

Quick Start Up

Welcome to SpeedBase Online Help

SpeedBase is a customizable database software with a userfriendly interface designed for information management. Learning how to use SpeedBase is fast and does not require special technical skills.

Before moving into details, we highly recommend you to watch the [training videos](#) first.

The recommended path to follow for a quick start up is given below:

1st STEP: Do Some Training (Without being worried about hurting actual data)

On first startup after installation, SpeedBase will automatically create a new, empty database for you. Use this database for training only as you may create a new one for entering actual information.

- Import any one of the [application templates](#) available you wish to experiment.
- Have a look at the [Term Map](#) to quickly get some idea about the terminology, windows and their roles used in SpeedBase.
- Experiment with record management, i.e. [creating](#), modifying, [deleting](#) and [searching](#) records
- Import more application templates to get ideas about how your database can be designed for various purposes.

2nd STEP: Create a New Database For Entering Actual Data

Note that, you may skip most of the steps below if you are already happy with the current design of your database.

- [Create a new database](#).
- If one of the [application templates](#) looks close to the database model in your mind, import it to save time. Otherwise skip this step and start from scratch.
- Create (more) [CATALOGS](#) as needed. Create the [FIELDS](#) you wish under them.
- Use [Form Designer](#) to make the fields visible on record window.
- Create your first records in [Record Details Window](#).
- Create one or more [VIEWS](#) as needed to customize the tabular display of records.

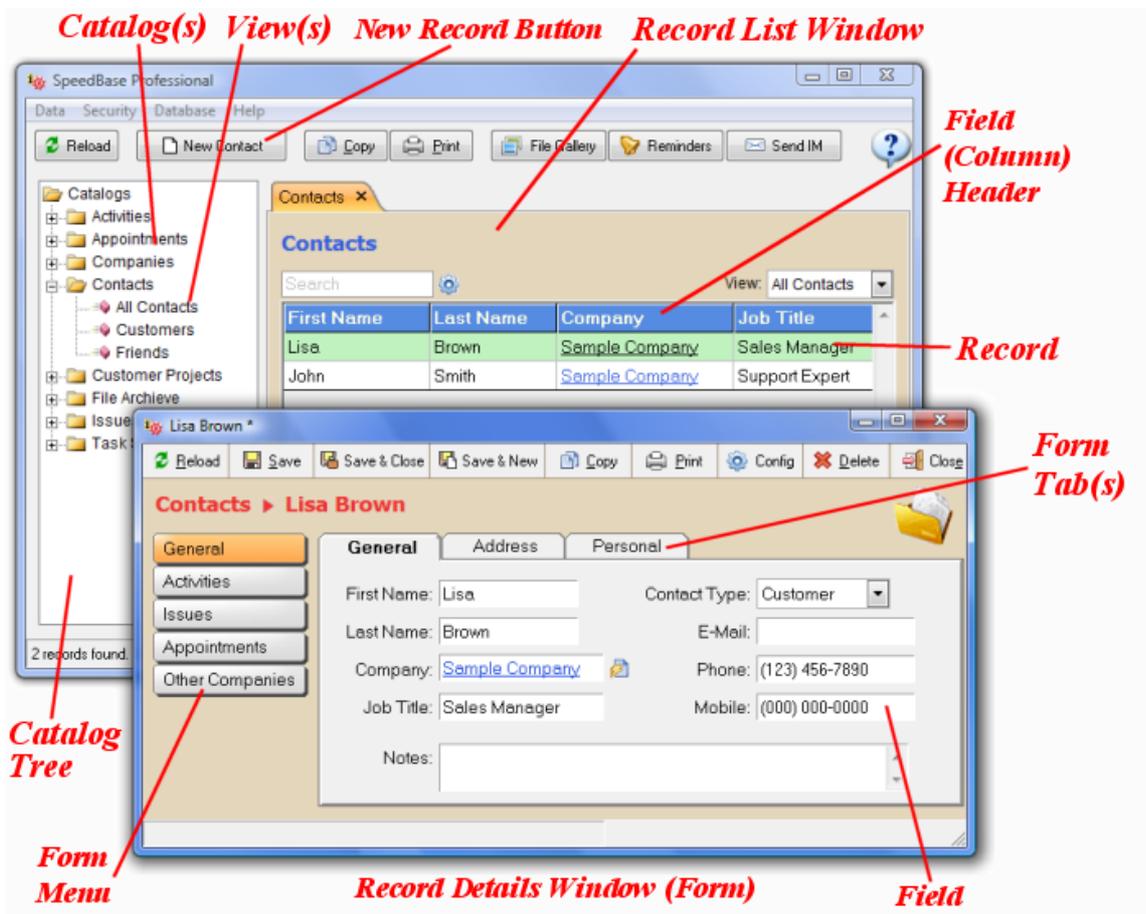
3rd STEP: Adding More Power

- Create your first [FILTER](#) for views you created to filter out and display only records with certain properties.
- Create your first [RELATIONSHIP](#) to relate different types of information.

For Teamwork Edition Users: You may find further documentation for extended features like [messenger](#) or [user management](#) under the related help menu titles.

The Basics & Terms

Term Map



Next Topic: [Important Definitions](#)

Definition of Terms Used Throughout This Help Document

Remember Context Sensitive Menus

There are many places where you can access the list of available actions by pointing your mouse on an item and right clicking. These items are:

- Catalogs folder (the very top folder on catalog tree)
- Catalog folders
- View items under each catalog folders
- Any window where you see a record list (right on any record row)
- File or image fields on record forms

Catalog

A **CATALOG** is the major structural item of a database where you store certain type of information.

This may be anything you can imagine: Inventory, Address Book, Books, Companies, Document Library, Flowers... etc. are all different catalogs.

You may create any number of catalogs in your database.

When viewed in tabular (spreadsheet style) form, a **catalog** corresponds to a whole **TABLE** with rows and columns.

Field

A **FIELD** is the second level structural item of a database. Every catalog contains several fields to store information. For example, an "Address Book" catalog may contain fields like name, phone number, birthdate etc. to store information for each person.

When viewed in tabular (spreadsheet style) form; each **field** corresponds to a **COLUMN** and **field name** to **column header** in a table.

Record

A **RECORD** is a set of information you have typed into the fields of a catalog. So it is NOT a part of the structural information of a database. You may create, update or delete records as needed. You may have any number of records in a catalog. When viewed in tabular (spreadsheet style) form; each **record** corresponds to a **ROW** in a table.

View

When you are viewing the records of a catalog in tabular style, you may need some customizations about how the records are displayed. Views determine which fields are displayed, how records are sorted and filtered out. Every catalog may have any number of views (or none) under it. Views are displayed under each catalog folder they belong in the catalog tree.

See [Understanding Views](#) for details.

Filter

A filter is a group of rules which is applied to a certain view when displaying a record list. Every view can have its own attached filter. Filters are saved in your database with the view it belongs to.

Example: If you sometimes need to quickly access the list of contacts who are customers and ones who are friends at other times, it is best to have two views with appropriate filters.

Record Details Window (or shortly Form)

A form simply consists of boxes where you type in information to create or update a single record. A form window (or [record details window](#)) is opened whenever you click the "new record" button from toolbar or doubleclick a row of record. You may arrange the locations of each field according to your preference using [Form Designer](#). Every catalog has a single associated form with it.

Form Menu

Form menus are the menu buttons displayed on the left side of a form. If a record has some relationship with a group of other records from another catalog, you may access that list of related records by clicking a menu button. For example, if there is a relationship between companies and people catalogs, you may easily display the list of workers while you are viewing a company record.

See [Creating Relationship](#) and [Creating Form Menus](#) for more info.

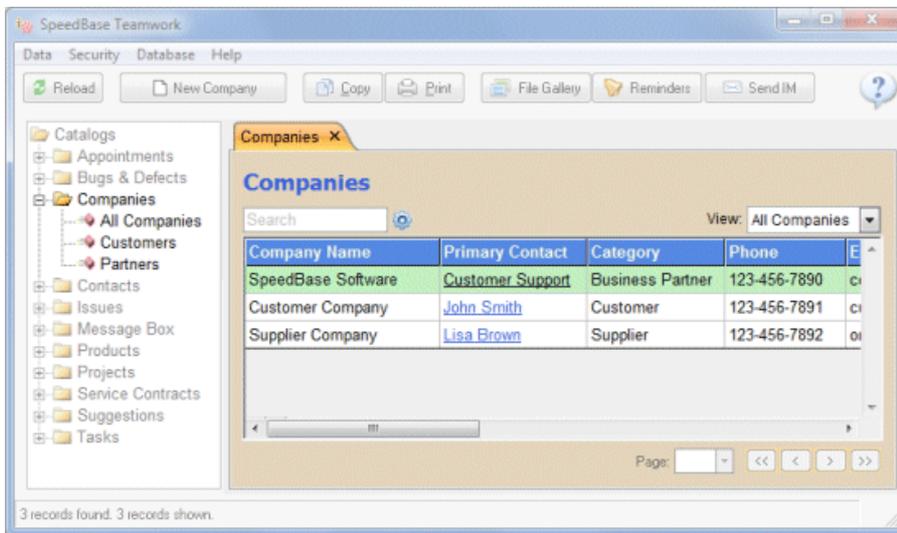
Relationship

A relationship is defined between two catalogs. It helps to easily access the related information stored in the second catalog while you are viewing a record details of the first catalog. Creating relationships (whenever possible) greatly enhances the performance and ease of information management in your working environment.

See [Creating Relationships](#) for more info.

Next Topic: [Record List Panel](#)

Record List Window



If you click one of the existing catalogs from [catalog tree](#), SpeedBase will open a new tab and display the list of the records existing in that catalog in tabular format.

Double-Clicking a Non-Underlined Cell

If you double click on any cell which is NOT underlined on a record line, a new tab will be opened to display the details of current record.

(Beware that clicking an underlined cell will not open current record, it will open the "related" record)

Single-Clicking an Underlined Cell

If you see a cell (field) content underlined, that means that the record of current row has a connection (relationship) to another record which belongs to another catalog.

Example: If you have opened the record list of companies catalog, you may see the name-surname field in underlined style representing the "primary contact" column. Clicking on this link will open the related record detail from people catalog.

Selecting Records

Click anywhere NOT underlined on a record row to select it. You may also select multiple adjacent record rows by dragging your mouse in the up or down direction (or pressing arrow keys while shift is hold down). Selected rows are displayed in green color.

Creating/Erasing Records

To add a new record to the current catalog, click the "New" button from toolbar.

To delete a record permanently from your database, select the record row(s) you wish to delete. Right click your mouse and click "Delete Permanently" from the menu.

Warning!

Deleting a record will permanently remove the data existing on that record. This action is irreversible. You may consider deactivating records instead of erasing them.

Adding/Removing Records To/From a List

If you are displaying a "related" record list from within a record details window, "new" button will become unavailable. You should right click your mouse to show the context menu to create new, insert existing or remove selected record to / from the current list in that case. Note that, "inserting" an existing record will not create new record, it only relates the target record with the main record. In the same manner, removing from the list never deletes an existing record, it only removes the relation between the target and main record.

Browsing Records

SpeedBase displays 100 records per page by default, which can be increased from system preferences. You may move between pages by clicking the navigation buttons at the bottom of record list window.

Right-Clicking Anywhere On Record List

This will open a context sensitive menu depending on current selection of records.

Remember that if you see a record list window anywhere, this menu is always available .

Changing How Records Are Displayed

If you click on column headers (cells on top row with blue color) SpeedBase will sort the records according to that column alphabetically. Clicking the second time to the same header reverses the order.

You may drag and drop the border line between two adjacent column headers to adjust a column width according to your preference. Doubleclicking the border resizes the column width automatically. The changes you make in this way are temporary and they will be lost once you close the current tab. To make the changes permanent, you should either adjust the current view settings or create a new view.

Changing Views

Views are saved information for record list windows about how the column headers are arranged, how the records are sorted and whether a filter is applied. You may change current view from the view selection box located on top right of the record list.

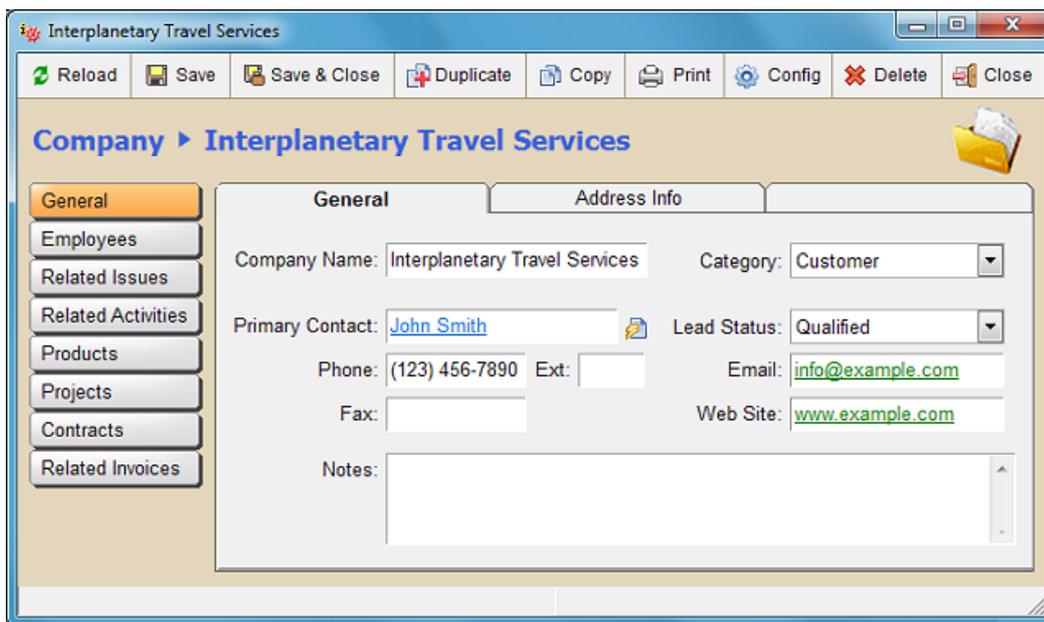
[Click here](#) for more information about creating and modifying views.

Searching Records

There is a search box on top of the record list. It is sufficient to type the search phrase and press enter to force SpeedBase to filter out the records according to your search keyword. SpeedBase searches on all fields by default. Click the search settings button to show advanced search options. You may choose there a single field for the search or modify the search mode.

Next Topic: [Record Details Window](#)

Record Details Window (Form)



The screenshot shows a window titled "Interplanetary Travel Services" with a toolbar containing icons for Reload, Save, Save & Close, Duplicate, Copy, Print, Config, Delete, and Close. Below the toolbar, the window displays "Company > Interplanetary Travel Services" with a folder icon. On the left, there is a vertical menu with buttons for General, Employees, Related Issues, Related Activities, Products, Projects, Contracts, and Related Invoices. The main area is divided into two tabs: "General" and "Address Info". The "General" tab is active and contains the following fields:

Company Name:	Interplanetary Travel Services	Category:	Customer
Primary Contact:	John Smith	Lead Status:	Qualified
Phone:	(123) 456-7890 Ext: <input type="text"/>	Email:	info@example.com
Fax:	<input type="text"/>	Web Site:	www.example.com
Notes:	<input type="text"/>		

If you double click any record row or single click any underlined cell while you are viewing a [record list window](#) anywhere, SpeedBase will open a new window and display the details of the related record. This is the form window where you can view, create or modify record information in the catalog you are working.

Accessing Related Records

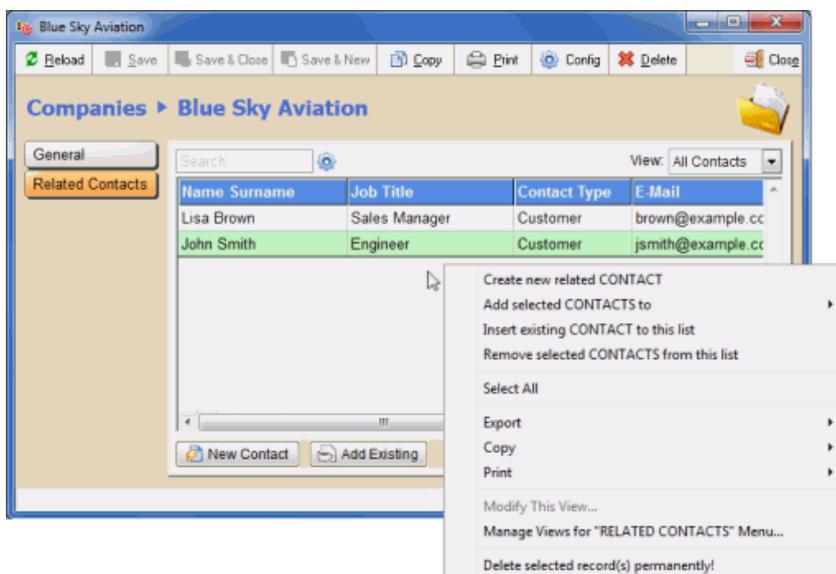
A record detail window may have its own menu on left side which allows you to access "related records" from other catalogs easily. Every menu button represents a relationship with current catalog with another catalog. If you do not see any menu item, this means that you either haven't created a relationship with another catalog or didn't create a menu button. See [Creating Relationships](#) for detailed information.

Updating Records

You can save the changes you have made on current record by clicking the save button on toolbar. If the save button or data fields are disabled, the possible causes are:

- You haven't made any change on the record yet,

- You made some changes but then, removed the changes so there is no actual changes to save.
- (Teamwork Edition) Your access rights are restricted from security settings, so you do not have write permission to update the record.
- The record is deactivated (You will see a snow icon on right top of the record window). You should reactivate it if you wish to modify it.
- The record is protected (locked) or discarded (you will see a padlock icon on right top of the record window). You should remove the protection first, if you wish to modify it.

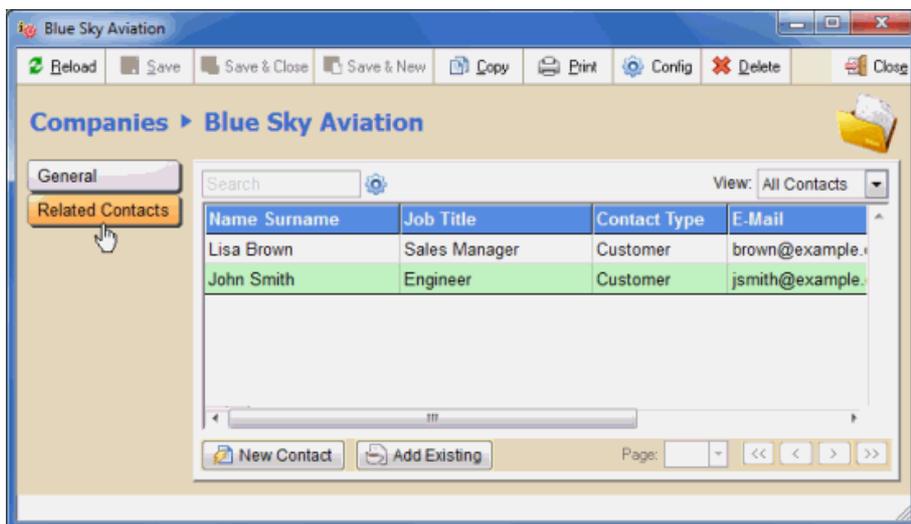


Adding/Removing Records To/From a Record List

Clicking a side menu button will display a related record list. You may right click your mouse to show the context menu to create new, insert existing or remove selected record to / from the current list in that case. Note that, "inserting" an existing record will not create new record, it only relates the target record with the main record. In the same manner, removing from the list never deletes an existing record, it only removes the relation between the target and main record.

Next Topic: [Displaying Related Records](#)

Displaying List of Related Records



If you open a [record details window](#) and click one of the menu buttons on left side (see picture above), SpeedBase will display a **RELATED RECORD LIST**, i.e. the list of records which have a relation with the main record. (In the example picture above, the related records are people who are working for 'Blue Sky' company)

Toolbar Buttons

Main Toolbar Buttons

Reload: Reloads current window. All record data displayed in current view is refreshed from database to show the latest saved values.

New Record: Opens a new blank record details window to create a new record in the current catalog.

Copy: Copies displayed data of all selected records to the clipboard. Beware that only displayed data is copied. Any field data that is not shown on current view will not be included. You may paste the copied data to a spreadsheet software or any text editor.

Export: Exports currently selected records to file. For more information, see [Export](#).

Print: Opens print window to print currently selected records.

Search: Opens global search window to do a search across all data in your database.

Reminders: Opens the reminder management window where you may review the list of all active reminders, create a new one or edit existing.

Send IM (Instant Message): (Teamwork edition) Sends an instant message to the selected SpeedBase user(s). See [Instant Messenger](#) for more info.

Barcode: Activates barcode sensor. See [Barcode Processing](#) for more info.

Help: Opens online help & support center page in your web browser.

Record Window Toolbar Buttons

Reload: Reloads current record. All record data is refreshed from database to show the last saved state of it. Beware that, if you click this button while there are unsaved changes on the record, changes will be lost.

Save: Saves the changes you have made on current record to the database.

Save & Close: Saves and closes current record window.

Save & New: Saves changes, closes the record and opens a new blank record window.

Previous Record: Loads the record which comes before the currently displayed record.

Next Record: Loads the record which comes after the currently displayed record.

Deactivate: Deactivates the current record. See [Deactivating Records](#) for more info.

Lock: Protects the current record to prevent accidental modifications. See [Protecting Records](#) for more info.

Copy: Copies all of the field values of current record to clipboard. You may then paste the data to any other application in plain text format.

Print: Opens print window to print currently displayed record.

Config: Displays a popup menu to change the field configuration and the design of current record window.

Delete: Deletes the currently displayed record permanently. There is no undo for this action.

Close: Closes current record window.

Main Menu

Data Menu

All data management commands explained below applies to the main window and record listing tabs. They do not apply to an open [record details window](#). Remember to use the toolbar of the record window if you want to execute tasks for an open record window.

New: Opens a new blank record window to create a new record in the current catalog.

Reload: Refreshes most of the data objects like currently shown record listing and catalog tree.

Copy: Copies data from the currently selected record(s) to clipboard which you may paste to any 3rd party application. You may configure the formatting used for copied data from [Preferences](#) window.

Print: Opens print dialog to print currently selected record(s) from record list.

Remove Protection: Removes the protected/locked status of the currently selected record on record list window.

Import: Imports records from a file into the current catalog.

Export: Exports selected records to a file from the current catalog.

Logout: Restarts SpeedBase and displays login window. If you had configured SpeedBase to remember your password before, this command wipes out the password from memory and you (or the next user for multiuser licenses) have to login with your username and password.

Restart: Restarts the application.

Exit: Closes all open windows and terminates SpeedBase application. When you use "Exit" command, no process related to SpeedBase remains running in memory. Reminders will not be displayed until the application is started again.

Caution! When you simply close the main window from [X] button, SpeedBase will stay running in the memory and continue processing reminder/instant messages if any. You must use "Exit" command if you want to terminate the application completely.

Recent Menu

Displays an automatically updated shortcut list of most recently opened records. Clicking any of those shortcuts will instantly reopen that record.

The recent menu can be turned off from preferences window.

Clear History: Deletes all shortcuts from the recent menu. This will not affect any data in your database.

Users Menu

Most of the features available under this menu are available on multiuser licenses only.

Users: Opens the users window which allows you to manage SpeedBase users and their access rights.

User Groups: Opens the user groups window which allows you to manage multiple user groups for easier management of access rights.

Access Rights: Opens "Advanced Access Rights" window which is used to apply security exceptions to have extended control above access control.

Change Login Password: Allows the current user to change his/her own password used to login to SpeedBase.

Tools Menu

Global Search: Opens global search window to do a search across all data in your database.

Mass Replace: Opens "Mass Replace" window to replace data on a certain field for all selected records.

Duplicate Finder: Opens "Duplicate Finder" window to search for duplicate records based on a set of matched fields.

File & Image Gallery: Opens "File Gallery" window which allows you to browse and search thru all file and image attachments that are attached to records.

Design Menu

Catalogs: Opens catalog management window which is the starting point to build the database structure (catalogs, information fields, data input forms, relationships etc.)

Fields: Opens "Field List" window to create/modify/delete data fields of the selected catalog. Identical to the popup menu command displayed when you right click a catalog from catalog tree.

Form Designer: Opens "Form Designer" window to design the record input/display form of the selected catalog. Identical to the popup menu command displayed when you right click a catalog from catalog tree.

Relationships: Opens relationship management window to create, modify or delete relationships between catalogs. Identical to the popup menu command displayed when you right click a catalog from catalog tree.

Views: Opens view management window to create, modify or delete views of the selected catalog. Identical to the popup menu command displayed when you right click a catalog from catalog tree.

Report Manager: Opens "Report Manager" window to create and edit custom report templates.

Import Application Template: Imports a database design template from file.

Export Application Template: Exports current database design template to file.

Database Menu

Connection: Opens "Connection Settings" window to setup database connection parameters and data folder location.

SQL Query: Opens "SQL Query" window.

Scheduled Tasks: Opens "Scheduled Task" window where you may create scheduled tasks to run scripts.

Preferences: Opens "Preferences" window to modify system settings as well as user level preferences. See [System Preferences](#) and [User Preferences](#) for details.

Information: Opens a window which displays informative data about your database, connections and license status.

Backup & Restore: Allows you to configure backup settings, create or restore backups.

Import Database: Imports selected database file and then connects to it.

Clone Database: Creates and exports an identical file copy of your current database with all records wiped out.

Create New Database: Opens the "create database" window where you can drop current database connection and create a new, empty database.

Help Menu

Help & Support Center: Opens online help & support center page in your web browser.

Documentation: Opens online help documentation in your web browser.

Upgrade: Opens version upgrade page in your web browser which will guide you to get the most recent version of SpeedBase.

Send Feedback: Allows you to send your opinions and suggestions to the developers.

Register SpeedBase: Displays registration window to convert your trial version to registered full version or update your license key to enable a feature upgrade.

Buy Now: Opens order page in your web browser to purchase SpeedBase products and services.

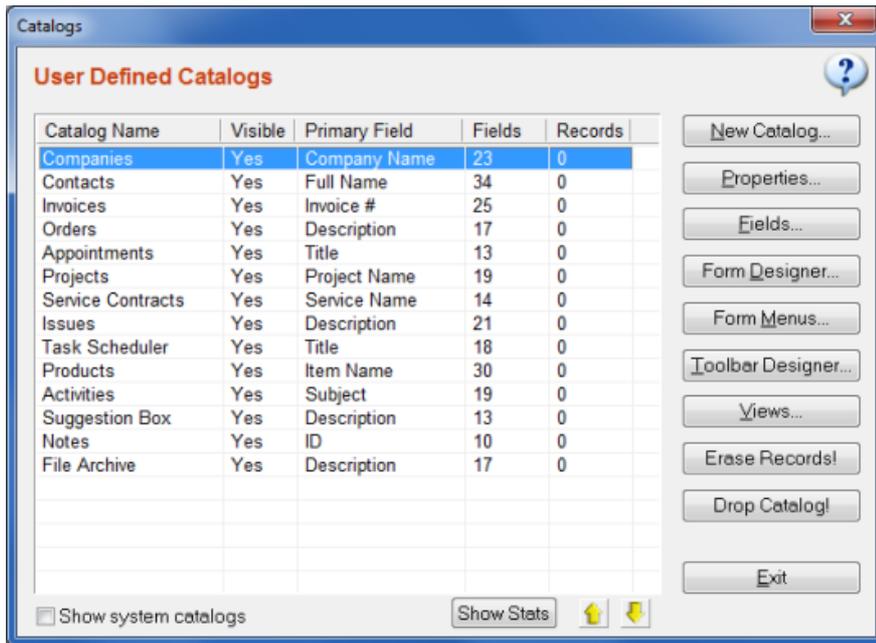
About SpeedBase: Displays about window with version and registrant information.

Building Database

Catalogs

Catalog Configuration

To open catalog management window, click "Database" from main menu, select "Catalogs". This window is the starting point to build all of your database structure. You may carry out various actions for the selected catalog from the list.



Catalogs, Fields & Records

A **CATALOG** is the major data container where you store certain type of information. It is also called as "table" or "sheet" depending on the terminology preferred on other applications. You may have more than one catalog in your database and it can hold any type of information you can imagine: Inventory, People, Products, Books, Companies... etc.

Every catalog consists of a number of **FIELDS** to store information. For example, you may create a new catalog and name it as "People" to save name, phone number, birthdate etc. for each person. In this case, every distinct person represents a record of the "people" catalog.

Note that, when viewed in a spreadsheet style application;

catalogs correspond to **tables**,
fields correspond to **columns** and
records correspond to **rows**.

Basic work-flow of designing your database from scratch is as following:

1. Create one or more catalogs,
2. Create the desired fields under each of the catalogs you created,
3. Open form designer for each catalog and then drag and drop the fields on the form which will allow you to enter your records,

After these 3 steps you are ready to enter or import your first records. You may then configure more features to add functionality to your database application.

Creating New Catalogs

You may create any number of catalogs by clicking the "New Catalog" button on this window. SpeedBase will ask you for the singular and plural forms of the catalog name in order to display the most suitable name depending on the context on various parts of the application.

See [Modifying Catalogs](#) for information about catalog properties.

Modifying the Order of Catalogs in Catalog Tree

Use the the up/down buttons with the arrow icons below to adjust the order of catalogs on catalog tree.

Actions You May Apply to Catalogs

Properties: Opens a window to rename or adjust other settings of the selected catalog.

Fields: Opens a window to display a list of existing fields for the selected catalog. You can create, modify or delete information fields there.

Form Designer: Opens a window to design the window ("Record Details Window") where you will be able to enter data to create records for the selected catalog.

Relationship: Opens relationship management window to where you may define a relationship between the currently selected catalog and any other catalog.

Form Menus: Opens a window to create or modify side menus on "Record Details Window" for the selected catalog.

Toolbar Designer: Opens a window which allows you to create or modify statistical objects on top of displayed records for the selected catalog.

Views: Opens a window to where you can create and manage existing views/filters for the selected catalog.

Erase Records: Deletes all of the records in the selected catalog permanently. This action is irreversible.

Drop Catalog: Deletes the selected catalog permanently. Beware that this action also deletes all records, views, fields, form design of the selected catalog.

Modifying Properties of Catalogs

To open properties window of a catalog:

- Click "Database" from main menu, select "Catalogs". Select the catalog you wish to modify properties, click "Properties" button.
or
- Right click the catalog from catalog tree, a popup menu will open, select "Properties".



Tip:

If you are about to create a new catalog, some of the properties will not be shown as the catalog is not created yet. You may reopen this window again to adjust all settings as soon as you have created the catalog.

Catalog Title: Type the catalog name, examples: Companies, Address Book, Photo Collection

Item Singular Name: Type the name of the items stored in this catalog in singular form, examples: Company, Contact, Photo.

Primary Field: Select the field that is most descriptive for each record (e.g. Name Surname for "People" catalog). You may change this setting anytime you wish. Data on this field is displayed on top of each record as the record header.

Tip: If selecting a single field from your record is not descriptive enough, you may consider creating a computed field which

concatenates multiple field data to form a more descriptive text, e.g. name+surname+company name. You may then set this computed field as the primary field of the catalog.

Search Field: Select the field which should be used as default whenever a search is made. In most cases selecting "All Fields" gives the most convenient result. If you select a specific field, the search box shown on top of record list window will search on that field only by default.

Displayed On Catalog Tree: By default, SpeedBase display folder icon for each catalog on catalog tree. If you uncheck this box, no folder is displayed.

Enable Activity Control: Check this box, if you wish to set the states of records as "active" or "inactive". See [Activating/Deactivating Records](#) for more info.

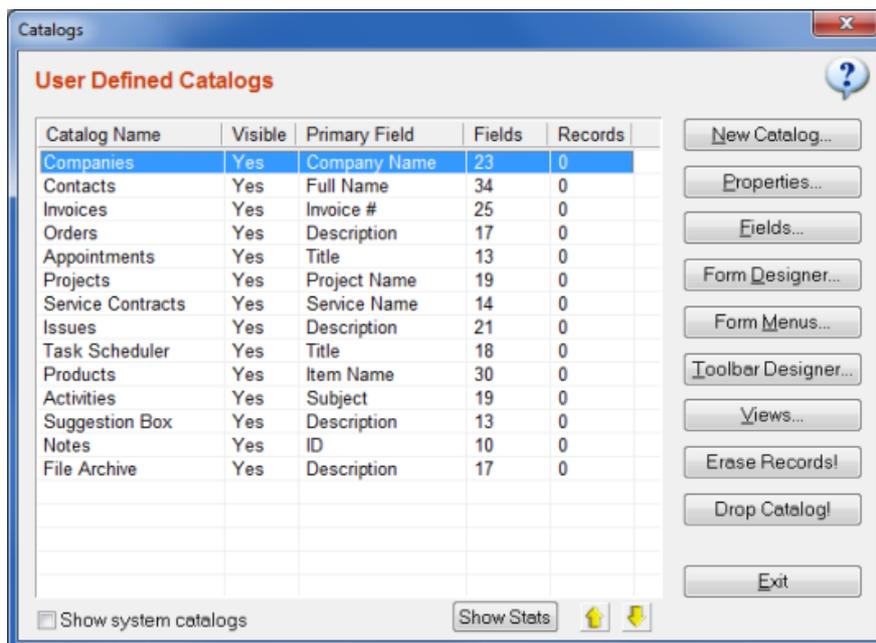
Enable Record Locking: Check this box, if you wish to enable record protection for this catalog. See [Record Protection](#) for more info.

Use cache: This feature should be activated only temporarily by advanced users under exceptional circumstances which cause extremely slow access to your database, i.e. local network problems or internet connection issues in case you use a VPN to connect to your database. Otherwise this option must be left unchecked.

When checked, SpeedBase will stop automatically reloading records to reflect changes when you change a record or your database design. Records are refreshed only if the user manually clicks the "reload" button. Remember to disable this setting as soon as the issues are resolved.

