TkcRekall Tutorial

Part 1

By Margot Ross

Creating New Database:.....2

Creating Tables:.....5

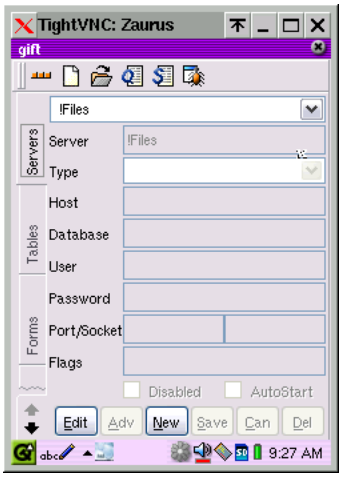
Creating Forms:.....12

Creating Reports:.....31

Creating New Database:

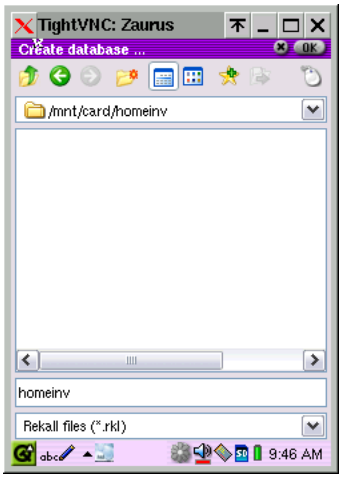
This tutorial is designed to show you how to create a simple database using tkcRekall (an xbase database). It covers many of the functions of tkcRekall, but by no means all of them. Please refer to the manual that comes with tkcRekall for further information.

1. Create a directory for the database. For this tutorial we will be making a simple Home Inventory database. On my sd card I created a directory called homeinv.
2. Open tkcRekall. You will see a screen like this:

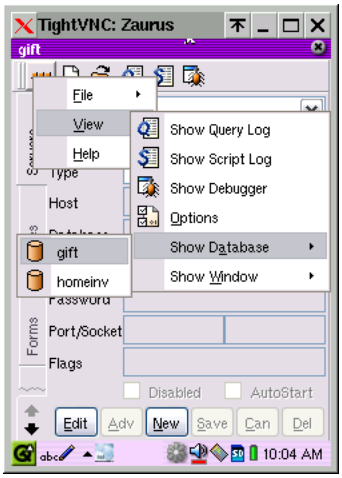


Note: On the top bar it says “gift” as this was the last database I had opened. tkcRekall can remember which db you last accessed and open it when you open tkcRekall. It’s best to have only one database open at a time. A future version will only allow one database open at a time.

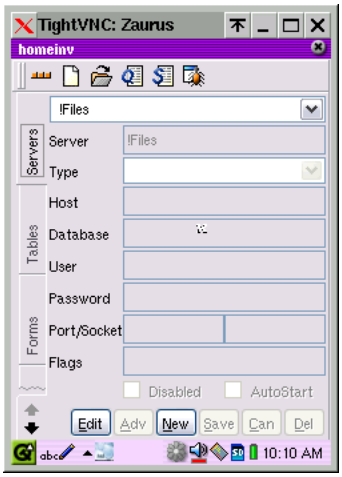
3. Tap the icon to Create New Database. Browse to the location of the homeinv directory. In this case its /mnt/card/homeinv. Enter a name for the database in the second from the bottom box. I’ve entered “homeinv” Then tap OK:



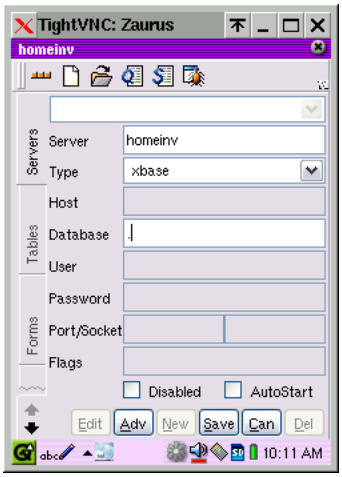
4. If you have a database open, you'll have to now switch to your new database. Tap on the icon (menu). Tap View, Show Database, homeinv:



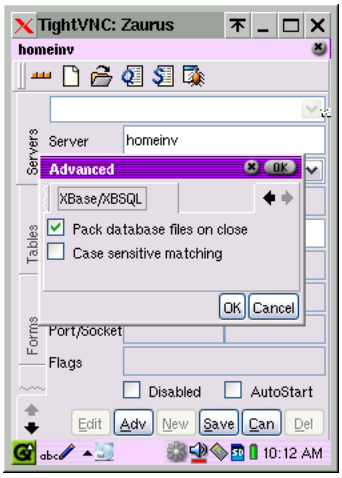
1. You should now see "homeinv" on the top bar:



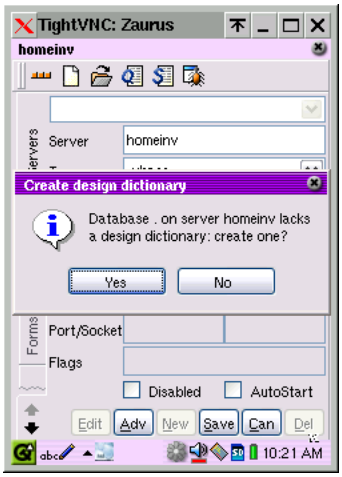
2. Tap the "New" button. In server, type "homeinv". In Type, tap the arrow and choose Xbase from the dropdown list. In database, type "." (without quotes).:

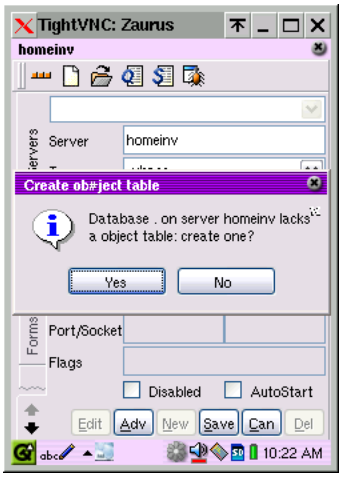


3. Tap the “Adv” button. A small window pops up. Tap the Xbase/XBSQL tab and tap the box to check “Pack database files on close” Then tap OK:



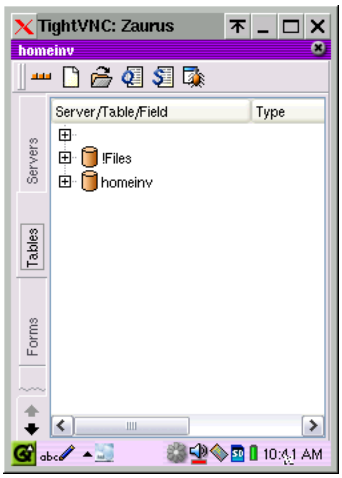
4. Tap “Save”. A small window pops up. Tap yes. Another small window pops up. Tap yes again:



