

StreamlineDB

Version 5

8/1/2002

Tutorial and User Manual

Thank you for purchasing StreamlineDB.

About

Streamline Technology first released Seven Simple Steps in July 1999. Seven Simple Steps is an award winning web development application and more than 10,000 copies have been shipped around the world.

Streamline Technology began re-writing Seven Simple Steps in early 2001, and it is now called StreamlineDB.

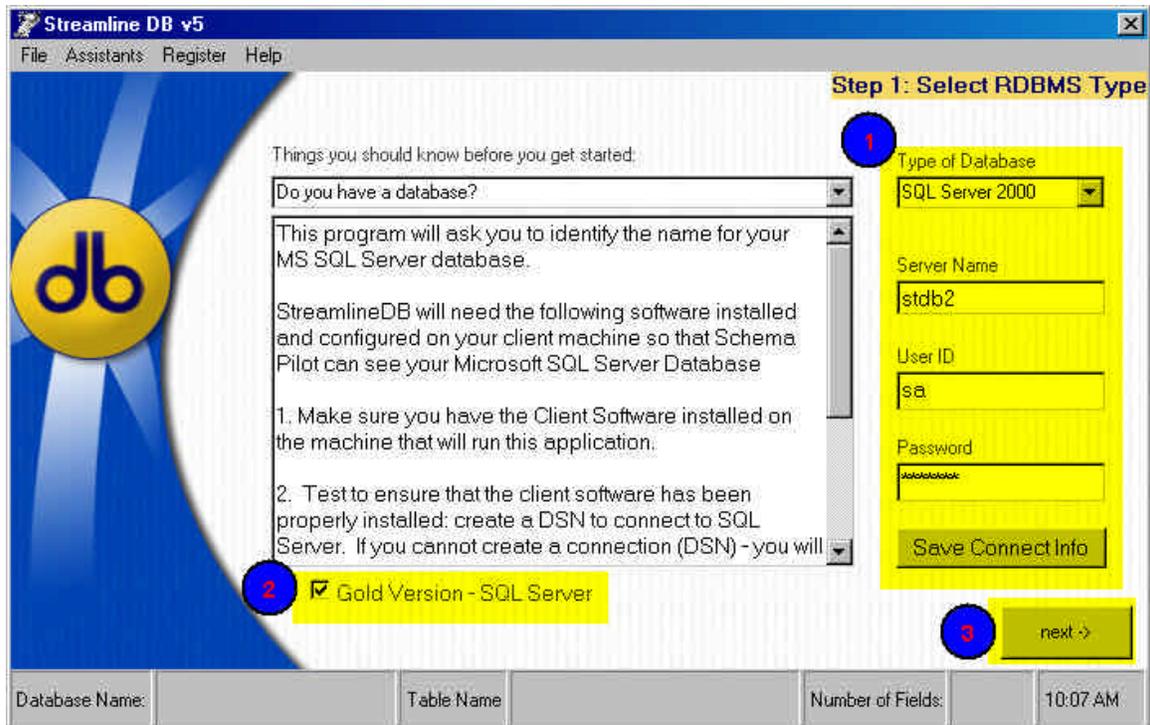


Figure 1

Task 1

Type of Database:

Select the version of SQL Server you have installed on your network

Server Name - required

The actual name of the machine that is hosting SQL Server

User ID - Optional

To connect using SQL Authentication, supply user name

To use Windows Authentication, leave blank

Password – Optional

To connect using SQL Authentication, supply the appropriate password

To use Windows authentication, leave blank

Save Connect Info

To save the parameter you just typed into this form, click on the “Save Connect Info” button. This will save these parameters for re-use.

Task 2

Please read the text in the box in the center of this form. The users license agreement is under "Clicking Next Indicates User Accepts License Terms" in the top Drop down combo box on this form. Please read this agreement.

Click on "Gold Version – SQL Server" to activate the "next" button.

Task 3

Pressing the "next ->" button will connect you to the database you selected.

Errors

If the server name is invalid, you will receive the following error:

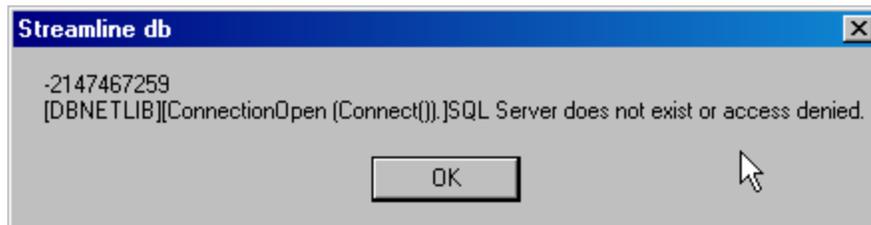


Figure 1.1



Figure 1.2

Additional Help

www.sevensimplesteps.com

On the menu bar, click on "Download", then click on "Video Presentation"

Please download "SQL Server 2000" – Step 1

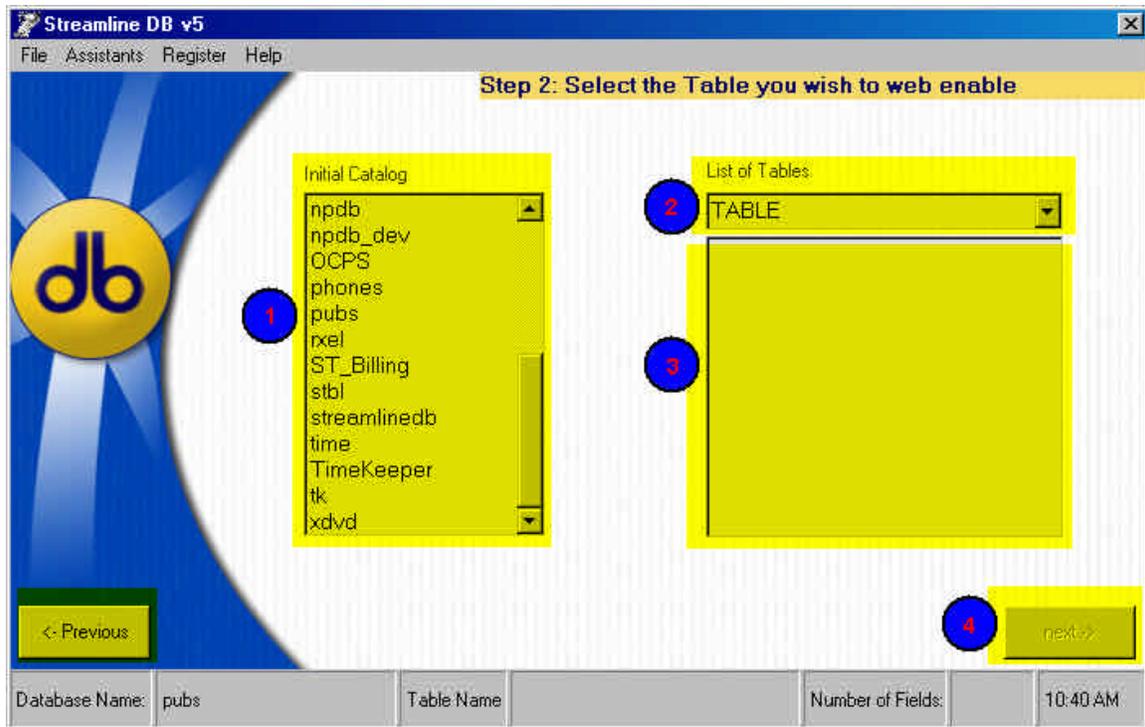


Figure 2

Task 1

Initial Catalog:

Select the catalog you wish to work within

In this tutorial, we will use "pubs"

Please click on "pubs" in the list box #1

NOTE: When you installed SQL Server, "pubs" was installed. If "pubs" is not available, please check with your Companies DBA.

Task 2

List of Tables:

By default, "TABLE" will appear in the drop down combo box. Based on the version of StreamlineDB you purchased, you may see two other options.

TABLE - tables in catalog selected

VIEW - views in catalog

Stored Procedures – Stored Procedures

StreamlineDB will only process Stored Procedures that have return recordsets.

Leave the combo box on "TABLE"

Table	View	Stored Procedures
Select "TABLE" from the drop down combo	Select "VIEW" from the drop down combo	Select "Stored Procedures" from the drop down combo
Only database objects of type "TABLE" will appear	Only database objects of type "VIEW" will appear	Only database objects of type "Stored Procedure" will appear

TIP: Before you start web-enabling all your database object, first click on each table listed in the "TABLE" set. As you click on each object, StreamlineDB certifies each object. A table object can fail if:

- 1) No primary key
- 2) Reserved words
- 3) Invalid Table Naming convention
- 4) Invalid Column Naming convention

Task 3

Click on the table "SALES"

After you select a table you wish to web-enable. StreamlineDB will check the structure of the selected table.

All tables must have a primary index
 Proper column naming convention must be followed
 No spacing in column names
 Must start with a letter

NOTE:

StreamlineDB does not web enable tables that have Image or Blob data types

Task 4

Click on the "next ->" button

ERRORS



Figure 2.1

NOTE: All tables must have a primary key.

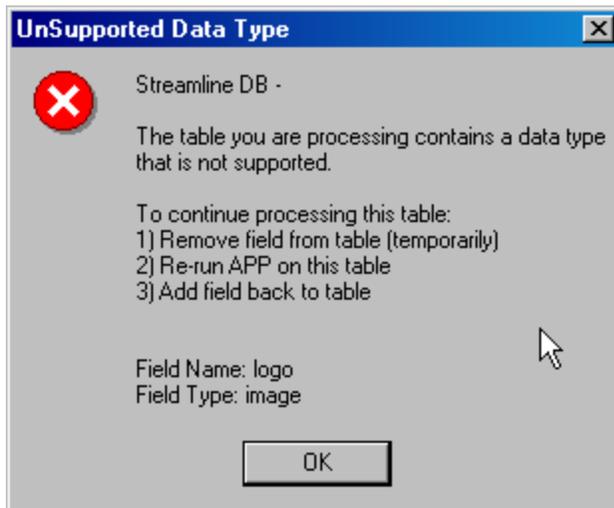


Figure 2.2

StreamlineDB does not process columns of type Image



Figure 2.3

Reserved words are a source of common errors. StreamlineDB prevents the use of these words, hence, saving you hours of debugging.

