

# **NetBuilder**

## **User Guide**



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# Chapter 1: Getting Started

## Introduction

NetBuilder is a full-featured web-based database management program, useful for home-office applications as well as large-scale corporate databases shared by many users. NetBuilder was designed to allow you to administer, manipulate, and search on your data - all from a web-based interface. NetBuilder can be used by both novice database users and experienced DBA's. It is possible to administer dozens of different databases, all from the same easy-to-use interface.

## Logging In

In order to enter the NetBuilder system, you must first log in. To do so, first enter the URL of NetBuilder– this will take you to the Login screen. There you will be asked for your Username and Password. Enter these in the fields provided, then click the Login button. If you forgot your password, or are having problems logging into the system, you should contact your system administrator for NetBuilder.

## Selecting a Database

To get started in NetBuilder after logging in, you must select a database. As a NetBuilder User, you will have been given rights to various databases by your system administrator. You will see these databases listed in the pull-down menu labeled 'Select Database'. Select one of the databases listed then you will be taken to the Db Menu, from which you can use the powerful features of NetBuilder.

# Chapter 2: NetBuilder Basics

## Overview

NetBuilder is designed to let you work efficiently with your online databases. Each NetBuilder User is assigned a Username and Password, and given rights to work with any number of databases. There are three types of users: admin, full-access and read-only. If you are a read-only user, you will not be able to modify any data or tables. You can access all the features available to you in NetBuilder from the Menu Bar that is at the top of each screen. The Menu Bar also displays the name of the open database, as well as your NetBuilder Username. To select another database at any time, simply go to 'File->Select Database' in the upper left-hand corner of your screen.

## Users

In order to use the NetBuilder system, you must have a Username and Password. This does not give you access to any database, but just allows you to enter the NetBuilder application. Once the database has been assigned to your Username, you will then see it displayed in the Select Database option.

## Databases

The fundamental feature of NetBuilder is the ability to manage multiple databases from one easy-to-use interface. Databases are a collection of related tables that contain records of data. Each database is used for a specific purpose— e.g., billing system, sales system, etc. In every database, there are various tables that each contain specific types of data— e.g., clients, orders, etc. With NetBuilder, managing each database can be done easily and efficiently. You can work with one database at a time in NetBuilder, which you select from the Select Database link at the top of the screen. Once you have selected a database, you will be able to manage all of the tables, data, and queries associated with it.

## Navigation

Navigation through NetBuilder can be accomplished in two different ways. You can easily reach any feature in the application with one click of the mouse. Use the Menu Bar at the top of each screen to find the desired option, then scroll down (and over) to click on the feature you wish to use. Another method of navigation is to move through the system using the various Section Menus.

Also, from any screen you may view information about the tables in your selected database by clicking the View Table Information link in the upper right-hand corner of the screen.

# Chapter 3: Database Concepts

## What is a Database?

A database is a collection of related tables that each contain records of data. Each table in a database contains specific, closely-related data, such as a client list, or an orders list. A database helps a User to relate different parts of the data to one another by connecting the tables together in relationships. For example, a clients table might be connected to an orders table by the Client ID. This would facilitate, for instance, searches on all clients who made an order in a specific time frame. NetBuilder allows you to create your own tables and run searches (called queries) on them, in order to quickly obtain the information you need.

## Database Access

Users in the NetBuilder system are either admin users, full-access users, or read-only users. Admin and full-access users are able to modify tables and data in their assigned databases, but read-only users are only allowed to view the data in a database. The type of user that you are is listed after your Username on the Menu Bar.

# Chapter 4: Working with Tables

## Creating a Table using Table Builder

Tables are the cornerstone of any database. Tables contain records of closely-related data, such as a client list with address information. In NetBuilder, you can create a table using Table Builder, which can be found under the Table Menu. Table Builder will take you through a number of steps, and then will create the table based upon your input.