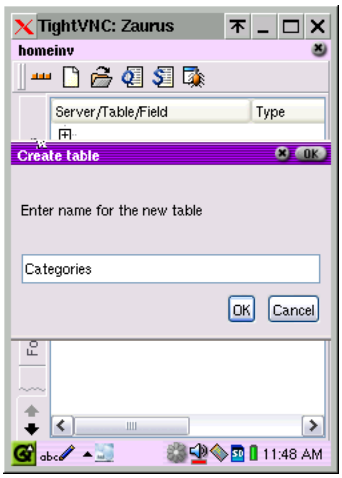


Creating Tables:

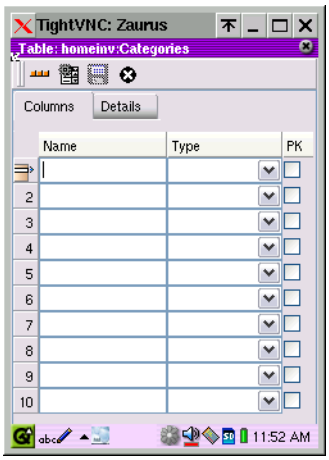
1. Tap the “Tables” tab on the left side of the screen. This will bring up the Tables screen:



2. Tap on the + sign next to homeinv. Then double-tap Create new table. Name this table Categories. We will be making at least 2 tables for this database. The Categories table will allow you to add/edit your inventory item categories for use in a drop-down category list on the inventory form.

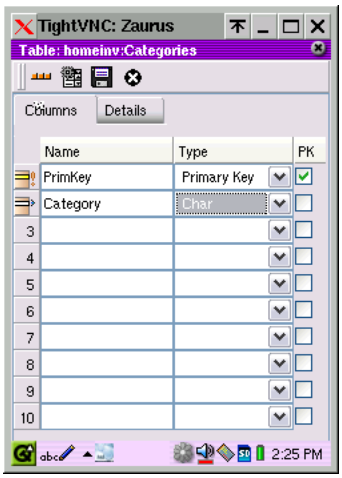


3. Tap OK and the Table Design Screen appears:

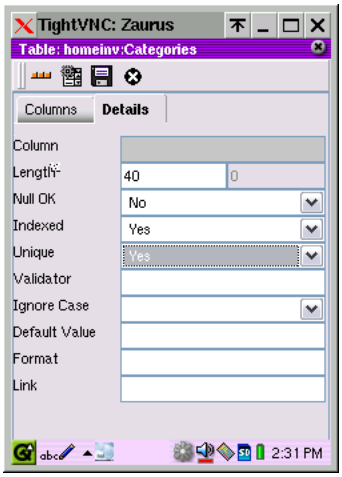


Note there are 2 tabs, Columns and Details. For demonstration purposes I'll first fill in the Columns, then the Details, but you can fill in the Details as you enter the Columns information.

4. Fill in the Name and Type fields as shown below:



5. Now tap on Category field and then tap the Details tab. Fill in the fields as shown below:

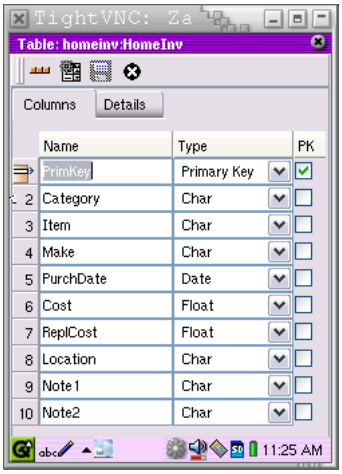


6. Tap the  icon to save the table.

7. Tap the ✪ icon to close the table.

Now we'll create the second table, the HomeInv table:

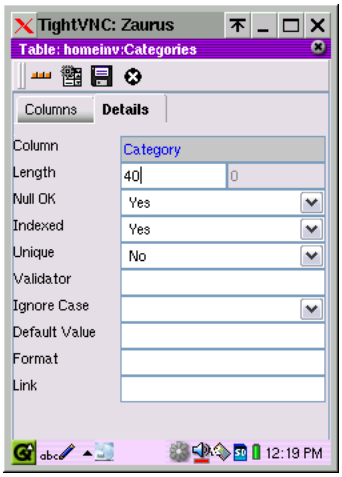
1. Double tap the Create new table icon.
2. Name the table HomeInv
3. Fill in the fields as show below:



After the Note2 field, add another field:
Name: Photo
Type: Binary

(This wouldn't show in the screenshot)

4. Now tap in the Category field and tap the Details tab. Fill in the Length and set the other fields as shown:



Notes:

The Primary Key field is hard coded in Details, and so we won't be setting anything for it. It is mostly used to have at least one unique field, which is a requirement for some other things (like forms). If you have at least one unique field in your DB, you don't have to have a Primary Key field. You must have at least one unique field in your DB or it won't update (and you will get an error when you try to create a form). When you set the Primary Key field in recall, the application creates a unique key field for you and for our purposes in this tutorial we will set it and forget it.

I set Null OK for most things because sometimes fields are filled in at a later date and without Null OK set, you would **have** to fill in that field.

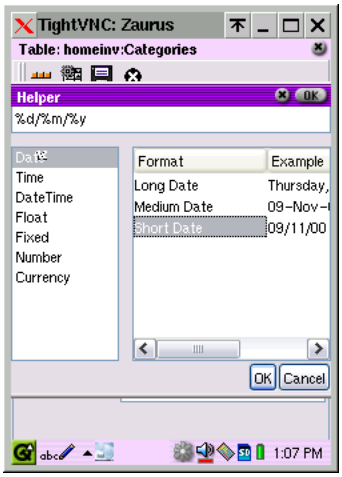
Indexing: Indexing allows for faster searching but is not necessary. It does add to the size of the database and update/insert will be a bit slower.

5. Set the other Details for the rest of the fields:

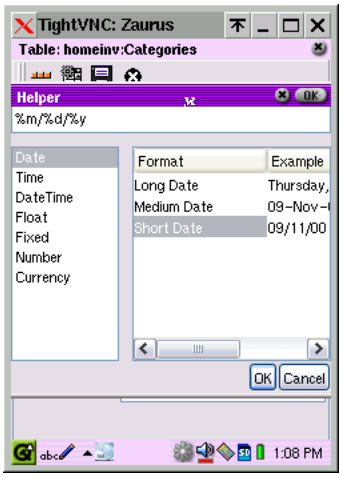
Item:
Length: 50
Null OK: No
Indexed: Yes
Unique: No

Make:
Length: 50
Null OK: Yes
Indexed: No
Unique: No

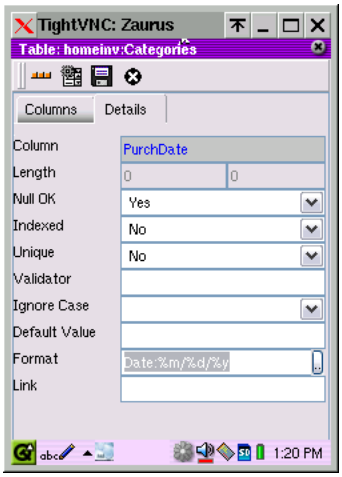
PurchDate:
Null OK: Yes
Indexed: No
Unique: No
Format: Tap in the Format field. You will now see a little button with ".." on it. Tap that button. Then tap on Date on the top of the list on the left side. This is where you set your date format. For this tutorial we will pick the Short Date on the right side, so double-tap Short Date. You will see a date format in the top box:



