

# Process Mapping

BigDataStack Software Component developed by UPRC

Process Mapping targets the problem of identifying or recommending the best algorithm from a set of candidate algorithms, given a specific data analysis task, in an automatic way. Its role is to automatically map a step of a process to a specific algorithmic instance from a given pool of algorithms, thereby achieving “process mapping”.

## Input

### Initial TRL

TRL 0

### End Users

Any organization, company, institution or individual that uses machine learning.

## Output

A specific machine learning (ML) algorithm with a set of values for input variables that are automatically mapped to the process (e.g., k-means with number of clusters set to two (2)).

### Final TRL

TRL 5

# Process Mapping

## Key Features and Benefits

- Automatic algorithm selection for ML tasks,
- Hyper Parameter Tuning,
- The component follows a meta learning approach, thus it improves its performance as it is applied on more and more datasets algorithm for an ML task

## Essential Information for Users

The component will automatically select an algorithm from a pre-specified set of algorithms along with a set of values for input parameters.

## Standards involved in the development of the component

Not applicable

## Implementation in BigDataStack Use Cases

The application dimensioning workbench is primarily related to the generic data services offered by the project.

# Process Mapping

**How can the BigDataStack component contribute to Standardization foundations or initiatives?**

Not Expected

**Differentiators from competitors in the market**

Focus on unsupervised learning.