

Class name:

Language

Package: langSpec

Documentation:

Language Definition Class; defines each application's language.

External Documents:

Export Control: Public

Cardinality: n

Hierarchy:

Superclasses: none

Associations:

<no rolename> : ObjectGrammarCreator in association <unnamed>
lexicalSpec : NonTerminal in association <unnamed>
<no rolename> : NonTerminal in association <unnamed>
<no rolename> : NonTerminal in association <unnamed>
syntacticSpec : NonTerminal in association <unnamed>
notSkipSpec : Terminal in association <unnamed>
skipSpec : Terminal in association <unnamed>
skipSpec : Terminal in association <unnamed>
<no rolename> : AppWindow in association <unnamed>

Public Interface:

Operations:

describe

Private Interface:

Attributes:

name : string

Language's unique identification.

start : GrammarSymbol

Language non-terminal start symbol.

lexicalSpec

Dictionary of non-terminal objects that recognises tokens.

syntacticSpec

Dictionary of syntactic non-terminal objects.

skipSpec

List of tokens to skip (not recognise) automatically.

notSkipSpec

List of tokens not to skip automatically.

State machine: No

Concurrency: Sequential

Space complexity: pepe

Persistence: Transient

Operation name:

describe

Public member of: Language

Return Class: string

Documentation:

Gives us information related to the Language at runtime.

Concurrency: Sequential

State machine: No

Class name:

AppWindow

Package: appSpec

Documentation:

Every application has its own graphic window.

External Documents:

Export Control: Public

Cardinality: n

Hierarchy:

Superclasses: none

Associations:

application : Application in association <unnamed>

language : Language in association <unnamed>

Public Interface:

Operations:

writeText

update

Private Interface:

Attributes:

application : Application

The application being executed.

State machine: No

Concurrency: Sequential

Persistence: Transient

Operation name:

writeText

Public member of: AppWindow

Documentation:

This method writes a text line in the application window.

Concurrency: Sequential
State machine: No

Operation name:

update

Public member of: AppWindow

Documentation:
Updates the window events.

Concurrency: Sequential
State machine: No

Class name:

Application

Package: appSpec

Documentation:
Application definition Class; its objects define an application and its language.

External Documents:

Export Control: Public

Cardinality: n

Hierarchy:

Superclasses: none

Associations:

<no rolename> : Nitro in association <unnamed>
window : AppWindow in association <unnamed>
rootNode : TreeNode in association <unnamed>
<no rolename> : GI in association <unnamed>

Public Interface:

Operations:
describe

Private Interface:

Attributes:

name : string
Application identification.

language : Language
Language specification in which the application has been written.

rootNode : TreeNode
Application-tree start node.

sourceCode : string
Application source code.

applicationGlobalContext
Runtime application symbol table.

isRunning : Boolean
Tells if the application is running.

window : AppWindow
Application window.

nitro : Nitro
nitro global object.

State machine: No
Concurrency: Sequential
Persistence: Transient

Operation name:

describe

Public member of: Application
Return Class: string
Documentation:
Gives us information related to the application at runtime.

Concurrency: Sequential
State machine: No

Class name:

Right

Package: langSpec
Documentation:
An option of a free-context grammar rule right-part.

External Documents:
Export Control: Public
Cardinality: n
Hierarchy:
Superclasses: none
Associations:

<no rolename> : NonTerminal in association <unnamed>
<no rolename> : NonTerminal in association <unnamed>
actions : SemanticAction in association <unnamed>
nodes : GrammarSymbol in association <unnamed>
<no rolename> : TreeNode in association <unnamed>

Public Interface:
Operations:
recognise

Private Interface:

Attributes:

nodes

List of grammatical symbols on the right part of the rule.

actions

List of semantic rules (actions).

State machine:

No

Concurrency:

Sequential

Persistence:

Transient

Operation name:

recognise

Public member of:

Right

Documentation:

Finds out whether the right part recognises the input.

Concurrency: Sequential

State machine:

No

Class name:

GrammarSymbol

Package:

langSpec

Documentation:

By using inheritance, this is the generic representation of every grammar symbol. In Python this class is useless because it has no static type checking.

External Documents:

Export Control:

Public

Cardinality:

n

Hierarchy:

Superclasses:

none

Associations:

<no rolename> : Right in association <unnamed>

<no rolename> : TreeNode in association <unnamed>

State machine:

No

Concurrency:

Sequential

Persistence:

Transient

Class name:

TreeNode

Package:

appSpec

Documentation:

Application tree node. Associated with a language grammar non-terminal object.

Stereotype: composite

External Documents:

Export Control: Public

Cardinality: n

Hierarchy:

Superclasses: none

Associations:

application : Application in association <unnamed>
<no rolename> : TreeNode in association <unnamed>
<no rolename> : TreeNode in association <unnamed>
<no rolename> : TreeNode in association <unnamed>
children : TreeNode in association <unnamed>
option : Right in association <unnamed>
grammarSymbol : GrammarSymbol in association <unnamed>

Public Uses:

TreeNode

Public Interface:

Operations:

describe
describeWithChildren
describeTree
execute

Private Interface:

Attributes:

application : Application
Application being represented.

grammarSymbol : GrammarSymbol
Non-terminal grammar symbol associated.

children
Its tree-nodes children.

text : string
Text being recognised by the symbol at runtime.

option : Right
The correct grammar-rule right part and its semantic actions.

State machine:

No

Concurrency:

Sequential

Persistence:

Transient

Operation name:

describe

Public member of: TreeNode
Return Class: string
Documentation:
 Application tree-node description.

*Concurrency:*Sequential
State machine: No

Operation name:

describeWithChildren

Public member of: TreeNode
Return Class: string
Documentation:
 Application tree-node description and its children short description.

*Concurrency:*Sequential
State machine: No

Operation name:

describeTree

Public member of: TreeNode
Return Class: string
Documentation:
 Whole tree description.

*Concurrency:*Sequential
State machine: No

Operation name:

execute

Public member of: TreeNode
Documentation:
 Runtime evaluation of the semantic actions associated.

*Concurrency:*Sequential
State machine: No

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: language
Class: Language
Cardinality / Multiplicity: 1
Navigable: Yes
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role:
Class: AppWindow
Cardinality / Multiplicity:
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Public
Containment: Unspecified

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: window
Class: AppWindow
Cardinality / Multiplicity: 1
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role: application
Class: Application
Cardinality / Multiplicity: 1
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: rootNode
Class: TreeNode
Cardinality / Multiplicity: 1
Navigable: Yes
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role: application
Class: Application
Cardinality / Multiplicity: 1
Navigable: No
Aggregate: Yes
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: children
Class: TreeNode
Cardinality / Multiplicity: 0..n
Navigable: Yes
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role:
Class: TreeNode
Cardinality / Multiplicity:
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Public
Containment: Unspecified

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: option
Class: Right
Cardinality / Multiplicity: 1
Navigable: Yes
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role:
Class: TreeNode
Cardinality / Multiplicity:
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Public
Containment: Unspecified

Association:

Derived: No
Direction: <non-directional>
Association Class: none

Role: grammarSymbol
Class: GrammarSymbol
Cardinality / Multiplicity: 1
Navigable: Yes
Aggregate: No
Static: No
Friend: No
Access: Implementation
Containment: Unspecified

Role:
Class: TreeNode
Cardinality / Multiplicity:
Navigable: No
Aggregate: No
Static: No
Friend: No
Access: Public
Containment: Unspecified