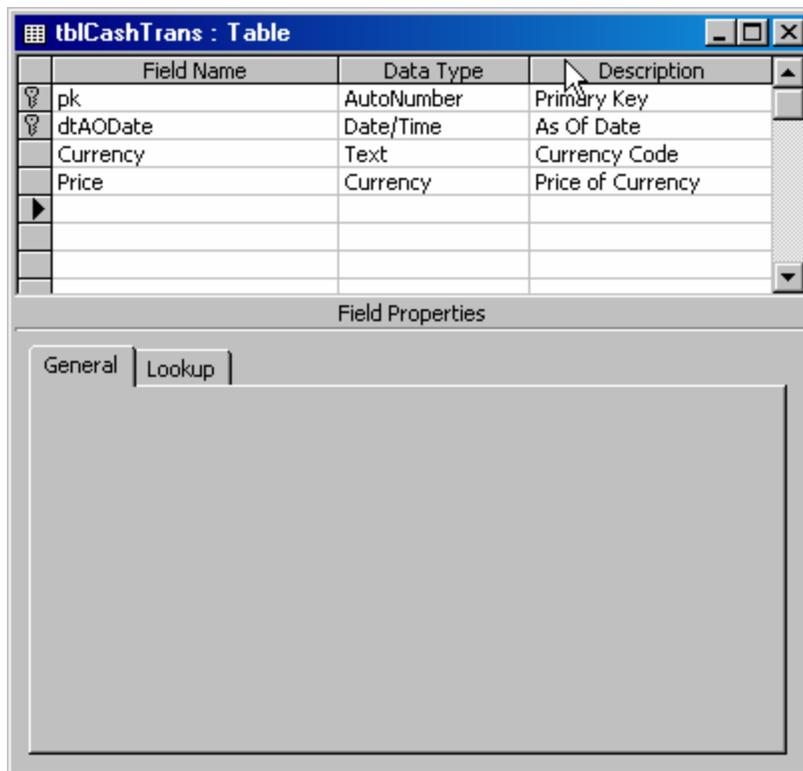
NOTE: To date, StreamlineDB has identified 383 reserved words. It is quite possible there are others out there. If you run into one that is not listed, please send it to me. Scottj@streamlinetech.net

Additional Help on Reserved Words

A reserved word is a word that is internal to a complete system. Such words have symbolic meanings, and when used incorrectly can cause severe errors.

Example:

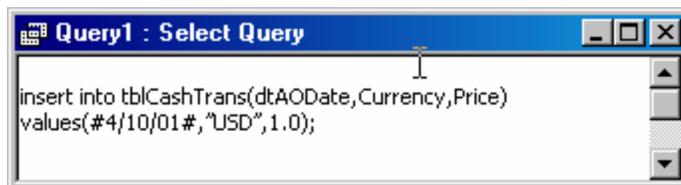
Suppose you have a table named: tblCashTrans



The screenshot shows a window titled 'tblCashTrans : Table'. It contains a table with the following columns: Field Name, Data Type, and Description. The table lists four fields: 'pk' (AutoNumber, Primary Key), 'dtAODate' (Date/Time, As Of Date), 'Currency' (Text, Currency Code), and 'Price' (Currency, Price of Currency). Below the table is a 'Field Properties' section with 'General' and 'Lookup' tabs.

Field Name	Data Type	Description
pk	AutoNumber	Primary Key
dtAODate	Date/Time	As Of Date
Currency	Text	Currency Code
Price	Currency	Price of Currency

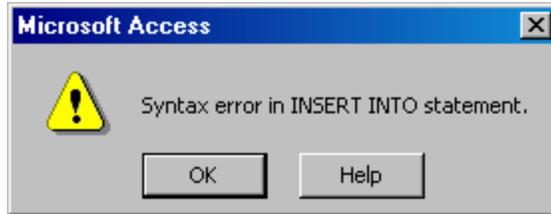
Table: tblCashTrans



The screenshot shows a window titled 'Query1 : Select Query' containing the following SQL statement:

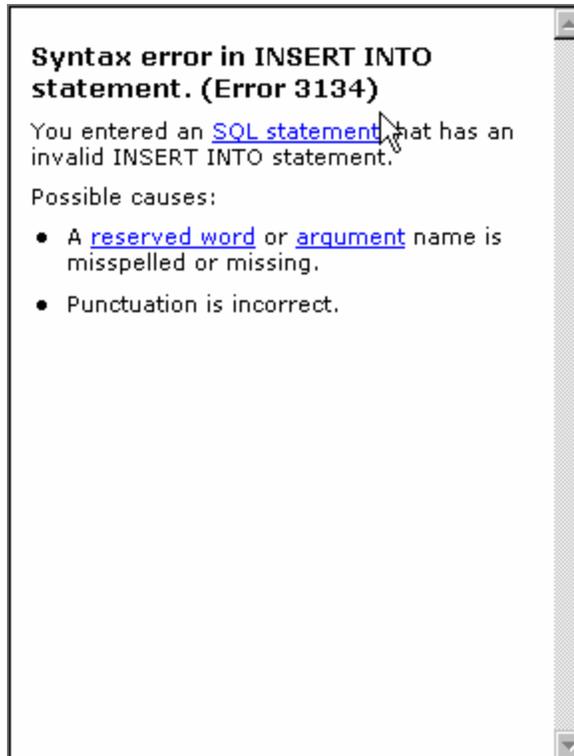
```
insert into tblCashTrans(dtAODate,Currency,Price)
values(#4/10/01#, "USD",1.0);
```

SQL Statement: insert into table clause



The ERROR MESSAGE

Press the help button and you will get this message



Reserved word uncovered.

Point: **StreamlineDB** will detect reserved words before you sink a lot of time and money into the project. **StreamlineDB** will tell you which field is a reserved word, and then it is up to you to make the necessary changes.

TIP: Do not start writing views and stored procedures until you have checked your database design with **StreamlineDB**. If you propagate this error throughout the system, you will only introduce more errors upstream. **StreamlineDB** can aid your database design process and save you time and money in the long run.

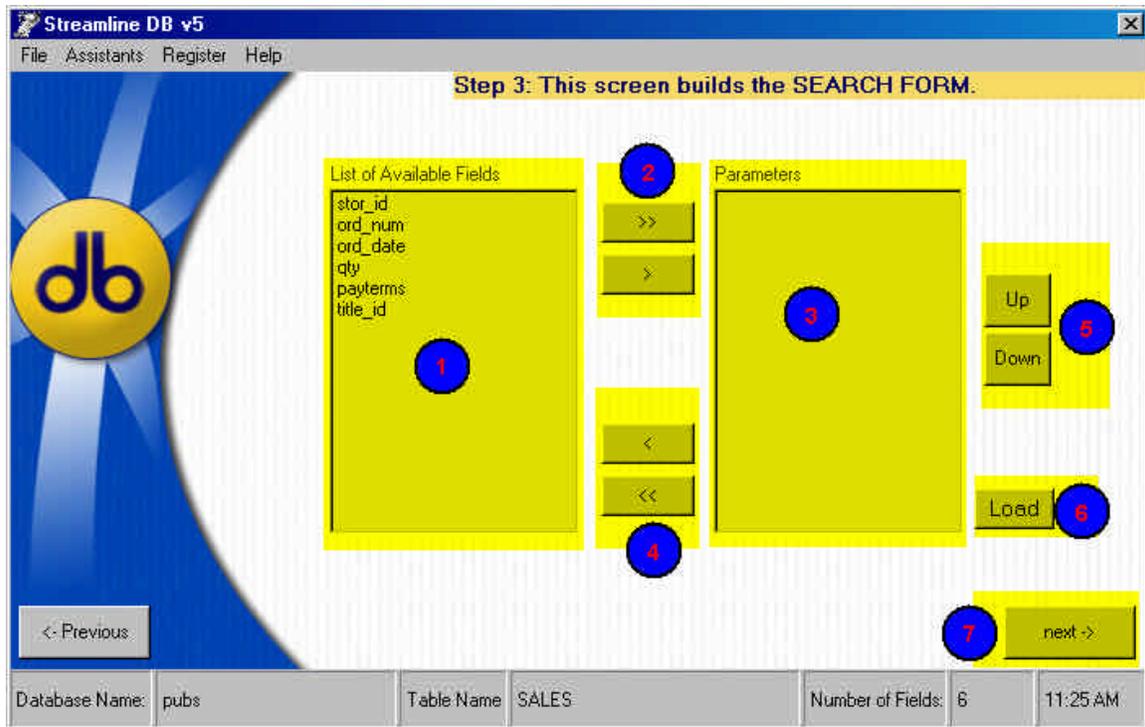


Figure 3

Step 3 is the StreamlineDB form that is used to control the Search Form on the web site.

Task 1

List of available fields in the table you selected.

You can select one field at a time by double clicking

Please try double clicking on any field

NOTE: Look at status bar. We are currently processing the table "sales"

Task 2

To select all the fields and move them into the other list box:

Click on the " >> " button

To select one field at a time, just click on the " > " button

Task 3

These are the fields you selected.

You can double click any field to remove from this list.

