Linx-AS SAPUI5 Custom Controls
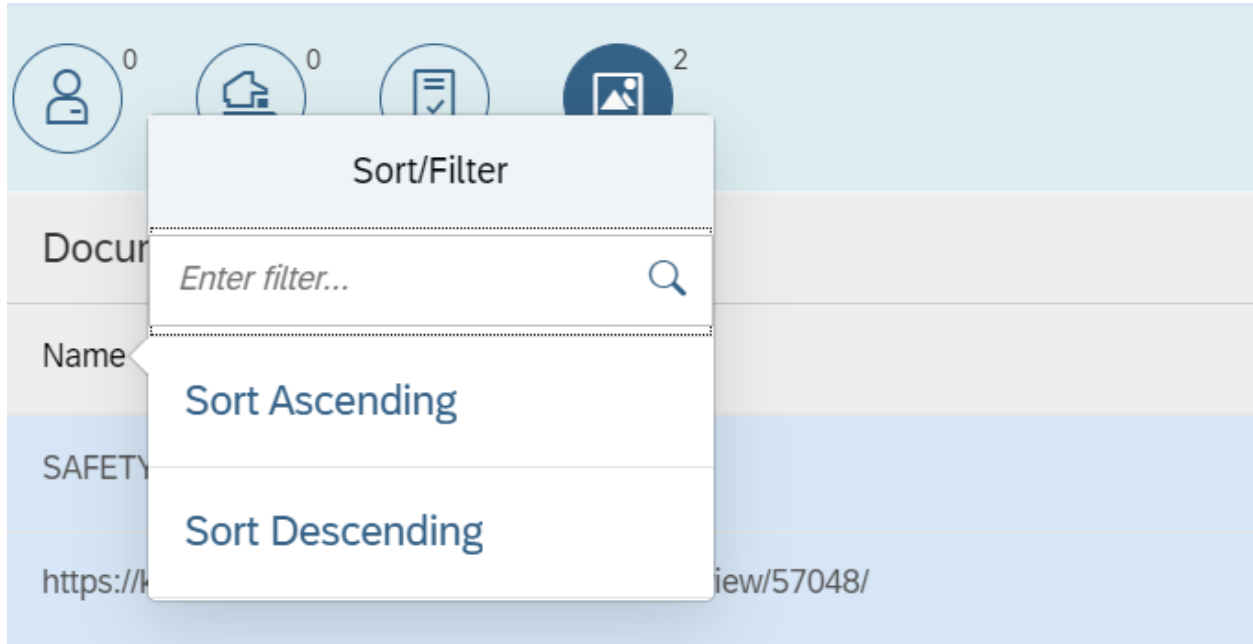
AutoSortTable

www.linxas.net

Contents

Overview

The AutoSortTable control works just like the sap.m.Table control, but provides automatic sorting and filtering capabilities when clicking on a column header via an automatically generated pop-up:

From here the user can click on the Sort Ascending or Sort Descending options, or type text in the filter field which will do a live filtering of the table.

When the user has sorted on a column, that column will automatically display a sort ascending ≡ or sort descending ≡ icon after the column header text to let the user know that the data is currently sorted in that column:

Also, if a column is currently filtered, a filter ▽ icon will be displayed before the column header text to let the user know that some data may be filtered by that column:

Capabilities

The AutoSortTable control extends the sap.m.Table control and therefore inherits all of its properties, aggregations, events and methods. The only difference if the "columns" aggregation requires use of the new SortableColumn element, which extends the sap.m.Column to provide some additional properties. These properties let you provide column specific properties so all columns do not need to act the same.

Base Parameters

Below are the most basic parameters:

title {String} default: "Options"
> The title to display in the sorting/filtering popup.

placement {sap.m.PlacementType} default: "Bottom"
> Where the popup should be placed in relation to the column header.

sortAscButtonText {String} default: "Sort Ascending"
> The text to place on the sort ascending button.

sortDescButtonText {String} default: "Sort Descending"
> The text to place on the sort descending button.

filterPlaceholder {String} default: "Enter filter text…"
> The text to show as a placeholder in the filter field.

fixedBottomRowCount {int} default: 0
> If set to a number greater than 0, that number of rows at the bottom of the table will be left unaltered during sorting or filtering. Used in case the bottom rows are used for summation..

