



CNS Barcode

Version 1.3

Integrating with
FileMaker Go

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Introduction

When FileMaker, Inc. released their 1.1 version of FileMaker® Go, they added a great new feature that allows interaction with other iOS apps. The URL scheme they added allows you to ask FileMaker Go to open a database and run a script. Coupled with the existing ability to use the Open URL script step to open certain iOS apps via URLs, a complete back and forth interaction between FileMaker Go and other iOS apps can be achieved.

CNS Barcode is the first app that achieves this interaction with FileMaker Go, bringing barcode scanning and creation to FileMaker Go. With both FileMaker Go and CNS Barcode installed on an iOS Device, you can start in FileMaker Go, invoke CNS Barcode for scanning a barcode, and then immediately be taken back to FileMaker Go to process the data from the barcode.

Setting up CNS Barcode to work with FileMaker Go is very easy. The next few pages will take you step by step through the process.

Setting up CNS Barcode

There are a couple of different ways you can use CNS Barcode from FileMaker Go, but the easiest way is to set up a Profile in CNS Barcode. A Profile is a set of preferences that you give a specific name. When invoking CNS Barcode, you use that Profile Name to tell the app what preferences should be used.

There are two ways to add a Profile to CNS Barcode: in the app itself, or via the `cnsbarcode://addprofile` URL scheme. The first is the easiest, so we will be looking at that method. The second can be used with the Open URL script step to provide your users an easy way to add a profile on their device. For more information about the `cnsbarcode://addprofile` URL scheme, see the Help tab in CNS Barcode or our website (http://cnsplug-ins.com/iOS/CNS_Barcode).

Open up CNS Barcode and look at the Settings tab (1). At the bottom of the first Profiles section is an Add Profile... item (2).



Tap on Add Profile... to open a New Profile screen with several fields. For now, we'll use the name Myprofile (3). Note that while you can use spaces and other characters in the name, you will later be using this name in a URL and would have to encode those spaces and other characters. For more information about URL encoding, see the Help tab in CNS Barcode or on our website.

The next setting, Launch URL (4), is the URL that CNS Barcode will launch after you read a barcode. For now, we'll use the following URL:

```
fmp://$/mydb?script=Scan_return&param=::barcode::
```

Note, the URL above will only work with FileMaker Go 12 or higher. If you are using FileMaker Go 11, you will need to replace “fmp” with “fmp7script”:

```
fmp7script://$/mydb?script=Scan_return&param=::barcode::
```

This URL will launch FileMaker Go, asking it to reopen the previously opened “mydb” database and run a script in that database called `Scan_return`. The `param` part tells FileMaker Go what the Script Parameter should be, which the script can retrieve using `Get(ScriptParameter)`. The `::barcode::` part is simply a placeholder for CNS Barcode to replace with the actual data from the barcode you read. For example, if you read a barcode that has the value `abc123` in it, CNS Barcode will transform the above Launch URL into this:

```
fmp://$/mydb?script=Scan_return&param=abc123
```

CNS Barcode would then launch this URL, opening FileMaker Go. The `Scan_return` script would then use `Get(ScriptParameter)` to retrieve the value `abc123` and then act on it.

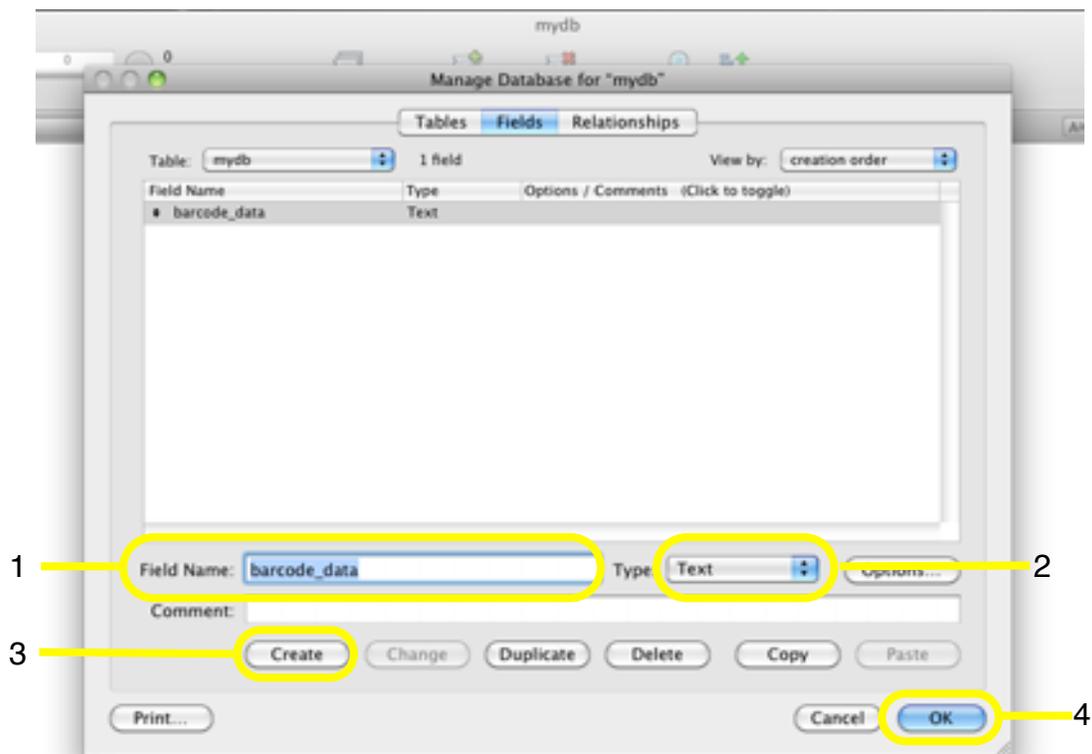
The remaining Profile settings can be ignored for now. For more information about them, please see the Help tab in CNS Barcode or our website (http://cnsplug-ins.com/iOS/CNS_Barcode).

Don't forget to press the Done button in the top-right corner to save the new Profile.