Erasing Catalogs

To open catalog management window, click "Database" from main menu, select "Catalogs".



How to Erase All Records of a Catalog

Select the catalog and click "Erase Records" button to delete ALL records of that catalog permanently. Note that, this will only delete the records, so all the design properties of the catalog remain unaffected and you may continue to create new records as usual.

Warning! It is not possible to undo this action. If you want to get the records back, you must restore your full database from a recent backup.

How to Erase a Catalog Completely from Database

Select the catalog and click "Drop Catalog" button to delete the entire catalog including all records and structural information permanently. This will delete the catalog with all related subitems, that means, fields, records, form design,

views, filters under it permanently.

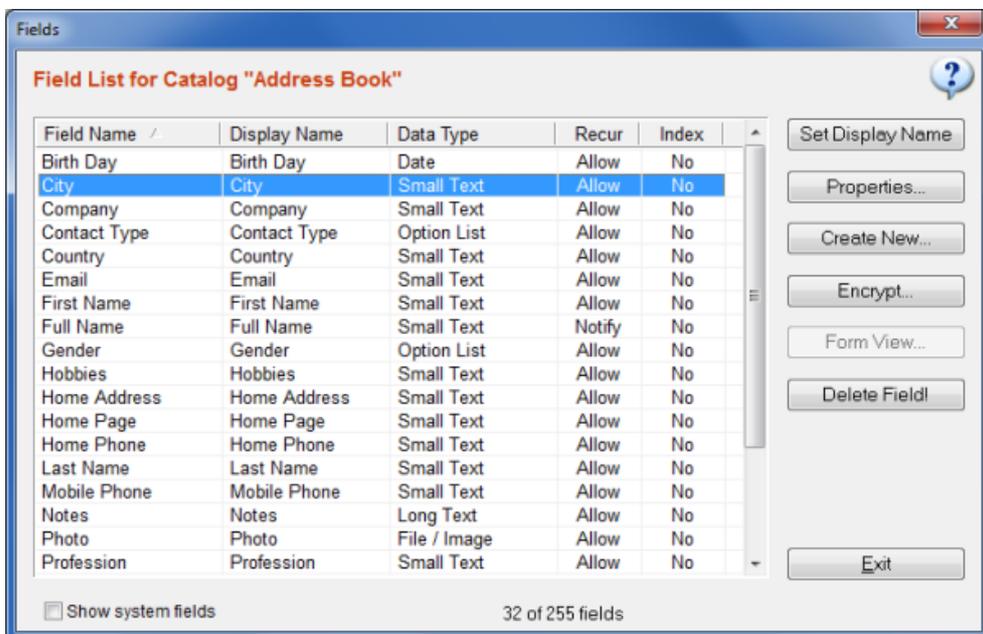
Warning! It is not possible to undo this action. If you want to get the catalog and records back, you must restore your full database from a recent backup.

Fields & Data Types

Creating Fields

To open field list window:

- Click "Database" from main menu, select "Catalogs". Select the catalog you wish to create fields for, click "Fields" button.
or
- Right click a catalog from catalog tree, a popup menu will open, select "Fields".
or
- While you are displaying any record, click "config" button from toolbar of the record window, select "Fields".



Creating New Fields & Data Types

Click "Create New" button to open Create Field Wizard.

Field Name: Type the name of the field into the box. For example, if you are creating fields for "People" catalog, you may wish to create fields like "Name Surname", "E-Mail", "Phone" etc. You are recommended to choose a name which describes the information it will hold as clear as possible.

Display Name: The display name of the field is identical to the field name once a field is created. Whenever you want to change the field headers shown on record forms, record listings, reports etc. you are recommended to change the "display name" instead of original name.

Data Type: SpeedBase supports different types of fields depending on what type information is to be stored. This should be selected with care as you cannot change the data type of an existing field later. Available data types are as follows:

Small Text

Saves up to 255 characters of text. You may use this data type to save titles, names, short descriptions, web links, emails or phone numbers.

Force Case: If a case rule is selected, SpeedBase will automatically change the case of letters when the user saves the record.

Emails & Web links: Select "E-mail" or "Web Link" from "Text Filter" selection box. Data saved on this field will then be displayed as a clickable hyperlink.

Phone Numbers: Select "Numeric/Phone" from "Text Filter" selection box. This option allows you to define a fixed display format to show phone numbers. Fill in the "Mask String" box to determine the places of each number.

Example: If you enter the mask string as "(###) ### ## ##", the phone numbers will be displayed like "(123) 456 78 90"

Remember to use "integer" or "decimal" data type for all other types of numerics you want to save.

Long Text

Saves up to 256 KB characters of text, used to save long descriptions or notes where the text may longer than the limit of a small text area. You are recommended to prefer "small text" data type unless you need space more than 255 chars.

Integer:

Saves positive or negative integer numbers that do not exceed approx. 2 billion.

Decimal:

Saves decimal numbers having up to 16 digits on left and up to 8 digits on right side of the decimal point.

Computed:

This is a special field type which is capable of executing calculations or running scripts using data on other fields. See [Computed Fields](#) for detailed information about various calculation features and examples.

Date:

Saves date information in one of the three available formats. If you also activate reminder feature, SpeedBase automatically creates a reminder in the background whenever a date is entered into this field of a record.

Time:

Saves time information in hh:mm format.

DateTime:

Saves date and time information in one of the three available formats. If you also activate reminder feature, SpeedBase automatically creates a reminder in the background whenever a date is entered into this field of a record.

Checkbox:

Saves status information with two options only (like yes/no, exists/empty etc.) Fields with this data type are represented as check boxes.

Option List:

Saves property information to select from multiple choices (like colors, sizes etc.). Fields with this data type are represented as a drop down list box. You are allowed to rename, remove or insert new options in a later time.

Tips: Only one choice can be selected in this field when creating a record. If you need to check multiple options at the same time, consider creating either multiple checkboxes or a [Multi to N Relationship](#) with a catalog which contains the options as its records.

System User:

Saves owner of the current record. Available in a multiuser environment (Teamwork Edition) only. Fields with this data type are represented as a drop down list box containing SpeedBase user names as its items. Storing ownership information with records allows you to grant extended rights to record owners.

See [Applying Owner Rights](#) for more info.

Relationship:

See [Creating Relationships](#) for detailed info about relationships.

Fields with this data type are represented either as a drop down list box or a [record list window](#)

File / Image:

Saves file or image data. By default, this field displays the file name as a linked text on the record form. You may check "display as image" if you plan to store image files. This will show the image on the record form instead of file name. (jpg, png, gif, bmp are supported)

See [File & Image Fields](#) for more info.

Common Field Properties

Default Value: Sets the default value inserted automatically whenever you open the record form to create a new record.

Allow Duplicate: Select whether two distinct records of this catalog may have the same data in this field. If you disallow duplicates, SpeedBase will show a warning message and refuse to save the current record if duplicates are

found. If you select "Allow w. Warning" instead, a duplicate warning icon will be displayed but the user will be allowed to save the record.

Text Filter: Select the appropriate value here. This helps SpeedBase to display and handle the information optimally.

Text Prefix/Suffix: SpeedBase can automatically display a text piece like currency symbols before and after a numeric value. This option is available for numeric fields only.

Required: If checked, the user will be required to enter data to this field before he/she can save the record.

Encrypt Data: (This feature will become available in future versions) If checked, data entered into this field will be encrypted. This option is only available when the encryption feature is enabled from preferences window. This feature also can only be activated during creating a new field. Once the field was created this setting cannot be changed.

Displaying New Fields In Record Forms

Beware that a newly created field will not automatically appear on the record form!

You must add the new field into the record form by using "Form Designer". See [Designing Data Forms](#) for more information.

Panel View (Advanced Usage)

This button is available and effective only if you have placed a field of type 1-N relationship (related record list) into the form by using [form designer](#). It allows you to create and customize the view of this record list.

Computed Fields

Please read the help topic: [Computed Fields](#)

File & Image Fields

This data type is used to attach files and images to each individual records in your database.

You can save a file in this type of field and optionally display an image together with other record information. There are several configuration options available for a file field. You may change these options any time you wish, but remember that changing options at a later time will not affect the states of older files which were saved before.

General Properties

Display As Image: Checking this box tells SpeedBase to try to display the saved file as image on the record details form. Supported file extensions are: JPG, PNG, GIF & BMP. If the files you will save will be of a different file type, do not check this box.

When this box is checked, SpeedBase will allow you to draw and allocate an image area on the form when placing the field using [form designer](#). When this box is not checked or the file could not be viewed as image, the field displays the file as a clickable text link.

Tip: When you attach a picture to a record and the picture appears with an invalid orientation, you may rotate it from field menu (click the red arrow icon on right side of the field, select "rotate").

When Clicked...

Determines what happens when the file link or image displayed on a record is clicked.

Open File: Executes the file. This has exactly the same effect as double clicking the same file on a windows explorer window.

Show "Save As" Dialog: Opens a "Save As" dialog, so you can determine a location on your computer to download the file. If the file is stored as a "link", this action will copy the file from its original location to the selected folder.

Save & Open: First displays a "Save As" dialog and executes the file after it is saved.

Save Method

There are two different options to save a file in your database.

Save As Link (Shortcut):

SpeedBase saves only the original folder location information (i.e. a shortcut) to the database. The file itself is not saved or copied. So, when you click a file from record window, it is executed from its original location. If you prefer to maintain and frequently update a file from its fixed location, this option works best.

Do not consider attaching a file to a record using this option as a way to backup the file. It is not.

A file link will stop working under the following conditions:

- For multiuser applications (Teamwork edition): When a user links to a file located in a unshared folder of his/her computer, the file link will NOT work for other SpeedBase users. In order to work, the files should be saved on a shared network folder and the link should also be generated as a network path (i.e. to select the file, you should browse thru "Network", but not your hard drive).
- If you move or delete the file from its original location, or rename any of the folders of file path at a later time, the link becomes broken and the file cannot be opened.
- If the access permissions of the containing folder of the file becomes restricted at a later time, the file may not be opened.

Copy to Local Data Folder:

SpeedBase creates a copy of the file in its local data folder. When you click the file from the record window, SpeedBase extracts the file from the data folder and allows you to save or execute a copy of it.

The original file is never used/referred anymore when you click to files saved using this option. The copied version of the file will be opened even if the original file is removed or updated. So this option is more suitable for archival purposes.

If you need to update a file (e.g. a document) from a record window, you should always use the "edit" command from the field menu by clicking the red arrow that will appear near the file field.

Since files saved using this option are saved into your data folder, taking a backup of your local data folder, also means taking backup of your files.

Beware that files saved using this option can only be accessed via SpeedBase interface and its export function, whereas saving them as link gives you the option to access your files directly or by any other application from their original location.

Copy to Remote Database:

This option is only available if you are connected to a SQL Server database.

SpeedBase uploads the file to your SQL database. When you click the file from the record window, SpeedBase downloads the file from your SQL Server and allows you to save or execute it.

This option is most preferable when users are connecting to your database from remote locations and they need to share files under the conditions where they do not have access to a shared network location.

If you need to update a file (e.g. a document) from a record window, you should always use the "edit" command from the field menu by clicking the red arrow that will appear near the file field.

Note: In no event will SpeedBase move, modify or delete the original file at the time you save it using any of the methods given above.

It either saves the location information of that file or takes and saves a copy of it.

Modifying Fields

Click "Database" from main menu, click "Catalogs". Select the catalog you wish to modify fields for, click "Fields" button.

Select the field you wish to modify, click "Properties" button.

(Double clicking a field name also opens field properties window)

Once a field is created, the properties that allow to be changed are limited. Changing the data type is not allowed. However you can always change the field name and a few more properties depending on the data type. The properties that do not allow further modifications are displayed as dimmed.

You are allowed to rename/add or insert options of a field of data type option list.

You are allowed to change the lookup fields of a field of data type relationship.

Tip: If you decide to change the data type of a field at a later time, export data on that field for all records to a file, create a new field with the new data type, import the file back to the new field. Beware that this will work only if the exported data and the new data type are compatible. e.g. you may convert most of other data types to "small text" but you may not convert any data type to "option list" or a numeric field to "date".

Erasing Fields

Click "Database" from main menu, click "Catalogs". Select the catalog you wish to remove fields from, click "Fields" button.

Select the field you wish to delete permanently, click "Delete Field" button.

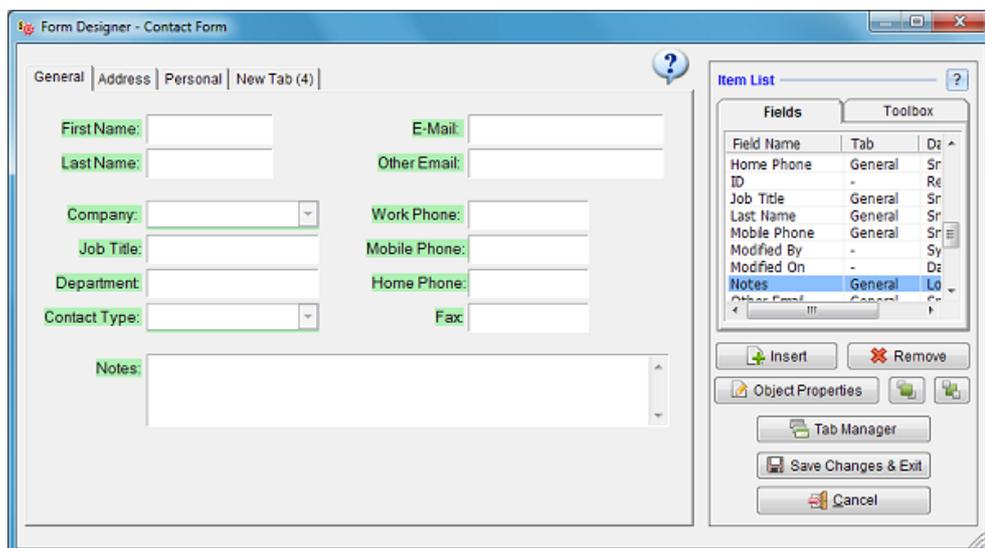
Warning! If you delete a field from a catalog, information saved in in this field for ALL records of the associated catalog are lost permanently. It is not possible to undo this action.

If you delete a relational lookup field, beware that this will delete the corresponding relationship definition completely. No actual records are deleted by this action, but you won't be able to display related records information on both catalogs of the relationship.

Example: Suppose that you have a 1 to N type relationship between COMPANIES and PEOPLE catalogs, where you display a list of workers under each company record and a "Parent Company" (lookup field) is selected for each person record. If you delete the relational lookup field, the company lookup field from PEOPLE catalog will be deleted, similarly the "list of workers" displayed under each company record will also disappear.

Designing Windows

Designing Data Input Forms (Form Designer)



Click "Database" from main menu, click "Catalogs". Select the catalog you wish to design data input form, click "Form Designer" button.

If you have created a new field (like "Name Surname") in a catalog, the field will not become visible until you place it to the record form using "form designer".

This window displays the list of all fields existing in current catalog on top right side.

Adding/Removing Fields

Find and select the field you wish to place from the field list box. Click add button to place it into the form. You may also drag and drop the field into the design area. Drag the field by clicking on to the label to change its location. If the design area is not sufficient to fit the field, you may resize the whole window by dragging the right bottom corner of the form designer.

To remove a field, first select it by clicking on its label and click "Remove" button.

It is safe to add/remove fields anytime you need, as no actual data is affected when you change the design of data forms. Removing a field is actually making it invisible on the record form.

Changing Field & Object Properties

Select a field from design area and click the "properties" button at the bottom of field list.

Show Field Label: Uncheck this box to hide the field label from record window. Most useful when there is no need to display the field label or when you want to replace it with a customized label object from the toolbox.

Displayed: Allows you to temporarily make some toolbox objects invisible without deleting them. This option is not shown for data field objects. If you want to make a data field invisible without deleting, select it and then click "Remove" button.

Auto Expand to Right / Bottom: Fields with certain data types allow to expand automatically to the right or bottom in order to fill the available space on record forms. It is most useful for long text fields, as they will enlarge to display as much of their content as possible when you maximize the record window.

Back Color: Sets background color of the data field. By default, this color is set as light yellow for computed fields, light blue for encrypted fields and white for all others.

Alignment: Sets the text alignment of the data field. This alignment only applies to record forms. If you want to modify the column alignment in tabular views, you must set it from Field Properties window.

Text Color: Sets the text color of a data field, label object or action button. Default: Black.

Custom Font: The default font properties used for data display everywhere is set from Preferences window. If you want to customize font for a specific data field or other object, you may check this box and then set a custom font.

Border Width & Color: Determines the border width and color of a shape, picture or label object.

Transparent: Determines whether a label or shape object has a solid background color or displayed transparently.

Field Label: Allows you to set any preferred display name for the selected data field. Modifying the field's display name does not affect the actual object name assigned for that field. This name can also be set from Field Properties window.

Form Alignment: Allows you to align the object with respect to the preferred side of the window. e.g. If an element is set to align with respect to right side of the window, its distance will remain fixed when the record window is resized or maximized.

This selection must be set as "Left, Top" unless your design requires otherwise and you truly understand how it affects object locations.

Mouseover Tip: Allows you to assign a tip for the selected object which will be displayed as a popup box when the user moves mouse over the object. Applies to multiuser licenses.

Object Name: You may optionally assign an object name for the selected object. Object names can then be referred by scripts for various actions. Object names of data fields can only be modified from Field Properties window.

Toolbox Objects

You may create decoration objects like labels, pictures, lines or other shapes on record forms. You may also create action buttons and script objects to add more functions and features to the record window. To add a toolbox object, select the "**toolbox**" tab from the item list area and add the object you like. You may adjust various properties of the item if you select it on design area and click the "properties" button.

Use the "**bring to front**" or "**send to back**" buttons to arrange the overlapping behavior of the objects.

Shape Objects: Lines, rectangles and other shapes can be used as decorative objects or to mark important elements on the form.

Labels: Labels can be used as headers to separate data fields into multiple groups, to display informative or warning messages. The label text can also be set dynamically by script objects.

Pictures: You may display static images like your company logo on all record windows.

Action Buttons: Action buttons can be used to execute a script procedure. The script can then do the task whatever it was designed for, e.g. checking all data entries for consistency and warn the user if necessary, opening a web browser window to Google search data retrieved from the record window etc.

Script Objects: These objects are invisible on the form and execute a procedure whenever a specific event happens, e.g. when the record is opened or saved.

See [Script Editor](#) for more information.

Moving / Resizing Fields

Once you have added a field into the form area, you will need to resize it as well as move it to a location you prefer. To move a field, drag and drop it with your mouse. To resize a field, select it first and drag the black squares.

Tab Management & Navigation Order

Tabs are the pages of a record form which are displayed on top of the form. SpeedBase creates the first page automatically and names it as "General" by default, which you may change later.

If there are too many data fields to fit into your screen, you may distribute them into two or more tabs (pages). Click the "tab manager" button for this purpose.

Form Tab Orders: You may here create new tabs, delete unused ones and rename them. Use the up/down arrow buttons to change the order of tabs. This will allow you to move all form items on a form page to another.

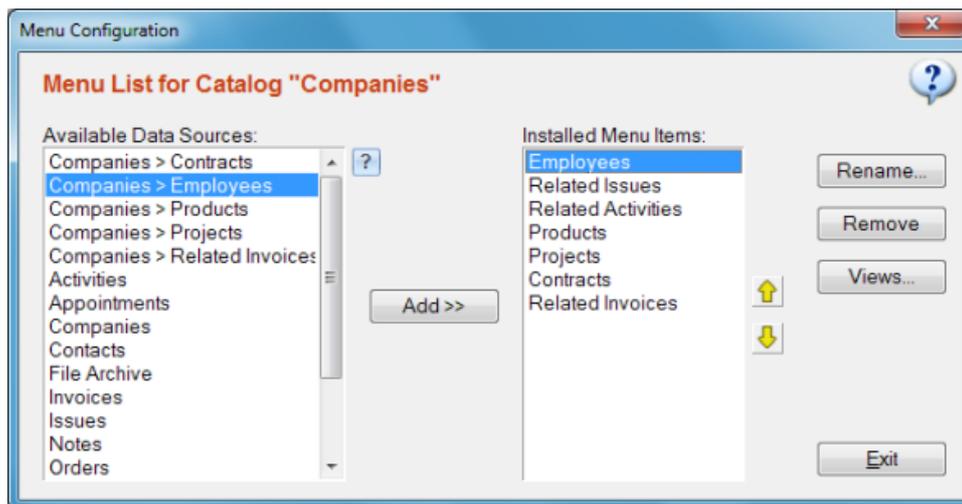
Field Navigation Order: This section allows you to precisely adjust the order of cursor navigation whenever you press the "tab" key while editing a record. This helps users to enter data more efficiently without using the mouse.

Important! If you create a new tab page, but exit form designer without inserting any data or toolbox item into this new tab, the tab will automatically be deleted! You should place at least one object into the empty tab if you want to keep it.

Save Changes & Exit: Saves all changes to the database and closes the form designer.

Cancel: Cancels all changes you have made and closes the form designer.

Menu Designer



Click "Design" from main menu, select "Catalogs". Select the catalog for which you wish to manage menu items of record window, click "Menu Designer" (Form Menus) button.

Whenever you create a [relationship](#), a menu button is automatically created on left side of the record window. Clicking this button will display a list of the related records for the currently open record. For most applications, there is nothing to setup further in the menu designer window .

If you do not see any menu button on left side of the record window, this means that you have neither created a [relationship](#) with another catalog, nor a custom menu button.

Creating Custom Menu Buttons

Other than via menu buttons created by an existing relationship, it is also possible to display a set of related records where those records are picked by a special filter. You may create a custom menu button for this purpose.

Example: Imagine that there are 3 catalogs **Customers**, **Invoices**, **Order Items** with 1 to Multi relationships between **Customer > Invoice** and **Invoice > Order Item**. In other words, each **Customer** may have many related invoices and each **Invoice** may have many **Order Items**. Obviously, each company is actually related to a number of **Order Items** via it's related **Invoices**. But there is no relationship defined between **Company > Calls**. To display related **Calls** within a **Company record**;

- Open menu designer for **Company**, add the catalog **Calls** from available data sources. When asked, select "Do Not Create Relationship". This will create a menu button on Company record but it will show all **Call** records of all **Companies** so not really useful at this point.

- Select the new menu item "Calls" from "installed menu items" box, click "Views", create a new view.

- On view manager window, select the new view and click "Filter Settings".

- Create a single line filter like following:

Order > Parent Invoice Invoice > Parent Company <<CURRENT ITEM>>

(Actual field names may vary depending on your choice of naming).

This will tell the menu button to display all **Order Items** of all **Invoices** of the currently displayed **Customer** record.

Creating Views For Menu Buttons

When you click a menu button on a record window (e.g. "Customer") to display related records (e.g. "Invoices"), you may notice that the view selection box is empty. You may configure this menu item to display (inherit) the views previously created for the related catalog (e.g. "Invoices"). To do this, select the menu item from "installed menu items" box, click "Views" to open view manager window, check the box "Show views of the parent catalog". Alternatively, you may create dedicated views for this menu item by simply creating new views in the view manager window. So you may either display inherited views or dedicated views or both.

Renaming Menu Buttons

You may change the name shown on the menu button by clicking "Rename" button on menu designer window. Menu name can also be changed from the relationship setting window.

Adjusting Order of Menu Buttons

You may modify the vertical ordering of the menu buttons on a record window. Select the menu item from the installed menu item list, click the up or down arrows repeatedly until the menu item is placed in the desired position.

Removing Menu Buttons

You may remove (actually hide) a menu button easily by selecting it from the installed menu item list and clicking remove button. This action does not affect actual records in your database. The relationship assigned to that menu button is still preserved. However, if there are views or filters associated with this menu item, they will also be deleted from database.

It is possible to create a previously removed menu button of a relationship at a later time.

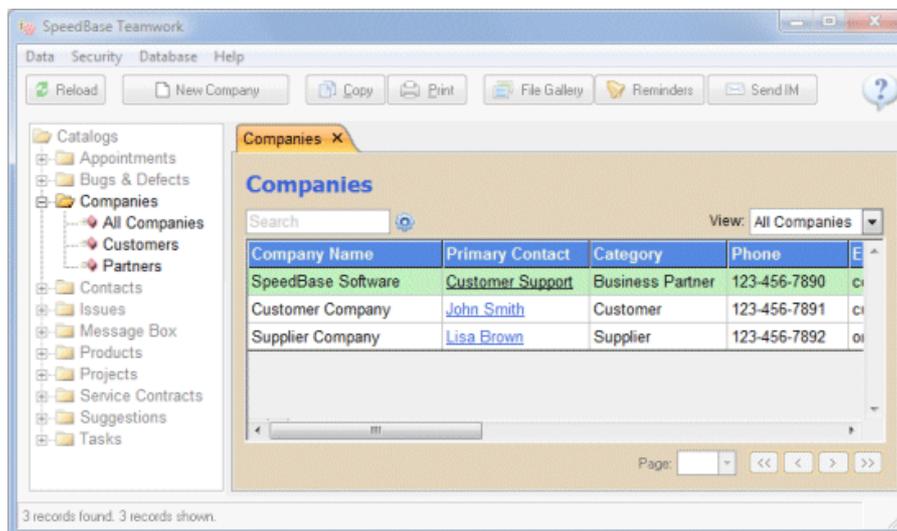
Adding Statistics

Please read the help topic: [Displaying Statistics](#)

Creating Views

Understanding Views (Column Layouts)

Recommended video: [Creating Views & Filters](#)



A View is the tabular presentation of (optionally filtered and sorted) records.

When you are viewing the records of a catalog in tabular format, you may need some customizations about how data is displayed. Possible ways to customize the view:

- Deciding which columns (fields) to be shown and which should be hidden,
- Deciding the horizontal ordering of column headers,
- Deciding the widths of each column,
- Deciding which column(s) should be used to sort records,
- Deciding whether a filter should be applied to only display records with certain common properties.

Views allow you to make all of these adjustments once, and save it in your database, so you do not have to repeat them every time you open a record list.

SpeedBase allows you to create and save multiple views. This is especially useful when having views with different filtering rules. So a view can serve as a saved set of search criterias.

Example: A view can show customers older than 30 years, while another view shows customers that are living in a certain country.

What if I do not create any Views?

Creating views is not mandatory. If there are no views to use, SpeedBase automatically makes some decisions to give you an optimum result.

SpeedBase Teamwork edition allows you to define shared views available to all users and also allows each user to create his/her own private views, so there are two types of views: Public and Private.

If you are running SpeedBase Professional as a single user, there is no distinction between views.

Public (Shared) Views

Public views are views which are available to all SpeedBase users when working in a multiuser environment (Teamwork Edition). Typically public views are created and maintained by a SpeedBase user with administrative rights. Other users are not allowed to modify them unless permission is granted.

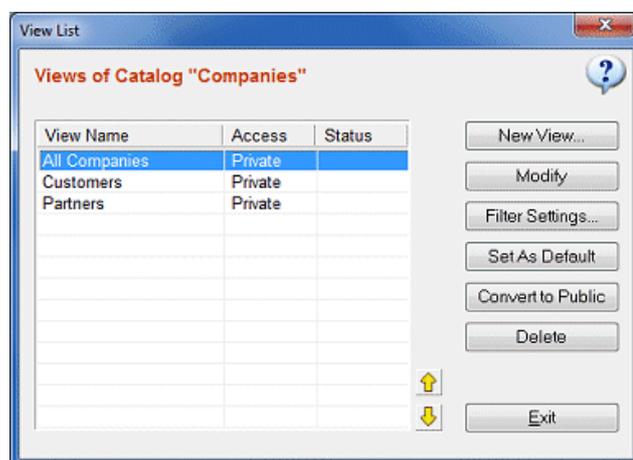
Private (Personal) Views

These views belong only the SpeedBase user who created them. On a multiuser environment, other users cannot see this views when they are logged in. Every user can create/modify or delete the views he/she created.

View List Window

You are recommended to read ["Understanding Views"](#) before this section.

Recommended video: [Creating Views & Filters](#)



Accessing View List of a Catalog

There are two ways to access the list of all views which belong to a certain catalog.

From Catalog Tree: Right click a catalog folder and select "Manage Views" from popup menu.

From Record List: Right click anywhere on the record list window and select "Manage Views for this catalog" from popup menu.

This window allows you to create/modify/delete any number of views for the current catalog.

Creating a New View

There are two ways to create a new view.

From Catalog Tree: Right click a catalog folder and select "Create New View" from popup menu.

From View List Window: Open the view list window as described above and click "New View" button.

See [View Settings](#) for more info.

Modifying an existing View

There are three ways to modify a view.

From Catalog Tree: Right click a view item and select "Modify" from popup menu.

From View List Window: Open the view list window as described above and click "Modify" button.

From Record List: Right click anywhere on the record list window and select "Modify this View" from popup menu. See [View Settings](#) for more info.

Deleting a View

There are two ways to delete a view.

From Catalog Tree: Right click a view item and select "Delete" from popup menu.

From View List Window: Open the view list window as described above and click "Delete" button.

Deleting a view also deletes the attached filter if created.

Deleting a view is safe and does not affect actual data (records) in your database.

Attaching Filters to Views

There are two ways to attach a filter to a view.

From Catalog Tree: Right click a view item and select "Filter Settings" from popup menu.

From View List Window: Open the view list window as described above and click "Filter Settings" button. This will open filter configuration window.

See [Applying Filters](#) for more info.

Setting a View As Default

The default view is the view which is selected by SpeedBase when you display the record list of catalog for the first time.

There are two ways to set a view as default.

From Catalog Tree: Right click the view item and select "Set as default" from popup menu.

From View List Window: Open the view list window as described above and click "Set as default" button.

View Configuration

You are recommended to read ["Understanding Views"](#) before this section.

Recommended video: [Creating Views & Filters](#)

How to Open View Settings Window

From Catalog Tree: Right click a view item and select "Modify" from popup menu.

From Record List: Right click anywhere on the record list window and select "Modify this View" from popup menu.

View configuration window allows you to save your displaying preferences of a record list. This window contains 3 boxes. The first box contains all of the available fields for the current catalog. The second box contains the fields you wish to display in record list window. The last box contains the fields which should be used as sort criteria for the records.



Choosing Which Fields Are Shown

Select the field you wish to be displayed from "Available Fields" box, click "Add" button to move it to the "Displayed List Box". You may also determine the horizontal ordering of a displayed field by selecting it and clicking up or down arrows.

Determining How Records Are Sorted

Select the field you wish to use as a sorting criteria from "Displayed Fields" box. Click "Add" button to add it to the "Sorting Criteria" box. You may also reverse the sort order or use multiple fields as sorting criterias (In this case if there are many records which have the same value for the first field to sort, the second field will be used).

Changing Field (Column) Widths

If you find that some columns are too wide or too narrow in record list window, you may adjust them by clicking in "Field Widths" tab. You may then drag the column boundaries to make the necessary adjustment.

Using a View as Template for Creating a New View

In some cases you may need to create a new view which is a little different than an existing view. You may then use the existing view as a starting point.

To do this, right click a view item from catalog tree and select "Copy as New View" from popup menu. You may also use this method to create similar views with different filters attached on them.

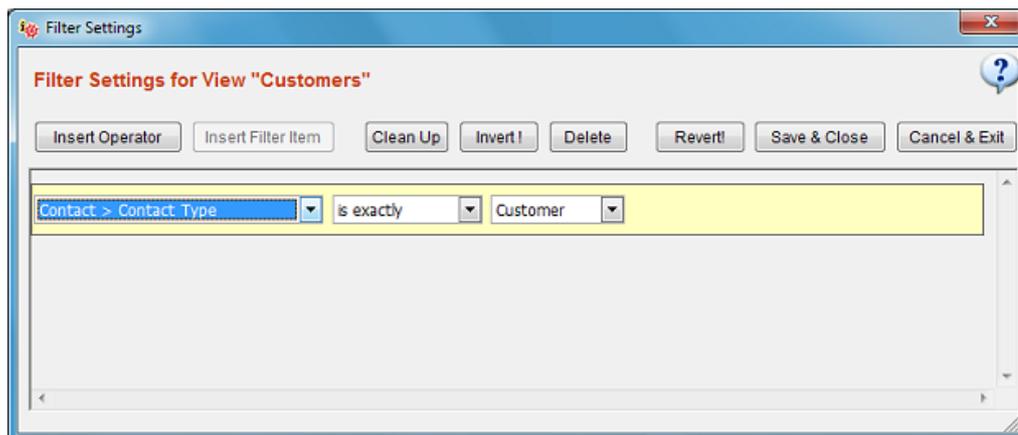
Filter Settings

Recommended video: [Creating Views & Filters](#)

A filter is a predefined set of one or more logical rules which is applied to a certain [view](#) when displaying a record list. Every view can have its own associated filter.

By creating filters ;

- You may get a record list where only records with certain properties are included (people with ages>30, companies that are located in other countries etc.)
- You may have multiple views which display active / inactive / all records.
- (On a multiuser environment) You may restrict SpeedBase users to view (or update) only records which are owned by (or assigned to) him/herself.



How to Open Filter Settings of a View

For Public Views: While you are displaying a record list window; click "Views" from main menu, click "Public Views", select the view you wish to create a filter for, click "Apply Filter".

For User Views: While you are displaying a [record list window](#), select the view you wish to create a filter from view selection box. Click "View" from main menu, move your mouse to "Customize Current View", click "Filter Settings". (If the menu command is not available, you have probably selected a view of public type)

Add New Filter Criteria

Select a field to use as filter criteria from the drop down list box which is highlighted with yellow,

Select a logical rule from the next list box.

Type or select a value if applicable in the third box.

Click "Save & Close" button to save and activate the filter. If you reload the view you assigned filter for, your criteria will immediately be applied to the record list and only records which conform to filter rules are displayed.

Note: If you select a field of type relationship, SpeedBase inserts an extra field list box which displays the fields of related catalog.

Selecting Criteria Lines

If you are modifying a filter containing one or more criterias, you may need to select criterias to take some action with it. Click to the empty space on right side of the criteria. This will highlight the criteria with a surrounding yellow rectangle.

