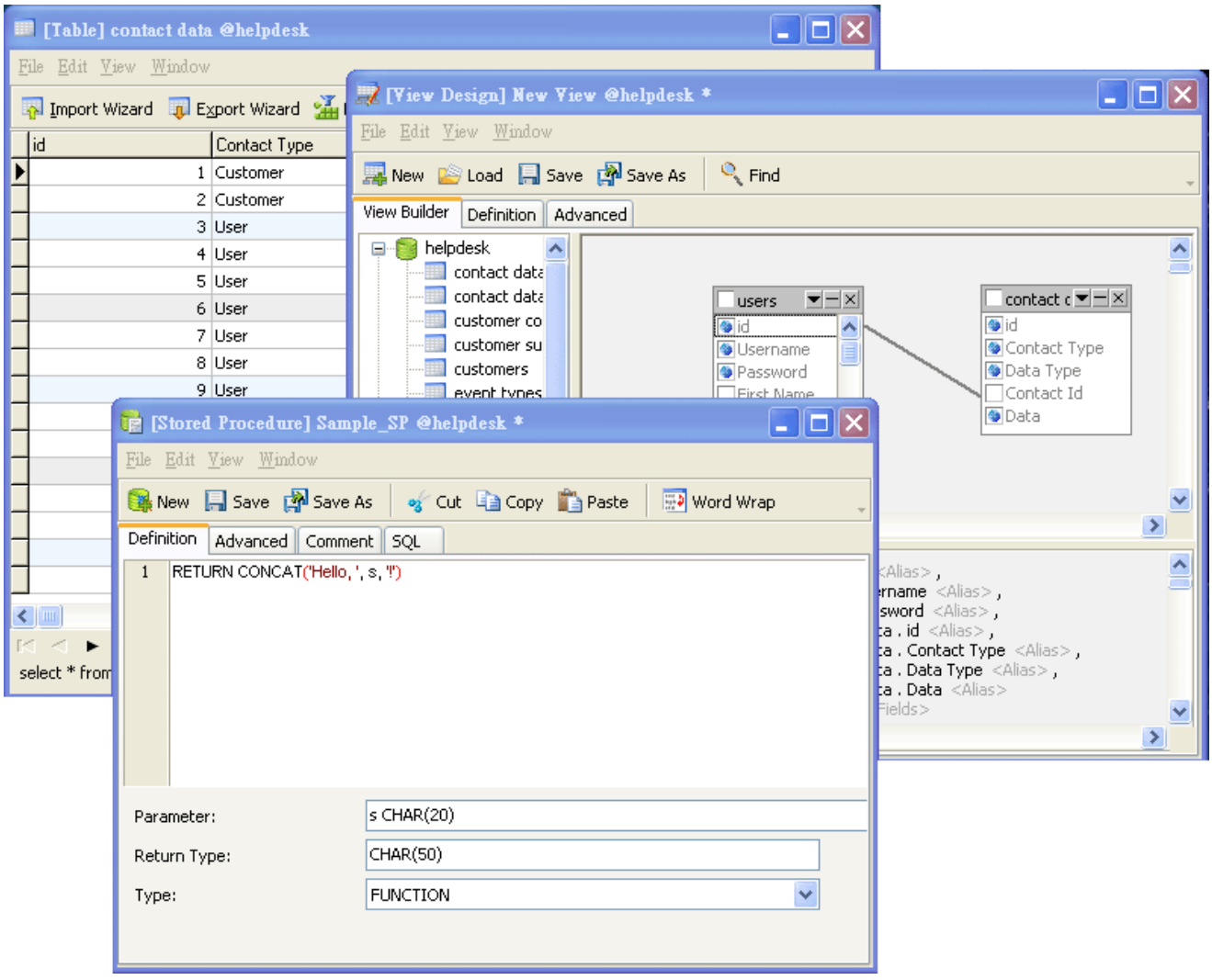
Database Object Management

Navicat MySQL provides powerful tools to manage database objects.

Note: before working with database objects in Navicat MySQL you should establish the connection first (see Connection Settings).

The following list contains the most common database objects supported by Navicat MySQL.

- Tables
- Views
- Stored Procedure/Functions



Tables

Relational databases use tables to store data. All operations on data are done on the tables themselves or produce other tables as the result. A table is a set of rows and columns, and their intersections are fields. From a general perspective, columns within a table describe the name and type of data that will be found by row for that column's fields. Rows within a table represent records composed of fields that are described from left to right by their corresponding column's name and type. Each field in a row is implicitly correlated with each other field in that row.

Just sample click  to open an object pane for **Table**. A right-click displays the popup menu or using the object pane toolbar below, allowing you to create new, edit, open and delete the selected table.

Create Table

To create a new table

- Select anywhere on the object pane.
- Click the **New Table** from the object pane toolbar.
  or
- Right-click and select **New Table** from the popup menu.
- Edit table properties and fields on the appropriate tabs of the Table Designer.

  Hint: To create new table you can also right-click the Tables node of the navigation pane and select the **New Table** from the popup menu.

To create a new table with the same properties as one of the existing tables has (using popup menu)

Apply to: current database {same connection}

- Select the table(s) for copying in the navigation pane/object pane.
- Right-click and select the **Duplicate Table** from the popup menu.
- The newly created table(s) will be named as "tablename**_copy**".

To create a new table with the same properties as one of the existing tables has (using drag and drop method)

Apply to: current database {same connection}
different database {same connection}
different database {different connection} (Data Transfer tool will be activated)

- Select the table(s) for copying in the object pane.
- Drag and drop the chosen table(s) to the target database.
- Select one of the following options:
  - Copy here (Structure and Data)
  - Copy here (Structure only)
  - Cancel

To create a new table with modification as one of the existing tables

- Select the table for modifying in the navigation pane/object pane.
- Right-click and select the **Design Table** from the popup menu.
  or
- Click the **Design Table** from the object pane toolbar.
- Modify table properties and fields on the appropriate tabs of the Table Designer.
- Click **Save As**.

Edit Table

To edit the existing table (manage its fields, indexes, foreign keys and triggers etc)

- Select the table for editing in the navigation pane/object pane.
- Right-click and select the **Design Table** from the popup menu.
  or
- Click the **Design Table** from the object pane toolbar.
- Edit table properties and fields on the appropriate tabs of the Table Designer.

To change the name of the table

- Select the table for editing in the navigation pane/object pane.
- Right-click and select the **Rename** from the popup menu.

Open Table

To open a table (manage table data)

- Select the table for opening in the navigation pane/object pane.
- Right-click and select the **Open Table** from the popup menu or simply double-click the table.
  or
- Click the **Open Table** from the object pane toolbar.

Empty Table

To empty a table

- Select the table in the navigation pane/object pane.
- Right-click the selected table and choose **Empty Table** from the popup menu.

  Note: This option is only applied when you wish to clear all the existing records without resetting the auto-increment value. To reset the auto-increment value while emptying your table, use **Truncate Table** below.

Truncate Table

To truncate a table

- Select the table in the navigation pane/object pane.
- Right-click the selected table and choose **Truncate Table** from the popup menu.

Delete Table

To delete a table

- Select the table for deleting in the navigation pane/object pane.

- Right-click and select the **Delete Table** from the popup menu.
  or
- Click the **Delete Table** from the object pane toolbar.
- Confirm deleting in the dialog window.

Achieve Table Information

To achieve a table information (table type, rows format, rows and DDL, etc)

- Select the table in the navigation pane/object pane.
- Right-click the selected table and choose **Table Information** from the popup menu.

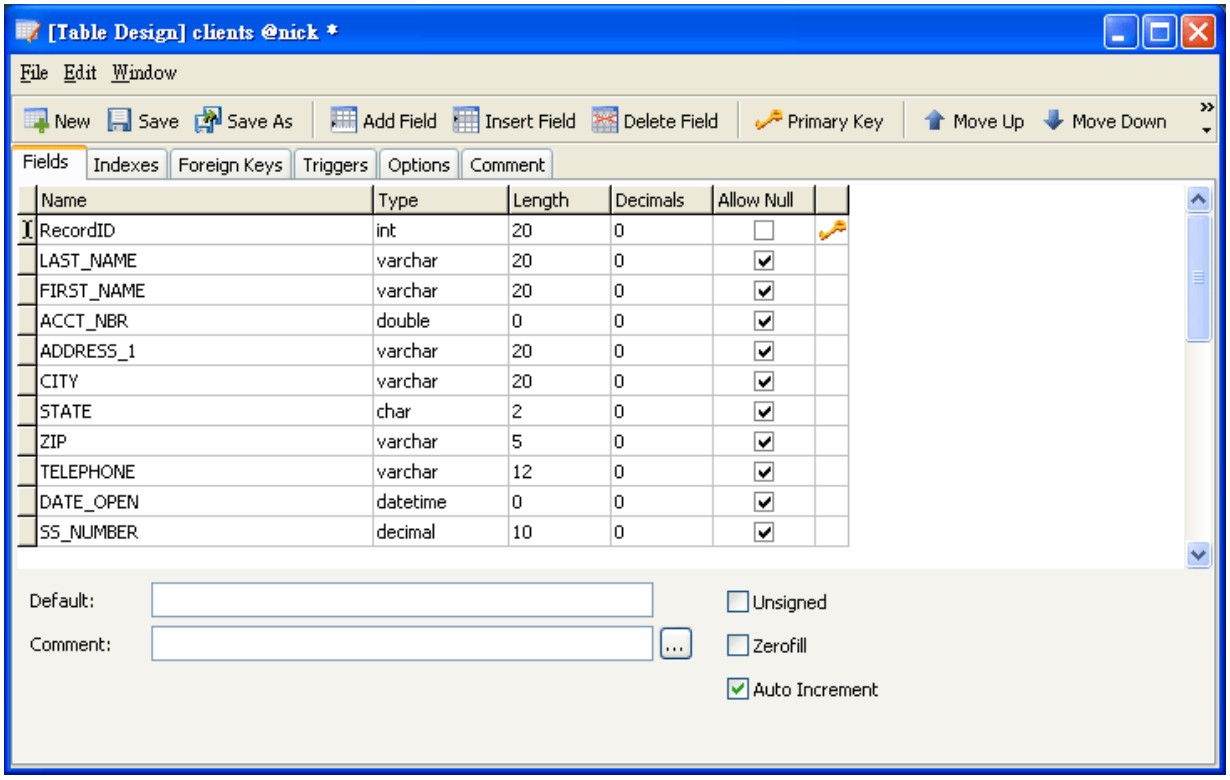
Table Designer

Table Designer is the basic Navicat MySQL tool for working with tables. It allows you to create, edit and drop table's fields, indexes, foreign keys, and much more.

To open a table in the Table Designer (see Edit Table for details).

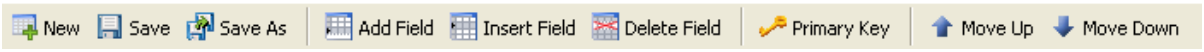
- Managing Table Fields
- Managing Table Indexes
- Managing Table Foreign Keys
- Managing Table Triggers
- Managing Table Options
- Managing Table Comment

See also:
Viewing Table Data



Fields

Table fields are managed on the **Fields** tab of the Table Designer. Just simply click a field for editing. A right-click displays the popup menu or using the toolbar below, allowing you to create new, insert, move and drop the selected field.



Add Field

To add a field to the table

- Open the table in the Table Designer.
- Open the **Fields** tab.
- Right-click and select the **Add Field** from the popup menu or click the **Add Field** from the toolbar.
- Edit field properties.

Insert Field

To insert a field above an existing field

- Open the table in the Table Designer.
- Open the **Fields** tab.
- Select field.
- Right-click and select the **Insert Field** from the popup menu or click the **Insert Field** from the toolbar.
- Define field properties in the empty row.

  Note: Support from MySQL 3.22 or later.

Edit Field

To edit the table field

- Open the table in the Table Designer.
- Open the **Fields** tab.
- Simply click on the field to edit.

To change the order of the table fields

- Open the table in the Table Designer.
- Open the **Fields** tab.
- Right-click on the field to move and select the **Move Up**/ **Move Down** from the popup menu or click the **Move Up**/ **Move Down** from the toolbar.

  Note: Support from MySQL 4.0.1 or later.

Delete Field

To delete the table field

- Open the table in the Table Designer.
- Open the **Fields** tab.
- Right-click on the field to delete and select the **Delete Field** from the popup menu or click the **Delete Field** from the toolbar.
- Confirm deleting in the dialog window.

See also:
Setting Field Name and Data Type
Setting Field Size and Decimals
Setting Field Flags
Setting Other Field Properties

Setting Field Name and Data Type

Field Name

The Field Name is a descriptive identifier for a field that can be up to 64 characters (letters or numbers) including spaces. The names should be descriptive enough that anyone can easily identify them when viewing or editing records. For example, LastName, FirstName, StreetAddress, or HomePhone.

Use the **Name** edit box to set the field name. Note that the name of the field must be unique among all the field names in the table.

Data Type

After you name a field, you choose a data type for the data to be contained in the field. When you choose a field's data type, you are deciding:

- What kind of values to allow in the field. You cannot store text in field with the **Numeric** data type.
- How much storage space MySQL is to set aside for the data in that field.
- What types of operations can be performed on the values in that field.

The **Type** dropdown list defines the type of the field data.

Name	Type	Length	Decimals	Allow Null	
Species No	int	11	0	☐	🔑
Category	varchar	15	0	☑	
Common_Name	varchar	30	0	☑	
Species Name	varchar	40	0	☑	
Length (cm)	double	0	0	☑	
Length_In	double	0	0	☑	
Graphic	longblob	0	0	☑	

The following tables summarize each data type:

Text/Memo

Data Type	Size
CHAR	A fixed section from 0 to 255 characters long
VARCHAR	A variable section from 0 to 255 characters long before MySQL 5.0.3, and 0 to 65,535 in 5.0.3 and later versions
BINARY (binary strings)	A fixed section from 0 to 255 bytes
VARBINARY (binary strings)	A variable section from 0 to 255 bytes before MySQL 5.0.3, and 0 to 65,535 in 5.0.3 and later versions
TINYTEXT	A string with a maximum length of 255 characters
TEXT	A string with a maximum length of 65535 characters
MEDIUMTEXT	A string with a maximum length of 16777215 characters
LONGTEXT	A string with a maximum length of 4294967295 characters

Number/Currency

Data Type	Byte(s)	Signed Range	Unsigned Range
BIT	As of MySQL 5.0.3, a BIT data type is available for storing bit-field values. (Before 5.0.3, MySQL interprets BIT as TINYINT (1).) In MySQL 5.0.3, BIT is supported only for MyISAM. MySQL 5.0.5 extends BIT support to MEMORY, InnoDB, and BDB A type of BIT (M) allows for storage of M-bit values. M can range from 1 to 64		
TINYINT	1	-128 to 127	0 to 255
SMALLINT	2	-32768 to 32767	0 to 65535
MEDIUMINT	3	-8388608 to 8388607	0 to 16777215
INT	4	-2147483648 to 2147483647	0 to 4294967295

INTEGER	This is a synonym for INT		
BIGINT	8	-9223372036854775808 to 9223372036854775807	0 to 18446744073709551615

Floating Point

Data Type	Signed Range	Unsigned Range
FLOAT	-3.402823466E+38 to -1.175494351E-38, 0, and 1.175494351E-38 to 3.402823466E+38	Negative values are disallowed
DOUBLE	-1.7976931348623157E+308 to -2.2250738585072014E-308, 0, and 2.2250738585072014E-308 to 1.7976931348623157E+308	
REAL	These are synonyms for DOUBLE. Exception: If the server SQL mode includes the REAL_AS_FLOAT option, REAL is a synonym for FLOAT rather than DOUBLE	
DECIMAL	In MySQL 5.03 and later: They are stored in binary format. Range from -999.99 to 999.99 Before MySQL 5.0.3: They are stored as strings. On the positive end of the range - store numbers up to 9999.99 Before MySQL 3.23: -9.99 to 99.99	
NUMERIC		

Date/Time

Data Type	Supported Range	Format
DATE	'1000-01-01' to '9999-12-31'	YYYY-MM-DD
DATETIME	'1000-01-01 00:00:00' to	YYYY-MM-DD HH:MM:SS

	'9999-12-31 23:59:59'	
TIMESTAMP	'1970-01-01 00:00:00' to partway through the year 2037.	In MySQL 4.0 and earlier: YYYYMMDDHHMMSS, YYMMDDHHMMSS, YYYYMMDD, or YYMMDD From MySQL 4.1 on: 'YYYY-MM-DD HH:MM:SS'
TIME	'-838:59:59' to '838:59:59'	HH:MM:SS
YEAR	Four-digit format: 1901 to 2155, and 0000 Two-digit format: 70 to 69, representing years from 1970 to 2069	YYYY

BLOB (Binary Large Object)

Data Type	Size
TINYBLOB	A string with a maximum length of 255 characters
BLOB	A string with a maximum length of 65535 characters
MEDIUMBLOB	A string with a maximum length of 16777215 characters
LONGBLOB	A string with a maximum length of 4294967295 characters

Set/Enumerate

Data Type	Values/Members	Format
ENUM	Maximum of 65,535 distinct values	An enumeration. A string object that can have only one value, chosen from the list of values 'value1', 'value2', ..., NULL or the special '' error value
SET	Maximum of 64 members	A string object that can have zero or more values, each of which must be chosen from the list of values 'value1', 'value2', ...

Setting Field Size and Decimals

Use the **Length** edit box to define the length of the field and use **Decimals** to define the number of digits after the decimal point (the scale) for Floating Point data type.

Note: Be careful when shortening the field length as losing data might be caused.

Name	Type	Length	Decimals	Allow Null	
Species No	int	11	0	☐	🔑
Category	varchar	15	0	☑	
Common_Name	varchar	30	0	☑	
Species Name	varchar	40	0	☑	
Length (cm)	double	0	0	☑	
Length_In	double	0	0	☑	
Graphic	longblob	0	0	☑	

Setting Field Flags

Use the **Field Flags** to set the field properties, described below.

	Name	Type	Length	Decimals	Allow Null	
▶	Species No	int	11	0	☐	🔑
	Category	varchar	15	0	☑	
	Common_Name	varchar	30	0	☑	
	Species Name	varchar	40	0	☑	
	Length (cm)	double	0	0	☑	
	Length_In	double	0	0	☑	
	Graphic	longblob	0	0	☑	

☑Allow Null

Allow the NULL values for the field.

🔑Primary Key

A **Primary Key** is a single field or combination of fields that uniquely defines a record. None of the fields that are part of the primary key can contain a null value.

Setting Other Field Properties

To set the default value for the field use the **Default** edit box.

Note: TEXT (tinytext, text, mediumtext and longtext) and BLOB (tinyblob, blob, mediumblob and longblob) data type cannot have **DEFAULT** values.

To set any optional text describing the current field use the **Comment** edit box.

Note: Apply to all data type.

To set other field properties for Text/Memo and BLOB (Binary Large Object) (not apply to binary/varbinary type)

Key Length
The edit box will be enabled when Primary Key is set. KEY LENGTH (1 - 255).

☑**Binary** (char and varchar only)
As of MySQL 4.1, values in CHAR and VARCHAR fields are sorted and compared according to the collation of the character set assigned to the field.

Before MySQL 4.1, sorting and comparison are based on the collation of the server character set; you can declare the field with the BINARY attribute to cause sorting and comparison to be based on the numeric values of the bytes in field values. BINARY does not affect how field values are stored or retrieved.

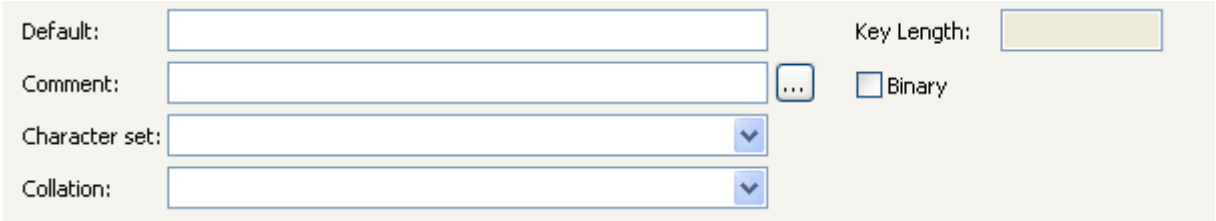
Character set (non-binary strings only)
A **character set** is a set of symbols and encodings. The **Character set** drop-down list defines the type of the character set for field.

Collation (non-binary strings only)
A **collation** is a set of rules for comparing characters in a character set. The **Collation** drop-down list defines the type of the collation for field.

Note: MySQL chooses the column character set and collation in the following manner:

- If both CHARACTER SET X and COLLATE Y were specified, then character set X and collation Y are used.

- If CHARACTER SET X was specified without COLLATE, then character set X and its default collation are used.
- Otherwise, the table character set and collation are used.



To set other field properties for Number/Currency and Floating Point (not apply to bit type)

☑**Unsigned**

UNSIGNED values can be used when you want to allow only non-negative numbers in a field and you need a bigger upper numeric range for the field.