zebraStripe {Boolean} default: false
> Denotes if the table should be zebra stripped. All rows except those defined in the fixedBottomRowCount will be zebra stripped.

evenRowColor {String} default: "white"
> The color to make even rows.

oddRowColor {String} default: "lightGray"
> The color to make odd rows.

totalRowColor {String} default: "darkGray"
> The color to make the rows defined in fixedBottomRowCount.

showFilter {Boolean} default: true
> Denotes whether or not the filter field should be displayed.
> NOTE: If showFilter and showSort are both false, then no popup will be displayed.

showSort {Boolean} default: true

Denotes whether or not the Sort Ascending and Sort Descending options should be displayed.

NOTE: If showFilter and showSort are both false, then no popup will be displayed.

Examples

For all examples we will assume a model that is bound as the default model "" with the following data:

```
{
    "users": [
        {
            "firstName": "John",
            "lastName": "Doe",
            "email": "john.doe@gmail.com"
        },
        {
            "firstName": "Frank",
            "lastName": "Smith",
            "dob": "fsmith@yahoo.com"
        },
        {
            "firstName": "Kim",
            "lastName": "Johnson",
            "dob": "kimjohnson@outlook.com"
        }
    ]
}
```

Basic Example

This example will define a simple AutoSortTable with no custom parameters, it will be defined exactly as any other sap.m.Table

```
<comp:AutoSortTable items="{/users}">
    <comp:columns>
        <comp:SortableColumn>
            <comp:header>
                <Label text="First Name"/>
            </comp:header>
        </comp:SortableColumn>
        <comp:SortableColumn>
            <comp:header>
                <Label text="Last Name"/>
            </comp:header>
        </comp:SortableColumn>
        <comp:SortableColumn>
            <comp:header>
                <Label text="Email"/>
            </comp:header>
        </comp:SortableColumn>
    <comp:columns>
    <comp:items>
        <ColumnListItem>
            <cells>
                <Label text="{firstName}"/>
                <Label text="{lastName}"/>
```

```
                    <Link text="{email}" press="sendEmail"/>
                </cells>
            </ColumnListItems>
        </comp:items>
    </comp:SortableTable>
```

This will result in the following table:

First Name	Last Name	Email
John	Doe	john.doe@gmail.com
Frank	Smith	fsmith@yahoo.com
Kim	Cole	kimcole@outlook.com

Clicking on any of the column headers will result in the following pop-up:

Sort/Filter

Enter filter...

Sort Ascending

Sort Descending

First Name		lame	Email
John			john.doe@gmail.com
Frank		Smith	fsmith@yahoo.com
Kim		Cole	kimcole@outlook.com

Customized texts

In this example we will change the title of the pop-up and also change the text that is displayed in the filter field:

<comp:AutoSortTable items="{/users}" <mark>title="Sort/Filter Options" filterText="Enter text…"</mark>>

…

</comp:AutoSortTable>

This will result in the following popup:

Customized placement

The placement value can contain any valid sap.m.PlacementType and will attempt to place the popup on the screen based on that if it fits within the screen. The default is Auto which will attempt to place it on the best side to make it completely visible. This is the recommended setting. In this example we will set it to PreferredTopOrFlip which will place it at the top if it can fit, or otherwise it will flip it to the bottom.

<comp:AutoSortTable items="{/users}" <mark>placement="PreferredTopOrFlip"</mark> title="Sort/Filter Options" filterText="Enter text…">

…

</comp:AutoSortTable>

This will result in the following popup:

Sort/Filter Options

Enter text…

Sort Ascending

Sort Descending

First Name	Last Name	Email
John	Doe	john.doe@gmail.com
Frank	Smith	fsmith@yahoo.com
Kim	Cole	kimcole@outlook.com

Removing the filter

In this example we will remove the filter, leaving only sorting options. We will change the title to reflect that and set the showFilter property to false.

NOTE: You can also set this value by individual column by setting this value in the SortableColumn element in the columns aggregation. With this method you can have different columns with different sorting and filtering options.

