

ForeignKey

Control in the edit form

Content

1	Basic information	4
1.1	Description of the control	4
1.2	Create a new control	4
1.3	Edit or delete a control	5
2	List of tabs in the control settings dialog	6
2.1	“General” tab	7
2.1.1	Name	7
2.1.2	Abbreviated name	7
2.1.3	Dictionary	7
2.1.4	Width	8
2.1.5	Options	8
2.2	“Values” tab	11
2.2.1	Values	11
2.2.2	Default value	11
2.2.3	Options	12
2.3	“Events” tab	13
2.3.1	OnChange	13
2.4	“Button” tab	14
2.4.1	Title	14
2.4.2	Width	14
2.4.3	Client	14
2.4.4	Server	14
2.5	“Help” tab	15
2.5.1	Help	15
2.5.2	Notes	16
2.6	“Filter” tab	17
2.6.1	Options	17
2.6.2	Records per page	17
2.7	“Rights” tab	18
2.7.1	Rights	18

2.7.2	Show value	19
2.7.3	Replace rights to other controls	19
2.8	“Administration” tab	20
2.8.1	Identifier	20
2.8.2	Full identifier	20
2.8.3	Index	21
2.8.4	Search in the View table	21
2.8.5	Other	21
2.8.6	Statistics	21
3	Picker	22
3.1	Basic information	22
3.2	“General” tab	23
3.2.1	Tooltip	23
3.2.2	Data source	23
3.2.3	Records per page	24
3.2.4	Options	24
3.2.5	Assignment table	25
3.3	“Help” tab	26
3.4	“Activate search” tab	27
3.5	“Other” tab	28
4	Examples	29
4.1	Javascript functions	29
4.2	Server functions	29

1 Basic information

1.1 Description of the control

ForeignKey is a one-line drop-down list of any width with the option to select just one value from the list of available values, or a text box showing just one value from the list of available values. ForeignKey uses the database type “int”, and stores the primary key (ID) of the selected database record in the database.

ForeignKey is a control according to which applications are usually merged, resp. is used in join conditions within a database query definition. ForeignKey should not be used in the following cases:

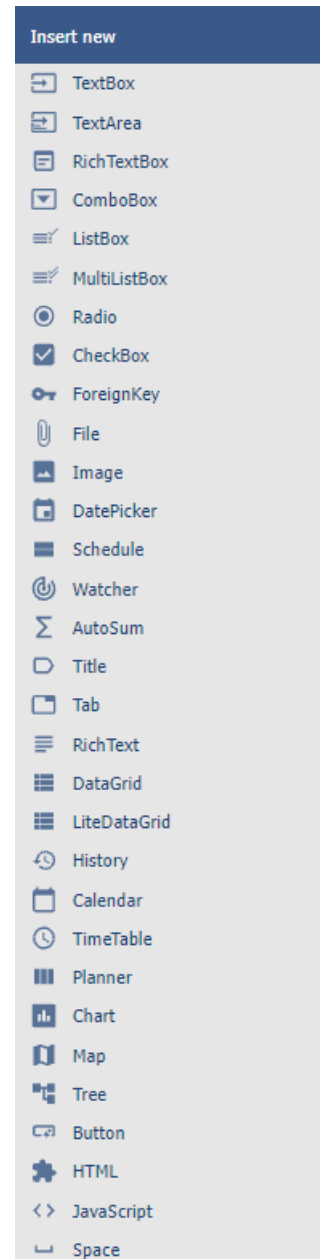
- If it links the parent record to the nested records – in this case, it is recommended to use the foreign key “pid”, which is part of each edit form. The following examples demonstrate typical entities for which to use the “pid” foreign key for a nested record:
 - Order / order item
 - Order / order item
 - Invoice / invoice item
- If it replaces the meaning of database columns that already contain unique values:
 - User login names, for example “NovákP” etc.
 - Language abbreviations, for example “cs”, “de”, etc.

1.2 Create a new control

A new foreignkey can be created in two basic ways:

From the edit form

- The most common way is to create a new foreignkey directly from the edit form using the toolbar with controls.
- First, the position in which the new foreign key is to be placed is determined by clicking the mouse in the edit form. This will highlight the selected position with a gray horizontal line. Then just click on the “ForeignKey” item in the toolbar of the edit form, fill in the attributes of the new control in the newly opened dialog, and then save. This will insert a new foreignkey at a pre-selected location on the edit form.
- If the required position is not determined before inserting a new foreignkey, the new foreignkey will be inserted at the end of the edit form.



From the view table

- The view table has an icon on the right edge to add a new column. The subsequently displayed list of controls allows you to select a new foreignkey, which will be placed in the edit form immediately after the control, which is displayed last in the view table. After filling in the attributes of the new control and saving it, a new foreignkey will be inserted into the edit form, and at the same time a new column will be added to the view table, which is associated with the newly created foreignkey.

