 [Chart.js](http://docs.google.com/docs/3.9.1/)

[Home](http://docs.google.com/docs/3.9.1/)

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Ecosystem Ecosystem

* [Awesome (opens new window)](https://github.com/chartjs/awesome)
* [Slack (opens new window)](https://chartjs-slack.herokuapp.com/)
* [Stack Overflow (opens new window)](https://stackoverflow.com/questions/tagged/chart.js)

[GitHub (opens new window)](https://github.com/chartjs/Chart.js)

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* General
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[**#**](#gjdgxs) Data Decimation

The decimation plugin can be used with line charts to automatically decimate data at the start of the chart lifecycle. Before enabling this plugin, review the [requirements](#30j0zll) to ensure that it will work with the chart you want to create.

## [**#**](#1fob9te) Configuration Options

Namespace: options.plugins.decimation, the global options for the plugin are defined in Chart.defaults.plugins.decimation.

| Name | Type | Default | Description |
| --- | --- | --- | --- |
| enabled | boolean | false | Is decimation enabled? |
| algorithm | string | 'min-max' | Decimation algorithm to use. See the [more...](#3znysh7) |
| samples | number |  | If the 'lttb' algorithm is used, this is the number of samples in the output dataset. Defaults to the canvas width to pick 1 sample per pixel. |
| threshold | number |  | If the number of samples in the current axis range is above this value, the decimation will be triggered. Defaults to 4 times the canvas width.  The number of point after decimation can be higher than the threshold value. |

## [**#**](#3znysh7) Decimation Algorithms

Decimation algorithm to use for data. Options are:

* 'lttb'
* 'min-max'

### [**#**](#2et92p0) Largest Triangle Three Bucket (LTTB) Decimation

[LTTB (opens new window)](https://github.com/sveinn-steinarsson/flot-downsample) decimation reduces the number of data points significantly. This is most useful for showing trends in data using only a few data points.

### [**#**](#tyjcwt) Min/Max Decimation

[Min/max (opens new window)](https://digital.ni.com/public.nsf/allkb/F694FFEEA0ACF282862576020075F784) decimation will preserve peaks in your data but could require up to 4 points for each pixel. This type of decimation would work well for a very noisy signal where you need to see data peaks.

## [**#**](#30j0zll) Requirements

To use the decimation plugin, the following requirements must be met:

1. The dataset must have an [indexAxis](http://docs.google.com/docs/3.9.1/charts/line.html#general) of 'x'
2. The dataset must be a line
3. The X axis for the dataset must be either a ['linear'](http://docs.google.com/docs/3.9.1/axes/cartesian/linear.html) or ['time'](http://docs.google.com/docs/3.9.1/axes/cartesian/time.html) type axis
4. Data must not need parsing, i.e. [parsing](http://docs.google.com/docs/3.9.1/general/data-structures.html#dataset-configuration) must be false
5. The dataset object must be mutable. The plugin stores the original data as dataset.\_data and then defines a new data property on the dataset.
6. There must be more points on the chart than the threshold value. Take a look at the Configuration Options for more information.

## [**#**](#3dy6vkm) Related Samples

* [Data Decimation Sample](http://docs.google.com/samples/advanced/data-decimation)

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←  [Canvas background](http://docs.google.com/docs/3.9.1/configuration/canvas-background.html)   [Device Pixel Ratio](http://docs.google.com/docs/3.9.1/configuration/device-pixel-ratio.html)  →