Step 1: Enter a name for the new table. This should be a name that identifies the data in the table, such as Clients or Orders. Note that table names cannot contain spaces or special characters. At this step you can choose whether to base your table structure on an existing table template, or whether you want to create the table from scratch.

Step 2 (if you choose to use templates): A list of templates are displayed on the screen. There are two groups of templates: business or personal. When you change the pull-down menu, the choice of templates changes below. Decide which template you wish to use, then click Next.

Step 2 (if you do not use templates): Enter the number of fields you wish to have in the table. Each field represents the most basic unit of information for a record. For example, a clients table might have fields such as Last Name, First Name, State, Phone Number, etc. Decide how many fields you will need, and then enter that number in Step 2. Note that you can decrease the total number of fields in the next step, but to increase the number of fields you will have to begin again at Step 1.

Step 3 (if you did not choose templates): Enter the field information. There are three basic identifiers of a field: (1) field name; (2) field type; and (3) field size. Each field should be set up according to the type of information that the field will store. For example, a Last Name field might be called "LastName", be of type "Text", and be of size "50".

Click Advanced Options to access higher-level options available for more sophisticated databases.

After all the information has been entered in the previous steps, Table Builder will create the table for you, and it will then be ready to use! If you wish to later edit the structure of the table you just created, you can do so by going to Table->Advanced->Edit Table.

## Basics of Table Structure

Every table consists of multiple fields. Every field has three basic characteristics:

Field Name: The field must use a descriptive name so that you know what type of information it stores. Examples include Last Name, First Name, Phone Number,

Date Ordered, etc. However, field names cannot contain spaces or special characters.

**Field Type:** Each field contains specific information to help qualify the record. The three most basic types of fields are Text (for fields with characters), Date (for fields that contain date information), and Number (for fields that contain numbers).

**Field Size:** A field can be further qualified by its size. Different fields contain different-sized data. For example, one field might contain phone numbers, and thus will always be under 20 characters, but another field might be address information, and therefore needs to be at least 40 characters in length. Note that Date fields do not have size characteristics.

## **Viewing the Contents of a Table**

If you wish to view all the data in a table quickly, go to Table->View Contents from the Menu Bar. Next, select the table you wish to view, then click Submit. The table will be displayed, with a maximum of 20 records appearing on the screen at one time. Move between screens by clicking the Prev and Next links at the top and bottom of the table. You may also click on any column heading to order the table by that field. Clicking on the same column heading again will reverse order the list by that field.

## **Deleting a Table**

If you have a table that no longer needs to be used, you may delete the table from the database using NetBuilder. Note that deleting a table deletes all the contents of the table permanently! To delete the table, go to Table->Delete from the Menu Bar. From there, select the table you wish to delete, confirm the deletion, and then the table and all its contents will be deleted.

# Chapter 5: Working with Data

## Viewing Records in your Database

Often you will want to search for a specific record in order to view its contents. The easiest way to do this is to use the Data->View Record option from the Menu Bar. Then, select the table which contains the record for which you are searching. All the fields in the table are then displayed with comparison operators (such as greater than [>], equal to [=], etc.) after them. Decide which field you wish to search on, then enter your search criteria and click Search. For example, you may wish to select all records where the Last Name starts with S. Select the 'Like' operator after the Last Name field, then type in S% (% is an operator that means 'all matches'). This will find all records where the Last Name field begins with S. You can view the field type for each field by placing your mouse over the "?" icon to the right of the field.

After you have a listing of the records for which you searched, select the one you wish to view in detail by clicking the corresponding number in the View column on the far left side of the table. The record will then be fully displayed.

## Add Records to Tables

Adding records to tables is easy in NetBuilder. The quickest way to do this is to use the Data->Add Record option from the Menu Bar. Once there, select the table in which you wish to add data. After a table is selected all of its field names will be displayed with entry blanks. Enter the new record's data in the entry blanks and then click Save. The information you entered will be added to the table. You can view the field type for each field by placing your mouse over the "?" icon to the right of the field.