1.3 Edit or delete a control

- For each existing control, a pencil icon appears on the left side of the edit form to change or delete the control's settings.
- Individual controls can be moved vertically in the edit form using the Drag&Drop method. Moving consists of grabbing the control, preferably behind its name located in the left column of the edit form, and then dragging it to the desired position in the edit form.
- For security reasons, it is important to have the function of moving controls enabled using the "Drag&Drop" check box located above the toolbar with controls. This field is unchecked each time you log in to the application.
- Deleting a foreignkey results in the irreversible deletion of the database column associated with that foreignkey in the database, and thus in the deletion of its values in all records of the database table. Some foreign keys in system edit forms cannot be deleted because they are necessary for the basic functionality of the entire application.

2 List of tabs in the control settings dialog

General	Setting general properties
Values	Setting values for newly created records
Events	Javascript event settings
Button	Button settings that can be displayed to the right of the control
Help	Settings for help text that can be displayed on the right side of the edit form
Filter	Setting the filter that can be displayed in the view table in the column header
Rights	Rights settings
Administration	Setting other properties

2.1 “General” tab

General	Values	Events	Button	Help	Filter	Rights
* Name	<input type="text"/>	<input type="text"/>	<i>Dictionary... ?</i>			
* Width	<input type="text"/>	150	<input type="text"/>	px	<i>0 - 10 000px</i>	
Options	<input checked="" type="checkbox"/> Required field <input checked="" type="checkbox"/> Read-only <input type="checkbox"/> Disable value assignment using JavaScript <input type="checkbox"/> Hidden field <input type="checkbox"/> Show as text/link in the Edit form <input type="checkbox"/> Copy value to PID when saving record <input type="checkbox"/> Show value in the View table without the need to join <input checked="" type="checkbox"/> Allow multiple assignments <input type="checkbox"/> Run OnBeforeSave/OnAfterSave before the record is saved to the database <input checked="" type="checkbox"/> Snap to previous control					
			Save		Save and continue editing	
			Delete			

2.1.1 Name

- The name of the control displayed in the edit form in a separate column with a colored background to the left of the drop-down list itself.

2.1.2 Abbreviated name

- Optional control name displayed in the view table header if the control is selected as one of the view table columns.
- If an abbreviated name is specified, the full name of the control is displayed in the tooltip above the abbreviated name.
- If an abbreviated name is not specified, the full name of the control is displayed in the header of the view table.
- The abbreviated name “ ” (fixed space) can completely hide the name of the control displayed in the view table.

2.1.3 Dictionary...

- The dictionary lists the names of other controls, forms, view pages, categories, applications, and application groups used across the entire application.
- The dictionary search is used to design the correct control name and to maintain the consistency of the nomenclature throughout the application so that controls with the same meaning located in different places in the application are named in the same way.

2.1.4 Width

- The width of the control in the edit form, in pixels.
- The width consists of two parts, the width of the control itself in the edit form, and optionally the width of the column in the view table if the control is selected as one of the columns in the view table.
- When the width is set to 0 pixels, the typical border of the control is not displayed, and the selected value is displayed as a regular paragraph with plain text/reference. The text can be displayed as a link to the selected record, which redirects the user directly to the edit form of the specific selected record. The link is displayed if “Allow multiple assignments” is checked in the picker settings.

2.1.5 Options

- **Required field**
 - Checking the required field determines whether the edit form should be required to fill in a valid value before saving it to the database.
 - The required field setting does not affect the database type of the column that is associated with the current control in the database. All database columns are set to accept the database value “null”.
 - The value can be stored in the database as an integer or as a “null” database value. When compiling the conditions of a database query, it is therefore important to take into account the alternative that the database value “null” is stored in a column in the database table in addition to zero – an integer. Such a condition may look like this in NG speech: `fk equals “0” or fk is not defined`. And now in SQL: `ng_idfk = 0 OR ng_idfk IS NULL`.
- **Read only**
 - The read-only control setting determines whether the drop-down list should be disabled in the edit form.
 - You cannot manually select values in a disabled list, the list itself has a gray background, and the text of the selected value is displayed in a different font than the rest of the controls.
 - In the disabled list it is possible to select values using javascript:
 - `control_SetValue(#ng_#, 123);`
 - `control_SetValue(#ng_#, 0);`
 - Controls can generally be disabled using javascript:
 - `control_Disable(#ng_#); // General javascript function for all database controls`
 - `fk_Disable(#ng_#);`
 - It is also possible to enable controls using javascript:
 - `control_Enable(#ng_#); // General javascript function for all database controls`
 - `fk_Enable(#ng_#);`
 - By default, it is not possible to enforce a control that is set to read-only; the javascript function `control_Enable` must be passed the second optional parameter “`ignorereadonly`”: `control_Enable(#ng_#, true);`

- **Disable value assignments using JavaScript**

↶ *Only in conjunction with the "Read Only" option*

- Checking the value change ban using javascript will ensure that read-only controls are not spoofed by the value in the web browser by potential attackers on the edit form.
- Before saving the record to the database, it is always checked whether the value has been changed only on the server side, and if necessary sets the value to the original valid one.

- **Hidden field**

- The hidden field setting determines whether the control should be part of an edit form, but should not be visible in user mode.
- The hidden control, including the selected value, can be found in the source code of the web page. It cannot therefore be used as part of security measures, the rights to the control are used for this.

