section of a report. True False
5. Which property is used to link an imported report to a table or query in the destination database?
 - A. Control Source
 - B. Caption
 - C. Record Source
 - D. Name
6. Which of these can a subreport display data from?
 - A. Table
 - B. Query
 - C. Form
 - D. All of these options
7. Which of these is used in the Control Source property to automatically number items in a report?
 - A. =1
 - B. =Num
 - C. Control Source
 - D. -Num
8. Which property is used to create calculated controls in reports?
 - A. Name
 - B. Control Source
 - C. Caption
 - D. Pop Up