

A photograph of a modern, multi-story building with a curved facade and many large windows. The building is illuminated from within, showing office spaces and people working. A long, low wall or bridge extends from the building over a body of water, also featuring built-in lighting. The sky is a deep blue, suggesting it's either dusk or dawn.

Deltares

# Delft-FEWS Anwendertreffen

## Buttons Panel

Indra Marth

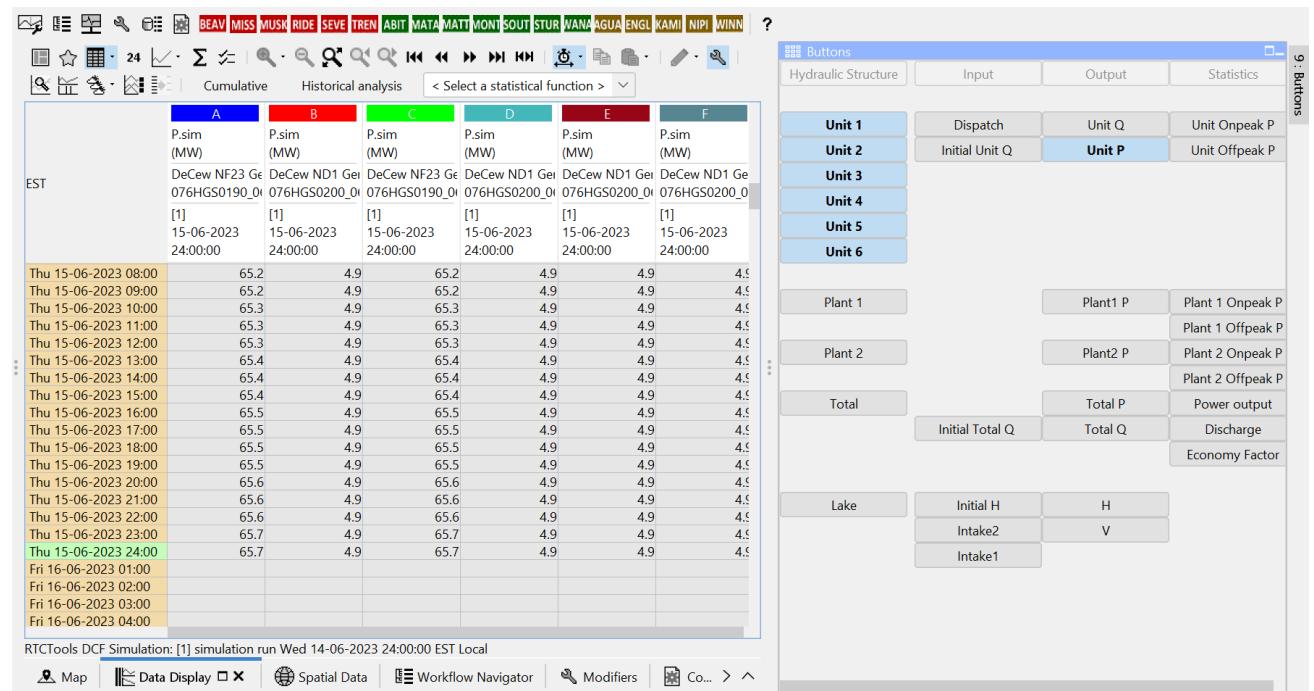
16.06.2023

# What is the Buttons Panel?

## Additional filter Display for Time Series Display

- Filters displayed table columns
- Filters displayed plots
- Based on parameters and locations

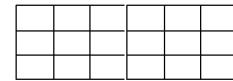
[17 TimeSeriesButtonsPanels - DELFT-FEWS Documentation - Deltares Public Wiki](#)



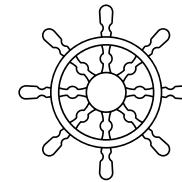
# Why use the Buttons Panel?