As of MySQL 4.0.2, floating-point and fixed-point types also can be UNSIGNED. Unlike the integer types, the upper range of column values remains the same.

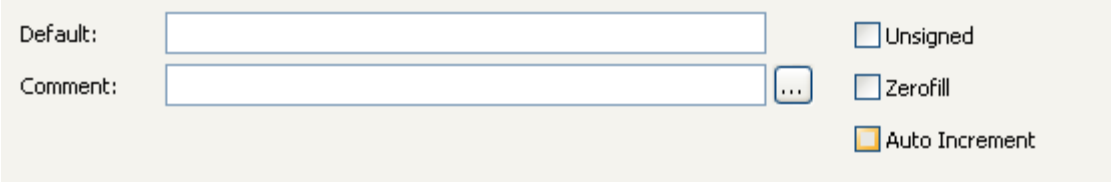
☑**Zerofill**

The default padding of spaces is replaced with zeros. For example, for a field declared as INT(5) ZEROFILL, a value of 4 is retrieved as 00004; for a field declared as FLOAT(20,10) ZEROFILL, a value of 0.1 is retrieved as 000000000.1000000015.

Note: If you specify ZEROFILL for a numeric type, MySQL automatically adds the UNSIGNED attribute to the field.

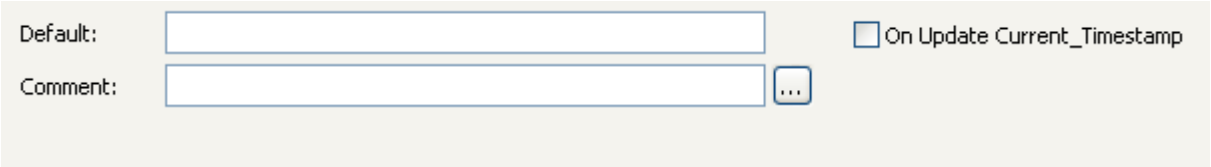
☑**Auto Increment** (Number/Currency only)

The AUTO INCREMENT attribute can be used to generate a unique identity for new rows. To start with the AUTO INCREMENT value other than 1, you can set that value in Options.



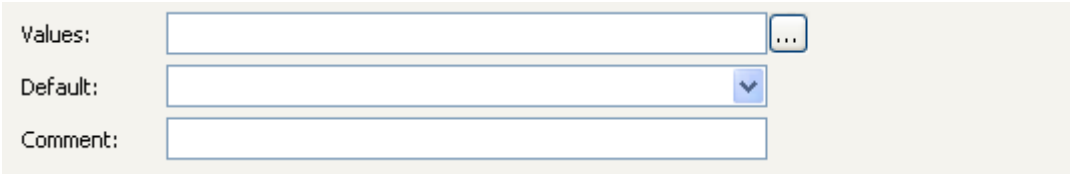
To set other field properties for Date/Time

☑**On Update Current_Timestamp** (timestamp only)
As of 4.1.2, you have more flexibility in deciding which TIMESTAMP field automatically is initialized and updated to the current timestamp.



To set other field properties for Set/Enumerate

Values
Use **Values** edit box to define the members of SET/ENUM. A SET field can have a maximum of 64 members. An ENUM field can have a maximum of 65,535 distinct values.



Indexes

Indexes are organized versions of specific columns in your tables. MySQL uses indexes to facilitate quick retrieval of records. With indexes, MySQL can jump directly to the records you want. Without any indexes, MySQL has to read the entire data file to find the correct record(s).

Table indexes are managed on the **Indexes** tab of the Table Designer. Just simply click/double-click an index field for editing. A right-click displays the popup menu or using the toolbar below, allowing you to create new, edit and delete the selected index field.

Add Index

To add a table index

- Open the table in the Table Designer.
- Open the **Indexes** tab.
- Right-click and select the **Add Index** from the popup menu or click the **Add Index** from the toolbar.
- Edit index properties.

Edit Index

To edit a table index

- Open the table in the Table Designer.
- Open the **Indexes** tab.
- Just simply click/double-click on the index to edit.

Delete Index

To delete a table index

- Open the table in the Table Designer.
- Open the **Indexes** tab.
- Right-click on the index to delete and select the **Delete Index** from the popup menu or click the **Delete Index** from the toolbar.
- Confirm deleting in the dialog window.

See also:
Setting Index Name and Index Type
Setting Single- and Multi- Field Indexes

Setting Index Name and Index Type

Use the **Index Name** edit box to set the index name.

The **Index Type** dropdown list defines the type of the table index.

Normal
NORMAL indexes are the most basic indexes, and have no restraints such as uniqueness.

Unique
UNIQUE indexes are the same as NORMAL indexes with one difference - all values of the indexed column(s) must only occur once.

Full Text
FULL TEXT indexes are used by MySQL in full-text searches.

Index Name	Field Names	Index Type
Type	`Category`, `Species Name`	Unique
Name	`Species Name`	Normal

Setting Single- and Multi- Field Indexes

To include field(s) in the index, just simply double-click the **Field Names** field or click ⋯ to open the editor for editing.

Index Name	Field Names	Index Type
Type	`Category`, `Species Name` ⋯	Unique
Name	`Species Name`	Normal

Select the field(s) from the **SelectedBlob** list. To remove the fields from the index, uncheck them in the same way. You can also use the arrow buttons to change the index field(s) order. The **SubPart** edit box(s) is used to set index KEY LENGTH (1 - 255).

Note: Some of data types do not allow indexing by several fields. For example: BLOB

SelectedBlob	Name	SubPart
☑	Category	
☑	Species Name	
☐	Species No	
☐	Common_Name	
☐	Length (cm)	
☐	Length_In	
☐	Graphic	

Foreign Keys

A foreign key is a field in a relational table that matches the primary key column of another table. The foreign key can be used to cross-reference tables.

Foreign Keys are managed on the **Foreign Keys** tab of the Table Designer. Just simply click/double-click a foreign key field for editing. A right-click displays the popup menu or using the toolbar below, allowing you to create new, edit and delete the selected foreign key field.

Note: Foreign Key support from MySQL 3.23.44 or later.

Add Foreign Key

To add a foreign key

- Open the table in the Table Designer.
- Open the **Foreign Keys** tab.
- Right-click and select the **Add Foreign Key** from the popup menu or click the **Add Foreign Key** from the toolbar.
- Edit foreign key properties.

  Note: Both tables must be *InnoDB* type. In the referencing table, there must be an index where the foreign key columns are listed as the first columns in the same order. Starting with MySQL 4.1.2, such an index will be created on the referencing table automatically if it does not exist.

Edit Foreign Key

To edit a foreign key

- Open the table in the Table Designer.
- Open the **Foreign Keys** tab.
- Just simply click/double-click on the foreign key to edit.

  Note: Support from MySQL 4.0.13 or later.

Delete Foreign Key

To delete a foreign key

- Open the table in the Table Designer.
- Open the **Foreign Keys** tab.
- Right-click on the foreign key to delete and select the **Delete Foreign Key** from the popup menu or click the **Delete Foreign Key** from the toolbar.
- Confirm deleting in the dialog window.

  Note: Support from MySQL 4.0.13 or later.

See also:
Setting Foreign Key Name and Table Fields
Setting On Delete and On Update Actions

Related topic:
Foreign Keys Data Selection

Setting Foreign Key Name and Table Fields

Use the **Foreign Key Name** edit box to enter a name for the new key and then select a table field to include in the key from the **Field Names** group.

Use the **Reference Table** dropdown list to select a foreign table.

Foreign Key Name	Field Names	Reference Table	Foreign Field Names	On Delete	On Update
CustNo_FK	`CustNo`	`customer`	`CustNo`	restrict	restrict

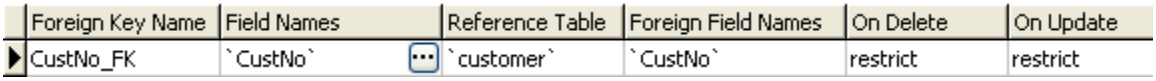
To include field(s) to the key, just simply double-click the **Field Names**/**Foreign Field Names** field or click to open the editor(s) for editing.

Select the field(s) from the SelectedBlob list. To remove the fields from the foreign key, uncheck them in the same way. You can also use the arrow buttons to change the foreign key field(s) order. The SubPart edit box(s) is used to set foreign key KEY LENGTH (1 - 255).

SelectedBlob	Name	SubPart
☑	CustNo	0
☐	OrderNo	0
☐	SaleDate	
☐	ShipDate	
☐	EmpNo	
☐	ShipToContact	
☐	ShipToAddr1	
☐	ShipToAddr2	

Setting On Delete and On Update Actions

The **On Delete** and **On Update** dropdown list define the type of the actions to be taken.



Foreign Key Name	Field Names	Reference Table	Foreign Field Names	On Delete	On Update
CustNo_FK	`CustNo`	`customer`	`CustNo`	restrict	restrict

Cascade

Delete the corresponding foreign key, or update the corresponding foreign key to the new value of the primary key.

Set Null

Set all the columns of the corresponding foreign key to NULL.

No Action

Does not change the foreign key.

Restrict

Produce an error indicating that the deletion or update would create a foreign key constraint violation.

Triggers

A trigger is a named database object that is associated with a table and that is activated when a particular event occurs for the table.

Triggers are managed on the **Triggers** tab of the Table Designer. Just simply click a trigger field for editing. A right-click displays the popup menu or using the toolbar below, allowing you to create new, edit and delete the selected trigger field.

Note: Trigger support from MySQL 5.0.2 or later.

Add Trigger

To add a trigger

- Open the table in the Table Designer.
- Open the **Triggers** tab.
- Right-click and select the **Add Trigger** from the popup menu or click the **Add Trigger** from the toolbar.
- Edit trigger properties.

Edit Trigger

To edit a trigger

- Open the table in the Table Designer.
- Open the **Triggers** tab.
- Just simply click on the trigger to edit.

Delete Trigger

To delete a trigger

- Open the table in the Table Designer.
- Open the **Triggers** tab.
- Right-click on the trigger to delete and select the **Delete Trigger** from the popup menu or click the **Delete Trigger** from the toolbar.
- Confirm deleting in the dialog window.

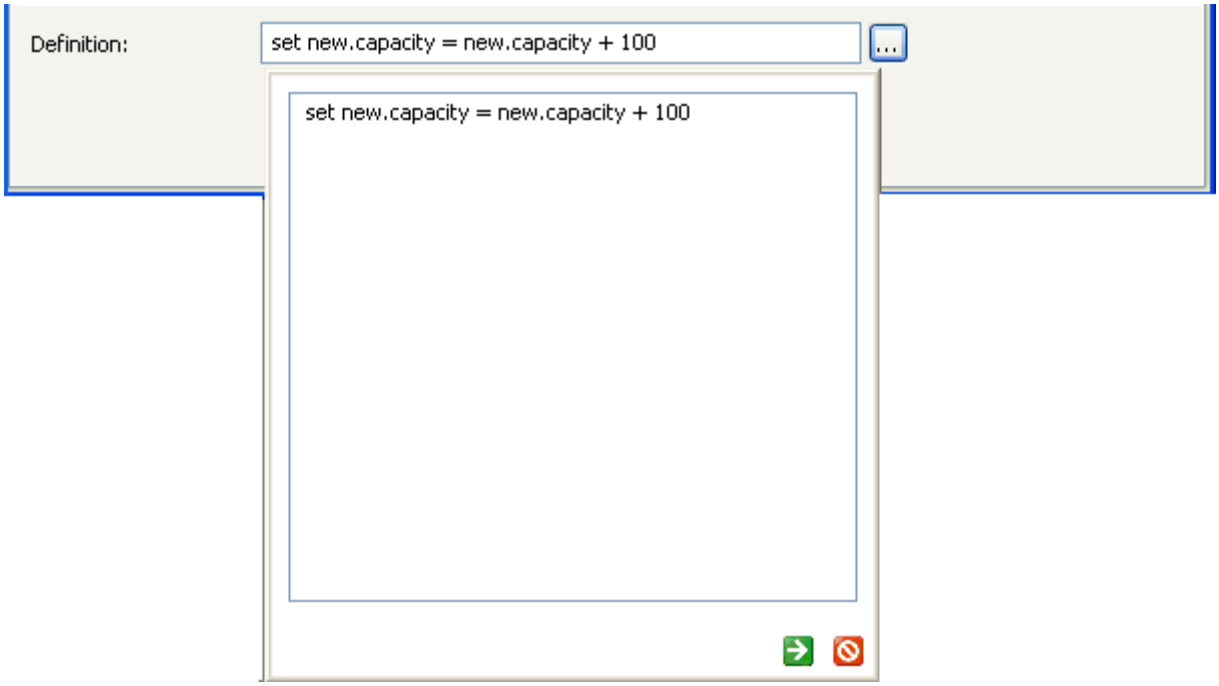
See also:
Setting Trigger Name, Time and Statement
Setting Trigger Event

Setting Trigger Name, Time and Statement

Use the **Name** edit box to set the trigger name.

Use the **Fires** dropdown list to define the trigger action time. It can be **Before** or **After** to indicate that the trigger activates before or after the statement that activated it.

The **Definition** edit box defines the statement to execute when the trigger activates. To include your statement, just simply click to write or click to open the edit box for editing. If you want to execute multiple statements, use the **BEGIN ... END** compound statement construct.



Setting Trigger Event

The **Trigger Event** indicates the kind of statement that activates the trigger. It can be one of the following:

	Name	Fires	Insert	Update	Delete
I	Capacity_Tri	Before	☐	☑	☐

Insert

The trigger is activated whenever a new row is inserted into the table. For example, **INSERT**, **LOAD DATA**, and **REPLACE** statements.

Update

The trigger is activated whenever a row is modified. For example, **UPDATE** statement.

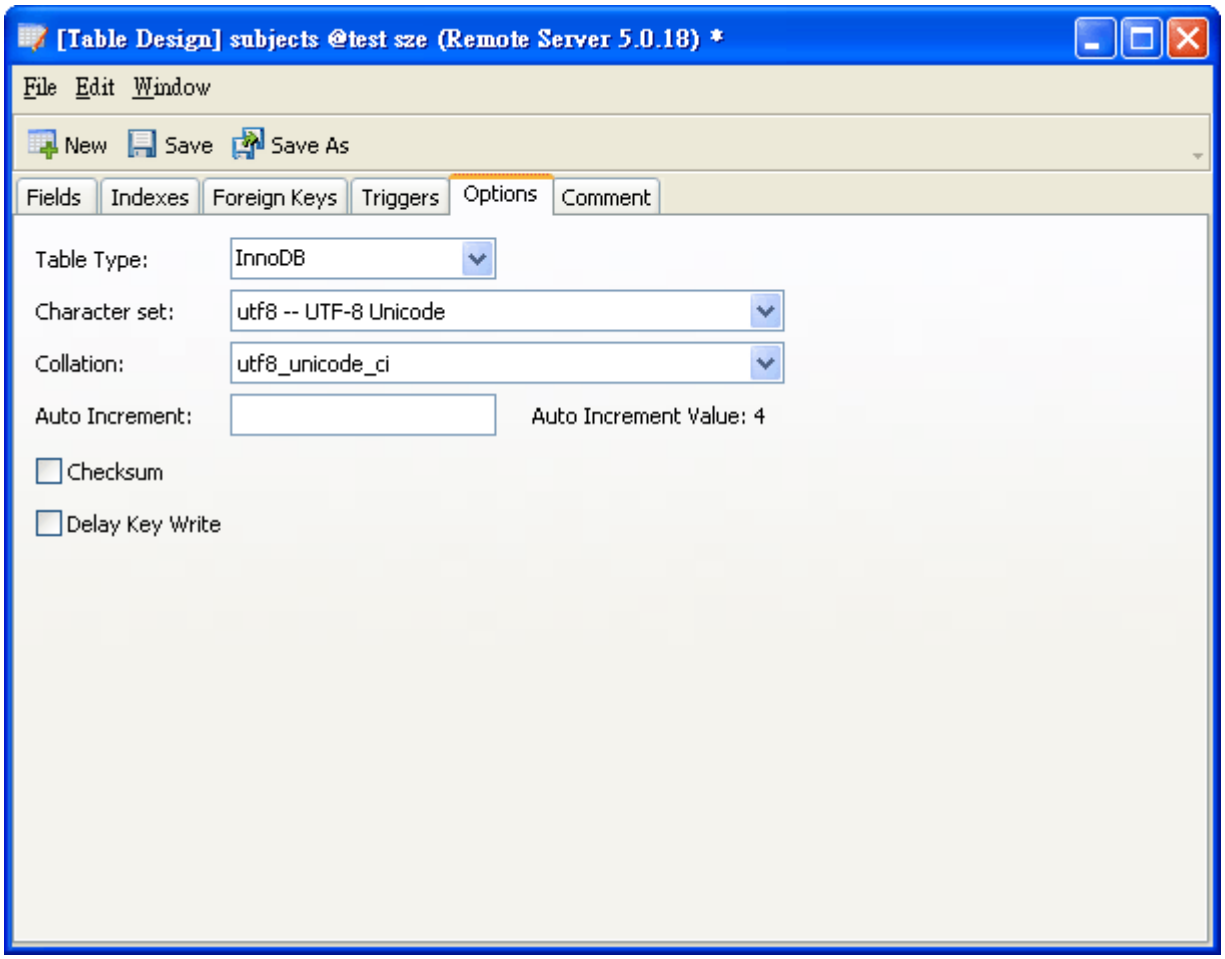
Delete

The trigger is activated whenever a row is deleted from the table. For example, **DELETE** and **REPLACE** statement. However, **DROP TABLE** and **TRUNCATE** statements on the table do not activate the trigger.

Table Options

Table Options are managed on the **Options** tab of the Table Designer. Just simply click a option for editing. It allows you to set table type, specify character set, and much more.

See also:
Setting Table Properties
Setting Auto Increment and Table Flags

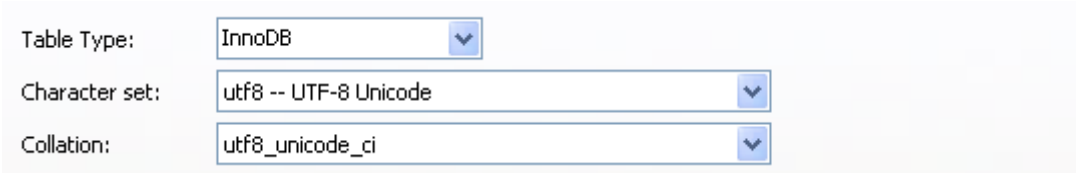


Setting Table Properties

The **Table Type** drop-down list defines the type of the table.

The **Character set** drop-down list defines the type of the character set for table.

The **Collation** drop-down list allows you to choose the collation for the table.



Setting Auto Increment and Table Flags

Auto Increment

Set/Reset the **Auto Increment** value in the edit field. The **Auto Increment Value** indicates the value for next record.

☑Checksum

Check this option if you want MySQL to maintain a live checksum for all rows.

Note: Support *MyISAM* only.

☑Delay Key Write

Check this option if you want to delay key updates for the table until the table is closed.

Note: Support *MyISAM* only.

Table Comment

The **Comment** tab allows you to enter the comment for the table.

