Tutorial Sample Application

Description

The configuration of the sample application in this tutorial will expose you to the simple configuration required to develop Plantwatch.

We will configure Plantwatch to receive a RS232 string from a bar code scanner, place the data in a plantwatch variable, select the first eight characters of the string and then place them into a file Excel can open.

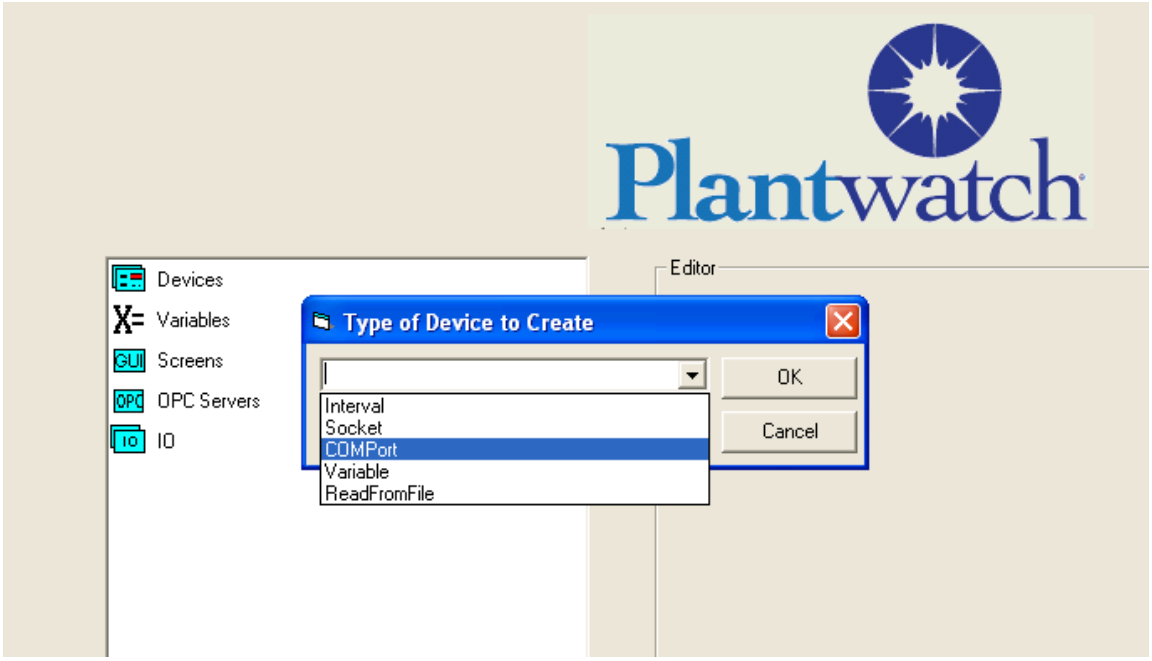
Part 1: Set up communication to RS232

For our example we will use a bar code scanner for a RS232 data source.

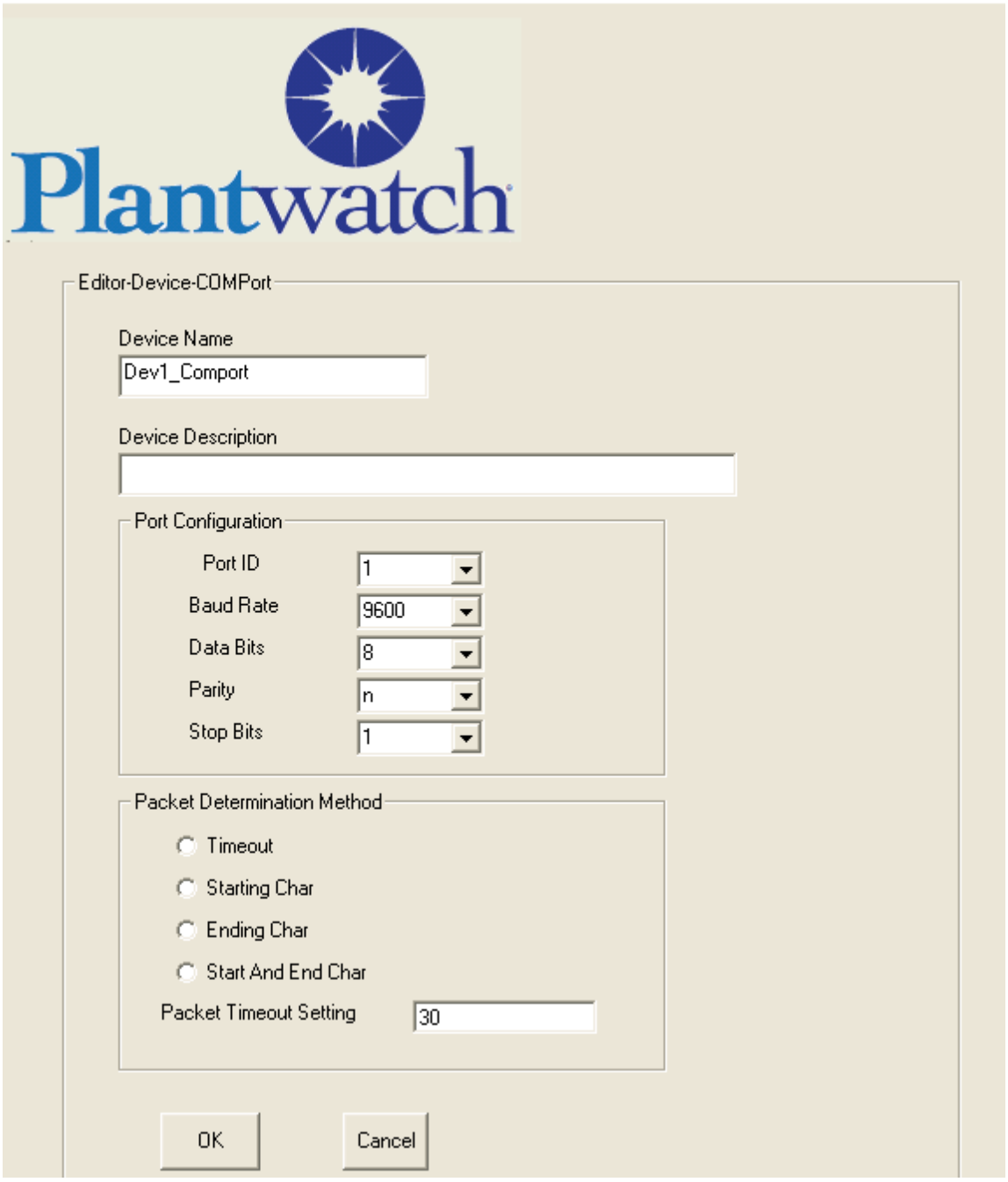
Step 1 Create a *Device* within Plantwatch.

Procedure:
Right Click on *Devices* within the *Development Tree,* and then click on *New Device*.