## Examples for application:

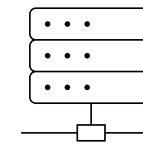
- Integrate large Excel sheets



- Reservoir operation



- Integration of RTC-Tools models



# How does the Buttons Panel work?

Large table (spread sheet) without Buttons Panel

	V Pine.sim )	W Q.turbine.sim (m3/s)	X Q.turbine.sim (m3/s)	Y Q.turbine.sim (m3/s)	Z Q.turbine.sim (m3/s)	AA P.sim (MW)	AB P.sim (MW)	AC P.sim (MW)	AD P.sim (MW)	AE P.sim (MW)	P.sim (MW)
EST	n ND1 Ge GS0200_0	DeCew NF23 Ge 076HGS0190_0	DeCew ND1 Ge 076HGS0200_0	DeCew ND1 Ge 076HGS0200_0	DeCew ND1 Ge 076HGS0200_0	DeCew NF23 Ge 076HGS0190_0	DeCew ND1 Ge 076HGS0200_0	DeCew NF23 Ge 076HGS0190_0	DeCew ND1 Ge 076HGS0200_0	DeCew ND1 Ge 076HGS0200_0	DeCew
	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]
	-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-2023	15-06-
	:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00	24:00:00
	Thu 15-06-2023 08:00	8.131	86.125	8.131	8.131	8.131	65.2	4.9	65.2	4.9	4.9
	Thu 15-06-2023 09:00	8.133	86.141	8.133	8.133	8.133	65.2	4.9	65.2	4.9	4.9
	Thu 15-06-2023 10:00	8.134	86.156	8.134	8.134	8.134	65.3	4.9	65.3	4.9	4.9
	Thu 15-06-2023 11:00	8.136	86.172	8.136	8.136	8.136	65.3	4.9	65.3	4.9	4.9
	Thu 15-06-2023 12:00	8.138	86.187	8.138	8.138	8.138	65.3	4.9	65.3	4.9	4.9
	Thu 15-06-2023 13:00	8.140	86.202	8.140	8.140	8.140	65.4	4.9	65.4	4.9	4.9
	Thu 15-06-2023 14:00	8.141	86.217	8.141	8.141	8.141	65.4	4.9	65.4	4.9	4.9
	Thu 15-06-2023 15:00	8.143	86.232	8.143	8.143	8.143	65.4	4.9	65.4	4.9	4.9
	Thu 15-06-2023 16:00	8.144	86.246	8.144	8.144	8.144	65.5	4.9	65.5	4.9	4.9
	Thu 15-06-2023 17:00	8.146	86.261	8.146	8.146	8.146	65.5	4.9	65.5	4.9	4.9
	Thu 15-06-2023 18:00	8.148	86.275	8.148	8.148	8.148	65.5	4.9	65.5	4.9	4.9
	Thu 15-06-2023 19:00	8.149	86.289	8.149	8.149	8.149	65.5	4.9	65.5	4.9	4.9
	Thu 15-06-2023 20:00	8.151	86.302	8.151	8.151	8.151	65.6	4.9	65.6	4.9	4.9
	Thu 15-06-2023 21:00	8.152	86.316	8.152	8.152	8.152	65.6	4.9	65.6	4.9	4.9
	Thu 15-06-2023 22:00	8.154	86.329	8.154	8.154	8.154	65.6	4.9	65.6	4.9	4.9
	Thu 15-06-2023 23:00	8.155	86.342	8.155	8.155	8.155	65.7	4.9	65.7	4.9	4.9
	Thu 15-06-2023 24:00	8.157	86.355	8.157	8.157	8.157	65.7	4.9	65.7	4.9	4.9
	Fri 16-06-2023 01:00										
	Fri 16-06-2023 02:00										

RTCTools DCF Simulation Preprocess: [1] simulation preprocessing Wed 14-06-2023 24:00:00 EST Local RTCTools DCF Simulation: [2] simulation run Wed 14-06-2023 24:00:00 EST Local

