

## 13-01 Activities view – Sorting – Interactive column sorting

This example shows how the automatic sorting function can be used according to the values of a selected column.

The sort is a display sort and is only maintained as long as the sort function is active. During this time, however, the sort is dynamic — i.e., changes to the data in the relevant column automatically update the sort order. If there are identical values, the initial order is preserved.

Only one column can be sorted at a time. When switching from one sorted column to another, the sort is applied to the new column. The starting point for sorting is the original order.

To use this functionality, two options must be set to **true**:

`interactiveSwitchingOfSortOrderEnabled: true,`  
`sortingIndicatorVisible: true`

The **`interactiveSwitchingOfSortOrderEnabled`** option allows sorting by clicking on one of the table columns. However, only the second option, **`sortingIndicatorVisible`**, provides visual feedback about the sort mode by displaying an arrow: pointing up for ascending sort and down for descending sort.



Clicking in the column header (e.g. Start) causes two options to be set automatically:

```
activityRowSortCodePropertyName: "Start",  
activityRowSortMode: RowSortMode.Ascending
```

If certain columns are to be excluded from the sorting option, the **`cancel`** property must be set to **true** for these in the **`onRowSortingChangeRequested`** callback.

```
onRowSortingChangeRequested: function (args) {  
    if (args.sortCodeSource == "Name")  
        args.cancel = true;  
},
```

01-10 ActivitiesView - Interactive table column sorting Deactivate table column sorting

	Resource	Start	End	Working Days	Sort Code 1	Sort Code 2	January 2028
							KW 52 01 02 03 04 05 06 07 08 09 KW 01 10 11 12 13 14 15 16 17 18 19 KW 02 KW 03
1	Activity 1	05.01.2028	08.01.2028	3	A	a	A1
2	Activity 2	06.01.2028	09.01.2028	3	C	b	A2
3	Activity 3	15.01.2028	18.01.2028	3	C	c	A3
4	Activity 4	20.01.2028	23.01.2028	3	A	c	
5	Activity 5	25.01.2028	28.01.2028	3	B	b	
6	Activity 6	05.01.2028	08.01.2028	3	B	c	A7
7	Activity 7	06.01.2028	13.01.2028	7	B	d	A7
8	Activity 8	15.01.2028	18.01.2028	3	B	d	A8
9	Activity 9	20.01.2028	23.01.2028	3	B	a	
10	Activity 10	25.01.2028	28.01.2028	3	B	c	

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
  <link href="../../VSWidget/nwaf-apptools.min.css" rel="stylesheet"/>
  <link href="../../VSWidget/nwaf-table.min.css" rel="stylesheet"/>
  <link href="../../VSWidget/nwaf-gantt.min.css" rel="stylesheet"/>
  <link href="../../VSWidget/nwaf-rab.min.css" rel="stylesheet"/>
  <script src="https://cdn.jsdelivr.net/npm/hammerjs@2.0.8/hammer.min.js"></script>
  <script src="https://cdn.jsdelivr.net/npm/d3@7.9.0/dist/d3.min.js"></script>
  <script src="https://cdn.jsdelivr.net/npm/tinycolor2@1.6.0/cjs/tinycolor.min.js"></script>
  <script src="../../VSWidget/nwaf-apptools.min.js"></script>
  <script src="../../VSWidget/nwaf-table.min.js"></script>
  <script src="../../VSWidget/nwaf-gantt.min.js"></script>
  <script src="../../VSWidget/nwaf-rab.min.js"></script>
  <script src="../../LicenseKey.js"></script>
  <script src="Miscellaneous.js"></script>
</head>
<body>
  <div id="toolbar">
    <input id="sorting" type="button" value="Deactivate table column sorting"
      style="margin-left: 15px; height: 20px; width: 200px"/>
  </div>
  <div id="VSWidget"></div>
  <script>
    Miscellaneous.ready(() => {
      const { BarDragModes, BarSortMode, HorizontalAlignment,
        RowDesigns, RowSortMode } = netronic.nVSW;

      document.getElementById("sorting").addEventListener("click", enableOrDisableSorting);

      const timeAreaStart = new Date(2028, 0, 1);
      const timeAreaEnd = new Date(2028, 3, 1);

      const options = {
        licenseKey: window.VSW_LICENSE_KEY,

        start: timeAreaStart,
        end: timeAreaEnd,

        defaultActivityExpandedRowDesign: RowDesigns.Bars,
        defaultActivityCollapsedRowDesign: RowDesigns.Bars |
          RowDesigns.BarsInHiddenDescendantRows |
          RowDesigns.BarsStacked,
        activityBarSortModeForStackedRowDesign: BarSortMode.StartAndEnd,
        defaultActivityAllowedBarDragModes: BarDragModes.None,
        defaultActivityBarSelectable: false,
        defaultActivityRowSelectable: false,
        multipleSelectionEnabled: false,
        defaultActivityTableRowDefinitionID: "CustomRowDef",
        intlDateTimeFormatOptionsMap: {
          dateFmt: {
            year: "numeric",
            month: "2-digit",
            day: "2-digit"
          }
        },
        interactiveSwitchingOfSortOrderEnabled: true,
        sortingIndicatorVisible: true,

        onRowSortingChangeRequested: (args) => {
          if (args.sortCodeSource === "my_Name")
            args.cancel = true;
        },
      };