Creating a FileMaker Go Database

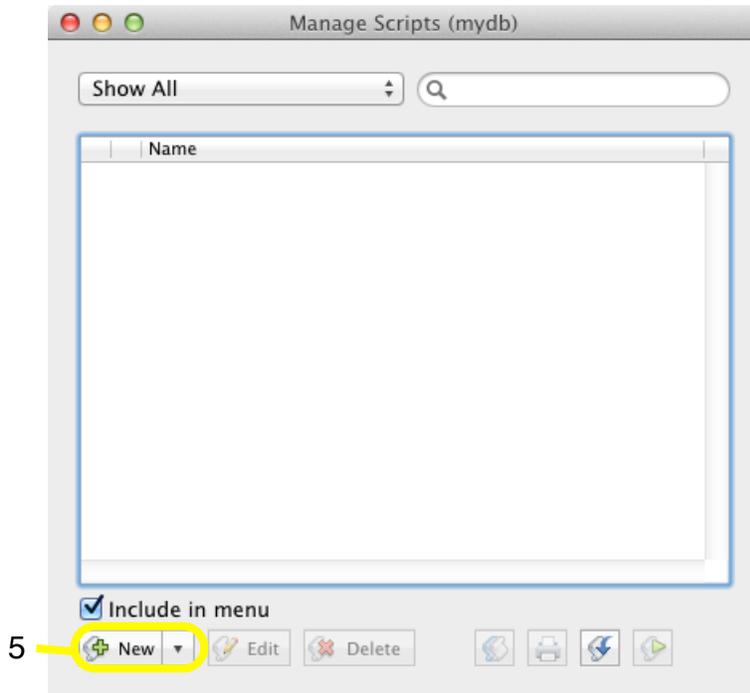
The next step is to create a database we can use in FileMaker Go. You will need to use FileMaker Pro on your desktop machine for this part. You also have two choices on how you can view this database in FileMaker Go. You can either copy the database to your iOS device via iTunes, or you can simply enable the FileMaker Network Sharing for the database and open it over the network in FileMaker Go. The second method is very useful while developing a database for FileMaker Go because any changes you make show up immediately in FileMaker Go without having to copy the database over via iTunes again and again.

So, open FileMaker Pro and create a new database named “mydb”. If the “Manage Database” dialog does not open automatically, go to the File menu -> Manage -> Database. In the Field Name field, type barcode_data (1), make sure the Type is set to Text (2), and click the Create button (3).

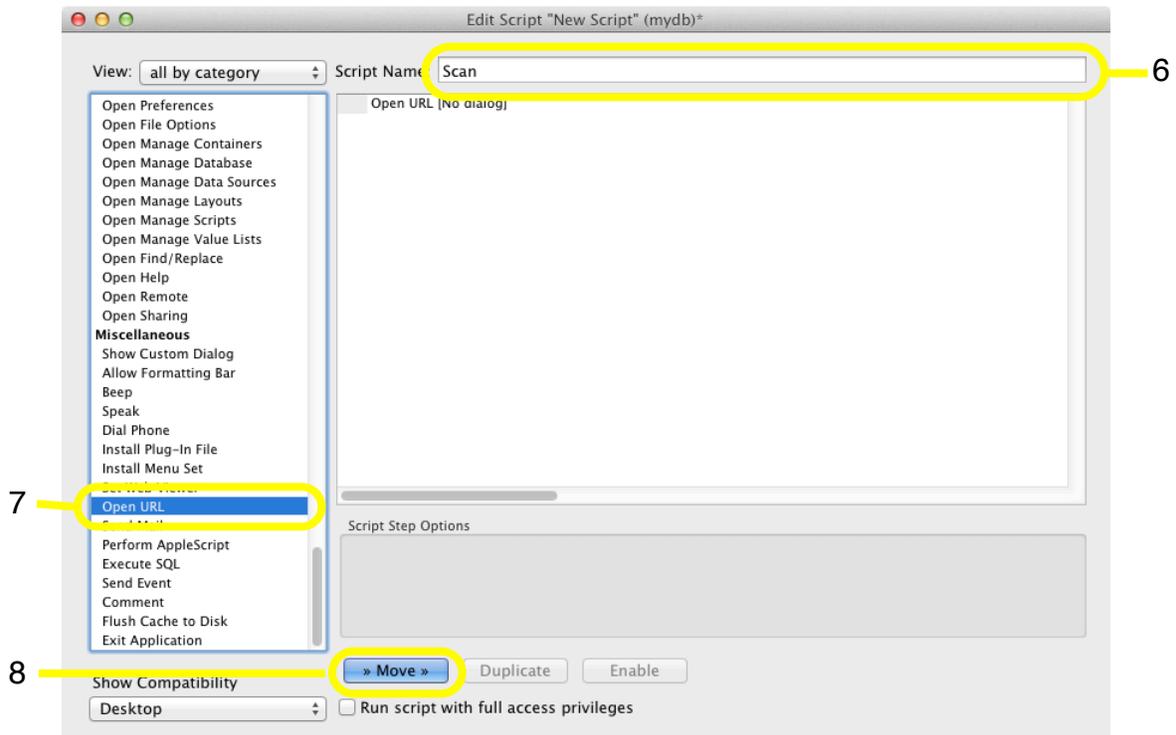


Once you have created the barcode_data field, click OK (4) to close the “Manage Database” dialog.

Next, we need to create two scripts, so open “Manage Scripts” by going to the Scripts menu and clicking “Manage Scripts.” Now click the “New” button (5) in the bottom left corner to create a new script.