Using Filter Criterias With Logical Operators

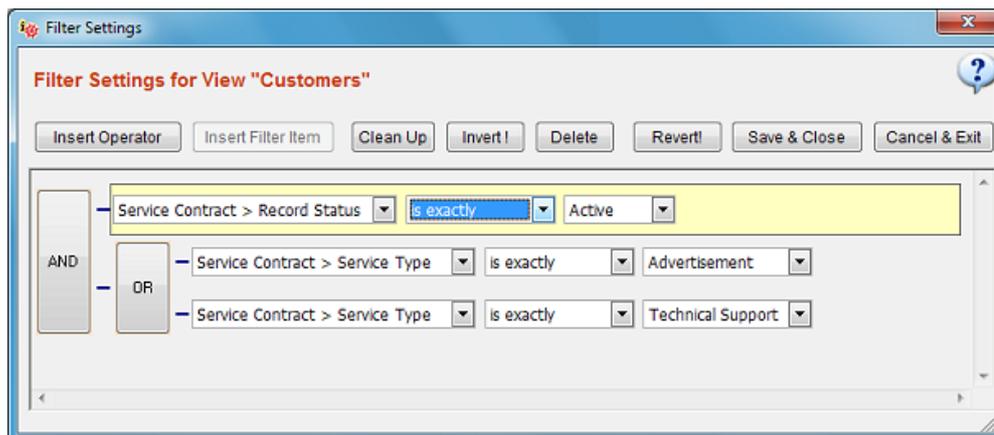
You may create a more complex filters, by joining the criteria lines with logical operators. You may even take a joined criteria set and join it with another operator.

To join an existing criteria line with a new one, select the criteria first. Click "Insert Operator" button. SpeedBase will join the criteria with a new empty criteria under "AND" / "OR" logical operator. You may invert the operator by clicking the "Invert" button.

If you need to add another criteria under an existing operator, click the operator button first to select it and click "Insert Filter Item" button.

You may repeat the same process to create even more complex filters.

The following filter setting lists the records whose status is active and also whose service type is either Advertisement or Support.



Deleting Criterias and Logical Operators

Select the criteria or logical operator first you wish to delete. If you delete logical operators, all other sub items, i.e. criterias and other logical operators under it will also be deleted.

Buttons in Filter Settings Window and their Functions

Insert Operator: Creates a logical operator which contains the selected criteria.

Insert Filter Item: Add a new criteria line under the selected logical operator

Clean Up: Automatically cleans up the logically non-functional items, you may need it after a delete.

Invert: Inverts all the logical operators

Revert: Discards all changes you have made and reloads the criterias to the last saved version.

Save & Close: Saves changes and exits.

Cancel & Exit: Discards all changes, if you were about to create a new filter, no filter is created. If you have opened an existing filter to modify, no changes are saved.

Creating Relationships

Understanding Relationships

Recommended video: [Creating Relationships](#)

A relationship is defined between two catalogs. It helps to easily access the related information saved in the second (child) catalog while you are viewing a record details of the first (parent) catalog. Creating relationships (whenever possible) greatly enhances the performance and ease of information management in your working environment.

SpeedBase supports creating both one to many (1-N or N-1) and many to many (N-N) type relationships between catalogs.

A Real World Example

Suppose that you save company information in the "companies" catalog. Suppose that you also save contact information in a "people" catalog where each person works for one of those companies. The simplest approach is to add all the company information to the people record which means, you have to repeat the same company information on each person record. If a company information needs to be updated, you must update each person related to that company. Forget one and you have now inconsistent copies of the company information. After a while, you may even have no idea which record has the correct information.

Suppose that we have a way to link people to the companies for which they work. When you are able to easily move to the list of employees from the company record, or, move easily to the parent company from a certain person record, there is no more need to save repeated company information to the people records.

Relationships make it possible to jump from a record you are viewing to another type of record related to the former with a single click. Starting from a company record, you may jump to products of that company, or to the contact details of the manager of it, or to the list of the orders you received from it, or to the phone calls or support activities of it etc...

Types of Relationships

There are basically two types of relationships.

1 to Many (1 to N or N to 1) Relationships

Suppose that you wish to create a relationship between **Customers** and **Phone Calls**. Suppose that you have separate records for all of your customers and you also create a new record for every call you receive. Obviously (well, most of the time), each phone call record may only be related to a single customer. However, if you look from the customer side, a customer may be related to an unlimited number of phone call records.

1 **Customer** is related to many **Phone Calls**. So, we call this as **1 to Many Relationship** between **Customers** and **Phone Calls**.

Note that, a 1 to N relationship is also a N to 1 relationship. The choice of name depends on in which direction we are looking at.

In the example above, Many **Phone Calls** are related to 1 **Customer**. So we may call this also as **Many to 1 Relationship** between **Phone Calls** and **Customers**.

We will call the first catalog of a **1 to N** relationship as **Parent Catalog** (a.k.a master table).

We will call the second catalog of a **1 to N** relationship as **Child Catalog** (a.k.a detail table).

See "[Creating 1 to Many Relationships](#)" to learn how to create this type of relationship.

Many to Many (N to N) Relationships

Suppose that you wish to create a relationship between **Students** and **Teachers**. Suppose that you have distinct records for all students and all teachers. In most scenarios, every student takes multiple courses from multiple teachers. Every teacher also teaches to many students. So every student is related to many teacher as well as every teacher is related to many students. In this case, we have a many to many relationship.

Caution!

You may think that you can simply forget about other types and create N to N in every case as it seems to cover the rest. However, an N to N type relationship is not convenient as you cannot get the list of students with related teacher information in a single table. That means you will not be able to export this type of data. This is due to fact that each row of student has multiple teacher relations (theoretically unlimited) which cannot be displayed in a single "teacher" column.

Another disadvantage is that computed fields cannot process data from this type of fields.

You are recommended to prefer 1 to N (or N to 1) type relationships if there is no unavoidable requirement for creating a N to N relationship.

Tip: In some applications, it is much better to create multiple N to 1 relationships on one side and a single 1 to N relationship on the other side rather than a N to N. Considering the example above, if a teacher has many students whereas we know that each student may have a limited number of e.g. 3 distinct teachers "atmost", you may create 1 to N for Teacher > Student relationship and then 3 counts of N to 1 relationship between Student > Teacher. This means, the teacher record will again display all related students and the student record will have 3 lookup fields where you will be able to select up to 3 teachers in total.

See "[Creating Many to Many Relationships](#)" to learn how to create this type of relationship.

Creating 1 to Many Relationships

You are recommended to read ["Understanding Relationships"](#) before this section if you haven't already.

Recommended video: [Creating Relationships](#)

How to Create 1 to Many Relationship

1. Click "Design" from main menu, select "Relationships".
2. The relationship management window will open. Click "New Relationship" button.
3. Select the **parent catalog** (a.k.a master table) you wish to create a new relationship for.
4. Select the relationship type as "1 to Many Relationship".
5. Select the **child catalog** (a.k.a detail table).
6. Select a **lookup field** for the parent catalog.

Review the displayed information carefully to make sure that the suggested relationship properties reflect what you want to do. If you want to do the opposite, just click the button "Invert Relationship". This will interchange the catalogs to create the opposite.

Create Relationship

Create New Relationship

Parent Catalog: Customers

Relationship Type: 1 to Many Relationship

Child Catalog: Orders

Invert Relationship!

Creates a relationship between two catalogs to relate different types of information. This will allow you to quickly navigate between related information and prevents repeated entries of identical information. Avoid type Many to Many relationship unless you are sure that other types are not sufficient for your application. Consult help documentation for more info.

Display a List of 'Order Items' on each 'Customer' record

Menu Name: Related Orders

Display Name: Related Orders

This setting will allow you to create and maintain a dedicated list of related ORDERS for each individual CUSTOMER record. You will then be able to add or remove any number of existing ORDERS to/from this list.

Display a 'Customer' Lookup Box on each 'Order Item' record

Lookup Field Name: Parent Customer

Display Name: Parent Customer

Lookup Field: Customers > Customer Name

Enable searching records by ID

Show search button

Required

This setting will create a selection/lookup box on each individual ORDER record, where you will be able to select a single CUSTOMER which is related to that ORDER.

Create Relationship Cancel

You may change the suggested menu and lookup field titles however, you are recommended to leave the recommended naming convention as it is if you are a new user. You will be able to change the display name any time you want.

Example: If you are creating a relationship for "Customer" and "Order" catalogs respectively, this will display the history of all orders on each customer record.

What is a lookup field? The lookup field helps you to select a parent record for the child record.

Example: If you are creating a relationship to save order history for each customer, the lookup field is displayed on **Order** records. This field will display data from one of the fields from **Customer** catalog. You are recommended to choose a lookup field, which can help you most to identify the record you wish to relate. So in this example "Customer Name" would be a good choice.

Displaying Menu Button and Lookup Field on Record Window

When you create a **1 to Many** relationship, a menu button is automatically added to the record window of the parent catalog. Clicking it will display the related records from the child catalog. You will also be able to either create new or add an existing record to the related record list.

When you create a **1 to Many** relationship, a relational lookup field is also created for the child catalog. Beware that

however the lookup field will NOT automatically appear on record details window! You must add it into the record form from [Form Designer](#) window.

In the example above the menu button **Related Orders** will appear on each **Customer** record whereas the customer lookup field **Parent Customer** can be placed on the record window of **Order** catalog.

Modifying a Relationship

Once created, changing the relationship type (1 to N or N to N) or changing any of the catalogs is not allowed. If you need to change these, you should consider deleting the existing relationship first which will also remove all the related data information from records.

You may at any time rename menu titles as well as lookup field titles.

Deleting Relationships

Deleting a relationship deletes both the relationship menu button on parent catalog and relational lookup field on child catalog. No records are deleted from your database however, you will lose the **"related data"** information from all records on both catalogs.

Creating Many to Many Relationships

You are recommended to read ["Understanding Relationships"](#) before this section if you haven't already.

Recommended video: [Creating Relationships](#)

How to Create Many to Many Relationship

1. Click "Design" from main menu, select "Relationships".
2. The relationship management window will open. Click "New Relationship" button.
3. Select the first catalog you wish to create a new relationship for.
4. Select the relationship type as "Many to Many Relationship".
5. Select the second catalog.

Review the displayed information carefully to make sure that the suggested relationship properties reflect what you want to do.

Note that a **Many to Many** relationship is symmetric, that means each catalog is each other's "parent" as well as "child". Interchanging the catalog names would produce exactly the same result.

The example given in the picture above shows a **Many to Many** relationship between **Teacher** and **Student** catalogs. Each teacher has many related students. Each student also has many related teachers as they may have more than one teacher. When you open a teacher record, you may display a list of all related students by clicking a menu button. The same is also true for student records. A **1 to Many** relationship alone would not serve this purpose.

Menu Name: The administrative name of the relational records. This name is not shown on record window but used to easily identify the relationship whenever you modify or review the database design. You are recommended to keep the recommended naming convention.

Display Name: The displayed title of the menu button which is shown on left side of the record window.

You may change both menu name and display name any time you want.

DESIGN TIPS:

- You are recommended to avoid creating **Many to Many** type relationships whenever **1 to Many** type serves the purpose. [More info about this](#)
- Keep in mind that every relationship you create adds to the overall complexity of your database which in turn makes it more difficult to both manage and improve the design of your database.
- You may need to create and experiment with a number of relationships before you achieve the desired functionality. Delete any unused/experimental relationship as soon as possible.
- The best way to work on a relationship model is to create a separate database dedicated just for experimental purposes. To do this, export the application template of your production database, create a new database, import that application template and work on that test database until you get the desired result. After that, you may re-connect to your production database to apply the necessary design changes.
- Creating multiple copies of the same relationship usually indicates a poor design approach. If you are tempted to create many copies of the same relationship, review your design again or consult a professional.

Displaying Relational Data on Record Windows

When you create a **Many to Many** relationship, a menu button is automatically added to record windows of both of the catalogs. Clicking those buttons will display the related records from the parent catalog. You will also be able to

either create new or add an existing record to the related record list.
It is possible to create dedicated views for related record lists. See [Menu Designer](#) for more information.

Modifying a Relationship

Once created, changing the relationship type (1 to N or N to N) or changing any of the catalogs is not allowed. If you need to change these, you should consider deleting the existing relationship first which will also remove all the related data information from records.

You may at any time rename menu button titles.

Deleting Relationships

Deleting a relationship deletes both of the relationship menu buttons on record windows of each catalog. No records are deleted from your database however, you will lose the "**related data**" information from all records on both catalogs.

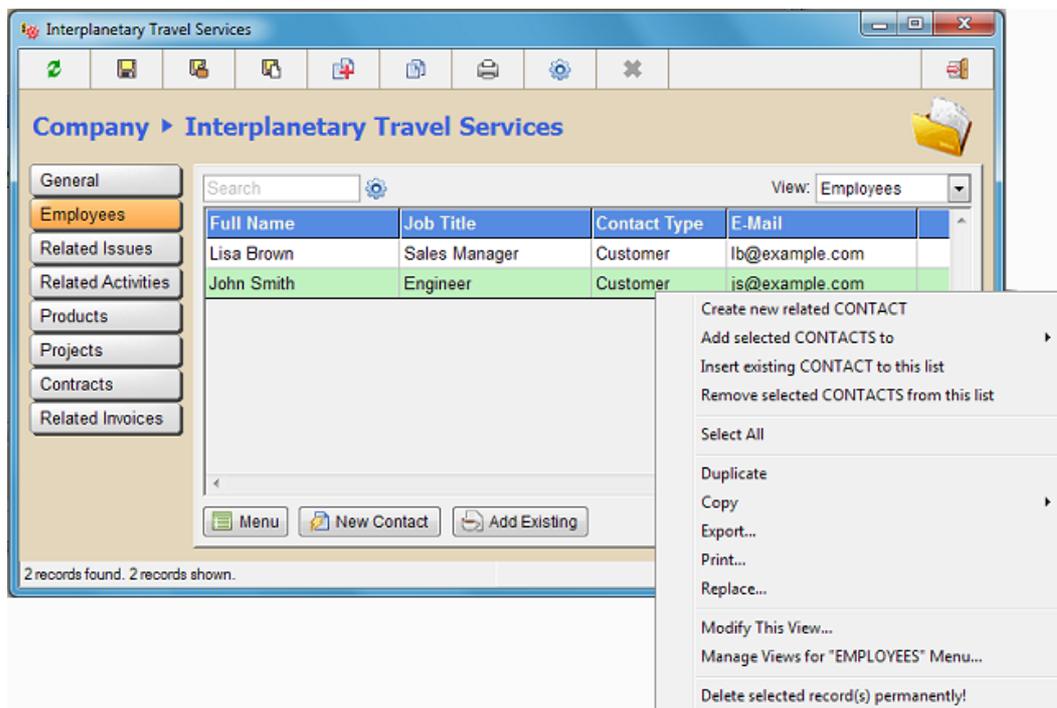
Record Management

Creating Records

There are different ways to create a new record depending on the window currently displayed.
When you have opened a catalog to display the record list, you may start creating a new record by clicking the "**New Record**" button from [application toolbar](#).

You may also right click your mouse on any [record list](#) (see picture below) to open the popup menu and select the menu command appropriate for your intention.

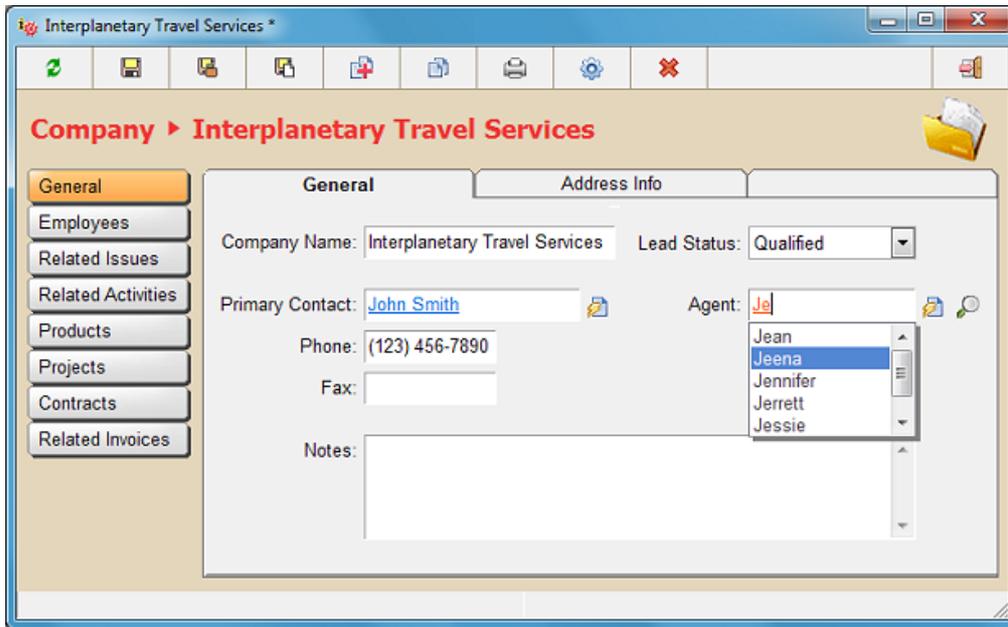
Tip: If an empty form (without input boxes) is displayed after clicking the new record button, this means that you either haven't created any fields for current catalog (see [creating fields](#)) or you haven't placed existing fields to the data form (see [designing forms](#)).



Entering Record Information

Entering record information is completed by typing the information into each data field and clicking save button from toolbar. If there is a relational lookup field (see picture below) where you may choose an existing record from another (parent) catalog, SpeedBase will suggest you records which begin with the letters you type in via a drop down selection box. If the parent record is not created yet, you may click the "new" button shown immediately on right side of the lookup field to create the parent record before continuing to edit the initial record.

Note that, the menu buttons displayed on left side of a new record window remain disabled until the record is created (saved for the first time). Once saved, you will be able to navigate to the displays of related records thru menu buttons.

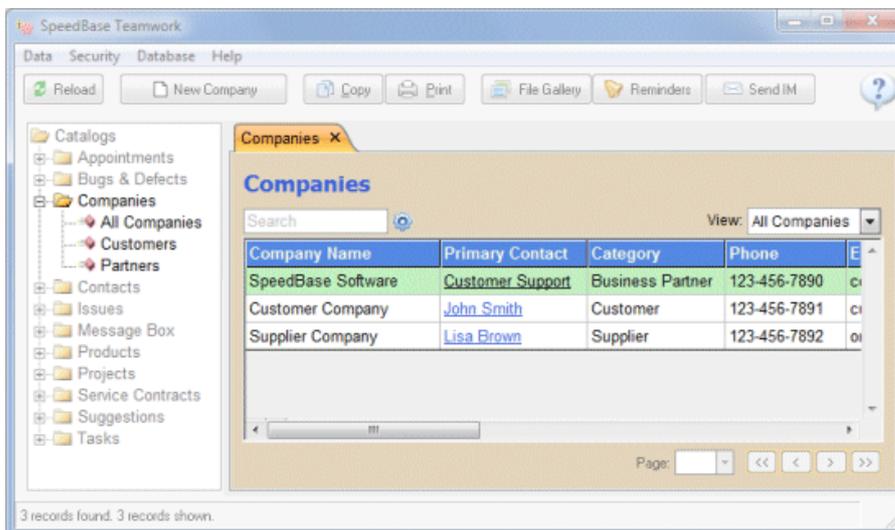


Searching Records

There is a search box on top of the record list area. It is sufficient to type the search phrase and press enter to force SpeedBase to filter out the records according to your search keyword.

SpeedBase searches on all fields by default. Click the search settings button to show advanced search options. You may choose there a single field for the search or modify the search mode.

Click **refresh** button from application toolbar to return to the full record list.



Duplicating a Record

You may create an exact copy of an existing record and then continue editing this new record. This can be especially useful when you need to create a new record which will have the same information on most of the fields as an existing record. Creating a copy and then modifying only the required fields can be easier than creating the record from scratch in that case.

You may create a duplicate in two ways:

- After you open an existing record window, click "Duplicate" button from the top toolbar.
- When you are displaying a list of records, select a single record, right click your mouse, select "Duplicate" from the popup menu.

A new record window will open with all fields automatically filled with the exactly same data of the originating record. Note that this new record is not saved to the database initially. You may make the necessary modifications and then save the record.

System fields like "ID" or "Creation Time" will not be duplicated by this command.

Tip: If you need to duplicate a significant number of records, you may consider exporting them and then import as new records.

Deleting Records

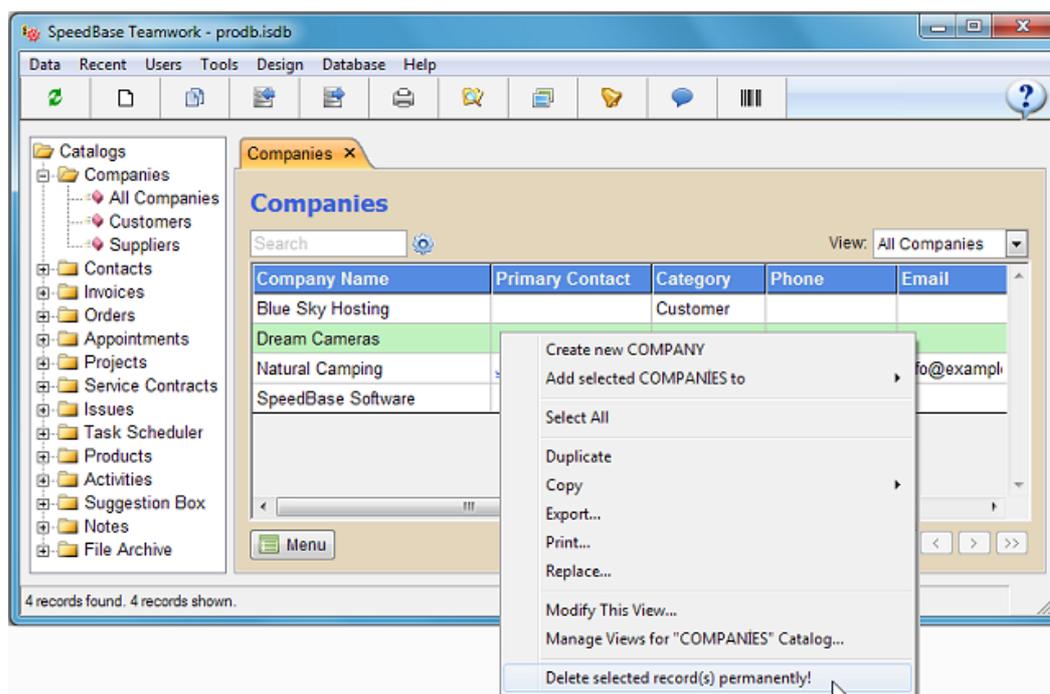
Warning: Deleting a record is an irreversible action, information stored on all fields of the deleted record will permanently be lost.

Note that, there is an alternative method to remove records from visibility without deleting them permanently. You may deactivate the records instead of deleting them. See [Deactivating Records](#) for more info.

Deleting Records

While you are displaying a [record list window](#), you may delete the selected record(s) by right clicking your mouse and selecting "**Delete Selected Records Permanently**" from the popup menu.

If you are displaying a [record details window](#), you may delete that record by clicking "Delete" button from toolbar.



Deleting Related Records

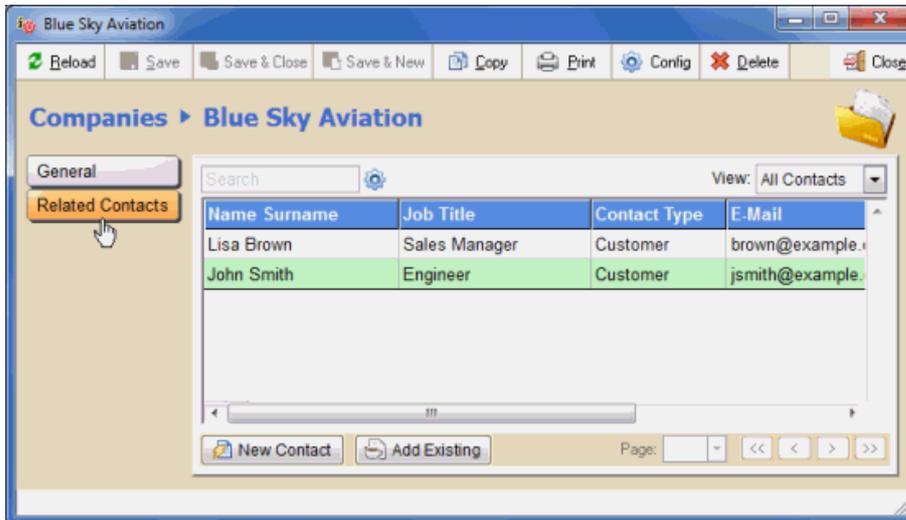
Caution:

Beware that **deleting a record** and **removing a record from the related record list** have different meanings. If you remove a record from the list, only the relationship information is lost, the record itself will continue to exist in the catalog it belongs to.

If you delete a record however, it is permanently erased from the catalog it belongs to, which also removes it from the related record list.

To remove a record from the related record list only, select that record from the list, right click your mouse and select "**Remove Selected Records From List**" from the popup menu.

To both erase a record and remove it from the related record list, select "Delete Selected Records Permanently" from the same popup menu.



Deleting All Records in a Catalog

To delete all records in a catalog, click "Design" menu, select "Catalogs". Select the desired catalog and click "Erase Records" button.

Deactivating Records

When you deactivate a record SpeedBase will mark it as **inactive**. Depending on the [filters](#) you created, the record list window may list only **active** records.

Deactivating a record is very similar to moving a record to recycle bin.

Re-activating an inactive record is also very similar to restoring the record from recycle bin.

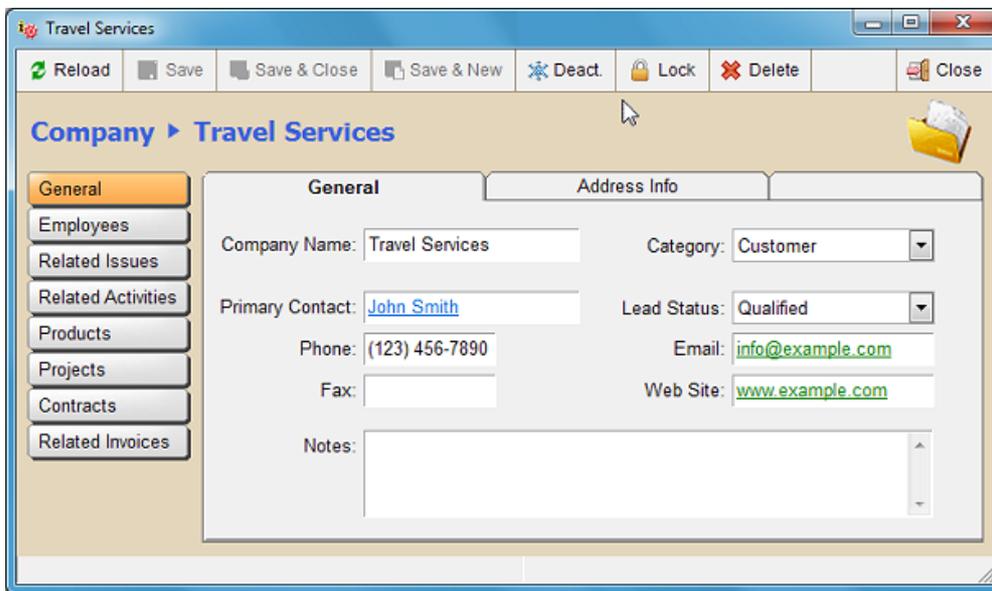
You may control the activity status of records instead of deleting them permanently.

If you want to control the activity status of records of a catalog, you must first enable that catalog for tracking the activity information. To do this,

- Open [properties window](#) of that catalog by right clicking the catalog name from catalog tree and select "properties" from the popup menu,
- Check "enable activity control" box,
- Save and exit.

This will add the activity control buttons to the toolbar of the record window. You may now deactivate / reactivate a record when you are displaying a record in [record details window](#).

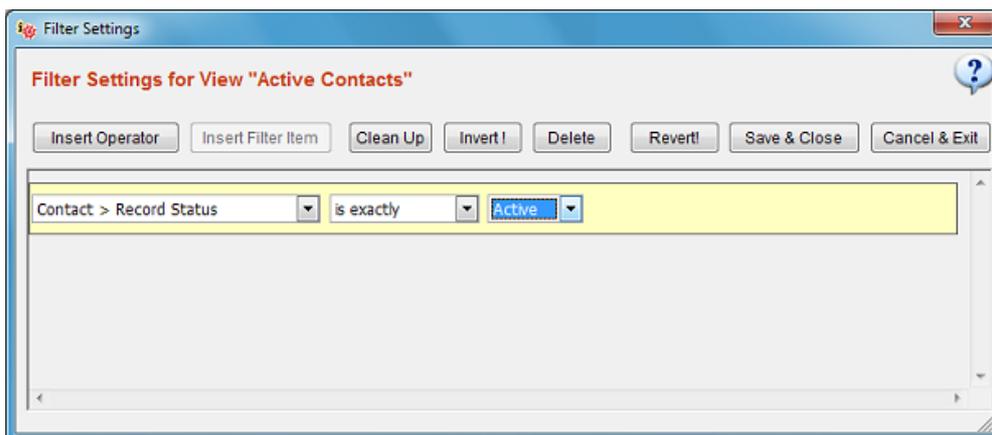
Tip (multiuser): Depending on your database design model, you may consider disabling DELETE permission from [user group settings](#).



How to Hide Deactivated Records From Listings?

You may display only active records by adding a simple filter rule to the views (see picture below). See [Applying Filters](#) for more info about how to create filters.

Tip: You are recommended to also create a "show all" or "show inactives" type view which displays all/inactive records. Otherwise, you will not be able to display the hidden records when you need.



How to Re-activate Records?

While you are displaying a record in [record details window](#), click the deactivate/activate button on toolbar again to reactivate the record.

Protecting Records

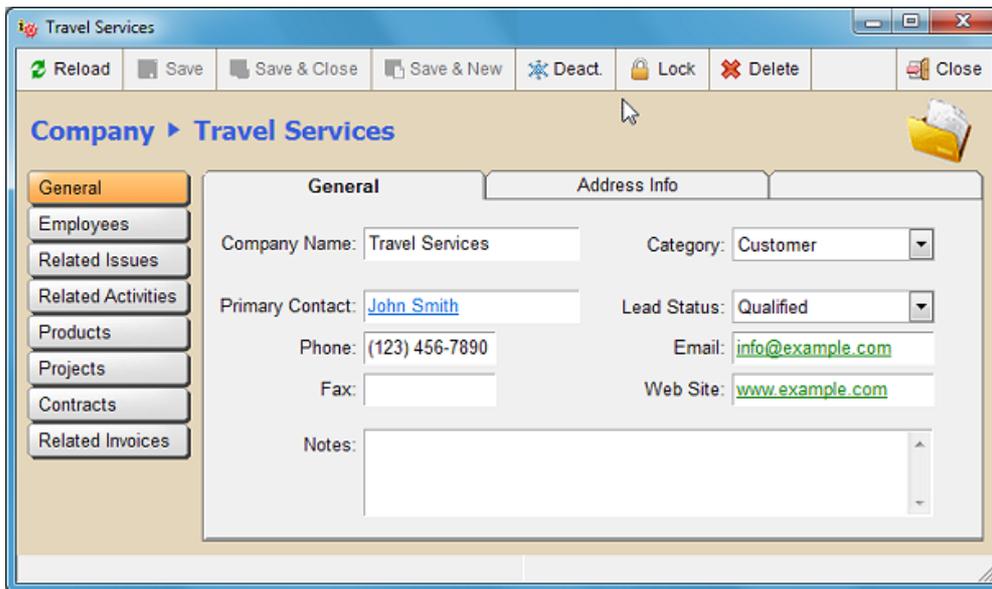
When you apply protection to a record, SpeedBase will not allow to modify or delete the record any more for any user.

Protection of records is mostly recommended for information types which are no more open to modifications after a decisive point like signed contracts or invoices etc.

Note that an administrative level account in SpeedBase has the right to remove protection from a record.

As a single user of SpeedBase, you may utilize this feature to prevent accidental changes to information which is supposed to be kept as read-only.

On a multiuser environment, you may restrict the users from removing protection and use this feature for both prevent accidental and intentional modifications.



How to Protect Records?

If you wish to control the protection status of records of a catalog, you should first enable that catalog for tracking the protection information. To do this,

- Open [properties window](#) of that catalog by right clicking the catalog name from catalog tree and select "properties" from the popup menu.
- Check both "enable activity control" and "enable record locking" boxes
- Save and exit.

This will enable both the activity and protection control buttons on the [application toolbar](#). You may now apply protection to a record when you are displaying a record in [record details window](#).

Tip: After you click the protection button, you will have the chance to undo (unprotect) this action (clicking the button again) as long as current tab is not closed. Once you have closed the tab, you are no more allowed to undo.

How to Discard Protected Records?

While removing protection thru the application toolbar buttons is not available for restricted SpeedBase users, it is still possible to set a protected record to a third and final state, i.e. "Discarded Record". Click the "Discard" button which has replaced now the protection button to discard the record.

Discarding a record is similar to canceling a contract permanently. This action is also irreversible once the current tab displaying the protected record is closed.

How to Remove Protection From a Record?

It is possible to revert a protected or discarded record to its normal state. To do this, select **Remove Protection from Records** menu.

On a multiuser environment, you may restrict this right for other SpeedBase users thru [user group security settings](#).

Import & Export

Importing Records

SpeedBase supports importing data from CSV files or MS Excel worksheets. You may use importing functionality both for creating or updating existing records.

About CSV Files

CSV files (comma delimited files) are simple text files. This file type is the most commonly supported type used to transfer data from various types of database software. So if you are already using any other database software, online database service or spreadsheet software, they will most probably allow you to export your data in this file format. Remember to use either "Save As.." or "Export" command to save/export your data in CSV format.