- **Show as text/link in the Edit form**

- Checking this box determines whether the selected value should be displayed as a regular plain text/link paragraph. The text can be displayed as a link to the selected record, which redirects the user directly to the edit form of the specific selected record. The link is displayed if "Allow records to open" is checked in the picker settings.
- Displaying text/link is recommended in situations where one specific record is selected from a list of a large number of records. In this case, the use of a drop-down list is inappropriate and may even block the loading of the edit form itself, as its HTML code may, thanks to all the values listed in the drop-down list (`<option value="1">ABC</option>`) grow to tens or hundreds of megabytes. If this situation occurs, the control can be repaired from the list of all NET Genium controls directly in reports – by displaying the contents of the database table "scolumns", by searching for the appropriate control either by its ID or by database name (identifier), by opening the control's properties using pencil icon, and checking the "Show as text/link in edit form" box.

- **Copy value to PID when saving records**

- Checking this box determines whether the value of the control should be copied to the "pid" column before saving the record to the database.

- **Show value in the View table without the need to join**

- Checking this field determines whether the value stored in the database – the ID of the selected record – should be automatically converted to text data in the view table as well as in the edit form.

- **Allow multiple assignments**

- Allowing multiple assignments determines whether a drop-down list with the selected value should be displayed in the view table or multi-source planning calendar instead of the control value itself, with the option to change the value without opening and editing the record in the edit form. This drop-down list only appears in view tables or calendars that have multiple data assignments enabled.
- Multiple assignments can only be made by a logged-in user; an anonymous user will see a drop-down list with a read-only value selected.
- Multiple assignments are only allowed if "Show as text/link in edit form" is not checked.

- **Run OnBeforeSave/OnAfterSave before the record is saved to the database**

↩ Only in conjunction with the “Allow multiple assignments” option

- Checking this box determines whether the script “OnBeforeSave” and then “OnAfterSave” should be run when saving the value of the control to the database directly from the view table, which
 - can prevent the value from being stored by triggering an interrupt,
 - or it can run additional database operations, send emails, etc.
 - If the “OnBeforeSave” script is interrupted, the user will see the text of the error message, the selected value of the drop-down list in the view table will return to its original state, and the value will not be stored in the database.
 - If the “OnAfterSave” script interrupts, the user will receive an error message, but this will no longer affect the successful storage of the value in the database.
- **Snap to previous control**
 - Checking this box determines whether the control itself should be displayed to the right of the previous one in the edit form, or whether it will be displayed below the previous control in the usual way.
 - If the control snaps to the previous one, you can define the offset width from the previous control
 - The indent is defined in pixels in a separate text box, which is located to the left of the “Width” text box.
 - Within the entire edit form, the controls are usually indented so that they are optically placed ideally in two columns or three. It is generally recommended to have as few vertical lines as possible in the form – to fit the individual controls – and thus to use a uniform width of controls that are optically placed one below the other in one column.
 - The same is true for indents, which should be used with the same value for all controls that are snapped, and optically form a separate column of the edit form.
 - When designing columns for an edit form, it is recommended practice to first consider the width of the controls in the first column, and then the overall width of the second column. The first column intentionally uses the width of the controls instead of the width of the entire column, because the controls in the first column start on the same vertical line throughout the edit form, and the control names to the left of the control itself automatically allocate the width needed for that control. the longest of them. The second column of the edit form, which consists of snapped controls, must have a fixed indent that displays the names of the snapped controls. It can happen that the name of the attached control is longer than the indentation itself, which violates the design of the edit form, and the control itself jumps more to the right. To the right of the offset, therefore, follows the attached control element.
 - If we remember the total width of the second column, which consists of the width of the offset and the width of the attached control element, and we have already set the width of the control element,
 - it is possible to enter a value in the format “500-” in the offset text box, which ensures that the offset value is calculated automatically according to the formula “Offset = Total column width – Control width”.

2.2 “Values” tab

General	Values	Events	Button	Help	Filter	Rights
Values New query ?						
Default value		<input type="text" value="User defined"/> ?				
Options		<input type="checkbox"/> Fill in the default value every time the Edit form opens up <input type="checkbox"/> Fill in the default value every before the record is saved to the database				
		<input type="button" value="Save"/>		<input type="button" value="Save and continue editing"/>		<input type="button" value="Delete"/>

2.2.1 Values

- The list of control values defines a database query that is evaluated when opening or updating an edit form.
- In conjunction with the “Show as text/link in edit form” check box, it is possible to select additional columns that will be displayed in the edit form together with the selected value.

2.2.2 Default value

- The default value is used for newly created records in the edit form. This is a value that is automatically pre-populated into the control when an edit form is opened to create a new record that does not already exist in the database.
- The default value can be scheduled using the script function “SCHEDULEDEFAULTVALUE(ng_, 123)” from the script that is part of the button for opening a new edit form.
- The drop-down list contains the following types of default values:
 - **User defined** – The default value is defined by a text constant, variable, or a combination of both, written in the text box below the drop-down list. Common variables include “#lastvalue#”, “#lastvalue2#”, etc.
 - **Current value in the database** – the current value in the database is only relevant in connection with the check box “Fill in the default value before each saving of the record in the database”
 - The columns of some database records are also changed in the background of the operating system, for example by external applications. Typically, these are statuses, database record processing dates, etc. While a user has an open database record in the edit form, the value of such a column may be changed in the background by an external application. In this case, the value currently present in the edit form must not be used to save the record (this value was valid at the time the record was opened), but the value currently written in the database must be used.
 - **From query** – the default value defines the result of the database query, which is evaluated when opening the edit form