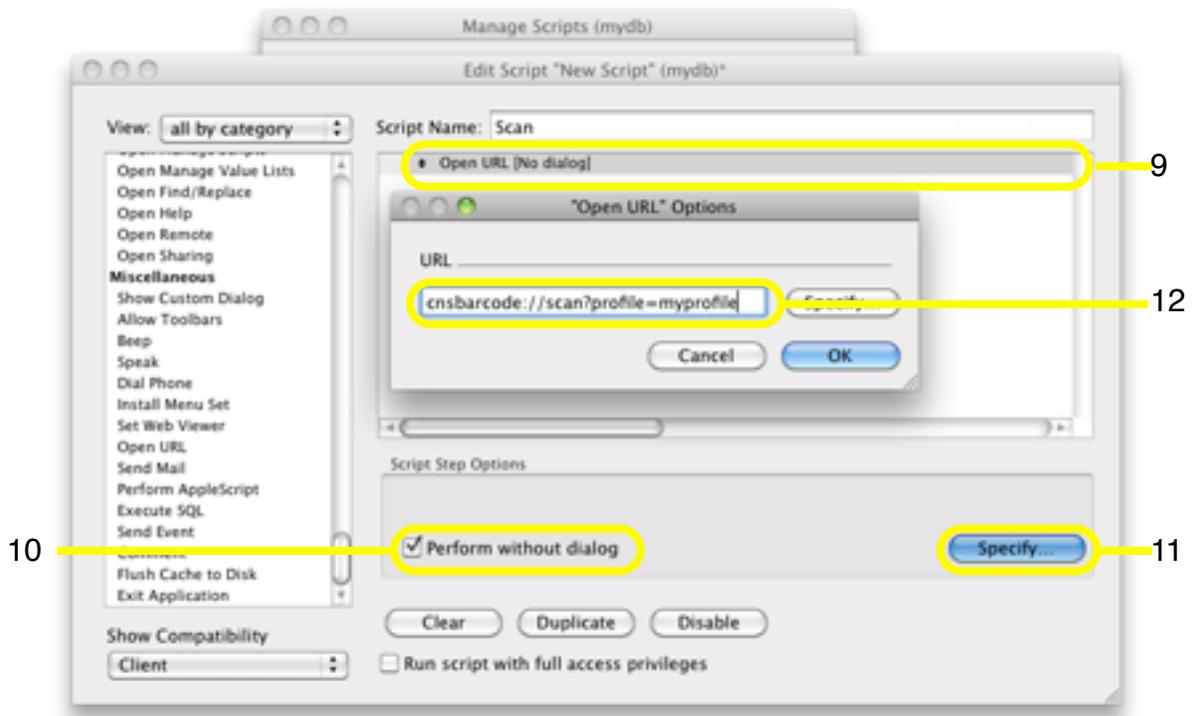
In the Script Name field (6) name the script Scan. Next, select the Open URL script (7) from the left column and press the “Move” button (8).



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In the right pane, select (9) the Open URL script step, and place a check mark in the Perform without dialog option box (10). Next, click the “Specify” button (11), a dialog titled Open URL Options will open and then paste the following into the URL field (12):

```
cnsbarcode://scan?profile=myprofile
```



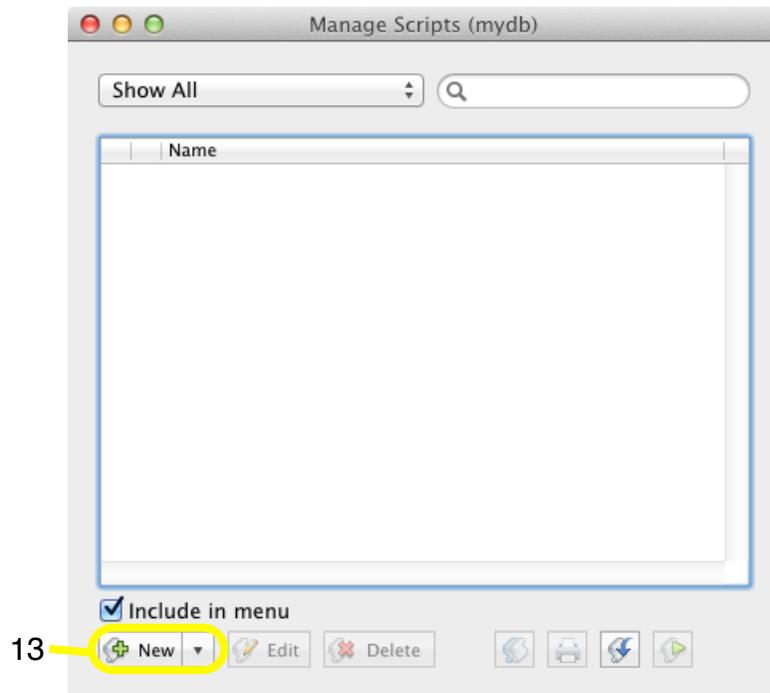
Click OK to close the Open URL Options dialog, and then close the Edit Script window. When prompted to save the script, do so.

This “Scan” script is the script you call to invoke CNS Barcode for scanning a barcode.

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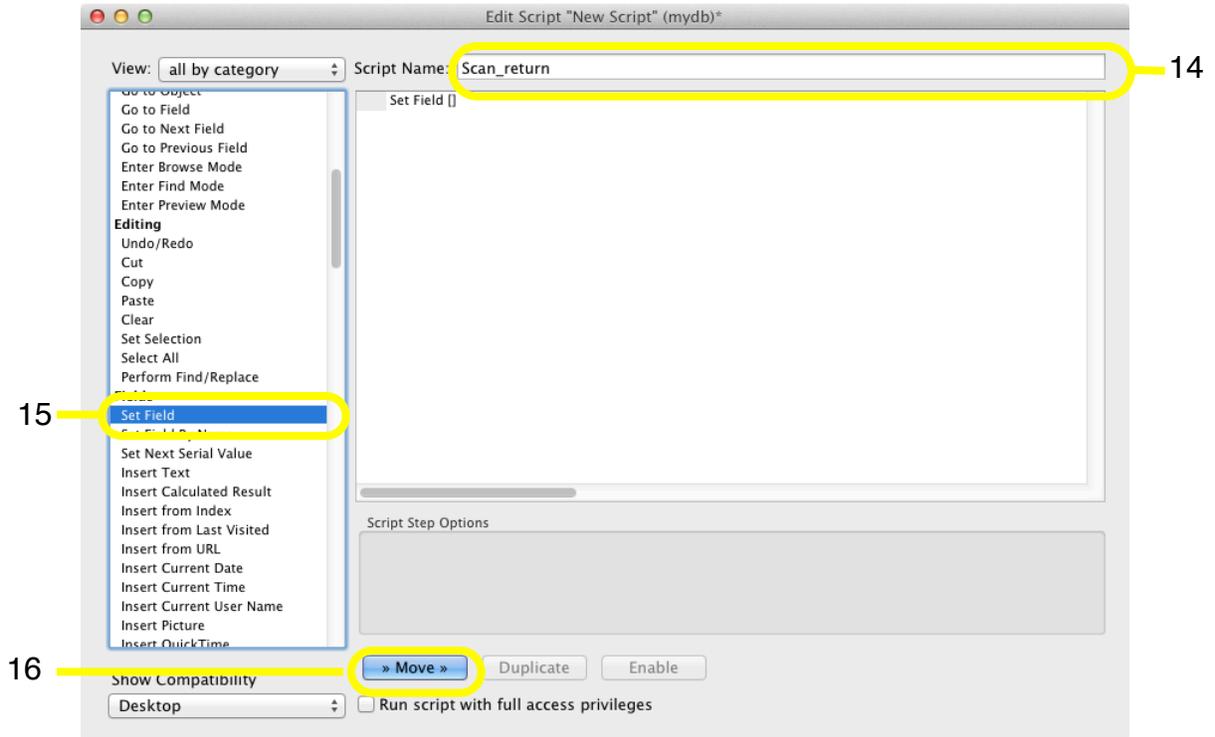
The second script, named `Scan_return`, uses a `Set Field` script step to set the `barcode_data` field with the value returned from the CNS Barcode app. When the CNS Barcode app calls the `Scan_return` script, it sets the script parameter with the barcode value. To retrieve the script parameter in the script, we use FileMaker's `Get(ScriptParameter)` function.