A typical CSV file contains consecutive field (column) data delimited with comma or TAB character. Each line corresponds to an individual record and the first line is dedicated to field headers. So it is possible to write a CSV file using Notepad only.

Example:

```
"Name","Surname","Age"  
"John","Smith","30"  
"Lisa","Brown","24"
```

About XLS Files

You may save your data from MS Excel program or any other spreadsheet software which supports saving files in XLS format. (Remember to use either "Save As.." or "Export" function of your program and save your file as "XLS" or "MS Excel 97-2003" file.)

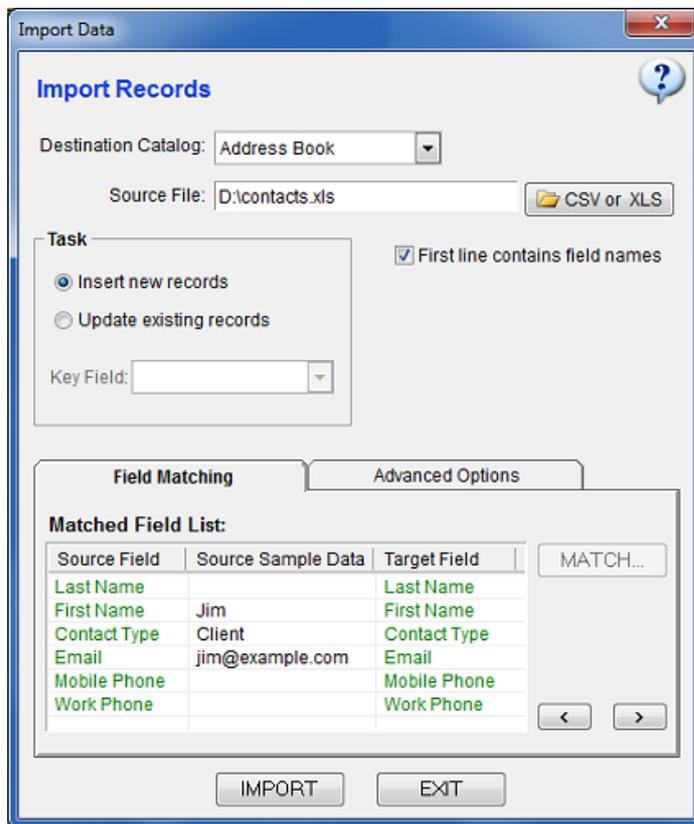
- The file may contain only one sheet of data. SpeedBase will only look for the first sheet if there is more than one sheet.
- The first line of the sheet should contain the column headers.

Key Points to Remember

- **You should have already created the catalog and its fields into which you want to import data.** If you did not create them yet, you will not be able to import as SpeedBase needs to know what data to import into which field.
- You may (and are recommended to) include only the fields you wish to import information. If you are importing to create new records, missing fields are set to their default values or left blank. If you are importing to update existing records, missing/unmatched fields preserve their existing values.
- SpeedBase will automatically match fields from the source file with the fields in your database if both have the same field names. Otherwise you may match them manually on import window. Once you have matched fields for once, SpeedBase will remember the matching during future imports and do it for you automatically.
- If you are importing to update existing records, the source file should contain a key field which contains unique data for each record. SpeedBase will use the data from the key field to find out the right record to update.
- If you are importing to create new records, SpeedBase will always assign auto-incrementing ID values to the newly created records. So even if the file contains an ID field, it will be disregarded.

How to Import Data to Create New Records?

- Click "Data" from main menu and select **Import Records**.
- Make sure to select the right destination catalog.
- Select the source CSV or XLS file. If you do not see your file, make sure to select the preferred file type from "open file" dialog.
- From task section, select "insert new records".
- Check matching columns list. You may select a line and click the "match" button to match an unmatched field or change an incorrect match. If a column header of your source file is left unmatched, the information on that column will be ignored during import.
- Click **Import** button to start import.



How to Import Data to Update Existing Records?

- Click "Data" from main menu and select **Import Records**.
- Make sure to select the right destination catalog.
- Select the source CSV or XLS file. If you do not see your file, make sure to select the preferred file type from "open file" dialog.
- From task section, select "update existing records".
- **Key Field:** You must select here the field of your source file which contains unique data to identify each record in your database. If the source file was exported from SpeedBase, you should select the "ID" field.
- Check matching columns list. You may select a line and click the "match" button to match an unmatched field or change an incorrect match. If a column header of your source file is left unmatched, the information on that column will be ignored during import.
- Click **Import** button to start import.

Tip: If you plan to import data which was exported also from SpeedBase, remember to include the ID field during the export. Data on ID field is required to locate the right record to update in your database when you import the same records back.

How to Import Images and File Attachments?

You may import images or files as attachments to your records. Note that, the catalog you want to import must already have a file/image field to accept file data. See [this page](#) for information about creating file/image fields in your database.

To import a file/image, your import data must contain the path of the file which must be imported and attached to the record. If files are saved into the same folder as the import document, the path can be just the file name itself. Otherwise full path must be included.

Example:

"Bird Name", "Bird Photo"
 "Parrot", "C:\My Bird Photos\parrot.jpg"

Importing Fields of Type Relationship

It is possible to import fields of type [N to 1 Relationship](#).

Example: If you are importing into the **customer** catalog which has a relationship definition with **company** catalog (i.e. a company name is selected on each customer record), you may include the company name in the worksheet under the

relational lookup field column. For each customer record, SpeedBase will search for the company name in "company" catalog and if found the company is attached to the customer record imported.

Advanced Import Options

Initiate Chain Recalculation: Default: Checked. This box must normally be left checked in order to trigger any automatic re-calculation of affected computed fields, both within the imported records and for the relational records. In some cases when you import a large amount of data, the calculations triggered during import might significantly slow down import depending on your computed field design. In such cases it might be faster to disable calculation during import and then initiate the recalculation manually by right clicking each affected catalog and selecting "Recalculate". So consider unchecking this option only if the import is very slow.

Update "Modified On" Field to the Time of the Import: Default: Unchecked. When you import to update records, the "Modified On" field on records are not changed. This helps to keep the last (manual) modification date of records done by users intact even after an update was done via import. If checked, the "Modified On" field of imported records are set to the time of import. This on the other hand has the advantage of easily locating the imported records by sorting/filtering them in case something went wrong.

Add Imported Files to File Gallery: Default: Unchecked. If checked, the imported files (if any) will also become visible on File Gallery window.

Create Error Log File: Default: Unchecked. If checked, an error report is generated. It helps you to troubleshoot import errors by providing with explanation for each case of error where data could not be imported. No report is generated if the import is completed successfully.

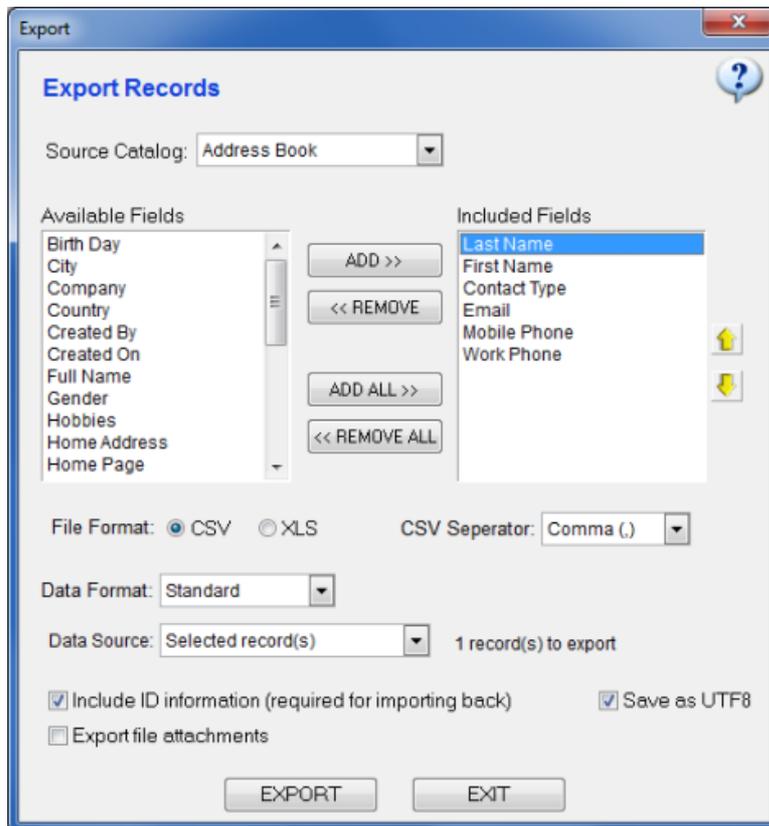
The following are more advanced options and apply only if you intend to import relational data during import. Contact support for more information.

Process Relationship Data as ID Keys: For the previous example; you could also include the ID of the company as displayed in SpeedBase for "company" catalog instead of the company name. In order for this option to work, your source data must contain the valid ID numbers of each company under the relational lookup field column instead of actual company name.

Auto Create New Record on Parent Table: For the previous example; if the company name included with customer records does not exist in SpeedBase database, you may force SpeedBase to automatically create a new company record during import. You should check this option only if the related parent records do not exist and you want them to be automatically created as empty records, which you plan to complete at a later time.

Exporting Records

SpeedBase supports exporting records as MS Excel worksheet file



Quickly Exporting Selected Records Only

While you are viewing a [record list window](#) or [related record list window](#), select the records you wish to export, right click on the records to open the popup menu, select export. This will open the export window with preconfigured settings in order to generate an output exactly as displayed in current view. You may still modify the export settings before generating the output.

Exporting All Records in a View or Catalog

Click "Data" menu, select "Export Records", or, click "Export" button from the main toolbar. This will open the export window where you may choose which records and fields to export and adjust various export options.

Export Settings

Source Catalog: Select the catalog from which you want to export records.

Add/Remove Fields: Add/remove the desired fields to include/exclude in your export here.

File Format: You may export either in CSV or XLS (Excel) formats. CSV (comma separated values) is the most commonly supported file format to transfer data between database applications. Since CSV is a plain text format, you may view them with Windows Notepad. Exporting in XLS format requires Microsoft Excel to be installed on your computer.

CSV Separator: When you are exporting in CSV format, this setting is adjusted to your locale automatically. You may consider changing this setting in case the target application requires a different separator character.

Data Format: When you select "As Displayed", the output will be exactly as displayed on your screen. If you select "Standard", the output will be adjusted to a more commonly recognized format which can be helpful when you plan to import that data back to another application. This option mostly affects the output of date, time, checkbox and phone fields.

Data Source:

Selected Records: Only currently selected records on current view are exported.

All Records On Current View: All records on current view are exported. The filtering rule -if any- assigned to current view will be effective.

All Records On Current Catalog: All records on current catalog are exported without any filtering applied.

Include ID information: You must keep this box checked if you plan or there is a possibility to import the exported data back to SpeedBase for update purposes. This adds the ID field to your export.

Save As UTF8: This box should normally be left checked for language compatibility between different locales.

Export file attachments: Check this box if you want to export files that are attached to the exported records as well. Files will be exported into a subfolder named "export files" which is created in the selected export folder.

Reports

Creating Basic Reports

Basic reporting allows you to quickly get a simple report with a fixed format where the layout and all the arrangement of the content are prepared by SpeedBase automatically. You can get the output of the current record or current list of records with just a few mouse clicks without any configuration. Customization options are limited for this report type.

Tip: See "[Custom Reports](#)" if you want to create fully customizable reports.

There are two different types of basic reports depending on the window you initiate printing.

Printing a Single Record

When a record details window is displayed, click print button. This will open print settings window. From the drop down list labeled as "Report Template", select "Default Template". This will create a typically one page report for a single record. The report will contain all of the current field values of the currently displayed record. The report format is build by SpeedBase automatically and cannot be changed except for several options available on report properties window (see below).

Printing Multiple Records in Tabular Format

When you are displaying a list of records from a catalog, click print button. This will open print settings window. From the drop down list labeled as "Report Template", select "Default Template". This will create a report in tabular format with the same arrangements of the current view. On the section labeled as "Data Source", you may choose whether to print only selected records or all records in the catalog. If you select "all records", SpeedBase will add all of the records (i.e. all records on all pages of current view) to the report.

How to Modify Print Layout

Basic reports always refer to the field arrangement of the current view. If you want to change the selection of fields and their ordering, cell widths and sorting rules, you should either modify the current view settings or create a dedicated view to be used only for reports.

[Views and how to create them](#)

Tip: SpeedBase always reserves a single line for each record. If printed text does not fit into a cell, you should consider increasing the cell width or decreasing the width of other cells or remove unused cells or choose printing in landscape to gain more space.

Changing Report Properties

While you are displaying the "Print Settings" window, select "Default Template" and click the settings button on the right of the template selection box. This will open "Report Properties" window. You may here select from available options to modify the view and style of the report.

Designing Custom Reports

Custom report designer is an optional component and available only if your license purchase includes this feature.

SpeedBase includes a powerful custom report designer which allows you to freely design all the content and style you want to see on your report. Once you complete your design, it is saved as a new report template and can now be used any time to create a report of your records in a custom designed format.

You may create any number of templates under each catalog and modify a template any time you want.

Creating a new Report Template

- Open print window, select "custom reporting" from the "report type" box.
- Click to "report manager" button. This will open "Report Templates" window.
- Click "Create New" button. "Report Properties" window will open.
- Select desired report options.
- Click "Save & Exit" button to create the new template.

Report Name: Give any name to your report to identify it's purpose and content easily.

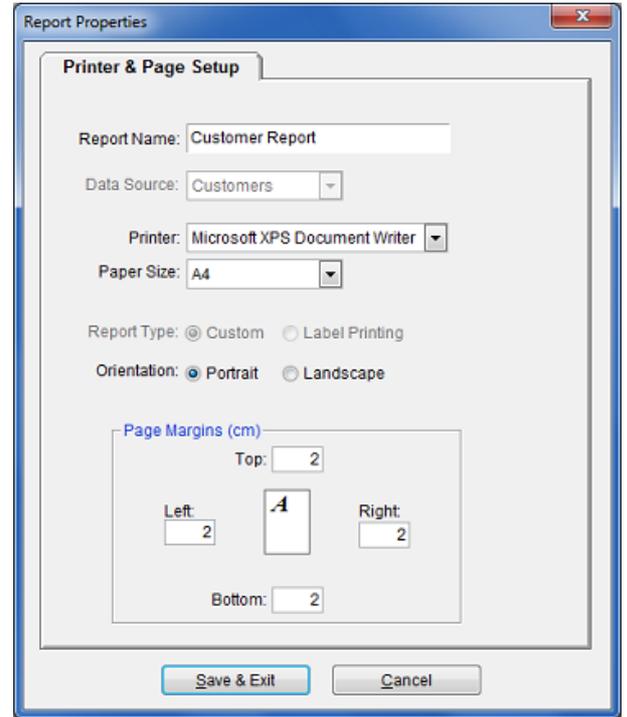
Data Source: Designates the catalog from which record data will be retrieved and displayed in the report. This selection becomes permanent for this template and cannot be changed later.

Report Type: Select "Custom" for the field "Report Type". If you want to create a report for printing labels, see [label printing](#). This selection becomes permanent for this template and cannot be changed later.

Page & Printer Settings: Select the desired default settings for this report template.

Page Width & Height: This setting will be enabled only if you select "custom size" from page size selection box.

Page Margins: The preferred margins here have actually no effect on design or print. They are only used to show the preferred margin positions during design.



The screenshot shows the "Report Properties" dialog box with the "Printer & Page Setup" tab selected. The "Report Name" field contains "Customer Report". The "Data Source" dropdown is set to "Customers". The "Printer" dropdown is set to "Microsoft XPS Document Writer". The "Paper Size" dropdown is set to "A4". The "Report Type" section has "Custom" selected with a radio button, and "Label Printing" is unselected. The "Orientation" section has "Portrait" selected with a radio button, and "Landscape" is unselected. The "Page Margins (cm)" section shows a preview of an A4 page with four margin input fields: Top (2), Left (2), Right (2), and Bottom (2). At the bottom of the dialog are "Save & Exit" and "Cancel" buttons.

Modifying Report Properties

- Open print window, click "custom reports". This will open "Report Templates" window.
- Select the desired report template from the list, click "Properties" button.
- Make the desired changes. Note that some properties become fixed when the report was first created and cannot be changed.
- Click "Save & Exit" button to save changes.

Designing Report Templates

See [Report Designer](#) for detailed explanation about designing a fully customized report.

See [Label Printing](#) if you want to print labels for mail merge.

Printing Reports

- To print a record which is currently displayed, click **Print** from toolbar.
- To print multiple records, select the desired records from the record listing and then click **Print** from main toolbar.
- From print window, select the custom template you have created before from selection box.
Tip: Beware that, SpeedBase will only show templates which are designed for the current catalog. If you do not see the template name you designed before, that's because it was designed for a different catalog.
- Select whether you want to print selected records or all records of the current view from the "data source" box.
- Click **Print Preview** button to display the preview or **Print** button to create the report.
Tip: The preview window may not display all records requested if large number of records are sent to the preview. This will not affect however the actual printing.

Custom report designer is an optional component and available only if your license purchase includes this feature.

Designing a Report Template

The basic work flow of creating a report template is as following:

- Open print window, click **Custom Reports**. This will open **Report Templates** window.
- Click **Create New** to start creating a new report template, fill in the necessary settings and save changes.
- Select the report you just created and click **Design** button. **Report Designer** window will open.
- Design your report by placing data items, computed items or decoration items from **object browser** on left to the desired location of the page.
- Adjust properties of each item by right clicking it on design area, OR, by selecting it and clicking the desired function from top toolbar.
- You may adjust the size and other properties of each report section by clicking **Section Properties** button.
- Click **Preview** button to check how the final result looks. Note that the catalog you designed the report for must have at least one record so you can see sample data on preview window.
- Click "Save & Exit" button to save your design changes to the template.

Page Layout & Report Sections

The report designer shows you the page layout on top left corner. The page layout consists of up to 5 major sections each of which represents a certain horizontal part of the page or report. When you select a section from page layout, SB will show only the corresponding area of the page in full page width but with a preset height. You may determine how much height should be allocated by each section by clicking "Section Properties" button.

Tip: SpeedBase shows the page margins as a dotted red line. This line has no effect on your design or actual print out and is there only to guide you to keep and align the items within your preferred page margins. You may change the margins from "Report Properties" window (see [Custom Reports](#)).

Tip: SpeedBase will show the edge of the printable area reported by the printing device as a solid red line. You shouldn't put any items beyond this line as your device is not capable of creating output on that area.

Creating New Report Sections

When you create a new report, a **Data** section is automatically created. A data section allows you to place data fields onto your report. There are also optional non-data types of sections which you may create by clicking the "create new page section" button. Available section types are explained below:

Print This Section: If unchecked, SB will skip this section as if it does not exist. Useful when you want to disable a section temporarily without deleting it.

Start with New Page: If checked, SB will not continue printing immediately below the previous section and start from a new page instead.

Hide On First Page: If checked, SB will not print the section on the first page. Available for page header and page footer sections.

Section Height: Desired height of the section to be allocated from the page.

Caution! Do not decrease the section height less than the allocated height of the design elements you placed on the section, else object positions will be modified causing damage to your report design.

Page Header

Represents the area between the physical top edge of each page and preferred top margin. Any item put on this area is printed to the same area on all pages. You may however exclude the first page of the report from "section properties" window.

You may use this area to put page numbers or decoration items that should be displayed on top of each page. You may change the height of this section by modifying page margins. See [Modifying Report Properties](#)

Report Header

Represents the initial fixed (introductory) content that should be printed once only on top of the report.

Data Section

Represents the data area of the report. It starts immediately after report header and depending on data size, continues thru next pages until all data is written. Available data items you can put into this section will be displayed inside object browser on left. Note that, when the report is being created, the data section is printed as many times as the number of records you sent to print.

You may adjust the spacing between each record by adjusting the empty space left on top and bottom of this section which you may also increase or decrease from **Section Properties** window.

Tip:

It is possible to create more than one data section. For example, you may have a data section for "invoice", then a subdata section for "related order item(s)" and then a second "invoice" data section. This will allow you to display some of the invoice data above order items and some other invoice data below order items.

Keep Together: If checked, SB will start printing the next record on a new page, if whole data of that record does not fit in the remaining space of the current page.

Max. Records Per Page: You may optionally determine how many records should be printed on each page. This option is typically used when a single record data should be printed on each page.

Number of Columns: Select how many columns should be used to print data. See related topic below.

Section Height: Desired page height to be allocated for each record.

Sub-Data Sections

When you click "create new section" button, SB will show you a list of available data sources to select from. If the main catalog (e.g. customer) of the report has 1 to Many type relationships (e.g. orders), those related catalogs will also be displayed as a data source so you can print also related records of the current record. Sub-data sections are processed in the same way as data sections. SB will repeat printing this section for each "related" record.

This section has an additional option "Preferred View", where you can select the desired view in case the menu item has multiple views with different filter attachments.

Example: Assume that you are designing a report for "Companies" and records have a "Contacts" menu to show related contacts. SB will print a company record and then print all related contact records and then next company record and so on.

Report Footer

Represents the final fixed (conclusion) content that should be displayed at the end of the report.

Page Footer

Represents the area between the preferred bottom page margin and physical bottom edge of each page. Any item put on this area is printed to the same area on all pages. You may however exclude the first page of the report from "section properties" window.

You may use this area to put page numbers or decoration items that should be displayed at the bottom of each page.

You may change the height of this section by modifying page margins. See [Modifying Report Properties](#)

Adding / Modifying Data Items

- Click the desired data item from on the object browser.
- Drag the item to the desired location anywhere in the design area. The field label will also be created on left.
- Resize the data item using your mouse. Make sure to allocate enough width otherwise data might appear clipped.
- Remember to right click the item to modify various properties and style as well as overlapping with respect to other items.

Tip: If you need to adjust the position or dimensions of the items with more precision, enter the desired values into the related boxes on top and press enter.

Adding Images/Decoration/Computed Items

You may add images, various shapes, labels and computed objects to enhance your report.

- Select the desired section from the page layout.
- Expand the folder **Toolbox** from **object browser** from left.
- Select the desired object and drag it to the desired location of the section.
- Resize the object if needed.
- Remember to right click the item to modify various properties and style as well as overlapping with respect to other items.

Computed Objects

Page Counter: Prints current page number.

Record Counter: Prints current record number, increases by one on each start of a record section. You may use this item on the record section to show the row number of each record or on the report footer to show the total number of records printed.

Sub-Record Counter: Prints current record number on a sub-data section. Counts each "related" record and resets when a new main data section starts.

Current Date / Time / User: Prints current date, time or logged in user name respectively.

Sum(x): Prints the sum of all values printed sofar for the selected data field. e.g. you may place this object into the report footer section to display the total value of order items which were printed.

Computed: Calculates and prints a new value from the values on other available fields. Works in the same way as [computed fields](#).

Deleting Design Items

Click on the design item you want to delete. Press delete key from your keyboard or click delete button from the toolbar on top of the designer window.

Creating Tables inside a Data Section

You may prefer to print data in tabular format (grid style) instead of placing each field one by one in free design mode. To create a table:

1. Select the data section (or sub-data section) from page layout box.
2. Click "Section Properties" button, click "Data" tab,
3. Check the box named "Show data in tabular format",
Beware that you may not place free style data items and tabular format at the same time. If there are any pre-existing items on current section, they will all be deleted before you can continue.
4. Add the desired fields to the "displayed fields" box, you may also adjust the column ordering of items.
5. Click "OK" to save changes, this will create a single data object displayed in tabular format,
6. You may adjust various formatting properties by right clicking on it and selecting "properties".
7. You may adjust column widths by dragging the column borders with your mouse.

Note that, the tabular item is displayed as a single line table on design area. When the actual report is created, SpeedBase will add as many rows as needed to the table until all records are printed.

Printing Multiple Columns

It is possible to design a data section with 2 or more columns. You may choose the desired number of columns from "Section Properties" window.

When you adjust a data section to multiple columns, SB will start to display only the first column of the page, cutting the page at the start of the second column on right. You should place all design objects into the first column. While creating the report, SB will use the same design layout for all other columns and fill data from top to bottom on first column and then continue from the beginning of the next column.

Printing Reports

How to Print Records

- To print a single record which is currently displayed, click **Print** from toolbar of the record window.
- To print multiple records, select the desired records from the record listing and then click **Print** from main toolbar. Alternatively, you may right click on the record listing and select "print...".

Report Type: From print window, select the report type as either "Basic" or "Custom". Beware that, to print a custom report your license must cover "custom reporting" feature.

Report Template:

- **Basic Reports:** There is a fixed default template for this report type and you may modify limited properties of the report by clicking the configuration button next to the template selection box. See [Basic Reports](#) for more information.
- **Custom Reports:** Select the report template from the list of available templates. Remember that, you must have already created a custom report template for the catalog to which the records belong. Otherwise the template selection box will be empty and print function will not be available. You may click the "report manager" button to create a new custom report template.
Tip: SpeedBase will only show the templates which were designed for the current catalog. If you have already designed a report template but it is not displayed in the template selection box, that means the template was designed for a different catalog than the records you want to print and you need to create a new template for the current catalog.

Data Source: Select whether you want to print selected records or all records of the current view or all records existing in current catalog.

Caution!

The preview window may not display all records requested if large number of records are sent to the preview. This will

not affect however the actual printing.

How to Generate PDF Outputs

Windows 10

Windows 10 comes with a pdf printer driver and you may generate PDF outputs from any application by simply selecting "Microsoft Print to PDF" from the available printer devices on print dialog. If this driver does not show up, you may need to enable it from "Turn Windows Features On or Off" window.

Older Versions of Windows

You are recommended to install one of the free PDF printer drivers available on the internet. This solution has also the additional benefit of ability to print to PDF not only from SpeedBase, from all applications on your computer which have printing capability. Once you have installed a PDF printer driver, it will show up just like a printer device inside the printer selection box on print dialog and you will then be able to print to PDF by simply selecting that PDF driver.

For your convenience, we have included here some of the popular and freeware PDF printer drivers available from 3rd party software developers:

- [Cute PDF Writer](#) 
- [Bullzip PDF Printer](#) 

Tutorial for Designing Your First Custom Report

Make sure that you have read "[Custom Reports](#)" before continuing this section.

This help section gives you step by step instructions to create your first custom report and understand the basic workflow. You are recommended to avoid changing any settings that are not mentioned here until you complete the tutorial.

Before starting to design a new custom report, make sure that you have already created at least one catalog with multiple data fields and a sample record.

How to Design a Basic Customized Report?

1. Click "Tools" from main menu, select "Report Manager",
2. Create here the new report and select there a catalog as the source of data,
3. Select the new report and click "Design",
4. By default, you will be looking initially to a page section of 3 cm height. Note that this section will be printed repeatedly throughout the page for each record in case you print more than 1 record. You may increase the height of the section by clicking "Section Properties" button if you need more space per record to fit the data.
5. On left-down side of the window, you will see the "Object Box" with a list of all existing data fields of the report catalog, click each desired field and then drag it to the desired location of the page. Note that, the label on left side is the field header and will be printed as is. The box containing the field header on right side is actually representing the data and will be replaced by the actual data in your record when the printout is generated.
6. If you right click an item you have placed into the section and select "properties", a window will be opened where you may adjust various display options for that item.
7. You may drag and drop each item on the page section until you get the desired appearance.
8. You may also add some non-data items from the "Object Box" under the "Decoration" folder to decorate your report.
9. Click "Report Preview" button to check how the final result looks. A sample report will be generated from existing records in your database.
10. Click "Save & Exit" button to save your design changes to the template.

To print record(s):

1. Display the records of the catalog for which you have created the new report,
2. Select one or more records, click "Print" button from toolbar,
3. On print window, select the report template you have created,
* If you do not see the template name in the list, it means that, you have created the report for a different

catalog than the one you are attempting to print records from. A report cannot be generated for the records of a catalog until you have created a report template designed for that catalog.

4. Click "print preview" to check the report before actually printing it.

How to Design a Report with Relational Data?

You may want to generate a report for one or more records including their related data.
e.g. Customer report including related orders for each customer.

This type of report can only be designed if you have already created a relationship between two or more catalogs. In this example, assume that we have already setup a 1 to multi relationship between a "parent" catalog (e.g. customer) and "child" catalog (e.g. orders).

Before continuing, make sure that the parent catalog has at least one record as well as one or more relational records so you can preview the report with actual data.

1. Create a new report as described above for the parent catalog,
2. Open report designer window for this report,
3. Design the default section by placing the necessary data items for the parent catalog,
4. At the bottom of the "Page Sections" box on left side, you will see 4 small buttons, click the first button to create a new page section, a window to select "section type" will be opened,
5. In the section type list, you should see available relational data sections in the following format:
"DATA > PARENT CATALOG NAME > RELATED CATALOG NAME"
If you do not see such a line, this means that you did not have created any 1-Multi type relationship for the main catalog of this report yet. You must do it first.
6. Select the desired relational data section and click "OK",
7. This will open the section properties window, adjust the following settings only and leave others unchanged for now:
 - Select "Preferred View", which will determine the filtering rule to be used to include related records.
 - Adjust section height if you prefer to allocate more or less space for each related record data.
8. Select the new relational data section you just created from "Page Sections" box,
9. Design the relational data section by placing the necessary data items just like before,
10. Click "Report Preview" button to check how the final result looks.
11. Click "Save & Exit" button to save your design changes to the template.

To print record(s):

1. Display the records of the "parent" catalog for which you have created the new report,
2. Select one or more records, click "Print" button from toolbar,
3. On print window, select the report template you have created,
4. Click "print preview" to check the report before actually printing it.

How is a relational report printed?

Data from the first record (e.g. customer) will be printed on top the page according to the default section arrangement you made. If there are one or more related records (e.g. orders) for that records, they will be printed according to the relational section arrangement you made. That section will be repeated for each relational record. If you have selected more than one record from parent catalog, the output continues with the next parent record and its related records until all selected records are printed.

Label Printing

For trial users; this feature is available and fully functional for trial purposes during your trial period.
For registered customers; this feature is optional and available only if your license includes custom reporting feature.

SpeedBase supports printing labels using data from the records in your database. You can use this feature for mail merge purposes.

Designing a Template for Label Printing

- Make sure that you are displaying records of the catalog which you want to use for creating labels.
- Open print window, click "custom reports". This will open "Report Templates" window.
- Click "Create New" button to create a new report template. "Report Properties" window will open.

Paper Size: Select the correct paper size for the label sheet you want to print.

Report Type: Select "Label Printing".

Left Margin: Enter the distance between left edge of the page and the first label on sheet.

Top Margin: Enter the distance between top edge of the page and the first label on sheet.

Label Width/Height: Enter the width and height of the label.

Horizontal Spacing: Enter the horizontal distance between adjacent labels in the same row.

Vertical Spacing: Enter the vertical distance between adjacent labels in the same column.

of Rows: Enter the number of label rows on a sheet.

of Columns: Enter the number of label columns on a sheet.

Tip: Make sure that you didn't enter more rows or columns than available space on page. Otherwise some labels might get printed outside the page borders hence, not printed at all.

Save and close report properties window.

- Select the new template from report list and click "Design" button.
- "Report Designer" window will open and display design area for a single label.
- Design the label by placing data items, computed items or drawing items.
- Adjust properties of each item by right clicking an item on design area.
- Click "Preview" button to check how the final result looks.
- Click "Save & Exit" button to save your design changes to the template.
- Exit "Report Templates" window.

You are now ready to print labels from print window by selecting the report template you just created.

See [Report Designer](#) for more information about design window.

Scripting & Calculations

Scripting

SpeedBase provides a wide range of scripting capabilities to enhance user interface as well as manipulate and optimize data.

Writing script codes requires a basic level of understanding computer programming. While most of the features of SpeedBase provided for designing a database can easily be utilized by users without specific skills, scripting features target more advanced users with technical background.

Limited Technical Support is Available

Feel free to [request support](#) whenever you need basic functionalities e.g. conditionally hiding/showing/moving data fields, validating user input, doing simple arithmetics between numeric data etc. and are not sure how to write the correct script. For more complicated tasks, we do also provide paid case based technical support.

Computed Field:

This is a special type of data field which is capable of displaying and saving calculated data. A computed field can read and process data from neighbouring fields of the same record as well as from the fields of a relational record. Starting from version 5, they are also capable of doing the calculation by a multiline procedure.

Statistical Box:

You may place one or more statistical box on top of a record listing to display calculated information about current view. These can include sum of field, total number of records etc.

Action Button:

You may place one or more action buttons on a record window which will execute a procedure when the user clicks to them.

Script Object:

You may place one or more script objects on a record window which will execute a procedure when a specific event like saving record, changing tab, pressing a key etc. occurs.

[Scheduled Script:](#)

This is a procedure which is executed at the scheduled time and optionally repeated with periodic time intervals.

Click the related topic for more information.

Computed Fields

Tip: See "[Displaying Statistics](#)" if you are looking for information about stats boxes.

A computed field is a special type of data field which can calculate complicated arithmetical expressions and display the resulting value. Although capable, this field is normally not used for entering information, instead, it is used to create and display a new information using the available information on other fields.

You may select one of the 3 methods available to do the calculation.

Compute Using: Expression

You may write a single line expression to read and calculate with the data available on neighboring data fields. Scroll down this page to see example expressions.

Return Type: Numeric / Text / Date

The return type specifies the data type used to save and process data for this field. Note that the return type cannot be changed once the computed field is created. If you need to change the type, you should create a new computed field to replace the current one and you must also take into account how to handle editable computed fields in case you have used that configuration.

Make sure to select the right "return type" when creating a new computed field. e.g. If you expect to generate a result containing letters, you should choose "text". Choosing a wrong type may affect how the records are sorted and may also cause loss of data.