      const vsWidget = Miscellaneous.instantiateVSWidget(document.querySelector("#VSWidget"), options);

      const tableRowDefinitions = createTableRowDefinitions();
      const activities = createActivities();
      vsWidget.addTableRowDefinitions(tableRowDefinitions);
      vsWidget.addActivities(activities);
      vsWidget.render();

      function createTableRowDefinitions() {

```

```

const tableRowDefinitions = [
  {
    ID: "CustomRowDef",
    CellDefinitions: [
      {
        TitleText: "No",
        TextSource: "my_No",
        HorizontalAlignment: HorizontalAlignment.Center,
        Width: 50,
      },
      {
        TitleText: "Activities",
        TextSource: "my_Name",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        Width: 170,
      },
      {
        TitleText: "Start",
        TextSource: "Start",
        TextFormat: "{Start:date:dateFmt}",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        BackgroundColor: "lightyellow",
        Width: 120,
      },
      {
        TitleText: "End",
        TextSource: "my_EndDay",
        TextFormat: "{my_EndDay:date:dateFmt}",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        BackgroundColor: "lightgreen",
        Width: 100,
      },
      {
        TitleText: "Working Days",
        TextSource: "my_WorkingDays",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        Width: 120,
      },
      {
        TitleText: "Sort Code 1",
        TextSource: "my_SortCode1",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        Width: 120,
      },
      {
        TitleText: "Sort Code 2",
        TextSource: "my_SortCode2",
        HorizontalTitleAlignment: HorizontalAlignment.Center,
        HorizontalAlignment: HorizontalAlignment.Center,
        Width: 120,
      },
    ],
  },
];

return tableRowDefinitions;
}

function createActivities() {
  const activities = [
    {
      ID: "Act1",
      my_Name: "Activity 1",
      BarText: "A1",
      Start: new Date(2028, 0, 5),
      my_WorkingDays: 3,
      my_SortCode1: "A",
      my_SortCode2: "a",
      my_No: 1,
    }
  ]
}

```

```

    },
    {
        ID: "Act2",
        my_Name: "Activity 2",
        BarText: "A2",
        Start: new Date(2028, 0, 6),
        my_WorkingDays: 3,
        my_SortCode1: "C",
        my_SortCode2: "b",
        my_No: 2,
    },
    {
        ID: "Act3",
        my_Name: "Activity 3",
        BarText: "A3",
        Start: new Date(2028, 0, 15),
        my_WorkingDays: 3,
        my_SortCode1: "C",
        my_SortCode2: "c",
        my_No: 3,
    },
    {
        ID: "Act4",
        my_Name: "Activity 4",
        BarText: "A4",
        Start: new Date(2028, 0, 20),
        my_WorkingDays: 3,
        my_SortCode1: "A",
        my_SortCode2: "c",
        my_No: 4,
    },
    {
        ID: "Act5",
        my_Name: "Activity 5",
        BarText: "A5",
        Start: new Date(2028, 0, 25),
        my_WorkingDays: 3,
        my_SortCode1: "B",
        my_SortCode2: "b",
        my_No: 5,
    },
    {
        ID: "Act6",
        my_Name: "Activity 6",
        BarText: "A7",
        Start: new Date(2028, 0, 5),
        my_WorkingDays: 3,
        my_SortCode1: "B",
        my_SortCode2: "c",
        my_No: 6,
    },
    {
        ID: "Act7",
        my_Name: "Activity 7",
        BarText: "A7",
        Start: new Date(2028, 0, 6),
        my_WorkingDays: 7,
        my_SortCode1: "B",
        my_SortCode2: "d",
        my_No: 7,
    },
    {
        ID: "Act8",
        my_Name: "Activity 8",
        BarText: "A8",
        Start: new Date(2028, 0, 15),
        my_WorkingDays: 3,
        my_SortCode1: "B",
        my_SortCode2: "d",
        my_No: 8,
    },
    {
        ID: "Act9",
        my_Name: "Activity 9",

```

```

        BarText: "A9",
        Start: new Date(2028, 0, 20),
        my_WorkingDays: 3,
        my_SortCode1: "B",
        my_SortCode2: "a",
        my_No: 9,
    },
    {
        ID: "Act10",
        my_Name: "Activity 10",
        BarText: "A10",
        Start: new Date(2028, 0, 25),
        my_WorkingDays: 3,
        my_SortCode1: "B",
        my_SortCode2: "c",
        my_No: 10,
    },
];

const millisecondsPerDay = 24 * 60 * 60 * 1000;
for (const activity of activities) {
    activity.End = new Date(activity.Start.getTime() +
        (activity.my_WorkingDays ?? 1) * millisecondsPerDay);
    activity.my_EndDay = new Date(activity.Start.getTime() +
        ((activity.my_WorkingDays ?? 1) - 1) * millisecondsPerDay);
}

return activities;
}

function enableOrDisableSorting() {
    const btn = document.getElementById("sorting");

    if (btn.value === "Activate table column sorting") {
        btn.value = "Deactivate table column sorting";
        vsWidget.option("interactiveSwitchingOfSortOrderEnabled", true);
    }
    else {
        btn.value = "Activate table column sorting";
        vsWidget.option({
            interactiveSwitchingOfSortOrderEnabled: false,
            resourceRowSortMode: RowSortMode.None,
        });
    }
}

});
</script>
</body>
</html>

```