As before, open “Manage Scripts” by going to the Scripts menu and clicking “Manage Scripts.” Next, click the “New” button (13) in the bottom left corner to create a new script.



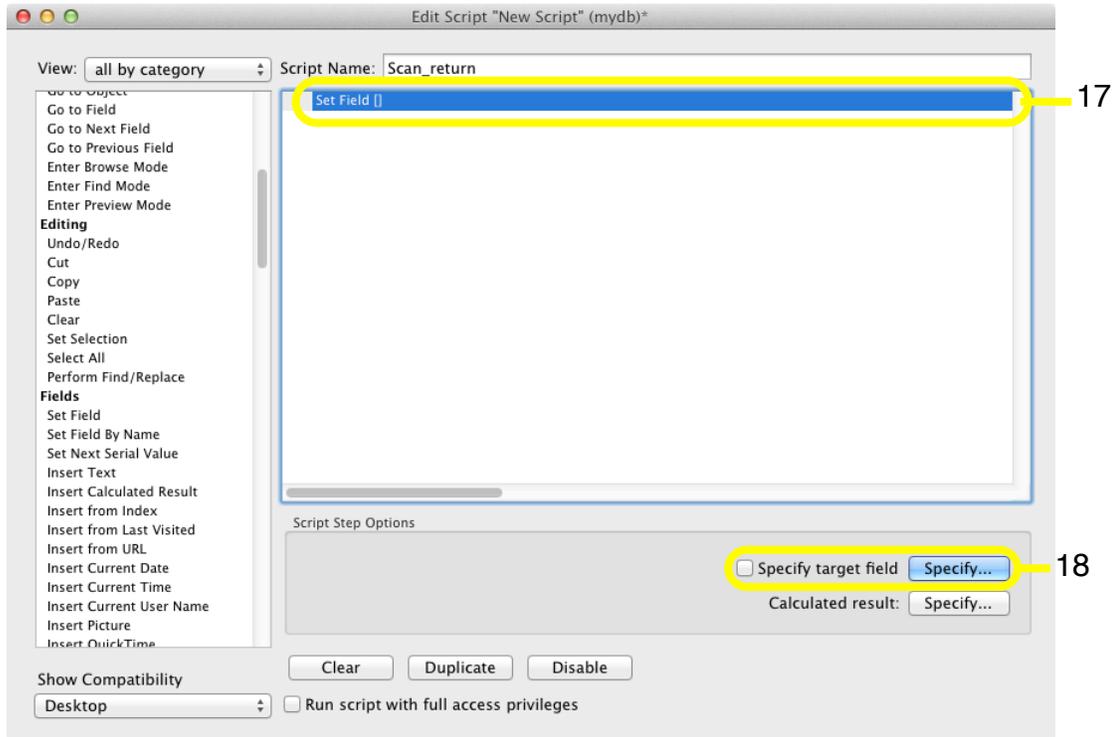
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In the Script Name field (14) name the script `Scan_return`. Next, select the Set Field script step (15) from the left column and press the “Move” button (16).

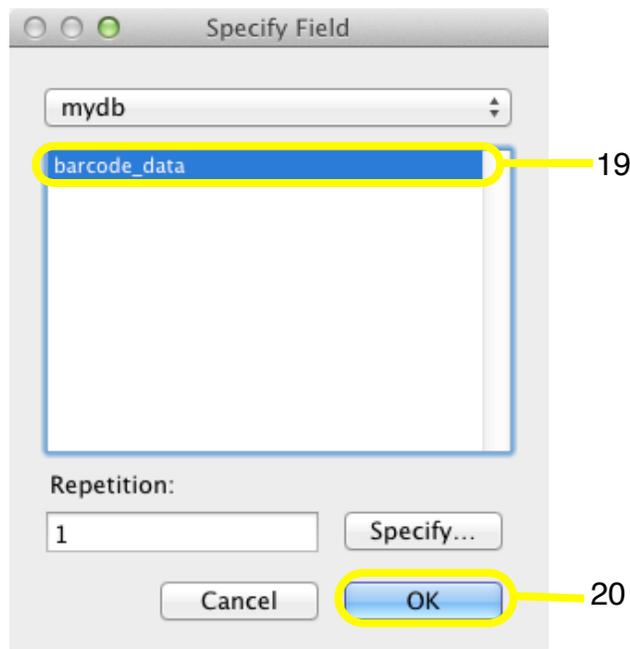


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In the right pane, select (17) the Set Field script step and click the “Specify target field” Specify button (18).