2.2.3 Options

- **Fill in the default value each time you open the edit form**
 - Checking this box determines whether the current value in the edit form is overwritten to the default value when the existing record is opened.
 - Controls that have an external function call set as the default value, such as “ngef2(test)”, and have the default check box selected each time the edit form is opened, may have an empty or blank value in the database, and still fail when attempted to display this value is evaluated everywhere in the application except for the edit form by an external function set as the default value.
- **Fill in the default value before each save of the record to the database**
 - Checking this box determines whether the current value in the edit form is overwritten to the default value before each save of the record.
 - Controls that have an external function call set as the default value, such as “ngef2(test)”, and have the default check box selected each time a record is saved to the database, may have an empty or blank value in the database, and still try to displaying this value everywhere in the application except the edit form evaluates the external function set as the default value.

2.3 “Events” tab

General	Values	Events	Button	Help	Filter	Rights
---------	--------	---------------	--------	------	--------	--------

OnChange

2.3.1 OnChange

- The “OnChange” event specifies a semicolon-separated list of javascript commands that are executed after a value change and then exiting the control.

2.4 “Button” tab

General	Values	Events	Button	Help	Filter	Rights
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Title <input type="text"/></p> <p>Width <input type="text"/> px</p> <p>Events</p> <p>Client <input type="text"/> ?</p> <p>Server Modify script ?</p> </div> <div style="width: 50%; text-align: right;"> <p>Save Save and continue editing Delete</p> </div> </div>						

2.4.1 Title

- The title specifies the name of the button, which optionally appears to the right of the control itself in the edit form.
- An empty name means that the button will not be displayed.

2.4.2 Width

- Button width in pixels.

