

DatePicker Control in the edit form





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1 Basic information

1.1 Description of the control

DatePicker is a date picker intended for entering a date using drop-down lists with day, month and year, or with a text field for entering the time. DatePicker uses the "datetime" database type.

1.2 Create a new control

There are two basic ways to create a new datepicker:

From the edit form

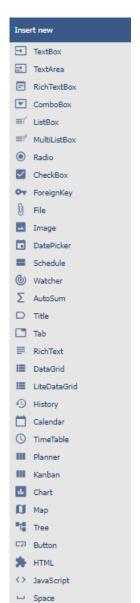
- The most common way is to create a new datepicker directly from the edit form using the toolbar with controls.
- First, the position in which the new datepicker is to be placed is determined by clicking the mouse in the edit form. This will highlight the selected position with a gray horizontal line. Then just click on the "DatePicker" 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 datepicker at a pre-selected location on the edit form.
- If the desired position is not determined before inserting a new datepicker, the new datepicker 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 datepicker, 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 datepicker 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 datepicker just created.

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 datepicker results in the irreversible deletion of the database column associated with that
 datepicker in the database, and thus in the deletion of its values in all records in the database table. Some
 datepickers 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
Default value	Set the default value for newly created records
Events	Javascript event settings
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	Default value	Events Help	Filter	Rights				
	* Name			Di	ictionary			
	Width auto px							
	□ s	ime Activate time Show the "Now" be how abbreviated nathow week number hap to previous con	me of the	day ?				
			S	ave	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 date picker 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 offset of the control in the edit form specified in pixels.
- The width of the control in the edit form is determined automatically.





2.1.5 Options

Time

- The time setting determines whether the time should be entered in the edit form along with the date.

 The time is displayed in a separate text box to the right of the day, month, and year drop-down lists. Only the hour and minute components are stored in the database seconds, milliseconds and ticks are removed from the data.
- If the date, including the time, is stored in the database, it is displayed in the format "dd/mm/yyyy
 HH:mm" everywhere in the application. This is despite the fact that the date was stored in the database in a different way than via the edit form, i.e. including seconds, milliseconds, and ticks (for example, using an external application).

Activate time

- Only in conjunction with the "Time" option
 - Checking this box determines whether time entry should be automatically enabled in the edit form. By default, only the drop-down lists for selecting the day, month, and year are active. Before entering the time, it is necessary to check the button that appears to the left of the text box for entering the time.

Show the "Now" button

- Only in conjunction with the "Time" option
 - Checking this box determines whether the "Now" button should be displayed in the edit form to the right of the text field for entering the time, with the option of quickly filling in the current time.

Show abbreviated name of the day

- Checking this box determines whether the abbreviated name of the day should be displayed everywhere
 in the application, in addition to the edit form itself, along with the value of the control.
- The abbreviated name of the day is placed at the beginning, and is separated from the date by a space, such as "Fri March 1, 2019".

• Show week number

- Checking this box determines whether the number of the week should be displayed along with the value of the control everywhere in the application, in addition to the edit form itself.
- The week number is placed in parentheses at the end, and is separated from the date by a space, for example "01.03.2019 (9. week)".





• 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.
- o 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 applies to indentation, which is suitable for use with the same value for all controls that are snapped, and optically forms 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 indent and the width of the attached control, and we have already set the width of the control, it is possible to write a value in the format indent in the format "500-" to ensure that the value the offset is calculated automatically according to the formula "Offset = Total column width Control width".



2.2 "Default value" tab

General	Default val	lue Events	Help	Filter	Rights			
De	fault value [Today + X days	•		~			
			ault value	every be		rd is save	d to the databas	5e
			Save	Save a	and continue	editing	Delete	Close

2.2.1 Default value

- The default value is used for newly created records in the edit form. This is a value that is automatically prepopulated into the control when a 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_, #today#)" from the script that is part of the button to open a new edit form.
- The drop-down list contains the following types of default values:
 - Today + X days the current date plus the number of days defined by a numeric constant, variable or a
 combination of both, entered in the text box below the drop-down list.
 - 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 date
 - Current date and time
 - 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





2.2.2 Options

Fill in the default value every time the Edit form opens up

- 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 every before the record is saved 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.