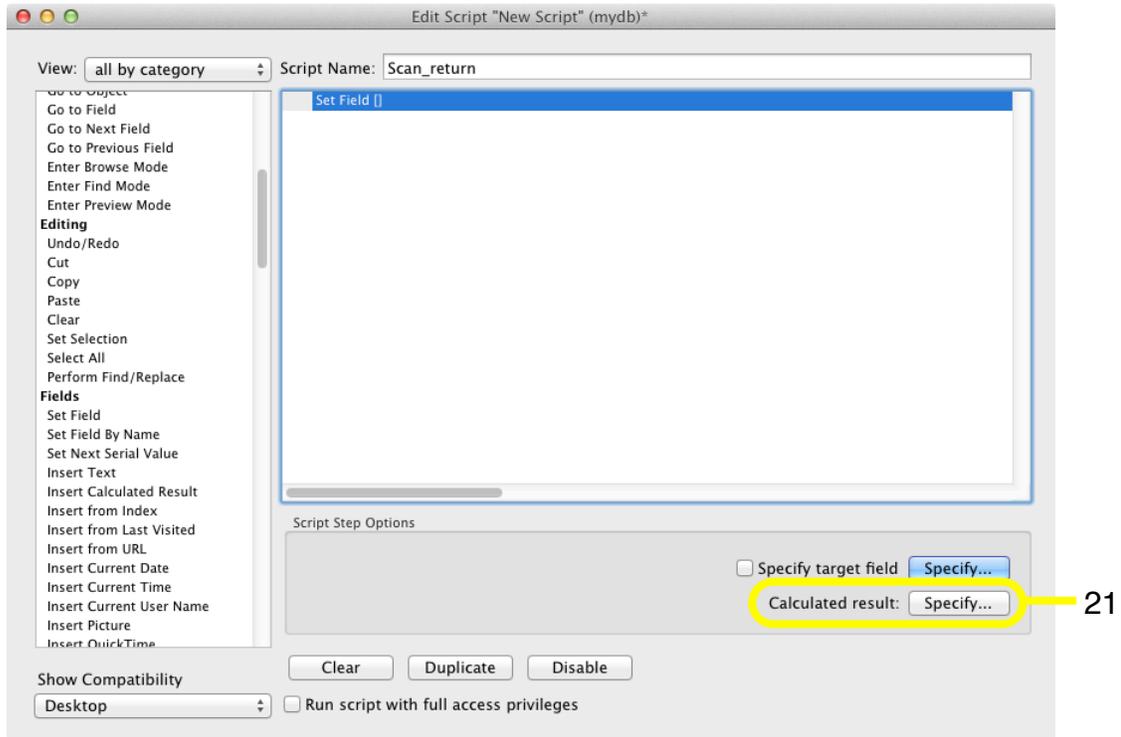


In the Specify Field dialog, select the barcode_data field (19), and then click the OK (20) button.



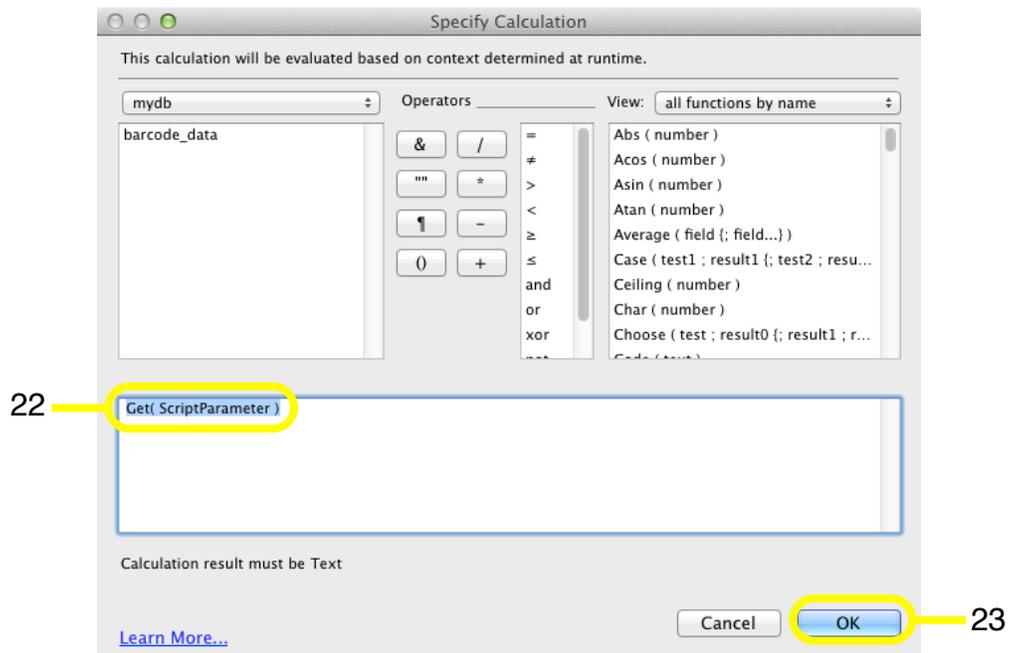
CNS Barcode

With the Set Field script step still selected, click the Calculated result Specify button (21).



In the Specify Calculation window, type or copy and paste the following (22), and then click OK (23).

Get(ScriptParameter)



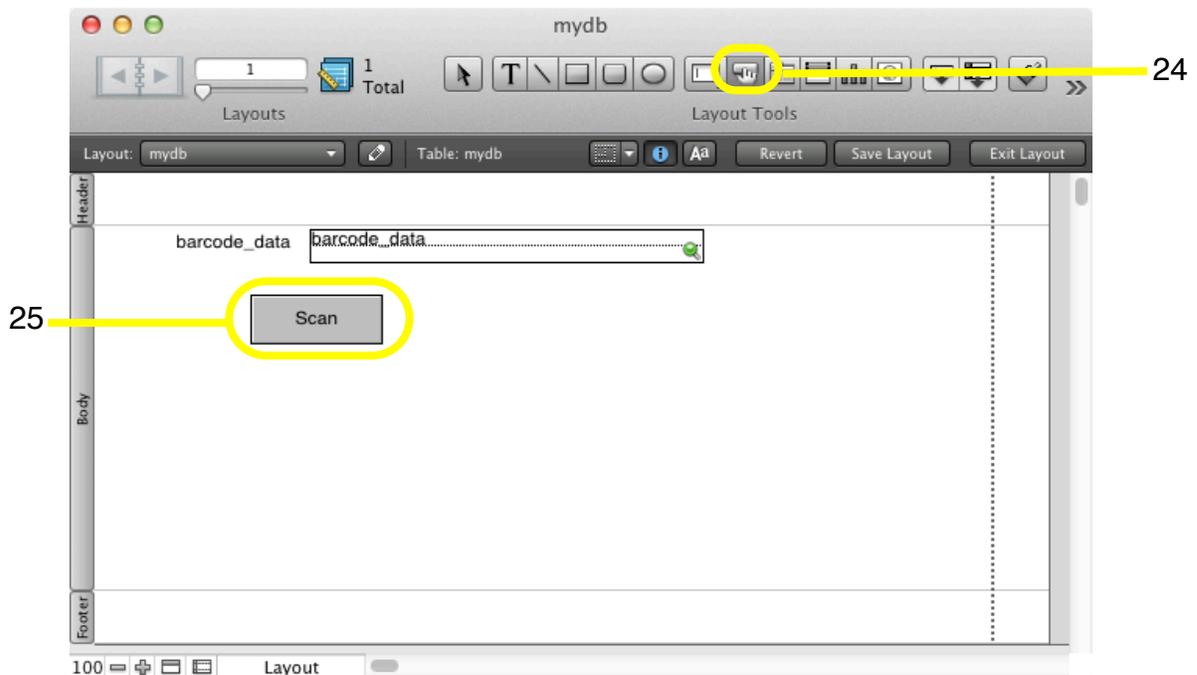
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Next, close the `Edit Script` window and when prompted to save the script, do so. Finally, close the `Manage Scripts` window.