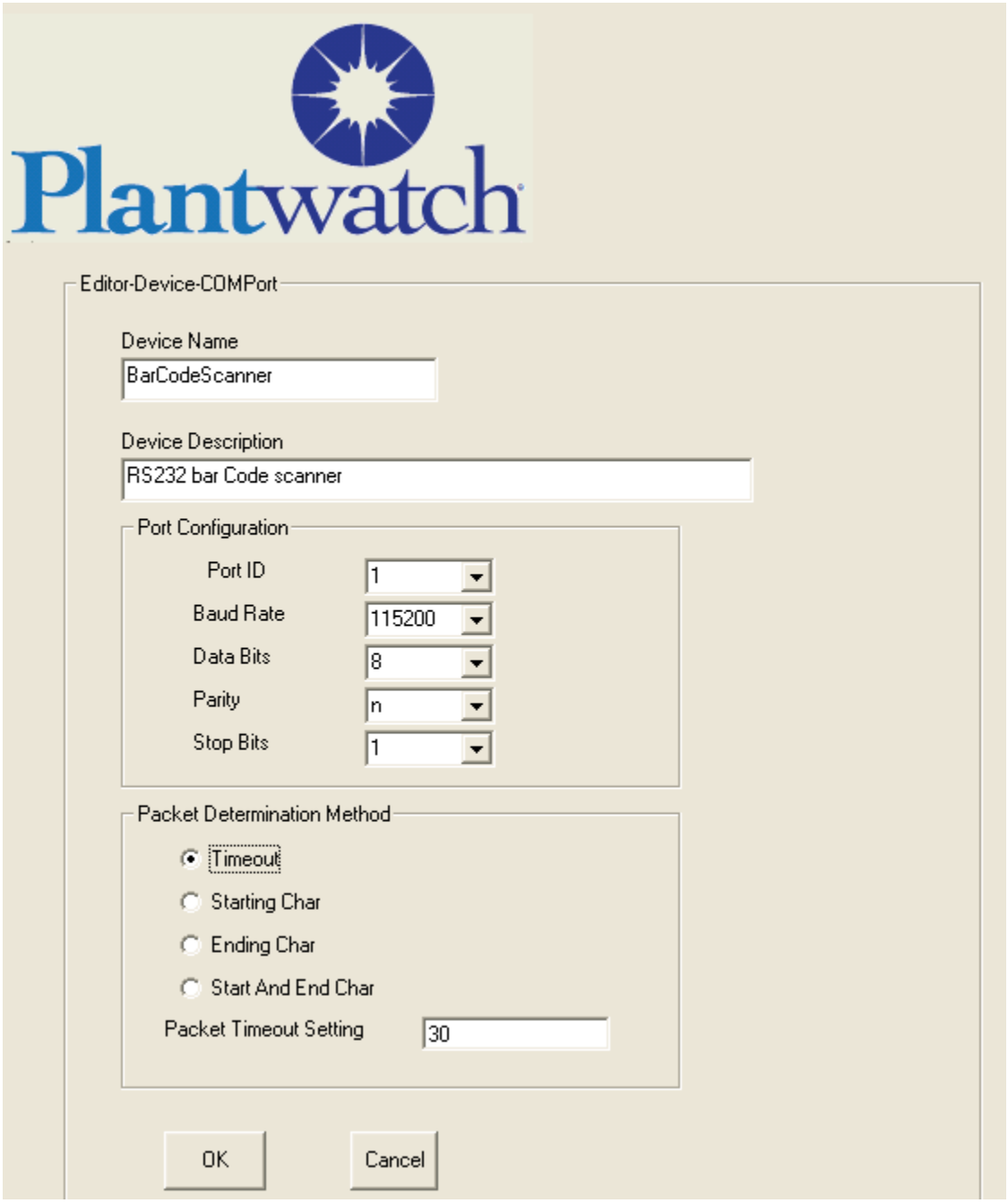
You will see the dialog for a new device, Choose *COMPort* device type



You will see the dialog for configuring the new *COMPort Device.*



Adjust the port as desired and then give it a reasonable name and the new *Device* is created.

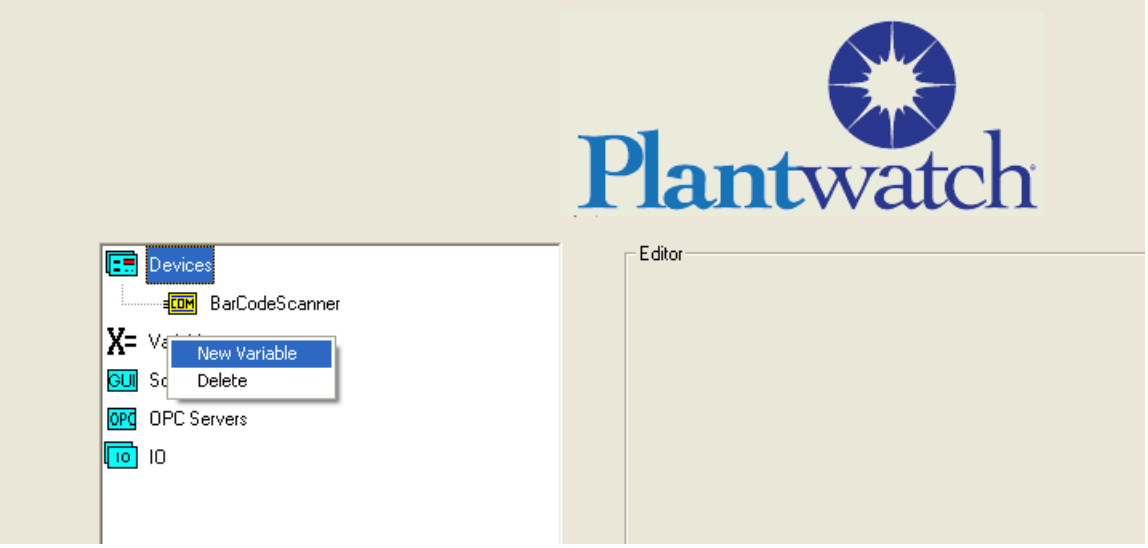


Now it is visible within the *Development Tree*.

Part 2: Extract data from a Plantwatch *Device*

Part 2 of the example will create a *Logic Chart* within Plantwatch that gathers the data from the BarCodeScanner *Device* and places it into a new Plantwatch *Variable* called BarCodeData.

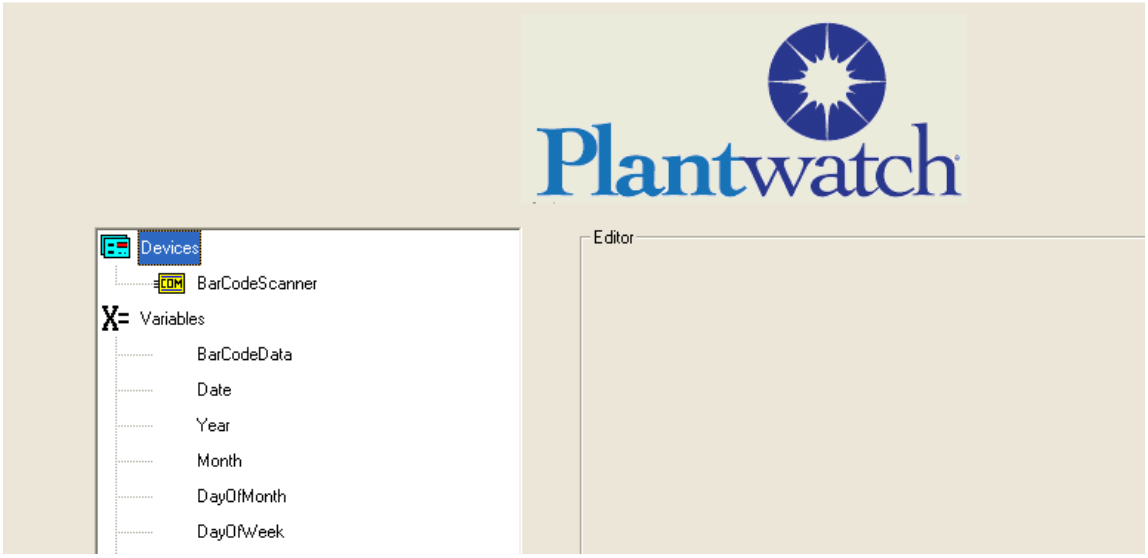
Procedure:
Right Click on *Variables* within the *Development Tree*, and click on "New Variable"



You will be presented with the *Create New Variable* Editor.

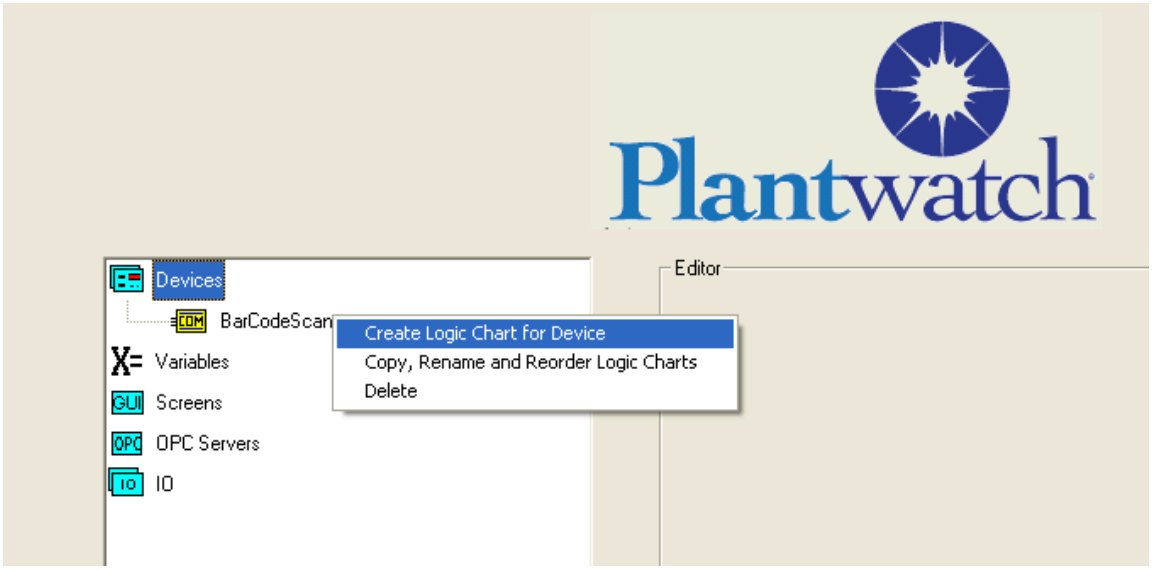
Enter “BarCodeData” for the name of the new variable and click on “OK”. You can also enter a description.