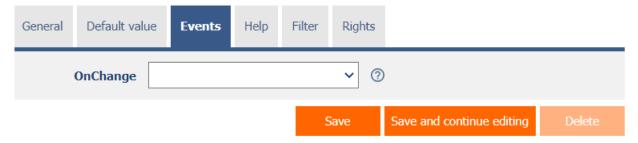
Only when manually changing a value in another control

- In conjunction with the "Fill in the default value every before the record is saved to the database" option
 - Checking this box determines whether a value change in one of the other edit form controls will be evaluated before each record is saved. Only in this case will the current value in the edit form be overwritten to the default value.
 - o This option is the default for the Watcher controls, i.e. "Modified by" and "Modified on"





2.3 "Events" tab



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 "Help" tab

General	Default value	Events	Help	Filter	Rights						
	Help										
	Notes										
				_ (Save	Save and continue editing	Delete				

2.4.1 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.
 - o 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.
 - o 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:
 - o "Bold text"
 - o "Italics"
 - o """Bold italics"""
 - o ""Text enclosed in double quotes""





o 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.
 - o ...
 - 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
- 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".
 - o ... 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

2.4.2 Notes

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



2.5 "Filter" tab

General	Default va	lue Eve	ents He	elp Fi l	lter	Rights					
	Options		filter in the			?	ı				
Records per page Default >					0						
					S	ave	Save and	continu	e editing	[Delete

2.5.1 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

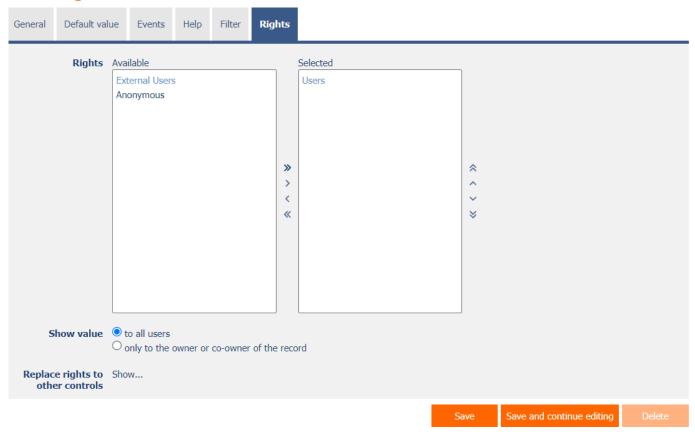
- Checking this box determines whether the "Assign value..." item should be available in the filter drop-down list, which is used to assign a value to all filtered records in the view table.
- Selecting this item opens a new window displaying the control associated with the filtered column. Using the "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 bulk data changes enabled.

2.5.2 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".



2.6 "Rights" tab



2.6.1 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.
 - o 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",
 - o 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
- for the value stored in the database in this control instead of a reference to the control object 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)".

2.6.2 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.

2.6.3 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.



2.7 "Administration" tab

General	Default valu	ie Events	Help	Filter	Rights	Administration		
	Identifier	#ng_dp# #ng_form#.#				Correct		
Other	Index	☐ Index colum	in "dp" ai	ong with	the followi	ng columns		
the	nt value in e database ge type to	TextBox 🗸	Chang	е				
Statistics	5					S	ave	Delete

The "Administration" tab is only displayed for existing controls.

2.7.1 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_", and also contains the alphanumeric characters used in the control name (system controls do not include the prefix "ng_"). 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.

2.7.2 Full identifier

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

2.7.3 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.





2.7.4 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.