A simple example expression for a numeric computed field which displays sum of values entered into "**Price**" field and "**Tax**" field would be as following:

```
NFIELD("price") + NFIELD("tax")
```

Compute Using: Relational Data Function

This option is used to process data from related records and allows you to choose from 7 built-in function to generate the desired data.

If you did not create any relationships for current catalog, this calculation option will not become available as there is no relational data to process.

Relational Functions

Available functions are as following:

Copy Data From Parent Record:

This option is available only if you have created an appropriate relationship with other catalogs.

Example: If you have a relationship between customer and order catalogs, where you assign many orders to each customer, you may add a computed field to the order window to display any data from the parent customer record (e.g. order form may show the customer's email address etc.).

Count Sub Records:

This option is available only if you have created an appropriate relationship with other catalogs.

Example: If you have a relationship between customer and order catalogs, where you assign many orders to each customer, you may add a computed field to the customer window to display the total number of orders assigned to that customer.

Get Sum/Average of a Field From Sub Records:

This option is available only if you have created an appropriate relationship with other catalogs.

Example: If you have a relationship between customer and order catalogs, where you assign many orders to each customer, you may add a computed field to the customer window to display the sum of payments of all related order records assigned to that customer.

Get Data from Top / Bottom Sub Records: This option is available only if you have created an appropriate relationship with other catalogs.

This function allows you to find out some data from the top/last related historical record.

Between all existing related records, the one which has either the greatest ("top") or smallest ("bottom") value on the "reference field" is retrieved first. Data is then read and returned from the field which you have selected as "data field".

Example-1: Assume that, you have a relationship between customer and order catalogs, where you assign multiple orders to each customer. You may add a computed field to the customer window to display the highest payment ever among all related order records assigned to that customer. Both data and reference fields should be selected as the field which shows payment value in this case.

Example-2: Assume that, you have a relationship between customer and service contract catalogs, where you assign many contracts to each customer. You may add a computed field to the customer window to find out and display the description of the contract which has the latest expiration date among all related contract records assigned to that customer. The "reference field" should be selected as the expiration date field and "data field" should be selected as the description field in this case.

Get Data From Previous Record: This option is used to receive data from the record which was created just before the current record. If a certain data on each record should be based on the data saved to previous record, this function might be useful. The previous record is determined by choosing the record with highest ID which is less than current record ID.

Data Path

Select the relational data object to apply the selected function.

Data Field

Select the data field on relational record(s) to apply the selected function.

Compute Using: Procedure (v5)

This option can be considered as a more advanced type of expression. You may write a multiline procedure to process available data to generate a final result. If you need to do the calculation in multiple steps or use conditional statements, loops etc. you should choose this option.

Once the desired result is generated, it can be transferred to the computed field box by the function **ReturnValue**.

The following computed field procedure takes the sum of values entered into **"Price"** and **"Tax"** fields and then applies 10% discount in case the result is greater than 200.

```
totCost = NFIELD("price") + NFIELD("tax")
IF totCost > 200 THEN totCost = totCost * 0.90
RETURNVALUE totCost
```

See [Script Editor](#) and [Function Reference](#) pages for more information.

Computed Field Options

Auto Recalculate

If set to automatic (default), the field is automatically recalculated every time whenever any other data field on the same record or on a relational record is changed. Beware that the recalculation can be triggered even if the actual record is not opened. If at some point, you want the data to freeze and never changed again, e.g. contract terms, invoice pricing etc. you must disable automatic calculation and use manual calculation (via calculation button) only.

Caution! Automatic recalculation setting does NOT trigger calculation by time. If the calculation expression contains **"NOW"** function, the calculation result depends on "current time" or "current date". That makes the calculation result impossible to remain correct since time continuously changes. If you want the automatic calculation triggered by time (e.g. once a day), you may easily create a scheduled recalculation task. See [scheduled tasks](#) section for more information.

Show Calculate Button

If enabled, a button to trigger the recalculation is displayed on side of the computed field. A calculation button is most useful if you have turned off automatic calculation and you want to execute the calculation only if you click the button.

Allow Editing

If enabled, users will be able to modify the computed field data freely and overwrite the calculated value. This option is typically enabled together with a calculate button and automatic calculation is turned off, else, data which you manually entered might be overwritten by automatic recalculation at a later time.

Display Long Text Field

If enabled, the computed field will displayed as a long text field rather than a single line text field. You must enable this option if there is any possibility that the computed result size is longer than 255 characters.

Suppress Calculation Errors

When the calculation of the computed field expression generates an error, an error icon will be displayed near the computed field. In some cases the error is a result of empty, unused fields on some records. You may check this box to prevent that error icon appearing.

Insert Function

Click this button to see and easily insert from a list of available functions.

Recalculate All Records

If you are creating the computed field in a catalog which already contains records, you may click this button to trigger the recalculation of all records according to the expression you entered. Beware that recalculation may take time depending on the number of records.

Recommendations To Avoid Calculation Errors

When writing expressions,

- Always use a dot (not comma) when you need to type a decimal mark in a numeric value.
- Always use **&** character (not "+" sign) when you want to concatenate text strings or functions which return text.
- Make sure that the number of opening parentheses are equal to the number of closing parentheses else it will generate an error.
- Leave a space character between each operator, value or function. Excessive use of spacing won't hurt anything.
- Remember that, expressions are not equations, writing something like `s = FIELD("name")` will only generate errors.
- Remember that, expressions may not contain multi-line statements, loops, IF-ELSE statements etc which can only be used in procedures.
- Remember that neither function names nor field names are case insensitive. They are displayed here in uppercase for better readability.
- Remember that the field names chosen in the examples below are arbitrary. You must replace the names with the actual field name you used in your database.

To review some example expressions check [example expressions](#)

Functions Available by VB Script Engine

Consult the following document for the full list of functions supported by vbscript engine:

[VBscript Function Reference \(msdn\)](#).

[VBscript Function Reference \(w3schools\)](#).

Built-in Functions by SpeedBase

nField("fieldname")

- Gets the current numeric value of the field whose name is given in quotes.
- If the field data type is checkbox, this function returns 1 for a checked box and 0 otherwise.
- If the field data type is option list, this function gets the numeric value assigned to the selected option. (see field properties window)

Examples:

Assume that you have a decimal type field which is named as "price". The example given below calculates the 20% discounted price

NFIELD("price") * 0.8

or

NFIELD("price") / 100 * 80

Assume that you have two numeric fields one is "price", another is "tax rate" (as percentage). We will create two computed fields, one for "tax value", another for "final price". This expression will calculate the tax value:

NFIELD("price") * (NFIELD("tax rate") / 100)

This expression will calculate final price (assume that the previous):

NFIELD("price") + NFIELD("tax value")

sField("fieldname")

Gets the current text content of the field whose name is given in quotes.

When used for a checkbox field, this function returns by default "Yes" for a checked box and "No" otherwise (unless you have modified it from preferences window).

Assume that you have a small text field named as "Name" and an option list named as "Colors" including options of "green", "yellow", "red" etc. This expression creates and displays a full sentence from existing like "John likes green color."

sField("Name") + " likes " + sField("Colors") + " color."

dField("fieldname")

Gets the date value of the field whose name is given in quotes. You should use this function to read date data if you want to process the result with other date functions.

XIF(expression, true part, false part)

If the result of the expression is true, evaluates and returns the true part, otherwise evaluates and returns the false part.

Example:

Assume that you have an option list box named "membership" containing the items "standard" and "premium".

Assume also that you wish to apply 20% surcharge to the price when premium is selected.

NFIELD("price") * XIF(sField("membership")="premium", 1.2, 1)

CharCount("fieldname")

Counts the number of characters in a text field.

WordCount("fieldname")

Counts the number of words in a text field.

Limit(Value, MinVal, MaxVal)

Limit("fieldname", MinVal, MaxVal)

Limits the input value to MinVal at minimum and to MaxVal at maximum.

You may use this function to get limited value from a numeric field or select the min. or max. value from two fields.

Examples:

LIMIT ("age", 18) returns the value from the "age" field limiting the returned value with 18 at least.

LIMIT ("age", , 30) returns the value from the "age" field limiting the returned value with 30 at most.

LIMIT ("age", 18 , 30) returns the value from the "age" field limiting the returned value between 18 and 30

LIMIT ("age-1", NFIELD("age-2")) returns the greater one between the fields "age-1" and "age-2"

LIMIT ("age-1", , NFIELD("age-2")) returns the smaller one between the fields "age-1" and "age-2"

RoundUp(Value, Digits) RoundDown(Value, Digits)

RoundUp("fieldname", Digits) RoundDown("fieldname", Digits)

Rounds the input value upwards/downwards to the specified digits. If you omit digit part, it will round to integer.

Remember to use the Round function instead if you want to round the value towards nearest direction.

If digit is negative, the value is rounded to towards next multiple of power of ten.

Example:

Assume that the decimal field "dec1" has value 3.14

Assume that the decimal field "dec2" has value 2.71

Assume that the decimal field "dec3" has value 151

Round("dec1",1) returns 3.1

RoundUp("dec1",1) returns 3.2

RoundDown("dec2") returns 2

RoundUp("dec3", -1) returns 160

MD5(Value)

Calculates the MD5 hash of the value. The hash is represented as 32 chars of hexadecimal.

To review some example expressions check [example expressions](#)

Displaying Statistical Information

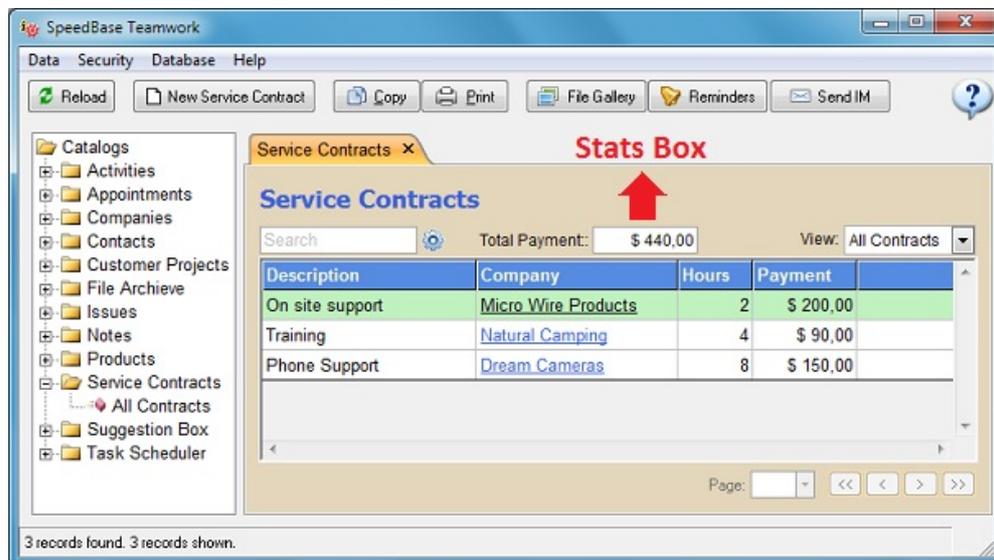
Tip: See "Computed Fields" if you are looking for information about computed fields.

A "Stats Box" is a different type of computed field which you can place on top of a record list window in order to display some statistical information about all of the currently displayed records. Its configuration is very similar to a [computed field](#) but it uses a different set of built-in math functions.

You can add more than one stats box. However, keep in mind that SpeedBase will automatically hide stats boxes starting from the most right side position if there is not enough horizontal space to fit them all. You may consider to resize / maximize the window in that case.

Note that you should type a dot, not comma, when you need to use decimal marks.

In the example picture below, the sum of all payments of the displayed records is calculated by a stats box with an expression of **fieldSum("payment")**.



Creating / Updating Stats Boxes

- From the catalog tree, right click the catalog name, select "Design Toolbar & Stats" from the popup menu, This will open "Toolbar Designer"
- Click the button "New Stats Box" (or select an existing one if you want to update),
- Enter an expression into the expression box, save and exit
- A new stats box will be displayed now on top of the record list window.

Box Width: Adjust the width of the output box in pixels.

Label: Enter a descriptive name to be displayed with the stats box.

Align: The stats box can optionally be aligned to the right side of the window.

Invisible: Hide the stats box.

Available functions and examples are given below. Function names are not case sensitive.

Special Functions Dedicated to Stats Boxes

RecordCount or RecordCount("ViewName")

Returns the number of records existing in the specified view whose name is given in quotes. You can call it without the view name parameter if you need the number of records in current view.

FieldSum("FieldName") or FieldSum("FieldName", "ViewName")

Returns the numeric sum of the field specified in quotes for all of the records currently listed.

Example:

Assume that you have a "Tasks" catalog and you save the time spent for each task into a numeric field named as "Hours".

This expression will show the total hours spent for all tasks listed in current view.

FieldSum("Hours")

Assume that you have a "Expenses" catalog, where you record all expenses into the field name "cost".

Assume also that you have created the view "Expenses in last week" and assigned a filter to it which displays only the records created in last week.

This expression will show the total expense in last week.

FieldSum("cost","Expenses in last week")

FieldAvg("FieldName") or FieldAvg("FieldName","ViewName")

Returns the numeric sum of the field specified in quotes divided by the number of records currently listed. Used exactly in the same way as FieldSum function.

All other Functions

See [Function Reference](#) page for more information.

If you are unsure how to build the right expression, request [support](#).

Action Buttons

Action buttons are custom created buttons which can be placed anywhere on a record window. When clicked, a script procedure written for the button is executed. You may create an action button to execute a series of (conditional) calculations, update data on one or multiple field values, validate data, retrieve data from or send data to a web site and many other things.

To create an action button,

- Open [Form Designer](#) window,
- Click "Tool Box" tab from item browser,
- Select "Action Button", click "Insert",
- Type the title you want to see on the button,
- Click "Edit Procedure" to write the script which will be executed when the button is pressed.

Additional Information:

- [Script Editor](#)
 - [Function Reference](#)
 - [Example Procedures](#)
-

Script Editor

Script Editor is the window where you may write procedures to execute custom scripts. If you only need to write a single procedure, all you need is to type in the code into the editor box, select triggering events if applicable and save changes.

The script editor will be opened in the following cases:

- When you create a "computed field" and choose compute type as "procedure"
- When you create a "script object" on Form Designer window
- When you create an "action button" on Form Designer window
- When you create a scheduled script

Code Editor

When you open the code editor for the first time it will create a default procedure called "Sub Main". The default procedure name cannot be modified and this is the procedure executed when the triggering event happens.

Creating Additional Procedures

If you are a professional programmer and want to write longer and more complicated scripts, you may create additional procedures which can either be a subroutine or a function. **Private Sub / Functions** These procedures can only be called from other procedures created for the same script object.

Public Sub / Functions These procedures can be called from any procedures created for any object in your database.

Triggering Events

This tab is only displayed when you are creating the script for a "script object" you placed on Form Designer window. It allows you to choose the events which will trigger the execution of the script. Beware that, if you do not choose any event for a script object, it will never be executed.

Load Record Event: Happens when the user just opens an existing record or starts creating a new record.

Create Record Event: Happens when the user starts to create a new record and clicks the save button for the first time.

Update Record Event: Happens when the user opens an existing record (or edits a newly created record) and clicks the save button.

Delete Record Event: Happens when the user clicks "Delete" button for the displayed record.

Field Enter/Leave Event: Happens when the user moves the cursor to any other field either via keyboard or mouse click.

Field Modified Event: Happens when the user changes the data displayed in a field.

Key Press Event: Happens when the user presses any key from the keyboard.

Periodic Timer Event: Happens periodically within specified time intervals in seconds.

Settings

Shared Variables: Variables you define here are visible from all procedures within the same script object. May be used only if you write multiple procedures and you want share multiple variable values between procedures.

Suppress Runtime Errors: If checked, no error messages are displayed if the script terminates with a runtime error. That also means that you will not know if the script is completing it's task or not.

Max Execution Time: The script will be automatically and forcefully terminated if the execution time exceeds the specified duration. You are recommended to avoid setting this time longer than it should as an incorrectly crafted script code may load the processor and slow down the computer.

Additional Information:

- [Function Reference](#)
 - [Example Procedures](#)
-

Scheduled Scripts

Scheduled scripts are scripts which are executed at a predetermined time or executed periodically within preferred time intervals.

These scripts are executed silently in the background without any user interaction. You may check the last execution time and execution result of a script from "Scheduled Task" window.

To create a scheduled script:

- Click "Database" menu, select "Scheduled Tasks"
- Click "New Task" button
- Select the task type as "Scheduled Script"
- Type a descriptive, short name for the task
- Type a name for the default procedure of this script
- Script editor window will open, create your script there, save and close the script editor
- Schedule setting window will open, select the first execution time and if desired, repeat interval

Tip: You may suspend execution of the script if you uncheck "enable scheduled execution" box from schedule settings window.

Tip: You may also create a scheduled recalculation task on the same window. This task will then periodically recalculate all computed fields in either a selected catalog or all catalogs. A periodic recalculation is necessary if the result of the calculation for a computed field can change with time, e.g. a calculation which determines whether a contract term was expired (at current date) or not, is required to be executed on a daily basis to keep it accurate.

Additional Information:

- [Script Editor](#)
 - [Function Reference](#)
 - [Example Procedures](#)
-

Function Reference

Functions and Language Resources for VBScript Engine

Consult the following documents for the full list of functions supported by vbscript engine:

[VB Script Function Reference \(w3schools\)](#)

[VB Script Language Reference \(msdn\)](#)

Both function names and parameter names in this document are case insensitive. They are displayed here in varying case format for better readability only.

Built-in Functions by SpeedBase For Record Window

Functions described in this section can only be used by computed fields, action buttons and script objects (procedure) created on the form designer window.

Field names must match with an existing field of the catalog for which you create the expression or script. If a function is NOT tagged as "expression" it should not be used in computed field expressions.

Field("fieldName") or GetFieldValue("fieldName") Applies to: Record Window, Procedure, Expression

Gets the current value of the field whose name is given in quotes.

The data type to return will be automatically determined depending on the data type of the target field. If you want to process data as a different type than the original, you must use nField for numerics, sField for text, dField for dates. e.g. if you want to add two numeric values retrieved from fields of text data type, you must use nField function.

nField("fieldName") Applies to: Record Window, Procedure, Expression

- Gets the current numeric value of the field whose name is given in quotes.
- If the field data type is checkbox, this function returns 1 for a checked box and 0 otherwise.
- If the field data type is option list, this function gets the numeric value assigned to the selected option. (see field properties window)

Examples:

Assume that you have a decimal type field which is named as "price". The example given below calculates the 20% discounted price

nField("price") * 0.8

or

nField("price") / 100 * 80

Assume that you have two numeric fields one is "price", another is "tax rate" (as percentage). We will create two computed fields, one for "tax value", another for "final price".

This expression will calculate the tax value:

nField("price") * (nField("tax rate") / 100)

This expression will calculate final price (assume that the previous):

nField("price") + nField("tax value")

sField("fieldName") Applies to: Record Window, Procedure, Expression

Gets the current text content of the field whose name is given in quotes.

When used for a checkbox field, this function returns by default "Yes" for a checked box and "No" otherwise (unless you have modified it from preferences window).

Assume that you have a small text field named as "Name" and an option list named as "Colors" including options of "green", "yellow", "red" etc. This expression creates and displays a full sentence from existing like "John likes green color."

sField("Name") & " likes " & sField("Colors") & " color."

dField("fieldName") Applies to: Record Window, Procedure, Expression

dField("fieldName", formatString) Applies to: Record Window, Procedure, Expression

Gets the date value of the field whose name is given in quotes.

You should use this function to read date data if you want to process the result with other date functions.

"Birthday: " & dField("dob") (The date format is determined by locale default)

If you include formatting string, the date will be formatted and you may use the result for display purposes.

"Birthday: " & dField("dob", "mmm d, yyyy dddd") e.g. Birthday: Jun 1, 2020 Monday

SetFieldValue("fieldName", Value) Applies to: Record Window, Procedure

Sets the value of specified field with the specified value.

This function cannot be used in computed field expressions.

Example:

The following procedure will add "Hello" to the beginning of the field named "name".

SetFieldValue "name", "Hello " & sField("name")

ShowObject("objectname", optional TabNo) Applies to: Record Window, Procedure

Makes the specified object on record window visible. If tab number is specified, the object will be displayed on that tab. For fields, you may use field's system name, for all other objects, make sure that you have assigned an object name for that object on form designer window. You may use this function together with "hideObject" function to conditionally display data fields, notifications or warning messages.

HideObject("objectname") Applies to: Record Window, Procedure

Hides the specified object from record window.

For fields, you may use field's system name, for all other objects, make sure that you have assigned an object name for that object on form designer window.

This function cannot be used in computed field expressions.

MoveObject("objectname", xPos, yPos) Applies to: Record Window, Procedure

Moves the specified object to the desired position on record window.

For fields, you may use field's system name, for all other objects, make sure that you have assigned an object name for that object on form designer window.

This function cannot be used in computed field expressions.

SetObjectHeader("objectname", newHeader) Applies to: Record Window, Procedure

Renames the label of a data field or changes the text of a label object or changes the caption of an action button.

For fields, you may use field's system name, for all other objects, make sure that you have assigned an object name for that object on form designer window.

Beware that this change is only for display purposes and no data is actually changed after this command.

GetObjectHeader("objectname") Applies to: Record Window, Procedure

Retrieves the label of a data field or the text of a label object or the caption of an action button.

For fields, you may use field's system name, for all other objects, make sure that you have assigned an object name for that object on form designer window.

CheckFieldModified("fieldName") Return Type: Boolean Applies to: Record Window, Procedure

Returns true if the data of the specified field was modified by user since last save.

Example:

Display a message if the user has modified the name field.

```
if CheckFieldModified("name") then msgbox "You have modified name field!"
```

GetActiveFieldName Return Type: String Applies to: Record Window, Procedure

Returns the name of the field which is currently being edited.

GetActiveFieldValue Return Type: String Applies to: Record Window, Procedure

Returns the current value of the field which is currently being edited.

GetActiveTabNumber Return Type: Integer Applies to: Record Window, Procedure

Returns the order number of the active form tab. The numbering begins from 1 for the first tab.

GetRecordHeader Return Type: String Applies to: Record Window, Procedure

Returns the header of the current record window.

SetRecordHeader(newHeader) Applies to: Record Window, Procedure

Sets the header of the current record window.

Beware that this change is only for display purposes and no data is actually modified after executing this command.

SaveRecord Applies to: Record Window, Procedure

Saves current record as if the user clicked the save button.

CloseRecord Applies to: Record Window, Procedure

Closes current record as if the user clicked the close button.

If the record was unsaved at that moment, the user will receive a warning to save the record.

CloseRecordNoSave Applies to: Record Window, Procedure

Closes current record even if the record was not saved. Any changes made will be lost.

DeleteRecord Applies to: Record Window, Procedure

Deletes current record as if the user clicked the delete button.
The user will be asked for confirmation before the record is actually deleted.

ForceDeleteRecord **Applies to: Record Window, Procedure**

Deletes current record immediately without asking for confirmation from user.

PrintRecord(optional "reportName", optional "catalogName", optional recordID) **Applies to: Global, Record Window, Procedure**

Prints current record if the script is executed from the form using default report option.

Prints a specific record if catalog name and record ID are both specified.

Record Window Only: If you are calling this function from a record window and you want to print the current record, you may omit both catalog name and record ID parameters. If there is only a single report designed for current catalog, you may also omit the report name parameter.

GetCurrentEventName **Return Type: String** **Applies to: Record Window, Procedure**

Retrieves the name of event which triggered the execution of current script.

This function is most useful if your script was set to be triggered from multiple events. You may then write a single script which makes different decisions depending on which event has triggered the script. You may also call "CancelEvent" to cancel the event that triggered the script.

List of possible returning values (Case Sensitive!):

- LoadCreate (occurs when the user clicked create record button)
- BeforeCreate (occurs just before a new record is saved to database)
- AfterCreate (occurs just after a new record is saved to database)
- LoadUpdate (occurs when an existing record is loaded)
- BeforeUpdate (occurs just before an existing record is saved to database)
- AfterUpdate (occurs just after an existing record is saved to database)
- BeforeDelete (occurs just before a record is deleted)
- AfterDelete (occurs just after a record is deleted)
- BeforeClose (occurs just before a record is closed)
- FieldModified (occurs when data in a field is changed)
- FieldEnter (occurs when the user clicks into any data field)
- FieldLeave (occurs when the user leaves an any data field)
- BeforeTabChanged (occurs just before the user moves to another tab of the record form)
- AfterTabChanged (occurs just after the user moves to another tab of the record form)
- KeyPress (occurs just when the user presses any key or key combination from keyboard)
- Timer (occurs periodically depending on the time interval you set for this script)

Example procedure code:

```
If GetCurrentEventName="FieldModified" Then
```

```
...
```

```
End If
```

CancelEvent **Applies to: Record Window, Procedure**

Cancels the event which had triggered the execution of the current script.

The user actions which can be canceled with this command are: Save/delete/close record, key press, tab change.

Example:

If the script was triggered by "BeforeClose" event, the script may validate the data and if some data was not correctly entered it can display a message and then disregard the attempt of the user to close the record.

GetPressedKeyCode **Return Type: Integer** **Applies to: Record Window, Procedure**

Returns the key code of the pressed key from keyboard. This function will return a key code for any key including special keys like backspace, del, tab, enter, home, end, arrow keys, esc, pageup, pagedown keys.

Beware that the key code for uppercase and lowercase letters are same as they are generated by the same key of the keyboard.

GetPressedKeyChar **Return Type: String** **Applies to: Record Window, Procedure**

Returns the related character only if a printable key was pressed.

SetPressedKeyChar(newChar) Applies to: Record Window, Procedure

Modifies the pressed key character.

IsShiftKeyPressed Return Type: Boolean Applies to: Record Window, Procedure

Returns true if the shift key is currently hold down.

IsControlKeyPressed Return Type: Boolean Applies to: Record Window, Procedure

Returns true if the control key is currently hold down.

IsAltKeyPressed Return Type: Boolean Applies to: Record Window, Procedure

Returns true if the alt key is currently hold down.

CharCount("fieldName") Return Type: Integer Applies to: Record Window, Procedure, Expression

Returns the number of characters in a text field.

WordCount("fieldName") Return Type: Integer Applies to: Record Window, Procedure, Expression

Returns the number of words in a text field.

ShowMessage("messageText", optional "Header", optional msgType) Applies to: Record Window, Procedure

Displays a message box to the user. If used, the parameter msgType can be either 0 (default), 1 or 2. They will show "information", "exclamation" and "denial" icons respectively.

ShowMessage "Please fill in name and surname fields!"

Built-in Functions by SpeedBase For Computed Fields Only

XIF(expression, true part, false part) Applies to: Computed Field, Expression

If the result of the expression is true, evaluates and returns the true part, otherwise evaluates and returns the false part.

This function is used to generate conditional output from a computed field expression.

If you are writing a procedure, do not use this function and use regular IF-THEN-ELSE statements instead.

Example:

Assume that you have an option list box named "membership" containing the items "standard" and "premium".

Assume also that you wish to apply 20% surcharge to the price when premium is selected.

nField("price") * XIF(sField("membership")="premium", 1.2, 1)

Caution! Regardless from the expression is evaluated to true or false, both "true" and "false" parts are executed but only the result related to the evaluation is returned.

Example: You may expect the following expression to return 0 when "item count" is equal to zero but it will actually generate a "division by zero" error:

XIF(nField("Item Count") > 0, nField("total cost") / nField("Item Count"), 0)

ReturnValue "VarName or Expression" Applies to: Record Window, Procedure

Used to return the calculation result back to the computed field which executes a procedure.

If you write a procedure instead of an expression for a computed field, you must use this function at the end of the script execution to display the final value in the computed field box.

Built-in Functions by SpeedBase Available Globally

AgeCalculate(dateValue) Return Type: Integer Applies to: Global**AgeCalculate("fieldName") Return Type: Integer Applies to: Record Window**

Calculates the age from the given birthday or birthday saved to a date field.

Tip: There are a number of useful date processing functions available in vbScript. Check the links given on top of this

page to review them.

Limit(varName, MinVal, MaxVal) Return Type: Variant Applies to: Global
Limit("fieldName", MinVal, MaxVal) Return Type: Variant Applies to: Record Window

Limits the input value to MinVal at minimum and to MaxVal at maximum.

You may use this function to get limited value from a numeric field or select the min. or max. value from two fields.

Examples:

LIMIT ("age", 18) returns the value from the "age" field limiting the returned value with 18 at least.

LIMIT ("age", , 30) returns the value from the "age" field limiting the returned value with 30 at most.

LIMIT ("age", 18 , 30) returns the value from the "age" field limiting the returned value between 18 and 30

LIMIT ("age-1", nField("age-2")) returns the greater one between the fields "age-1" and "age-2"

LIMIT ("age-1", , nField("age-2")) returns the smaller one between the fields "age-1" and "age-2"

RoundUp(decimalValue, Digits) RoundDown(decimalValue, Digits) Return Type: Decimal Applies to: Global

RoundUp("fieldName", Digits) RoundDown("fieldName", Digits) Return Type: Decimal Applies to: Record Window

Rounds the input value upwards/downwards to the specified digits. If you omit digit part, it will round to integer.

Remember to use the Round function instead if you want to round the value towards nearest direction.

If digit is negative, the value is rounded to towards next multiple of power of ten.

Example:

Assume that the decimal field "dec1" has value 3.14

Assume that the decimal field "dec2" has value 2.71

Assume that the decimal field "dec3" has value 151

Round("dec1",1) returns 3.1

RoundUp("dec1",1) returns 3.2

RoundDown("dec2") returns 2

RoundUp("dec3", -1) returns 160

EncodeNumeric(integerNumber, optional preferredCharacterSet) Return Type: String Applies to: Global

Converts the specified integer number to alphanumeric code. You may optionally force your own character set to generate the code from. If character set is omitted, the code is generated from

"0123456789ABCDEFGHIJKLMNPQRSTUVWXYZ".

This function generates an easily readable code with almost half number of characters, e.g. 1,256,000 is converted to XYH6.

Beware that the generated code is sequential, so the code for the previous/next number can be estimated by anyone. If you want to generate a non-sequential code, consider using MD5 instead.

DecodeNumeric("encodedNumeric", optional preferredCharacterSet) Return Type: Integer Applies to: Global

Converts the code which was generated by "EncodeNumeric" function back to its corresponding integer number.

EncodeBase64("String") Return Type: String Applies to: Global

Returns text encoded according to base64 standard.

DecodeBase64("encodedString") Return Type: String Applies to: Global

Returns the original text from a base64 encoded text.

MD5("Value") Return Type: String Applies to: Global

MD5("fieldName") Return Type: String Applies to: Record Window

Calculates the MD5 hash of the value. The hash is represented as 32 chars of hexadecimal.

GetRandomNumber(integerMin, integerMax) Return Type: Integer Applies to: Global

Generates a random number between the numbers integerMin and integerMax.

CurrencyToWords(Value, optional "CurrencyName", optional "SubCurrencyName") Return Type: String
Applies to: Global

Converts monetary numeric value to its equivalent text representation.

GetCurrentLoginName Return Type: String Applies to: Global

Returns login name of the currently logged in SpeedBase user.

GetCurrentUserName Return Type: String Applies to: Global

Returns the real name of the currently logged in SpeedBase user.

Sleep miliSeconds Applies to: Global

Stops execution for the specified time in milliseconds.

This function is useful in cases like when you want to slow down execution of a loop in a script, temporarily display an information, generate animations, executing very long calculations without loading processor etc.

The minimum possible value for sleep is around 15 milliseconds.

Caution! When executed, whole application enters into sleep, so the application becomes unresponsive until the sleeping time has elapsed.

Val(Value or VarName) Return Type: Decimal Applies to: Global

Converts the value to numeric.

GetTagValue(textXML, tagName) Return Type: Strign Applies to: Global

Returns the value enclosed in the specified XML tag.

OpenURL "url" Applies to: Global

Opens a web site in your default web browser. This command can also be used to initiate a new email message.

OpenURL "https://www.speedbasesoftware.com/"

OpenURL "mailto:example@example.com"

HttpAddParameter "VarName", Value Applies to: Global

Saves a parameter and its value to memory to be used with a HTTP request.

If you save another value using the same parameter name, previous value will be updated with the new one.

HttpGet "URL", optional timeOutSec Return Type: String Applies to: Global

Sends a HTTP GET request to a web site and returns the response.

If you have called HttpAddParameter function before, the saved parameters and values are sent with the request.

The default value for timeout is 5 seconds if not specified.

HttpPost "URL", optional timeOutSec Return Type: String Applies to: Global

Sends a HTTP POST request to a web site and returns the response.

If you have called HttpAddParameter function before, the saved parameters and values are sent with the request.

The default value for timeout is 5 seconds if not specified.

MapiSendEmail "Recipient","Subject","Body" Return Type: Boolean Applies to: Global

Sends an email using MAPI interface via the default email application on the same computer. Most email applications support MAPI interface but you may need to configure the mail application to respond to requests from other applications.

SaveVarToMemory "KeyName", Value Applies to: Global

Saves a value to memory which can be retrieved later by its key name.

You may save any value to memory. They will remain available until the application is terminated. So another script can retrieve that value hours later.

If you save another value using the same key, previous value will be updated with the new one.

Beware that values you saved with this function are only available to the same running instance of SpeedBase. Any running instance on another computer may not read that value. If you want to make it available to all users and permanently, use "SaveVarToDB" instead.

ReadVarFromMemory("KeyName") Return Type: Variant Applies to: Global

Reads a previously saved value with the same key from memory.

ClearMemoryVars Applies to: Global

Deletes all previously saved values from memory.

SaveVarToDB("KeyName", Value) Applies to: Global

Saves a value to database which can be retrieved at any time by its key name.

You may save any value to database. They will remain available until you update them with another value or call clear function. So any running instance of SpeedBase connected to the same database can retrieve that value even years later.

If you save another value using the same key, previous value will be updated with the new one.

If you want to save only temporary data and/or make the value available only to the current user, use "SaveVarToMemory" instead.