This completes creating the *Variable* BarCodeScanner,. To see the new variable expand the variable list by double clicking on the X. New variable BarCodeData is visible.



We will now place the data from the bar code scanner into this variable.

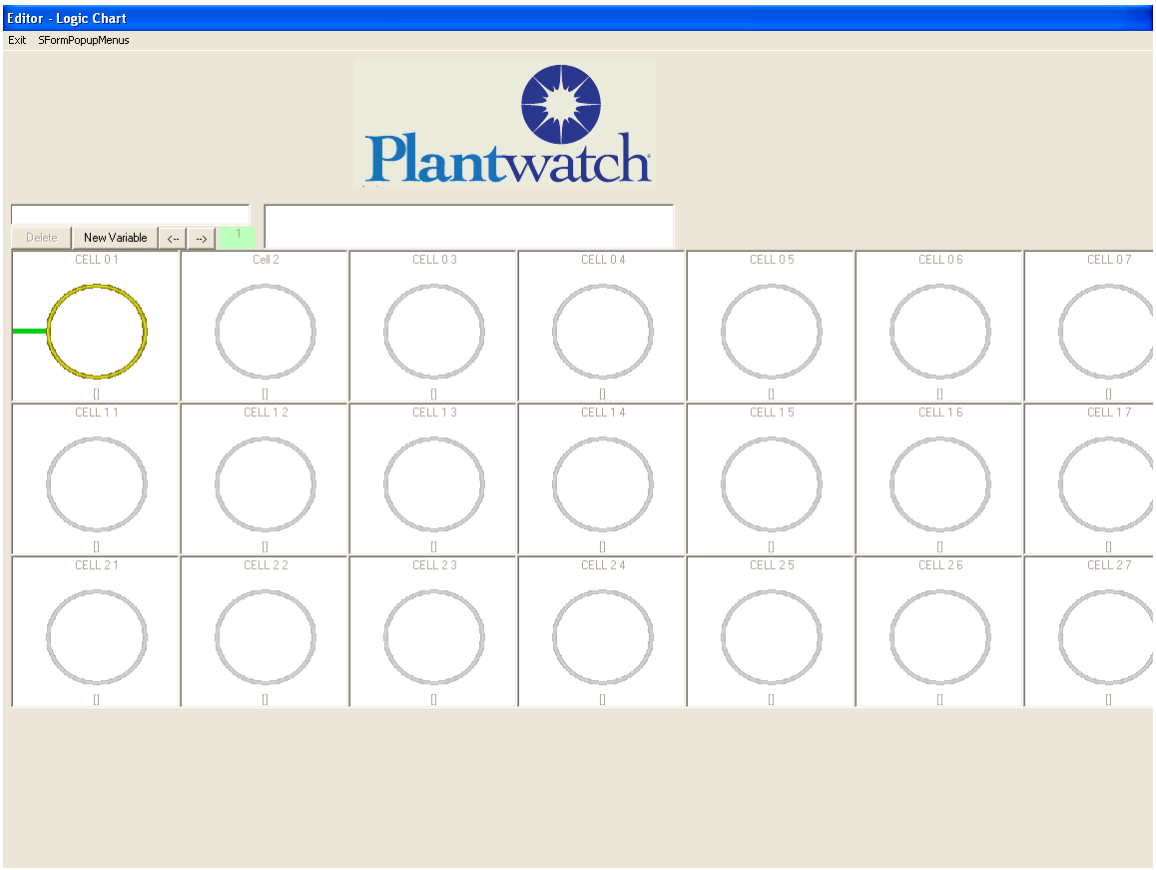
Double click the *Devices* icon to expand the branch of the *Development* Tree, right click on the *Device* BarCodeScanner and click on “Create Logic Chart for Device”



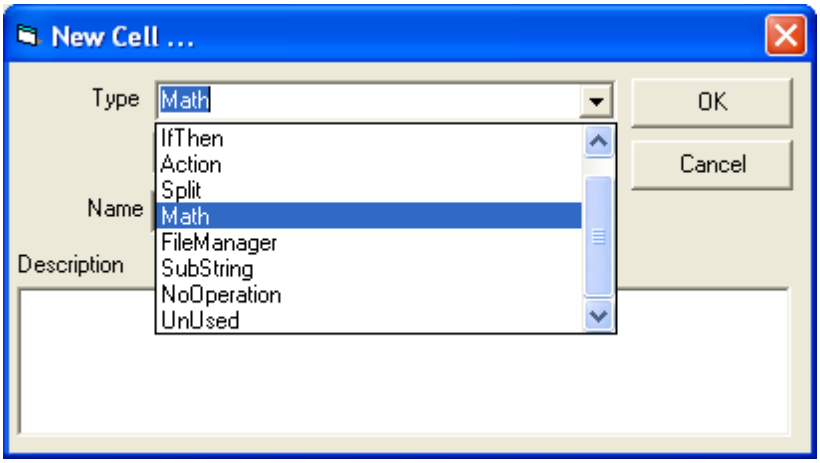
You will see the dialog for creating a *Logic Chart*. Enter in a name such as “Extract Data”, and click on “OK”

You will see that the *Development Tree* now has a *Logic Chart* named “ExtractData” associated to the *Device* named “BarCodeData”. Single click on the “ExtractData” logic chart Icon to start the *Logic Chart Editor*.

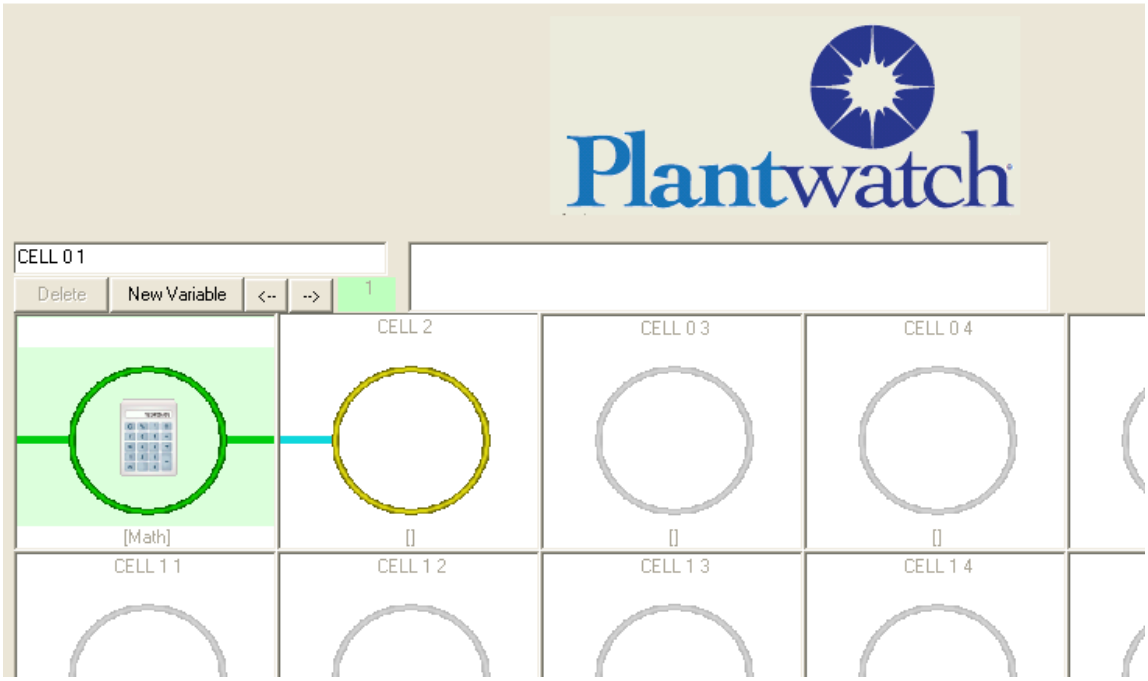
You will see the *Logic Chart* named “ExtractData”



Double click on the top left cell to select the type of cell needed. In this case select "Math"