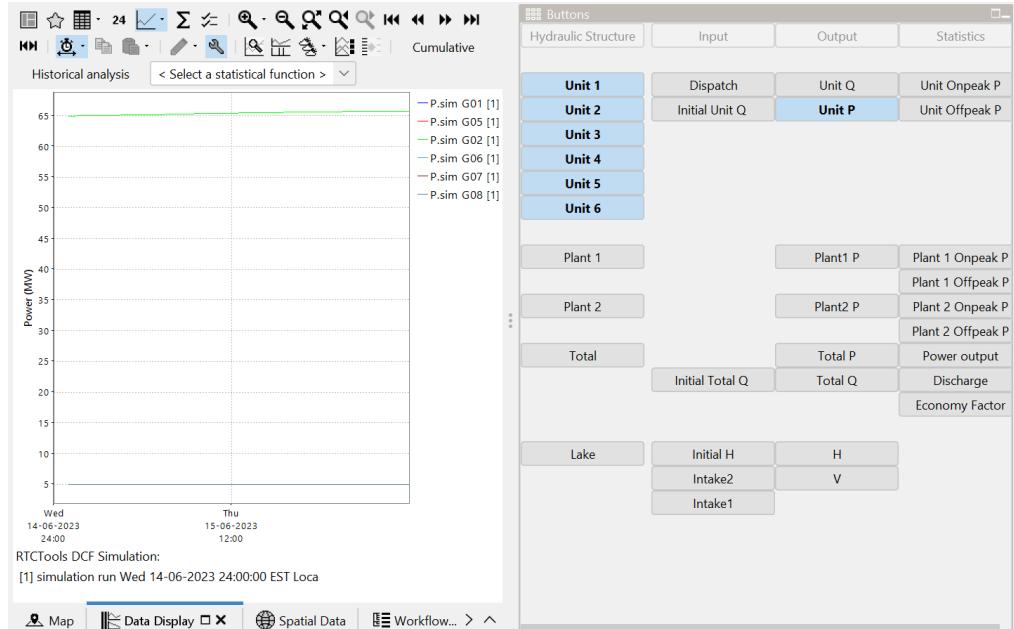
# How does the Buttons Panel work?

The screenshot displays the RTCTools DCF Simulation interface with three main panels:

- Workflow Panel (Left):** Shows a tree view of simulation components under "Basin". The "simulation run" node is selected. Other nodes include "Hydro-meteo", "Precip. Accum. (Subbasins)", "Precipitation", "Temperature", "Snow", "subbasin", "subbasin", "simulation preprocessing", and "optimization". A status bar at the bottom shows "RTCTools DCF Simulation: [1] simulation run Wed 14-06-2023 24:00:00 EST Local".
- Data Display (Center):** Displays historical analysis data for "EST" (Eastern Standard Time). It includes a table titled "Open/hide table or graph" with columns for dates from "Thu 15-06-2023 08:00" to "Fri 16-06-2023 02:00" and rows for parameters like "P.sim (MW)" across four units (B, C, D, E). A tooltip "Select node in topology (Workflow Panel)" points to the "simulation run" node in the Workflow Panel.
- Buttons Panel (Right):** Shows a grid of buttons for "Unit 1" through "Unit 6", "Plant 1", "Plant 2", and "Total". Buttons are labeled "Dispatch", "Initial Unit Q", "Unit P", and "Unit Onpeak P". A tooltip "Select locations and parameters to be shown (here differentiated between input, output and statistics)" points to the "Unit P" button. Another tooltip "Open Buttons Panel" points to the "Unit P" button.

# How does the Buttons Panel work?

## Filter plots



## Filter table

The figure shows the RTCTools DCF Simulation interface. On the left is a historical analysis table for the EST region. The table has columns for A, B, C, D, E, and F, each representing a different variable or unit. The rows show data for various dates and times, such as Thu 15-06-2023 08:00 to Fri 16-06-2023 04:00. The table includes headers for P.sim (MW), DeCew NF23 Ge, DeCew ND1 Ge, DeCew NF23 Ge, DeCew ND1 Ge, and DeCew ND1 Ge, along with corresponding values like 65.2, 4.9, etc. The right side of the interface features a 'Buttons' panel with tabs for Hydraulic Structure, Input, Output, and Statistics. The 'Buttons' tab is active. It contains a grid of buttons for Unit 1 through Unit 6, with 'Unit P' highlighted. Below the units are buttons for Plant 1, Plant 2, Total, Lake, and Intake. To the right of these are buttons for Dispatch, Unit Q, Unit Onpeak P, Unit Offpeak P, Plant1 P, Plant1 Onpeak P, Plant1 Offpeak P, Plant2 P, Plant2 Onpeak P, Plant2 Offpeak P, Total P, Power output, Initial Total Q, Total Q, Discharge, and Economy Factor.