Note that, saving/retrieving values to/from database is slower if you plan to save hundreds of values in a loop.

ReadVarFromDB("KeyName") Return Type: Variant Applies to: Global

Reads a previously saved value having the same key from database.

ClearDBVars Applies to: Global

Deletes all previously saved values from memory.

ReadFromFile "filePath" Return Type: String Applies to: Global

Reads and returns the content of a file.

```
sData = ReadFromFile("D:\myfolder\data.txt")
```

WriteToFile "filePath", data Return Type: Boolean Applies to: Global

Writes data to a file. Returns true if the the file was written successfully.

```
WriteToFile "D:\myfolder\data.txt", "Hello World!"
```

OpenFile "filePath" Return Type: Boolean Applies to: Global

Executes a file from your computer as if it was double clicked. You may use this function to start another application or a document with it's associated program.

```
OpenFile "D:\myfolder\report.pdf"
```

```
OpenFile "C:\windows\system32\notepad.exe"
```

GetRecordCount "catalogName", optional "viewName" Return Type: Integer Applies to: Global

Returns the total number of records in a catalog.

View name is optional and if specified, the filtering rule of that view is applied.

```
nCount = GetRecordCount("Customers", "New Customers")
```

UpdateRecordField "catalogName", "fieldName", RecordID, newValue Return Type: Boolean Applies to: Global

Updates the value on the specified field of the specified record by ID of the specified catalog. Returns true unless an error occurs.

```
UpdateRecordField("Products", "product name", 123, "Laser Printer")
```

Beep Applies to: Global

Generates sound. Can be useful for debugging purposes.

SQL QUERIES

Caution!

An incorrectly crafted custom SQL query or query loop may instantly damage large number of records in your database. You are recommended to take backup of your database before executing a script which modifies data with sql queries.

SQLExecute "textQuery" Return Type: Boolean Applies to: Global

Executes a custom SQL query (e.g. insert, update, delete) and returns true if it succeeds. You may not process SELECT queries with this function. Use SQLSelect for that purpose. When writing custom SQL queries, you must use the system defined names used for catalogs and fields in your database. You may use **SQL Query** window to find out these names.

```
SQLExecute "UPDATE products SET retired='1' WHERE expiredate<20190101 "
```

```
bQueryResult = SQLExecute("UPDATE products SET retired='1' WHERE expiredate<20190101 ")
```

SQLSelect "textQuery" Return Type: String Applies to: Global

Executes a custom SQL Select query and returns a unique query ID. For nested queries, the query ID helps to process the right "select" query when you call other SQL functions listed here. When writing custom SQL queries, you must use the system defined names used for catalogs and fields in your database. You may use **SQL Query** window to find out these names. You may use the following functions to process the query: SQLEOF, SQLGetNextRow, SQLGetField, SQLQueryRowCount

```
SQLSelect "SELECT productname, expiredate FROM products WHERE expiredate<20190101 "
```

```
sQueryID = SQLSelect("SELECT productname, expiredate FROM products WHERE expiredate<20190101 ")
```

SQLReadRecords "catalogName", optional "viewName", optional readRecordCount, optional skipRecordCount Return Type: String Applies to: Global

Selects records from the specified catalog and returns a unique query ID. If a **view name** is also specified, the filter of that view is applied to the query. For nested queries, you will need the query ID to process the right "select" query when you call other SQL functions listed here. If **readRecordCount** is specified, up to that much record is read and returned from the database. The maximum possible value is 1000. If **skipRecordCount** is specified, that much record from the beginning of the record set is skipped and the following records are returned. If you want to move thru a much larger records set, you must create a loop to create multiple queries and raise "skipRecordCount" at each iteration. You may use the following functions to process the query: SQLEOF, SQLGetNextRow, SQLGetField, SQLSetField, SQLQueryRowCount

```
SQLReadRecords "Customers", "New Customers", 10, 0
```

```
sQueryID = SQLReadRecords("Customers", "New Customers", 10, 0)
```

SQLEOF optional "queryID" Return Type: Boolean Applies to: Global

Returns **true** when no records are returned from the SQL query, or, no records are left to process after the last SQLGetNextRow call. If you omit query ID, the most recent query will be processed. So you may omit query ID if there are no nested queries.

```
IF SQLEOF THEN MSGBOX "No (more) records to process!"
```

SQLGetNextRow optional "queryID" Return Type: Boolean Applies to: Global

Moves to the next record thru a previously executed SQL query. Returns true if successful, false if an error occurs or there are no more records move to. If you omit query ID, the most recent query will be processed. So you may omit query ID if there are no nested queries.

SQLGetField "fieldName" OR fieldIndex, optional "queryID" Return Type: Variant Applies to: Global

Reads and returns data from the specified field of the current record in a previously executed SQL query.
If you executed a **SQLReadRecords** query, you must provide the field's object name as shown in field properties window.
If you executed a **SQLSelect** query, you must provide a number starting from 1 to specify the order of data returned from the query.
If you omit query ID, the most recent query will be processed. So you may omit query ID if there are no nested queries.

```
sProductName = SQLGetField("productname")
```

```
sProductName = SQLGetField(1)
```

SQLSetField "fieldName", newValue, optional "queryID" Return Type: Boolean Applies to: Global

This function is applicable only for queries executed by **SQLReadRecords** function.
Updates the value of the specified field in a previously executed query. Returns true if succeeds.
If you omit query ID, the most recent query will be processed. So you may omit query ID if there are no nested queries.

```
SQLSetField "productname", "Laser printer"
```

SQLQueryRowCount optional "queryID" Return Type: Integer Applies to: Global

Returns the number of records between 0-1000 read from a previously executed SQL query.
If you omit query ID, the most recent query will be processed. So you may omit query ID if there are no nested queries.

Caution! For queries executed by **SQLSelect**, this function can only be used if there are no more than 1000 records in current query, otherwise you must execute a separate instance of **SQLSelect** function just to determine the number of records.

```
nRowCount = SQLQueryRowCount
```

Useful VB Script Native Commands

EXIT FOR Applies to: Procedure

EXIT DO Applies to: Procedure

Exits current FOR-NEXT or DO loop respectively.

EXIT SUB Applies to: Procedure

EXIT FUNCTION Applies to: Procedure

Exits code execution immediately.

If the procedure type you write is a SUB, you must use "EXIT SUB". If it is a function, you must use "EXIT FUNCTION".
You may use this command to break out of a loop and end execution, or, to keep unused code following this command.

Examples For Computed Field Expressions

You may write a script for computed fields either as an **expression** or a **procedure**.
Expressions do numeric calculation or date/string processing using mathematical operators and built-in functions by VBScript or SpeedBase. When an expression is evaluated, the resulting value is displayed in the computed field box and at some point saved to the database.

When writing expressions,

- Always use a dot (not comma) when you need to type a decimal mark in a numeric value.
- Always use **&** character (not "+" sign) when you want to concatenate text strings or functions which return text.
- Make sure that the number of opening parentheses are equal to the number of closing parentheses else it will generate an error.
- Leave a space character between each operator, value or function. Excessive use of spacing won't hurt anything.
- Remember that, expressions are not equations, writing something like **s = FIELD("name")** will only generate errors.

- Remember that, expressions may not contain multi-line statements, loops, IF-ELSE statements etc which can only be used in procedures.
- Remember that neither function names nor field names are case insensitive. They are displayed here in uppercase for better readability.
- Remember that the field names chosen in the examples below are arbitrary. You must replace the names with the actual field name you used in your database.

Concatenating Text Pieces

Add the word "Welcome" in the beginning of a name.

Assume that you have a field to enter name-surname and that field was named as "Full Name".

"Welcome " & SFIELD("Full Name")

Testing a Checkbox Field

Apply 10% discount to the price if a discount approval checkbox was checked.

Assume the price field named as "Price" and checkbox as "apply discount".

NFIELD("Price") * XIF(NFIELD("apply discount")=1, 0.9 , 1)

Calculate Age From Birth Date

Calculate the current age of a person assuming the date field "dob" is used for saving birthdate.

XIF(SFIELD("dob")="" , 0, YEAR(NOW) - YEAR(DFIELD("dob")) + INT(MONTH(DFIELD("dob"))*100 + DAY(DFIELD("dob")) > MONTH(NOW)*100 + DAY(NOW)))

Calculate the Birth Day for Current Year

Calculate the birth day for current year by replacing the birth year with current year, assuming the date field "dob" is used for saving birthdate.

DATESERIAL(YEAR(NOW), MONTH(DFIELD("dob")), DAY(DFIELD("dob"))))

Calculate Number of Days Between Dates

Calculate the number of days between the date fields "dt1" and "dt2"

Replace "D" with "W", "M" or "Y" to calculate number of weeks, months or years.

DATEDIFF("D", DFIELD("dt2"), DFIELD("dt1"))

Calculate the number of days between the date field "dt1" and today.

DATEDIFF("D", DFIELD("dt1"), NOW)

Find Out If a Predefined Date Exceeded

Mark a contract as "expired" if the date saved to the field "contract end time" is before today

XIF(DATEDIFF("d", DFIELD("contract end time"), NOW) > 0, "Expired", "Valid")

Calculate a Past / Future Date

Add a specified number of e.g. 10 days to the date "dt1"

Replace "D" with "W", "M" or "Y" to add weeks, months or years.

Add a minus sign before the number to calculate a past date.

DATEADD("D", 10, DFIELD("dt1"))

Extract Day / Month / Year from Date

Extract the day from the date "dt1".

Replace the function name "DAY" with "MONTH" or "YEAR" to extract months or years.

DAY(DFIELD("dt1"))

Extract name of the weekday.

WEEKDAYNAME(WEEKDAY(DFIELD("dt1")))

Auto-incrementing Field

SpeedBase automatically creates the system field "ID" with each catalog you create. This field is read-only and is automatically set to the next number with each record you create. It starts from 1 but if you need to add some offset number you may use a computed field instead:

NFIELD("ID") + SomeOffsetNumber

If you want to assign a more complex alphanumeric number (e.g. order number) to each new record, you may use MD5 function and preferably use the first n chars. to make it shorter.

LEFT(MD5(NFIELD("ID")), 8)

Beware that this function may return the same result for multiple records if you create large number of records and select a small length of chars.

Count Characters in a Field

Find the number of characters entered into a text field named as "description".

LEN(SFIELD("description"))

Split Text by a Separator Character

Get the text part before the separator character "/" from the field "sampletext"

SPLIT(SFIELD("sampletext"),"/")(0)

Get the text part after the separator character "/" from the field "sampletext"

SPLIT(SFIELD("sampletext"),"/")(1)

Modify Text According to a Selection

Add Mr. or Mrs. at the beginning of the name field "full name" depending on the selection of option list box "gender". Assuming the option list contains two values: "female" and "male":

XIF(SFIELD("gender")="female", "Mrs. ", "Mr. ") & SFIELD("full name")

Assign Numeric Values to each item of an Option List Box

You may assign a different numeric value to each option item of a drop-down listbox field from the field properties window. You may then use the **nField** function to get the value of the selected option:

NFIELD("fieldName")

The following expression is required for older versions (v3.1.4 and before) of SpeedBase: Assign 1 for "Poor", 2 for "Average" and 3 for "Excellent" displayed in an option list box named as "performance".

XIF(SFIELD("performance")="Poor",1,0) + XIF(SFIELD("performance")="Average",2,0) +

XIF(SFIELD("performance")="Excellent",3,0)

If you are unsure how to build the right expression, you may request [support](#).

Examples For Procedures

You may write a procedure for:

- Computed fields
- Event driven script objects created in form designer window
- Action buttons in form designer window
- Scheduled scripts

To write procedures, you need to have a basic level of understanding how to write algorithms. If you are somewhat familiar with mathematical expressions, it's not a big deal to start your own procedures by trying and working on the example codes given on this page.

When writing procedures,

- Always use a dot (not comma) when you need to type a decimal mark in a numeric value.

- Always use **&** character (not "+" sign) when you want to concatenate text strings or functions which return text.
- Make sure that the number of opening parentheses are equal to the number of closing parentheses when writing an expression else it will generate an error.
- Leave a space character between each operator, value or function. Excessive use of spacing won't hurt anything.
- Remember to select the triggering events for the script objects you place to your form else they will never be executed.
- Remember that neither function nor field names are case sensitive. They are displayed here in varying cases for better readability only.
- Remember that the field names chosen in the examples below are arbitrary. You must replace the names with the actual field names if you want to adapt the procedure to your database.

Example-1: Computed Field With a Procedure

For the example given below, open form designer,

- Create a text field named "Name Surname",
- Create an option list field named "Gender", with the options "Male" and "Female"
- Create a computed field as compute type "procedure" and return type "calculate to text".

```
' you may put comments anywhere by starting a line with a single quotation mark
' read current entry from "name surname" field and save to the variable "n"
    n = SFIELD("Name Surname")
' Check selected gender and add salutation before the name
    IF SFIELD("Gender") = "Female" THEN
        n = "Hello Mrs. " & n
    ELSEIF SFIELD("Gender") = "Male" THEN
        n = "Hello Mr. " & n
    ELSE
        n = "Hello " & n
    END IF
' Return the final text saved to variable "n" to the computed field box
    RETURNVALUE n
```

After creating all fields, type any name into the name box and change gender to see what happens.

Example-2: Displaying Conditional Objects

For the example given below, open form designer,

- Create a text field titled "First Name",
- Create a text field titled "Last Name",
- Create a label with the text content "Please fill in the name box!".
- Open properties of the label and set the object name as "MyLabel".
- Create a script object, copy and paste the code given below into the procedure editor.
- Click to "Triggering Events" tab, add the following events: "Field Modified", "Load New Record", "Load Existing Record"

```
' Check the first name field. If it is empty, display a warning,
' if it was filled, display also "Last Name" field.
IF SFIELD("First Name")="" THEN
    SHOWOBJECT "MyLabel"
    HIDEOBJECT "Last Name"
ELSE
    HIDEOBJECT "MyLabel"
    SHOWOBJECT "Last Name"
END IF
```

Example-3: Displaying a Data Field On All Tabs

For the example given below, open form designer,

- Create a text field titled "Name",
- Create a script object, copy and paste the code given below into the procedure editor.
- Click to "Triggering Events" tab, add the following event: "After Change Tab"

```
' Whenever the user clicks to a different tab of the record,
' display the name field on the current tab.

tNo = GetActiveTabNumber

SHOWOBJECT "Name", tNo
```

Example-4: Disable Saving Record If Required Field Was Left Blank

For the example given below, open form designer,

- Create a text field titled "Name",
- Create a script object, copy and paste the code given below into the procedure editor.
- Click to "Triggering Events" tab, add the following events: "Before Create Record", "Before Update Record"

```
' If the name field was left blank, show warning and
' do not allow to save the record.

IF SFIELD("Name") = "" THEN
    MSGBOX "Please fill in the name field!", 0, "Caution"
    CANCELEVENT
END IF
```

Example-5: Creating Keyboard Shortcuts

For the example given below, open form designer,

- Create a script object, copy and paste the code given below into the procedure editor.
- Click to "Triggering Events" tab, add the following events: "Key Press"

```
' Save and close current record when CTRL and SHIFT keys
' are hold down and "X" letter is pressed.

sKey = GetPressedKeyChar

IF sKey="x" OR sKey="X" THEN
    IF IsShiftKeyPressed AND IsControlKeyPressed THEN
        SAVERECORD
        CLOSERECORD
    END IF
END IF
```

Example-6: Download Currency Exchange Rates From a Web Site

For the example given below, open form designer,

- Create a text field titled "Current Rate",
- Create an action button, copy and paste the code given below into the procedure editor.

```
' When the user clicks to the button;
' Download exchange rate from a public XML feeding web site,
' Get the USD/EUR exchange rate from XML,
' Copy the value into the field "Current Rate".

sXML = HTTPGET("http://www.floatrates.com/daily/usd.xml")

sItem = GETTAGVALUE(sXML,"item")

sRate = GETTAGVALUE(sItem,"exchangeRate")

SETFIELDVALUE "Current Rate", sRate
```

Example-7: Push Notification to Mobile Devices by Clicking a Button

This example illustrates sending a push notification message to a mobile phone by clicking a button. There are various online push notification services available on the internet. We used here the service provided by pushover.net. You must install their mobile application and register your notification application on their web site before you can use this example.

For the example given below, open form designer, create an action button, copy and paste the code given below into the procedure editor.

```
' Add the necessary identity variables which you may learn from
' Pushover web site.
HTTPADDPARAMETER "token", "your-token-here"
HTTPADDPARAMETER "user", "your-user-name-here"
HTTPADDPARAMETER "message", "Your First Message!"

' Send the post variables to the web site
sResult = HTTPPOST("https://api.pushover.net/1/messages.json")
```

Example-8: Send Email From Your Web Site

This example requires your web site to have a compatible server side script which receives the data you send and then sends an email using the information included in the data.

For the example given below, open form designer,

- Create a text field titled "To Address",
- Create a long text field titled "Message Body",
- Create an action button, copy and paste the code given below into the procedure editor.

```
' Read the recipient email and save as post variable.
HTTPADDPARAMETER "mailTo", SFIELD("To Address")

' Read the message body and save as post variable.
HTTPADDPARAMETER "mailBody", SFIELD("Message Body")

' Send the post variables to the web site
sResult = HTTPPOST("https://yoursitehere/yourscriptnamehere")

' If your web script returns the result of the mailing attempt, display it
msgbox sResult
```

Example-9: Executing SQL Queries in a Loop

For the example given below,

- Create a new catalog titled "Test Catalog",
- Create a new field on that catalog titled "Name",
- Create a few records on that catalog filling the name field with example names using lower case letters.

```
' Execute a query to read all records from the catalog "Test Catalog"
SQLREADRECORDS "Test Catalog"

' Continue moving thru records until no records are left
DO WHILE NOT SQLEOF

    ' Read next record
    SQLGETNEXTROW

    ' Read the text saved into "name" field and add "Hello" to the beginning
    sName = "Hello " & SQLGETFIELD("name")

    ' Write the updated name back to the same record
    SQLSETFIELD "name", sName

LOOP
```

Other Features

Reminders

SpeedBase includes a powerful reminder feature. Reminders are displayed at a specified date and time with sound alert to remind you an approaching event. Note that, SpeedBase should be running at the fire time of a reminder, otherwise,

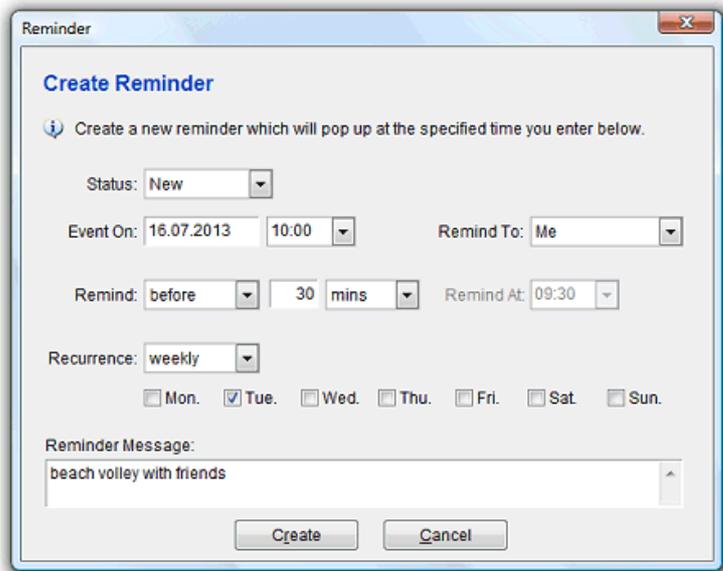
the reminder can only be shown as soon as SpeedBase starts up. To ensure that reminders are displayed on time, adjust SpeedBase to start automatically with Windows on system tray which is the default setting. [Click here](#) to learn how to do it.

There are mainly three different ways to create a reminder.

Creating Custom Reminders

There are two ways to start creating a custom reminder:

- From main window, click "reminders" button on toolbar. This will open a window which displays a list of all reminders created before. You may create new or edit existing reminders on this window.
- Right click the SpeedBase icon on system tray and select "New Reminder".



Status: Shows the current status of the reminder. An existing reminder is set to one of "Active", "Disabled" or "Dismissed" states. If active, the reminder is armed and is waiting its fire time to display. You may set it to "Disabled" in order to deactivate the reminder. If the reminder is already displayed before and you closed the notification window by clicking "dismiss" button, SpeedBase sets the reminder to "dismissed" state. A dismissed reminder is also deactivated. You may re-activate a disabled or dismissed reminder and set a new event date/time.

Event On: Select the actual event date/time here.

Remind To: Allows you to create a reminder for all users. Used only in multiuser editions.

Remind On/At: Select an exact date/time the reminder should be shown.

Remind Before: Select a time interval which will be subtracted from the event time to calculate the display time.

Recurrence: If the reminder should recur periodically, select the time interval here. When you dismiss a reminder message of recurring reminder, SpeedBase automatically updates and re-activates the reminder for the next recur time.

Message: You may type text to display with the reminder here. The message is displayed when the user clicks the message link on the reminder notification window.

Tip: A periodic reminder always depends on an initial fixed reference date. If for some reason the reference date shifts in reality, the reminder may become out-of-sync. It is better to set it to non-periodic if there is such possibility.

Attaching Reminders to a Record

While you are displaying/editing a record in your database, you may optionally attach a reminder to a date or date/time field of that record. To allow this feature, you just need to enable reminders for that field as explained below:

- Open "catalogs" window from "database" menu,
- Select the catalog you wish to allow creating reminders for its records, click "fields",
- Select (or create new) a date or date/time field which should be used as the event time of the reminder, click "properties",
- On "field properties" window, check "enable reminder feature" box.
- Optionally, you may also choose default settings for the reminders below. (You may always overwrite them on record basis)
- Save and close the configuration windows.

You will now see a small reminder button on the right side of the date or date/time field on each record. You may create and attach reminders to the records you like.

Note that there is no field to enter message when attaching a reminder to a record because the record itself is the message in this case. SpeedBase opens the full record window when the user clicks the link on the reminder notification window.

Creating Automatic Reminders with each Record

Apart from the traditional "manual" type reminders, SpeedBase can automatically create a reminder in the background whenever you create a record which has a critical date or date/time information. Examples are: Meeting time of an appointment record, due date of a bill, expire date of a domain etc. If you just tell SpeedBase to do so once, you do not have to create and adjust a new reminder every time you create an appointment.

In order to allow SpeedBase to create automatic reminders,

- Open "catalogs" window from "database" menu,
- Select the catalog you wish to create automatic reminders for its records, click "fields",
- Select (or create new) a date or date/time field which should be used as the event time of the reminder, click "properties",
- On "field properties" window, check "enable reminder feature" box.
- Optionally, check "Auto-activate reminder on date input" box.
- Adjust the default values for the reminder according to your preference.
- Save and close the configuration windows.

If you've checked "auto-activate" box, SpeedBase will always and silently create and attach a reminder to a record whenever,

- you create a new record with a valid date or date/time information for the field you configured or,
- you change the value on the date or date/time field you configured.

If you've left "auto-activate" box empty, SpeedBase will not automatically create reminders, instead, it will show you a button after the date input box, which will allow you to attach a reminder to the record if you want to. This option is more useful if you need reminders only for some of the records you create.

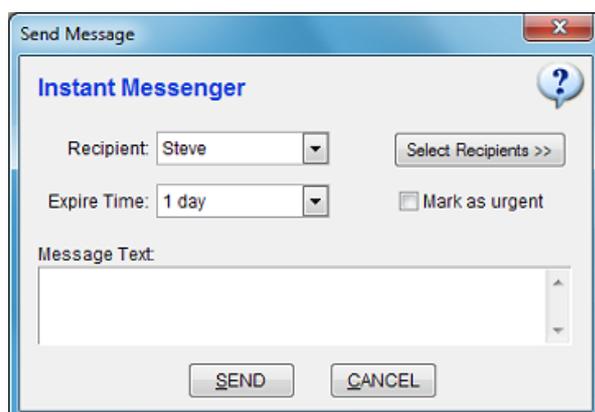
It is also possible to change the settings of a reminder which was created automatically with a record at a later time. Open the record and click the button for reminder settings which is shown on right side of the associated date/time field. You may change the settings according to your preference or disable the reminder if needed.

Instant Messenger

Available in SpeedBase TeamWork edition.

SpeedBase has a builtin online messenger which enables the users to send and receive simple messages between each other. Instant Messenger is a fast, private and convenient way to send notifications, announcements or any other small pieces of information.

When you send an instant messenger to an online SpeedBase user, the user will see a notification window on his/her desktop. If the user is not online at the time the message is sent, the notification will be displayed whenever the target user starts SpeedBase.



How to Send an Instant Message

Click the "**Send Message**" button from application toolbar. This will open the messenger window.

Recipient: Select the SpeedBase user you wish to send message.

Expire Time: The time frame that SpeedBase should try to deliver your message to the target user, if the user does not log in. If this time frame is passed before the user is online again, no notifications will be displayed any more.

Message Text: Type your message.

You may click "**Select Recipient**" button to send your message to more than one user. The recipient list also displays which users are online and can receive your message immediately.

Barcode Processing

You may configure SpeedBase to automatically find and open the record whose barcode is read by a barcode scanning device. To do this, create a small text field in the required catalog and save barcode text for each record. Then, set the catalog and the field carrying barcode data on [system preferences window](#). Whenever you want to use your barcode scanning device, just click the "Barcode" button from the main toolbar and scan a barcode. SpeedBase will automatically search for the barcode and open the associated record window whenever it recognizes a barcode input.

Remember that you may also manually type in the barcode text from your keyboard to open the related record as long as you keep the barcode button activated.

How to Print Barcodes

If you want to print out barcode marks with your reports, you must install a "barcode font" to your computer. Various barcode fonts including free ones are available on the internet.

Keyboard Shortcuts

You may find available keyboard shortcuts supported by SpeedBase below.

Most Useful Shortcuts Supported by Windows Operating System

Move cursor to the next item/object/box: TAB
Move cursor to the previous item/object/box: SHIFT+TAB
Cut: CTRL+X or SHIFT+DEL
Copy: CTRL+C or CTRL+INSERT
Paste: CTRL+V or SHIFT+INSERT
Select All: CTRL+A
Undo: CTRL+Z
Move cursor to the next word: CTRL+Right arrow
Move cursor to the previous word: CTRL+Left arrow
Go to the beginning of content: CTRL+HOME
Go to the end of content: CTRL+END
Close/Cancel: ESC

For a full list of Windows shortcuts, search for "list of windows keyboard shortcuts"

Shortcuts Specific to SpeedBase

New Record: CTRL+N
Save Record: CTRL+S
Find Text: CTRL+F (Applies to text fields)
Find Next: F3 (Find the next occurrence of the last searched text, applies to text fields)
Close Current Catalog: CTRL+Q
Reload/Refresh: F5
Copy Selected Record(s): CTRL+K
Print: CTRL+P
Load Next Record: CTRL+Page Down (available on record window)
Load Previous Record: CTRL+Page Up (available on record window)
Close Current Window: ESC
Open Help (Context Sensitive): F1

Useful Tips

- Press CTRL+N to create new, CTRL+S to save, ESC to exit a record window.
- Press F5 to reload a record window or a record listing.
- Press F5 to undo all changes and revert to the last saved state of a record.
- Press F1 on any window whenever you need help about current window.
- Press CTRL+A to select all text in a field.
- Press CTRL+Home or CTRL+End to go to the beginning or end of the text in a field.
- Press CTRL+Right/Left arrow keys to quickly move cursor in a text content.
- To delete a date entry in a date, text or numeric field: Press CTRL+A and then DEL

Mouse Shortcuts

Remember that you may access various available commands by right clicking your mouse on an object like a catalog, view, a list of records or selection of records.

Scheduled Task Manager

You may create and manage various types scheduled tasks in this window. A scheduled task can either be executed once at a predetermined time or periodically within preferred time intervals.

A task is not owned by the user who created it. That means, the execution of the task does require it's creator to be logged in and can be executed by any of the running instances of Speedbase on a multiuser environment. If everyone is logged out and there are no running instances of Speedbase left, a task with a past execution time will be executed as soon as any user starts Speedbase.

Possible task types are:

- Scheduled script
- Scheduled recalculation of computed fields
- Scheduled cloud backup

Task Types

Scheduled Scripts

You may create scripts which are executed automatically in the background for various tasks such as, periodically processing existing data or downloading/uploading information from/to a web site via internet. See [Scheduled Scripts](#) for more information.

Scheduled Recalculation of Computed Fields

This task is useful if your computed fields require to be recalculated and updated periodically. When a computed field's calculated value depends on current date and time, the result may change as time passes. A typical example is determining expiring contracts. The contract date is compared with current date and the final result will change if current date is equal or later than contract expiration date. A daily recalculation of computed fields will then ensure the results always being up to date.

Scheduled Cloud Backup

When you activate [Cloud Backup](#) feature, this task will automatically created in order to update the backup files every day. This task cannot be managed from this scheduled task manager window. It will be turned off if cloud backup is disabled.

Task Management

New Task: Creates a new scheduled task.

Edit Script: Opens [Script Editor](#) window for the selected script task.

Edit Schedule: Opens schedule editor window for the selected task.

Rename: You may rename a script task to describe it's purpose.

Refresh: Refreshes the latest execution status of the tasks.

Execute: Executes the selected task immediately.

Creating a New Database

When you start SpeedBase the first time after installation, a new, empty database is created. It is also possible to create a new database at a later time. New users are recommended to do some training with the first database and creating a new one before starting to enter actual data.

How to Create a New Database

CAUTION!

SpeedBase will ask you for the database file name. If you create the database using the same name and location as your current database, it will be overwritten and all data in your current database will be lost. Use a different name if you wish to keep your current database.

- Open "Database" from main menu, select "Create New Database". The "Create Database" window will open.
- Select the file name wish to use for your database.
- Select the data folder location where your database and other data files will be saved.
- Click "Create" button.



Working With Multiple Databases

SpeedBase allows you to maintain multiple database files and connect to any of them by modifying [database connection settings](#).

Creating and working with multiple databases is safe as long as you give a different file name for each database and you stay aware of which database you are connected to. You may also use this feature to create a second database for experimental modifications you want to try without putting actual data in danger.

Working with two (or more) databases for saving actual data on both is not recommended unless you definitely need to isolate data.

Designing Your Database

SpeedBase allows you to design your database from scratch and/or modify your existing design as much as and any time you want. A well designed database can save you time, speeds up your work flow and organizes your information more efficiently.

In order to achieve a well designed database, you are recommended to make some paperwork to clarify what information types you need and their relationships.

Sample Design Outline

An example of outline for a simple database design is given below. You can sketch your own design by replacing the names, adding other required fields or removing unnecessary ones.

Major categories of information (catalogs): *Contacts, Appointments.*

For Contacts catalog, I need:

- *Name - text*
- *Email - text link*
- *Birth Day - date d/m/y*
- *Contact type - selection box containing "vendor", "business partner", "staff", "customer"*
- *Notes - multiline text*
- *History of appointments - should show the list of all appointments assigned to this contact*

For Appointments catalog, I need:

- *Subject - text*
- *Start time - date & time*
- *Total time in hours - numeric*
- *Estimated sale value - monetary*

- *Contact Name - select from a list of existing contacts*

Relationship Notes:

- *Each contact person can have any number of appointments.*
- *Each appointment record is related to a single contact.*

Notes about Business Flow:

- *We need to track contacts and history of appointments scheduled to them.*
- *Every day we schedule a number of appointments between a customer and one of our staff.*
- *Upcoming and past appointments should be easily filtered out and upcoming ones should notify the assigned user before 2 hours.*

Importing Application Templates

For users who wish to make the quickest start or just see the capabilities of SpeedBase, a plenty of ready-to-use application templates are available for import.

What is an Application Template?

It is simply a predesigned database content with one or more catalogs, fields and other structural items. When you select and import the "Contact Manager" template for example, SpeedBase creates the necessary design elements so that you can save and manage company, people and appointment information.

SpeedBase will suggest you to import an application template whenever you create a new database. You may also manually open this window by selecting "Import Application Templates" under "Database" menu.

How do I import an Application Template?

Click "Import Application Template" from "Database" menu, select the template you wish to import from the list, and click "Import Selected Template". While you may technically import as many templates as you wish on top of each other, this is not recommended and complicates your database. If you just want to review and do some tests with the templates, it is a good idea to create a new database just for testing purposes, import the template and re-create the test database to try another one.

Do I really need to import any Application Template?

When you click to a template name on the list, information about main uses as well as the content of the template is displayed. If you think that a template seems suitable for your needs, you may import it. Even if you do not find exactly what you are looking for on that template, you can always modify the database design elements, e.g. add new or remove unnecessary fields until it fits your requirements. A template should be considered as a quick starting point.

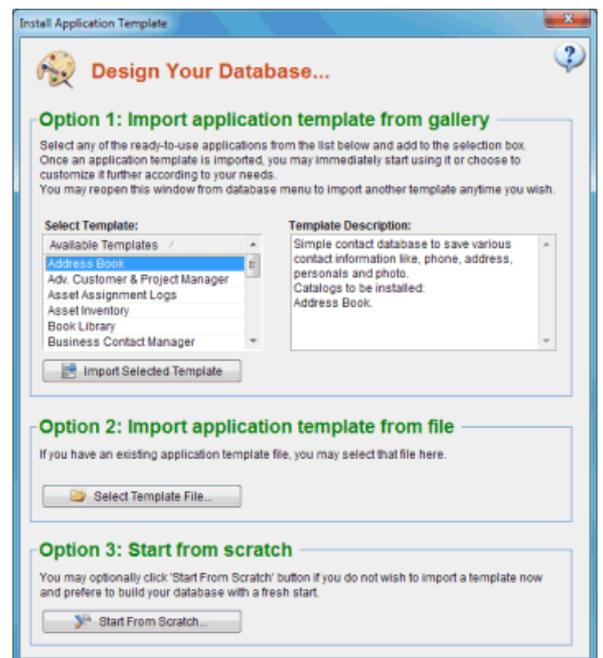
If none of the templates seems interesting to you, you may choose to start from scratch. Note that it is possible to build exactly the same functionality of an existing template by manually creating catalogs, fields and views manually.

