

# processedData

## Service Description

### Abstract

This is the template for Service Description (SD document) according to the Eclipse Arrowhead documentation structure.

## Contents

<b>1</b>	<b>Overview</b>	<b>3</b>
1.1	How This Service Is Meant to Be Used . . . . .	4
1.2	Important Delimitations and Dependencies . . . . .	4
<b>2</b>	<b>Service Interface</b>	<b>5</b>
2.1	operation <code>dataSwitch</code> . . . . .	5
2.2	operation <code>getData</code> . . . . .	5
<b>3</b>	<b>Information Model</b>	<b>6</b>
3.1	struct <code>ProcessedDataSet</code> . . . . .	6
3.2	struct <code>Response</code> . . . . .	7
3.3	Primitives . . . . .	8
<b>4</b>	<b>References</b>	<b>9</b>
<b>5</b>	<b>Revision History</b>	<b>10</b>
5.1	Amendments . . . . .	10
5.2	Quality Assurance . . . . .	10



ARROWHEAD

Document title  
**processedData**  
Date  
**2025-10-20**

Version  
**4.6.0**  
Status  
**RELEASE**  
Page  
**3 (10)**

## 1 Overview

This document describes the ProcessedData service, which enables the delivery of processed data to consumer systems. The service has multiple operations to serve multiple other systems.



ARROWHEAD

Document title  
**processedData**  
Date  
**2025-10-20**

Version  
**4.6.0**  
Status  
**RELEASE**  
Page  
**4 (10)**

## 1.1 How This Service Is Meant to Be Used

This micro service has two operation that control the output of this system. One of the operation is the Data switch which takes a boolean value to change if the system produces a data set for training or just on data point for running local models in inference mode. And the other operation is getData, which produces data.

## 1.2 Important Delimitations and Dependencies

This service produce's data to the machine learning models, in one data point or a whole dataset. Which the solve the producing of training and inference data for the models.

## 2 Service Interface

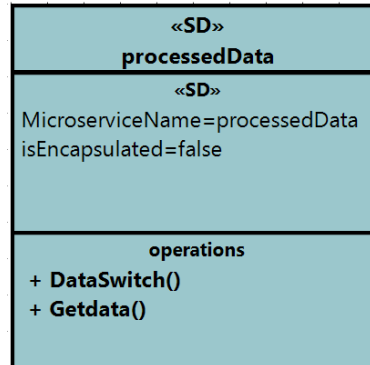


Figure 1: The SysML block from eclipse Arrowhead of the sd porcessedData.

The following interface operations are available.

### 2.1 operation **dataSwitch (flag) : response**

DataSwitch which takes a boolean value to change if the system produces a data set for training or just on data point for running local models in inference mode.

### 2.2 operation **getData () : produces data**

getData, produces an array or a dataset of arrays with processed sensor data.

## 3 Information Model

This section defines the data structures used by the `processedData` service. Each structure begins with the *struct* keyword, denoting a collection of named fields and their types.

### 3.1 struct **ProcessedDataSet**

This structure represents the processed output data returned by the `GetData` operation. The described data in the tabular is one row in the output array.

Field	Type	Description
timestamp	DateTime	The UTC timestamp for when the data was processed.
temperature	Float	Processed temperature value.
voltage	Float	Processed voltage value.
vibration	Float	Processed vibration value.
mode	Boolean	Indicates whether the data was produced in training or inference mode.

### 3.2 struct **Response**

Represents a simple acknowledgment or result message returned from operations like `DataSwitch`.

Field	Type	Description
status	String	Textual response indicating success or error.
code	Integer	Numeric status code.

### 3.3 Primitives

Type	Description
Boolean	Logical value: <code>true</code> or <code>false</code> .
Float	Floating-point number used for sensor values.
DateTime	UTC timestamp representing the processing time.
String	Character sequence for textual messages.
Integer	Whole number representing a status or identifier.





ARROWHEAD

Document title  
**processedData**  
Date  
**2025-10-20**

Version  
**4.6.0**  
Status  
**RELEASE**  
Page  
**9 (10)**

## 4 References



ARROWHEAD

Document title  
**processedData**  
Date  
**2025-10-20**

Version  
**4.6.0**  
Status  
**RELEASE**  
Page  
**10 (10)**

## 5 Revision History

### 5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	2020-12-05	4.6.0		Tanyi Szvetlin
2	2021-07-14	4.6.0	Minor updates	Jerker Delsing
3	2022-01-10	4.6.0	Minor updates	Jerker Delsing

### 5.2 Quality Assurance

No.	Date	Version	Approved by
1	2022-01-10	4.6.0	