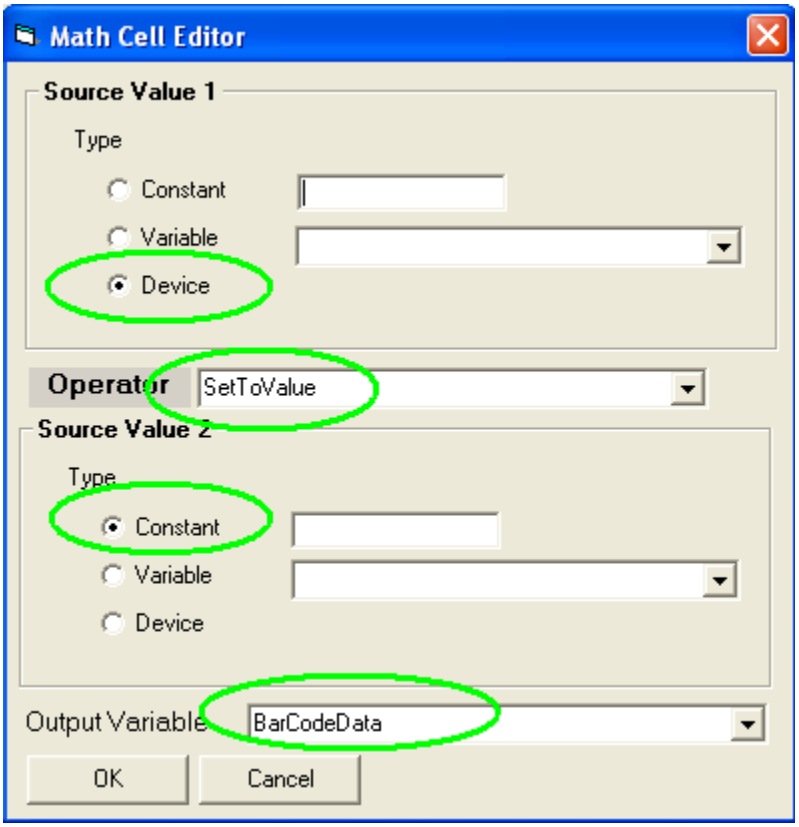


Then give it a name such as GetData and click on OK. You will again see the logic chart but now the top left cell is presented as a *Math* cell.



Double Click on the top left cell, *Math* cell type, and you will be presented the *Math Cell Editor*. We want to take the value from the device and place it's value in *Variable* BarCodeData. To do this we will

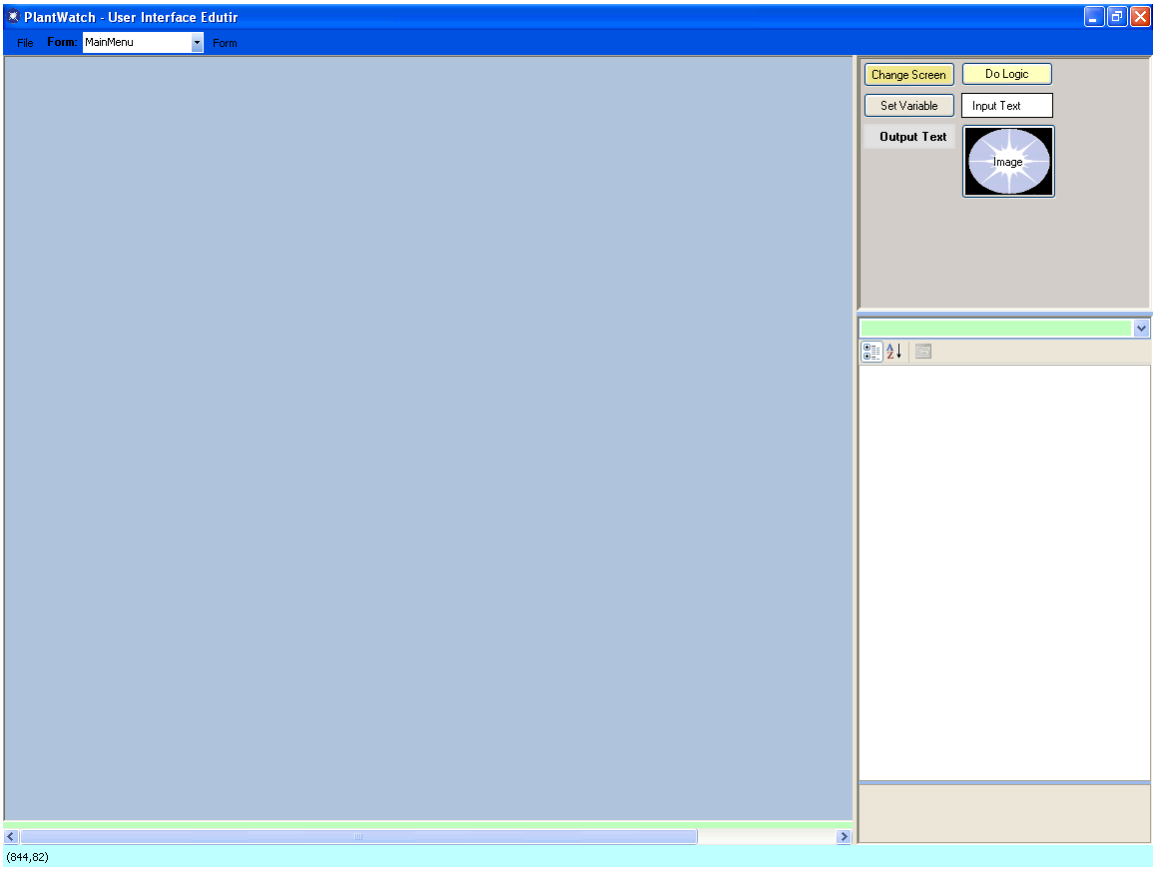
Set *Source Value 1* to "Device"
Set *Operator* to "SetToValue"
Set *Source Value 2* to "Constant"
Set *Output Variable* to "BarCodeData"



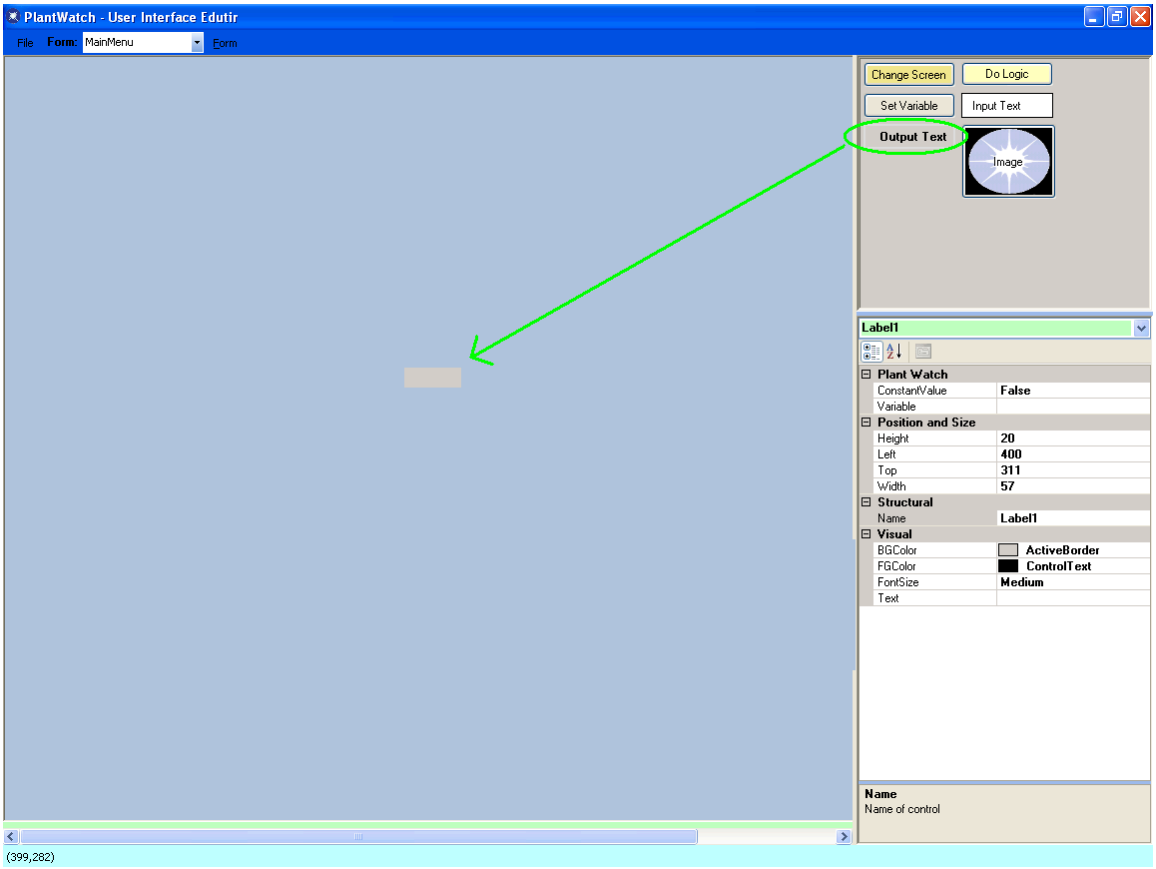
Example 1 part 3: Display a Variable on a Plantwatch *Screen*.