Note the format is in European date format: d/m/y. For US date format, change the d to an m and the m to a d in the top box:

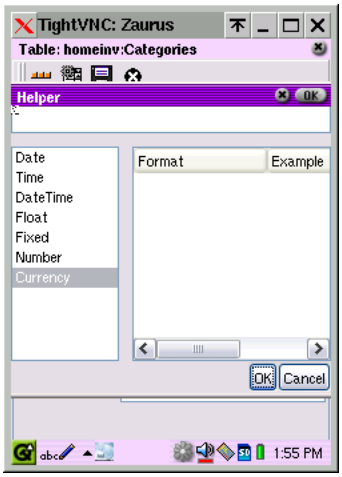


Tap Ok and you get back to the Details screen. Note the Format field now shows the date format you chose:



Cost:
Length: 10
Null OK: Yes
Indexed: No
Unique: No
Format: Currency (Tap the button with the ".." on it, tap Currency on the left, then OK.

Currency Note: If you just choose "Currency" format, it defaults to your z's Local currency.



ReplCost:
Length: 10
Null OK: Yes
Indexed: No
Unique: No
Format: Currency

Location:
Length: 50
Null OK: Yes
Indexed: No
Unique: No

Notes1:
Length: 100
Null OK: Yes
Indexed: No
Unique: No

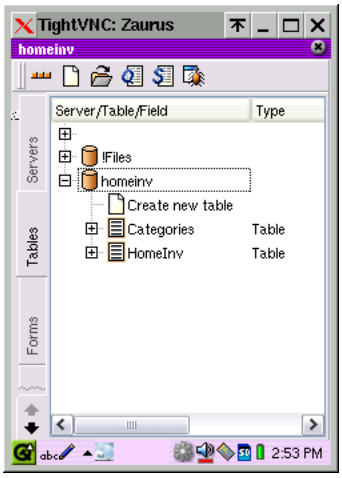
Notes2:
Length: 100
Null OK: Yes
Indexed: No
Unique: No

Photo:
Length: (leave as is, it's not changeable)
Null OK: Yes
Indexed: No
Unique: No

6. Tap the icon to save the table.

4. Tap the to close the table.

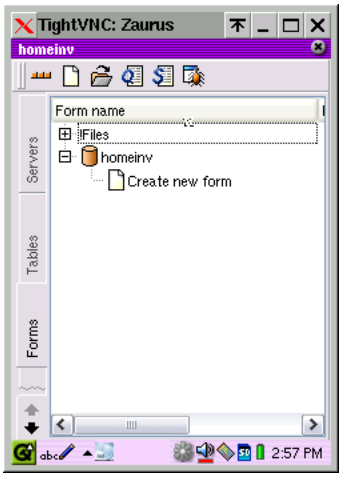
Now you'll see you have 2 tables listed below the homeinv server icon:



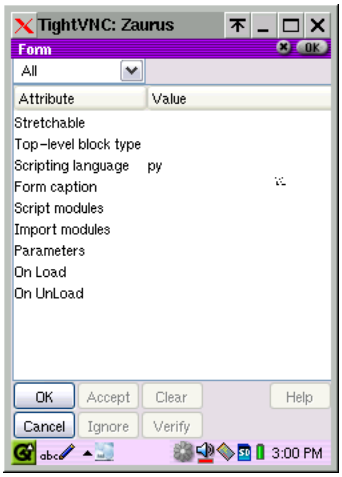
Next we'll create the forms. Tap on the Forms tab on the left side of the screen.

Creating Forms:

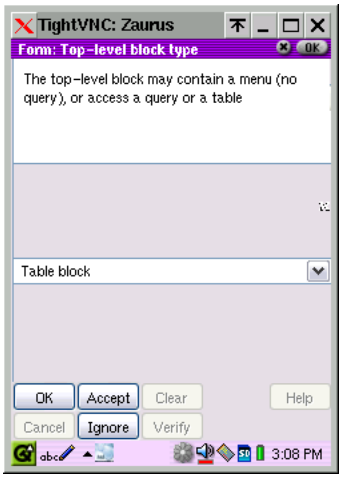
Now we're on the Forms screen:



1. Double-tap on the Create new form icon:

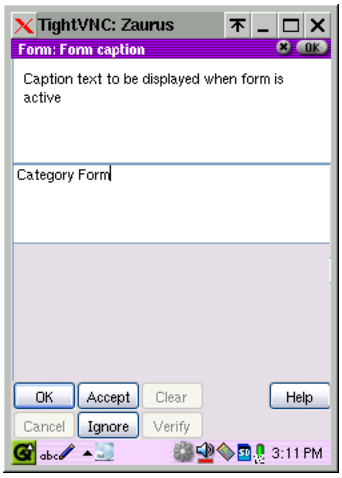


2. Double tap on the Top-level block type line. The box is the middle should say Table block as shown:



Tap Accept.

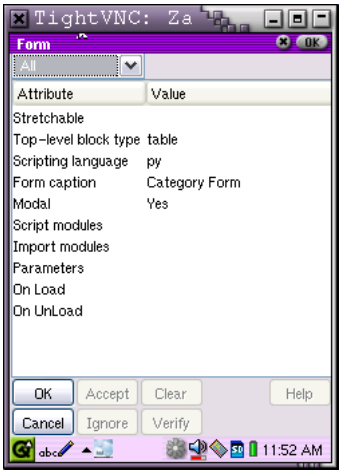
3. Double-tap on Form caption line. In the blank box type Category Form as shown below:



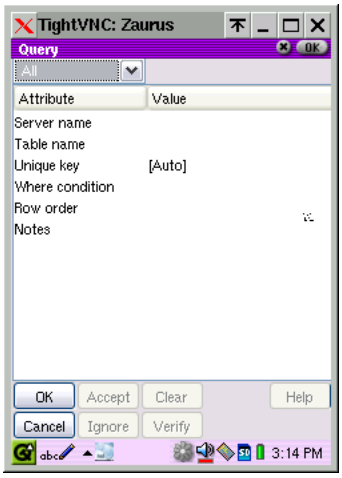
Tap Accept.

4. Double-tap Modal. Check the box. Tap Accept
   (Note: This feature is new to 1.1.1-beta1, so if you don't have it, don't worry about it until that version is released).