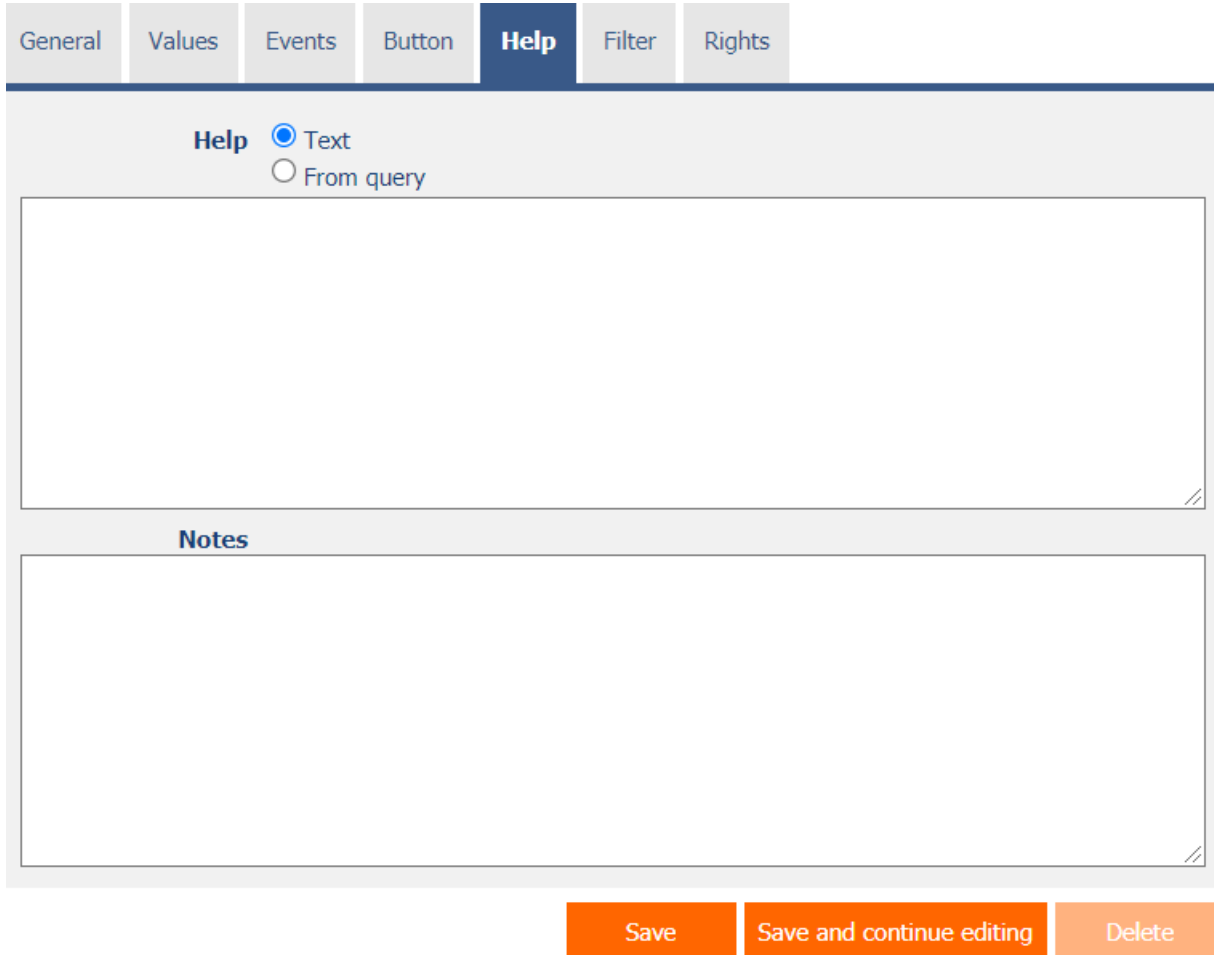
2.4.3 Client

- The “Client” field specifies a list of javascript commands that will be executed when the button is pressed. The drop-down list offers the following frequently used javascript functions:
 - **Do you really want to?** – return confirm('Do you really want to...?');
 - **AJAX...** – return bt_Eval(this, 'ngef.aspx?test', 'evalFunction');

2.4.4 Server

- If the javascript commands are successfully evaluated, or if no javascript commands are defined, the server-side script will then be run. The “Edit script” link is used to open the integrated graphic script designer, in which the script is defined, resp. server part of the button.
- Execution of javascript commands can be interrupted by the command “return false;”, which prevents the subsequent execution of the script on the server side.

2.5 “Help” tab



General Values Events Button **Help** Filter Rights

Help Text From query

Notes

Save Save and continue editing Delete

2.5.1 Help

- Help is the text displayed to the right of the control itself in the edit form. The help of all controls starts on the same vertical line in the entire edit form – they are optically placed in a separate help column.
- The display of help text differs when snapping controls.
 - If “Automatic grouping” is checked in the edit form settings, a bulleted list of all help controls located in the same row will be automatically generated in the help column, with the option to click the bulleted list item and display the help text.
 - If “Automatic grouping” is not checked in the edit form settings, the help for controls to the left of snapped controls is not displayed.
- Help text supports simple text formatting using wiki syntax:
 - ""Bold text""
 - ""Italics""
 - """"Bold italics""""

- ""Text enclosed in double quotes""
- Lists:
 - * Heading 1
 - ** Subheading 1.1
 - ** Subheading 1.2
 - * Heading 2
 - * Heading 3
 - # Numbered heading 1
 - ## Numbered subheading 1.1
 - ## Numbered subheading 1.2
 - # Numbered heading 2
 - # Numbered heading 3
- The text of the help can be displayed only after clicking on the icon with a question mark, which is located in a common place as help, only visually it takes up less space. Alternatively, abbreviated help text may appear in front of this icon. The question mark icon is defined by placing three dots at the end of the first line of help and then entering a new line (enter). The three dots may be preceded by an abbreviated help text. This is followed by help text of any length, including transitions to new lines.
 - ...
Help text displayed after clicking on the question mark icon
 - Short help text...
Help text displayed after clicking on the question mark icon
- In conjunction with the question mark icon, a variant can be used in which, after clicking on the icon, the help text followed by three dots is not displayed, but on the contrary, the content of, for example, the wonder located anywhere in the edit form is displayed/hidden. On the new line after the three dots, it is necessary to specify the ID of this wonder using the javascript function "el".
 - ...
el('D1')
 - Short help text...
el('D1')
- The help radio button contains the following two types of help definitions:
 - **Text** – help text defines a manually entered text string located in a multi-line text field below the radio button
 - **From query** – the help text defines the result of a database query, which is evaluated when opening the edit form

2.5.2 Notes

- Notes are used to enter any text intended for the application administrator.

2.6 “Filter” tab

General	Values	Events	Button	Help	Filter	Rights
<p>Options <input checked="" type="checkbox"/> Show filter in the View table</p> <p><input type="checkbox"/> Allow multiple assignments ?</p> <p>Records per page <input type="text" value="Default"/> ?</p>						
			<input type="button" value="Save"/>		<input type="button" value="Save and continue editing"/>	
			<input type="button" value="Delete"/>			

2.6.1 Options

- **Show filter in the View table**
 - Checking this box determines whether the view table should be allowed to filter records by the values present in the database in the column associated with this control. The filter drop-down list is located in the header of the view table under the name of the control.
- **Allow multiple assignments**
 - Checking this box determines whether the “Assign value...” item should be available in the filter drop-down list, which is used to assign a value to all filtered records in the view table.
 - Selecting this item opens a new window displaying the control associated with the filtered column. Using the “Save” button, you can then change the column value for all filtered records in the view table to the selected value. In order for the “Assign value...” item to appear in the filter drop-down list, the view table must have multiple data assignments allowed.

2.6.2 Records per page

- The number of records per page determines the maximum number of unique values that appear in the filter based on the analysis of the read data in the view table in the column associated with the filter. If there are more occurrences of unique values in the data than the defined number of records on the page, the analysis of unique values in the given column will be interrupted, and the item “Load values...” will be displayed in the filter. All unique values in the given column and read data in the view table.
- The view table itself can read a large amount of data, or the filtered column can contain a large number of unique values, which affects the speed of compiling a list of these values. In cases where it is not important to analyze the values at all when generating the look-up table, and it is sufficient to use the function “Load values...”, it is advisable to set the number of records on the page to the value “0”.