Procedure:
Need to create a new screen.
Left click on non bolded “screen” to create new screen “MainMenu”

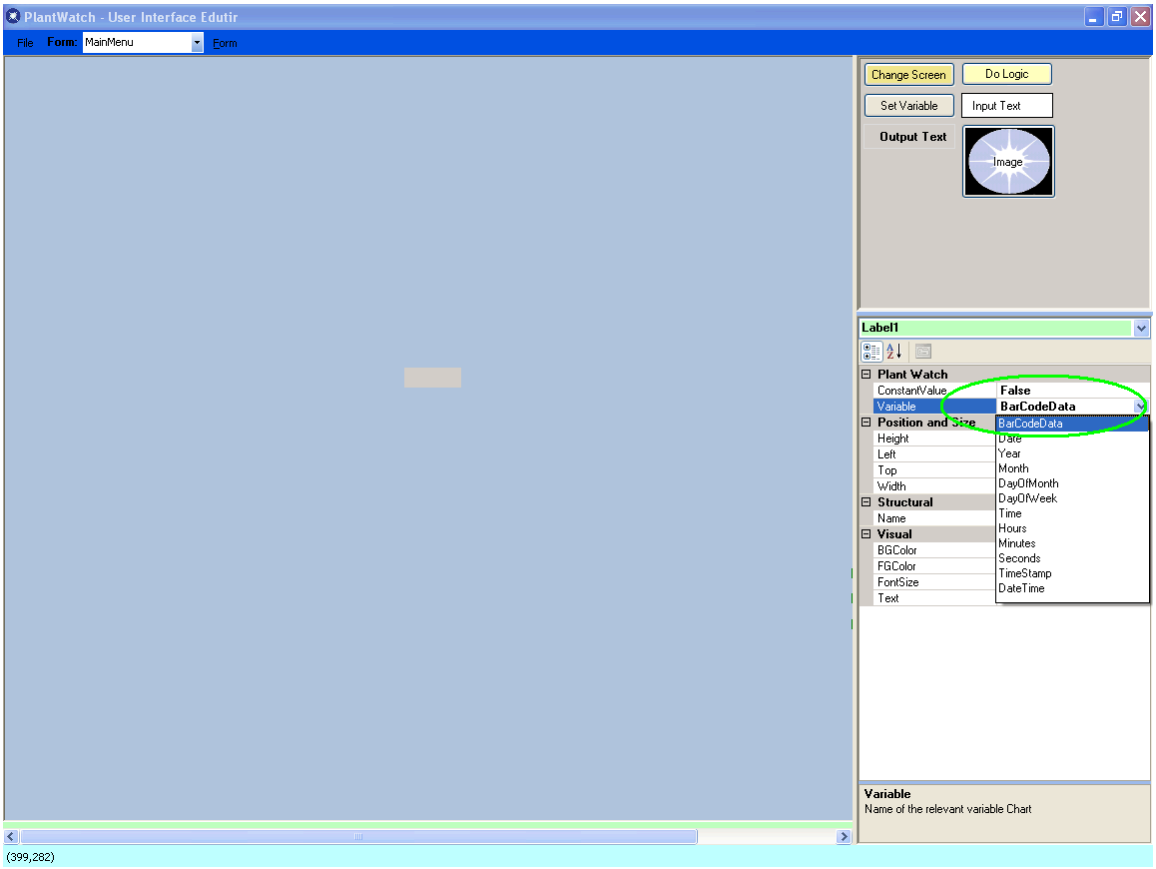
Open the Plantwatch Graphics Editor and select the *Screen* to edit.



Drag an *Output Text* onto the screen.



Click on “variable” text to get variables drop down
Select the *Variable* “BarCodeData” from the drop down list.



Save your work.
Exit user interface Edutir

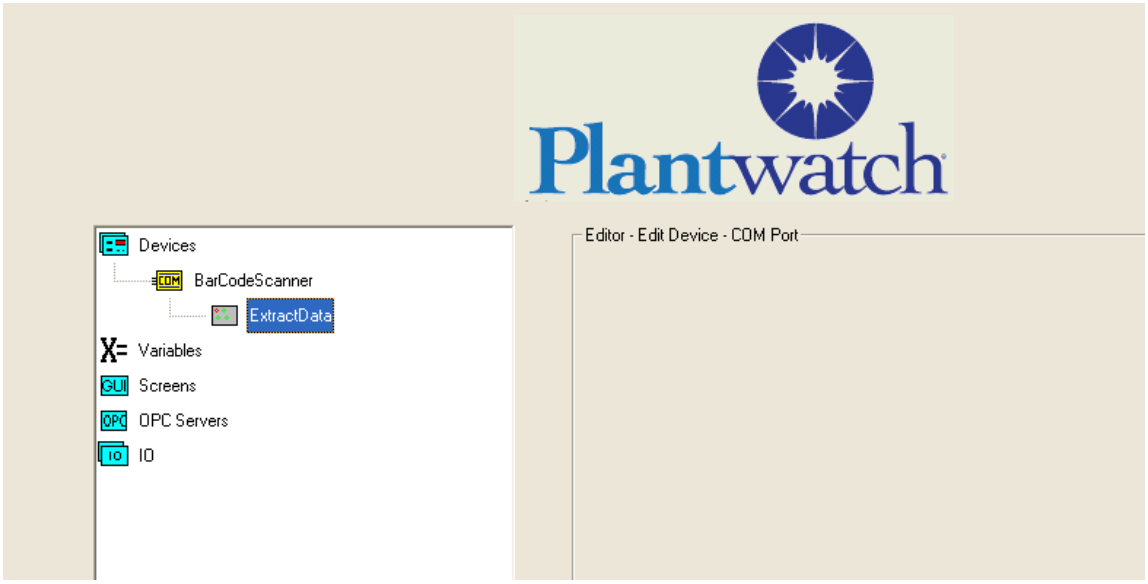
Part 3: Select part of the data from a Plantwatch *Variable,* place it into another Plantwatch *Variable and then write it to a file.*

We will configure Plantwatch to take the first 8 characters out of the Plantwatch *Variable* we created for the bar code data. We will place this first 8 characters into another variable and write it to a text file .

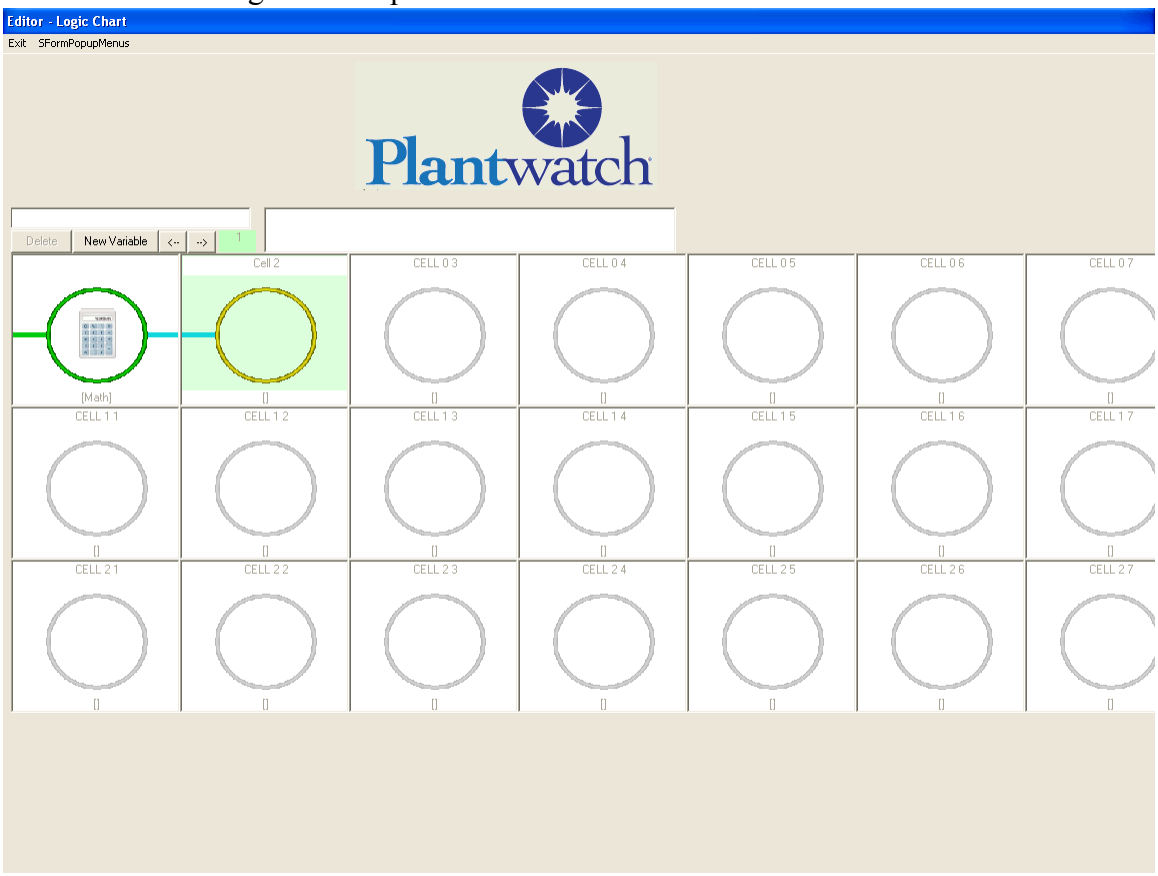
Procedure Overview:
In Plant Watch configurator:

Create a new Variable Named “BarCodeDataFirst8”.
Configure two additional cells in the existing logic chart. One to get the first 8 characters and one to write them to file.