Task 4

To select all the fields and move them into the other list box:
Click on the " << " button

To select one field at a time, just click on the " < " button

Task 5

To change to order of the selected items (labeled #3), select the field and then press the "Up" or "Down" button of your choice.

Task 6

If you have already processed this table once, you can re-load your selection. This is a time saving feature of StreamlineDB.

To use the "Load" button, you must first build the web site.

Task 7

Click on the "next ->" button to proceed to step 4

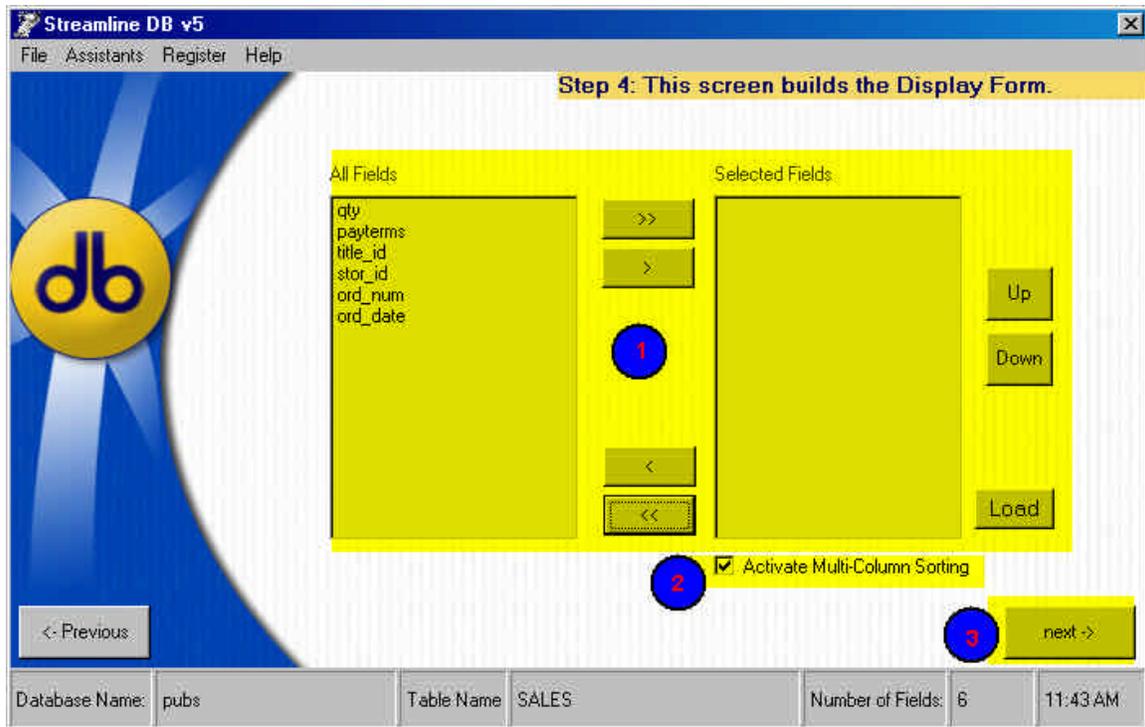


Figure 4

Step 4 is the StreamlineDB form that is used to control the Display Form on the web site.

Notice there is only three Tasks on this form.

Task 1

Absolutely the same as in Step 3 as defined above

Task 2

Activate Multi-Column Sorting

Multi-Column Sorting is a feature of StreamlineDB that only works in Microsoft IE 4+ browsers

If you want this feature turned on, just check the checkbox

Task 3

Click on "next ->" to proceed to the next step

Additional Information about Multi-Column Sorting

Inevitably, when you return data from a database, the end user will want to re-order the data. **StreamlineDB** does something very special with this activity. The generated code allows to user to sort one or more columns on the client-side.

What does client-side mean? I can answer this best with an example.

Suppose you are in Texas, and your database is located in Orlando Florida. You login into a site that was generated with **StreamlineDB**, and now you are ready to QUERY your database for a list of customers in the San Antonio area.

You first send a request to your database server to return all the rows that match your searching criteria. When the results come back, you decide that you want to sort the data by zipcode. **StreamlineDB** will allow you to sort the data that is already in your browser.

You don't have to wait in line to gain access to your database server to get the same data you already have, just to change the sort order.

If you are the owner of this web site, and you have to pay the monthly internet connection bill, you will notice a savings of number of bytes sent out by your web server. Multi-column sorting reduces the amount of data re-sent to the browser.

While the savings may not be obvious to a beginner, more experienced users will appreciate this advanced feature. Your web site will be more robust, and should be able to serve more users, be faster, and hopefully become a big success.

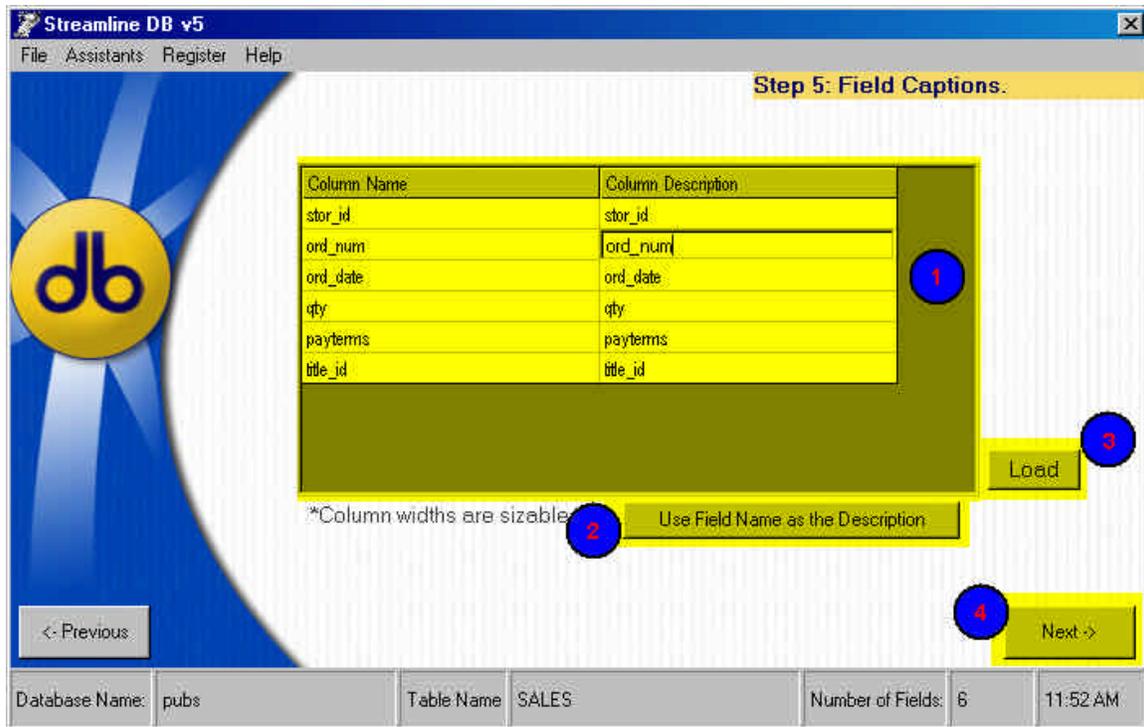


Figure 5

TASK 1

Column Name – All the fields that are associated with the table “sales”

Column Description – The caption you want to use to label each field on your web site.

TASK 2

Click the button “Use Field Name as the Description” only if you want to use the field names as the caption of each field on your web site.

If your field names are like “dPx and sFN”, I would not use them on the web. The users of your web site must know what is expected of them.

Use descriptive column descriptions

Task 3

If you have already processed this table once, you can re-load your selection. This is a time saving feature of StreamlineDB.

To use the “Load” button, you must first build the web site.

Task 4

Click on "next ->" to proceed to the next step

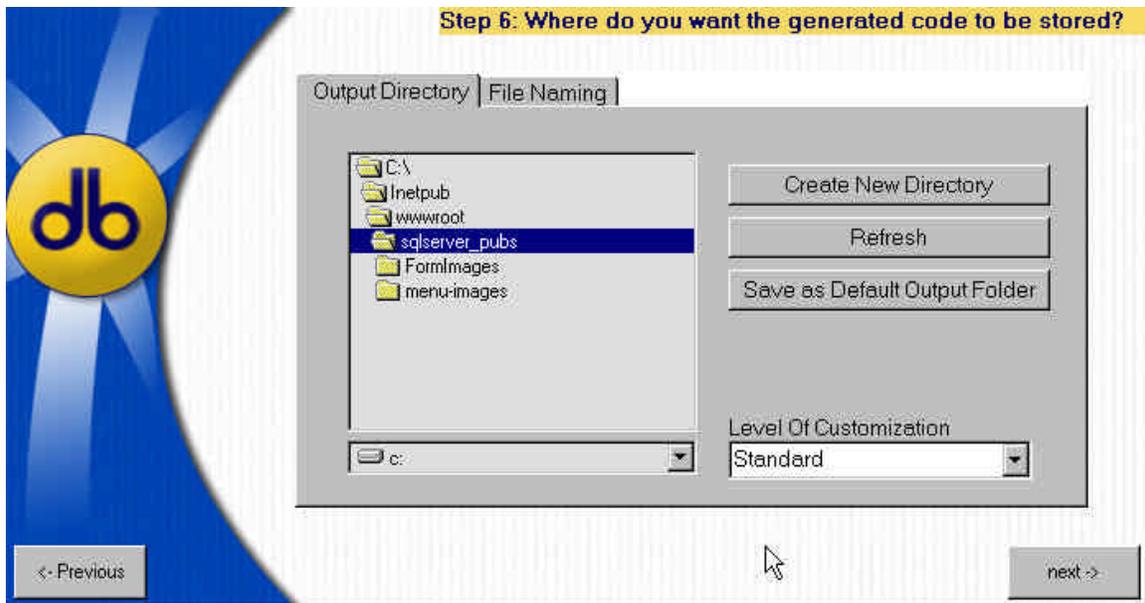


Figure 6

This is a very important step. Where do you want **StreamlineDB** to place the generated code? While this step seems simple and straightforward, the proper placement of the generated code is very important.