2.7 “Rights” tab

General
Values
Events
Button
Help
Filter
Rights

Rights Available

External Users

Anonymous

Selected

Users

»
>
<
«

⇧
^
v
⇩

Show value to all users
 only to the owner or co-owner of the record

Replace rights to other controls [Show...](#)

Save
Save and continue editing
Delete

2.7.1 Rights

- Rights define a list of user groups and users who have permission to display a control on an edit form and to display the values of that control elsewhere in the application.
- Users who do not have control rights
 - they do not see the control or its value in the edit form, nor can they find it in the source code of the page in a web browser,
 - they cannot display the column associated with this control in a view table or other visual control intended for viewing data.
 - they can create an entry in the edit form in which there is a control to which they do not have rights, the value of these controls is then set to the database value “null”,
 - they cannot delete any record in an edit form in which there is a control to which they do not have rights.

- An application administrator can cause a logical error when a javascript function refers to a control that may not be accessible from a rights perspective for some users. The variable “ng_” is then replaced by the value stored in the database in this control instead of a reference to the object of the control itself. In most cases, this error stops loading the edit form, it disables itself, and the user is shown a message that he should contact the application administrator. This type of error can be partially eliminated using the report “Controls (JavaScript + insufficient rights)”.

2.7.2 Show value

- The display of the control value can be limited only to the users who created the database record, or are set as co-owners of all records in the edit form settings.
- The radio button contains the following types of value display:
 - **To all users** – the control, including its value, will be displayed to all users who have the right to the control
 - **Only to the owner or co-owner of the record** – the control, including its value, will be displayed only to users who have the right to the control and at the same time are the owners of the currently open database record in the edit form (created the record) or are set as co-owners of all records in the edit form settings.

2.7.3 Replace rights to other controls

- The “Replace rights to other controls” function is used to unify the rights within the entire edit form for controls that are related in terms of rights.
- Thanks to the “Show...” link, it is possible to display a list of all controls in the edit form, including setting the rights of these controls. For each control, a check box is displayed that allows you to select the control. When you save a control, the same rights are then set for those selected controls.
- An alternative for unifying rights within the entire edit form is to display the report available from the “Subordinate object rights” tab in the edit form settings.

2.8 “Administration” tab

General	Values	Events	Button	Help	Filter	Rights	Administration
Identifier		<input type="text" value="#ng_idfk#"/>		<input type="button" value="Correct"/>			
		<input type="text" value="#ng_form#.#ng_idfk#"/>					
Index		<input checked="" type="checkbox"/> Index column "idfk" along with the following columns...		<input type="text"/>		<input type="button" value="?"/>	
Search in the View table		<input checked="" type="radio"/> Deny		<input type="radio"/> Allow			
Other							
Current value in the database		<input type="text"/>		<input type="button" value="Save"/>			
Change type to		<input type="text" value="TextBox"/> <input type="button" value="Change"/>					
<input type="button" value="Statistics"/>				<input type="button" value="Save"/>		<input type="button" value="Delete"/>	

- The “Administration” tab is only displayed for existing controls.

2.8.1 Identifier

- The identifier specifies the name of the database column in which the values entered through the control in the edit form are stored in the database.
- The identifier is derived from the name of the control. It starts with the prefix “ng_id”, and also contains the alphanumeric characters used in the control name (system controls do not include the prefix “ng_id”). When changing the name of the control, the “Correct” button is available, which is used to correct the identifier, and thus to rename the database column in the database. For clarity and to eliminate possible misunderstandings, it is recommended to keep the identifier in accordance with the name of the control element. If external applications also access the database and, for example, read or write data to this column, it is necessary to schedule the change of the identifier until a suitable time.

2.8.2 Full identifier

- The full identifier of the control also contains the identifier of the edit form, and is used in printing templates.

2.8.3 Index

- Checking this box determines whether the column associated with this control should be indexed in the database. In the text field located below the check box, it is also possible to define the names (identifiers) of other columns that are to be in the associated index with this database column – they should be part of the index key.
- For the MSSQL database, it is also possible to define “INCLUDE” columns to be attached to the index. However, they are not part of the index key, but the values of that key. The Firebird database does not allow this functionality.
- The “ForeignKey” control is automatically indexed by default – it is usually joined to the database table referenced by the foreign key to display the value in the view table.

2.8.4 Search in the View table

- The search determines whether records in the view table should be searched using the “=” operator after entering a search term or phrase in the database in the column associated with this control.
 - **Deny** – Searching in this column is disabled, and there is no check box in the view table to include the table column in the list of columns to be searched.
 - **Allow** – Searching in this column is enabled, and a check box appears in the view table, which allows you to include the table column in the list of searched columns.

2.8.5 Other

- **Current value in the database**
 - The text box displays the current value of the currently open record in the edit form in the given control, with the possibility to change this value.
- **Change type to**
 - The drop-down list offers the types of controls to which conversion of the control is supported, including automatic conversion of the data present in the database table.

2.8.6 Statistics

- Statistics display aggregated information about control usage across the entire application.
- Using the “Statistics” button, a detailed report of all places where the control is used or referenced is displayed, including the possibility to open the settings of such a place or control.
- Before each change of control type or data type, or before each deletion of a control from the edit form, it is recommended to thoroughly go through the control statistics, and eliminate any misunderstandings.
- Before each deletion of the control from the edit form, the evaluation of the statistics starts automatically. If the control is used or referenced somewhere in the application, it is necessary to confirm the deletion of the control again.