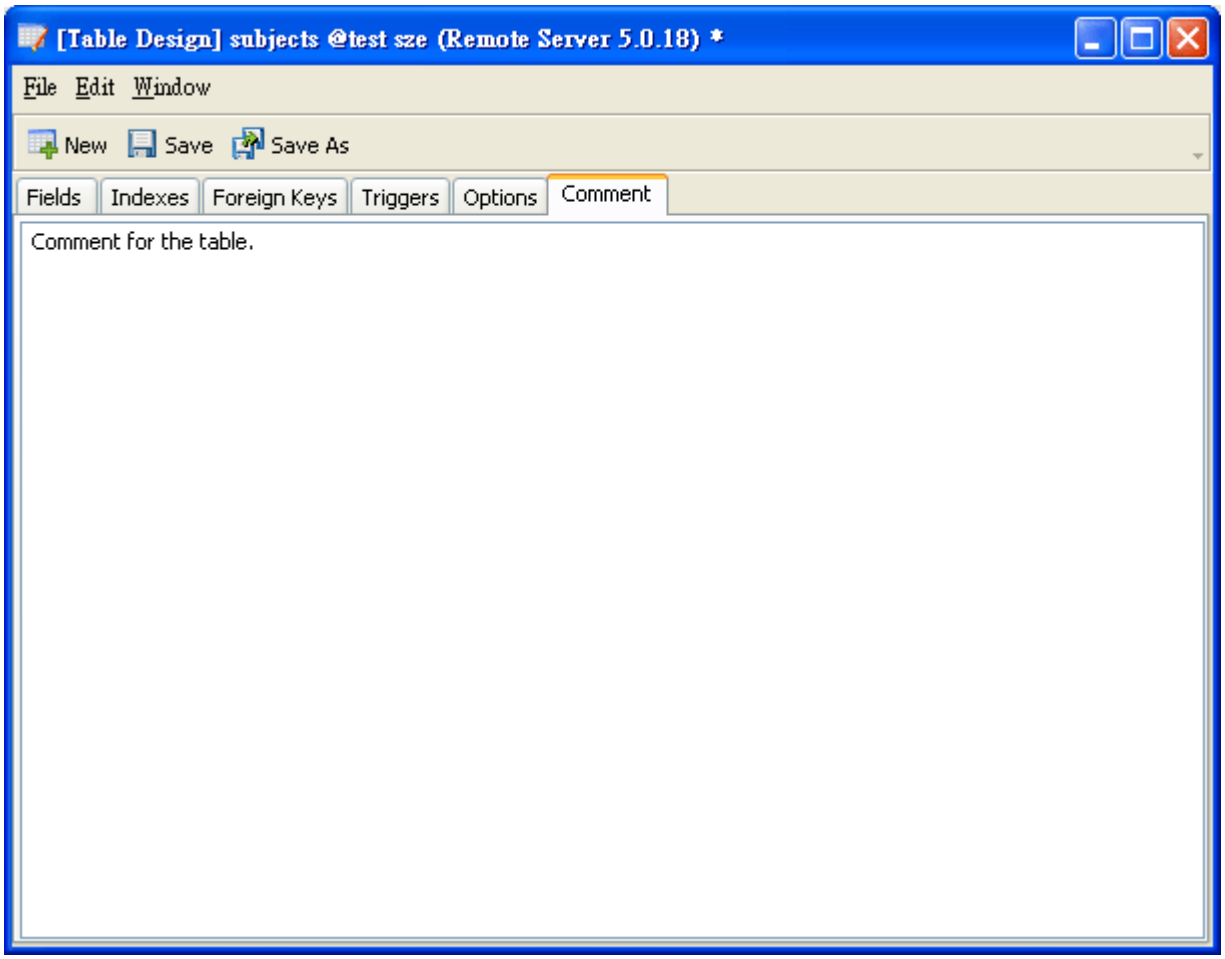


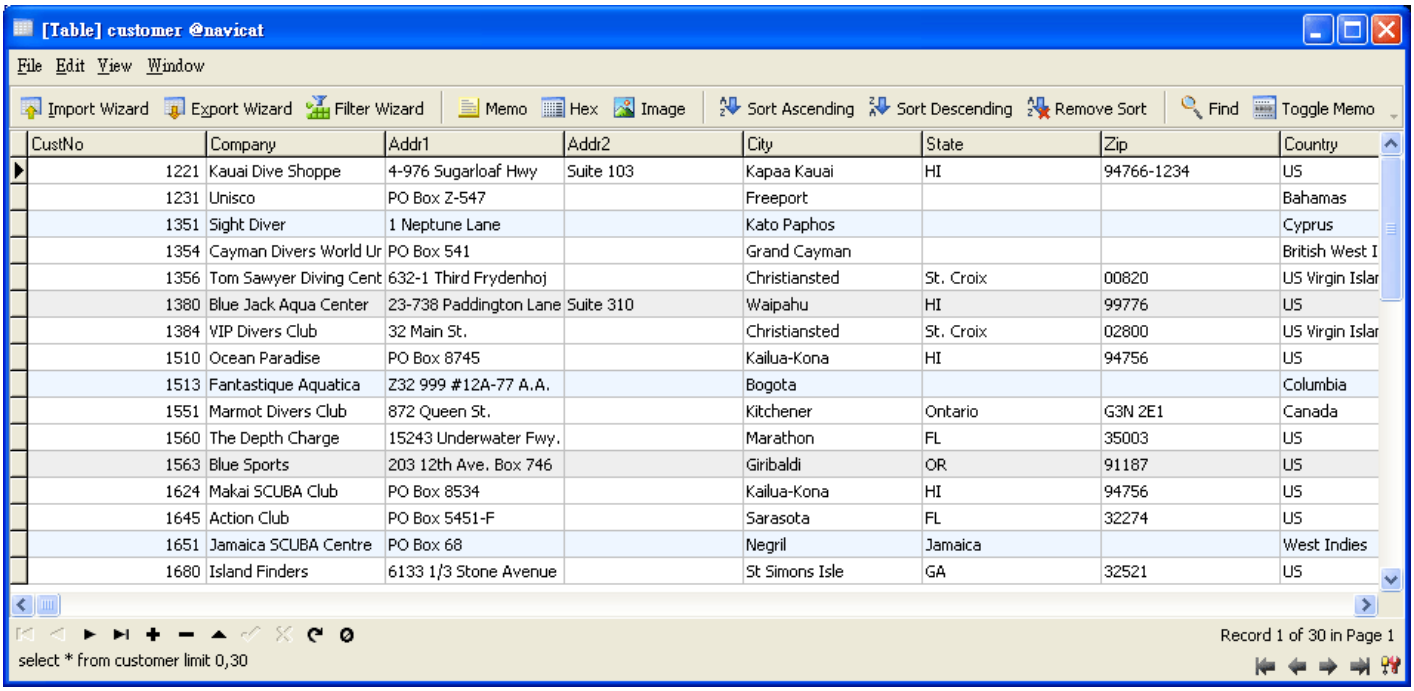
Table Viewer

Table Viewer displays the table data as a grid. Data can be displayed in two mode: **Grid View** and **Text/Blob View**. See Data View for details.

To open a table in the Table Viewer (see Open Table for details).

The toolbars of Table Viewer provides the following functions for managing data:

- Import Data
  Import data from TXT, CSV, , XML, DBF, MS Excel, MS Access, ODBC and more.
- Export Data
  Export data to MS Word, MS Excel, MS Access, TXT, DBF, HTML, SQL, RTF, PDF and more.
- Filter Data
  Allow you to filter records by creating and applying filter criteria for the data grid.
- Edit TEXT/BLOB
  Allow you to view and edit the content of TEXT and BLOB fields.

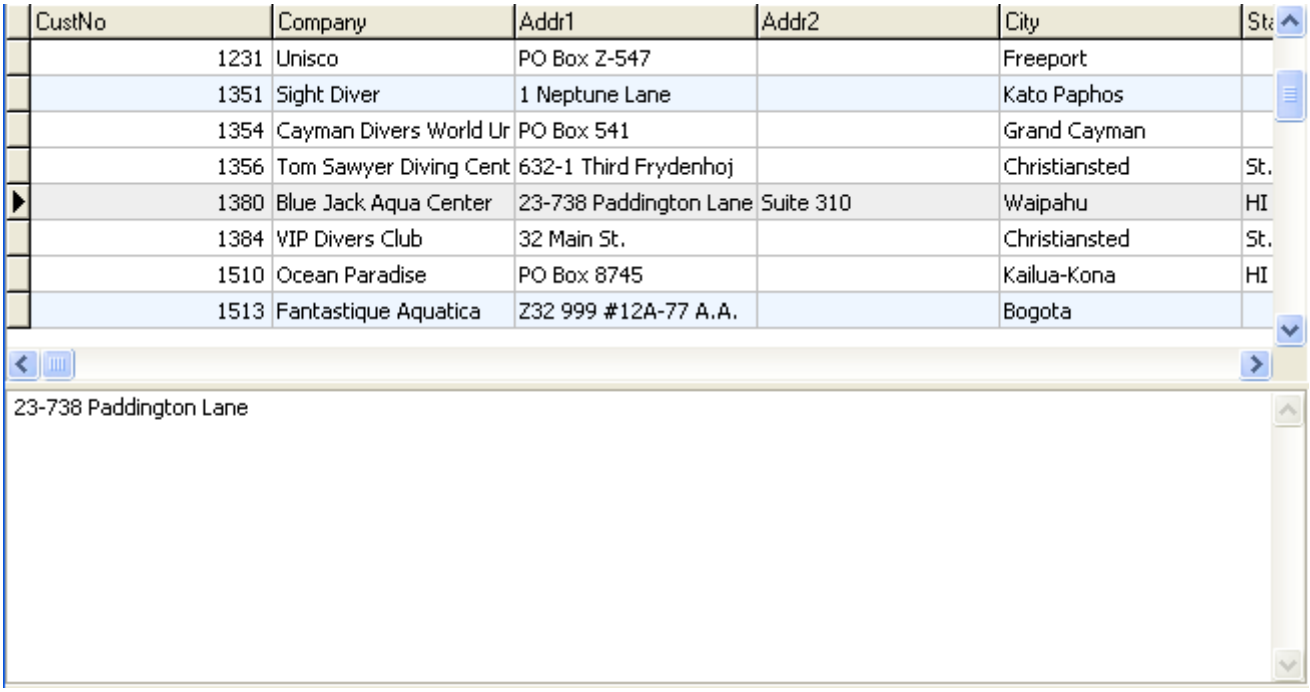


Data View

This topic shows you how you can view and edit data from tables in the simplest and the most direct way.

- Grid View
- TEXT/BLOB View

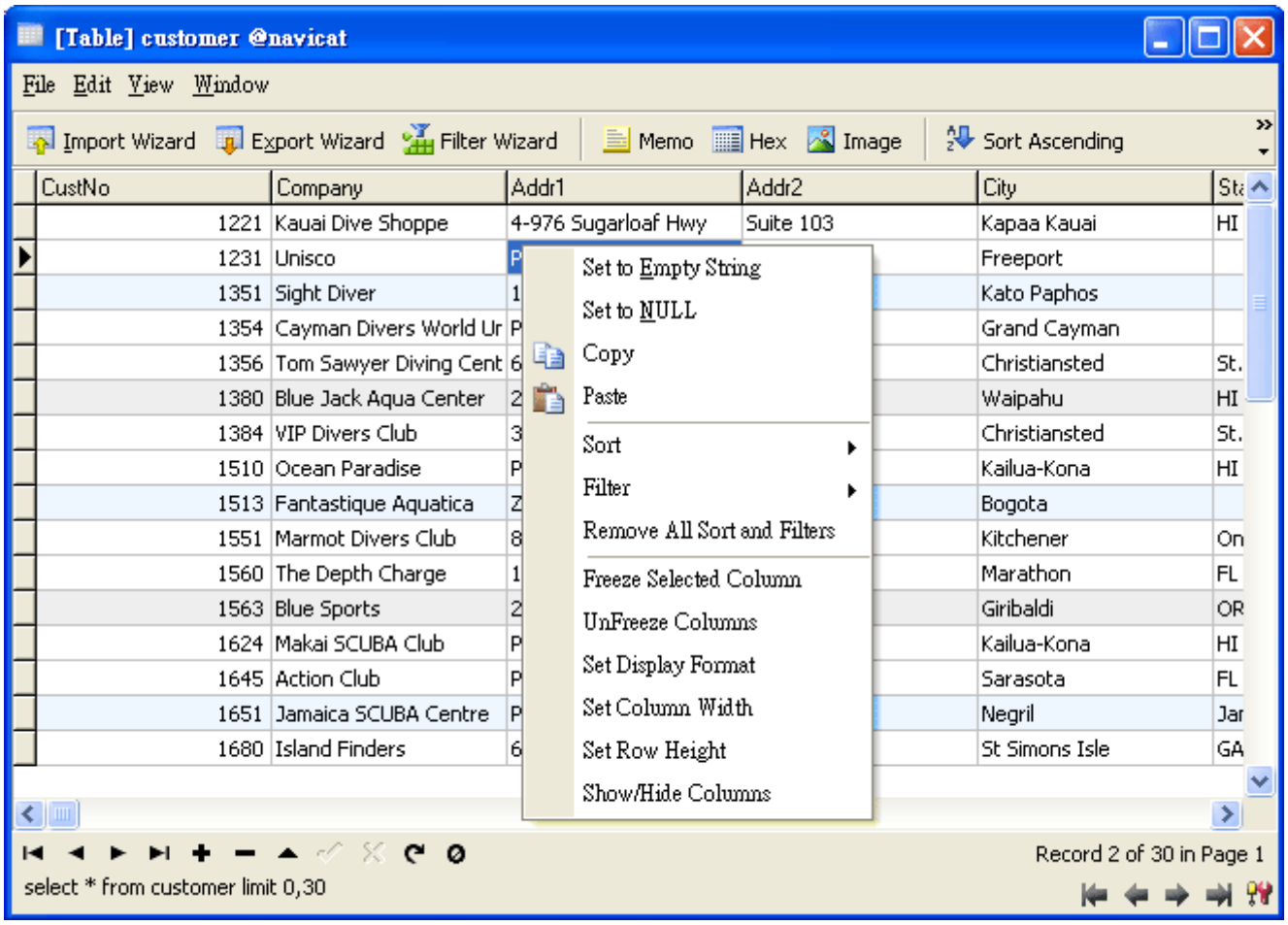
See also:
Table Designer



Grid View

The grid view allows you to view, update, insert, or delete data in a table. The popup menu of the grip provides the following additional functions: set the field value as Null/Empty String, use current field value as a filter, format grid view, and more.

- Using Navigation Bar
- Editing Records
- Sorting and Finding Records
- Filtering Records
- Manipulating Raw Data
- Formatting Table Grid



Using Navigation Bar

Table Viewer provides a convenient way to navigate among the records/pages using **Record/Page Navigation Bar** buttons. All buttons are used to navigate left and right to the previous or the next records/pages.

Record Objects	Role
	First Record: allows moving to the first record.
	Previous Record: allows moving one record back (if there is one) from the current record.
	Next Record: allows moving one record ahead.
	Last Record: allows moving to the last record.
	Insert Record: used to enter a new record. At any point when you are working with your table in the grid view, click on this button to get a blank display for a record.
	Erase Record: used to delete an existing record.
	Edit Record: used to enter the edit mode.
	Update Record: used to apply the changes.
	Cancel Changes: used to removes all edits made to the current record.
	Refresh: used to refresh the table.
	Stop: used to stop when loading enormous data from MySQL server.

Note: The SQL statement shows under the Record Objects indicate any statement has just been executed.

Page Objects	Role
	First Page: allows moving to first page.
	Previous Page: allows moving to previous page.
	Next Page: allows moving to next page.
	Last Page: allows moving to last page.
Record a **of** b **in Page** c	Record/Page Indicator: displays the numbers representing the selected record and page. a. the selected record. b. number of records in the current page. c. the current page.
	Limit Record Setting: used to set number of records showing on each page.

Limit Record Setting

Use the **Limit Record Setting** button to enter to the edit mode.

☑**Limit Records**

Check this option if you want to limit the number of records showed on each page. Otherwise, all records will be displayed in one single page.

☐ **records per page**

Set the **records per page** value in the edit field. The number representing the number of records showed per page.

Note: This setting mode will take effect on current table only. To adjust the global settings, see Options.

Editing Records

The navigation bar allows you to switch the records quickly, insert, update or delete records. View data as a grid is most helpful for entering new records and editing old records in a table.

Add Record

To add a record

- Make sure that your cursor is situated in the first blank cell on the table, then enter the desired data. If you are adding the new record into an existing table, just simply click on an existing record and click the + from the navigation bar to get a blank display for a record.
- Watch the graphics symbol in the record selectors box just to the left of your record. It will change from the arrowhead ▶, which indicates that it is the current record, to I, which indicates that you are editing this record.
- Just simply move to another record to save the record or click the ✔ from the navigation bar.

Edit Record

To edit a record

- Select the record that you wish to edit by clicking in the specific field you want to change.
- Type in the new data for that field.
- Just simply move to another record, the new data will overwrite the previous data or click the ✔ from the navigation bar.

Note: Close the table is another way to save the records.

Editing Records with Special Handling

To set **Empty String** for the cell, right-click the selected cell and select **Set to Empty String**.

To set **Null** value for the cell, right-click the selected cell and select **Set to NULL**.

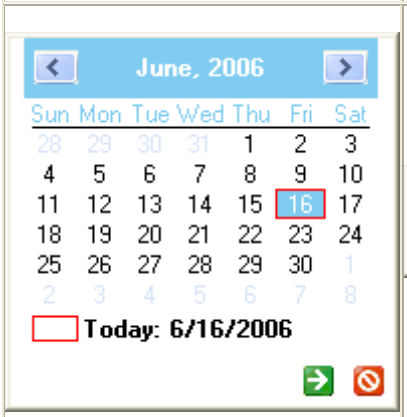
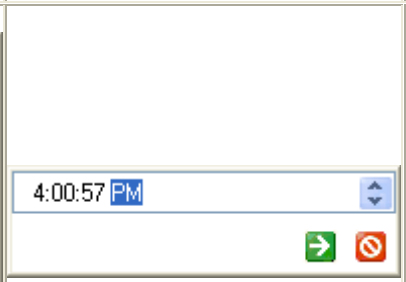
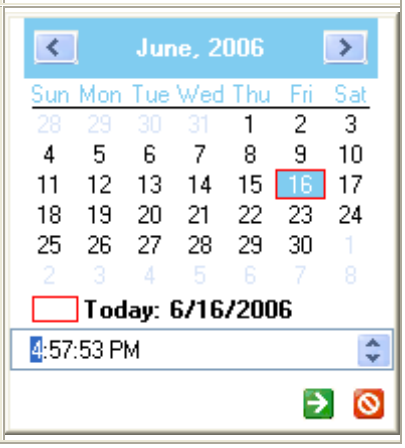
To edit the text field record, just simply click the **Toggle Memo** from the toolbar or select **View** -> **Toggle Memo** from the menu.

id	Category	Topic	Content	Remark
28	MySQL Server	(MEMO)	(MEMO)	(Memo)
29	MySQL Server	(MEMO)	(MEMO)	(Memo)
30	MySQL Server	(MEMO)	(MEMO)	(Memo)

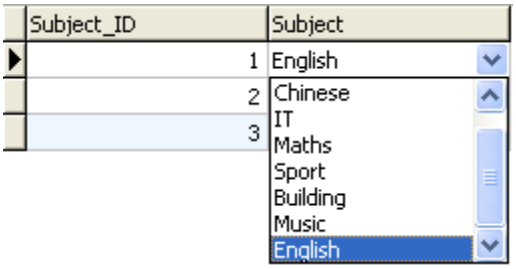
Hint: To view/edit the text field record in an ease way, see Memo Editor.

To edit a **Date/Time** record, just simply click or press Ctrl+Enter to open the editor for editing.

- Choose/enter the desired data. The editor used in cell is determined by the field type assigned to the column.

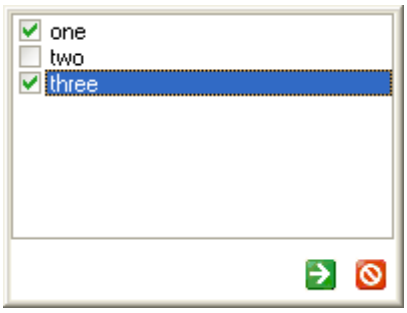
Date	Time	DateTime / Timestamp
		

To edit a **Enum** record, just simply choose the record from the drop-down list.



To edit a **Set** record, just simply click or press Ctrl+Enter to open the editor for editing.

- Select the record(s) from the list. To remove the records, uncheck them in the same way.



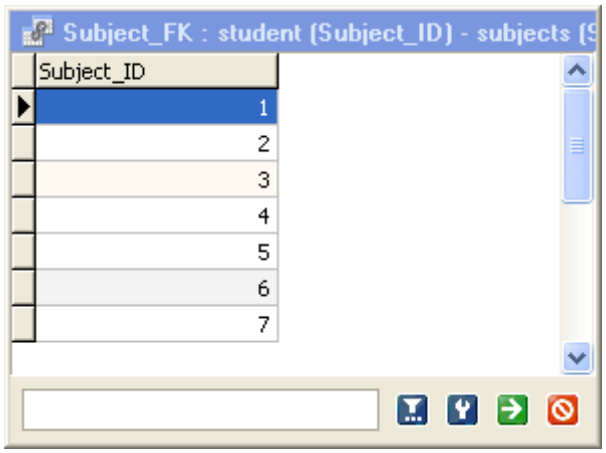
Editing Records with Foreign Key

Foreign Key Data Selection is a useful tool for letting you to get the available value from the reference table in an easy way. It allows you to show additional record(s) from the reference table and search for a particular record(s).

To include data to the record, just simply click ⋯ or press Ctrl+Enter to open the editor for editing.

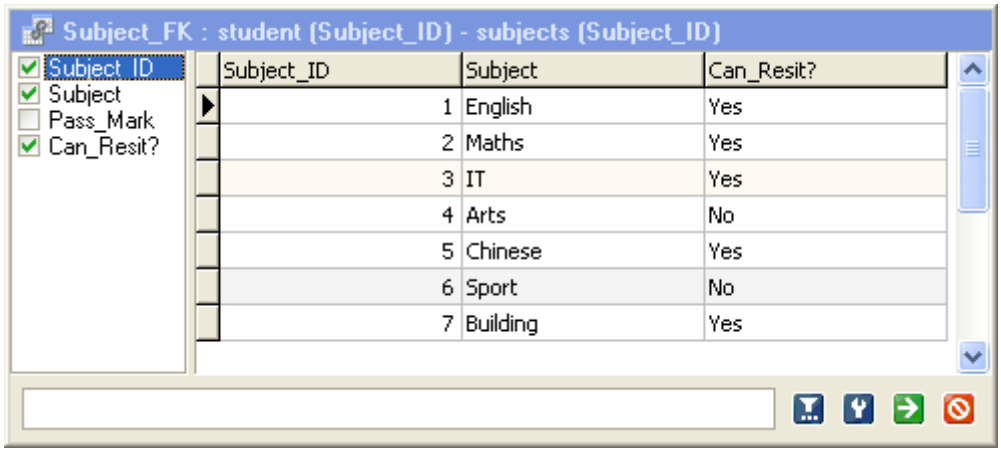
	ID	Name	Subject_ID	Age	Address
	1	Katherine Wong	1	21	22 King Road
	2	Chelsia Leung	3	22	67 Loughborough Road
*	3	Nick White	⋯	23	50 Nottingham Road

- Just simply double-click to select the desired data.