There are two kinds of **StreamlineDB** users, those that have selected the wrong folder, and then generated the code in the wrong folder, and the second type user is those that will commit this error.

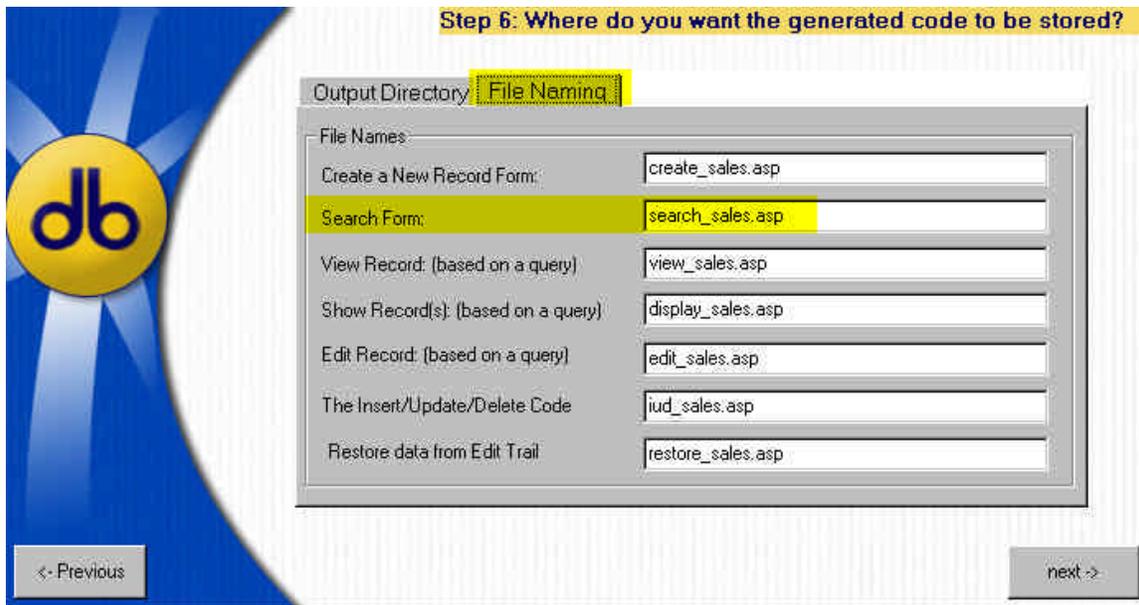


Figure 6.1

The second part of this step is naming the forms that will be generated. While it is easy to just skip over this step, it does leave a security risk to your site. There are thousands of other **StreamlineDB** users, and this is the same step they are using.

Please take the time and rename each form.

To change the name of the files that are generated, here on the File Naming tab is where you can execute that option.

StreamlineDB uses a very simple naming convention.

[verb][_][table name][.asp]

The verb part of the filename is the action the form will take. An example would be highlighted above in Figure 6.1. Notice the verb is search, and the table name is sales.

“ASP” is the mandatory extension.

Press the “next” button to proceed to the final step.



Figure 7

Step 7 of **StreamlineDB** is the final step. Before we build the web site, we have to finalize the site design.

Please follow each task, step-by-step.

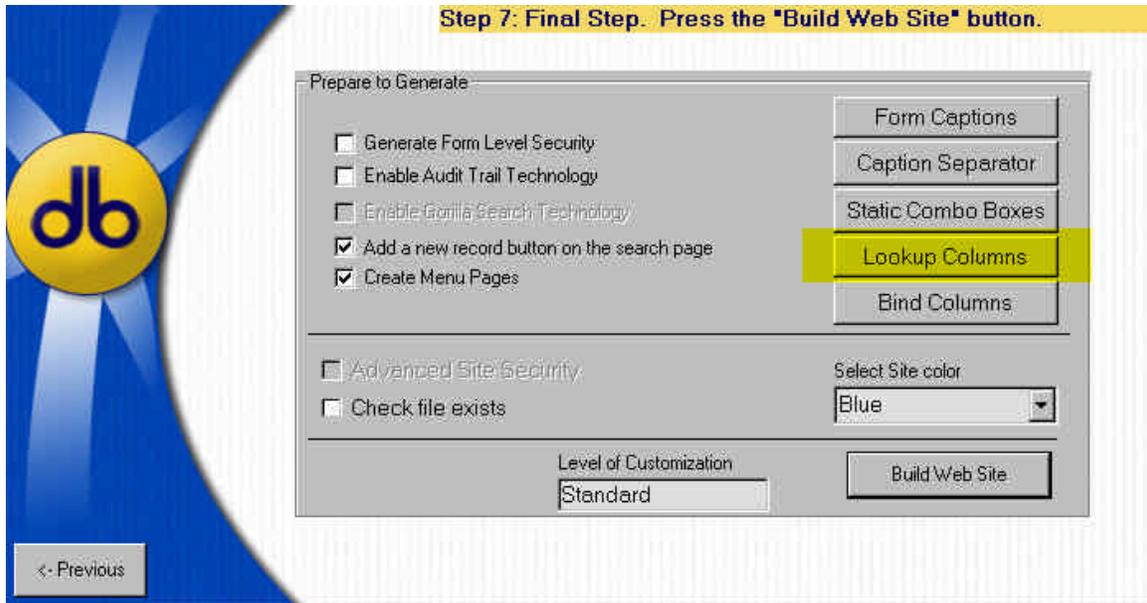


Figure 7.1

Click on the button "Lookup Columns"

Table You are processing:

stor_id
 title_id

Display Columns
 Display Column Separators
 Sort Order
 Sample Output

Lookup Table Name:

Fields in LOOKUP Table
 Fields to show

Column(s) that link together this relationship:

Figure 7.2

The goal of this form is to **build drop down combos** on your web site.

Only fields that have **relationships defined** will appear in this form.

Form Tabs

Display Column –

You can select **1 to 5** fields to display in each combo box

Display Column Separators –

The separator character between each field value

You must define two or more columns to have a separator

The “space” character is the default separator character

Sort Order –

The order the data is displayed in the drop down combo

This step is optional

Sample Output –

What the output will look like

Check out the contents of your drop down combo!

TASK 1

Click on the highlighted area “stor_id”

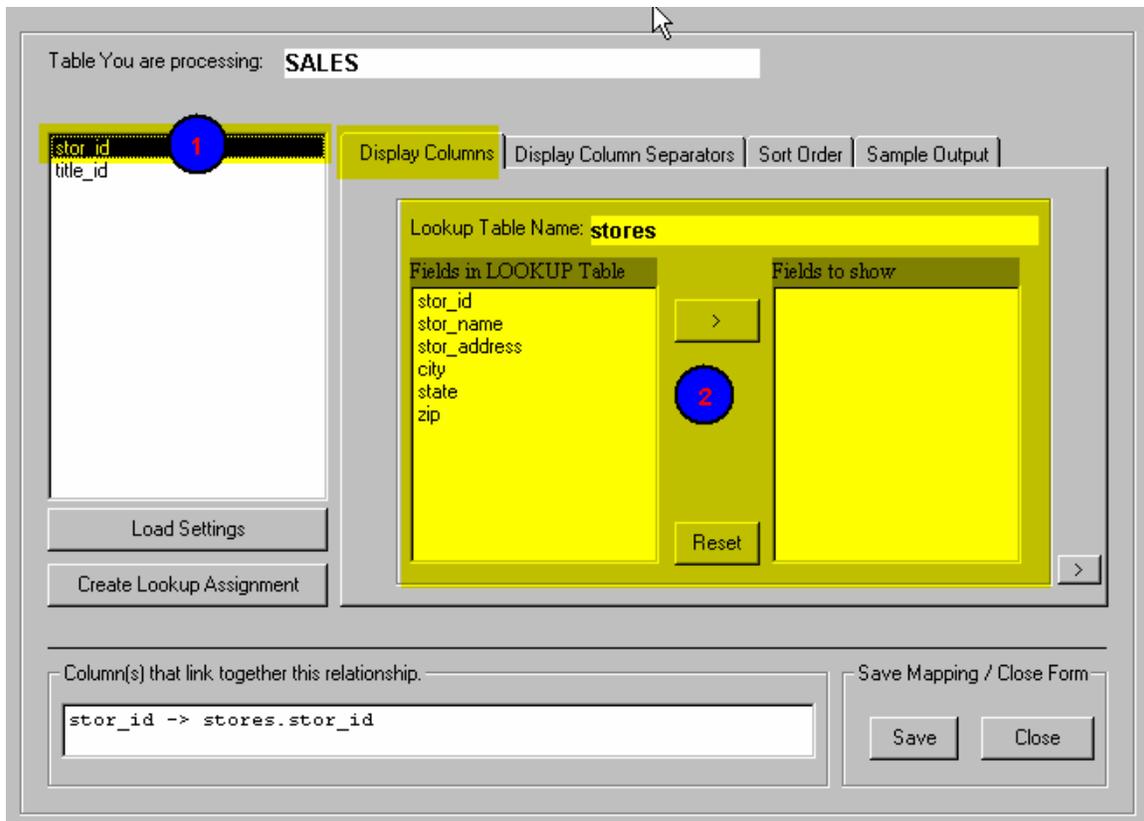


Figure 7.3

Clicking on "stor_id" as shown in figure 7.2, notice the changes in figure 7.3

TASK 1

Select "stor_id"

TASK 2

Select "stor_name" from "Fields in LOOKUP Table"

What you are actually doing is building the SQL that will be used to populate the drop down combo boxes on your web forms. I have limited the number of columns to five (5), if you need more than five fields to populate this type of control, this is probably the wrong approach to take.