3 Picker

3.1 Basic information

General	Values	Events	Button	Help	Filter	Rights	Administration
<p>* Name <input type="text" value="fk"/> <input type="text"/> <i>Dictionary... ?</i></p> <p>* Width <input type="text" value="150"/> <input type="text"/> px <i>0 - 10 000px</i></p> <p>Options</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Required field <input type="checkbox"/> Read-only <input type="checkbox"/> Hidden field <input type="checkbox"/> Show as text/link in the Edit form <input type="checkbox"/> Copy value to PID when saving record <input type="checkbox"/> Show value in the View table without the need to join <input type="checkbox"/> Allow multiple assignments <input type="checkbox"/> Snap to previous control 							
<input type="text"/>						<input type="button" value="Save"/> <input type="button" value="Delete"/>	

- Picker is a dialog box that displays a look-up table with database records, the values of which can be taken or copied to the currently open edit form. The picker is typically used to copy entire database records or to take a ForeignKey value.
- The link to the pickup dialog box with the view table and database records is in the form of a magnifying glass icon, and appears in the edit form to the right of the control to which the picker is associated.
- The picker also takes the form of an ajax whisperer, which starts offering database records as soon as you enter a value in a text field in the edit form. For ajax whispering to work, you must enable searching for values entered in the edit form.
- The picker settings are made in a separate dialog. The link to this dialog is in the form of a magnifying glass icon, and is located in the lower left corner of the control settings dialog to which the picker is associated.

3.2 “General” tab

General
Help
Activate search
Other

Tooltip *Dictionary...*

Data source **Modify query**

Records per page ▼

Options

- Search for the value entered in the Edit form
- Optimized search
- Show search results only
- Allow creating new records
- Allow opening records
- Allow multiple records to be selected at once

Assignment table

	Columns	Source	Destination	Options
	fk		fk ▼	▼
	Latitude		(None) ▼	▼
	Longitude		(None) ▼	▼
	Created by		(None) ▼	▼
	Created on		(None) ▼	▼
	Modified by		(None) ▼	▼
	Modified on		(None) ▼	▼

Save
Reset assignment table
Hide - all at once

3.2.1 Tooltip

- The tooltip determines the help text that appears when you hover over the picker icon in the edit form.

3.2.2 Data source

- The data source defines the data displayed in the viewer's view table. This data is the result of a database query that is evaluated when the picker window is opened.
- Data source settings are made in the graphical designer of database queries.

3.2.3 Records per page

- For clarity, the look-up table uses the paging of the displayed records. This is useful in situations where when the view table reads a large amount of data.
- The number of records per page determines the maximum number of records that appear on one page. You can easily switch between pages using the tools that each view table contains in its footer.

3.2.4 Options

- **Search for the value entered in the Edit form**
 - Checking this box determines whether the value entered in the edit form should be found in the pickup view table and whether the edit form should offer an ajax picker.
 - The Ajax picker does not work if one of the fields selected is a “File” or “Image” control.
- **Optimized search**
 - Optimized search means that each column of the picker's view table uses its own text box to enter a search term or phrase.
 - A normal (non-optimized) search means that one common text field is used to enter a search term, in which it is possible to list all search terms, and these are then searched in all columns of the view table at once.
- **Show search results only**
 - Checking this box determines whether the picker's view table should display records only when a search term or phrase is entered.
- **Allow creating new records**
 - Checking this box determines whether a button for entering a new record of the same agenda, which is used as a data source in the view table, will be displayed below the pickup view table.
- **Allow opening records**
 - Checking this box determines whether it should be possible to open individual records from the picker's view table and display the detail of a specific database record in the picker's dialog box directly in its edit form.
- **Allow multiple records to be selected at once**
 - Checking this box allows you to select multiple records in the pickup at once. Individual records are selected in the picker by checking the checkbox located on each row of the picker's view table in the first column. In this way, however, it is possible to select only the column “(ID)”, i.e. primary key. The selected records are transferred to the edit form as individual primary key values separated by a semicolon.

3.2.5 Assignment table

- **Columns**

- The column settings determine which column of the view table in the picker will be copied to the control in the edit form.
- Picked columns – those that have a source and destination set – are automatically displayed in the picker's view table in the order in which they appear in the assignment table.
- The columns in the viewer's view table can be hidden by selecting the “Hide” command from the drop-down list located to the right of the “Destination” drop-down list.
- For columns in the picker's view table, it is possible to activate the search by selecting the “Activate search” command from the drop-down list located to the right of the “Destination” drop-down list.
- If no search column is selected, the search is automatically activated for all columns of the pickup view table, where this is allowed in terms of the general view table view settings defined in the control's properties.