What if I have the same catalogs already before importing a template?

SpeedBase version 5 and later versions will always create new catalogs when importing an application template. So existing catalogs prior to import (even if they were also imported from the same template) are never updated or overwritten.

Caution!

Do not import the same template twice hoping to update catalogs created by a previous import. You will end up



duplicating all catalogs.

How do I uninstall a template?

SpeedBase does not distinguish between database elements which are created during a template import and those which are created manually by your self. You can simply delete a catalog which was created during a template import to get rid of it. Make sure that you do not have valuable records in the catalogs you are about to delete.

Exporting/Importing Your Database Design

If you are looking for "importing data" see [importing records](#).

If you are looking for "exporting data" see [exporting records](#).

You may export your full database design elements, i.e. catalogs, fields, form designs, views, filters etc. to a file. The exported file is actually an application template which you may later import to another (preferably empty) database to reproduce exactly the same catalogs, fields and other design elements as your original database. The final result is apparently a copy of your database without any records or file attachments at all.

Caution! It is not possible to backup or move location of your data by using the template export/import features!

Sharing Application Templates with Others

An application template file only contains the structural information of your database design but does not contain any data or records. So it is safe to share your database design with other SpeedBase users in general. Beware however that an application template contains the titles you gave to catalogs, fields, views, reports etc. If you have used any sensitive text for naming such database construction elements, you may consider renaming them or excluding those catalogs having such names from export.

Exporting Application Template

- Click "Database" from main menu, click "Export Application Template". This will open the "Export Application" window.
- Leave the "include all catalogs" box checked unless you specifically want to exclude certain catalogs from export. (Beware that, a partial export is not recommended as it may result in missing elements depending on the relationships of your database.)
- Fill in the desired file/template name into title box. You may leave description box empty.
- Click "Export" button to save the design information to file.

Importing Application Template

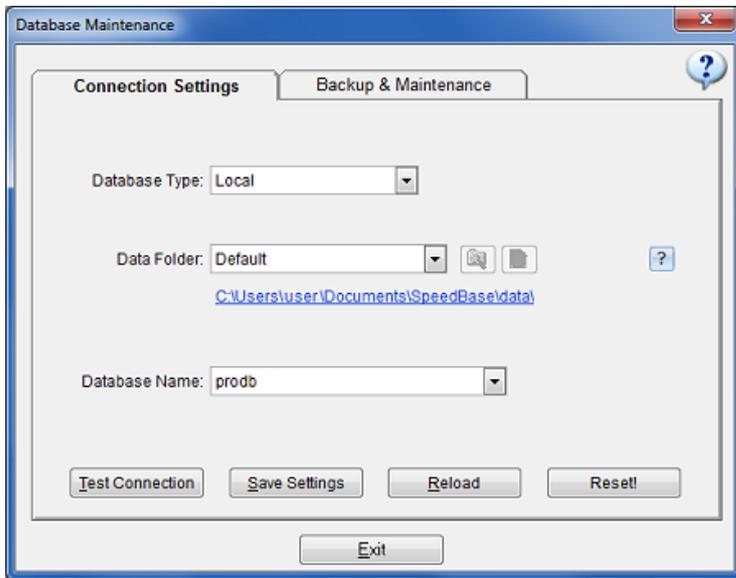
Caution! You are recommended to create a [database backup](#) before importing a template if your database contains data.

- Click "Database" from main menu, click "Import Application Template".
- Select the application template file you have previously exported.
- SpeedBase will import the design information from the template file.

Tip: If you are unhappy with the final result after import, you may choose to revert to the latest [database backup](#).

Connection Settings

Connection Settings window allows you to specify database connection information and apply maintenance if needed.



Changing Connection Information

Database Type: By default "local" is selected here and SpeedBase connects to its built-in, local database. Starting with version 4.0 and later, SpeedBase also provides you an alternative option to connect to your database on an SQL server. You may find detailed information about this connection type on [SQL Server](#) page.

Data Folder: The "**data folder**" is the folder where your database and all other related data files are saved. When default selections are used, the data folder is located inside your documents folder of your computer. The path of this folder is "MyDocuments\SpeedBase\data" and you may navigate to that folder by clicking the path link displayed right under the data folder selection box.

It is possible to move your data folder to a different location like a storage device or shared network folder, as long as you set the new location of the data folder here.

Changing the location of your data folder is explained on [this help page](#).

This folder is also the only folder you need to copy when you want to take a backup of your data manually.

Database Name: File name of the database. If you have created multiple database files, SpeedBase shows all available databases in this drop down list. You may switch to another database by selecting a different item from the list.

Test Connection: Click to test whether the connection succeeds before saving the changes.

Save Settings: Saves the current connection settings.

Reload: Ignores changes and reverts the settings to the last saved state.

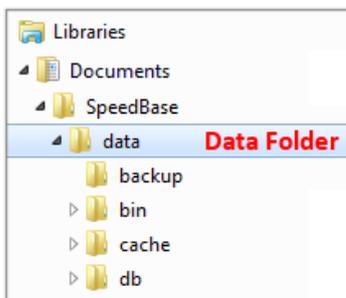
Reset: Sets the connection settings to the application defaults.

Caution!

Do not confuse the data folder "DATA" with the "DB" folder which is a subfolder inside the data folder and should NEVER be selected as data folder.

By default, the data folder is named as "DATA" by default, but it may have a different name if you have selected a different location on your disk in the past.

Whenever you need to adjust connection settings after a new installation, or, you want to copy / move / backup your data, make sure that you are dealing with the right folder as shown in the example image below.



Multiuser & Remote Connections

Connection Options

By default, SpeedBase connects to its built-in, file based database and does not require a server machine or installation of a server side software (with the exception of SQL server option). You may choose and go with any of the available connection options given below whichever works best for you.

Option 1: Single User on a PC

This is the default installation on a computer with Windows operating system for local use only.

Option 2: Local Network

You may connect to your database using a computer in your local network via a shared folder. SpeedBase should be installed on to the computer with Windows operating system for each user. Your database however might be located on any computer or storage device within your local network. Note that, you most likely have a local network already if you have multiple computers at home or in the same office that share the same internet connection. [Scroll down](#) to setup multiuser connection on a local network.

Advantages: No technicals skills, server management or internet connection is required. Very fast and responsive operation. Data safety is highest as your database is not open to internet.

Disadvantages: You may not connect to your database remotely outside from your local network.

Best for: Organisations who need database access on a single location, require fast operation, require an offline database system for security reasons or limited/without internet connection.

Option 3: Removable Drive

You may choose to keep your database on a external SSD or HDD drive. This is most useful when you want to use your database in more than one location like home and work place and/or you want to keep your data safe with you at all times. For this option, you must install SpeedBase on the desired machine on each location and move your data folder to your removable SSD or HDD drive (but NOT usb memory!) as explained [on this page](#).

Advantages: Similar advantages as previous options plus possibility to "plug and play" your database on multiple locations. Added privacy in case you want to use but not leave your database on a location.

Disadvantages: You need to carry your external drive with you. Reminders will not be displayed when your external drive is not available.

Best for: Accessing your database both from home and work place desktop computers interchangeably.

Option 4: VPN

You may connect to your database via a VPN connection. All you need is to setup a VPN server for this option ([scroll down](#) for details). SpeedBase should be installed on to the computer with Windows operating system of each user. Your connection is secured by the VPN software with password and encryption. An example of 3rd party software which is free for small networks is [Hamachi](#) 

Advantages: You may connect to your database from anywhere around the world via VPN connection and internet.

Disadvantages: You need an average level of technical skills to setup and connect via a VPN server.

Best for: Organisations who need remote access from any location via internet but do not prefer the SQL server option.

Option 5: SQL Server

You may choose to keep your database on your own, existing Microsoft SQL server in this option. More details and setup instructions are explained [on this page](#).

Advantages: You may connect to your database from anywhere around the world via internet. It is very easy to setup if you already have a running SQL server.

Disadvantages: You must have the required technical skills to install, configure and manage Microsoft SQL server on a server machine to go with this option. You may however get rid of most of the technical burden by subscribing to a hosted SQL server solution from a hosting company at the expense of reduced privacy.

Best for: Organisations who need remote access from any location, who already have a running (or capable of arranging) SQL server, who want to share data with any other sql server compatible software or web interface.

Option 6: Remote Desktop

You may connect to your database via a remote desktop software or device. You only need to install SpeedBase to the remote server machine running Windows operating system. Your data is secured by the remote desktop software with password and encryption.

Advantages: You may connect to your database from anywhere around the world via internet. No technical skills are required. No installation to client machines is required. Clients may use any device (e.g. mobiles, tablets) with any operating system as long as they support remote desktop connection.

Disadvantages: Connection via remote desktop services remotely is usually slowest. Opening more than one remote desktop connections to the same host computer requires purchase of additional licenses from Microsoft Windows server product family.

Best for: Organisations who already operate on a RDS (terminal services) based computing environment or when one or more clients must access the database from mobile devices and/or non-Windows operating systems.

Caution!

Do not attempt to share your database between multiple computers by using file sharing services like Google Drive, Dropbox, OneDrive etc. These services are based on synchronisation and do not technically create shared folders as in Windows operating system. Connection from multiple devices -even if at different times- via these type of services are NOT supported and will most likely cause serious damage to your database.

Key Points to Remember

- SpeedBase is a desktop database application. It is NOT an online database service, i.e. it is not possible to access your data from a web browser by simply opening a web site. This also means that, it is NOT possible for a random, malicious internet user to access to your data by taking advantage of a security hole on your web site.
- As many users as your license allows may concurrently connect to your database and work as a team.
- File sharing services like Dropbox, Google Drive etc. may NOT be used to connect to your database via internet as these services do not create a real shared folder like in Windows operating system.
- **For SQL Server users only:** Beware that SpeedBase does not recognize or manage pre-existing data on your SQL server created by other software or means. SpeedBase does manage data only created by itself. [More Information](#)
- **For multiuser access:** All data (i.e. records, design changes, layouts, views etc.) is saved to the same single location and all users will see/share the same data unless you create access restrictions. No data is stored on individual user computers.
- **For multiuser access with local network connection:** You do not need to install SpeedBase or any other software to your server. You actually do not need a server, however you need to employ either a computer or a storage device to keep your database. That device should be left up and running in order to accept connections from users.

How to Setup Multiuser Connection within a Local Network

SpeedBase can connect to your database thru a shared folder on your local area network. Follow the steps given below to allow multiple users to connect to your database:

1. Choose a computer, a storage device or your existing server in your local network on which your database file will reside. Try to choose a device which is up and running during whole working hours if not all time, as your database will only be available as long as it is up.
2. Create a shared folder. (See the end of this page for more information about creating shared folders)
3. Go back to the computer where your current database was created. Locate the data folder of your database. To find out the folder location, open "connection settings" window from "database" menu. The path is displayed under "Data Folder" title.
4. Click on the data folder link on connection settings window to browse that folder on Windows Explorer.
5. Right click the data folder, click "Copy". (Its location is "My Documents\SpeedBase\data" by default unless you changed before)
6. Browse to the shared folder, right click the shared folder and click "paste". This will create a copy of the data folder including your database and other data files.
7. Start SpeedBase, open "connection settings" window, click browse button under the title "Data Folder Location". Browse into the shared folder, select the copied version of your data folder, click OK.
8. On "connection settings" window, select your database file from the box titled "Database Name". Click "Save Settings". Click "Exit". SpeedBase will now connect to the database from the shared folder.
9. Repeat the last two steps on all other computers to allow them to connect to the same database under the shared folder.

Tip: If you cannot see any entry in the "database name" selection box, you have probably selected the wrong folder as "data folder". Try selecting either the parent or the subfolder of the currently selected folder.

Tip: Practically, you will be able to connect to your database as long as you are able to browse to the shared data folder via Windows Explorer.

Caution!

Make sure that the connection settings window of SpeedBase on each computer shows exactly the same data folder location and database name. You are strongly recommended to remove any older, unused, duplicate copy of your data folder from your network to ensure no computer gets connected to an old copy of your database by mistake in the future.

Testing the Connection

It is essential to make a test if the database is shared on all computers successfully.

- Login to SpeedBase from one of the client computers and make some change on a record in your database.

- Move between each of the client computers to check that your modification is visible on all of them. You may need to click "reload" button.

If the change is not visible try clicking the **reload** button on the current window.

If the change is still invisible, check connection settings to make sure that all computers are connected to the same database file on the same shared data folder.

How to Setup Multiuser Remote Connection using a Virtual Private Network (VPN)

There are a number of easy to use, easy to setup VPN products available on the internet. Once you setup the VPN software on both of your host and client machines, the VPN software will allow the user on client computer to browse shared folders of the host computer. You may then adjust [connection settings](#) on SpeedBase to connect via the shared folder.

In some cases you may need to adjust firewall settings on either machines to allow the VPN product to connect successfully. Consult the documentation of your VPN product or consider getting help from a network expert if needed.

Migration

This document explains how to move your database and optionally your SpeedBase installation to another storage location (or computer).

How to Change Data Folder Location

Long Story Short: Locate your data folder, copy and paste it to the new location, adjust connection settings on SpeedBase so it can connect to your database from the new location.

Follow the instructions given below to change the location of your data to another folder, storage device or computer.

AT CURRENT DATA LOCATION:

1. Locate your current data folder. If you do not know the current location of your data folder, start SpeedBase, click "Database" menu, select "Connection" to open connection settings. The path will be displayed under the label "Data Folder". Click to the data folder path, this will open an explorer window which displays your data folder (by default named as "**data**").
2. Return to SpeedBase main window, click "data" menu, select "exit" to terminate the software properly. If you have a multiuser (TeamWork) license, you should repeat this step on all other clients and make sure that no running instances of SpeedBase are connected to your database.
3. Right click to your data folder, select "copy" from the popup menu.
4. **Optional Step:** If you plan to move your data to another computer outside your local network, paste your data folder temporarily to any storage device or cloud you like, arrive to the new computer and continue with the next step.

AT TARGET DATA LOCATION:

5. Browse to the migration folder location where you want to permanently migrate your data. Paste the data folder there. Beware that this folder must be located inside either a HDD (hard disk drive) or SSD (solid state drive) type storage device.

For Multiuser (TeamWork) License: Make sure that the migration folder is a shared folder with both read and write permissions so that all other client computers with SpeedBase installations can connect via your local network.

Caution! Never use a virtual drive or online storage services (e.g. Google Drive, Dropbox etc.) or a USB Memory device for the purpose of connecting and working with your database. If you configure SpeedBase to connect your database from such media types, they will most likely cause irreparable damage to your database. You may however use such media types as backup device to transfer your data from one location to another.

Optional Step: If you also want to move your SpeedBase installation to another computer

- [Download](#), install and [register](#) SpeedBase on the new computer.

- Start SpeedBase. On first startup you will be suggested to create a new database, simply continue and allow it to complete this step.
6. Start SpeedBase, open connection settings window from database menu. Locate the **data folder** selection box and select "Custom". A folder browser window will open. Make sure to browse to the shared folder via the network path and select the folder you just copied ("data"). Select also your database file name below if necessary. Click "Test Connection" button to test the connection. Save changes.

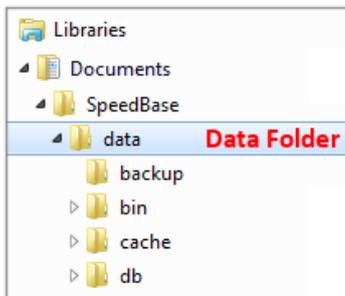
Caution for Multiuser (TeamWork) License Owners:

- If your data folder is located on a shared network drive, you must browse and select it thru the network devices (via the computer name). Do not directly select it from your hard drive even if the shared folder is located on your local computer.
- You must repeat the last step on all client computers with SpeedBase installation. To make sure that all computers are connected to the same data folder, you may make any small change to data and check each client machine to ensure the change is visible on all of them.

Recommendation:

If you are moving your data folder location within the same storage device, you are recommended to remove or rename the old data folder to prevent the possibility of connecting to the old, unused data folder copy in the future.

Data Folder Tree



Reminder: Beware that there is a subfolder named as "DB" inside data folder (which is named as "data" by default unless changed). All instructions given on this page are referring to "data folder" (not "db" folder).

SQL Server Connections

By default, SpeedBase connects to its built-in, file based database and does not require a server machine or installation of a server side software. Starting from version 4.0 and above, SpeedBase supports connection to a remote SQL server so you may keep your database on an SQL server. This option allows you to remotely connect to your SQL server from anywhere around the world via internet.

Before evaluating this option, make sure that you have reviewed all other available connection options given [on this page](#) as this option requires more technical skills to setup and maintain.

Requirements & Remarks

- This options is available in SpeedBase version 4.0 and later versions.
- This option is available only if your license covers "SQL Server Connectivity" component, otherwise you may need to purchase it separately.
- You, or an IT professional in your company must have the necessary skills and technical knowledge to install, configure, manage and backup your SQL server. You must have a running SQL server installation on a server machine which was configured to accept remote connections. You may however avoid most of this technical burden by subscribing to a hosted SQL server solution at the expense of the privacy.
- Microsoft SQL server 2005 and above editions are supported. The free version (Express edition) is also perfectly sufficient for most small business applications.

Caution!

SpeedBase does NOT install or manage SQL server software for you. It also does NOT backup your database on SQL server. You must have the required skills and technical knowledge to install, manage your SQL server and deploy an appropriate backup solution. Technical support is only provided for the issues that are related to SpeedBase product and does not cover sql server specific issues.

New Users: How to Start Using SpeedBase with a SQL Server Database?

If you are an existing customer and would like to migrate your already established SpeedBase database to SQL Server, please skip to the next section.

Beware that SpeedBase does not recognize or manage pre-existing data on your SQL server created by any other software or means. SpeedBase does manage data only created by itself. So if you have pre-existing data and would like to manage that data now with SpeedBase, you must first design a new database with SpeedBase from scratch and then import your pre-existing data to this new database.

After installation of SpeedBase, an empty, built-in database was created. You may either immediately migrate it to SQL server and start designing it there, or, design it first and migrate later. You may also continue developing it further after migration. The steps required are given below:

- Migrate your current database to SQL Server as described in the next section,
- Export your pre-existing data to either CSV or XLS format,
- Make sure that you have created the necessary fields and other design elements on your database so it can accept your pre-existing data,
- [Import](#) your data back to your SpeedBase database created on SQL server via SpeedBase import window.

How to Migrate Data on Your SpeedBase Database to a SQL Server Database?

Follow the steps given below to configure SpeedBase to use your SQL server to manage your database:

- Make sure that your SQL server is configured properly to accept remote connections.
- Open firewall settings of your server machine and make sure that the port numbers used by your SQL server are enabled.
- Open the management software of your SQL server and create a new database, also assign a user with full modification rights to this database. If necessary, consult documentation of your management software for these tasks.
Do not attempt to migrate to a pre-existing database with pre-existing data on SQL Server as this can have unpredictable consequences.
- Start SpeedBase, open "connection" window, select "SQL Server" from "database type" selection box.
- Enter connection information and then click "Test Connection" to verify that SpeedBase is able to connect to your SQL server. If connection fails, review the previous steps given above.
- Click "migrate" button to start the transferring of all your data to the SQL server. This may take some time depending on the size of your data. Once finished, the database on your SQL server will be an identical copy of your local database.
- Save changes. You are now connected to your SQL Server database. All changes you make from now on will be done on your SQL server.
- If you hold a multiuser license, go to each of other client computers and just adjust the connection settings so they all connect to your SQL server. Do NOT initiate the migration again.
- Make sure that you have read and followed advises in the next section about managing file attachments.

Caution! File attachments are NOT migrated to SQL Server. (read next section)

If for some reason you decide to redo the migration of your database, you must first delete the database created on your SQL server and then create a new database.

If for some reason you decide to return to your built-in database, you may do so by adjusting the connection settings. Beware that you may only return to the latest state of your local database just before the migration. It is NOT possible to migrate your current data in the opposite direction i.e. from SQL server database to the built-in database.

How to Manage File Attachments After Migrating to a SQL Server Database?

Note that, even after migrating to SQL server, existing file attachments remain in their current folder location and configuration of fields of file/image type does not change. The necessary steps to follow depends on the preferred configuration of file fields:

Save Method: Save As Link:

If you have one or more file fields configured to this option, file attachments will still be accessed from their original folder location after migration. Make sure that you have a backup solution for those files as backing up your SQL server database does not backup them.

Save Method: Copy To Local Data Folder:

If you have one or more file fields configured to this option, file attachments will still remain in and accessed from the data folder location after migration. So make sure that:

- Your data folder is located on a shared network drive,
- Connection settings on each of the user's machine was set to the same data folder location on a shared folder.
- You have a backup solution to periodically backup your data folder.

[This help page](#) describes how to move your data folder to a new location.

Save Method: Copy To Remote Database:

This option is only enabled when you are connected to a SQL server database.

If you have one or more file fields configured to this option, file attachments are saved to your SQL server database, so backing up your SQL server database will also backup them as well.

Advanced Users: How to Share Your Existing Data on Your SQL Server With 3rd Party Software or Server-Side Scripts?

It's technically possible for 3rd party software to read and modify **-data on user tables only-** in a SpeedBase database on SQL Server. However extreme caution should be exercised to avoid modification of system tables and database structure.

Caution!

The database design of the tables and fields created by SpeedBase should never ever be modified by any 3rd party software or script. If you need to modify a user table, add/remove fields, change field properties etc. you must do it using Speedbase application interface only.

The system tables of SpeedBase (tables which are used for configuration) should never be modified by other software, neither at design level nor data level. Doing so may easily result in unpredictable issues, loss of data or corrupted database. No technical support will be provided in such cases.

If required, access and modification of data on USER tables by 3rd party software should be done by executing simple SELECT/CREATE/UPDATE/DELETE queries only.

A table is a user table if it was created as a catalog via SpeedBase user interface.

System Preferences

System preferences are adjusted by the administrator and they are effective for all SpeedBase users. As most of these settings are stored in your database, they will change if you connect to a different database or you create a new database.

Open "**Database**" from main menu, select "**Preferences**" and then click to "System Preferences" item.

Display

Data Form

Stick Field Labels: On [record detail windows](#) the titles of fields can either be left aligned with some space to the field box or stuck to the left side of the field box. Choose the style you prefer. You may need to open [form designer window](#) for each of your catalogs to rearrange the label positions after changing the alignment.

Date & Time

Date Format: Select the date display format you wish to use.
Date Order: Select the preferred order of Day, Month and Year.
First Day of Week: Select the first day of week on your locale.
Time Format: Select the time display format you wish to use.

Data Format

Copy Format

You may customize the formatting of the data when the "Copy" button is clicked from the main toolbar.

Header Separator: Select a special character or type a custom character which will be inserted between field titles.

Data (Field) Separator: Select a special character or type a custom character which will be inserted between successive data fields.

Record Separator: Select a special character or type a custom character which will be inserted between successive records.

Include Field Titles: If checked, the field titles are also added to the copied record(s).

Skip Empty Fields: If checked, empty fields do not create an empty line or title in the copied data.

Tip: If you want a tabular format, where field titles are on top and each row represents a record, check "include field titles", uncheck "skip empty fields", select field/header separator as "tab" and record separator as "new line".

Tip: If you want each single line to have a field title and field value, check "include field titles", select field separator as "new line", record separator as "double line" and type a colon into the header separator box.

Text Representations

Checked Box: Enter the corresponding text value to be used on reports when a checkbox is left checked.

Unchecked Box: Enter the corresponding text value to be used on reports when a checkbox is left unchecked.

General Button: You may overwrite the name used for the general button which is displayed on record windows.

Performance

Max. records per page: Select the maximum number of records which are displayed on each page of a [record list window](#). If you wish to list more records on a page you may increase this number. If the time needed to list the records becomes considerably high, you may decrease it.

Max. items in guide box: When you type into a field of type relationship, SpeedBase displays a list box to suggest a list of records which begin with the typed text, if this list loads too slowly you may decrease the maximum number.

Enable Chain Recalculation: Automatically recalculates all affected computed fields when some data is changed in your database. This feature is essential to keep computed fields display accurate results and should not be disabled.

Reduce Idle Time Network Traffic: If checked SpeedBase significantly reduces the system generated database traffic during idle state. This will however delay arrival of instant messages and may affect performance. This option should be checked only if you are connecting via a VPN interface with limited traffic quota.

Create Event Log: If enabled, SpeedBase creates logs for major data modification events. Enabling detailed event log option will also create separate logs for each record modification event. Note that, event logging may decrease the application performance.

Check for system events: SpeedBase periodically checks system events to take the necessary action whenever an instant message is received or a reminder needs to be displayed. Setting this interval to a large value will impact proper operation of the reminder feature. The recommended value is 3 sec.

Barcode Reader

You may configure SpeedBase to automatically find and open the record whose barcode is read by a barcode scanning device. To do this, create a small text field in the required catalog and save barcode text with the records. Then, specify the catalog and the field carrying barcode data on this window. Whenever you want to use your barcode scanner, just click the "Barcode" button from the main toolbar and scan a barcode. SpeedBase will automatically search for the barcode and display the right record.

User Preferences

User preferences are dedicated settings for each SpeedBase user. Every user can save in this window his/her own preferences.

Open "**Database**" from main menu, select "**Preferences**" and then click to "My Preferences" item.

Appearance

Display

Toolbar Style: Select the preferred style of the main toolbar.

Font & Colors

Use Custom Fonts: You may select a custom font and size to display data. In some locales, selecting a different font might help the characters to be displayed correctly.

Customize Colors and Background: Check this box to use custom colors on application interface. You may also apply soft background pictures to record windows to make SpeedBase more colorful. Unchecking this box will revert to the defaults. **Save settings as default for all users:** Check this box to apply select font and color settings to be applied to all SpeedBase users. This feature is applicable for multiuser licenses.

Interface

Open each catalog in separate tabs: When you click a catalog folder from catalog tree, the list of records of that catalog will be displayed. If you check this box, clicking each distinct catalog will open a new tab on the main window.

Save recent records history: If checked (default), a list of shortcuts for the most recently accessed records will be displayed under "Recent" menu.

Show context sensitive tips: A tip window is displayed when a user follows certain actions to speed up the learning curve of the new users.

Mouse sensitive tip buttons: If checked, a tip balloon is displayed whenever your mouse moves thru a tip icon or help button. Uncheck this box if you find this behaviour annoying, in this case the tips are shown only if you click to the tip icons.

Minimize to system tray: Hides SpeedBase window to system tray if you click the minimize button. You may restore the window by clicking the SpeedBase icon on system tray.

Continue running in the background if closed: If you close the main window by clicking the X button, SpeedBase will be minimized to system tray by default and stays running. You may uncheck this box to terminate the application completely, but note that, SpeedBase needs to be kept running in order to display the reminders or instant messages on time.

SpeedBase requires very little processing power when kept running on system tray.

Default Catalog: Select the catalog which will automatically open when you start SpeedBase.

Message Sounds: Select how much message sounds should be created.

Default Snooze Time: Select the time in minutes at which a reminder is postponed when the reminder window is closed without dismissing.

Startup

Remember my login name: If checked, the login window will remember the last user name that is logged in, when SpeedBase is started.

Remember my password: If checked, you will automatically be logged in on startup using the last used user name and password. So the login screen is bypassed. You may prefer this setting if you are the only user of the computer and/or the data on your database is not confidential from other people who share the same computer.

Start SpeedBase when Windows starts: This should be left checked to ensure that SpeedBase is kept running in order allow the reminders and instant messages are displayed timely.

Backup & Restore

Snapshot Backups

Tip: If you want to move your whole data to another computer see the page [Changing Location of Data](#)

Caution! This help document applies to the current version of SpeedBase (version 5.0.0 and later). If you are using version 4 or older, see [Backup Functionality For Version 4](#)

Caution!

By default, SpeedBase is configured to use the built-in, local database after installation.

If you have modified the database type setting later to use a Microsoft SQL Server, you should read the help page [Back](#)

[Up SQL Server](#) instead.

If you are not sure which database type is in use, click "Database" menu from main window, select "Connection".

What is a Snapshot Backup? What is its Purpose?

A snapshot backup is nothing but a file copy of your database which is created periodically in the background.

By default, SpeedBase regularly creates snapshot backups of your master database. You may adjust the backup interval as well as clean up of older backups but this feature cannot be turned off.

The snapshot backups are very useful to go back (roll back) to an older state of your database in time, in case a significant amount of data was lost because of user action by mistake or you just made some experimental changes to the database structure which you wish to undo.

Note that, this feature is not available for SQL Server connection.

Caution!

Snapshot backups do not contain file attachments. You may not use this feature to back up or restore file attachments.

Caution!

Beware that the snapshot backup system is NOT meant to protect your data from disasters like hard drive failure, viruses or physical threats like theft or fire. Backups are created in your data folder and they are still vulnerable to those threats just like your master database. Also it will NOT help you to restore your database after reinstalling Windows or installing SpeedBase to a new computer.

For actual protection, you must enable the [cloud backup feature](#)

Snapshot Backup Configuration

Snapshot backup feature comes as enabled after installing version 5 or later and cannot be turned off. You may however adjust a few options of this feature.

To configure snapshot backup settings, click "Database" from main menu, select "Backup & Restore".

Backup Interval

You may set a backup interval between once a week to as short as 15 minutes. The default and recommended setting is once a day. You may choose a shorter interval for more sensitive operations however, keep in mind that this may cause creation of large amount of files quickly, e.g. a 5 MB database with 15 min. setting would consume almost 15 GB disk space after a month.

Backup Clean Up

When set to "progressive" (default) SpeedBase deletes aging backup files selectively to keep files with longer intervals between them as they age.

Backup & Restore

How to Take a Snapshot Backup Manually?

Although SpeedBase takes regular snapshot backups in the background, there might be cases when you need to back up the very last state of your database just before making some critical changes on your database or importing a large amount of data. To do this, click "Database" from main menu, select "Backup & Restore", click "Backup Now" button.

How to Restore from a Snapshot Backup?

Click "Database" from main menu, select "Backup & Restore" to open Backup & Restore window. Select the backup file you wish to restore from the list and click "Restore" button. Beware that, once you restore from a backup, you agree to lose all data created/updated between the creation time of backup and now.

Tip: If the backup file you restore does not contain the data you expected to see, you may need to select and restore a much earlier backup file.

Caution!

By default, SpeedBase is configured to use the built-in, local database after installation.

If you have modified the database type setting later to use a Microsoft SQL Server, you should read the help page [Back Up SQL Server](#) instead.

If you are not sure which database type is in use, click "Database" menu from main window, select "Connection".

What is Cloud Backup? What is its Purpose?

Cloud backup is an automatic background process which creates and regularly updates a copy of your data folder in a specified folder. Activating this feature enables recovery of your complete data from almost all types of disasters such as loss of data by user mistake, hard drive failure, malicious software attacks, theft, fire etc.

In order to use this feature, the target folder which gets the backup copy must be managed by a file synchronization service with versioning support. So you must install a 3rd party software provided by a synchronization service (e.g. Google Drive, Dropbox, Onedrive etc.) before you can activate this feature.

Caution!

Once configured and running normally, users are recommended to monitor the backed up data at occasional times to ensure they are recently created. If there is an issue related to e.g. folder permissions, modified folder location, antivirus interference, internet connection, cloud backup software, the backup process might not be working and you may not notice it until you need them.

Caution!

Never try placing your actual data folder into a cloud synchronization folder. This may look simple and straightforward but because of the way how synchronization process works, it is very likely that your database will get damaged.

Are File Attachments Covered In Cloud Backup?

If all file fields were configured to save files to "local data folder", they will be backed up together with your data folder. If a file field saves only shortcuts, then those files will not be part of the backup and not covered. If you have file fields which were set to save shortcut, you may consider keeping the files inside your synch folder or arrange an additional backup method to back them up from their original folder location.

Cloud Backup Configuration

Cloud backup feature comes as disabled after installation. You must first install a 3rd party cloud synchronization software (e.g. Google Drive, Dropbox, Onedrive etc.) and then adjust cloud backup settings before it can be activated. It is essential that the synch software you choose provides versioning support else you will not be protected against malicious software attacks.

To adjust cloud backup settings,

- Click "**Database**" from main menu, select "**Backup & Restore**"
- Backup & Restore window will open, click "Cloud Backup" tab
- Check the box named "Enable automatic backup to a synchronized folder"
- Click "**select folder**" on the right of "**Backup Target**", select the folder which is dedicated to your synchronization software. You may select here either the root synch folder or any subfolder of it. (SpeedBase will create its own backup folder there)
- Click the button "Save Settings".

When you setup the cloud backup for the first time, SpeedBase will copy all files in your data folder to a dedicated folder inside the specified synch folder. A periodic backup task will also be created so the backup copy can be updated on a daily basis. This task is executed in the background silently but you may check the result of the latest task execution from the scheduled task window under database menu.

How to Restore From Cloud Backup?

Before restoring your data folder from the cloud backup copy, make sure that the synchronization software you have used to backup is installed and the synch folder is synchronized.

- Click "**Database**" from main menu, select "**Backup & Restore**".
- Backup & Restore window will open, click "Cloud Backup" tab.
- Click "**select source folder**" on the right of "**Backup Source**", select the folder which is dedicated to your synchronization software.
- Select preferred restore target, this can be either your current data folder or a new, empty folder somewhere else.

At this point you may either choose to overwrite all files in your data folder or create a new data folder in a new location on your hard drive. If you installed everything new and there is no data in your data folder, you may choose current

folder. If you are unsure, it is better to create a new data folder and keep the current one untouched just in case you need.

- If you choose to create a new data folder, you must also select the target folder in which the new data folder should be created.
- Click "Restore" button.

SpeedBase will copy the backup copy found inside the synchronized folder to the data folder you specified. Once all files were copied, it will also update connection settings and then attempt to connect to the database file restored from backup.

Caution!