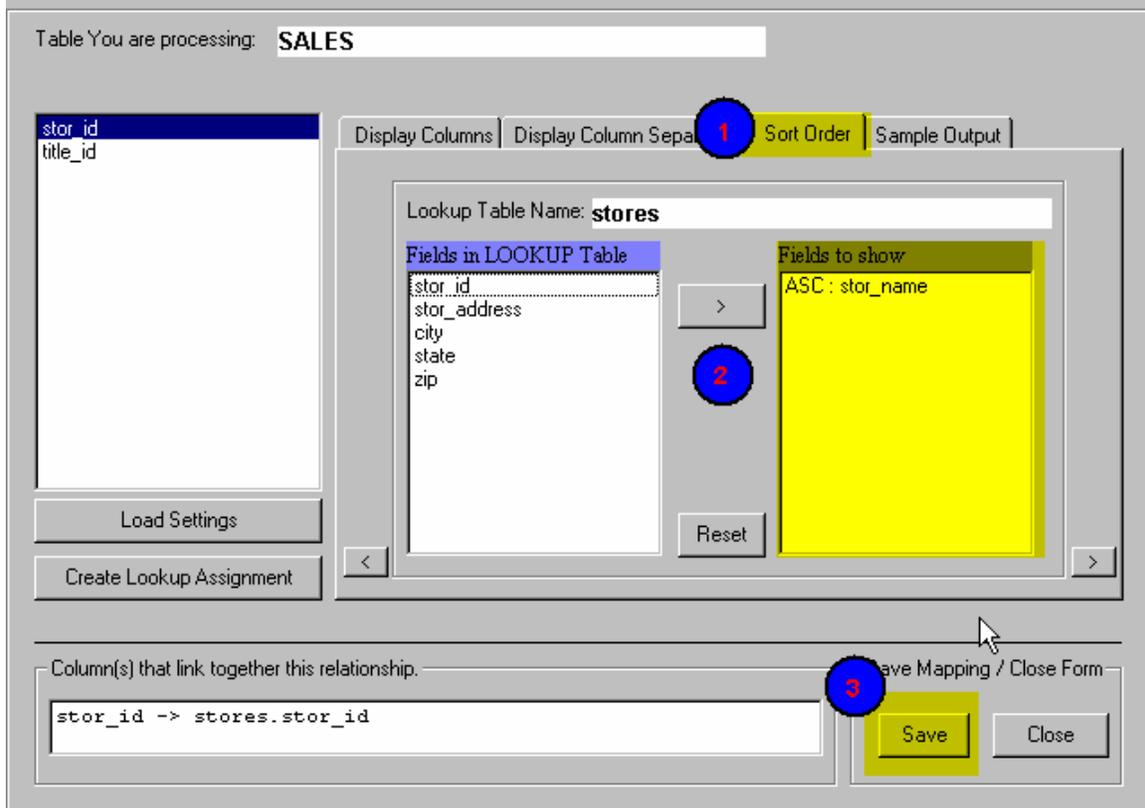


Figure 7.4

Task 1

Now click on "Sort Order" on the Tab Bar

You could also click on the  and  button to change tabs

Task 2

Click on "stor_name" in "Fields in LOOKUP Table"
This places "stor_name" into the #2 list box

Task 3

Click the save button

Lets repeat these steps for the "title_id" column

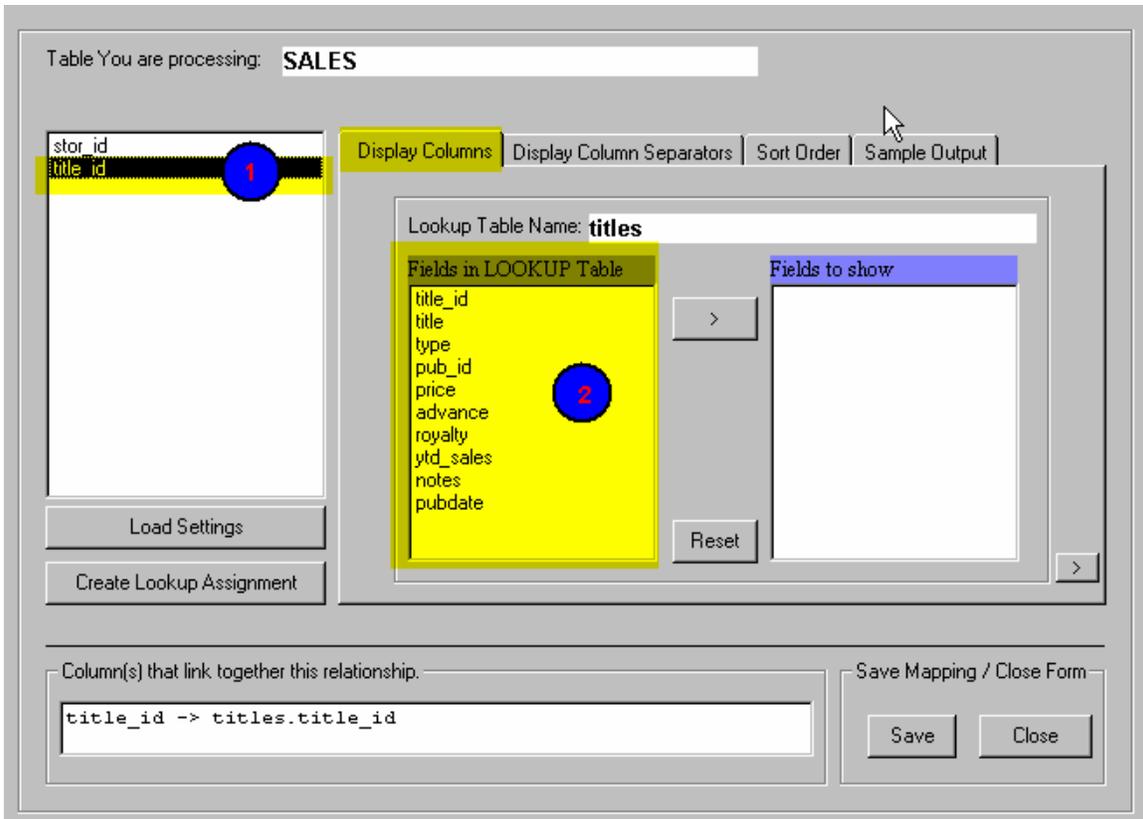


Figure 7.5

Task 1

Select "title_id"