3.3 “Help” tab

General **Help** Activate search Other

Columns	Available	Selected
	(ID) fk Latitude Longitude Created by Created on Modified by Modified on	

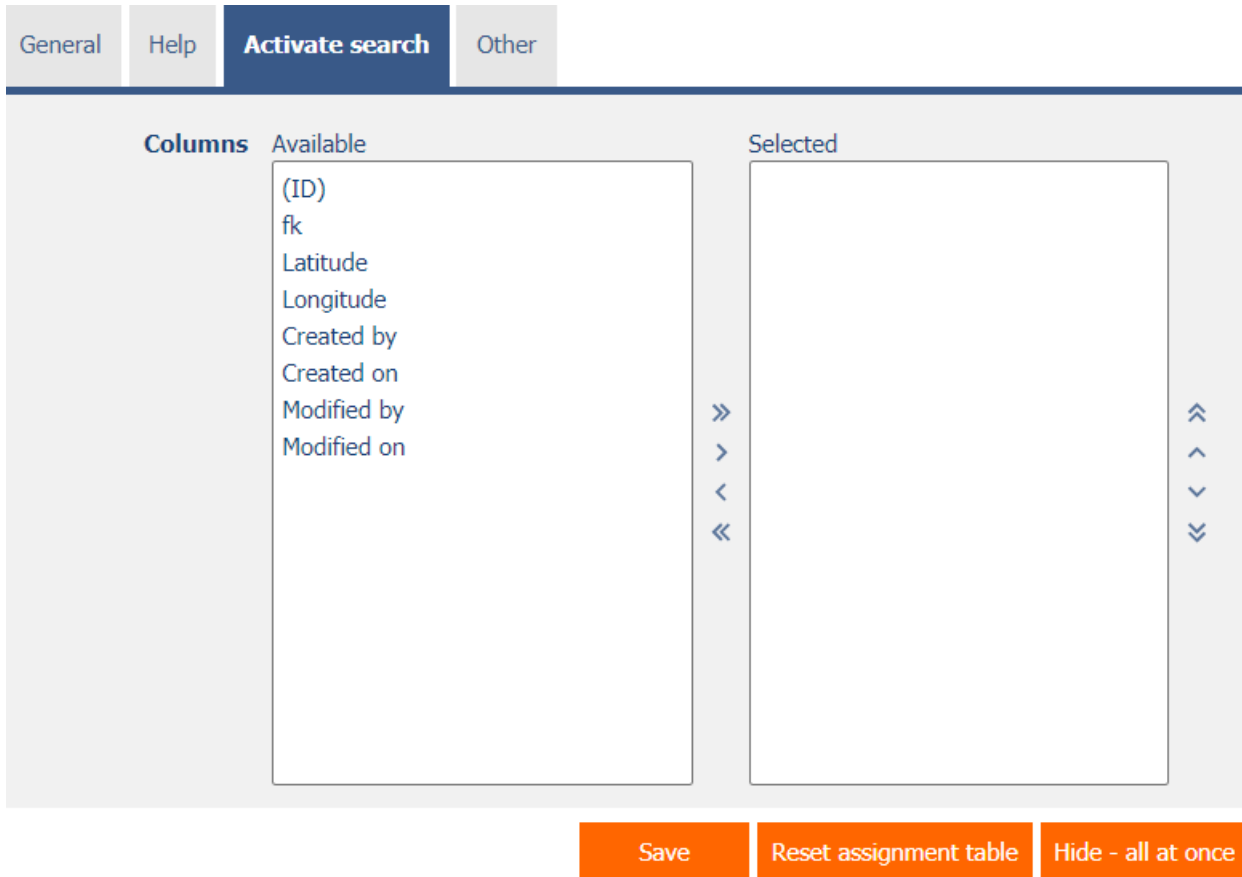
»
>
<
«

⏏
^
v
⏏

Save Reset assignment table Hide - all at once

- On the “Help” tab, it is possible to set a list of all other columns to be displayed in the picker's view table, even though none of these columns are peaked.

3.4 “Activate search” tab



General Help **Activate search** Other

Columns

Available	Selected
(ID)	
fk	
Latitude	
Longitude	
Created by	
Created on	
Modified by	
Modified on	

»
>
<
«

⌆
⌆
⌇
⌇

Save Reset assignment table Hide - all at once

- On the “Activate search” tab it is possible to set a list of all other columns in which the search is to be activated.

3.5 “Other” tab

General	Help	Activate search	Other
---------	------	-----------------	--------------

Template name

Save Reset assignment table Hide - all at once

- **Template name**
 - Picker settings can be saved to a template so that another control field that retrieves data from the same data source can be easily copied when setting up the picker.

4 Examples

4.1 Javascript functions

- `var s = control_GetValue(#ng_#);`
- `var n = jsN(control_GetValue(#ng_#));`
- `var s = #ng_#.value;`
- `var n = jsN(#ng_#.value);`
- `control_SetValue(#ng_#, s);`
- `control_SetValue(#ng_#, 123);`
- `control_SetValue(#ng_#, 0);`
- `fk_Update(#ng_#);`
- `control_Disable(#ng_#); // General javascript function for all database controls`
- `control_Disable(#ng_#, disableLink); // General javascript function for all database controls`
- `fk_Disable(#ng_#);`
- `fk_Disable(#ng_#, disableLink);`
- `control_Enable(#ng_#); // General javascript function for all database controls`
- `fk_Enable(#ng_#);`
- `picker_Open(#ng_#);`

4.2 Server functions

- `SCHEDULEDEFAULTVALUE(ng_, #ng_#)`