2.7.5 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	Default v	alue	Events	Help	Filter	Rights	Administration				
	* Name	dp				Die	ctionary 💿				
	Width	auto	auto px								
	Options	☐ Sł	ime now abbrev now week r nap to prev	number		day ⑦					
Q								Save	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 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	
Da	ta source	Modify query					
Re	cords per page						
	Options	Optimized search Show search results only Allow creating new records Allow opening records Allow multiple records to be selected.	ected at once				
Assignme			B				
	Columns	dp	Destination dp	· •	Options	▽	
		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, which is evaluated when opening the picker window or when starting to whisper values directly into the edit form.
- 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 the view table is retrieving large amounts 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

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.





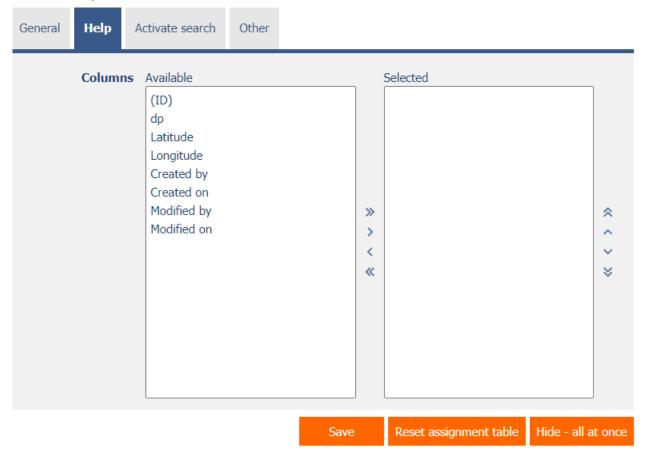
3.2.5 Assignment table

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.
- o 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.



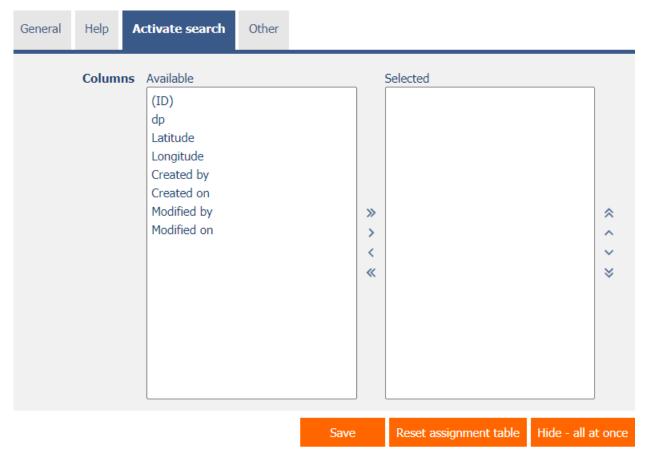
3.3 "Help" tab



• 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



• 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			
Temp	late nar	ne				
				Save	Reset assignment table	Hide - all at once

Template name

o 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 date = Str2Date(control_GetValue(#ng_#));
- control_SetValue(#ng_#, date);
- control_SetValue(#ng_#, '1.1.2000');
- control SetValue(#ng #, '1.1.2000', '12:34');
- control_SetValue(#ng_#, new Date());
- control_Disable(#ng_#); // General javascript function for all database controls
- dp_Disable(#ng_#);
- control_Enable(#ng_#); // General javascript function for all database controls
- dp_Enable(#ng_#);
- picker_Open(#ng_#);

4.2 Server functions

- SCHEDULEDEFAULTVALUE(ng_, #ng_#)
- ADDTIMESPANINWORDS(#today#, 1 month)
- ADDTIMESPANINWORDS(#today#, 1 month, 2 days)
- COMPAREDATE(#today#, <, #now#, Yes, No)
- FORMATDATE(#today#)
- FORMATDATE(#today#, dd.MM.yyyy)
- FORMATDATES(abc#today#def, true, true)
- SUBSTRACTDATES(#today# + 14, #today#)