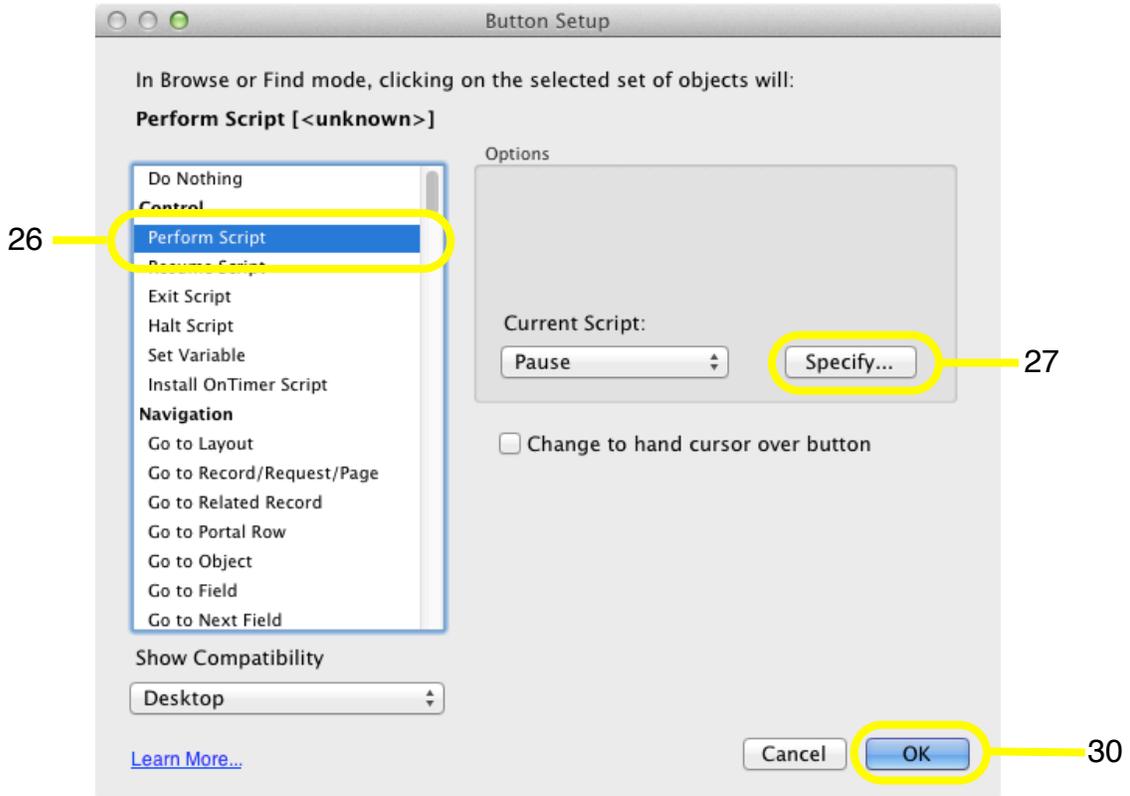
This second script is called by CNS Barcode after you have scanned a barcode.

To complete the database, we need to add a button to the layout that Performs the `Scan` script and give the button the title `Scan`.

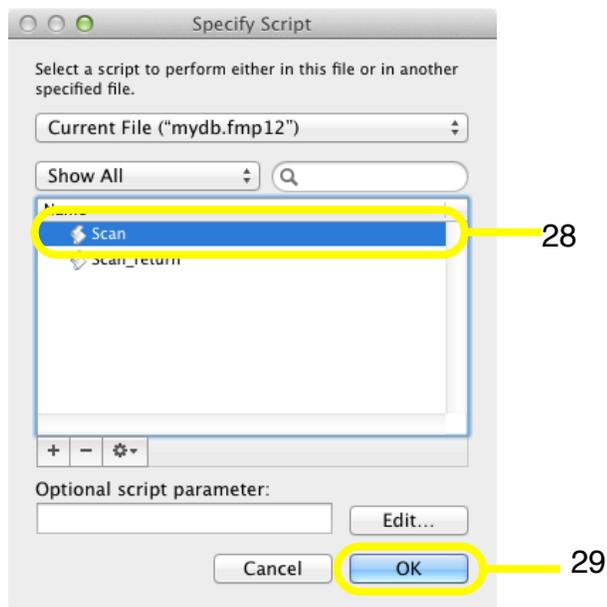
To create the button, enter Layout mode by going to the `View Menu -> Layout Mode`. Next, select the button tool (24), and click and drag with your mouse in an empty location on your layout (25).



In the Button Setup dialog, select the Perform Script step (26) from the list, and then click the Specify button (27).

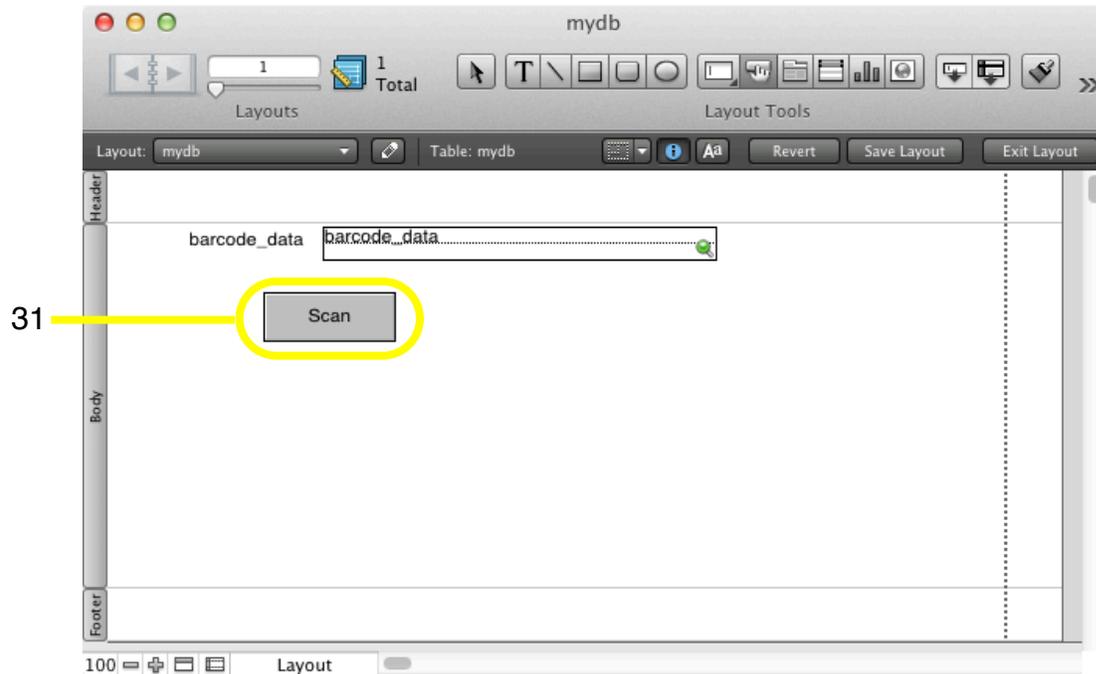


Next, in the Specify Script dialog, select the Scan script (28), and click OK (29), and then click OK (30) on the Button Setup dialog.