Hint:
1. By default, the number of records showed per page is **100**. To show all records, right-click anywhere on the grid and select **Show All**. To adjust the global settings, see Options.
2. To refresh the record, right-click anywhere on the grid and select **Refresh**. or press F5

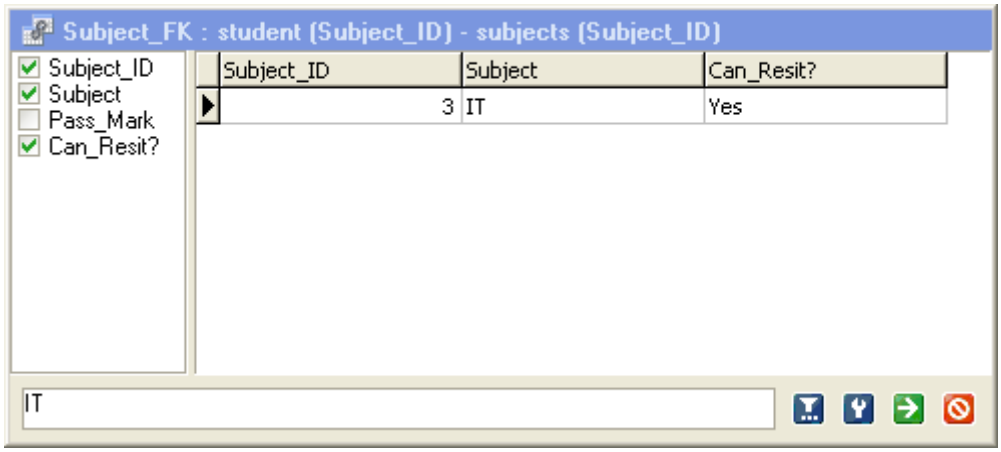
- Click to open a panel on the left for showing a list of column name(s). Just simply click to show the additional column. To remove the column(s), uncheck them in the same way.



Hint: 1. To set column in ascending or descending mode, right-click anywhere on the column and select **Sort** -> **Sort Ascending** / **Sort Descending**. Remember to remove all sorting before applying on another column.

2. To find for the text in the editor window, right-click anywhere on the grid and select **Find** or press Ctrl+F.

- Enter a value into the edit box and click to filter for the particular record(s).



Hint: To remove the filter results, right-click anywhere on the grid and select **Show All**.

Related topic:

Foreign Keys

Copying/Pasting Data from/into Navicat

Data that being copied from Navicat goes into the windows clipboard with the fields delimited by tabs and the records delimited by carriage returns. It allows you to easily paste the clipboard contents into any application you want. Spreadsheet applications in general will notice the tab character between the fields and will neatly separate the clipboard data into rows and columns.

Copy Data from Navicat

To select data using **Keyboard Shortcuts**

Ctrl+A	Toggles the selection of all rows and columns in a data grid.
Shift+Up Arrow	Toggles the selection of rows as you move up in the data grid.
Shift+Down Arrow	Toggles the selection of rows in the data grid as you move down.

To select data using **Mouse Actions**

1. Highlighted the desired records by holding down the Ctrl key while clicking on each row.
2. Highlighted range of records by clicking the first row you want to select and holding down the Shift key together with moving your cursor to the last row you wish to select.

Note: After you have selected the desired records, just simply press Ctrl+C or right-click and select the **Copy** from the popup menu.

Paste Data into Navicat

Data is copied into the clipboard will be arranged as below format:

1. Data is arranged into rows and column.
2. Rows and columns are delimited by carriage returns/tab respectively.
3. Columns in the clipboard have the same sequence as the columns in the data grid you have selected.

When pasting data into Navicat, you can replace the contents of current records and append the clipboard data into the table. To replace the contents of current records in a table, one must select the rows in the data grid whose contents must be replaced by the data in the clipboard.

Note: Just simply press Ctrl+V or right-click and select the **Paste** from the popup menu. The paste action cannot be undone.

Sorting and Finding Records

Sorting Records

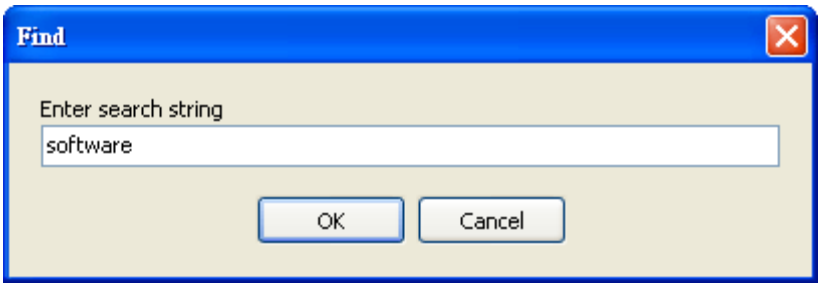
MySQL Server stores records in the order they were added to the table. Sorting in Navicat is used to temporarily rearrange records, so that you can view or update them in a different sequence.

Click the column caption whose contents you want to sort by, right-click to select the **Ascending** or **Descending** mode from the popup menu or choose from the toolbar.

Hint: Remember to remove all sorting before applying on another column.

Finding Records

The **Find** Dialog is provided for quick searching for the text in the editor window. Just simply click the **Find** from the toolbar or press Ctrl+F and enter a search string.



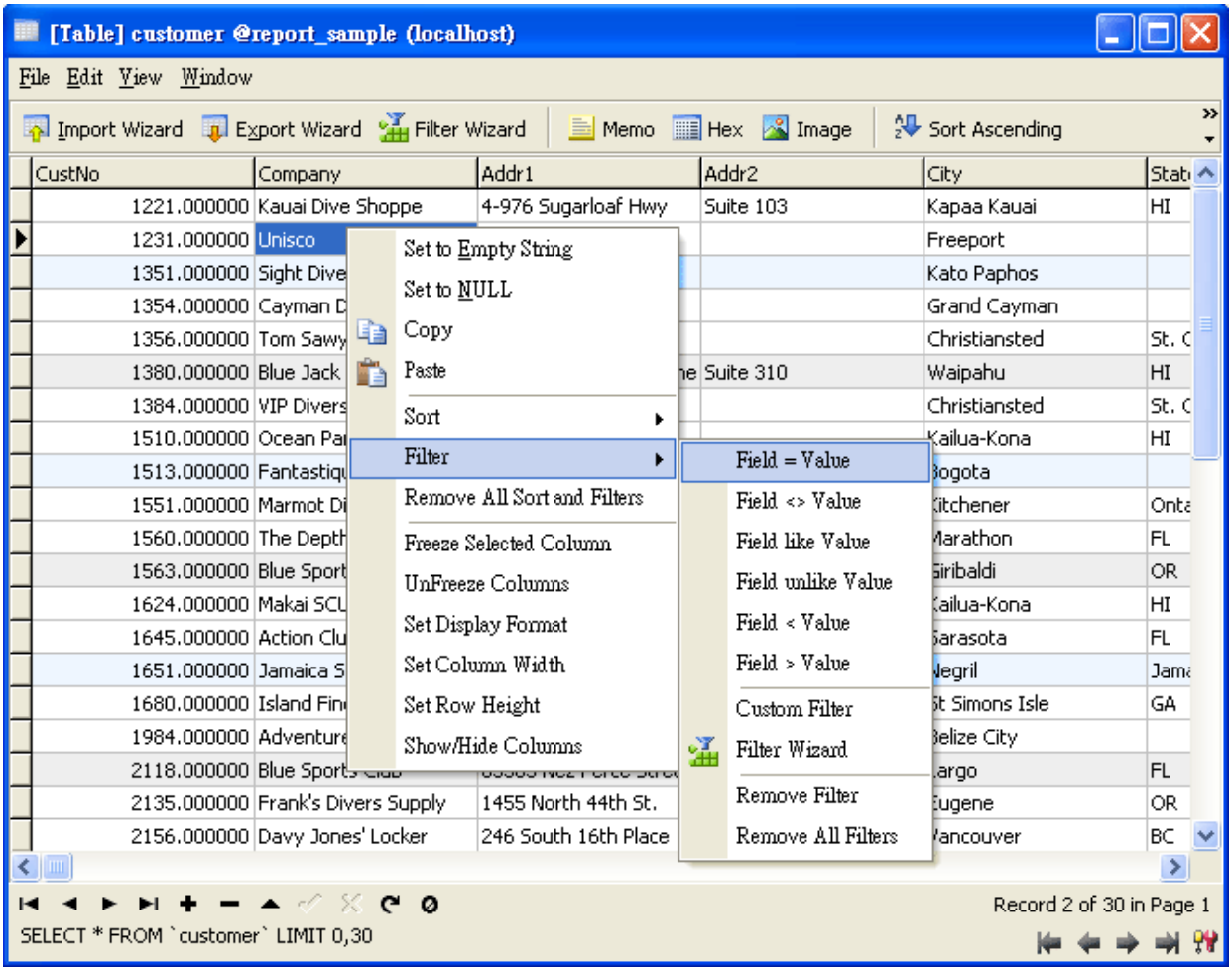
The search starts at the cursor's current position to the end of the file. There will not have differentiates when performing a uppercase or lowercase search.

To find for the next text, just simply select Edit -> **Find Next** or press F3.

Filtering Records

Use either of the following methods to filter the data in the grid:

- Right-click a field and select the **Filter** from the popup menu to filter records by the current value of the selected column.



- The **Custom Filter** Dialog is provided for quick building a simple filter. Just simply right-click a field and select the **Filter** -> **Custom Filter** from the popup menu. Use character '_' to represent any single symbol in the condition and use character '**%**' to represent any series of symbols in the condition.

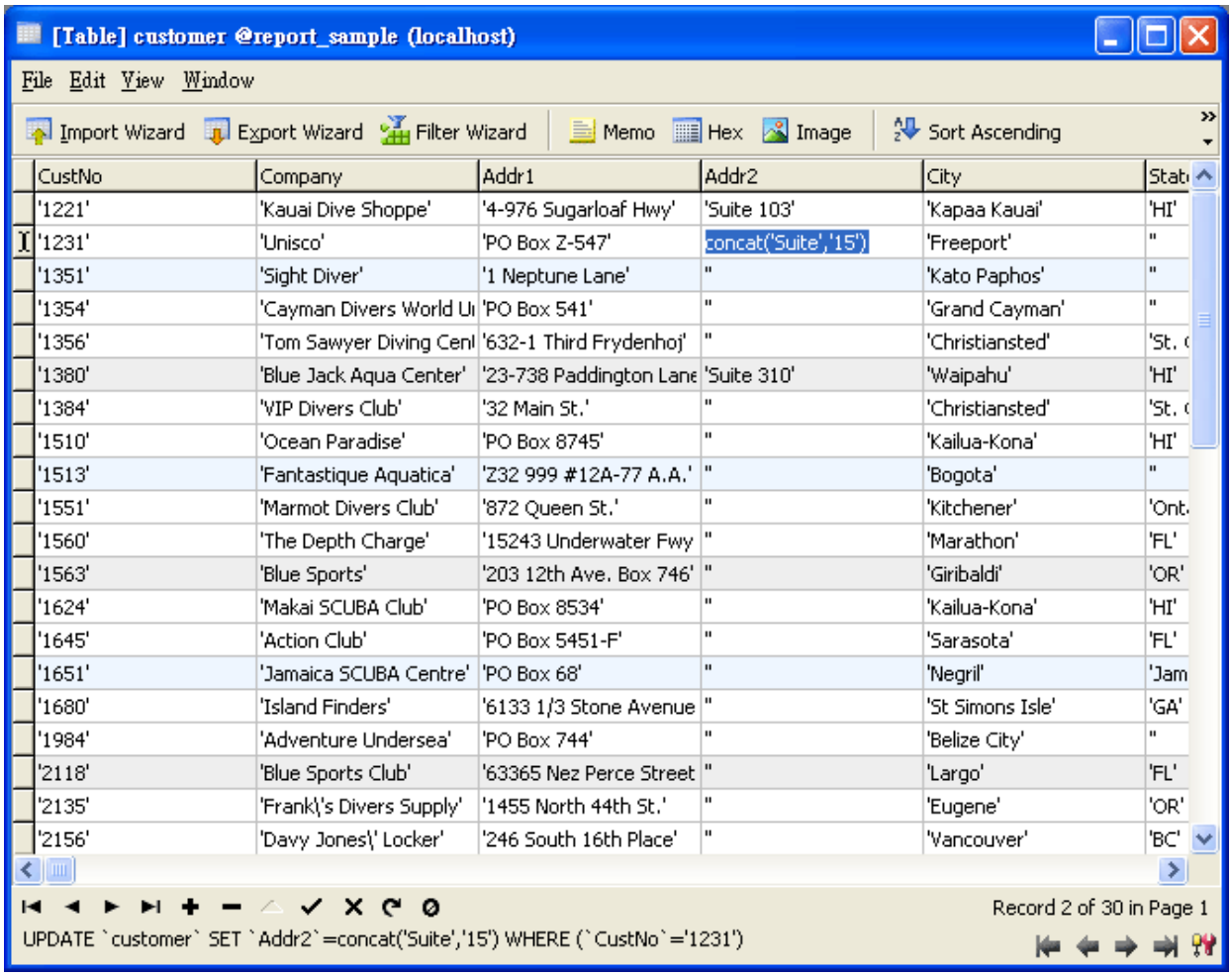
- You can also customize your filter in a more complicated way by right-clicking a field and selecting the **Filter** -> **Filter Wizard** from the popup menu or clicking the **Filter Wizard** from the toolbar. The Filter Wizard becomes visible at the top of grid, where you can see the active filtering condition and easily enable or disable it by clicking a check box at the left.

Related topic:
Filter Wizard

Manipulating Raw Data

Navicat normally recognize what user has input in grid as normal string, any special characters or functions would be processed as plain text (that is, its functionality would be skipped).

Editing data in **Raw Mode** provides an ease and direct method to apply MySQL built-in function. To access the Raw Mode function, just simply select **View** -> **Raw Mode** from the menu.

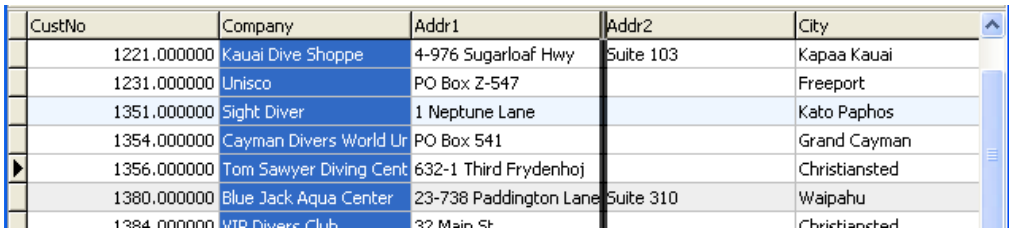


Formatting Table Grid

Use the following methods to format the table grid:

Move Columns

1. Click on the column header and hold down the left mouse button.
2. Move the pointer until a double black line appears in the desired location.
3. Release the mouse and the column will move.



CustNo	Company	Addr1	Addr2	City
1221.000000	Kauai Dive Shoppe	4-976 Sugarloaf Hwy	Suite 103	Kapaa Kauai
1231.000000	Unisco	PO Box Z-547		Freeport
1351.000000	Sight Diver	1 Neptune Lane		Kato Paphos
1354.000000	Cayman Divers World Ur	PO Box 541		Grand Cayman
1356.000000	Tom Sawyer Diving Cent	632-1 Third Frydenhoj		Christiansted
1380.000000	Blue Jack Aqua Center	23-738 Paddington Lane	Suite 310	Waipahu

Freeze Selected Column

If there are many columns in the table and you want to freeze one or more columns to identify the record. Just simply right-click the column you want to freeze and select **Freeze Selected Column** or select **View** -> **Freeze Selected Column** from the menu.

The frozen column(s) will move to the leftmost position in the table grid. This action will lock the frozen column(s), preventing them from being edited.

To unfreeze the columns, just simply right-click anywhere on the table grid and select **Unfreeze Columns** or select **View** -> **Unfreeze Columns** from the menu.

Set Column Width

Click right border at top of column and drag either left or right.
or
Double-click right border at top of column to obtain the best fit for the column.
or
Right-click the column you want to set the column width with and select **Set Column Width** or select **View** -> **Set Column Width** from the menu. Specify width in the **Set Column Width** Dialog. The default value is 120.

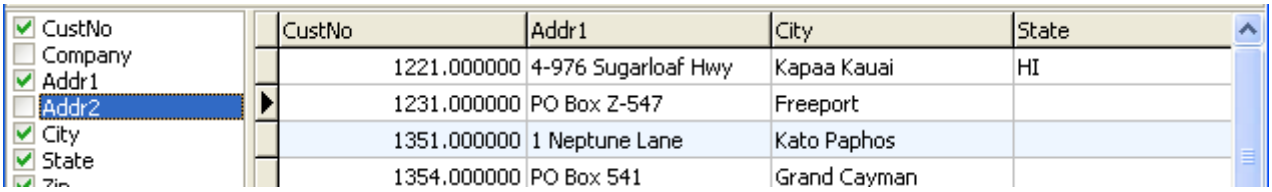
Hint: The result only applies on the selected column.

Show/Hide Columns

If there are many columns in the table and you want to hide some of them from the table grid. Just simply right-click anywhere on the table grid and select **Show/Hide Columns** or select **View** -> **Show/Hide Columns** from the menu. Select the columns that you would like to hide.

The hidden column(s) will disappear from the table grid.

To unhide the columns, just simply right-click anywhere on the table grid and select **Show/Hide Columns** or select **View** -> **Show/Hide Columns** from the menu. Select the columns that you would like to redisplay.



Set Row Height

Right-click anywhere on the table grid and select **Set Row Height** or select **View** -> **Set Row Height** from the menu. Specify row height in the **Set Row Height** Dialog. The default value is 17.

Hint: This action applies on the current table grid only. To adjust the global settings, see Options.

Set Display Format

The **Set Display Format** Dialog is provided for you to customize format applied to exported data on the selected column. Just simply right-click the column you want to edit its format and select **Set Display Format** or select **View** -> **Set Display Format** from the menu. Edit the format style to adjust the result format in the way you need. For example: dd-mm-yyyy.

Hint: This action applies on the selected column only. To adjust the global settings, see Options.

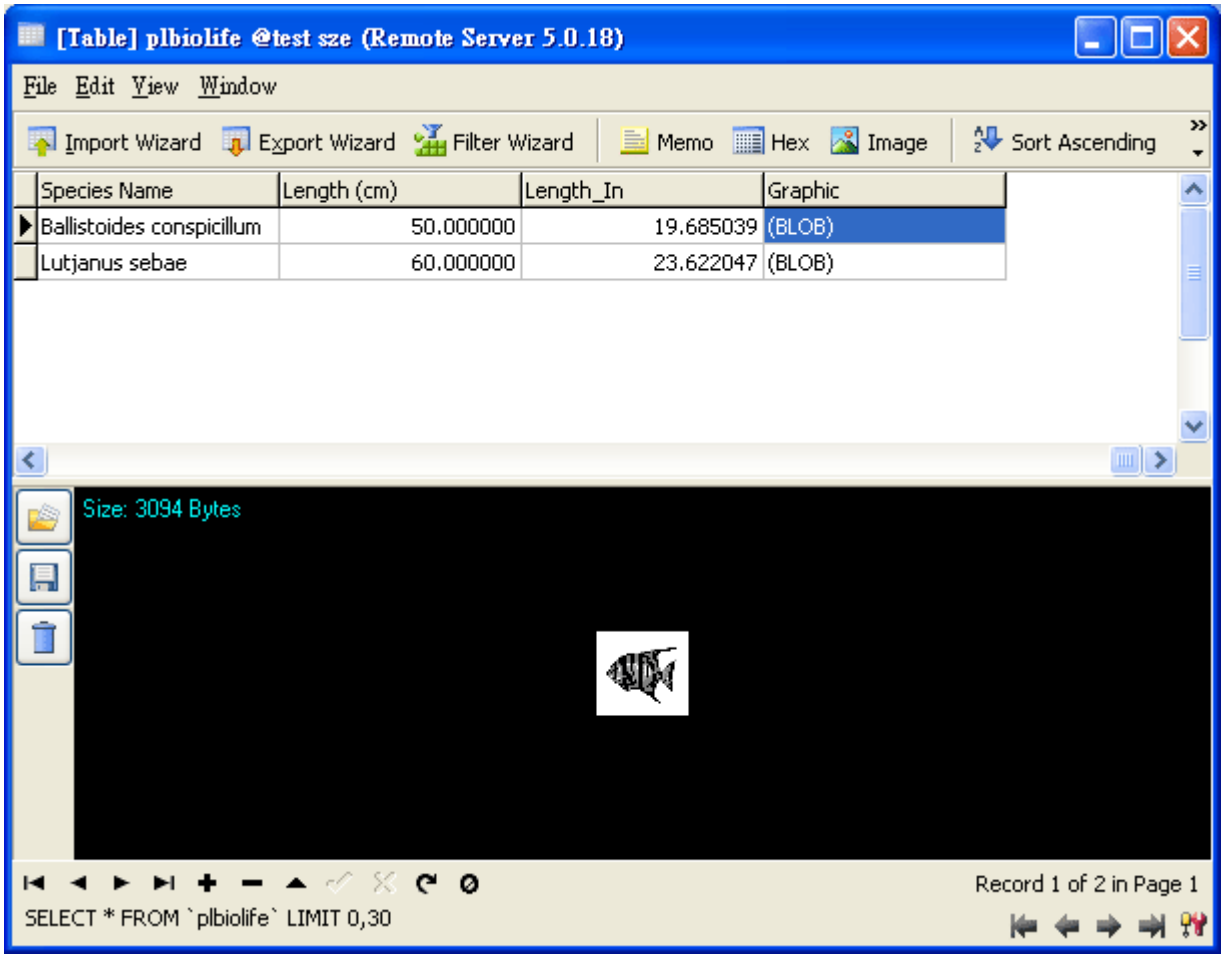
Text/Blob View

Navicat provides Text/Blob Viewer and Editor to view and edit TEXT/BLOB fields content. The editor allows you to view, update, insert, or delete data in a table.

