



# Processing Big Data with MATLAB



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# Processing Big Data with MATLAB

This one-day course focuses on adapting existing algorithms to work with a dataset that is too big to fit in memory. You will learn represent big data in MATLAB, adjust existing code to work efficiently with it, and scale up the analysis to take advantage of your own computing resources or a cloud.

## Prerequisites

MATLAB for Data Processing and Visualization, or equivalent experience using MATLAB

### DURATION

1 day



### LEVEL

Medium



## TOPICS

### Day 1

- Prototyping Big Data Algorithms
- Handling Custom Data and Algorithms
- Working with Clusters and Clouds

## Prototyping Big Data Algorithms

OBJECTIVE: Applying existing algorithms to data sets that do not fit into memory.

- Importing data using datastores
- Creating tall arrays
- Running algorithms on tall arrays
- Optimizing code for tall arrays
- Reading data from cloud environments

## Handling Custom Data and Algorithms

OBJECTIVE: Importing custom formatted data and applying algorithms that are not implemented for tall arrays.

- Importing custom formatted data using file datastores and custom datastores
- Partially importing single files
- Applying transformations, reductions, and moving window operations to tall arrays

## Working with Clusters and Clouds

OBJECTIVE: Run big data algorithms on a cluster of computers or on cloud environments.

- Local and remote clusters
- Cluster discovery and connection
- Setup of a cluster on a cloud environment
- File access considerations



**Expand your  
knowledge**

