

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:

## Scanner

Package: nitro

Documentation:

Application grammar scanner.

External Documents:

Export Control: Public

Cardinality: n

Hierarchy:

Superclasses: none

Associations:

<no rolename> : Nitro in association <unnamed>

Public Interface:

Operations:

getNextToken

State machine: No

Concurrency: Sequential

Persistence: Transient

Operation name:

## getNextToken

Public member of: Scanner

Return Class: int

Documentation:

Returns the new token to be read.

Concurrency: Sequential

State machine: No

Class name:

## MainWindow

*Package:* nitro

*Documentation:*

The graphic system's shell. Gives the user the ability of run any kind of Python sentences into the nitro system.

*External Documents:*

*Export Control:* Public

*Cardinality:* n

*Hierarchy:*

*Superclasses:* none

*Associations:*

nitro : Nitro in association <unnamed>

*Public Interface:*

*Operations:*

quit  
clearConsole  
clearOutput  
openFile  
viewObjects  
write

*Private Interface:*

*Attributes:*

nitro : Nitro  
The main nitro object.  
  
context  
Shell execution symbol table.

*State machine:* No

*Concurrency:* Sequential

*Persistence:* Transient

*Operation name:*

**quit**

*Public member of:* MainWindow

*Documentation:*

Window Close Event associated meted.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

**clearConsole**

*Public member of:* MainWindow

*Documentation:*

Clear Console Event Method, that deletes the console text.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **clearOutput**

*Public member of:* MainWindow

*Documentation:*

Clear Output Event Method, that deletes the output window text.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **openFile**

*Public member of:* MainWindow

*Documentation:*

Open a text file and introduces its text into the system's editor.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **viewObjects**

*Public member of:* MainWindow

*Documentation:*

Shows the object-browser graphic introspective tool.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **write**

*Public member of:* MainWindow

*Documentation:*

Method that writes a line at the end of the nitro shell output. The code may use it as the 'write' function.

*Concurrency:* Sequential

*State machine:* No

Class name:

# NitrO

Package: nitrO

Documentation:

This is the main class in the system; it follows de Facade design pattern. It must have just one instance -Singleton pattern.

Stereotype: singleton

External Documents:

Export Control: Public

Cardinality: 1..1

Hierarchy:

Superclasses: none

Associations:

apps : Application in association <unnamed>  
scanner : Scanner in association <unnamed>  
shell : MainWindow in association <unnamed>  
<no rolename> : GI in association <unnamed>

Public Interface:

Operations:

describe  
loadApplication  
loadLanguage  
execute  
executeFile  
run  
stop

Private Interface:

Attributes:

apps  
The group of applications that are active (not necessary running) in the system.

scanner : Application  
The application file scanner (lexer).

dir : string  
The system's directory installation.

shell : MainWindow  
A reference to the system's shell.

State machine: No

Concurrency: Sequential

Persistence: Transient

*Operation name:*

## **describe**

*Public member of:* Nitro

*Return Class:* string

*Documentation:*

A system's description string is returned. This description shows the existing application and language set.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **loadApplication**

*Public member of:* Nitro

*Documentation:*

Loads the application code and language into the nitro system; returns the app object

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **loadLanguage**

*Public member of:* Nitro

*Documentation:*

Loads the language specification; it may be used a file (languageName) or the language specification (languageSpec). Returns the object-grammar language specification.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **execute**

*Public member of:* Nitro

*Documentation:*

Executes the source code of an application in the nitro system.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

## **executeFile**

*Public member of:* Nitro

*Documentation:*

Executes a nitro application specified in a file.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

**run**

*Public member of:* Nitro

*Documentation:*

Starts the system's main loop to initialize its execution.

*Concurrency:* Sequential

*State machine:* No

*Operation name:*

**stop**

*Public member of:* Nitro

*Arguments:*

string applD

*Documentation:*

Stops an application that is running by passing its name.

*Concurrency:* Sequential

*State machine:* No

*Association:*

*Derived:* No

*Direction:* <non-directional>

*Association Class:* none

*Role:* apps

*Class:* Application

*Cardinality / Multiplicity:* n

*Navigable:* Yes

*Aggregate:* No

*Static:* No

*Friend:* No

*Access:* Implementation

*Containment:* Unspecified

*Role:*

*Class:* Nitro

*Cardinality / Multiplicity:*  
*Navigable:* No  
*Aggregate:* Yes  
*Static:* No  
*Friend:* No  
*Access:* Public  
*Containment:* Unspecified  
*Keys / Qualifiers:*  
applD : string

*Association:*

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

*Role:* scanner  
*Class:* Scanner  
*Cardinality / Multiplicity:* 1  
*Navigable:* Yes  
*Aggregate:* No  
*Static:* No  
*Friend:* No  
*Access:* Implementation  
*Containment:* Unspecified

*Role:*  
*Class:* Nitro  
*Cardinality / Multiplicity:*  
*Navigable:* No  
*Aggregate:* Yes  
*Static:* No  
*Friend:* No  
*Access:* Public  
*Containment:* Unspecified

*Association:*

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

*Role:* shell  
*Class:* MainWindow  
*Cardinality / Multiplicity:* 1  
*Navigable:* No  
*Aggregate:* No  
*Static:* No  
*Friend:* No



*Access:* Implementation  
*Containment:* Unspecified

*Role:* nitro

*Class:* Nitro  
*Cardinality / Multiplicity:* 1  
*Navigable:* No  
*Aggregate:* No  
*Static:* No  
*Friend:* No  
*Access:* Implementation  
*Containment:* Unspecified