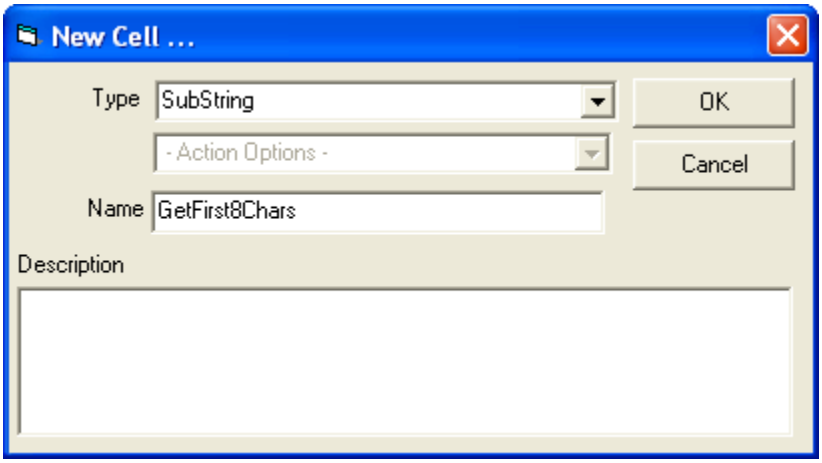
Open existing *Logic Chart* named “ExtractData”. (Expand out the Devices branch of the *Application Tree* to expose it.)



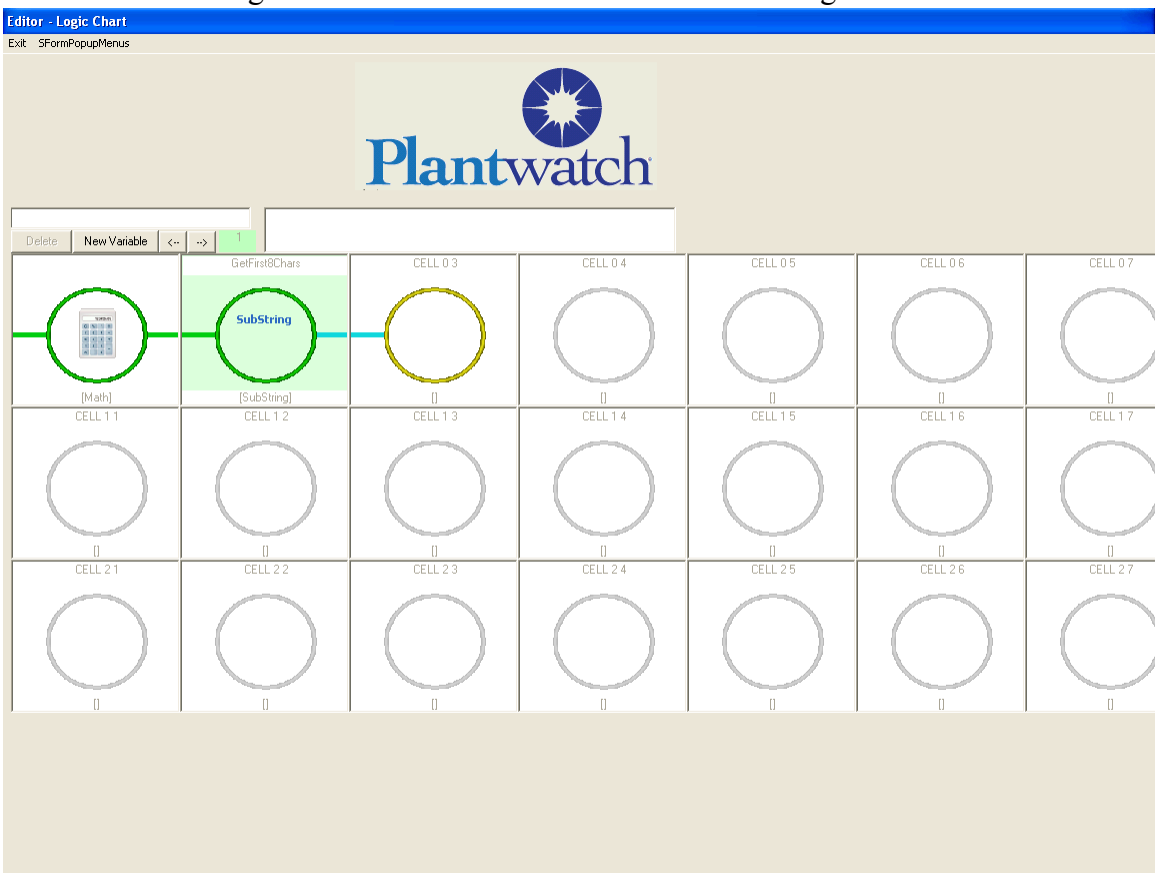
You will see the Logic Chart open.



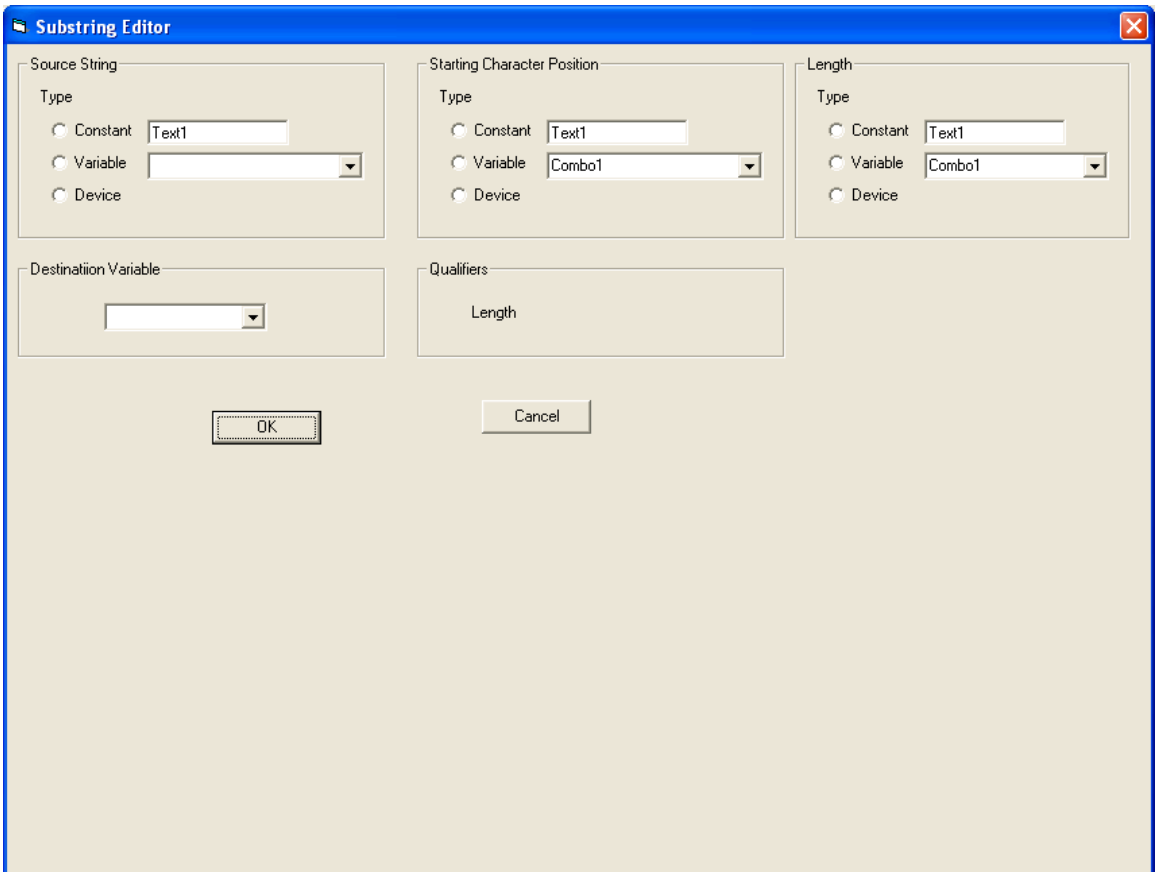
Double click on the top row, second from the left. You will be presented the dialog for choosing what type of cell this is to be, as well as naming it something usefull.