# Configuration

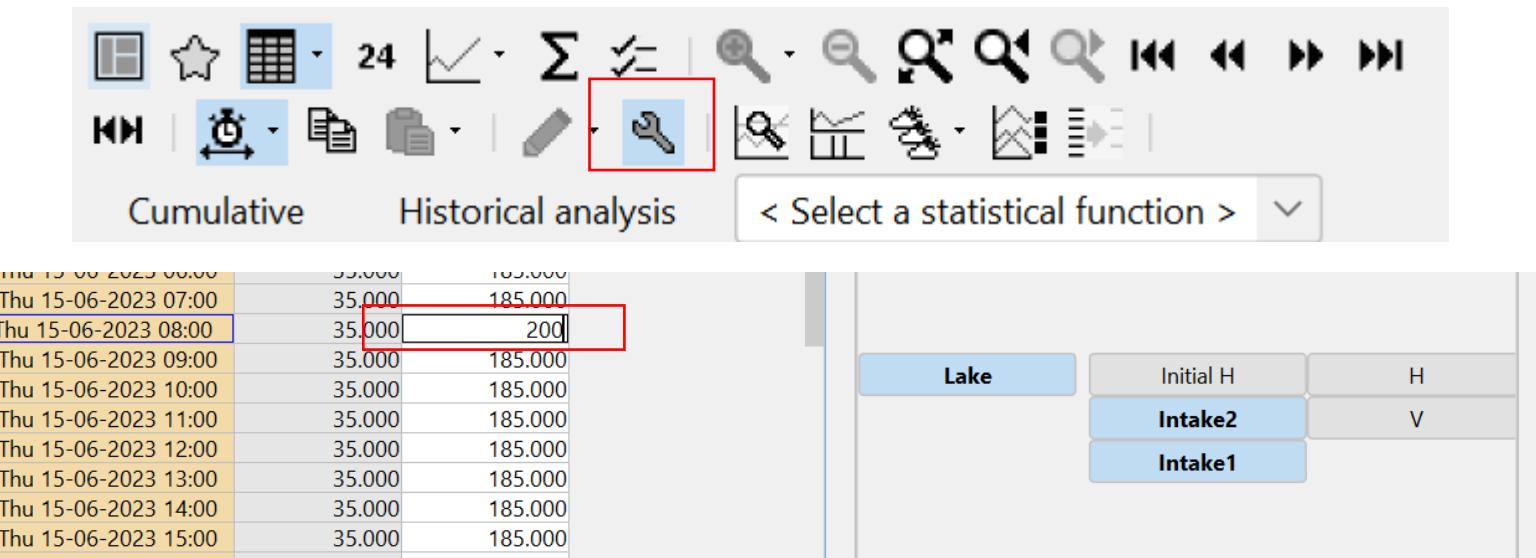
- DisplayConfigFiles\TimeSeriesButtonsPanels.xml
- SystemConfigFiles\Explorer.xml
- RegionConfigFiles\Topology.xml

	= groupId	= name	= column	= row	locationId	locationSetId	parameterId	qualifierId
1	header	Hydraulic Structure	1	1				
2	header	Input	2	1				
3	header	Output	3	1				
4	header	Statistics	4	1				
5	location	Unit 1	1	3				
6	location	Unit 2	1	4				
7	location	Unit 3	1	5				
8	location	Unit 4	1	6				
9	location	Unit 5	1	7				
10	location	Unit 6	1	8				
11	location	Plant 1	1	10				
12	location	Plant 2	1	12				
13	location	Total	1	14				
14	location	Lake	1	18				
15	parameter	Total P	3	14				
16	parameter	Plant1 P	3	10				
17	parameter	Plant2 P	3	12				
18	parameter	Dispatch	2	3				

# Combination with modifiers

- Modify values in the table
- Add values in the table
- Select specific values from a drop-down menu

- Determine your operation
- Customize your operation
- Correct values
- ...



# Contact

 [www.delft-fews.com](http://www.delft-fews.com)

 [fews-pm@deltares.nl](mailto:fews-pm@deltares.nl)

 @DelftFEWS

 @deltares

 [linkedin.com/company/deltares](https://linkedin.com/company/deltares)

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