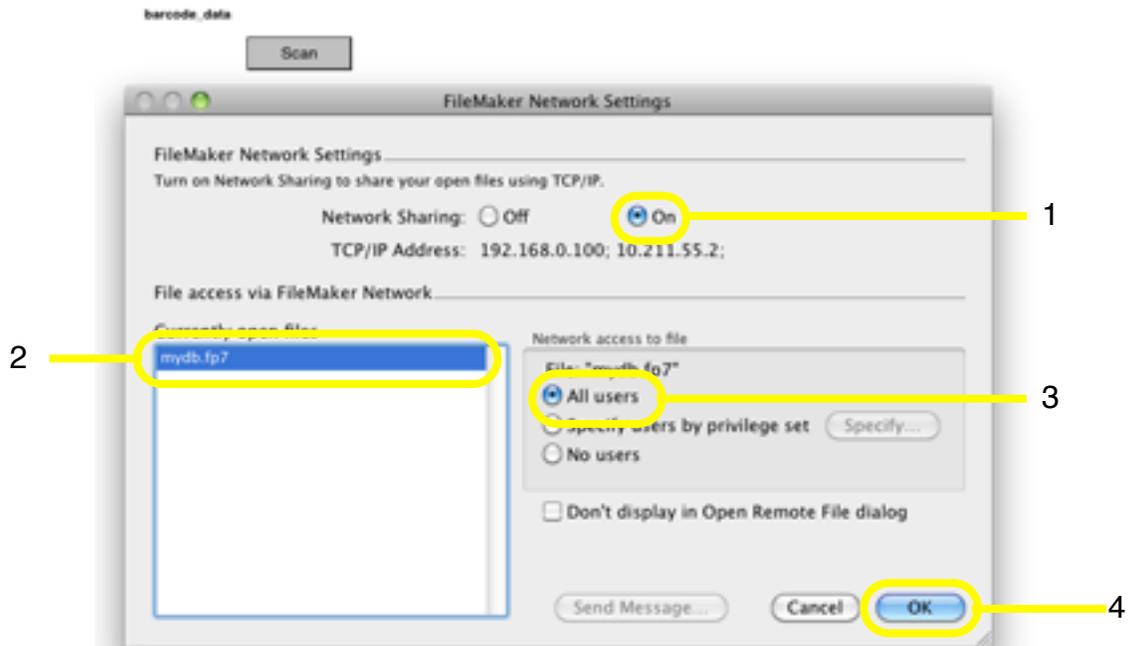
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Finally, type Scan for the button title (31), and then go to the View Menu -> Browse Mode, and Save when prompted. The database is now complete and ready to test.

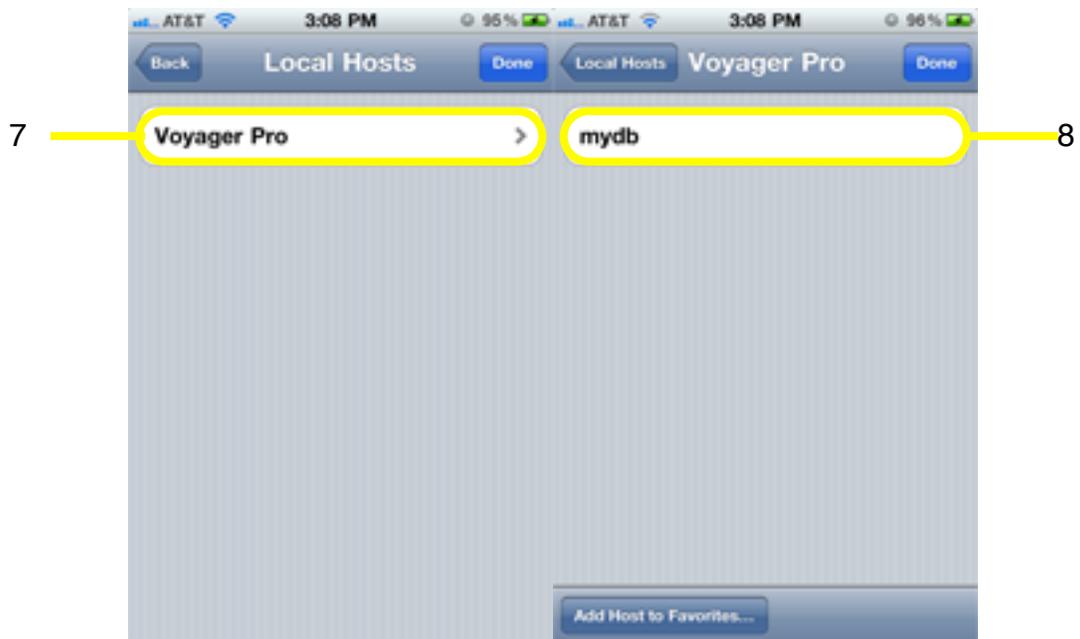
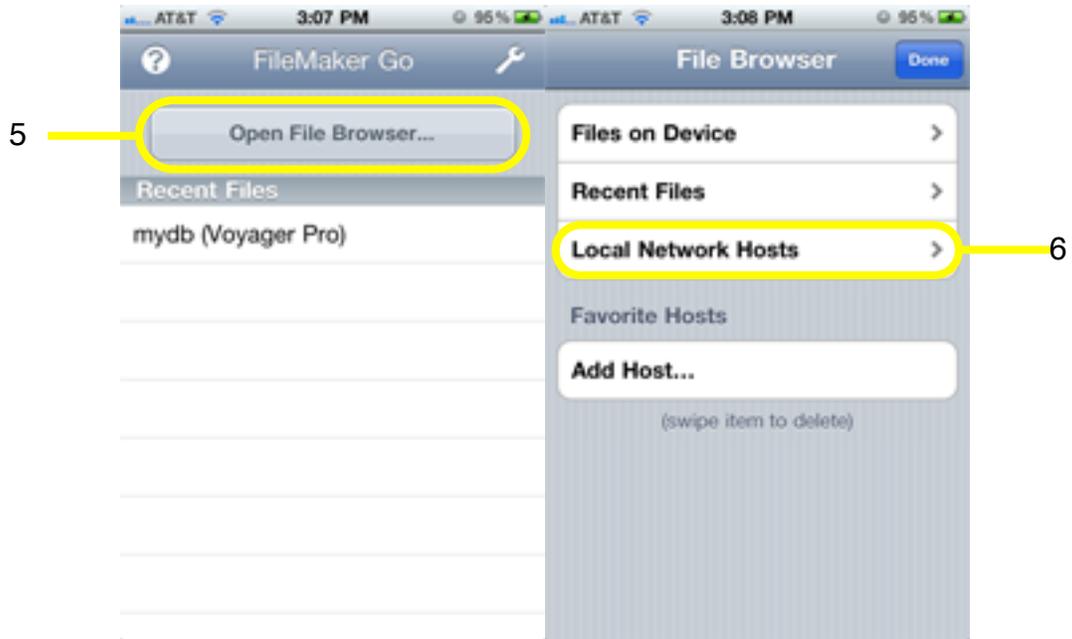