Click **Memo**, **Hex** and **Image** from the toolbar to activate the appropriate viewer/editor.

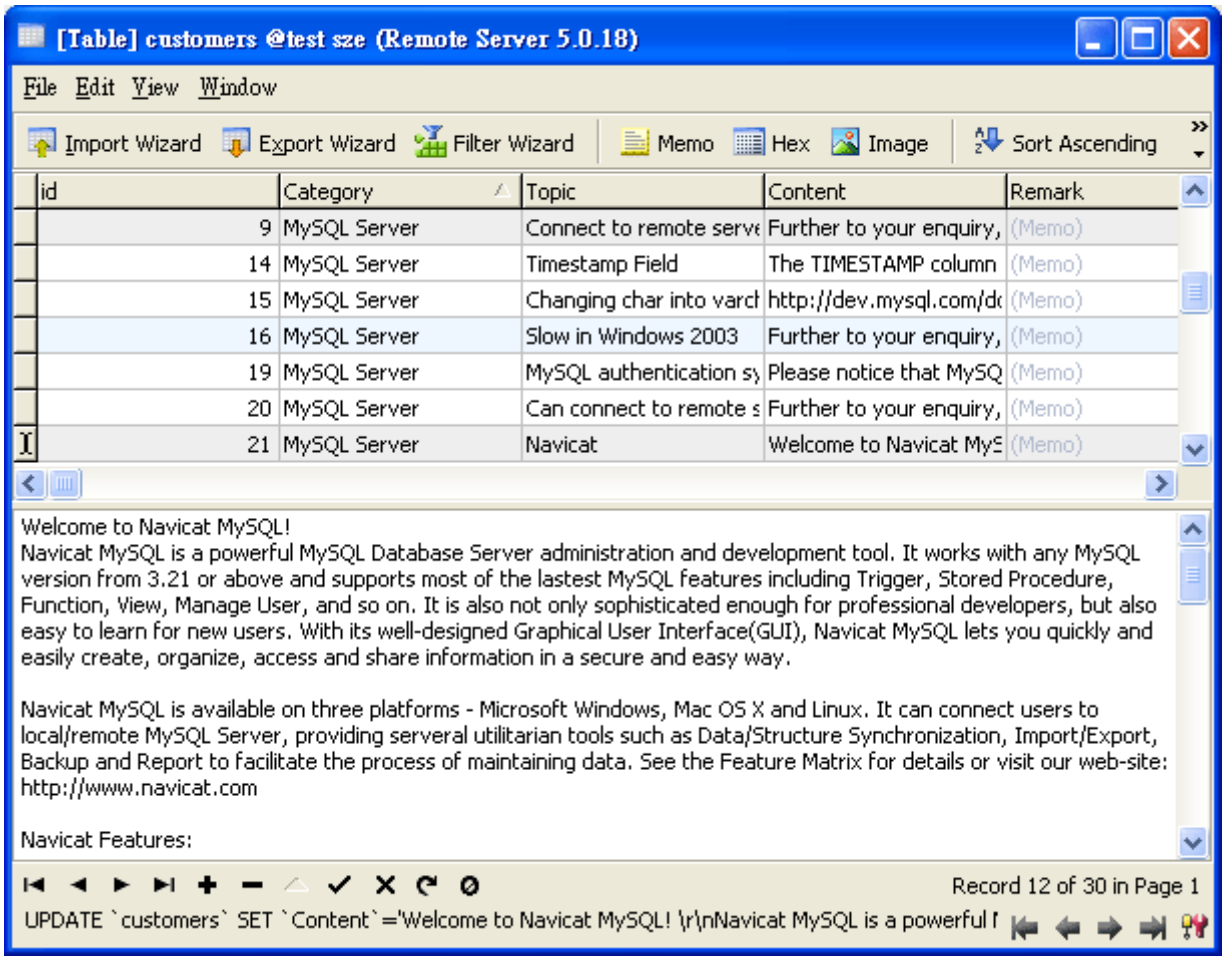
- Viewing/Editing Text field as Memo
- Viewing/Editing Text/Blob field as Hexadecimal
- Viewing/Editing Blob field as Graphical Image

See also:
Grid View
Table Designer



Viewing/Editing Text field as Memo

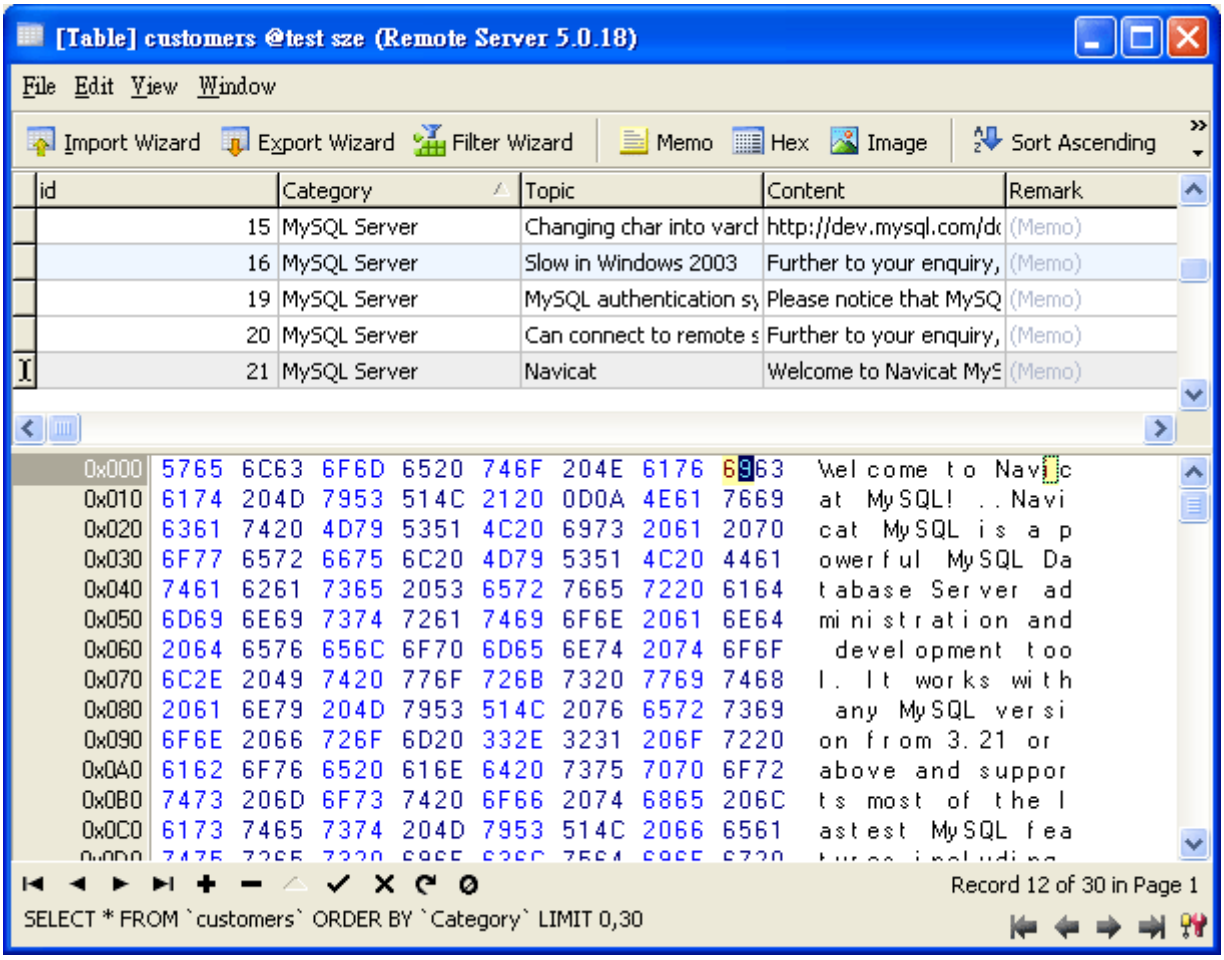
The **Memo** panel allows you to edit data as a simple text. Use the ✔ button on the navigation bar to update the changed records to the table.



Viewing/Editing Text/Blob field as Hexadecimal

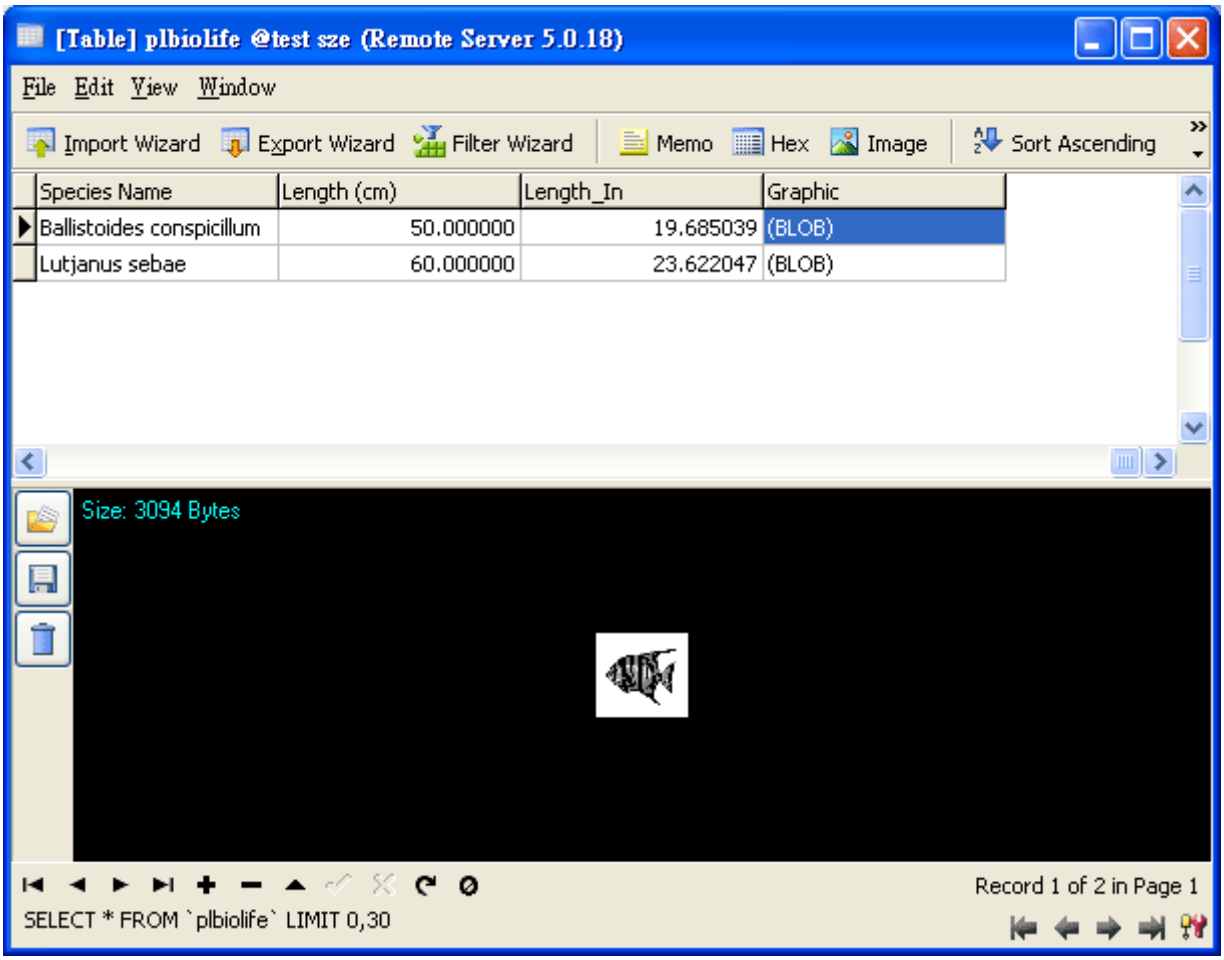
The **Hex** panel allows you to edit data in hexadecimal mode. Use the ✔ button on the navigation bar to update the changed records to the table.

Note: Use the **Insert** key on the keyboard to switch between Insert and Overwrite modes



Viewing/Editing Blob field as Graphical Image

The **Image** panel allows you to show data as image. Use the **Load**, **Save to disk** and **Clear** button to load/remove the image from a file, or save the image to a table.



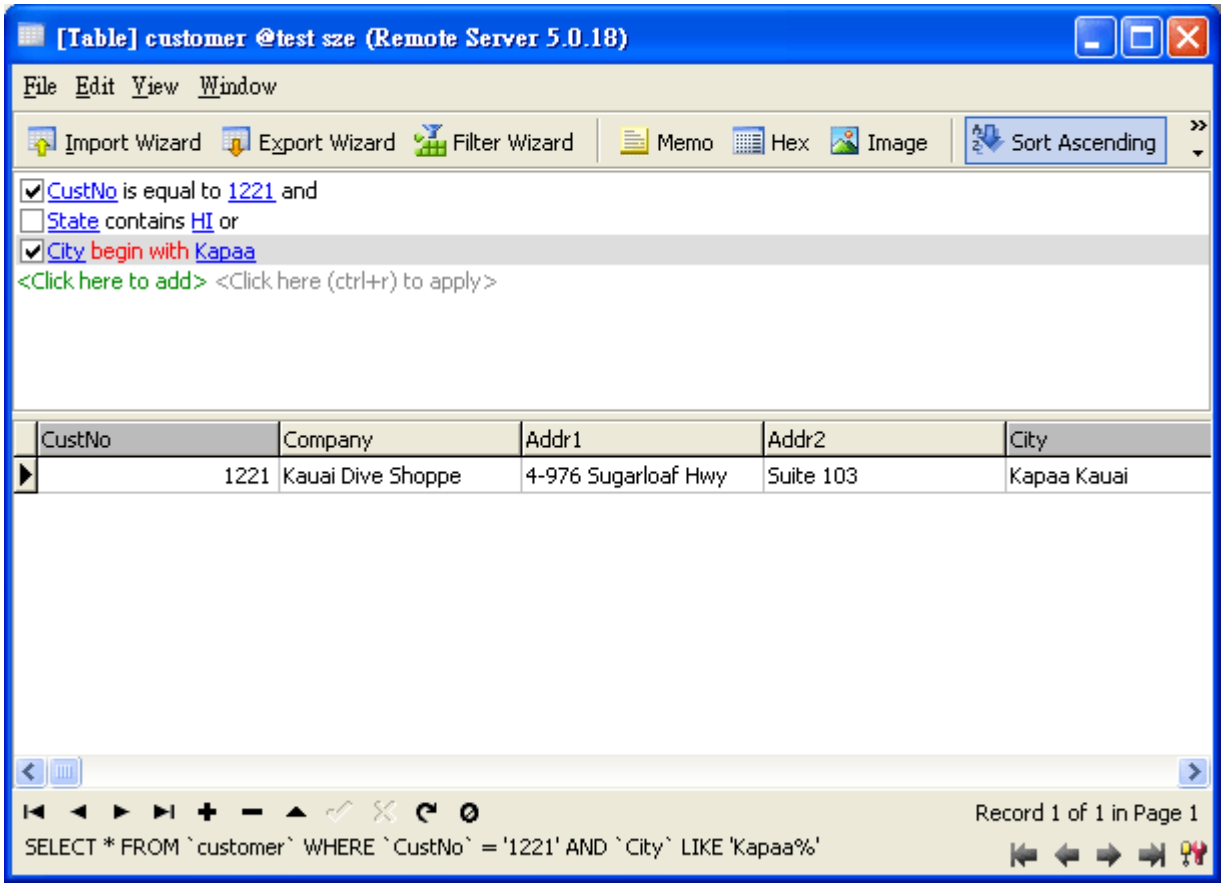
Filter Wizard

Filter Wizard allows you to facilitate creating and applying filter criteria that you specify for the table grid. Moreover, it allows you to save filter criteria as a profile for future use.

Click **Filter Wizard** from the toolbar to activate the editor.

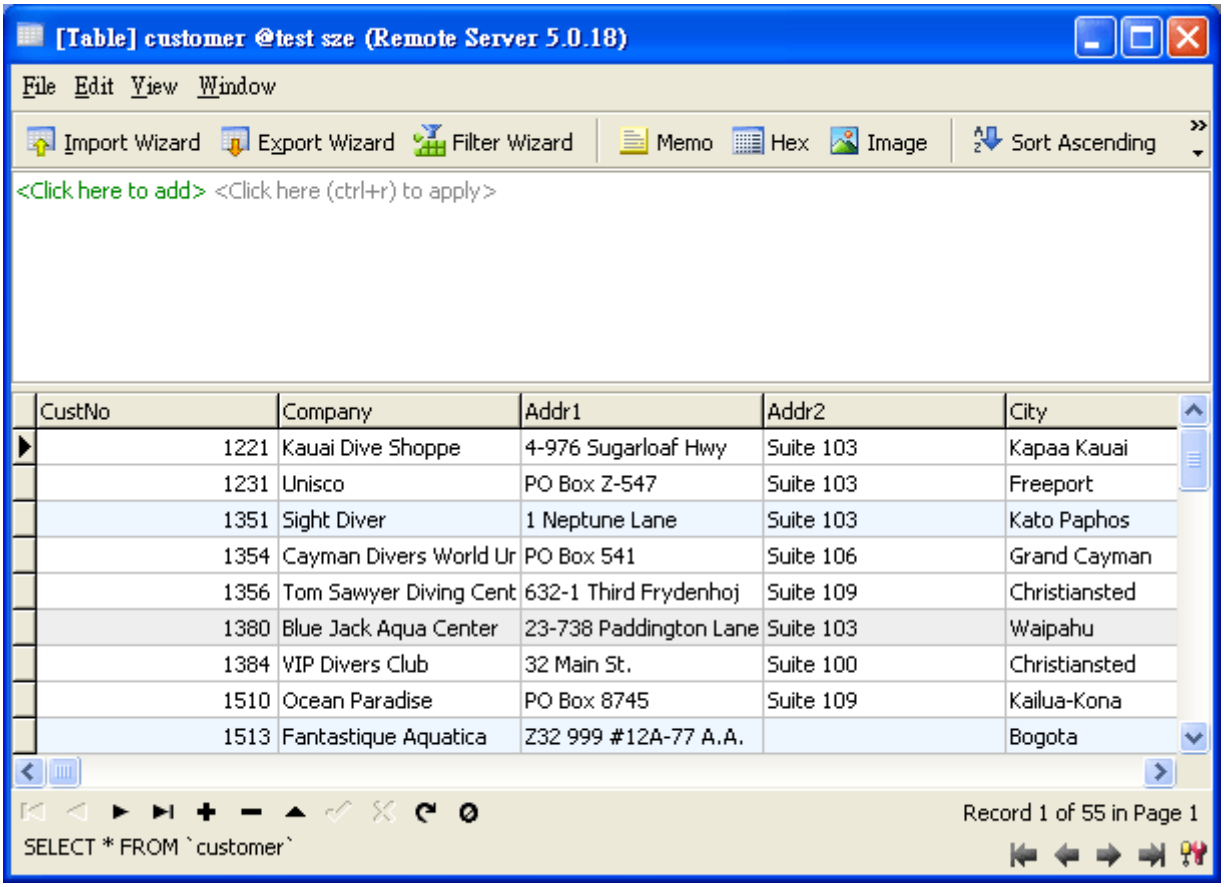
- Adding New Filter Condition
- Setting Filter Criteria
- Setting Filter Operator
- Setting Filter Criteria Values
- Setting Filter Group
- Applying Filter Conditions