## Editing Existing Records

In most databases, the tables' data is edited frequently. To do so select the Data ->Edit Record option from the Menu Bar. Then, select the table which contains the record you wish to edit. All the fields in the table are then displayed with comparison operators (such as greater than [>], equal to [=], etc.) after them. Decide which field you wish to search on, then enter your search criteria, and click Search. For example, you may wish to select all records where the Last Name starts with S. Select the 'Like' operator after the Last Name field, then type in S% (% is an operator that means 'all matches'). This will find all records where the Last Name field begins with S. You can view the field type for each field by placing your mouse over the "?" icon to the right of the field.

After you have a listing of the records for which you searched, select the one you wish to edit by clicking the corresponding number in the View column on the far left side of the table. The full record will be displayed. Edit the desired field or fields, then click Save.

## Deleting Records in a Table

To delete records you no longer wish to store in a table, use the Data->Delete Record option from the Menu Bar. Select the table which contains the record for which you wish to delete. All the fields in the table are then displayed with comparison operators (such as greater than [>], equal to [=], etc.) after them. Decide which field you wish to search on, then enter your search criteria, and click Search. For example, you may wish to select all records where the Last Name starts with S. Select the 'Like' operator after the Last Name field, then type in S% (% is an operator that means 'all matches'). This will find all records where the Last Name field begins with S. You can view the field type for each field by placing your mouse over the "?" icon to the right of the field.

After you have a listing of the records for which you searched, select the one you wish to delete by clicking the corresponding Delete link in the Delete column on the far left side of the table. This will take you to a confirmation screen, in which you can click Yes to delete the record.

# Chapter 6: Query Fundamentals

## What is a Query?

A Query is a way to quickly search the records in a database and display their output in a table format. Queries can select data records from one table or multiple tables, and can be limited to records with specified values. The power of a database comes from its ability to perform queries— if it were not for this ability to search on the data quickly and easily there would be no reason to store the data electronically at all.

## How to Create a Query using Query Builder

In order to perform its search functions, a query requires user input. What table or tables should be searched, which fields should be displayed, and to what values should the search be limited? Query Builder allows the user to enter this information easily and quickly. To use the Query Builder, choose Query->Builder in the Menu Bar.

Step 1: Choose the query type (read-only users can only choose 'Select'):

Select: will search and display the data that matches the query input. No data will be changed.

Update: will update all the records that match the search criteria with the values you enter.

Delete: will delete all records that match the search criteria you enter.

Step 2: Select the table or tables that contain the records you wish to display/update/delete and/or search on. If this is an update or delete query, you will only be able to select one table.

Step 3: Select the fields that will be involved in this query. This should include the fields that will be displayed as well as the fields you will be searching. To select a field, click on it in the left-hand box, and then click the '>>' button. You can order the fields for display by clicking on the Up and Down buttons on the right-hand side.

If you selected multiple tables:

Step 4: When more than one table is being used, the tables must be joined by matching fields in each table that demonstrate an existing relationship between the tables. For example, you have two tables: Clients and Orders. In both the Clients table and the Orders table, there is a field called 'ClientID'. The three order records in the Orders table where the ClientID is 1234 relate to ABC Company in the Clients table. ABC Company

has a ClientID of 1234 in the Clients table. Therefore the tables should be joined by setting Orders.ClientID=Clients.ClientID.

Step 4 (or 5): You can limit the queries to specific search criteria by entering data for the appropriate field, and selecting the appropriate comparison operator. For example, you may want to limit the query to all orders since June 1, 2001 for client 'Johnson'. Then here you would select Clients.LastName='Johnson' and

Orders.Date > '2001-06-01'. For select queries, you can also decide how you wish to sort the data that is displayed when running the query. For example, you may wish to sort the data in alphabetical order by Last Name.