Depending on the issue which caused you to decide to restore from cloud backup, the synch software might have executed another synchronization round "after" the issue. If that happens, current data on cloud will possibly be useless. If that happens, consult documentation of your synch service to download an older version of synched data.

Back Up & Restore SQL Server Database

Caution!

This help section applies to Microsoft SQL Server connection only! By default, SpeedBase is configured to use a local database after installation.

If you did not modified the database type setting, you should read the help pages [Snapshot Backups](#) and [Cloud Backups](#) instead.

If you are not sure which database type is in use, click "Database" menu from main window, select "Connection".

CAUTION!

SpeedBase does NOT provide any functionality to automatically back up your SQL Server database. You must use your own preferred method to safely and regularly back up your SQL Server database. We recommend you also to test the backups to make sure that they are properly created and can be restored without any issues in case you need them.

What Data Do I Need to Back Up?

For an SQL Server connection, there are 2 separate type of objects which you must make sure that they are backed up regularly to avoid any possible disaster like hard drive failure, incorrect data modification by user mistake, virus damage, physical threats like theft, fire etc.

1. Your database on SQL Server
2. File Attachments

How to Back Up / Restore Your SQL Server Database?

Backing up an SQL Server database and restoring it is beyond the scope of this help documentation. For further information, please consult the documentation of your SQL server or backup software.

How to Back Up File Attachments?

Note that, SpeedBase has multiple different methods to save file attachments. Backing up your SQL server database does NOT mean that file attachments are also backed up. You should consider the following cases for file attachments and adjust your backup procedure accordingly:

- If a field of file/image data type was set to "copy to remote database", files attached to that field are always written to your SQL Server database. So backing up your SQL Server database will also back up these files as well.
- If a field of file/image data type was set to "copy to local data folder", files attached to that field are always copied into the data folder. You must back up the "data folder" in order to back up file attachments.

CAUTION!

If you have a multiuser license and client computers were not set up to use the same current data folder located on a shared network folder, it is possible that individual users have saved their file attachments to a local folder on their

own machine. If you have found out that this happened, you must include data folders on each client machine in your backup plan.

- If a field of file/image data type was set to "save as shortcut", files attached to that field are always accessed from their original location. In that case, you must make sure that each of these files are backed up from their original location. You may consider keeping attached files in a single dedicated folder tree to make backup process easier.

If you have a number of file fields with mixed setup, make sure that they are all backed up for each cases described above.

Security

Login Window

This feature is available after registration of the product.

SpeedBase can optionally ask for username and password on startup. This feature is also automatically activated when the product is registered.

If you have newly registered the software and see the login window for the first time, you may log on by just leaving the username as "admin" and password box empty. This feature should be considered as a basic protection to keep away curious people who have access to your computer.

How to Activate or Disable Login Step

Open "Database" menu, select "Preferences", click "Startup" section.

For Single User License: Uncheck "require password on startup",

For Multi-User License: Check both "remember my login name" and "remember my password" boxes, SpeedBase will skip login window and open your database without asking you for username and password at startup.

Setting Password

You may change your password by opening "Users" menu and selecting "Change Login Password". SpeedBase will ask for your current password to proceed. If you haven't set a password before, leave the input box for old password empty.

How Secure is my Data?

Since your database is not hosted on a publicly accessible server, there is no way for internet users to access your data. Your database is as secure as any file on your desktop. You may prefer to disable login window if you are the sole user of your computer and you already use a password protected user account on Windows with a screensaver.

Note that, password protection of SpeedBase should be considered as a basic security precaution to keep your data away from curious people who you allow to use your computer and work on your windows account. For added security, you are recommended to keep your Windows user account private and create a separate Windows account for other people who you allow to use your computer.

DISCLAIMER!

For multiuser (Teamwork) license:

Beware that, security management in SpeedBase is designed mostly for preventing accidental data loss, to keep the desired part of the information away from curious people around and from your own users who simply do not need it. This feature should not be considered as a high level of protection against your own users. Do not consider it as a way to hide sensitive information from your own users.

Record Protection

Please read the help topic: [Protecting Records](#)

Multiuser

Data Access Control

SpeedBase has two layers of data access management.

Specify Default Access Permissions For All Information Objects

On the first layer, users are grouped into several security roles (i.e. user groups) and every role has its own set of permissions where you may easily control read/write permissions on database level.

For each group of users which work in the same team/department, a different security role (such as 'support team', 'trainee' etc.) is created, so they share the same permissions when accessing various information in your database. So simply assigning an existing security role to a new user is sufficient to apply previously defined access rights to him/her.

See [User Groups](#) for more info.

Create Access Right Exceptions For Catalogs / Fields / Users

In case you need a more detailed access control, you may define further access right exceptions on the second layer, which overwrite the default permissions inherited from the first layer.

See [Advanced Access Rights Manager](#) for more info.

SpeedBase has the following security control features:

- Controlling detailed permissions for records like displaying, updating, activating, exporting etc...
- Applying default access permissions in usergroup level
- Applying extended access rights for the owners of records
- Creating access right exceptions for the selected user
- Creating access right exceptions for the selected catalog
- Creating access right exceptions for the selected field
- Enabling/disabling access right definitions

Data Security

For default installation, SpeedBase uses its integrated (local) database. Your database is NOT hosted on a public server so it is never accessible from the internet and all your data is saved on your own local computer/network. That means, your database is as safe as any other file on your computer against any malicious internet user.

DISCLAIMER!

For multiuser (Teamwork) licenses:

Beware that, access control management in SpeedBase is designed mostly for preventing accidental data loss, to keep the desired part of the information away from curious people around and from your own users who simply do not need it. This feature should not be considered as a high level of protection against your own users. Do not consider it as a way to hide sensitive information from your own users.

If you want to save sensitive information like passwords, you are recommended to use encryption feature.

User Management

When running SpeedBase on a multiuser environment (TeamWork edition), you may create as much user accounts as your license allows. You may then apply various access control settings to the users on either user level, user group level or both.



Creating a New User

Click **Users** from main menu, select **User Accounts**. This will open a window where you will be able to manage users as well as user groups.

Click **"New User"** button, type the login name, full name and password of the new user respectively. Click **"Create User"** to add the new user to existing user list. You may also click **"User Groups"** tab of the window and add this user to an existing [user group](#).

If SpeedBase does not allow you to create a new user, you have probably reached the license limit for maximum number of users. Note that your license will determine how many active user accounts you may maintain. You may buy a new user license or deactivate an unused user account in this case.

Adding a User To a User Group

If you plan to apply access right restrictions to the users, it is highly recommended to create at least one more [user group](#) other than the existing administrators group. You will then have the ease of applying the same restrictions to all users of the new user group.

To add an existing user to a user group, select the user account in the user configuration window, click **"modify"**, click the **"user groups"** tab on the **"user properties"** window, click **"Add"** button and select the usergroup.

You may add a user to more than one user group. In this case the user will gain all the extra rights from the second user group. Note that, the rights of a user is never decreases if you add him/her to another user group, they are only elevated.

Creating Access Right Exceptions For a User

The access rights of a user is determined by the security settings of the user group the user belongs to. However, you may still create exceptions which will overwrite the rights gained/lost thru user group settings.

To do this, select the user account from the user configuration window, click **"access rights"** button and create the exception you need using **"access rights manager"**. See ["Advanced Access Rights Manager"](#) for more info.

Activating / Deactivating a User

You may prefer to deactivate a user account instead of deleting it. Account credentials of inactive users cannot be used to login SpeedBase.

To change the activity status of a user, select the user account in the user configuration window, click "**modify**", (un)check the checkbox for activity status, click "**save**" button.

Deleting an Existing User

If you wish to delete a user account completely, select the user account in the user configuration window, click "**delete user**" button. Deleting a user also deletes all custom views, filters etc. created by that user. You cannot undo this action.

Warning: If you have created access permissions to the record owners as described in "[Applying Owner Rights](#)", and later delete a user, who is assigned as the owner of some records, these records will be set to an unassigned status, and may become invisible to all users depending on your security settings. To prevent this to happen, consider deactivating the user instead of deleting it. If you lose access to some records due to this reason, deactivate the access right directive about ownership temporarily in order to display the records. Then you can assign a new user to these records which show an empty record owner.

User Group Management

This feature is available on a multiuser environment (TeamWork edition).

User groups are used to create a certain level of access rights. It is much easier to manage security roles than managing access rights of each user separately.

Example: Suppose that you have support team in your office but you do not want them to access information about sales or other sensitive information which they do not need for their job. But you wish them to have read-only access to customer information and read/write access to support cases information. Create a user group dedicated to support team and adjust the access permissions for the user group only. Finally add all team members to this group to apply the group rights to the support team.

In case a new member has joined the support team, it is sufficient to add him/her to the group to apply the same rights.

If you modify the access permissions of a user group, all users under that user group are affected at the same time.



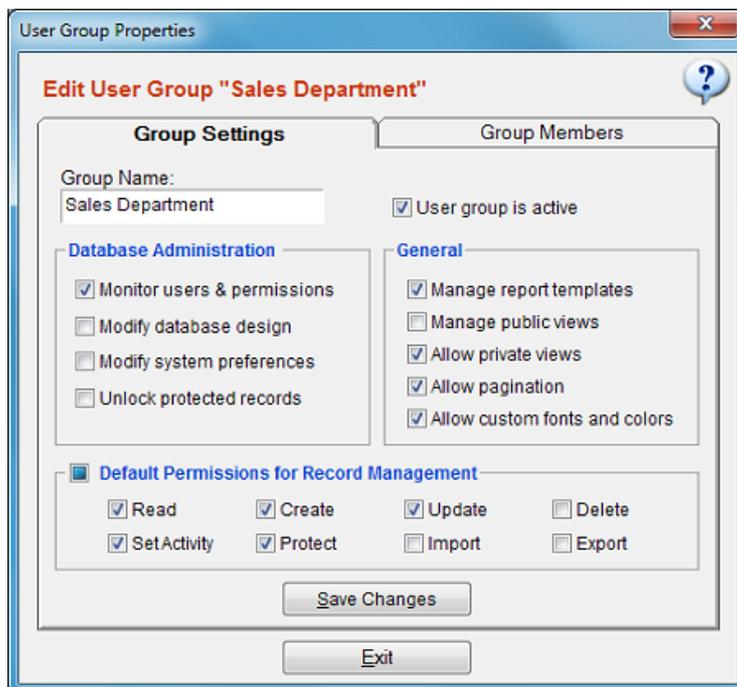
Creating / Modifying User Groups

Click "**Users**" from main menu, select "**User Groups**". This will open a window where you will be able to manage user groups.

Click "**Create New**" button, type a "**group name**", check the permissions you wish to grant to this user group.

Tips:

- You may create any number of user groups.
- You cannot grant the right to modify security settings / access rights to a user group you have created. This right is reserved for the builtin "**system administrators**" group only.
- It is possible to restrict the access rights of "**system administrators**" group. This is allowed intentionally to easily observe the effect of an access rights arrangement.



Monitor Users & Permissions: Allows the users of the group to monitor user group permissions and access rights.
Modify Database Design: Allows the group users to modify database connection settings.
Modify System Preferences: Allows the group users to modify system preferences.
Unlock Protected Records: Allows the group users to remove protection from a record which is set to the protected status.

Manage Report Templates: Allows to create/modify/delete custom report templates.
Manage Public Views: Allows the group users to create/modify/delete all [public views](#) that are shared by all users.
Allow Private Views: Allows the group users to create [custom views](#) dedicated to their user profile. (recommended)
Allow Pagination: Enables page navigation tools when the number of records on current view is more than the page limit.
Allow Custom Font and Colors: Allows the users to customize the data display font, color and style on their own screen. (recommended).

Default Permissions For Record Management: Sets the default permissions of the group users to access information in your database. These permissions are valid for all catalogs and field of the database. You can always create exceptions to overwrite them on catalog, field or user level.

Tip: If you plan to grant full access to most of the information in your database, check all the default permissions and create access right exceptions for the catalogs you wish to restrict. On the other hand, if you plan to only grant access to a very limited amount of information in your database, uncheck all the default permissions and create access right exceptions for the catalogs you wish to grant access.

DISCLAIMER!

For multiuser (Teamwork) licenses:

Beware that, access control management in SpeedBase is designed mostly for preventing accidental data loss, to keep the desired part of the information away from curious people around and from your own users who simply do not need it. This feature should not be considered as a high level of protection against your own users. Do not consider it as a way to hide sensitive information from your own users.

If you want to save sensitive information like passwords, you are recommended to use encryption feature.

Adding/Removing a User To/From a User Group

Open user groups window, select the user group you wish to modify, click **"modify"** button, click the **"group members"** tab on the **"user group properties"** window. To add a user, click **"add"** button and select the user. To remove a user select the user from member list and click **"remove"** button.

If you add a user to a second user group, the user rights are elevated to gain the extra rights coming from the second group.

If you remove a user from a user group, the user loses all added rights he/she gained from that user group.

Creating Access Right Exceptions For a User Group

The (data) access rights of the group users are determined by the group settings. However, you may still create exceptions which will overwrite the rights gained/lost thru group settings.

To do this, select the user group from the user group list, click "**access rights**" button and create the exception you need using "**access rights manager**".

See "[Advanced Access Rights Manager](#)" for more info.

Deactivating a User Group

You may deactivate a user group by unchecking the "**user group is active**" checkbox. This will disable all rights gained from this user group.

Deleting a User Group

To delete a user group, select the user group from the user group list, click "**delete group**" button.

Deleting the the user group "**system administrators**" is not allowed.

Advanced Access Rights Management

You are recommended to read [Data Access Control](#) before this section.

This feature allows you to create access rights exceptions for user / catalog / field level. It is possible to grant a user group or a single user access for certain operations for a catalog while restricting the other.

To open **access rights management window**, click **users** from main menu and select **access rights manager**. This window displays a list of existing access right directives.

Creating / Modifying Access Right Directives

Click "**Create New**" button. This will open the "**access right settings window**".

The screenshot shows a dialog box titled "Create Access Right" with a subtitle "Create New Access Right". It features several dropdown menus: "Authority" (set to "User Group"), "User Group" (set to "Sales Department"), "Apply To" (set to "Catalog"), and "Select Catalog" (set to "Orders"). There are two checkboxes: "Is Active" (checked) and "Apply to record owners only" (unchecked). Below these are sections for "Access Permissions For Record Management" with radio buttons for "Deny" and "Grant" for "Read", "Create", "Update", "Delete", "Print", "Activity", "Protection", "Import", and "Export". A "GRANT/DENY ALL" button is present. At the bottom are "Save & Exit" and "Cancel" buttons.

Authority: Select the authority to which you wish to apply this access right setting. This may be either a selected **user group** or a selected **user**

Apply To: Select **catalog** or **field**. If you select catalog, the settings will be valid for records of the selected catalog. If you select field, the settings will only affect the selected field of the catalog it belongs to.

Select Catalog/Field: Select the catalog or field to apply the access right setting.

Is Active: You may enable / disable this directive using this checkbox.

Apply To Record Owners Only: If checked, the settings you define will be applied only if a user is the owner of the

record. This option is available only if the selected catalog has an owner tracking field. See [Applying Owner Rights](#) for more info.

Access Permissions For Record Management

Read: Allow to display the content of record / field

Create: Allow to create new records in this catalog

Update: Allow to make changes on the content of records in this catalog

Delete: Allow to delete records in this catalog

Activity: Allow to activate/deactivate records in this catalog

Protection: Allow to set a record as protected in this catalog

Import: Allow to import records from a file into this catalog

Export: Allow to export records to a file from this catalog

DISCLAIMER!

For multiuser (Teamwork) license:

Beware that, security management in SpeedBase is designed mostly for preventing accidental data loss, to keep the desired part of the information away from curious people around and from your own users who simply do not need it. This feature should not be considered as a high level of protection against your own users. Do not consider it as a way to hide sensitive information from your own users.

Applying Extended Owner Rights

On a multiuser environment (Network edition), it is possible to restrict a SpeedBase user to only view (or modify) the records which are assigned to him/her. This feature helps to minimize accidental modification of information in your database and also makes sure that a certain segment of information can only be modified by the authorized personnel.

This feature can easily be utilized by simply adding the system field "record owner" to your record form which allows you to set one of the users as the owner of the currently displayed record. The users also can change the ownership to other users, which makes it very convenient for example to pass a certain task to another user.

The "record owner" field is a system field created by SB automatically which is available for all catalogs. Use the [Form Designer](#) to add this field onto your record form.

Modify Access Right

Modify Access Right

Authority: User Group User Group: Sales Department

Apply To: Catalog

Select Catalog: Orders

Is Active

Apply to record owners only

Access Permissions For Record Management:

Read: <input type="radio"/> Deny <input checked="" type="radio"/> Grant	Activity: <input type="radio"/> Deny <input checked="" type="radio"/> Grant
Create: <input type="radio"/> Deny <input checked="" type="radio"/> Grant	Protection: <input type="radio"/> Deny <input checked="" type="radio"/> Grant
Update: <input type="radio"/> Deny <input checked="" type="radio"/> Grant	Import: <input type="radio"/> Deny <input checked="" type="radio"/> Grant
Delete: <input type="radio"/> Deny <input checked="" type="radio"/> Grant	Export: <input type="radio"/> Deny <input checked="" type="radio"/> Grant
Print: <input type="radio"/> Deny <input checked="" type="radio"/> Grant	

GRANT/DENY ALL

Save & Exit Cancel

How to Grant Extended Rights to the Owners?

You need to create two access rights directive, one to restrict access by default and another one to grant access to the record owners.

Example: Suppose that you wish that the members of your **sale team** are allowed to monitor all of the **order** records but every member is allowed to modify only the orders of his/her own. This example assumes that you have a catalog named as "Orders".

- Create a user group and name it as "**Sale Team**". Grant all default permissions for record management.
- Add the users of the sale team to the this user group.
- Open [Advanced Access Rights](#) window.
- Click "Create New" button, select "Sale Team" for user group, select "Orders" for the catalog, check "is active", **unchecked** "apply to record owners", grant only "**read**" and "**create**" permissions and deny all others. Save the directive.
This will become the default behavior to all users.
- Create a second directive. Select the same user group and catalog as before. But this time, make sure that you have **checked** the "apply to record owners" checkbox. Grant also all permissions for this directive and save. This will create an exception for the currently logged on user and the user will have full access to the records which are assigned to him/her only.

The members of the sale team can now display all the order records but every one can only make changes to the records he/she owns. (If a user assigns a different user to a record he/she loses the modify right for that record.)

Knowledge Base

Registering SpeedBase

The steps starting from the first install to getting your license are summarized below:

- Download the trial edition of SpeedBase Professional from [download page](#) and install it to your computer.
- Evaluate it up to 30 days. You may get help from online help pages or [contact support](#) whenever you need assistance.
- If you find the software useful, visit the [product page](#) to determine which product is best for you.
- Continue to [order page](#) and place your order.
- You will receive an email containing your license code and information within approx. 24 hours.
- Click **Help** from main menu of SpeedBase and select "**Register SpeedBase**", this will open the registration window,
- Copy and paste your license code into registration window. Click "**Complete Registration**" button. Restart SpeedBase.

Congratulations! You are now a registered user and trial limitations has been removed.

Your SpeedBase license is valid for lifetime, there are no subscriptions or monthly payments.

If you have to reinstall your operating system or move to another computer, you may use the same license code to register the software again.

If you haven't received your registration email...

If you still haven't received your registration information after 2 days of your order, please make sure to check your spam folder in your mail program or webmail. If you cannot find the registration message do not wait longer and contact us thru [license retrieval page](#), so we can take immediate action to resubmit your key.

If you are moving to a new computer...

Enter your license code to the registration window of SpeedBase as described above. If you have lost your license code [click here](#) to request your license code or contact support.

See also [this document](#) for details about transferring your data.

Installation

- Download SpeedBase installer from [download page](#)
- Double click the downloaded executable and follow the instructions. (You may need to unzip first if you downloaded in ZIP format)

Switching to Multiuser (TeamWork) Edition

If you just got your multiuser license, you will most probably want to move your current data folder location to a shared location where all other client machines will connect.

- Follow the instructions [given here](#) to change your data location.
- Install SpeedBase to each client machines. On first startup it will attempt to create a new database, allow it to complete this step.
- Complete [registration](#) using your existing license key.
- Open connection settings window from database menu. Click the drop down box and set the data folder preference as "custom". A folder browser window will open. Navigate to the data folder location and select the data folder. Select also your database file name. Click "test connection" button to test the connection. Save changes.
- Repeat the last step on all client computers.

New Client Installation for Multiuser (TeamWork) Edition

- [Download](#) and install SpeedBase to the new computer.
- On first startup it will attempt to create a new database, allow it to complete this step.
- Complete [registration](#) using your existing license key.
- Open connection settings window from database menu. Click the drop down box and set the data folder preference as "custom". A folder browser window will open. Navigate to the data folder location and select the data folder. Select also your database file name. Click "test connection" button to test the connection. Save changes.

Uninstallation

To prevent accidental damage to your existing data, the uninstaller never deletes your data folder and database(s) you have created during your usage of SpeedBase. If you want also destroy your database and related data files, you may manually delete your data folder which is located under "My Documents/SpeedBase" unless you have changed to a different folder. (You may determine the correct location of it from [connection settings](#) window)

Uninstalling from Windows XP / 7 / Vista

- If SpeedBase is running, open main window, click "Data" from main menu, click "Exit"
- From start menu, locate SpeedBase program group, click "Uninstall SpeedBase"

Alternatively you may uninstall from control panel.

Uninstalling from Windows 8

Uninstall from the Start Screen:

- On the Start Screen, type the name of the application you want to install.
- From the list select the required one and right click on the program.
- Select Uninstall.

Uninstall from the Control Panel:

- Press Windows and x key to open a task list from the bottom left corner of the screen.
- Select Control Panel.
- Select Programs and Features.
- Double click on the program you want to uninstall and follow the onscreen instructions.

Uninstalling from Windows 10

Select the Start button, then select Settings > Apps. Choose the program you want to remove, and then select Uninstall.

Upgrading to a New Version of SpeedBase

Before downloading and installing the latest (or any other) version of SpeedBase, make sure that the release date of that version is not later than the expiration date of the latest support/upgrade extension you purchased. If it is later, you will not be able to complete the install and upgrade.

Make sure that you have registered SpeedBase with the most recent license key you have received following your latest purchase. If you register with an older license key which was sent to you during an older purchase, you may not be able to install the software and receive a warning stating that your support term was expired. We recommend you to disregard and discard older license key(s) whenever you make a new purchase and receive a new license key to prevent this issue happening.

Upgrade Policy

- You may install and upgrade to any newer version of SpeedBase which has a release date not later than the support/upgrade expiration date of your current license key.
- Even if the upgrade term of your current license was expired, you may still install/upgrade to any later version which has a release date prior the expiration date of your upgrade term **at all times**.
- If your upgrade term does not cover the release date of the current version, you may [purchase support/upgrade extension](#) to become eligible to upgrade to the current as well as upcoming versions of SpeedBase for another year.
- If you do not want to upgrade to the most recent version of SpeedBase at this time, you may always download and install the older version you were so far running [from this page](#).
- [Contact us](#) if you have any questions or issues about upgrade and installation.

How to Check Eligibility of Upgrade

- Open SpeedBase, click "database" menu, select "information". Make sure that the "upgrade expire date" displayed here is not older than the release date of the version you want to install.
- You may also find the expiration date of your upgrade term from the email you received after your latest purchase from us.
- You may find the release date of each version just near the download link.

"After a new installation I've received a message saying my upgrade term was expired. What should I do?"

That means, the upgrade term of your current license does not cover the version you installed. You must uninstall the version you just installed and then install the version which was covered by your upgrade term [from this page](#).

Upgrade Process

You are strongly recommended to check the [upgrade information page](#) before installing a newer version than you are running in order to learn about important changes as well as new features. Beware that, there may occasionally be changes which may effect how your data is displayed/processed and you might be required to make some adjustments.

When you install a newer version of SpeedBase, your database may also be required to go over an upgrade process depending on the version you are installing. Basically, if either the left or middle part of the version number was increased compared to the version you are running, a database upgrade will be executed. Unless otherwise is stated on release notes, your data will not be affected during upgrade.

How to Apply Bugfix Updates

If you have received a download link for a bugfix, follow the instruction given below to install the update:

- Exit SpeedBase. To ensure proper termination of the software, you should click "exit" from the "data" menu of SpeedBase. Alternatively you may right click the SB icon on system tray and select "exit". (Terminating from the application menu prevents it to continue running in the background.)
- From "My Computer" browse to the folder where SpeedBase is installed. (Tip: Right click the shortcut icon of SpeedBase and select "open file location")

- Download the update.
- Open the downloaded zip file and copy all content into the SpeedBase installation folder. Approve the overwrite warning to replace existing files.
- Start SpeedBase.

Tip: If you are unable to overwrite existing files, make sure that you have terminated SpeedBase successfully (see above).

Tip: If you do not receive overwrite prompt, make sure that you have selected the installation folder correctly.

How to Make Your Database Available to all Windows Accounts ?

This document applies if you want to run SpeedBase with multiuser access on a RDS (remote desktop services or terminal services) environment.

By default, your database is located under your own documents folder. If a user logs on using a different Windows account, that document folder becomes invisible and SB suggests you to create a new database. If each user only needs to access his/her own private database, then this works just fine. But if you want the same database to be available to all users, all you have to do is, to move your data folder to some public folder and then adjust connection settings from SpeedBase as described below:

- Open SpeedBase, click "data" menu, click "exit".
- Open your "my documents" folder, double click "SpeedBase" folder,
- Right click "data" folder, select "copy"
- Go to the desired folder which is visible to all users, right click on an empty area, click "paste"
- Start SpeedBase,
- Click "database" menu, click "connection settings"
 - * If you get a warning telling that database cannot be found, click "ok" and then click "Open Config." on the next window
- From connection settings window, select your new data folder location (you should select the folder named as "data")
- Select your database file name,
- You should repeat the same changes to connection settings under all other Windows accounts.

Important!

To prevent accidental use of the older data folder, either delete it or move that folder to some backup location.

How to Manage and Documents & Files

There are different approaches to organize files and documents depending on your needs and work flow. Choose the one which suits best to you.

Simple: Attaching Limited Number of Files to each Record

- You have records to which you want to attach files (e.g. Projects).
- You are sure that, for all times, the maximum number of files you may attach to each record is a small, limited number (e.g. less than 10).
- You do NOT need to save additional information about the file itself.

If conditions given above apply, do the following:

- Estimate the maximum number of files you may attach to a single record and [create as many file fields](#) for the catalog in question,
- Add all new file fields to your form using [Form Designer](#).

This option also has the advantage of displaying attached file names with each record on a tabular view.

Advanced: Attaching an Unlimited Number of Files to each Record

- You have records to which you want to attach files (e.g. Projects).
- You want to be able to attach any number of files to each record without limitation.

- You need to save additional information (e.g. description, version etc.) about the file itself.

If conditions given above apply, do the following:

- [Create a separate catalog](#) to save each file (e.g. File Archive),
- [Create a file field](#) on this catalog and optionally, more fields to save information about file,
- Create also a Multi-1 relationship field on catalog File Archive and set the target catalog as the main catalog (e.g. Projects),

This option requires more steps to display or attach files but allows you to attach any number of files to a record and also track some extra information about the file itself.

Field Limit

You may create any number of catalogs and up to 248 fields on each catalog. The actual limit for data fields you may create depends on your selection of data types. Certain data types allocate 2 fields from the limit each.

When you create one of the following field types, the remaining number of fields you may create decreases by 2 instead of 1.

- Relationship field: A relational lookup field which shows data from parent record. Only the catalog showing the lookup field is affected.
- Computed fields which retrieve and display data from parent record. These are the computed fields for which the task is set as "Copy data from parent record".
- File fields.

Tip: You may check the number of currently allocated/remaining fields from the field list window. Right click the desired catalog, select "Fields". The information is displayed at the bottom of the field list window.

In majority of applications there are relatively fewer number of these type of fields and the maximum number of fields you may create is well above 200.

If your application requires significant number of these type of fields, you may calculate the actual maximum fields you may create as shown in this example:

Example

3 text field spend 3

1 computed field showing parent data spends $1 \times 2 = 2$

5 computed fields doing any other type of calculation spend 5

3 file/image field spend $3 \times 2 = 6$

Total fields allocated: $3 + 2 + 5 + 6 = 16$

The remaining number of fields you may create: $248 - 16 = 232$

Downgrade Instructions

To get the advantages of new features as well as for data safety reasons, you are recommended to upgrade to the latest version of SpeedBase available. This page describes how to downgrade your existing installation to an older version in case of exceptional conditions.

Beware that, an older version of SpeedBase will not be able to open an upgraded version of your database. You will have to restore the latest backup which was created with the older version of SpeedBase. So any changes you made after the last upgrade will be lost.

- Exit SpeedBase. To ensure proper termination of the software, you should click "exit" from the "data" menu of SpeedBase. Alternatively you may right click the SB icon on system tray and select "exit". Terminating from the application menu prevents it running in the background on windows taskbar. If you are running a multiuser edition (TeamWork), make sure that all instances of SpeedBase have been terminated on all machines.
- Uninstall SpeedBase either from the uninstall link on start menu or control panel.
- Download the older version you wish given on this page and install.
- Start SpeedBase. If it does not recognize your database file, open connection settings window and restore the latest backup available which was created with the older version of SpeedBase.

Tip: If SpeedBase does not recognize the restored backup file again, you most possibly have selected a backup which also was created with the newer version. Try selecting and restoring a more older backup in this case.

Download Links for Older Versions of SpeedBase

You may find download links of the older versions of SpeedBase on the [upgrade page](#).

Missing Data & Recovery

Caution!

Being unable to connect to your production database and being able to connect but unable to see some of your data / records are two different and completely separate issues. You must first understand which one is the case before following an appropriate solution given on this page.

"I am trying to adjust connections settings but my database is not listed in the selection box"

- **You might have selected a wrong data folder location.**

If the data folder location was selected incorrectly, SpeedBase cannot find and show your database name. Beware that you should NEVER select the "DB" folder which is a subfolder inside the data folder. The data folder is typically the parent folder of the "DB" folder and may have a different name if you have selected a different location to keep your data in the past.

Check [this page](#) for more information about selecting the data folder location.

"I am unable to locate or connect to my database"

"I can only see outdated data from the past in my database"

- **You might have modified connection settings or created a new database, hence connected to the wrong database file.**

Open connection settings window from database menu. Make sure that both the data folder path and database name are all correct.

If in the past, you have created a copy of your data folder somewhere else, you might have multiple data locations with one of them being older. So make sure that you have selected the data location from the right hard drive / computer / network location.

- **Your database needs maintenance.**

In some rare conditions, you may receive an error message that your database file cannot be opened even though your connection settings are correct. You are recommended to apply maintenance to your database once a month or after each large amounts of data import/delete. To do this, click "database" menu, select "Backup & Restore", click the "compact/repair" button just for once. The optimization will be completed in a few seconds.

- **(For multiuser environment only) Another user might have accidentally overwritten your database by creating a new database or restoring an older state of your database using the same file name of your database.**

If you are sure that this was the case, you may restore your database from a recent backup. Click "database" menu, select "Backup & Restore", select a recent database backup which was created before the event and click "restore" button.

"I do not see some or any of my records / catalogs anymore"

- **The filters you assigned to the views might be hiding (filtering out) some records.**

You are recommended to keep at least one view without filter attachment on each catalog. Right click the catalog, select "create new view", add desired fields to the "displayed field" box. Save changes. Click on the new view you just created.

- **Current view does not contain any fields to show.**

If you create a view but do not add any fields into the "displayed fields" list, then no records can be displayed. Open view settings and add at least one field.

- **The missing records might be displayed on a different page than the page you are displaying.**

Change the current page using the page navigation buttons on right bottom of the window. You may also use the search box or sort records by clicking on a column header to find the record(s) you are looking.

- **You might have set some of your catalogs as invisible.**

Click "database" menu, select "catalogs", can you see now all missing catalogs? If yes, select the catalog, click

"Properties", make sure that the box "display on catalog tree" is checked. Click "reload" from toolbar after exit.

- **You might have restricted your own access rights.**

- Click "security" menu, select "user groups", select your user group, click "modify". Make sure that all permission boxes are checked.
- Click "security" menu, select "Access right manager", delete or deactivate all access right entries.
- You might have logged on to SpeedBase with a restricted user account.
- Make sure that you did not moved your user account to a restricted user group.

- **(For multiuser license) You didn't click the reload button.**

Beware that adding or modifying a record on a client computer will not automatically update the view on other client computers. Other clients may need to click the "reload" button once to refresh their screen.

- **(For multiuser license) You might have logged in as a SpeedBase user which does not belong to any user group.**

When you create a new user in SB, you should always attach that user to one of the user groups (or to the default "system administrators" group if you didn't create any user group before). Otherwise the user will not have access right to any data.

Click "Data" menu, select "Exit" to terminate SpeedBase. Restart it and make sure to login using a user name which has admin rights. You may then attach the previous user account to a user group you want.

- **You enabled cache for current catalog.**

If you enable cache for a catalog, records which you created/modified recently may not be displayed until you click "reload" button. This feature should only be used temporarily and in exceptional cases when the network is too slow and you accept that data displayed on screen may not be up to date. To disable caching, right click the current catalog, select "properties", uncheck "use cache" box and save changes. Click reload button.

- **(For multiuser license) Another user might have accidentally deleted your records or a catalog which was containing records.**

If you are sure that this was the case, you may restore your database from a recent backup (see below).

"I have accidentally modified my data by doing an incorrect import."

"I have accidentally deleted records or database fields."

Changes you made on your database cannot be undone. You should restore your database from existing backups. Click "database" menu, select "Backup & Restore", select a recent database backup which was created before the change and click "restore" button.

"I have mistakenly made a series of updates on my records, how can I locate these records?"

Use the system field "Modified On" as a sorting criteria to find the most recently updated records:

Use the system field "Created On" as a sorting criteria to find the most recently created records:

Contact [support](#) if none of the recommendations given above resolves the issue.