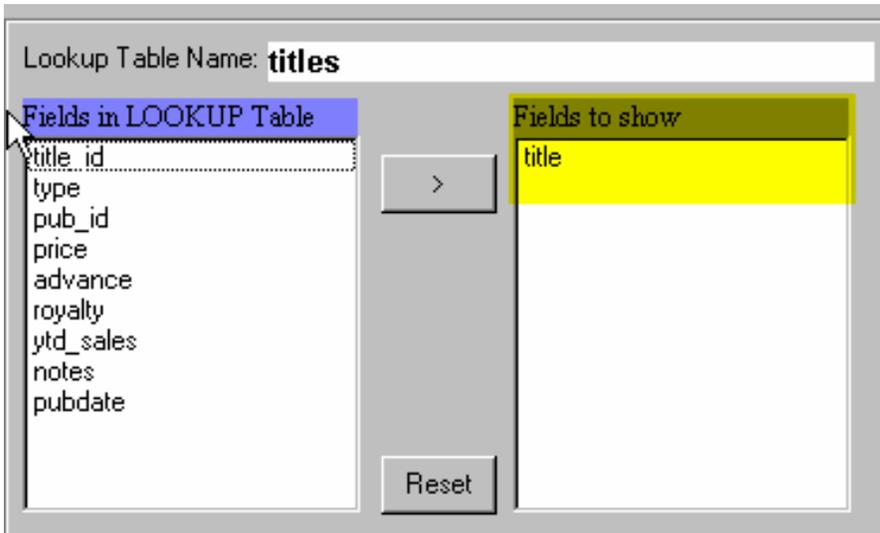


Figure 7.6

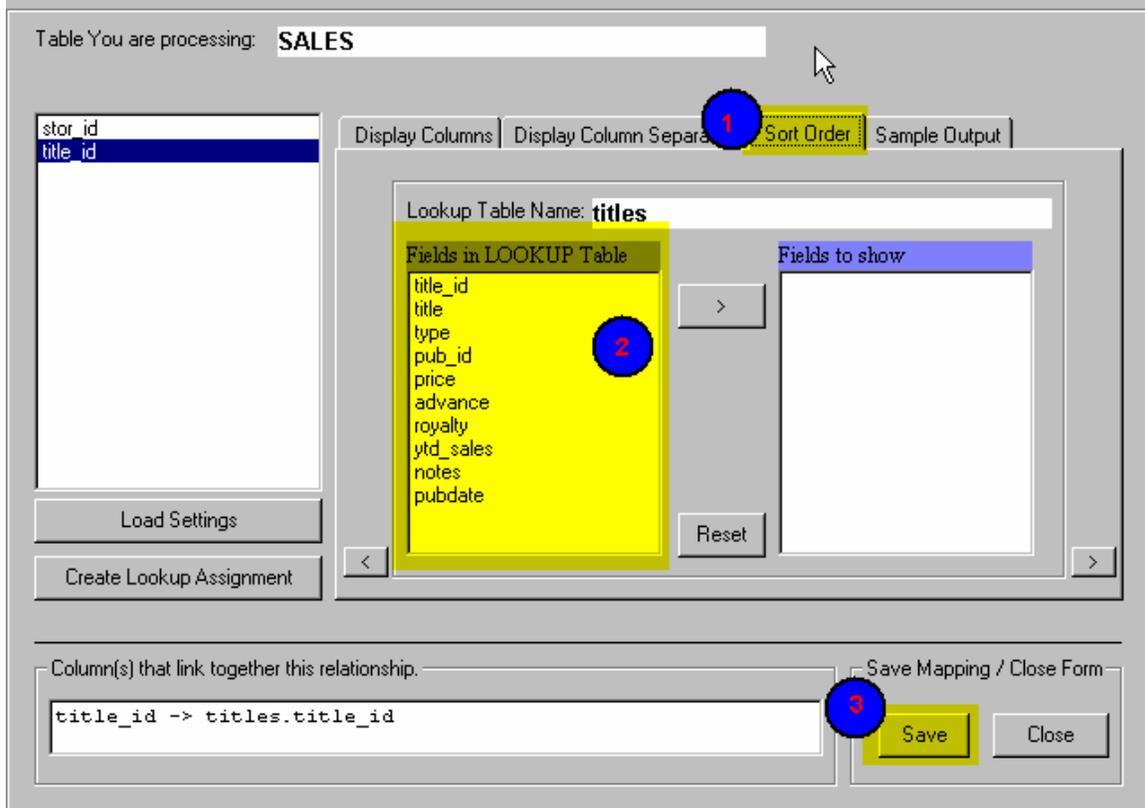


Figure 7.7

Task 1

Select the "Sort Order" Tab

Task 2

Select "title"

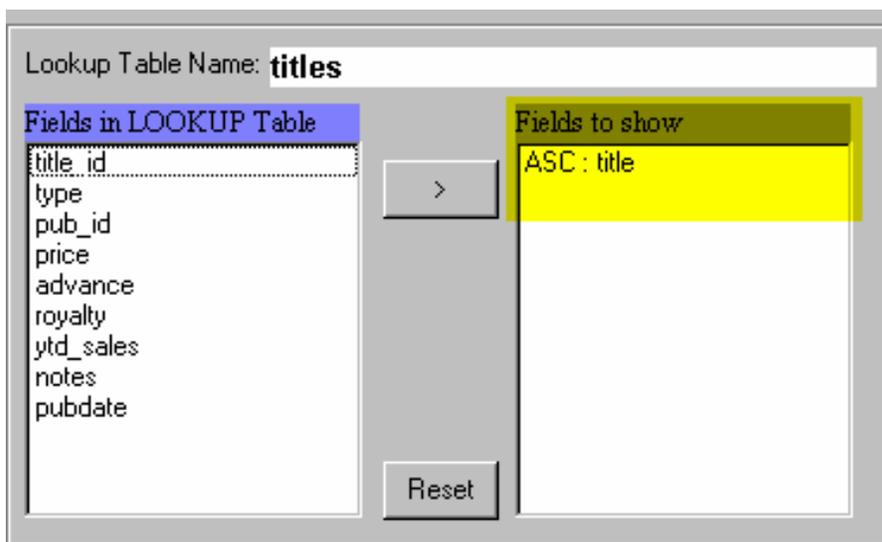


Figure 7.8

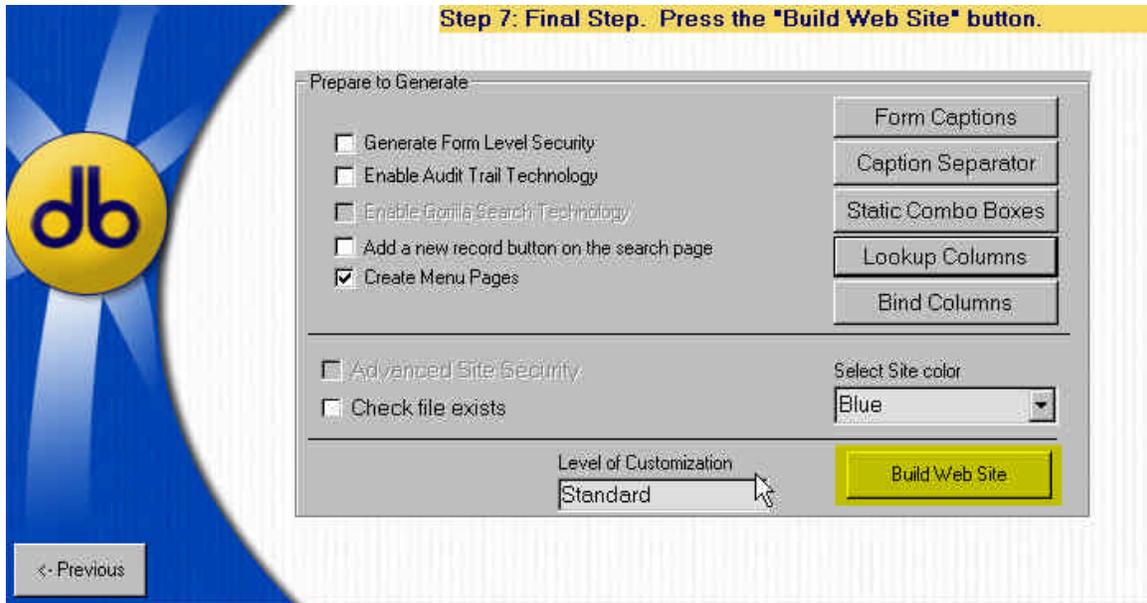
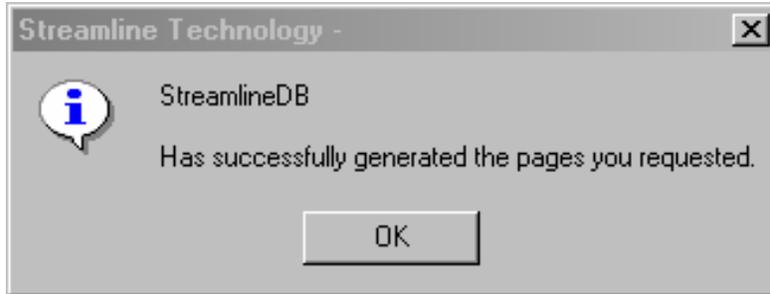


Figure 8

We are now ready to build a **StreamlineDB** generated web site.

TASK 1

Click the "Build Web Site" button



The table "sales" is now ready to view.

For more information about how to use the Generated Web Site, please read the accompanying document, "How to Use the Output of StreamlineDB"

FORM CAPTIONS

Prepare to Generate

Generate Form Level Security

Enable Audit Trail Technology

Enable Gorilla Search Technology

Add a new record button on the search page

Create Menu Pages

Form Captions

Caption Separator

Static Combo Boxes

Lookup Columns

Bind Columns

Advanced Site Security

Check file exists

Select Site color

Blue

Level of Customization

Standard

Build Web Site

Figure 9

Task 1:

To change to Form Caption

Click on the "Form Captions" button

Form Name	Table Name
Search Form	Sales
Display Form	Sales
Edit Form	Sales
View Form	Sales
Create Form	Sales

Save to Storage Load from Storage

Close Form

Figure 9.1

Form Definition

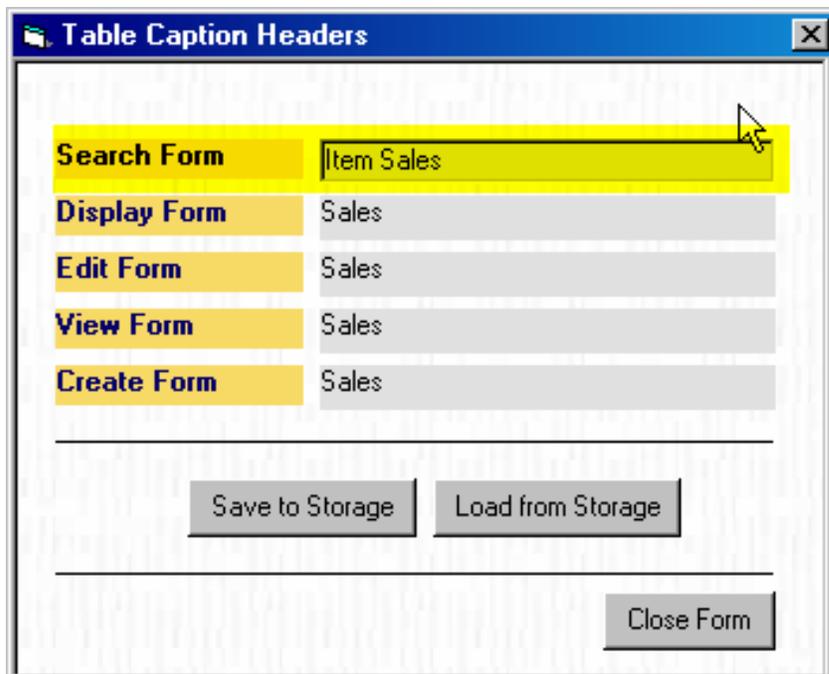
Highlighted in Yellow (see Figure 9.1) are the forms types that **StreamlineDB** generates. To change the caption of the title bar, this is the form you will use. In figure 9.2, notice we use "Sales"



The screenshot shows a form with a yellow title bar labeled "Sales". Below the title bar is a table with two columns: "Field Name" and "Search Criteria". The first row shows "stor_id" in the "Field Name" column and a dropdown menu with "-Select stor_id -" in the "Search Criteria" column. The second row shows "ord_num" with two asterisks in the "Field Name" column and a dropdown menu in the "Search Criteria" column.