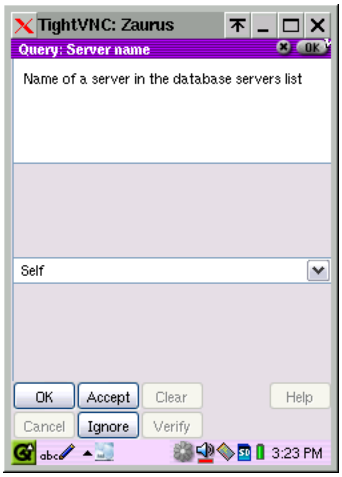
5. Tap OK at the bottom of this screen:



6. Now we're at the query screen:



7. Double tap on the Server name line. It should say Self in the box:

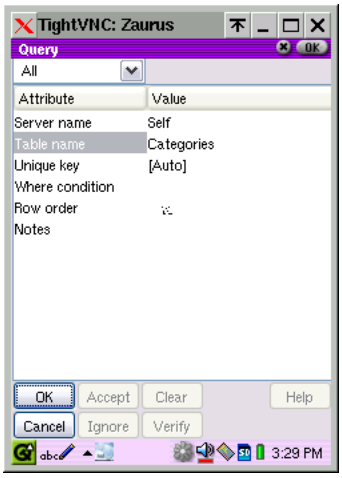


Tap Accept

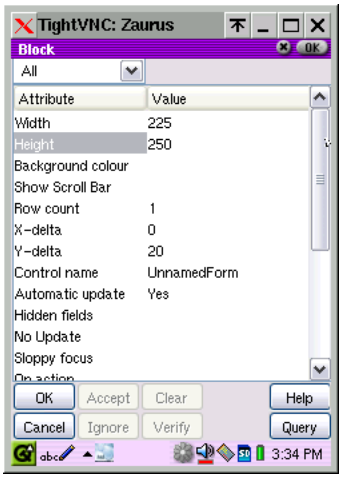
8. Double-tap on Table name line. It should say Categories in the box:

Tap Accept.

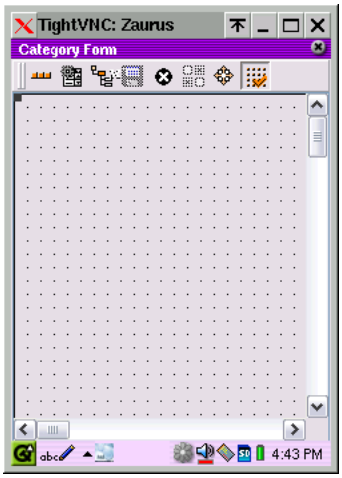
9. Tap OK at the bottom of this screen:



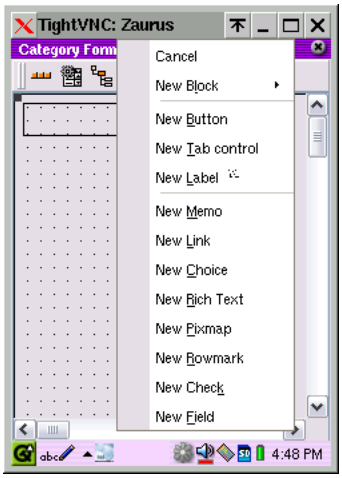
10. The next screen we come to is the Block screen. Double-tap on the Width line and changed width to 225, then tap Accept. Double-tap on the Height line and then tap Accept. Then tap OK at the bottom of this screen:



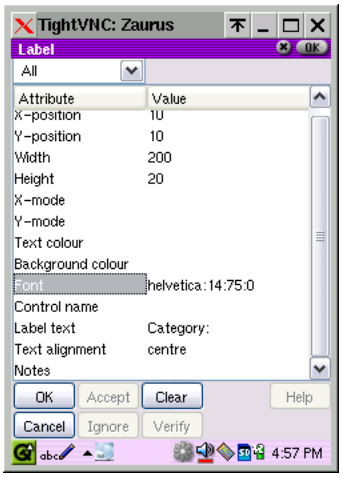
11. The next screen we come to is the Form Design grid screen:



12. This form is a very simple form with only 1 field and some buttons. First we'll add a label. Tap on the screen and drag to the right and down up at the top of the screen, from left to right across the whole grid, encompassing two grids down. A menu will pop-up:

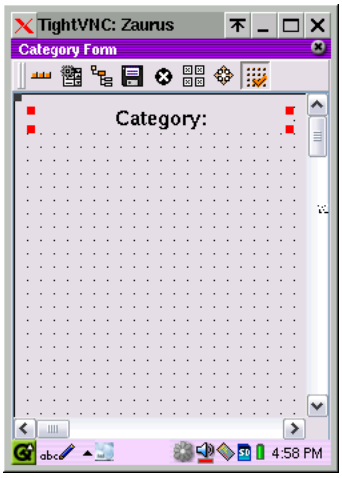


13. Tap on New Label. Then double-tap on Label Text line. In the box type "Category:" Tap Accept. Double tap on Text alignment. Tap the down arrow and select "centre". Then tap Accept. Double-tap on Font. Tap on Bold and 14. Then tap OK on the bottom. Your screen should now look like this:



Tap OK to return to the design grid.

14. Your screen should now look like this:



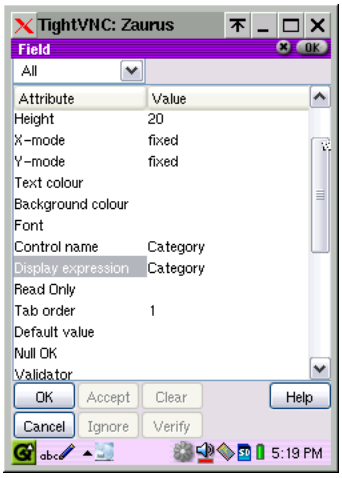
(You can resize your box by tapping on it, then dragging the bottom right corner to the right or left or up/down. Note that the corner squares will turn from red to blue, which indicates you can resize the box.)

15. Now we'll make another box just below the label box. We'll make it the same size, so tap and drag, and when the menu pops-up, tap New Field. Double tap on Control name. Tap on the down arrow and tap on Category. The word "Category" should now be in the bigger box and in the smaller box, like this:

Tap Accept.

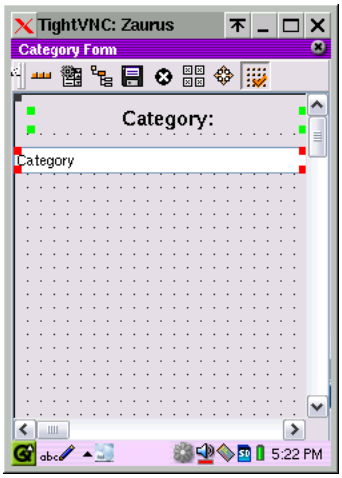
16. Double-tap Display expression. Tap the drop down box, tap Category, then tap Accept.

17. Your screen should now look like this:



Tap OK to return to the design grid screen.