For an Update Query:

Step 5: Decide what fields should be updated, and the value(s) to which the field(s) will be updated. Enter the new value(s) in the entry blank(s) that corresponds to the appropriate field.

When these steps are completed the query will run and the results will be displayed. If you are running an update or delete query, you will be able to view and confirm your changes before they are saved.

## **Saving a Query**

An advantage of a database management system such as NetBuilder is that you can create queries, and then save them for later use. As the data is updated, your query results can change. To save a query in NetBuilder, you must first create the query using Query Builder (or SQL Query Writer for advanced users). Once the query has been created and run, you will be prompted to Save the query. Enter a name for the query, and click Save. The query will then be saved for later use.

## **Opening an Existing Query**

To open a saved query, go to Query->Open from the Menu Bar. A list of the queries you have saved for this database will be displayed. Select the one you wish to run, and click Run SQL.

## **Deleting a saved Query**

If you have created and saved a query you no longer wish to use, you can delete it from the system. No data will be lost when you delete a query. Choose Query->Delete from the Menu Bar, and then select the query you wish to delete. Click the Delete button. Confirm that you want to delete the query by clicking Yes.

# Chapter 7: Reporting

## Support for NetBuilder Reports

Reports can be created in either PDF or HTML format. In order to create PDF-format reports, NetBuilder Reporting features use PDFlib 3.03, which is compiled into PHP. If the server on which NetBuilder is running does not have PDFlib installed, then you will only be able to create HTML-format reports. To install PDFlib support into PHP, please see the following links:

Support for PDFlib in PHP:

<http://php.net/manual/en/ref.pdf.php>

Once PDFlib is installed, the PDF-format Reporting features in NetBuilder will be made automatically available.

## Report Builder

Report Builder allows a NetBuilder user to create a PDF-formatted or HTML-formatted report based upon an existing table or query. To use this feature, go to Reports->Builder from the Menu Bar, then perform the following steps.

Step 1: Select either a table or a query on which to base your report. You may only select either one table or one query. Note that if you choose a query, it must be a SELECT query (not an UPDATE or DELETE query). Also, if PDF-formatting is available, you will be able to choose either PDF or HTML-format reports.

Step 2: The fields available in the table/query you selected will appear, and you have the ability to select the fields you wish to display, as well as choose what name you want displayed at the top of the report for each field.

Step 3: This step allows you to format the report to display in a manner that you desire. The following fields are able to be changed:

**Report Name:** This is the name of the PDF file that is created.

**Title of Report:** This field will display at the top of each page of the report.

**Orientation:** The report can be in either portrait (8.5" x 11") or landscape (11" x 8.5") orientation.

**Font:** This is the font the report in which the report will appear.

Top Margin (PDF-only): This is the margin, in inches, at the top of each page.

Bottom Margin (PDF-only): This is the margin, in inches, at the bottom of each page.

Side Margins (PDF-only): This is the margin, in inches, on each side of each page.

Lines Between Rows (PDF-only): You may choose to display a line between each data row displayed on the report.

Once you have created the report, you will be able to select a link to display it, and/or you may save the parameters of the report to run later.

## **Opening an Existing Report**

To open a saved report, go to Reports->Open from the Menu Bar. A list of the reports you have saved for this database will be displayed. Select the one you wish to run, and click Run Report.

## **Delete a Report**

If you have created and saved a report you no longer wish to use, you can delete it from the system. No data will be lost when you delete a report. Choose Report->Delete from the Menu Bar, and then select the report you wish to delete. Click the Delete button. Confirm that you want to delete the report by clicking Yes.

# Chapter 8: Web Features

## Search Builder

NetBuilder's Search Builder feature allows you to create web-based searches on the data in your databases. For example, you could create an HTML page to have visitors to your web-site search on your inventory table.

To start Search Builder, go to Web->Search Builder from the Menu Bar. Step 1 is to select the table you wish to have your web users search. After selecting the table, click the Next button.