<comp:AutoSortTable items="{/users}" title="Sort Options" showFilter="false">
…
</comp:AutoSortTable>

This will result in the following popup:

First Name		Email
John		john.doe@gmail.com
Frank	Smith	fsmith@yahoo.com
Kim	Cole	kimcole@outlook.com

Removing the sort

In this example we will remove the sort buttons, leaving only filtering capabilities and we will adjust the title accordingly:

NOTE: You can also set this value by individual column by setting this value in the SortableColumn element in the columns aggregation. With this method you can have different columns with different sorting and filtering options.

<comp:AutoSortTable items="{/users}" title="Filter" showSort="false" filterText="Enter text…">
…
</comp:AutoSorttable>

This will result in the following popup:

First Name		Email
John	Doe	john.doe@gmail.com
Frank	Smith	fsmith@yahoo.com
Kim	Cole	kimcole@outlook.com

API Documentation

AutoSortTable

Constructor

Constructor for a new AutoSortTable.

Accepts an object literal mSettings that defines the initial property values, aggregated and associated objects as well as event handlers. See sap.ui.base.ManagedObject for a general description of the syntax of the settings object.

```
new AutoSortTable(sId?, mSettings?)
```

Parameter	Type	Default Value
sId?	String	
ID for the new control, generated automatically if no ID is given		
mSettings?	Object	
Initial settings for the new control		

Properties

Property	Type	Default Value
placement?	sap.m.PlacementType	"Auto"
Where to place the popup in relation to the column clicked to display it		
sortAscButtonText?	String	"Sort Ascending"
The text to display on the sort ascending button		
sortDescButtonText?	String	"Sort Descending"
The text to display on the sort descending button		
filterPlaceholder	String	"Enter filter…"
The text to display as the placeholder in the filter field		
zebraStripe	Boolean	false
Indicator if the table rows should be zebra stripped		
evenRowColor	CSS Color String	"white"
Background color for the even rows		
oddRowColor	CSS Color String	"lightgray"
Background color for the odd rows		
fixedBottomRowCount	Integer	0
The number of rows at the bottom of the table to consider "total" rows. These will not be filtered or sorted.		
totalRowColor	CSS Color String	"darkgray"
Background color for the "total" rows as defined in fixedBottomRowCount		
title	String	"Options"
Title to display in the popup.		

NOTE: This value is overridden by the title property in the SortableColumn elements in the "columns" aggregation if the column's useDefaults value is set to false.		
showSort	Boolean	true
Indicates if the sort ascending and sort descending buttons should be shown in the popup. NOTE: This value is overridden by the showSort property in the SortableColumn elements in the "columns" aggregation if the column's useDefaults value is set to false.		
showFilter	Boolean	true
Indicates if the filter field should be displayed in the popup. NOTE: This value is overridden by the showFilter property in the SortableColumn elements in the "columns" aggregation if the column's useDefaults value is set to false.		

SortableColumn

Constructor

Constructor for a new SortableColumn.

Accepts an object literal mSettings that defines the initial property values, aggregated and associated objects as well as event handlers. See sap.ui.base.ManagedObject for a general description of the syntax of the settings object.

```
new SortableColumn(sId?, mSettings?)
```

Parameter	Type	Default Value
sId?	String	
ID for the new control, generated automatically if no ID is given		
mSettings?	Object	
Initial settings for the new control		

Properties

useDefaults	Boolean	true
Indicates if the title, showSort and showFilter parameters should be inherited from the parent AutoSortTable. This must be set to true if you wish the SortableColumn to use custom values.		
title	String	"Options"
The title for the popup. Overrides the title value in the AutoSortTable to which this SortableColumn belongs if the userDefaults property is set to false.		
showSort	Boolean	true
Indicates if the sort ascending and sort descending buttons should be displayed in the popup. Overrides the showSort value in the AutoSortTable to which this SortableColumn belongs if the userDefaults property is set to false.		
showFilter	Boolean	true
Indicates if the filter field should be displayed in the popup. Overrides the showSort value in the AutoSortTable to which this SortableColumn belongs if the userDefaults property is set to false.		

AutoSortTableRenderer

This object current extends the sap.m.TableRenderer with no changes. It is provided for future changes that may need to be made in the rendering of the tables and can be used by developers to enhance the rendering of the tables to fit their needs.

The AutoSortTable automatically utilizes the AutoSortTableRenderer as it's renderer.