Tip:You can use the Pivot Table toolbar to select and group/ungroup two or more region areas. You can also display or hide individual items using the toolbar's Show Detail and Hide Detail buttons. And you can use the toolbar to select data to chart. These features provide a powerful analytical tool when you want to get the most information out of your data.

12.3 Using Scenarios to Perform What-If Analysis

When you use an Excel workbook to analyze historical data you have the luxury of relying on numbers that aren't going to change. When you know how much you sold and how much you spent last quarter, it's easy to construct a formula to describe the spent last quarter, it's easy to construct formula to describe the overall results. But what do you do when it's time to prepare a forecast of the what might happen next quarter? Because the numbers aren't in yet, you have to make your best estimate of sales and expense, and hope you're right. Predicting the future is never easy, just ask anyone who's ever handicapped a horse race or invested in the stock market.

One of Excel's advance workbook design features is ideal when you need to prepare forecasts. After you create your basic worksheet layout, you can define different scenarios and enter data separately for each one. By switching between scenarios you can watch the bottom line change and even change the bars and columns in charts.

Scenarios help you plan the future when you're uncertain about some of the assumptions that go into your worksheet. Excel experts call this what if analysis. As the owner of a ski resort, for example, you might prepare a fore's cast with different scenarios to answer questions such as "what if we don't get any snow before Thanks giving? "and "What if we get a big storm of Christmas and none can drive up form the city?" By plugging in different sets of numbers, you can prepare for the best case and worst case scenarios.

The first step in the process is to create a worksheet that includes all the basic data you want to use in your comparison. Then, you select specific cells you want to part of each scenario. (The changing cells are usually part of one or more formulas in the sheet.)

1. Select the cells that will change in each scenario. For example, select cells B3, B4 and B5 (Leave B2 the same, because the price of the home is a constant in

all scenarios.) This step is optional however, if all you scenarios involve changes to the same cells, then selecting the cells first is much more convenient. Pull down the Tools menu and select Scenarios.
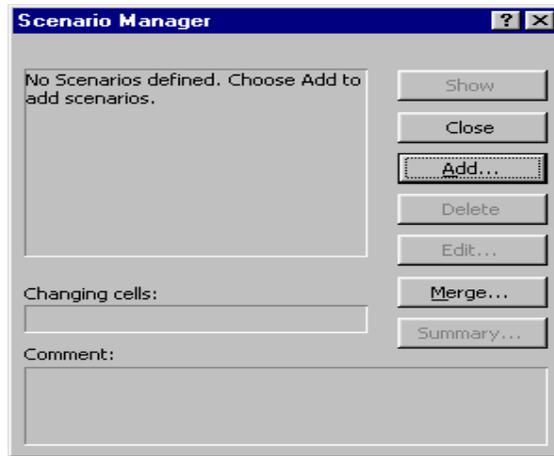

2. In the Scenario Manager dialog box click the Add button to display the Add Scenario dialog box as shown in Fig.
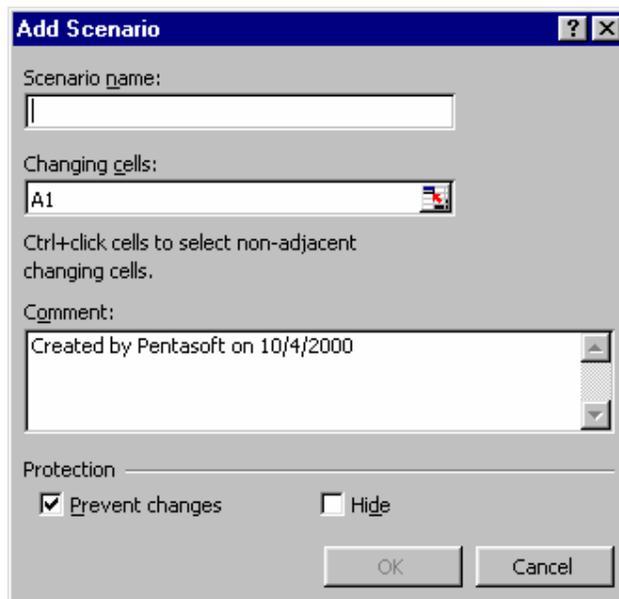
3 In the Scenario name box type a name that describes the scenario you're creating.

4. Make sure the changing cells box contains the cells you selected if necessary click the Collapse Dialog button and change the selection.

5. By default, the comment box contains your name and the date you create the scenario. Edit this comment if you want t describe the scenario in more detail , then click OK. The scenario values box appears, as shown in figure
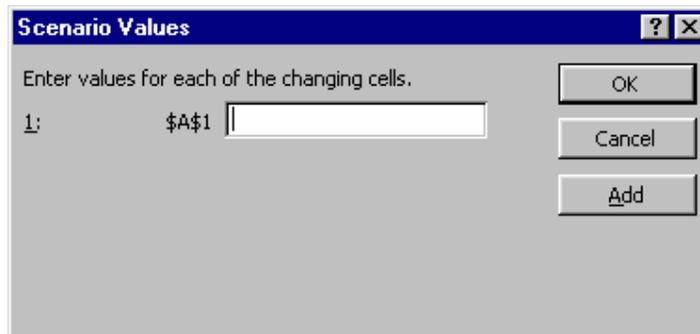
6. Enter the value you want to use for each of the changing cells in this scenario. Because this worksheet contains named ranges, the example shows cell names rather than addresses, making the task even easier. (If Cell contain data, the dialog box displays their current values) Click OK to return to the Scenario Manager dialog box.

7. Repeat steps 2-6 to create additional scenarios.

8. Select any scenario an click the show button at right (or double-click the scenario name) to show the worksheet using those values. Others buttons let you add remove and edit scenarios.

After creating scenarios, you can add new scenarios or change existing ones using the same set of dialog boxes. Pull down the tools menu and choose scenarios. To create a new scenario click the Add button. To edit an existing scenario select its name in the scenarios list and click the Edit button.

12.4 Goal Seeking & Solver

After you've constructed a worksheet and built all your formula, you may discover that you can't easily get the answer you're looking for.

But what if you want to calculate how much home you can afford based on a maximum monthly payment? You could construct a new formula. Or you could use the trial and error method, entering different home prices until you find the right one . But the fast and easy way is to use Excel's Goal Seek tool to do the calculations in one operation.

Using Goal Seek to Find a Value

1. Open the worksheet that contains the formula you want to work with then pull down the tools menu and select Goal Seek.
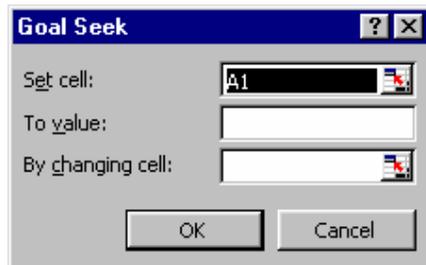
2. Fill in the three boxes in the Goal Seek dialog box to match the results you're trying to achieve . For example I asked Excel to set cell B14 which contains the total monthly payment to 2000 my maximum monthly budget, by adjusting the purchase price in cell B2.

3. When you click ok, Excel runs through all possibilities and displays the Goal Seek Status dialog box, a shown in figure. If you look at the worksheet itself, you'll see the values have changed to reflect the result you were looking for.

4. Click ok to incorporate the changed data into your worksheet click Cancel to close the dialog box and restore the original data.

12.5 Short Summary

♣ A pivot table is used to summarize and view information in different ways.

♣ Scenarios help you plan the future when you're uncertain about some of the assumptions that go into your worksheet. Excel experts call this what if analysis.

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