Step 2 will display all the fields in the selected table. You have two options with each field: (1) display/don't display the field; and (2) give a new name for the field on the screen for your users. For example, you may have a table with three fields: OrderID, OrderName, Order Date. You could decide not to choose the OrderID field, and then change the OrderName field to "Order Name". This would make your web interface more user-friendly. Once you have decided on your display parameters, click the Next button.

Step 3 allows you to customize the web interface you are creating. There are a number of settings you can edit:

**Page Heading:** This will be the title of the HTML page you create.

**Background Color:** Select the color for the background color of the HTML page.

**Text Color:** Select the color you wish for the text on the HTML page.

**Font:** Enter the font face for all the text on your HTML page.

**URL to Logo:** If you wish to display your logo on the search page, enter the complete URL to the logo here. You may leave this field blank if you wish.

**Search Field(s):** A list of all the fields from the table you selected will be displayed here. Choose the ones that you wish to allow your users to search.

Once you have enter the appropriate settings, click the Next button.

After you have completed the three steps, NetBuilder will create an HTML/PHP page automatically. You may view a sample of the page by clicking the "View Sample Page" link. This will allow you to see how the page will look on your web site. If you are satisfied with the page, you can upload it to your page in two different ways: (1) click on the "Download File" link to begin downloading the HTML page to your PC. You can then

upload it to your web server; or (2) you can copy and paste the HTML code in the text box, and create a new file to upload to your web server.

## Form Builder

NetBuilder's Form Builder feature allows you to create web-based data entry forms for the data in your databases. For example, you could create an HTML page to have visitors enter data directly into your Customers table.

To start Form Builder, go to Web->Form Builder from the Menu Bar. Step 1 is to select the table you wish to have your web users use for data entry. After selecting the table, click the Next button.

Step 2 will display all the fields in the selected table. You have two options with each field: (1) display/don't display the field; and (2) give a new name for the field on the screen for your users. For example, you may have a table with three fields: OrderID, OrderName, Order Date. You could decide not to choose the OrderID field, and then change the OrderName field to "Order Name". This would make your web interface more user-friendly. Once you have decided on your display parameters, click the Next button.

Step 3 allows you to customize the web interface you are creating. There are a number of settings you can edit:

**Page Heading:** This will be the title of the HTML page you create.

**Background Color:** Select the color for the background color of the HTML page.

**Text Color:** Select the color you wish for the text on the HTML page.

**Font:** Enter the font face for all the text on your HTML page.

**URL to Logo:** If you wish to display your logo on the search page, enter the complete URL to the logo here. You may leave this field blank if you wish.

**After Submission, redirect to:** Enter the full URL to a page you wish to display after the user has submitted data. If you leave this field blank, the data submission will not redirect to a different page.

Once you have enter the appropriate settings, click the Next button.

After you have completed the three steps, NetBuilder will create an HTML/PHP page automatically. You may view a sample of the page by clicking the "View Sample Page" link. This will allow you to see how the page will look on your web site. If you are satisfied with the page, you can upload it to your page in two different ways: (1) click on the

“Download File” link to begin downloading the HTML page to your PC. You can then upload it to your web server; or (2) you can copy and paste the HTML code in the text box, and create a new file to upload to your web server.

# Chapter 9: Administration

## Administrative Support

The following user and database features are not supported in this implementation of NetBuilder:

- Delete a User
- Add a Database
- Delete a Database
- Change a Database Password
- Assigning a Database to the System
- Assigning a User to a Database
- Unassigning a Database from a User

Users and databases may be managed through the MySQL database option in your control panel. If this option is not available to you, please contact support to have your control panel upgraded.

**Note:** The NetBuilder online help system is an integrated component of the application. It includes topics for each NetBuilder feature, including the unavailable ones specified above (e.g., the disabled Admin menu items).

# Chapter 10: Advanced Concepts

## Overview

The features described in this Chapter should only be performed by advanced database users, as mistakes could cause serious alterations of your data.