See also:
Filtering Records



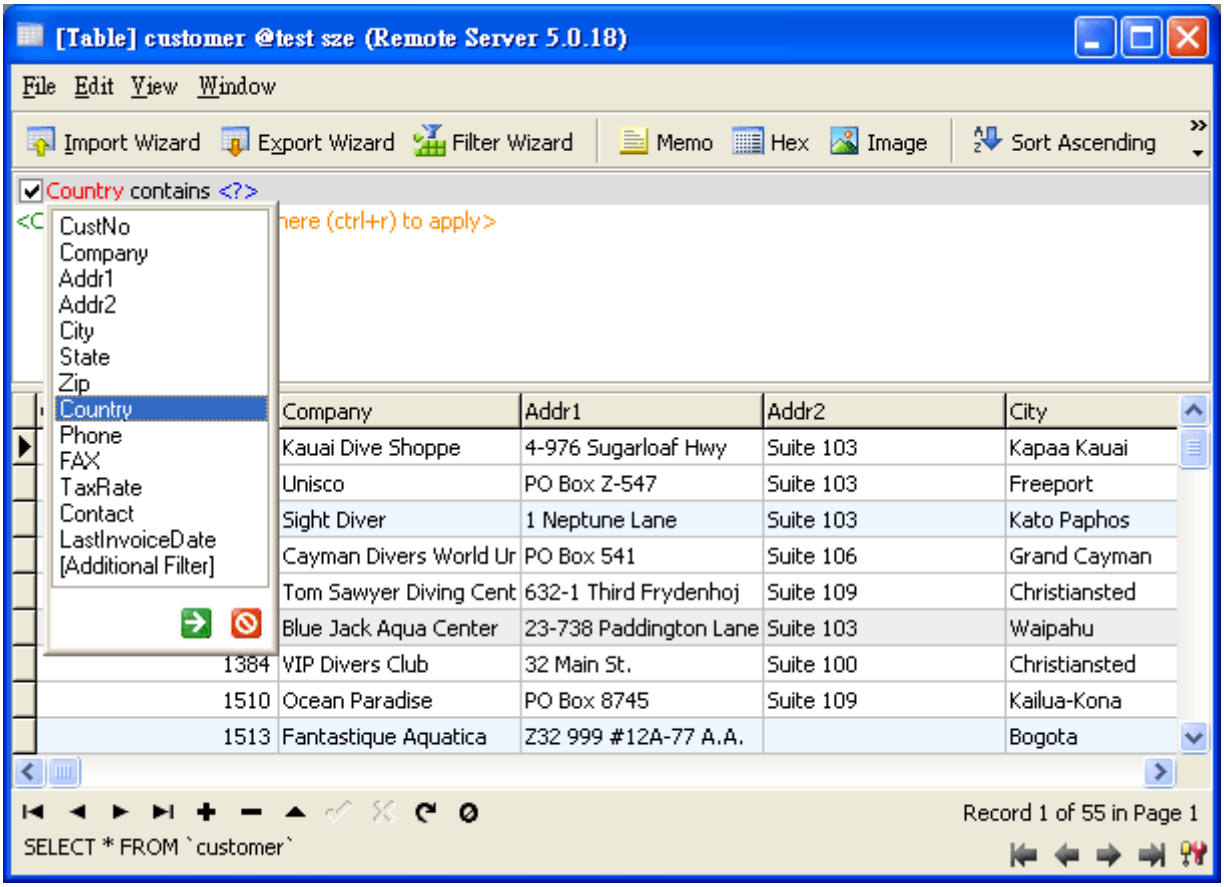
Adding New Filter Condition

To add a new condition to the criteria, just simply click the **<Click here to add>** or right-click anywhere on the Filter Wizard and select the **Add** from the popup menu.



Setting Filter Criteria

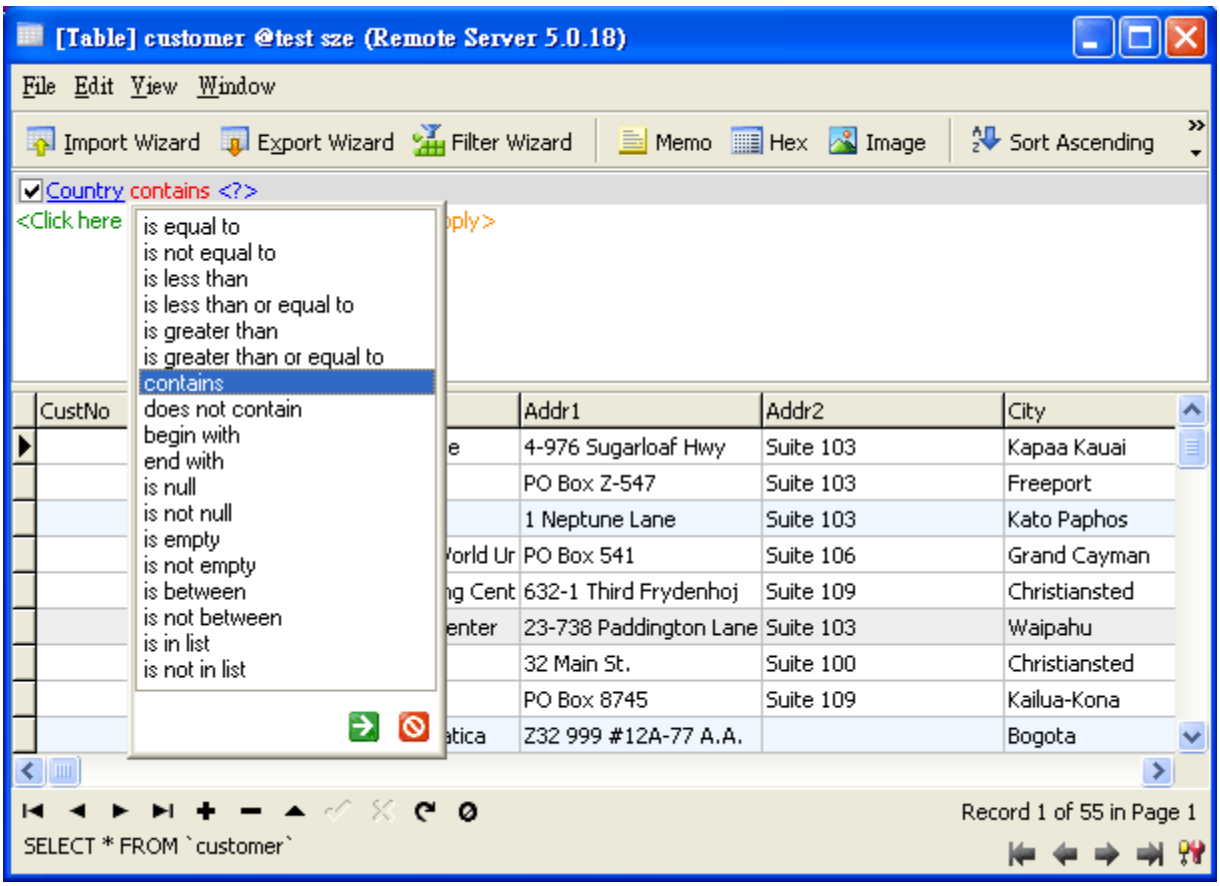
Support we need to select customers who come from **US**. This criteria is applied to the **Country** column. Click on the column box (next to the check box) and select **Country** item from the dropdown list which displaying all available column names.



Setting Filter Operator

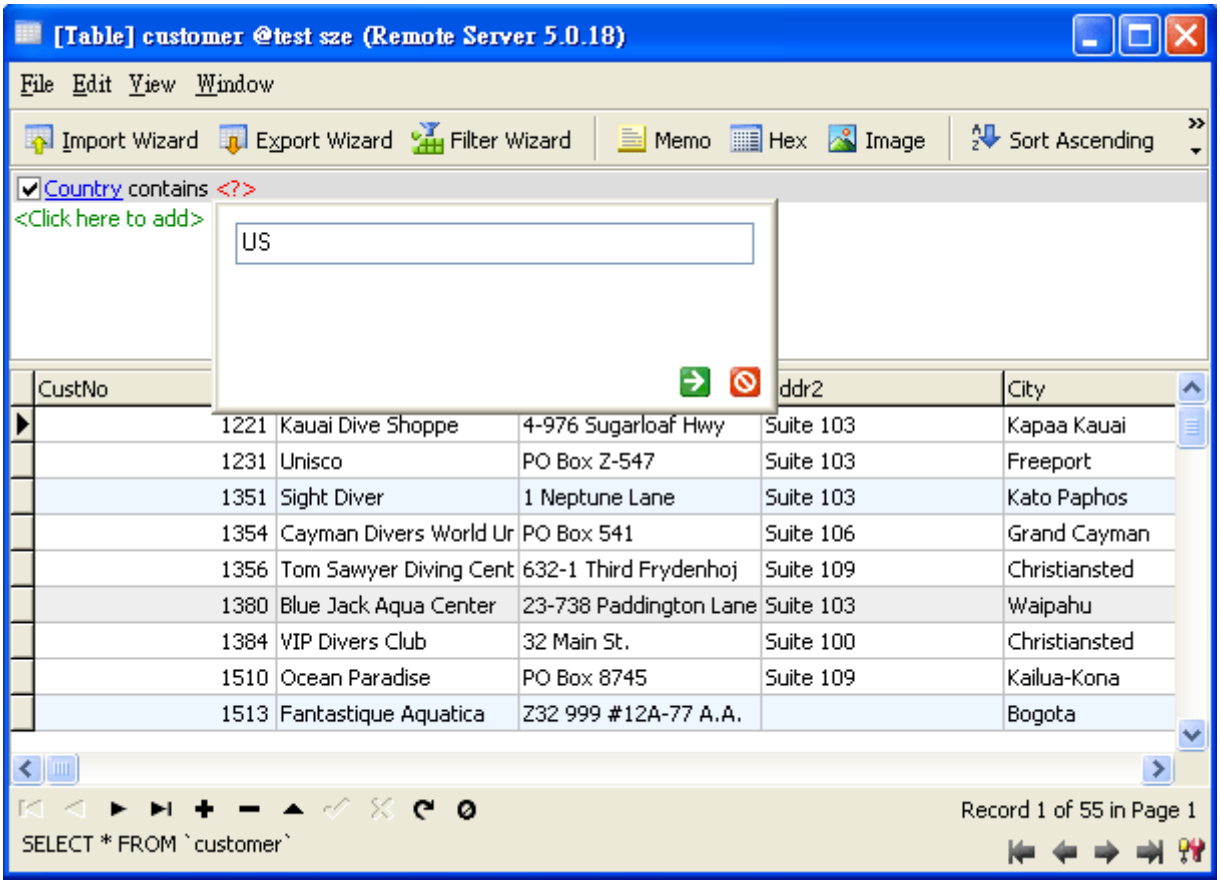
Click on the filter operator box (next to the column box) and select **contains** item from the dropdown list which displaying all available filter operators.

Filter Operator	Result
is equal to <?>	My_Field = 'your_value'
is not equal to <?>	My_Field <> 'your_value'
is less than <?>	My_Field < 'your_value'
is less than or equal to <?>	My_Field <= 'your_value'
is greater than <?>	My_Field > 'your_value'
is greater than or equal to <?>	My_Field >= 'your_value'
contain <?>	My_Field LIKE '%your_value%'
does not contain <?>	NOT (My_Field LIKE '%your_value%')
begin with <?>	My_Field LIKE 'your_value%'
end with <?>	My_Field LIKE '%your_value'
is null	My_Field IS NULL
is not null	My_Field IS NOT NULL
is empty	My_Field = ''
is not empty	My_Field <> ''
is between <?> <?>	((My_Field >= your_value1) and (My_Field <= your_value2))
is not between <?> <?>	NOT ((My_Field >= your_value1) and (My_Field <= your_value2))
is in list <?>	My_Field in ('aaa','bbb',...)
is not in list <?>	My_Field not in ('aaa','bbb',...)


[Table] customer @test sze (Remote Server 5.0.18)
File Edit View Window
Import Wizard
Export Wizard
Filter Wizard
Memo
Hex
Image
Sort Ascending
Country contains <?>
<Click here
is equal to
is not equal to
is less than
is less than or equal to
is greater than
is greater than or equal to
contains
does not contain
begin with
end with
is null
is not null
is empty
is not empty
is between
is not between
is in list
is not in list
CustNo
Addr1
Addr2
City
4-976 Sugarloaf Hwy
Suite 103
Kapaa Kauai
PO Box Z-547
Suite 103
Freeport
1 Neptune Lane
Suite 103
Kato Paphos
PO Box 541
Suite 106
Grand Cayman
632-1 Third Frydenhoj
Suite 109
Christiansted
23-738 Paddington Lane
Suite 103
Waipahu
32 Main St.
Suite 100
Christiansted
PO Box 8745
Suite 109
Kailua-Kona
Z32 999 #12A-77 A.A.
Bogota
Record 1 of 55 in Page 1
SELECT * FROM `customer`

Setting Filter Criteria Values

Click on the criteria values box (next to the filter operator box) to activate the appropriate editor and enter the criteria values **(US)**. The editor used in criteria value boxes is determined by the editor type assigned to the corresponding column.

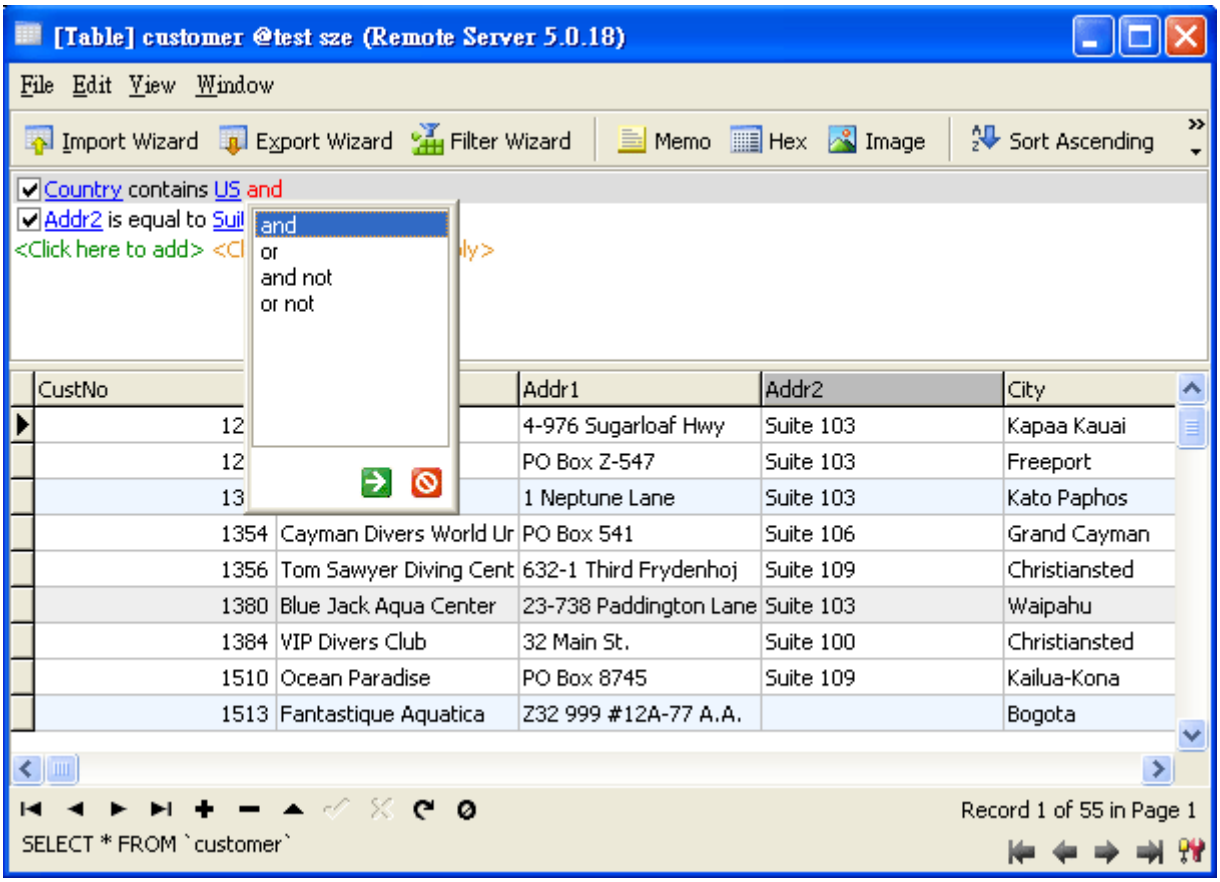


Setting Filter Group

To implement a complex filter condition combining two simple conditions, just simply click on the **<Click here to add>** under the existing condition you have just defined.

Support we need to select customers whose **Company** located in **Suite 103**, **US**. Apply **Addr2** on column box, **is equal to** on filter operator box and **Suite 103** on criteria values box under the existing condition.

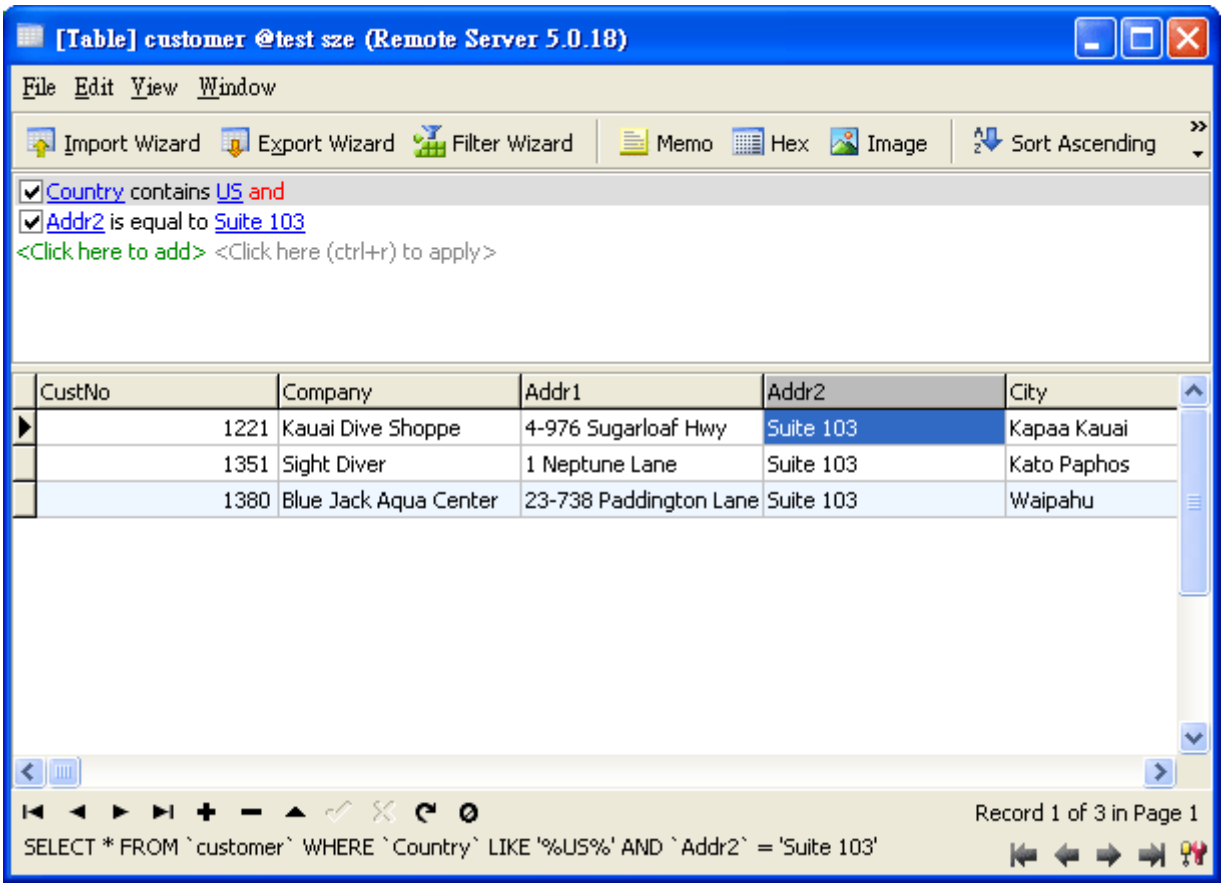
Setting filter group operator for the combine conditions, just simply click on the filter group operator box (by default, it specifies **AND** operator) to activate the appropriate editor.



Applying Filter Conditions

Click the **<Click here (ctrl+r) to apply>** or press **Ctrl+r** to see the result of the filtering you made.

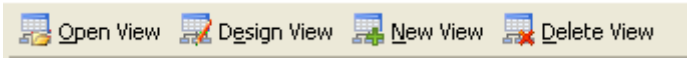
Hint: You are allowed to save filter criteria to and load them from the registry for future use. Just simply right-click on the Filter Wizard and select **Save Profile** / **Open Profile**.