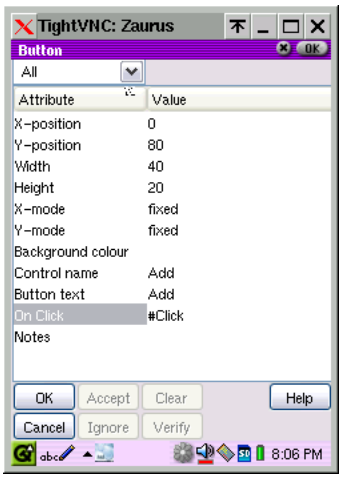
18. Your design grid screen should now look like this:



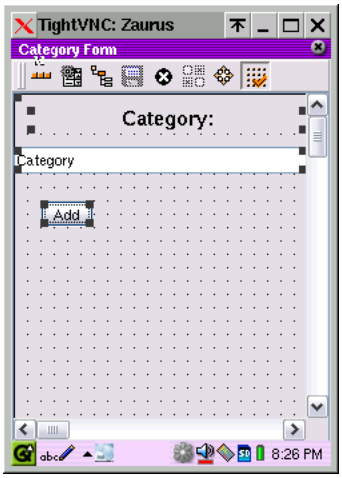
19. Now we will add some buttons to the form. The procedure will be the same for each button, so I'll include screenshots for the first button, then the settings for the rest of them. Tap on the screen to make a little rectangle about 1x4 on the grid. Don't worry so much about placement now, we can move the buttons around and arrange them neatly later on. When the menu pops up, chose "New Button". Double-tap on Control Name. Type "Add" in the box and then tap Accept.

20. Next, double-tap Button text and type "Add" in the box, then tap Accept.

21. Double-tap On Click and type #Click in the box, then tap Accept. Your screen should now look like this:



22. Tap Ok to go back to the Design Grid. If you tap and hold in the middle of the button you can move it around. Now your screen should look something like this:



Save your form by tapping on the icon, and name it Categories.

23. Now we'll add the rest of the buttons. Here are the settings:

a. Delete Button:
Control name: Delete
Button text: Delete
On Click: #Click

b. Previous Button:
Control name: Previous
Button text: <
On Click: #Click

c. Next Button:
Control name: Next
Button text: >
On Click: #Click

d. First Button (go to first record):
Control name: First
Button Text: <<<
On Click: #Click

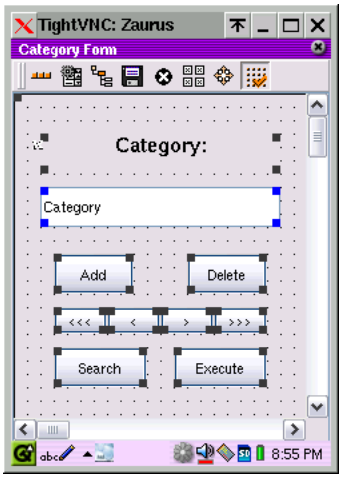
e. Last Button (go to last record):
Control name: Last
Button text: >>>
On Click: #Click

f. Search Button:
Control name: Query
Button text: Search
On Click: #Click

g. Execute Query Button:
Control name: Execute
Button text: Execute
On Click: #Click

Note: For a full list of control names see the Rekall manual that comes with tkcRekall.

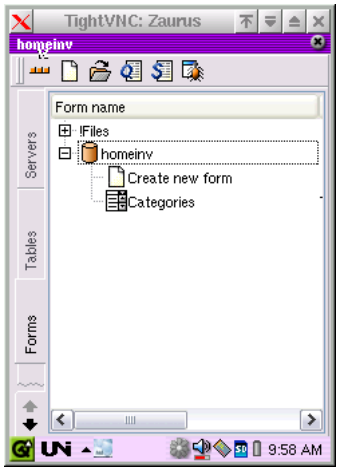
Now resize and move things around until you're happy with your form design. Here's how mine looks:



One last thing to get your buttons working correctly: Double-tap on the grid background (not in a button or box). Tap Block properties on the pop-up menu. Set the On Current property to #Current, tap Accept, then tap OK.

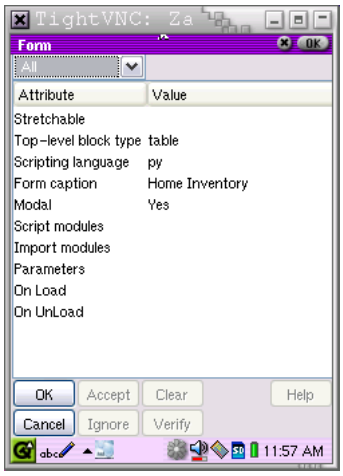
Now, save your form again, then tap on the icon to toggle to data view.

You can now add/edit all the categories you might need for your home inventory. When you're finished adding categories, tap the to return to the Forms tree screen:



Next we're going to create a second form, the actual home inventory form.

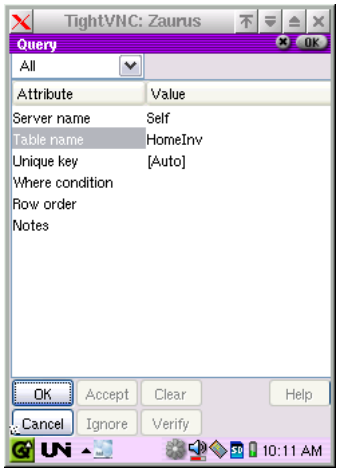
1. Double-tap on Create new form.
2. Set top-level block type to table, tap accept.
3. Set Form caption to Home Inventory, tap accept.
4. Set Modal to yes (if available). Your Form properties screen should now look like this:



Tap OK. Now you're at the Query properties screen.

1. Set server name to self. Tap Accept.
2. Set Table name to HomeInv. Tap Accept.

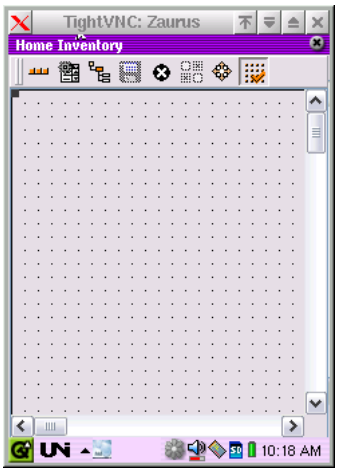
Your Query properties screen should look like this:



Tap OK. Now you should be at the Block properties screen.

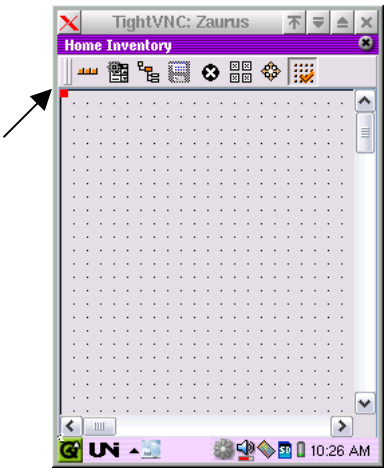
1. Change Width to 225. Tap Accept.
2. Change Height to 255. Tap Accept.

3. Tap OK. Now you should be on the Home Inventory design grid:

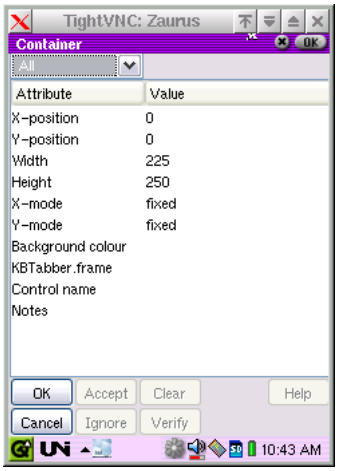


For this form we will do something a little different than the Categories form. We'll make a tabbed form.