## SQL Table Writer

If you wish to create a table using a CREATE TABLE SQL statement, go to Table->Advanced->SQL Writer from the Menu Bar. Enter the SQL statement in the text box provided, and click Run SQL. The SQL statement you wrote will be executed, and the results will be displayed on the screen.

## SQL Query Writer

If you wish to write an update, delete, or select Query using SQL, go to Query->Advanced->SQL Writer from the Menu Bar. Enter the SQL statement in the text box provided, and click Run SQL. The SQL statement you wrote will be executed, and the results will be displayed on the screen. You can then save the query from the results page.

## Import Data from a text file

If you have data residing in a delimited text file, you can import that data into an existing table using NetBuilder. Go to Table->Advanced->Import Table from the Menu Bar. In the first field, input the path to the text file on your PC (you can click the Browse button to view the contents of your PC). Select the Table into which the data should be imported from the list and fill in the following fields:

Fields Separated by: This is the character by which the fields are delimited.

Fields Enclosed by: If the data is enclosed with some character (such as quotes), select it here.

After filling in all the fields, click the Import button, and the text file will be imported into the table you selected.

## Export Table to a text file

Existing data in tables in NetBuilder can be exported to text files for use in other database systems. Go to Table->Advanced->Export Table from the Menu Bar. Select the table you wish to export from the list. Fill in the following values:

Fields Separated by: This is the character that the fields are delimited by.

Fields Enclosed by: If you wish the data to be enclosed with some character (such as quotes), select it here.

Click the Submit button, and the file will be created. A link will appear on the screen that says 'Download File'. To download the file to your PC, select the link, and the file will begin to download automatically. Note that any file created here will be deleted from the server when you log out of the application.

## Edit an Existing Table

Once a table has been created, you can edit its table structure from NetBuilder. Note that editing an existing table's structure could result in data loss! To edit a table structure, go to Table->Advanced->Edit Table. Select the table you wish to work with from the list and click Next. The next screen will display all the fields of the table as well as their properties. You can make the following changes to the table:

Change field name: You can rename any field by typing in a new name for the appropriate field, then clicking the Edit Field link in that row.

Change Field Types: You can make any changes to a field's properties, then click the Edit Field link in that row. Note that making changes to fields that already contain data could result in errors or data loss.

Remove a field: You can delete a field from a table by clicking the red Remove link at the right-hand side of the row of the field you wish to delete.

Add a field: If you wish to add a field to an existing table, enter the field information in the last row of the table display, and click the Add Field link on the right-hand side of the row.

## Edit an Existing Query

You can edit the SQL of an existing query in NetBuilder. Go to Query->Advanced->Edit Query from the Menu Bar. Select the query from the list provided, and click 'Next>>'. The SQL for that query will be displayed, and you can edit the statement accordingly. Click the Save button to save your changes. Note that changing a query will not run the query.

## Technical Specifications & System Requirements

Vansam NetBuilder runs under the Apache Web Server on Linux systems. It uses the MySQL database engine, which can be found at [www.mysql.com](http://www.mysql.com). The application is written completely in PHP (found at [www.php.net](http://www.php.net)).

In order to use NetBuilder, the following system requirements must be met.

### Server Requirements

(Note: all programs/applications required below are available for free)

Operating System: Red Hat Linux 6.x or 7.x (Linux glibc 2.1) ([www.redhat.com](http://www.redhat.com))

(note: other distributions of Linux will probably work but have not been tested)

Web Server: Apache 1.3.x or above ([www.apache.org](http://www.apache.org))

Database Engine: MySQL 3.22.x or above ([www.mysql.com](http://www.mysql.com))

Other:

PHP 4.0.3 or above ([www.php.net](http://www.php.net))

Client Requirements

Internet Connection

Browser:

Microsoft Internet Explorer 4.0+

Netscape Navigator 4.0+