Field Name	Search Criteria
stor_id	-Select stor_id -
ord_num **	

Figure 9.2



The screenshot shows a dialog box titled "Table Caption Headers". It has a table with four rows: "Search Form", "Display Form", "Edit Form", and "Create Form". The "Search Form" cell contains "Item Sales" and is highlighted in yellow. The other three rows contain "Sales". Below the table are three buttons: "Save to Storage", "Load from Storage", and "Close Form".

Search Form	Item Sales
Display Form	Sales
Edit Form	Sales
View Form	Sales
Create Form	Sales

Figure 9.3

Notice we changed the "Search Form" from **Sales** to **Item Sales**



The screenshot shows a form with a yellow title bar labeled "Item Sales". Below the title bar is a table with two columns: "Field Name" and "Search Criteria". The first row shows "stor_id" in the "Field Name" column and a dropdown menu with "-Select stor_id -" in the "Search Criteria" column.

Field Name	Search Criteria
stor_id	-Select stor_id -

Figure 9.4

Note the changes made to the web site.

CAPTION SEPARATOR

Prepare to Generate

Generate Form Level Security

Enable Audit Trail Technology

Enable Gorilla Search Technology

Add a new record button on the search page

Create Menu Pages

Form Captions

Caption Separator

Static Combo Boxes

Lookup Columns

Bind Columns

Advanced Site Security

Check file exists

Select Site color

Blue

Level of Customization

Standard

Build Web Site

Figure 10

Task 1:

To add separators between columns

Click on the "Caption Separator" button

Let's first look at the search form. Notice, by default there are no column separators.

Item Sales		
	Field Name	Search Criteria
S E A R C H	stor_id	A Z ↓ -Select stor_id -
	ord_num **	A Z ↓
	<u>ord_date</u> format: mm/dd/yyyy	A Z ↓ Start Date Stop Date
	qty	A Z ↓
	payterms **	A Z ↓
	title_id	A Z ↓ -Select title_id -

Figure 10.1

Notice on the "Search Form" generated by **StreamlineDB** there is no separation between columns.

Notice that "ord_num" is directly under "stor_id"

The Column Grouping feature allows you to make your forms more usable.

Figure 10.2

Action:

Load the "Caption Separator" dialog box. Notice the title bar is labeled "**Column Grouping**"

Task 2:

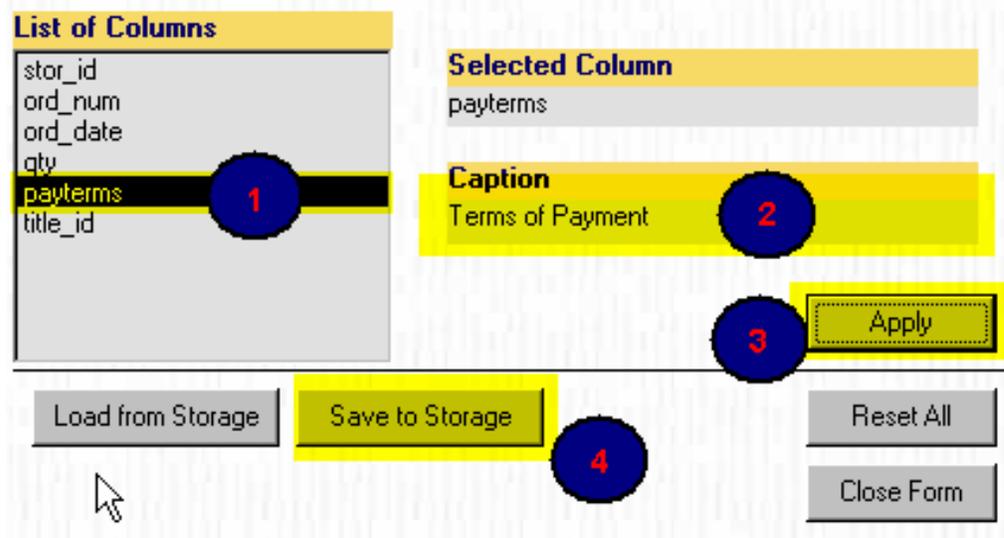


Figure 10.3

Task 1:

Select "payterms"

Task 2:

Type in "Terms of Payment" into section highlighted as #2

Task 3:

Click on the "Apply" button to activate.

Task 4:

Click on the "Save to Storage" button.

This task is optional. If you want to be able to retrieve the values you assigned to each column above, press the "Save to Storage" -- this is a huge time saver if you have to re-create the web form.

When you are done, press the "Close Form"

Item Sales		
	Field Name	Search Criteria
S e a r c h C r i t e r i a	stor_id	<input type="text" value="-Select stor_id -"/>
	ord_num **	<input type="text"/>
	ord_date format: mm/dd/yyyy	<input type="text" value="Start Date"/> <input type="text" value="Stop Date"/>
	qty	<input type="text"/>
	Terms of Payment	
	payterms **	<input type="text"/>
	title_id	<input type="text" value="-Select title_id -"/>

Figure 10.4

In figure 10.4, highlighted is the separator we just created.

Static Combo Boxes

Prepare to Generate

Generate Form Level Security
 Enable Audit Trail Technology
 Enable Gorilla Search Technology
 Add a new record button on the search page
 Create Menu Pages

Form Captions
Caption Separator
Static Combo Boxes
Lookup Columns
Bind Columns

Advanced Site Security
 Check file exists

Select Site color
Blue

Level of Customization
Standard

Build Web Site

Figure 11

The primary goal of this feature (Static Combo Boxes) is to add drop down combo's to your web forms.

Let's take a look at figure 11.1, notice that the column "payterms" is a "**TEXTBOX**" control.

The user who is using this form must know what to type in.

Terms of Payment

payterms ***

Figure 11.1

NOTE: The input device is a "**TEXTBOX**". This is a great input device if you know what to type in! Let's add a drop down combo box to this field.

GOAL: Turn "TEXTBOX" control into a selectable "DROP DOWN COMBO"

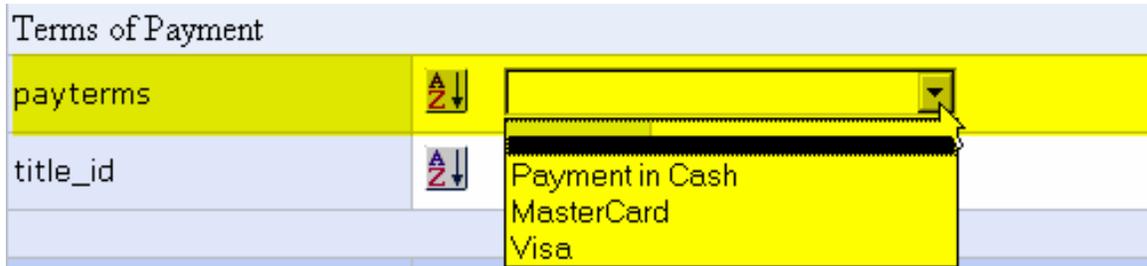


Figure 11.2

Note: Notice the input device changed from a (Figure 11.1) "TEXTBOX" to a (Figure 11.2) "Drop down Combo"

ACTION:

Press the "Static Combo Boxes" button

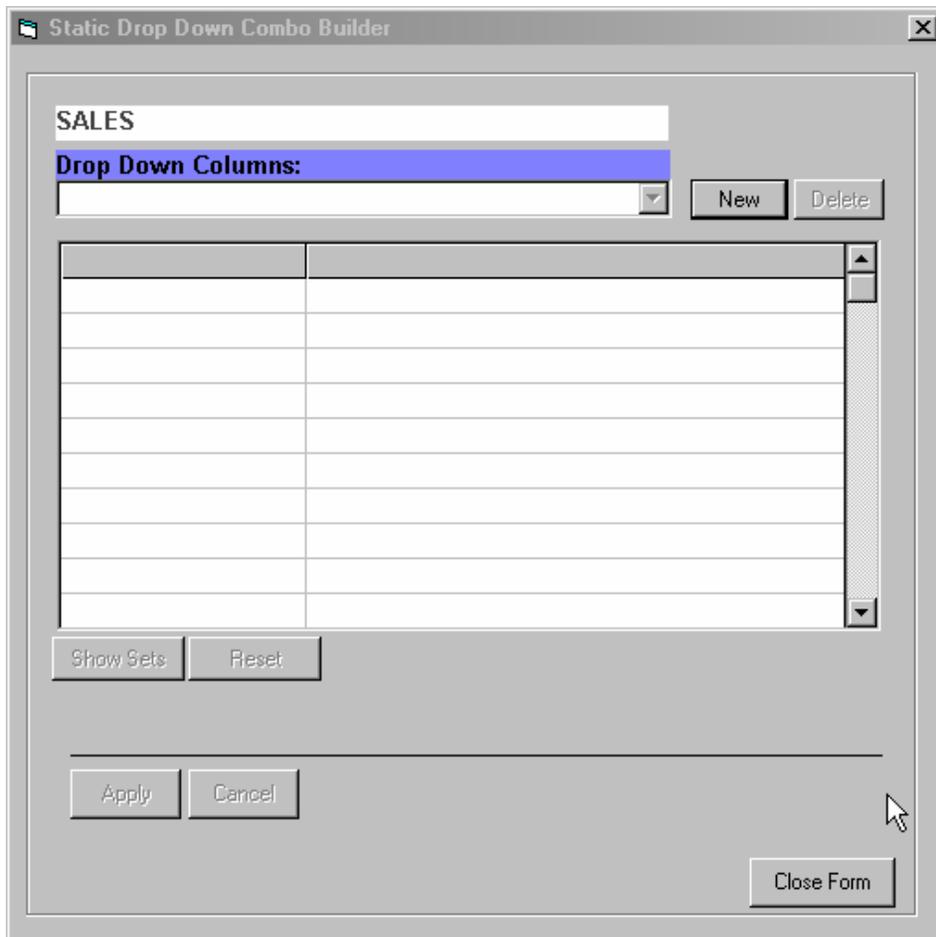


Figure 11.3

This is the form that will gather all the information that is required to create the drop down combo box "content"