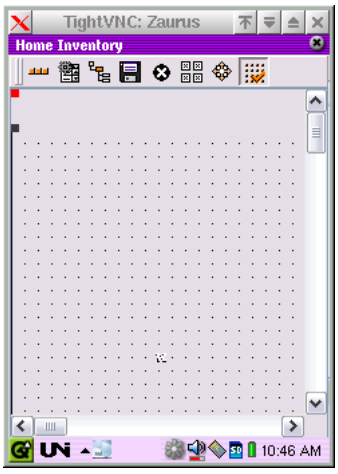
1. Tap anywhere on the screen. The top left blob turns red. (Blob is the term for the little squares in the corners.):



2. Tap the (properties) icon. A menu will pop-out. Tap "New", then " New Tab Control". You'll see this screen:

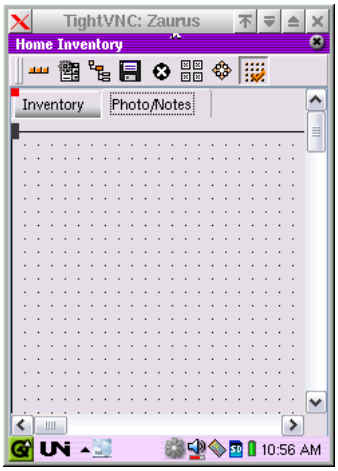


3. Tap OK. (no need to change anything in the Containers properties). Your form design grid should now look like this:



4. Tap the icon again. This time tap "New Page" Change the Tab text from "Page 1" to "Inventory". Tap Accept. Tap OK. You'll now see your first tab at the top.

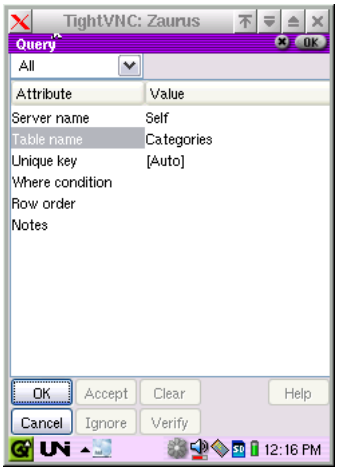
5. Tap the icon. Tap "New Page" Change the Tab text from "Page 1" to "Photo/Notes". Tap Accept. Tap OK. Your form design screen should now look like this:



6. Save your form now. Tap the icon. Name the form HomeInv. (in the bottom box, leave the default, which should say "homeinv".)
7. Tap on the Inventory Tab to make it the active tab.
8. Drag the stylus to make a box. Choose "New Label" from the menu. Double tap "Label text" and type "Item" in the box. Tap Accept.
9. Drag the stylus to make a box. Choose "New Field" from the menu. Double tap "Control name". Tap the down arrow to the right of the box that says "PrimKey". Select "Item" from the list. Tap Accept.
10. Double tap "Display Expression". Tap the down arrow to the right of the box that says "PrimKey" Select "Item" from the list. Tap Accept. Then Tap OK to return to the form design screen.

(NOTE: the box may or may not be where you dragged it so you'll have to move it and possible resize it. This is known bug and is being worked on. To resize tap and hold the blob in the upper right corner of the box, then drag the box to the right or left, this will allow you to resize horizontally. Tap and hold the blob in the lower right corner, then drag up or down and/or right/left. This allows you to resize both horizontally and vertically. The blobs should highlight blue to resize)

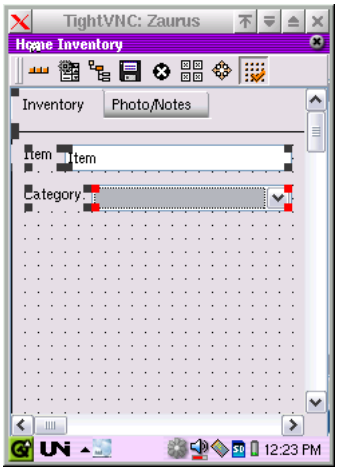
11. Create new label for "Category".
12. Create "New Link". Double tap "Server name" It should say "Self" which is what we want, so tap Accept. Double tap "Table name" Tap the down arrow to the right of the box that says "HomeInv" and choose "Categories" from the list. Tap Accept. Your Query properties screen should look like this:



Tap OK.

13. On the Link properties screen, Set the following by double-tapping the appropriate choice:

    Parent Field: Category (in drop-down from HomeInv table)
    Child Field: Category (in drop-down from Categories table)
    Display Expression: Category (in drop-down from Categories table)
    Tap OK to return to the form design screen. It should now look something like this:



Note: What we've just done is create a combo box that lets you select a category from a list that you've created when you created the Category table. You can add/edit/delete Categories from this list by opening your Category form and making the changes you want. Then the Categories you define will appear in the drop-down box on the Home Inventory data entry form.

14. Save your form now. Then create new labels with the following Label text:

    Make/Model:
    Purchase Date:
    Cost:
    Replacement Cost:
    Location:

15. Make the following new fields by dragging to make a box, then filling in the appropriate information in the properties as follows:

    Control Name: Make
    Display Expression: Make
    Null OK: Check the box

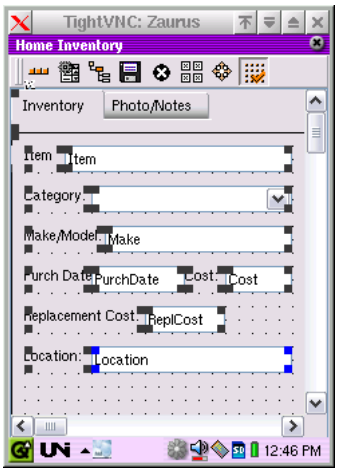
    Control Name: PurchDate
    Display Expression: PurchDate
    Null OK: Check the box
    Format: Double tap Short date. (If in US, change the top box to read %m/%d/%y)

    Control Name: Cost
    Display Expression: Cost
    Null OK: Check the box
    Format: Currency

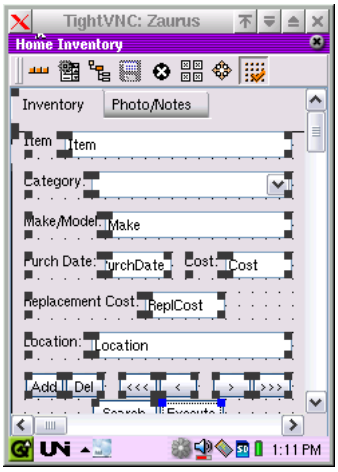
    Control Name: ReplCost
    Display Expression: ReplCost
    Null OK: Check the box
    Format: Currency

    Control Name: Location
    Display Expression: Location
    Null OK: Check the box

