**Specification**

USPD: US.ECO.00028-01 90

Component: IEcoEigenfaces1

UGUID:

Status: Draft

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|  |  |
| --- | --- |
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1. **Overview**

This document describes the requirements for the implementation of the EcoEigenfaces1 component. (component)

* 1. **Introduction**

Description.

* 1. **Note**
* Keywords
  1. **Links**

This paragraph contains links to information to help you understand this document:

[] – name of the link

Available by: http://address

1. **EcoEigenfaces1 Component**

The EcoEigenfaces1 component is

The component has the following description:

1. **IEcoEigenfaces1 Interface**
   1. **IEcoEigenfaces1 ECO IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(8D52BC31-B64C-4615-A9E2-F5F35C21AA85),  ] | | | |
| interface IEcoEigenfaces1 : IEcoUnknown { | | | |
|  | | | |
| int16\_t | | ***Train*** | (uint8\_t\*\* bitmaps,  uint32\_t bitmapSize,  int32\_t numImages); |
|  | |  |  |
| int16\_t | | ***Save*** | (int32\_t\* labels,  char\_t\* filenameEigenVectorsBinary,  char\_t\* filenameWeightsBinary,  char\_t\* filenameLabels); |
|  | |  |  |
| int16\_t | | ***Load*** | (char\_t\* filenameEigenVectorsBinary,  char\_t\* filenameWeightsBinary,  char\_t\* filenameLabels); |
|  | |  |  |
| int16\_t | | ***Predict*** | (uint8\_t\* bitmap,  uint32\_t bitmapSize,  int32\_t\* predictedLabel); |
|  | |  |  |
| } | |  |  |

* + 1. **Train function**

The function

* + 1. **Save function**

The function

* + 1. **Load function**

The function

* + 1. **Predict function**

The function

1. **Error codes**

The following table contains the error codes.

|  |  |  |
| --- | --- | --- |
| **Error code** | **Value** | **Description** |
| ERR\_ECO\_SUCCESES | 0x0000 | Operation successful. |
| ERR\_ECO\_UNEXPECTED | 0xFFFF | Unexpected condition. |
| ERR\_ECO\_POINTER | 0xFFEE | NULL was passed incorrectly for a pointer value. |
| ERR\_ECO\_NOINTERFACE | 0xFFED | No such interface supported. |
| ERR\_ECO\_COMPONENT\_NOTFOUND | 0xFFE9 | The component was not found. |
|  |  |  |
|  |  |  |

# **Appendix A: Training programs**