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|  |  |
| --- | --- |
| **Authors** | **Company** |
| Vladimir Bashev | PEERF |
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1. **Overview**

This document describes the requirements for the implementation Eco.LexicalAnalyzer1 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. **Eco.** **LexicalAnalyzer1 Component**

The Eco.LexicalAnalyzer1 component is a

The component has the following description:

1. **IEcoLexicalAnalyzer1 Interface**
   1. **IEcoLexicalAnalyzer1 IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoRL1.idl"  import "IEcoBNF1.idl"  import "IEcoLexicalAnalyzer1Token.idl"  import "IEcoLexicalAnalyzer1Scanner.idl" | | | |
| [  object,  uguid(DFB72921-A0FF-4F1D-93C7-F321AEB315E4),  ] | | | |
| interface IEcoLexicalAnalyzer1 : IEcoUnknown { | | | |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_FileScannerByFA*** | ([in] IEcoFSM1StateMachine\* pIFA,  [in] char\_t\* fileName); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_MemoryScannerByFA*** | ([in] IEcoFSM1StateMachine\* pIFA,  [in] char\_t\* buffer,  [in] int32\_t size); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_FileScannerByRG*** | ([in] IEcoRL1Grammar\* pIGrammar,  [in] char\_t\* fileName); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_MemoryScannerByRG*** | ([in] IEcoRL1Grammar\* pIGrammar,  [in] char\_t\* buffer,  [in] int32\_t size); |
|  | |  |  |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_FileScannerByRE*** | ([in] IEcoRL1Expression\* pIExpression,  [in] char\_t\* fileName); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_MemoryScannerByRE*** | ([in] IEcoRL1Expression\* pIExpression,  [in] char\_t\* buffer,  [in] int32\_t size); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_FileScannerByBNF*** | ([in] IEcoBNF1\* pIGrammar,  [in] char\_t\* fileName); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_MemoryScannerByBNF*** | ([in] IEcoBNF1\* pIGrammar,  [in] char\_t\* buffer,  [in] int32\_t size); |
|  | | | |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_FileScannerByDirectImpl*** | ([in] ECO\_FUNC\_RECOGNITION\_INDIVIDUAL\_TOKEN func,  [in] char\_t\* fileName); |
|  | |  |  |
| IEcoLexicalAnalyzer1Scanner\* | | ***new\_MemoryScannerByDirectImpl*** | ([in] ECO\_FUNC\_RECOGNITION\_INDIVIDUAL\_TOKEN func,  [in] char\_t\* buffer,  [in] int32\_t size); |
| } | |  |  |

* + 1. **new\_FileScannerByFA function**

The function

* + 1. **new\_MemoryScannerByFA function**

The function

* + 1. **new\_FileScannerByRG function**

The function

* + 1. **new\_MemoryScannerByRG function**

The function

* + 1. **new\_FileScannerByRE function**

The function

* + 1. **new\_MemoryScannerByRE function**

The function

* + 1. **new\_FileScannerByBNF function**

The function

* + 1. **new\_MemoryScannerByBNF function**

The function

* + 1. **new\_FileScannerByDirectImpl function**

The function

* + 1. **new\_MemoryScannerByDirectImpl function**

The function

1. **IEcoLexicalAnalyzer1Scanner Interface**
   1. **IEcoLexicalAnalyzer1Scanner IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoFSM1.idl"  import "IEcoLexicalAnalyzer1Token.idl" | | | |
| [  object,  uguid(32A56CF5-8AFB-4A14-8950-5DEE73324D5A),  ] | | | |
| interface IEcoLexicalAnalyzer1Scanner : IEcoUnknown { | | | |
|  | | | |
| IEcoFSM1StateMachine\* | | ***get\_FSM*** | ([in] void); |
|  | | | |
| IEcoLexicalAnalyzer1Token\* | | ***Scan*** | ([in] void); |
|  | | | |
| **int16\_t** | | ***Recover*** | ([in] IEcoLexicalAnalyzer1Token\* pIToken); |
|  | | | |
| } | |  |  |

* + 1. **get\_FSM function**

The function

* + 1. **Scan function**

The function

* + 1. **Recover function**

The function

1. **IEcoLexicalAnalyzer1Events Interface**
   1. **IEcoLexicalAnalyzer1Events IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl"  import "IEcoFSM1.idl"  import "IEcoLexicalAnalyzer1Token.idl" | | | |
| [  object,  uguid(A5278D51-F9BC-4255-9E06-7CC2166A0FB9),  ] | | | |
| interface IEcoLexicalAnalyzer1Events : IEcoUnknown { | | | |
|  | | | |
| void | | ***OnInfoMessage*** | ([in] char\_t\* messsage); |
|  | | | |
| void | | ***OnProcessing*** | ([in] IEcoFSM1State\* pISourceState,  [in] uchar\_t eventSymbol,  [in] IEcoFSM1State\* pITargeState); |
|  | |  |  |
| void | | ***OnToken*** | ([in] IEcoLexicalAnalyzer1Token\* pIToken); |
|  | |  |  |
| } | |  |  |

* + 1. **OnInfoMessage function**

The function

* + 1. **OnProcessing function**

The function

* + 1. **OnToken function**

The function

1. **IEcoLexicalAnalyzer1Token Interface**
   1. **IEcoLexicalAnalyzer1Token IDL**

|  |
| --- |
| **ECO IDL** |
| import "IEcoBase1.idl" | | | |
| [  object,  uguid(56A98F9C-971E-489B-8079-D436A48AF8FC),  ] | | | |
| interface **IEcoLexicalAnalyzer1Token** : IEcoLog1Affiliate { | | | |
|  | | | |
| int16\_t | | ***get\_Type*** | ([in] void); |
|  | | | |
| char\_t\* | | ***get\_Lexeme*** | ([in] void); |
|  | |  |  |
| void | | ***set\_Tag*** | ([in] char\_t\* tag); |
|  | |  |  |
| char\_t\* | | ***get\_Tag*** | ([in] void); |
|  | |  |  |
| char\_t\* | | ***get\_Description*** | ([in] void); |
|  | |  |  |
| uint32\_t | | ***get\_Line*** | ([in] void); |
|  | |  |  |
| uint32\_t | | ***get\_Column*** | ([in] void); |
|  | |  |  |
| char\_t\* | | ***get\_Source*** | ([in] void); |
|  | |  |  |
| uint32\_t | | ***get\_Position*** | ([in] void); |
|  | |  |  |
| uint32\_t | | ***get\_Length*** | ([in] void); |
|  | |  |  |
| bool\_t | | ***IsEOF*** | ([in] void); |
|  | |  |  |
| bool\_t | | ***IsError*** | ([in] void); |
|  | |  |  |
| } | |  |  |

* + 1. **get\_Type function**

The function

* + 1. **get\_Lexeme function**

The function

* + 1. **set\_Tag function**

The function

* + 1. **get\_Tag function**

The function

* + 1. **get\_Description function**

The function

* + 1. **get\_Line function**

The function

* + 1. **get\_Column function**

The function

* + 1. **get\_Source function**

The function

* + 1. **get\_Position function**

The function

* + 1. **get\_Length function**

The function

* + 1. **IsEOF function**

The function

* + 1. **IsError 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**