

## 9 How to edit your Theme table and do calculations

If you work with large data sets, the easiest way to manipulate your data is to use spreadsheets or Dbase programs and join this data with the attribute theme tables. However, if your Attribute Theme table does not contain so many records it is easy to add data and carry out simple manipulation directly in the Attribute table while working in ArcView.

*An Example:*

The price of prawns is not the same all over the Pais Pesca, it depends on the location of the market. Higher prices are paid close to the industrial zones and major cities. Average prices of different districts are presented in Table 9.1.

TABLE 9.1  
Prawn prices per district (2001)

District Name	Prawn price (US\$/kg)
Kathijalo	1.10
Muladi	1.10
Denaida	0.90
Ganjpani	1.20
Cankir	1.80
Dadon	2.10
Grumara	2.30
Pepedas	2.70
Felixsad	2.50
Bandarbadan	2.60
Siraba	0.90
Faodoa	1.20
Boldan	0.90
Bargun	1.30
Tara	3.10
Goodt	1.60
Nerad	2.00
Puradi	1.20

The instructions below will show you how to Add these prices to the district Theme where you joined the fish catches and Add a new field with the total value of prawns per district.

### 9.1 ADDING A FIELD AND MAKING CALCULATIONS IN A TABLE

Start a new project and open a new View.

1. Add the Theme you saved previously ('Dist\_catch.shp'). If you can not find it, you can find it in the folder '07\_Them\_Table\_calculation\_and\_edit' in the CD. Remember the remark made previously on the Read only protection of files copied from a CD: "...When you copy files from a CD onto your hard disk, these files will have the properties as Archive and Read only. To be able to work with the files, you will need to change the properties of the files you use: open the Windows Explorer, right-click on the file(s) you copied and are going to use, click properties, and look in the General tab under Attributes (at the bottom). All tick boxes need to be empty. If one of the boxes is ticked, untick it, so that the files can be edited..."

2. Click on the **Open Theme Table** button and select via the menu bar: **Table/Start Editing**.
3. Go via the menu bar to: **Edit/Add Field**.
4. The **Field Definition** box will pop up. Put 'Prawn price' in the **Name:** box. In the **Type:** box there has to be **Number**, as numeric data will be entered. Further you see **Width:** where **16** is given as default. This is the number of characters which can be entered, change this to **5**. Finally in the last box (**Decimal Places:**) put **2**. Click **OK**.
5. An error message will appear: 'Field name too long. ArcView will truncate field name and use original name as Alias. Continue?', Click **Yes**.
6. Before entering data in the new column you have to click on the **Edit** icon in the Tool bar. Click now with the pointer on the cell where you want to enter the data. Enter the data and select the next cell, etc.
7. When you have finished entering data you need to add a new field: **Value Prawns**, (in the field definition box: leave the default number (16) and no decimals). After you click **OK** you will get again a message that the name is too long. Continue and click **Yes**.
8. Make sure the **Value Prawns** field heading is 'pressed' (darker, and the letters are in white) before you continue, to make sure that the calculation that follows ends up in the **Value Prawns** field.
9. The value of the prawns for each district we calculate in ArcView. Go to: **Field/Calculate...** via the menu bar (Figure 9.1).

FIGURE 9.1

How to get to the Field Calculator



10. The Field Calculator window will pop-up. We know that the Value of the prawns equals Catch of prawns times Price of prawns. This is what you need to enter in the box on the bottom. First double click on **[Prawns]** in the **Fields:** box on the left (Figure 9.2). You will see **[Prawns]** appear in the calculation box.

FIGURE 9.2

The Field Calculator window

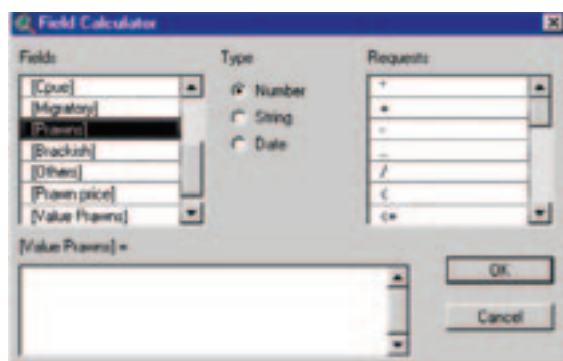


FIGURE 9.3

The Field Calculator window filled in



11. Now double click in the 'Request box' on '\*', as you want to multiply. After this, double click in the **Fields:** box on **[Prawn price]**.
12. The calculation box at the bottom now indicates the following calculation: **[Value prawns] = [prawns] \* [Price prawns]** (Figure 9.3). Click **OK** and the values are calculated.
13. Go to **Table/Stop Editing** in the menu bar, when you are asked: 'Save Edits?', click 'Yes'.

Now make a double histogram with prawn catch and prawn value, using the Legend Editor.