

29 Time Series Table Display

Since 2020.01 it is possible to configure a display to show values of time series in a customizable table.

Time series can be defined via the <variable> elements and multiple <tableTabs> can be configured to use multiple tables spread over multiple tabs.

Variables can be used in multiple tabs.

A forecast filter can be configured to view values from different forecasts.

```
<?xml version="1.0" encoding="UTF-8"?>
<timeSeriesTableDisplay xmlns="http://www.wldelft.nl/fews" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.wldelft.nl/fews http://fews.wldelft.nl/schemas/version1.0 /timeSeriesTableDisplay.xsd">
    <general>
        <displayName>Rainfall Forecast Summary</displayName>
        <forecastFilter>
            <workflowId>Create_NWP_MediumRange_BE</workflowId>
            <workflowId>Create_NWP_MediumRange_RWC</workflowId>
        </forecastFilter>
        <variable>
            <variableId>Mean_6hr_BE</variableId>
            <timeSeriesSet>
                <moduleId>Process_Fluvial_BE</moduleId>
                <valueType>scalar</valueType>
                <parameterId>P.nwp.forecast</parameterId>
                <qualifierId>Mean</qualifierId>
                <locationSetId>UK_RFS_Polygons</locationSetId>
                <timeSeriesType>simulated forecasting</timeSeriesType>
                <timeStep unit="hour" multiplier="6"/>
                <readWriteMode>read complete forecast</readWriteMode>
                <ensembleId>FMRBE</ensembleId>
                <ensembleMemberId>BE</ensembleMemberId>
            </timeSeriesSet>
        </variable>
        <variable>
            <variableId>Max_6hr_BE</variableId>
            <timeSeriesSet>
                <moduleId>Process_Fluvial_BE</moduleId>
                <valueType>scalar</valueType>
                <parameterId>P.nwp.forecast</parameterId>
                <qualifierId>Max</qualifierId>
                <locationSetId>UK_RFS_Polygons</locationSetId>
                <timeSeriesType>simulated forecasting</timeSeriesType>
                <timeStep unit="hour" multiplier="6"/>
                <readWriteMode>read complete forecast</readWriteMode>
                <ensembleId>FMRBE</ensembleId>
                <ensembleMemberId>BE</ensembleMemberId>
            </timeSeriesSet>
        </variable>
        <variable>
            <variableId>Mean_12hr_BE</variableId>
            <timeSeriesSet>
                <moduleId>Process_Fluvial_BE</moduleId>
                <valueType>scalar</valueType>
                <parameterId>P.nwp.forecast</parameterId>
                <qualifierId>Mean</qualifierId>
                <locationSetId>UK_RFS_Polygons</locationSetId>
                <timeSeriesType>simulated forecasting</timeSeriesType>
                <timeStep unit="hour" multiplier="12"/>
                <readWriteMode>read complete forecast</readWriteMode>
                <ensembleId>FMRBE</ensembleId>
                <ensembleMemberId>BE</ensembleMemberId>
            </timeSeriesSet>
        </variable>
        <variable>
            <variableId>Max_12hr_BE</variableId>
            <timeSeriesSet>
                <moduleId>Process_Fluvial_BE</moduleId>
```

```

        <valueType>scalar</valueType>
        <parameterId>P.nwp.forecast</parameterId>
        <qualifierId>Max</qualifierId>
        <locationSetId>UK_RFS_Polygons</locationSetId>
        <timeSeriesType>simulated forecasting</timeSeriesType>
        <timeStep unit="hour" multiplier="12"/>
        <readWriteMode>read complete forecast</readWriteMode>
        <ensembleId>FMRBE</ensembleId>
        <ensembleMemberId>BE</ensembleMemberId>
    </timeSeriesSet>
</variable>
</general>
<tableTab>
    <title>Rainfall Forecast Summary 6 hr (BE)</title>
    <showValues>true</showValues>
    <showThresholdColors>true</showThresholdColors>
    <locationOrderingAttributeId>RFS_Order</locationOrderingAttributeId>
    <column variableId="Mean_6hr_BE" name="Mean"/>
    <column variableId="Max_6hr_BE" name="Max"/>
</tableTab>
<tableTab>
    <title>Rainfall Forecast Summary 12 hr (BE)</title>
    <showValues>true</showValues>
    <showThresholdColors>true</showThresholdColors>
    <locationOrderingAttributeId>RFS_Order</locationOrderingAttributeId>
    <column variableId="Mean_12hr_BE" name="Mean"/>
    <column variableId="Max_12hr_BE"/>
</tableTab>
</timeSeriesTableDisplay>

```

Below an example can be seen where both values and threshold colors are used. They can be turned on and off separately with the elements <showValues> and <showThresholdColors>