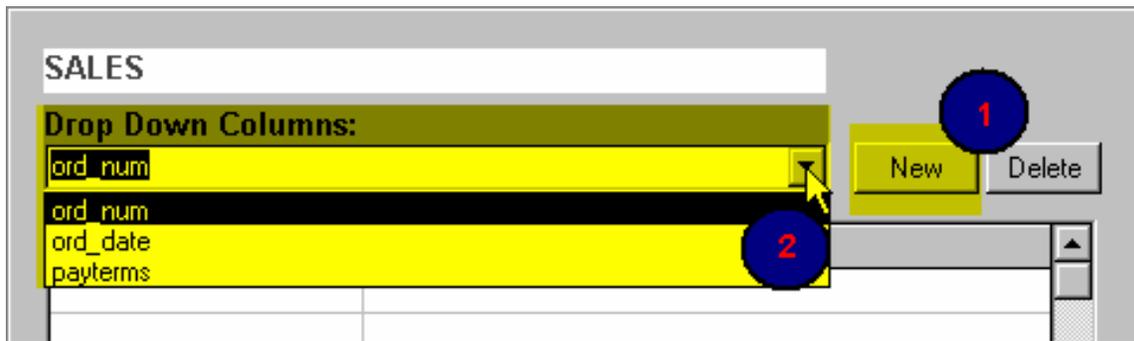


Figure 11.4

Task 1:

Click on the "New" button

Task 2:

Select the column you want to attach this feature to.

NOTE:

- 1) You must know the column data type
- 2) You must know the content you want to add to each drop down combo
- 3) If the database already has data in the field selected, you must carefully type in those unique entries into this form

Q: Why did only three fields appear in the #2 drop down?

A: Only fields that are not foreign keys will appear here
Foreign Key columns are manage separately
No memo fields

NOTE:

Text Fields greater than 16 characters should not use this feature.

Task 3:

SALES

Drop Down Columns:

payterms

New Delete

Values	Description
CASH	Payment in Cash
VISA	Visa
MC	MasterCard

Show Sets Reset

Apply Cancel

Save List

Close Form

Figure 11.5

Task #1:

Type in 'CASH' into first row, first column
 Type in 'Payment in Cash' into first row, second column

Type in 'VISA' into second row, first column
 Type in 'Visa' into second row, second column

Type in 'MC' into third row, first column
 Type in 'MasterCard' into third row, second column

Task #2:

Click the 'Apply' Button

This will apply these rules to this table for this column.

Task #3:

The "Save List" option is optional.

If you think you will re-use the CASH, VISA and MC entries again, you can save them into StreamlineDB, and you can apply these entries against another column in other tables/columns or other columns in this table.

Press the "Close Form" button when finished.

Here is the output!

Terms of Payment	
payterms	<input type="text"/>
title_id	<input type="text"/>



The image shows a screenshot of a web form titled "Terms of Payment". The form has two columns: "payterms" and "title_id". The "title_id" field has a dropdown menu open, showing three options: "Payment in Cash", "MasterCard", and "Visa". A mouse cursor is pointing at the "Payment in Cash" option. The dropdown menu is highlighted in blue.

Figure 11.6

SPECIAL INSTRUCTION:

IF THE TABLE YOU ARE PROCESSING ALREADY HAS DATA, SPECIAL ATTENTION MUST BE TAKEN WHEN TYPING IN THE "VALUE" COLUMN OF THIS FORM. IF YOU MIS-TYPE AN ENTRY, THE SEARCH FUNCTION WILL NOT RETURN THE ROWS YOU EXPECTED.

THIS WOULD BE CONSIDERED A USER ERROR!

Form Level Security

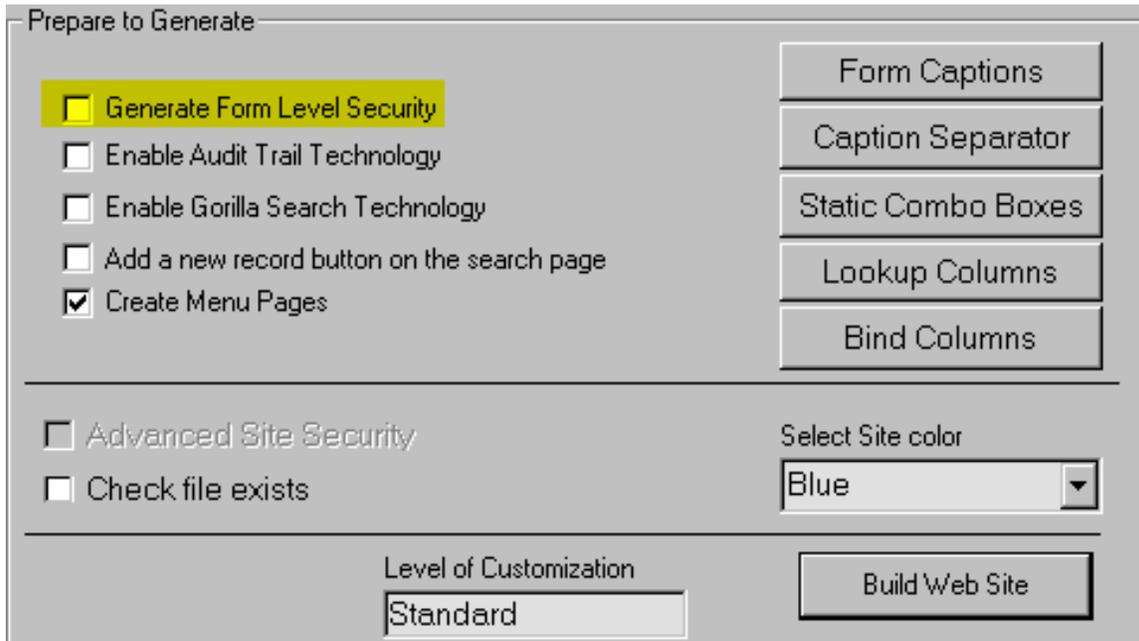


Figure 12

Goal: Require web users to login before they can use StreamlineDB generated web site.

As mentioned earlier, thousands of users have used StreamlineDB and Seven Simple Steps to generate web site. By Default, StreamlineDB uses the SAME user names and passwords.

PLEASE change the default user names and passwords as soon as possible. If you do not change the default user names/passwords, un-authorized users can STEAL all your data.

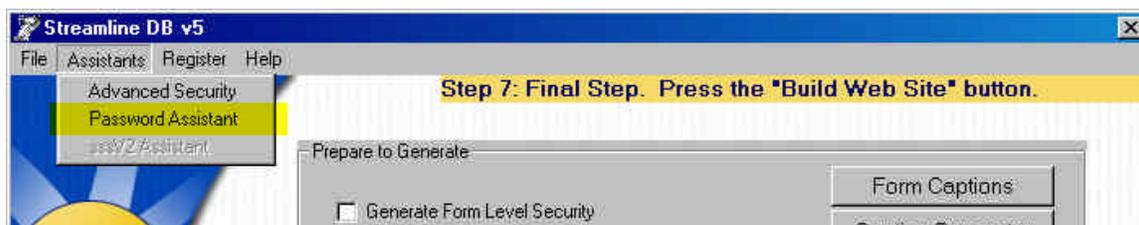


Figure 12.1

Task 1:

From the menu bar, select Password Assistant

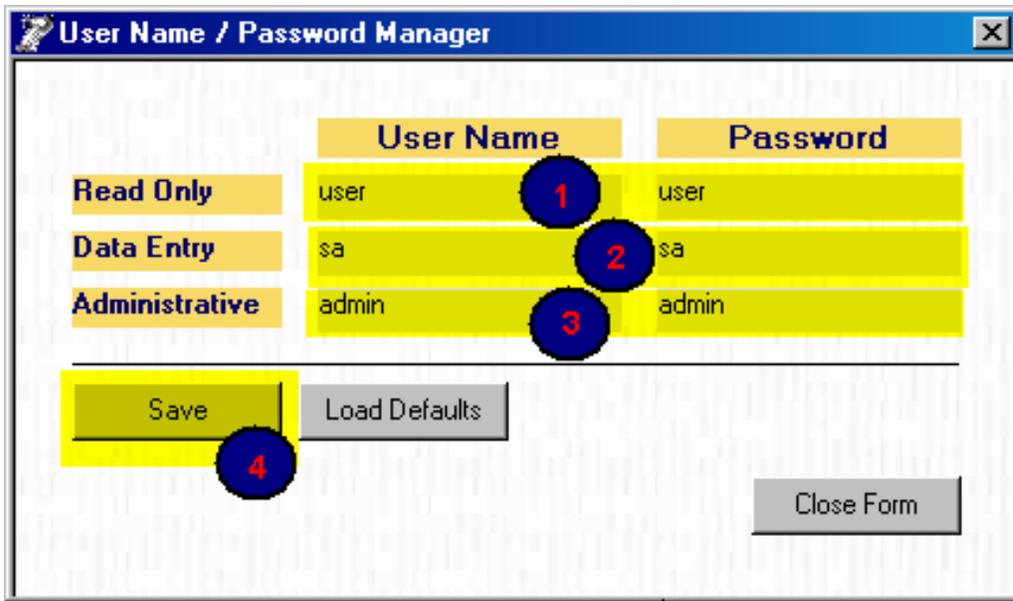


Figure 12.2

StreamlineDB's security model uses a standard approach methodology.

- 1) Try and **PREVENT** unauthorized use
- 2) **MONITOR** usage.

Cryptic user names and passwords make it very difficult for un-authorized users from accessing our web site.