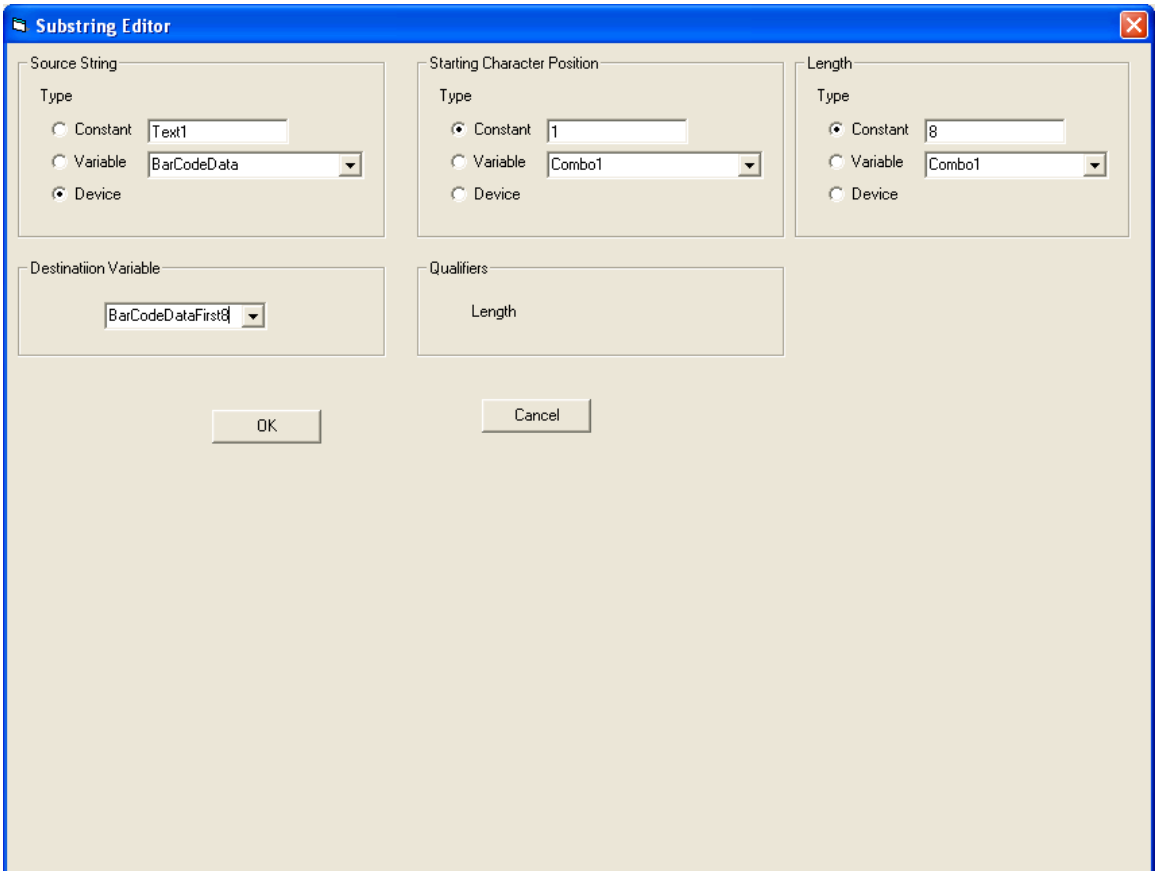
You will see the Logic Chart with the second cell set to Substring.



Double click the new cell
You will see the *Substring* editor



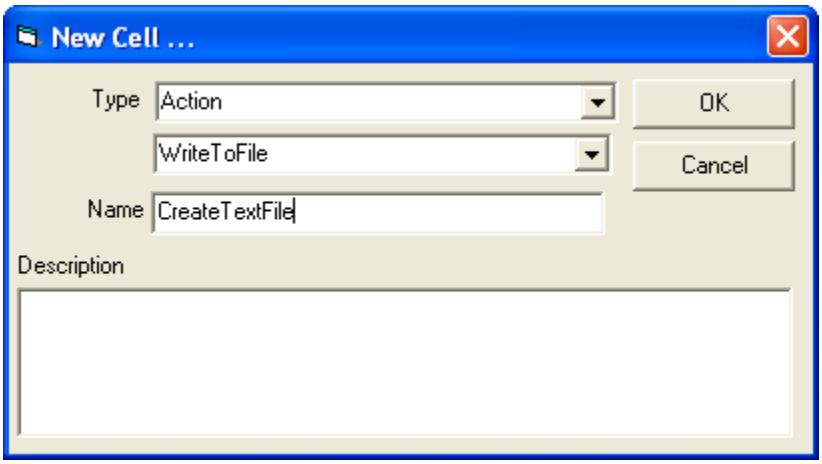
Set the source to *Device*, set rest of fields



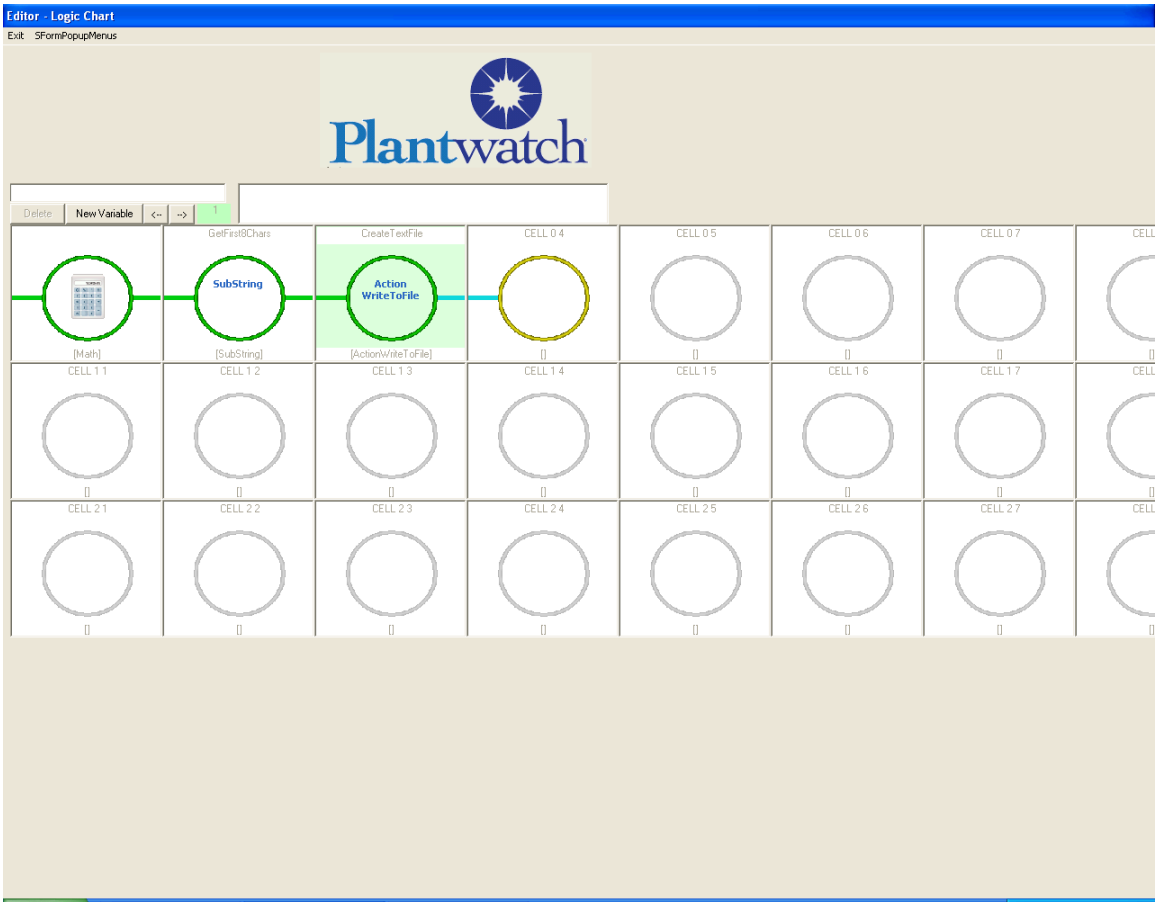
Click on OK. You will again be presented with the logic chart.

