# The Function of Mean Filter

Signal denoise based on the mean filter.

## Description

Mean filter returns the filtered signal. "File Upload" is used to load the required data set, and the required parameters should be set in the "Parameter" field.

## Parameter introduction

Parameter of mean filter:

Function parameter:

* Sliding window length: The length of the filter window. (data type: int)

**Functional description of the main components**

The overall view of the function of the mean filter is divided into "File Upload", "Parameter", and "Result".

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### File Upload

The uploaded data files support ''.mat'', ''.txt'', ''.csv'', ''.xls'', and ''.npy'' format files.



### Parameter

The user only need to set the length of the filter window here.

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### Result

After the software has been run, click the "Show Result" button to display the signal diagram before and after noise reduction.

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The "Download" button downloads the relevant result images and data.

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**Examples**

The process of using the mean filter in signal processing to achieve noise reduction.

**Step 1: Configure the procedure**

Select "Data Processing" from the process bar on the left side of the web page.

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**Step 2: Select the function**

Select the procedure that needs to be configured from the process display area.

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The ''Mean'' function is chosen for signal processing.

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**Step 3: Upload the data file**

Select the data file to be applied from the local path.



Click "Upload" after successfully selecting the upload data file.

**Step 4: Set and save the parameter**

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The user only needs to set one parameter. For details about the parameter, see "Parameter introduction".

Then, click "Save" after all parameters are configured.

**Step 5: Execute the configured procedure**

Before executing the configured function, the user also needs to set the selected output image and file format.

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Finally, select "Run".

**Step 6: Show the result**

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When the progress bar reaches the end, the task is completed.

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Select "Show Result" to simply view the graphical results of the function.

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The displayed result graph is the signal diagram before and after noise reduction.

**Step 7: Download**

Click "Download" to download the file of data and image.