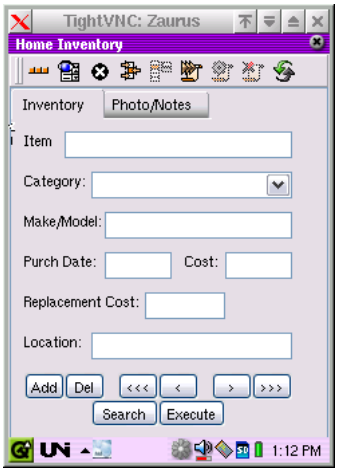
Your form design screen should now look something like this:



16. Now create buttons as you did for the Categories form for Add/Delete/Find etc. You will have to scroll down a little to get the last buttons on, but with a depth of 255, the form will not require scrollbars. Here's how mine looks:

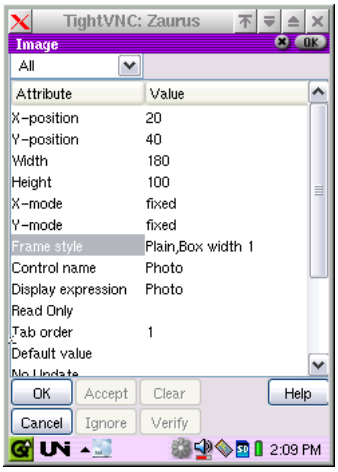


17. Save the form and tap the icon to go to Data View. Your form should look something like this:



Note: When you're moving things around on the form design grid, they snap to the grid. You can change this so the objects don't snap to grid by tapping the icon which, when it appears to be pushed in, means the snap-to-grid is enabled.

18. Now tap the icon to return to Design view. Tap the Photo/Notes tab.
19. Create a new label with the Label text of "Photo" near the top left of the grid.
20. Drag a rectangle, choose "New Pixmap" from the list. Control Name is "Photo", Display Expression is "Photo". Frame style properties are:
21. Shadow: Plain, Shape: Box, Width: 1. Your Image properties screen should look like this:



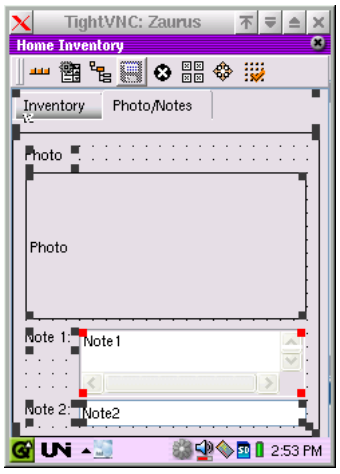
Tap OK to return to Design grid.

22. Below the Photo box, make 2 new labels: Note 1: and Note 2: on 2 separate lines.
23. Make 1 new memo next to Note1:

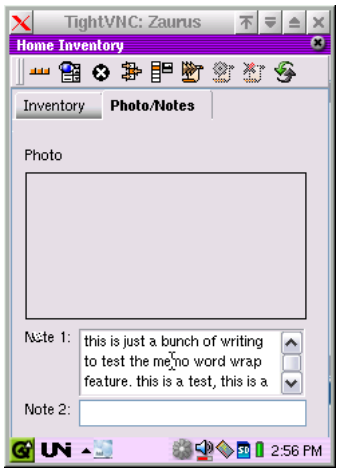
Text wrapping: Yes (check box)
Control Name: Note1
Display Expression Note1
Null OK: Check the box.

Make 1 new field next to Note2:
Control Name: Note2
Display Expression: Note2
Null OK: Check the box

Your Photo/Notes grid should look something like this:



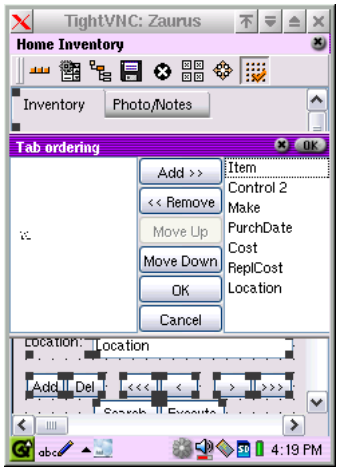
Save your form, go to Data view, then tap the Photo/Notes tab and it looks something like this:



Note: The scrollbar arrows on the right of the Note 1 memo field will be greyed out until you enter enough text for it to need to scroll.

If you want, you could just make 2 new Fields instead of a Memo and a Field.

To change the tab order of the fields, double tap on the grid (not in any field) and tap Set tab order:



Notice the 2nd item in the list "Control 2". This is the Categories combo field. The 2 refers to its tab position. If you tap on Control 2 and then tap move down, It would say "Control 3" and it would move down one place in the list. Tap OK once you have your fields in the order you want to enter the data in.

Save the form and tap the icon to go to data view. Enter a few records for items in your household. Tap to close the form.

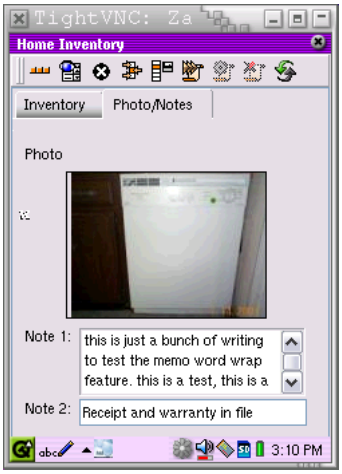
How to add a photo: *(not functional until 1.1.1-beta1, which is in beta now and will hopefully be released soon)*

1. Tap on the Photo/Notes tab in Data View of Home Inventory.
2. Double-tap the photo box, holding the second tap. A menu pops up. Select Load image. Browse to where your image is and select it.

   NOTE: I had to resize my picture box, as the original size of the photo was way too big. To do this, go into design view of the form and double-tap inside the photo box. I resized mine to 146 width, 110 height. I also had to resize my photo, which was scaled down from the original picture in Gimp to 146 x 110 pixels. Windows users can use Photo shop or any other photo editor to scale down pictures. Once you've loaded the image into tkcRekall and saved the record, you can delete the photo from where you stored it. A copy of the picture is saved into the Rekall database so the original isn't needed any more. If you re-size your photo box after you've loaded a picture you'll have to reload the picture.

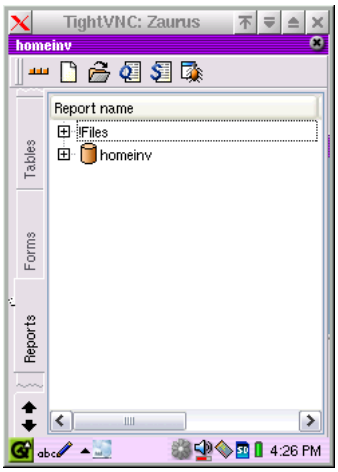
   TkcRekall has a size limit of 64k for a picture, so that's something to keep in mind when you're sizing your photos.