Views

Views (including updatable views) are implemented in MySQL Server 5.0 and available in binary releases from 5.0.1 and up. Views are useful for allowing users to access a set of relations (tables) as if it were a single table, and limiting their access to just that. Views can also be used to restrict access to rows (a subset of a particular table). For access control to columns, you can also use the sophisticated privilege system in MySQL Server.

Just sample click to open an object pane for **View**. A right-click displays the popup menu or using the object pane toolbar below, allowing you to create new, edit, open and delete the selected view.



Create View

To create a new view

- Select anywhere on the object pane.
- Click the **New View** from the object pane toolbar.
  or
- Right-click and select **New View** from the popup menu.
- Edit view properties on the appropriate tabs of the View Designer.

  Hint: To create new view you can also right-click the Views node of the navigation pane and select the **New View** from the popup menu.

To create a new view with modification as one of the existing views

- Select the view for modifying in the navigation pane/object pane.
- Right-click and select the **Design View** from the popup menu.
  or
- Click the **Design View** from the object pane toolbar.
- Modify view properties on the appropriate tabs of the View Designer.
- Click **Save As**.

Edit View

To edit the existing view (manage its SQL definition etc)

- Select the view for editing in the navigation pane/object pane.
- Right-click and select the **Design View** from the popup menu.
  or
- Click the **Design View** from the object pane toolbar.
- Edit view properties on the appropriate tabs of the View Designer.

Open View

To open a view (manage view data)

- Select the view for opening in the navigation pane/object pane.
- Right-click and select the **Open View** from the popup menu or simply double-click the view.
  or
- Click the **Open View** from the object pane toolbar.

Delete View

To delete a view

- Select the view for deleting in the navigation pane/object pane.
- Right-click and select the **Delete View** from the popup menu.
  or
- Click the **Delete View** from the object pane toolbar.
- Confirm deleting in the dialog window.

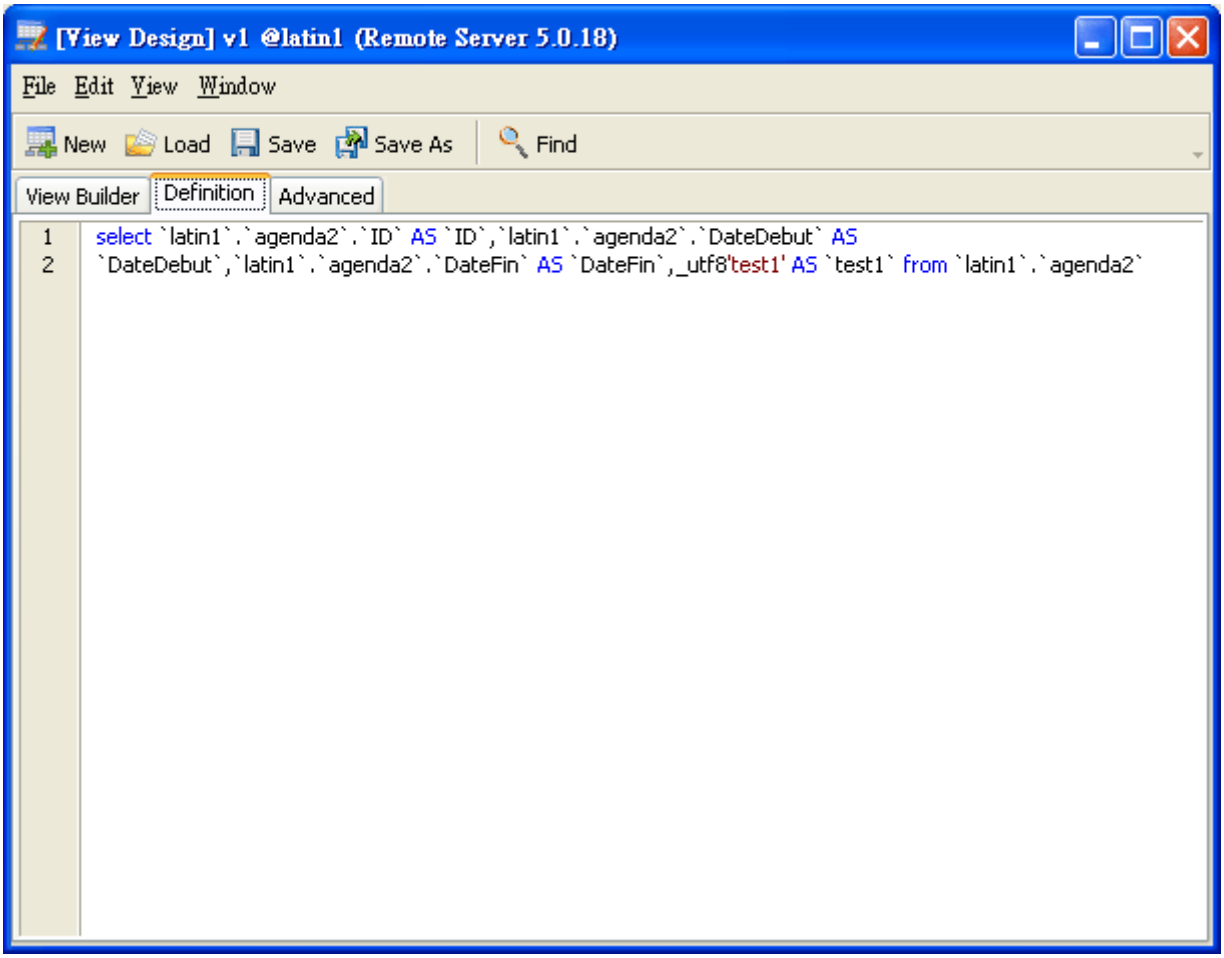
View Designer

View Designer is the basic Navicat MySQL tool for working with views. It allows you to create new view and edit the existing view definition (view name and the SELECT statement it implements).

To open a view in the View Designer (see Edit View for details).

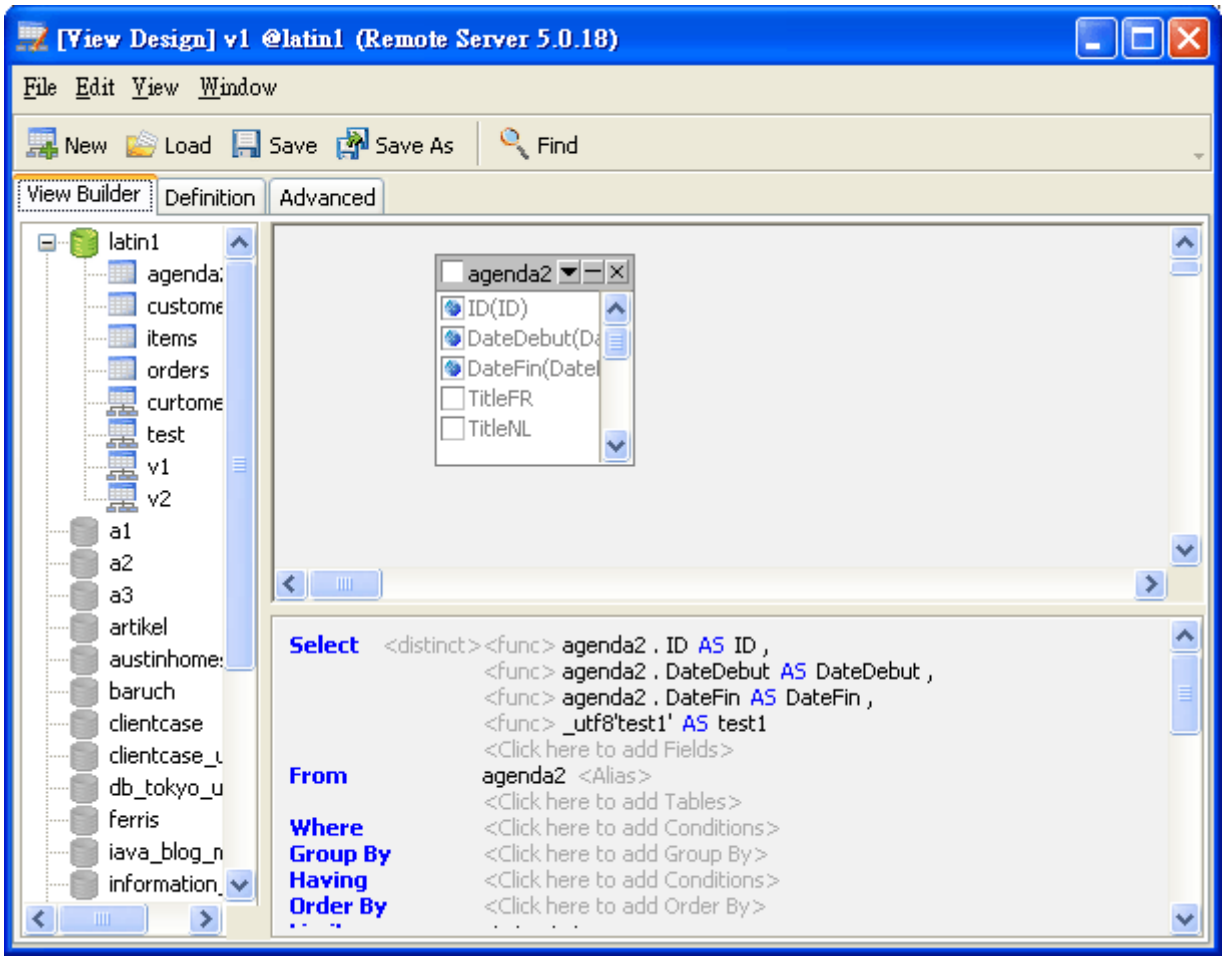
- Working with Visual Builder
- Editing SQL Definition
- Setting Advanced View Properties

See also:
Viewing Table Data



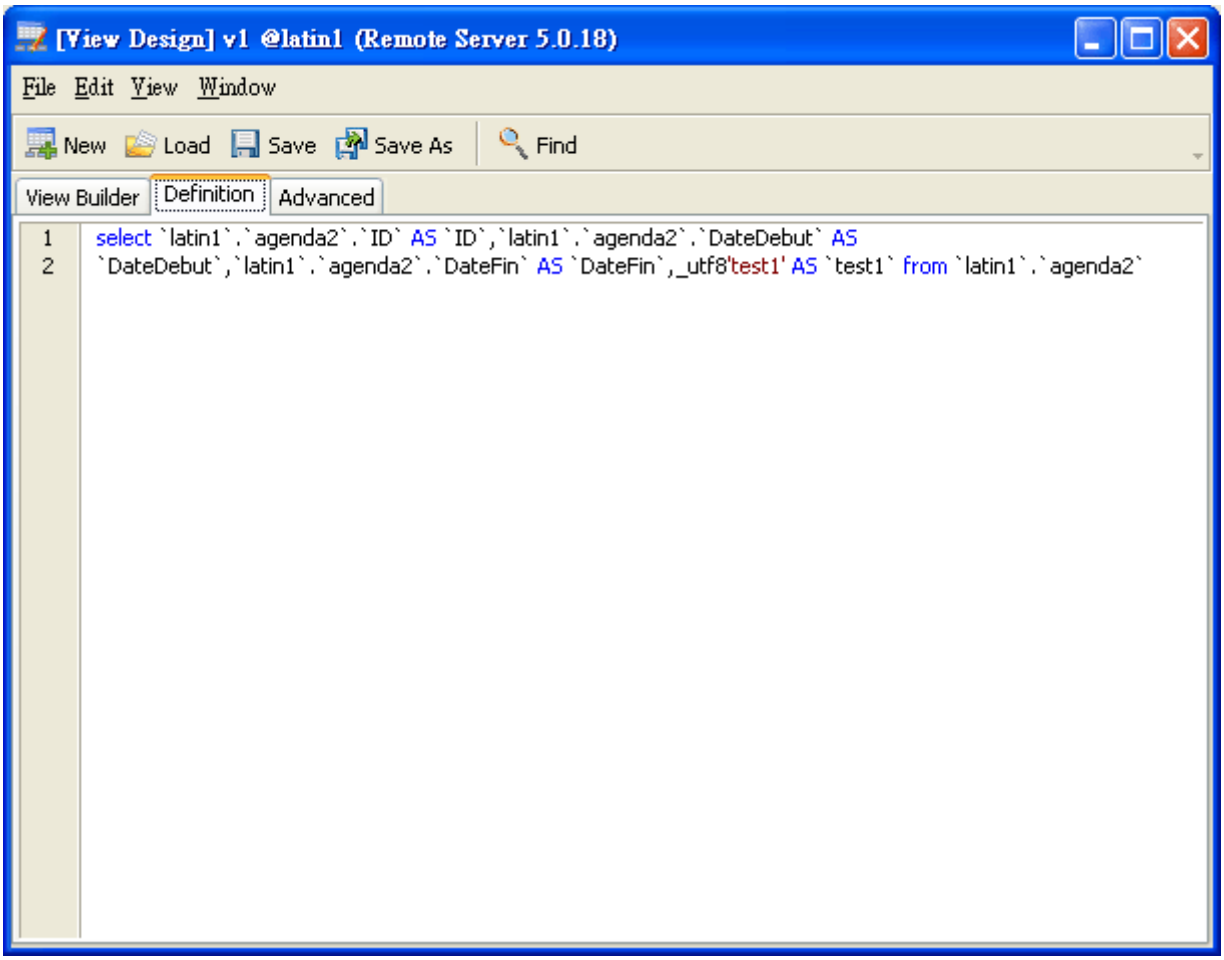
Working with View Builder

View Builder allows you to build views visually. It allows you to create and edit views without knowledge of SQL. See Query Builder for details.



Editing SQL Definition

The **Definition** tab allows you to edit the view definition as SQL statement (SELECT statement it implements).



Setting Advanced View Properties

Algorithm

Algorithm is optional and it is a MySQL extension to standard SQL. Algorithm takes three values: **Undefined**, **Merge** or **Temptable**. The default algorithm is Undefined if no Algorithm clause is present. The algorithm affects how MySQL processes the view.

Undefined

For **Undefined**, MySQL chooses which algorithm to use. It prefers Merge over Temptable if possible, because Merge is usually more efficient and because a view cannot be updatable if a temporary table is used.

Merge

For **Merge**, the text of a statement that refers to the view and the view definition are merged such that parts of the view definition replace corresponding parts of the statement.

Temptable

For **Temptable**, the results from the view are retrieved into a temporary table, which then is used to execute the statement.

Definer

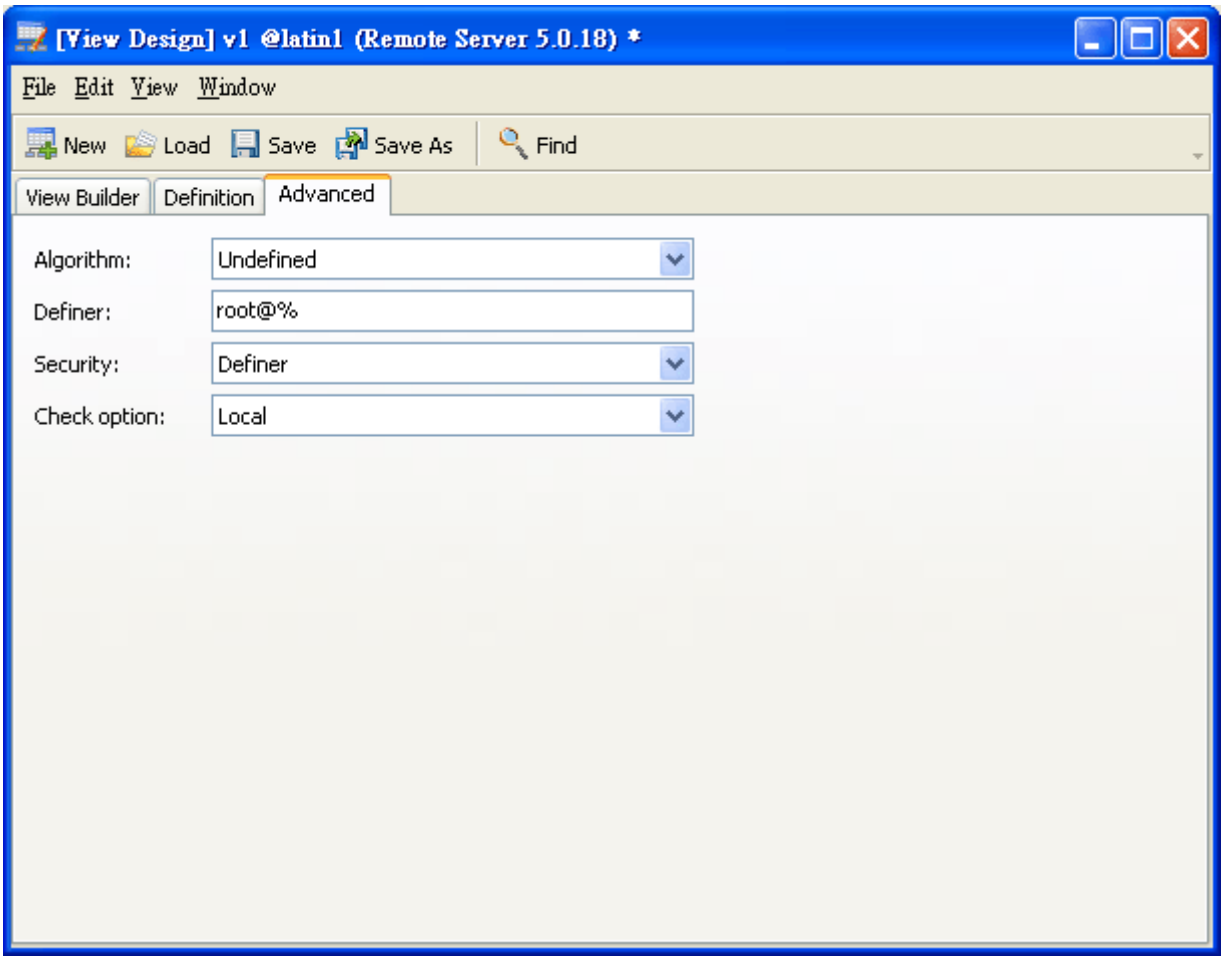
The default **Definer** value is the user who executes the *CREATE VIEW* statement. (This is the same as DEFINER = CURRENT_USER.) If a user value is given, it should be a MySQL account in 'user_name'@'host_name' format (the same format used in the GRANT statement). The user_name and host_name values both are required.

Security

The **SQL SECURITY** characteristic determines which MySQL account to use when checking access privileges for the view when the view is executed. The legal characteristic values are **Definer** and **Invoker**. These indicate that the view must be executable by the user who defined it or invoked it, respectively. The default Security value is Definer.

Check option

The **Check option** can be given for an updatable view to prevent inserts or updates to rows except those for which the *WHERE* clause in the *select_statement* is true. The **Local** and **Cascaded** keywords determine the scope of check testing when the view is defined in terms of another view. **Local** restricts the Check option only to the view being defined. **Cascaded** causes the checks for underlying views to be evaluated as well. When neither keyword is given, the default is **Cascaded**.



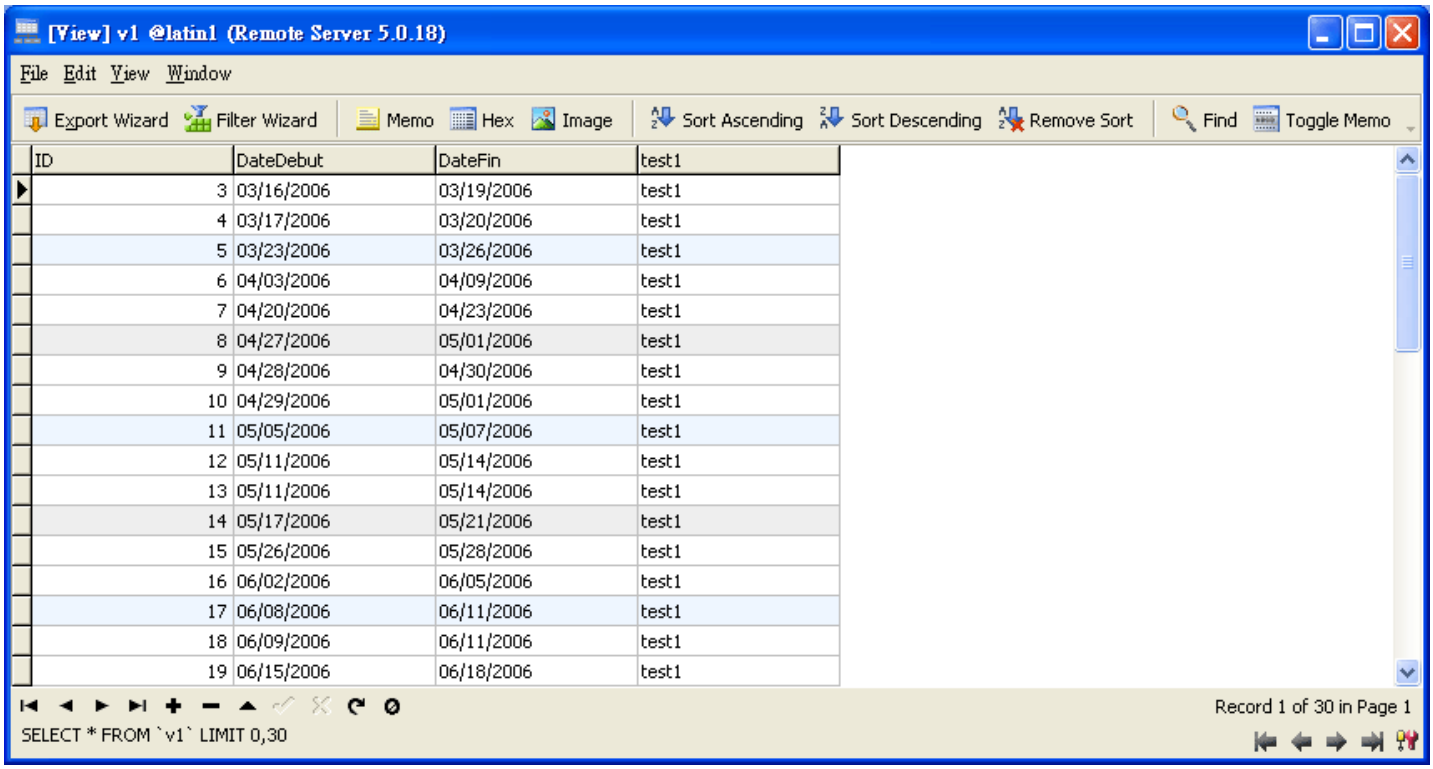
View Viewer

View Viewer displays the view data as a grid. Data can be displayed in two modes: **Grid View** and **Text/Blob View**. See Data View for details.