Forecast selection

	Create Reasonable Worst Case Medium Range Forecast	T0 = Wed Dec 11 06:00:00 GMT 2019	dispatchTime = Wed Dec 11 12:00:48 GMT 2019								
	Create Best Estimate Medium Range Forecast	T0 = Wed Dec 11 06:00:00 GMT 2019	dispatchTime = Wed Dec 11 12:00:00 GMT 2019								
	Create Reasonable Worst Case Medium Range Forecast	T0 = Tue Dec 10 15:00:00 GMT 2019	dispatchTime = Wed Dec 11 06:12:20 GMT 2019								
	Create Best Estimate Medium Range Forecast	T0 = Tue Dec 10 15:00:00 GMT 2019	dispatchTime = Wed Dec 11 06:04:45 GMT 2019								
Rainfall Forecast Summary 6 hr (BE)		Rainfall Forecast Summary 12 hr (BE)	Rainfall Forecast Summary 6 hr (RWC)								
Location		11/12 06:00	11/12 12:00	11/12 18:00	12/12 00:00	12/12 06:00	12/12 12:00	12/12 18:00	13/12 00:00	13/12 06:00	
		Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max
● Cornwall & Lower Ground		0.01	0.44	1.03	6.01	1.71	4.65	0.66	4.35	0.68	2.3
● Sussex		0.0	0.0	0.49	3.4	2.83	5.91	0.0	0.0	0.0	1.6
● Kent & South London		0.0	0.0	0.01	0.47	2.53	7.39	0.0	0.0	0.0	0.91
● South London		0.0	0.0	0.0	0.0	0.85	1.75	0.0	0.0	0.0	0.3
● North London		0.0	0.0	0.0	0.0	0.6	1.22	0.0	0.0	0.0	0.38
● North East Thames		0.0	0.0	0.0	0.0	0.23	1.1	0.0	0.06	0.0	0.45
● West Thames (South)		0.0	0.0	0.03	0.78	0.71	2.88	0.0	0.0	0.0	0.83
● West Thames (North)		0.0	0.0	0.06	0.66	0.26	1.37	0.01	0.44	0.0	0.0
● Cotswolds		0.0	0.0	0.46	1.04	0.77	2.03	0.0	0.0	0.0	1.12
● Essex		0.0	0.0	0.0	0.0	0.33	1.32	0.01	0.62	0.0	0.19
● Norfolk & Suffolk		0.0	0.0	0.0	0.0	0.01	0.63	0.06	1.22	0.0	0.0
● Bodmin Moor		0.0	0.0	1.77	3.54	1.64	3.44	0.92	2.32	0.67	2.15
● Cambridgeshire		0.0	0.0	0.0	0.0	0.07	1.72	0.0	0.13	0.0	0.0
● Welland & Nene		0.0	0.0	0.0	0.0	0.21	1.37	0.0	0.0	0.0	0.17
● Lincolnshire		0.0	0.0	0.0	0.0	0.23	0.96	0.0	0.0	0.0	0.17
● Avon & Soar Headwaters		0.0	0.0	0.01	0.35	0.69	1.92	0.0	0.0	0.0	0.21
● Upper Trent & Tame		0.0	0.0	0.01	0.16	0.87	2.66	0.0	0.5	0.0	0.19
● Peak District and Hills		0.0	0.0	0.0	0.35	1.05	4.73	0.69	4.61	0.03	0.87
● Trent Lowlands		0.0	0.0	0.0	0.0	0.36	1.31	0.0	0.03	0.0	0.29
● Upper Dee		0.02	0.31	7.34	20.51	0.98	3.69	0.47	2.87	0.17	1.58
● Dee		0.0	0.13	0.57	3.66	0.76	2.79	0.02	0.88	0.0	0.06
● Upper Severn		0.07	0.97	3.5	18.96	2.67	6.42	0.47	4.24	0.06	1.18
● Dartmoor		0.25	1.5	0.91	2.32	2.0	5.5	0.89	2.0	1.12	4.38
● Wye and Teme		0.03	0.94	2.96	15.49	2.68	10.02	1.08	4.46	0.23	1.87
● Shropshire		0.04	0.5	0.3	4.1	1.05	2.48	0.0	0.19	0.0	0.08
● Shropshire Hills		0.03	0.34	0.14	1.97	0.98	2.93	0.05	1.09	0.0	0.0
● Teme and Wye		0.01	0.41	1.62	5.8	0.51	3.18	0.01	0.47	0.0	0.03
● Severn Lowlands		0.0	0.0	0.56	2.04	0.95	3.1	0.0	0.0	0.0	0.03

A <column> can be defined for a variable, its header title can be changed by the optional "name" element

There are multiple options to tweak the location list:

<locationOrderingAttributeId> => this attribute orders the locations by the values for this attribute

<locationLabelAttributeId> => the values of this attribute are used for the label of the locations

<locationGroupingAttributeId> => this groups locations with the same attribute value into foldable parts of the table.

Also a <thresholdgroupId> can be specified to select a subset of thresholds that should be used to determine the background color of the cells.