   Here's how mine looks:



Creating Reports:

1. Tap on the Reports tab, which is below the Forms tab (use the black down arrow to scroll down if you can't see the tab:



2. Double tap "Create new report" under the homeinv server icon. Set the following properties:

   Top-level block type: table
   Report caption: Home Inventory Report

   Tap OK

3. Query Properties:

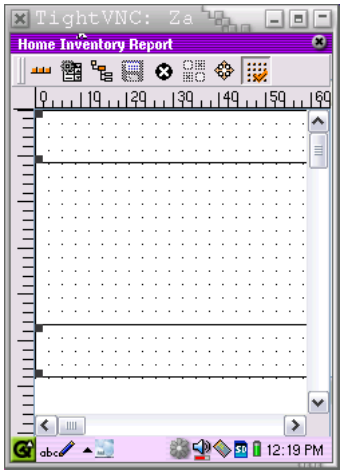
   Server name: self
   Table name: HomeInv

   Tap OK

4. Block Properties:

   Width: 215
   Height: 200

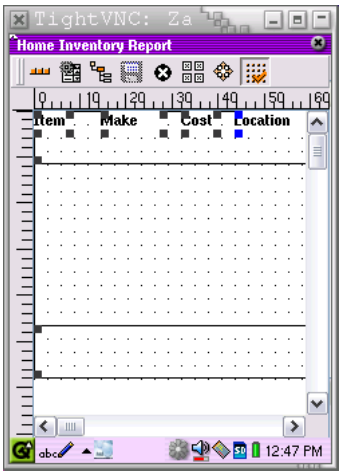
   Tap OK. This takes you to Report Design grid, which should look like this:



The top box is the “Header” box. The bottom box is the “Footer” box. If you scroll to the right you’ll see a box at the top and the bottom with the Header and Footer tags. In the Header we’ll put the Column headings (Labels) and in the main part of the grid we’ll put the fields we want to have displayed in the report. We won’t be using the Footer for this report.

5. Inside the Header box, draw/draw a box, choose new Label. Double-tap font and select “Bold”. Tap OK. Double-tap “Label text” and type “Item” in the box. Tap Accept. Tap OK to go back to design grid. If the Item box is too small, tap on it so the blobs are blue, then drag it open from the bottom right corner blob. It’s a little tricky sometimes, so keep trying til you get it. I usually try to get the bottom right blob towards the outside of the blob to drag it to the right. I also drag/drop the boxes towards the center of the screen, then move them into place once they are created.

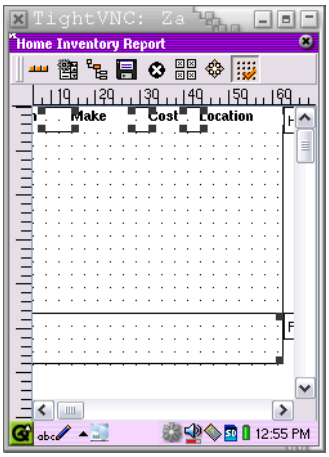
6. Create new labels for Make, Cost and Location. Make the font Bold for each one. Your report will look something like this:



7. Save the Report. I named mine homeinv.

8. Now that the header is done, we will close up the header box so its just the size we need. Scroll to the right and tap in the bottom right blob of the Header box so it turns blue. Drag the box up so its even with the bottom of your label boxes. If you need to resize it later you’ll most likely need to move the label box that’s farthest right to get at the header box blob.

Now your design grid should look like this:



9. Below the label boxes, drag/draw the following New Fields:

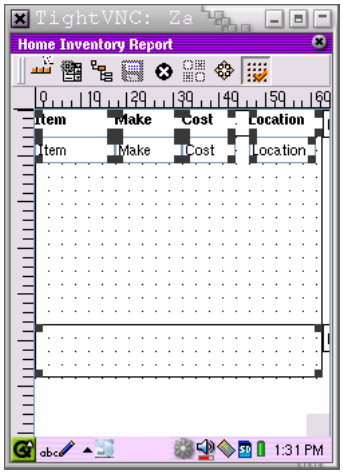
   Control Name: Item
   Display Expression: Item

   Control Name: Make
   Display Expression: Make

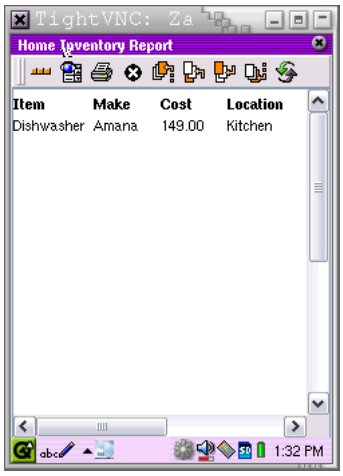
   Control Name: Cost
   Display Expression: Cost
   Format: Currency

   Control Name: Location
   Display Expression: Location

Here's how my design grid looks now:

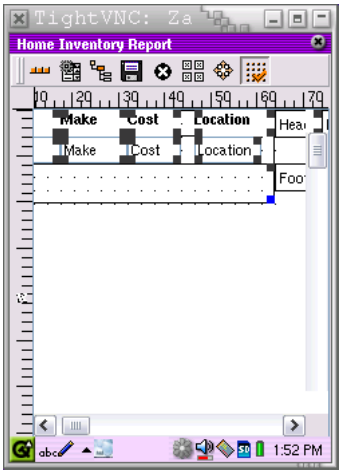


10. Save your Report and tap  to go to Data View. Here's what mine looks like now:

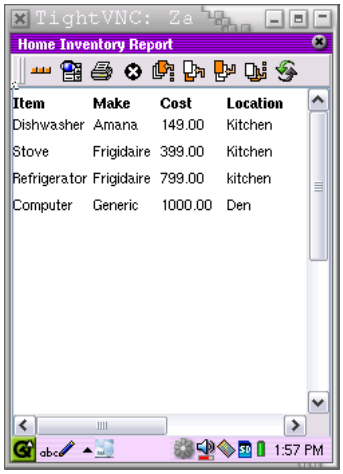


Hmmm..I only see one item in the report, although I entered 4 records in my inventory form. Where are the rest? Well they are there, but they are on another page. To see them, you can tap on the  (next page) icon. Then you can see each one, but they are on a separate page, which we really don't want. We'll go back to the design view now and fix that.

11. Tap the  icon to return to design view. What we need to do now is move the footer up to the bottom of the field boxes. Tap the bottom right blob of the footer box so it turns blue. Grab the bottom right blob and drag the footer box up to meet the bottom of the field boxes like this:



12. Save the report and go to data view to see what the report looks like now. It should look something like this:



This is much better! Making reports on the Zaurus can be tricky due to the screen size. You'll have to play with it a bit to get your reports the way you want and consult the manual that comes with tkcRekall for more information.

Coming in tkcRekall Tutorial Part 2:

Basic Queries
Copy (import) function
Menu Forms

Databases created using tkcRekall can be used on the desktop using Rekall, which is available for Windows and various Linux distros. I sync my tkcRekall database directories to a directory on my Linux laptop using Unison and they open without changes using Rekall desktop version.

This tutorial was created using Microsoft Word running on a RedHat 7.3 Linux PC, which is made possible by Codeweaver's Crossover Office application.