To open a view in the View Viewer (see Open View for details).

The toolbars of View Viewer provides the following functions for managing data:

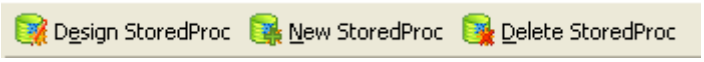
- Export Data
  Export data to MS Word, MS Excel, MS Access, TXT, DBF, HTML, SQL, RTF, PDF and more.
- Filter Data
  Allow you to filter records by creating and applying filter criteria for the data grid.
- Edit TEXT/BLOB
  Allow you to view and edit the content of TEXT and BLOB fields.



Stored Procedures/Functions

Stored routines (procedures and functions) are supported in MySQL 5.0. A stored procedure is a set of SQL statements that can be stored in the server. Once this has been done, clients do not need to keep reissuing the individual statements but can refer to the stored procedure instead.

Just sample click to open an object pane for **Stored Procedure**. A right-click displays the popup menu or using the object pane toolbar below, allowing you to create new, edit and delete the selected stored procedure.



Create Stored Procedure/Function

To create a new stored procedure/function

- Select anywhere on the object pane.
- Click the **New StoredProc** from the object pane toolbar.
  or
- Right-click and select **New StoredProc** from the popup menu.
- Edit stored procedure/function properties on the appropriate tabs of the Stored Procedure Designer.

  Hint: To create new stored procedure/function you can also right-click the Stored Procedure node of the navigation pane and select the **New StoredProc** from the popup menu.

To create a new stored procedure/function with modification as one of the existing stored procedure/function

- Select the stored procedure/function for modifying in the navigation pane/object pane.
- Right-click and select the **Design StoredProc** from the popup menu or simply double-click the stored procedure/function.
  or
- Click the **Design StoredProc** from the object pane toolbar.

- Modify stored procedure/function properties on the appropriate tabs of the Stored Procedure Designer.
- Click **Save As**.

Edit Stored Procedure/Function

To edit the existing stored procedure/function (manage its definition etc)

- Select the stored procedure/function for editing in the navigation pane/object pane.
- Right-click and select the **Design StoredProc** from the popup menu or simply double-click the stored procedure/function.
  or
- Click the **Design StoredProc** from the object pane toolbar.
- Edit stored procedure/function properties on the appropriate tabs of the Stored Procedure Designer.

Delete Stored Procedure/Function

To delete a stored procedure/function

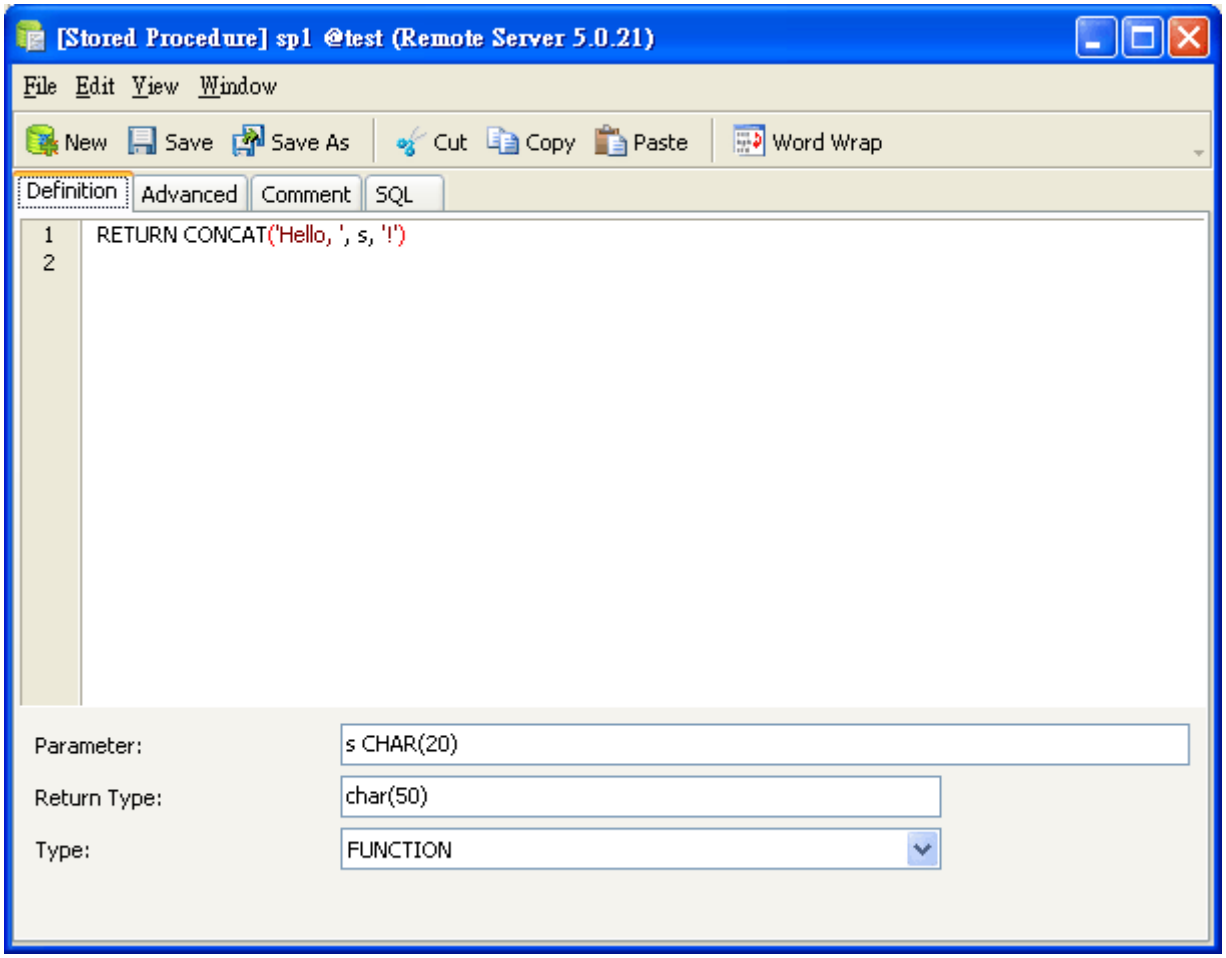
- Select the stored procedure/function for deleting in the navigation pane/object pane.
- Right-click and select the **Delete StoredProc** from the popup menu.
  or
- Click the **Delete StoredProc** from the object pane toolbar.
- Confirm deleting in the dialog window.

Stored Procedure Designer

Stored Procedure Designer is the basic Navicat MySQL tool for working with stored procedures/functions. It allows you to create new stored procedure/function and edit the existing stored procedure/function definition.

To open a stored procedure/function in the Stored Procedure Designer (see Edit Stored Procedure/Function for details).

- Editing Stored Procedure/Function Definition
- Setting Advanced Stored Procedure/Function Properties
- Editing Stored Procedure/Function Comment
- Viewing DDL Definition



Editing Stored Procedure/Function Definition

Edit the stored procedure/function definition under the **Definition** tab. Definition consists of a valid SQL procedure statement. This can be a simple statement such as *SELECT* or *INSERT*, or it can be a compound statement written using *BEGIN* and *END*. Compound statements can contain declarations, loops, and other control structure statements.

Parameter

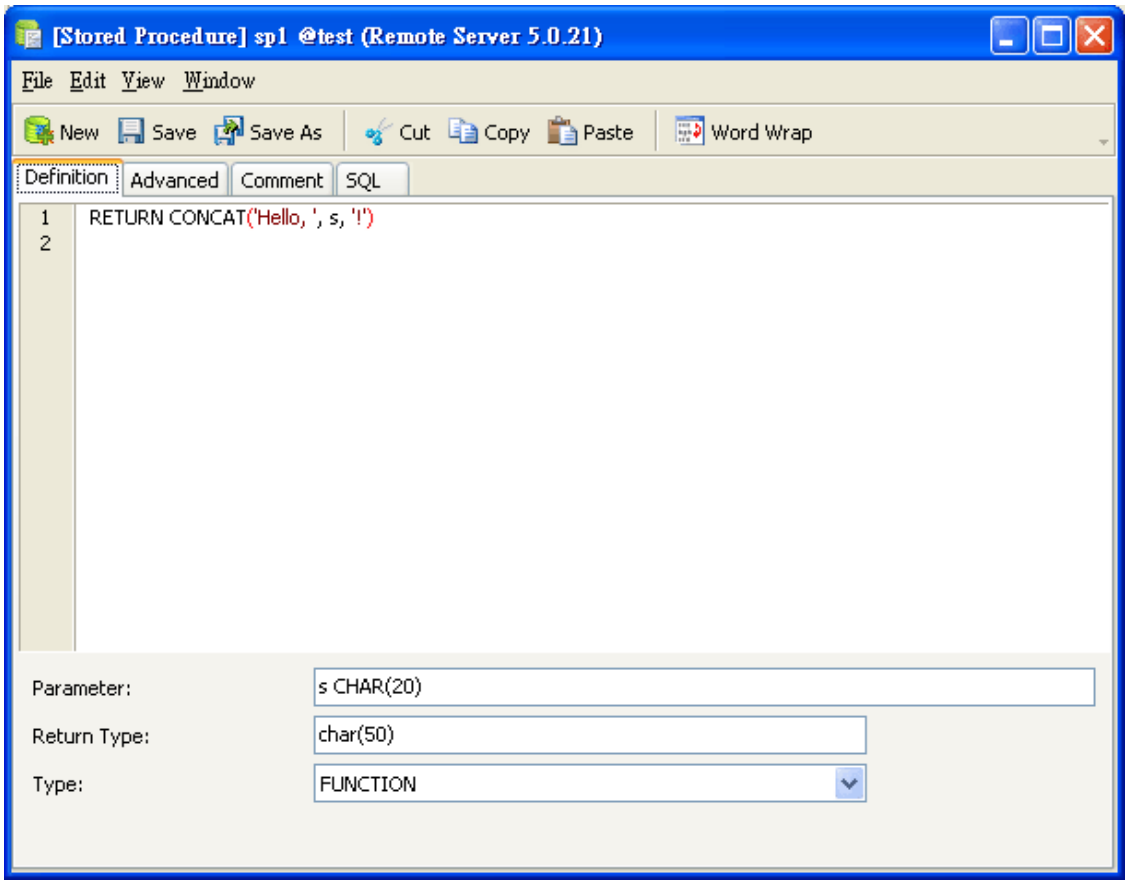
Define stored procedure/function parameter.

Return Type

This text box will be enabled only for creating a stored function. It indicates the return type of the function.

Type

Select the stored routines you wish to create from the drop-down list, i.e. **Procedure** and **Function**.



Setting Advanced Stored Procedure/Function Properties

Security

The **SQL SECURITY** characteristic can be used to specify whether the routine should be executed using the permissions of the user who creates the routine or the user who invokes it. The default value is **Definer**.

Data Access

Several characteristics provide information about the nature of data use by the routine.

Contains SQL

Indicates that the routine does not contain statements that read or write data. It is the default if none of these characteristics is given explicitly.

No SQL

Indicates that the routine contains no SQL statements.

Reads SQL Data

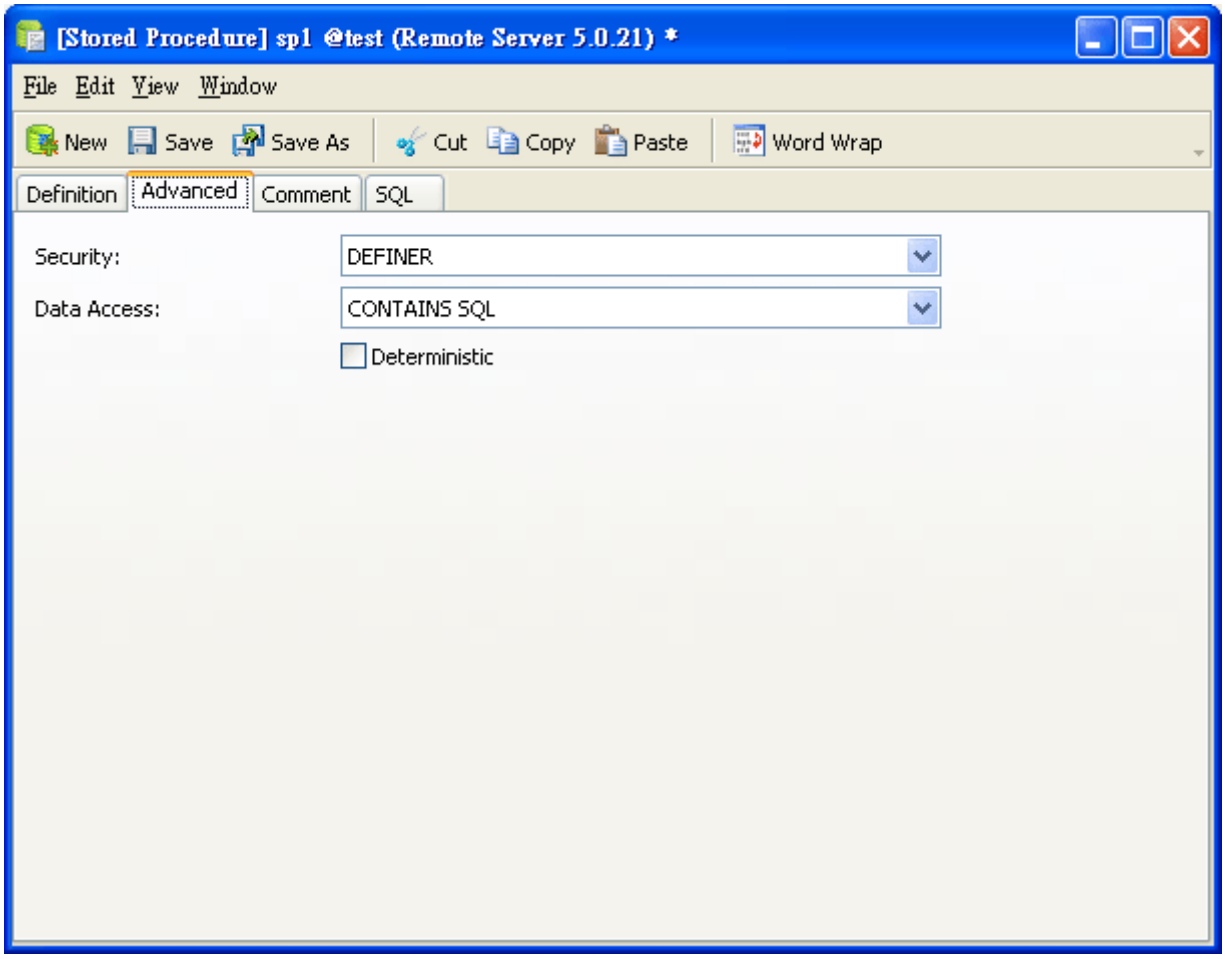
Indicates that the routine contains statements that read data, but not statements that write data.

Modifies SQL Data

Indicates that the routine contains statements that may write data.

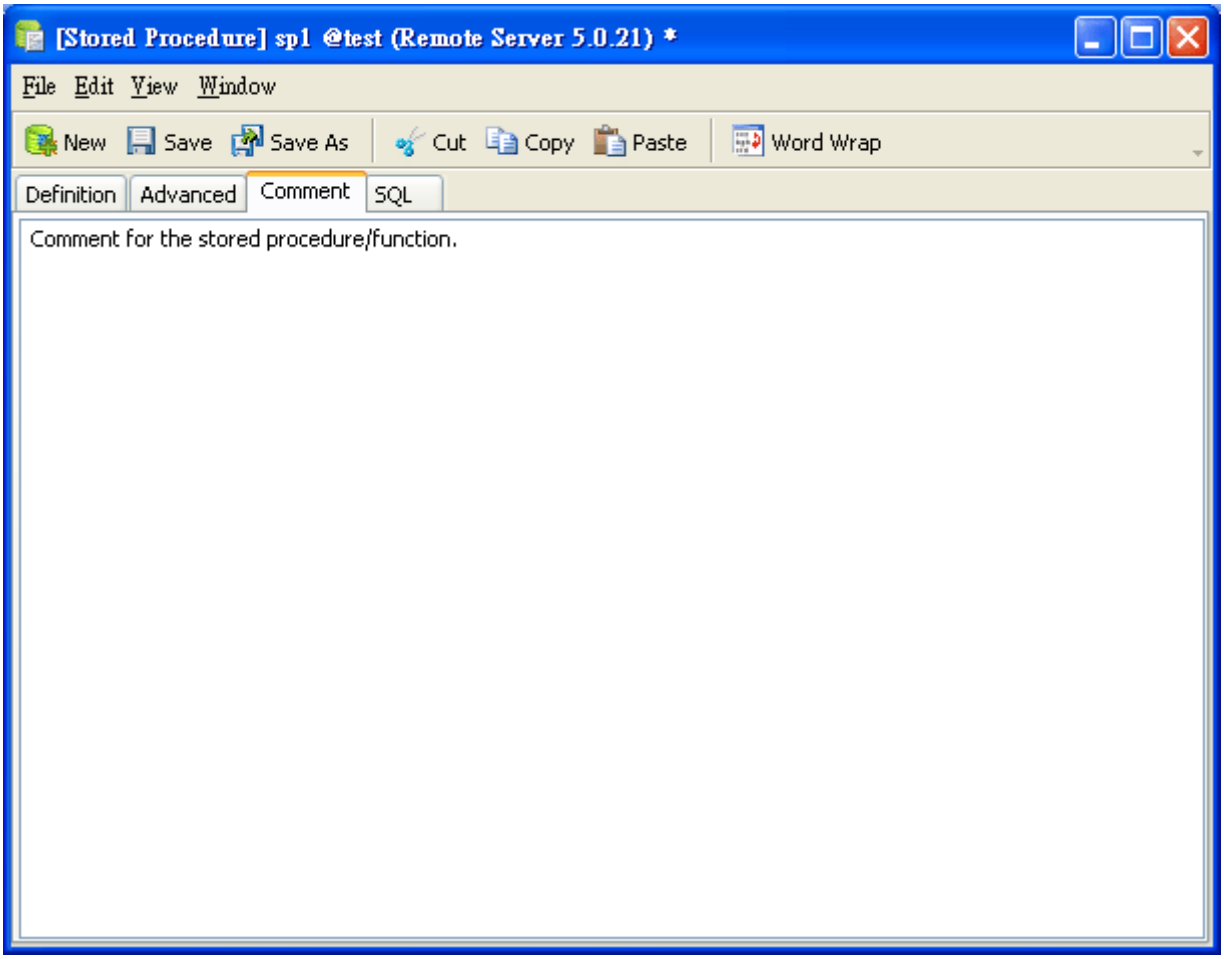
☑Deterministic

A procedure or function is considered **deterministic** if it always produces the same result for the same input parameters, and not deterministic otherwise. The default is not deterministic.


[Stored Procedure] sp1 @test (Remote Server 5.0.21) *
File Edit View Window
New Save Save As Cut Copy Paste Word Wrap
Definition Advanced Comment SQL
Security:
DEFINER
Data Access:
CONTAINS SQL
Deterministic

Editing Stored Procedure/Function Comment

The **Comment** tab allows you to enter the comment for the stored procedure/function.



Viewing DDL Definition

The **SQL** tab displays the SQL statement for creating the stored procedure/function. This text is read-only. If you want to change the definition, use the appropriate tabs instead.