Now we will write the first 8 characters to a text file

Double click on the top row, third from the left. You will be presented the dialog for choosing what type of cell this is to be. Select Action and Write to File. Use CreateTextFile for it's name.



Click on OK and you will see the Logic Chart with the third cell set to Write to File.



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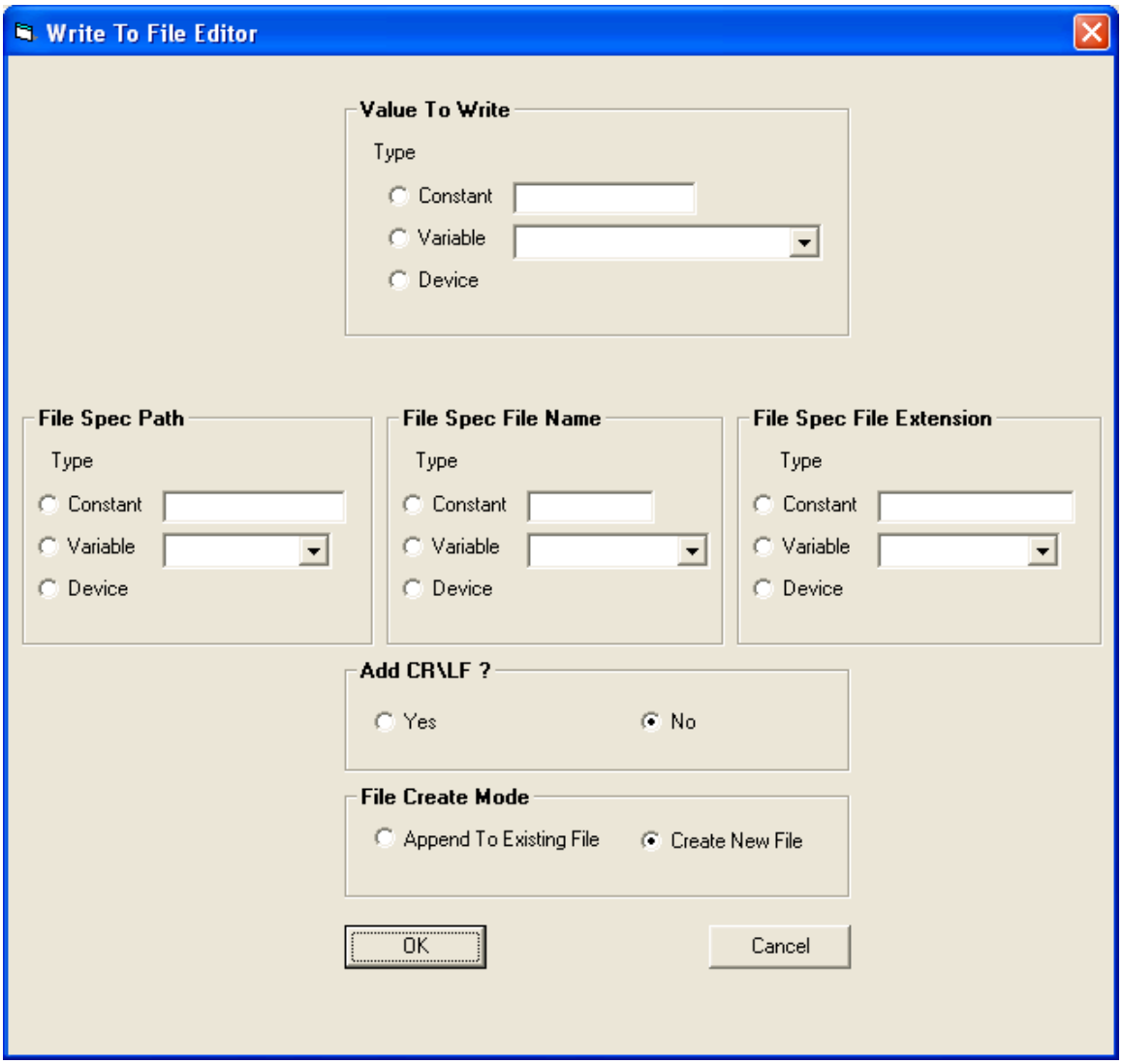
Double click the new cell

You will see the *Write To File* editor

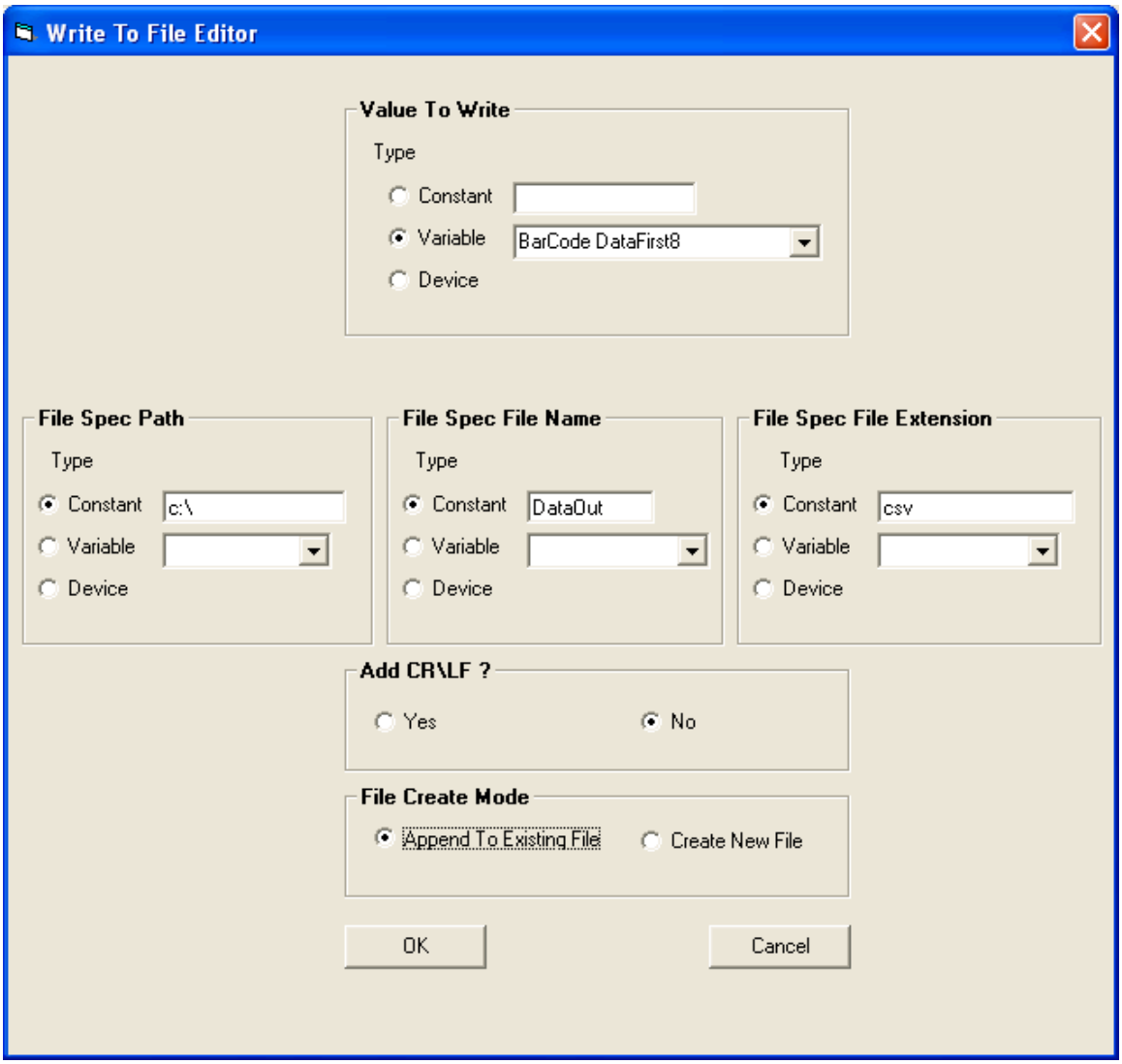


For the value to write we will use our Variable *BarCodeDataFirst8*.

We want to write to file c:\DataOut.csv so…

File Spec Path will be set to a constant of *c:*
File Spec File Name will be set to DatraOut
File Spec Extension will be set to csv

We want to create a report of all scanned items so we will append each new record to the existing file.



Exit the logic chart.

Save the application

Close the plantwatch configurator

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