Testing

Now that we have a Profile in CNS Barcode and a database to use, all that is left is testing it to make sure it works. In FileMaker Pro, go to File -> Sharing -> FileMaker Network. First, enable Network Sharing (1) if it is not already. Next, select the mydb (2) database, choose the All Users (3) setting, and then click OK (4).

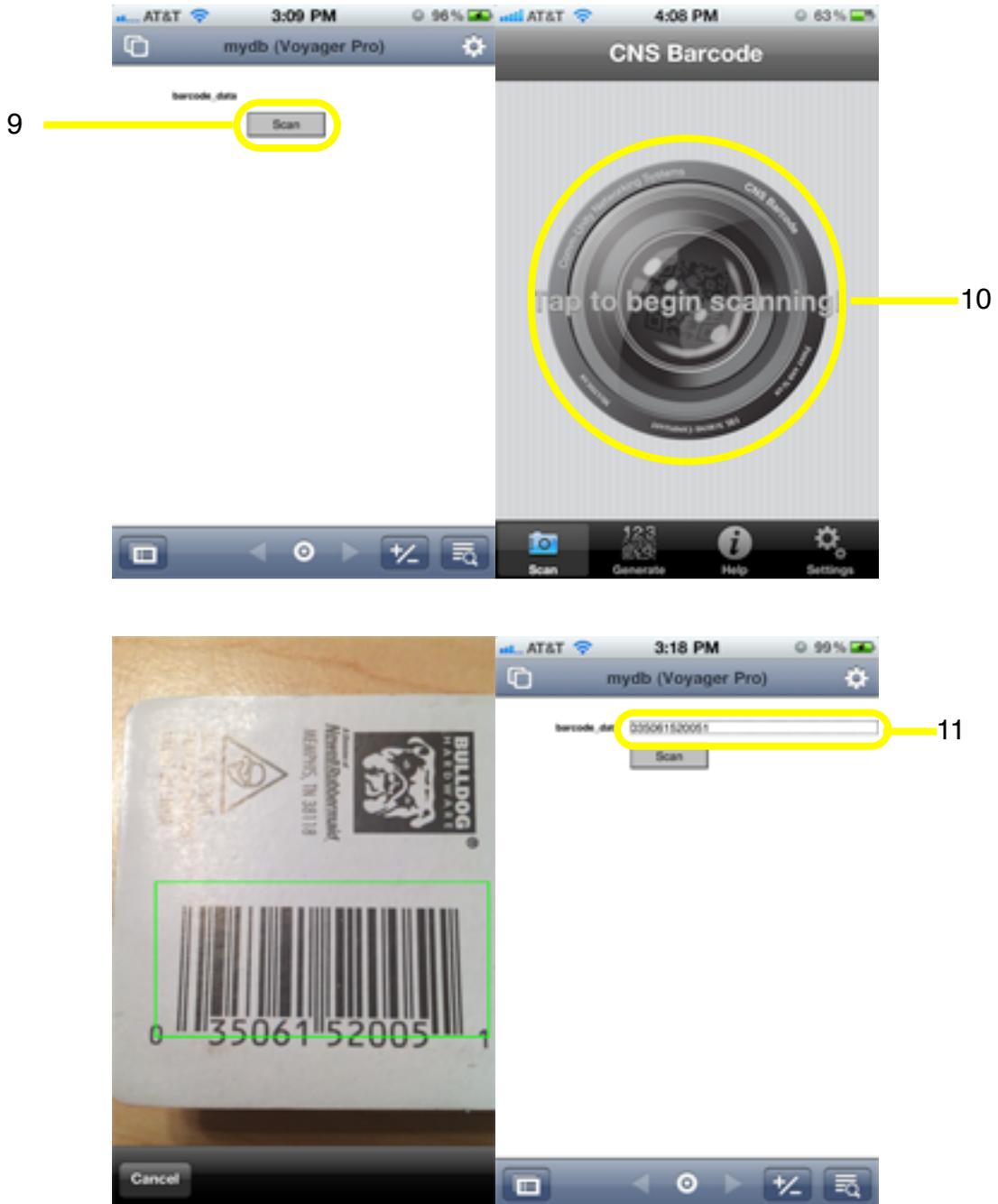


Now, on your iOS Device (iPhone, iPad, etc), open FileMaker Go and tap Open File Browser...(5). Then tap Local Network Hosts (6) and then the name of your computer (7). Finally, tap on mydb (8) to open it.



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With the database now open, tap the Scan (9) button. CNS Barcode will open, tap the camera lens (10), and scan a barcode. CNS Barcode will then relaunch FileMaker Go to call the Scan_return script, which puts the data from the barcode into our field (11).



Conclusion

We have seen a very basic example of integrating CNS Barcode with FileMaker Go. There are many other things you can do with CNS Barcode, including creating barcodes from data you provide, scanning multiple barcodes, etc. Visit the CNS Barcode website (http://cnsplug-ins.com/iOS/CNS_Barcode) for more examples and more information about the many features of CNS Barcode.