Basic Classes – API Changes (Status 22-10-2014)

The recent introduction of new tools for developing and simulating POOSL models included changes in the API of the basic classes. The new version (version 3.0) is described in detail in the POOSL language reference available from <http://poosl.esi.nl/documentation/>

This document describes the changes between version 2.0 and version 3.0 of the basic classes:

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| Object | Object | Extended |
| Array | Array | Changed & Extended |
| String | String | Changed & Extended |
| Nil | Nil | No Changes |
| Boolean | Boolean | Extended |
| Char | Char | Extended |
| Integer | Integer | Changed & Extended |
| Real | Real | Changed & Extended |
| RandomGenerator | RandomGenerator | Extended |
| FileIn | FileIn | Changed & Extended |
| FileOut | FileOut | Changed & Extended |
| Socket (SHESim only) | Socket | Changed, Extended & Fully Supported |
|  | Observer | New & Not Yet Fully Supported |
|  | Console | New & Not Yet Fully Supported |
| Number |  | Deprecated |
| Display (SHESim only) |  | Deprecated |
| Console (SHESim only) |  | Deprecated |

The next sections give an overview of the changes to the methods for each of the basic classes.

# Object

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| != | != | No Changes |
| !== | !== | No Changes |
| = | = | No Changes |
| == | == | No Changes |
| deepCopy | deepCopy | No Changes |
| error | error | No Changes |
|  | assert | New |
|  | marchal | New / Not Yet Fully Supported |
| printString | printString | No Changes |
| shallowCopy | shallowCopy | No Changes |
|  | isOfType | New |

# Array

An important difference between version 2.0 and version 3.0 is that *Array*’s are not automatically resized anymore when putting an object at an index larger than the size of the *Array*. Notice also the changed meaning of method *size*.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| printString | printString | Difference in resulting String |
| get | at | Renamed |
| getSize | size | Renamed |
| put | putAt | Renamed & No Automatic Resizing |
| putAll | putAll | No Changes |
| size | resize | Renamed |
|  | + | New |
|  | concat | New |
|  | find | New |
|  | subArray | New |

# String

An important extension in version 3.0 is support for escape sequences as common in programming languages.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| + append | + | Returns new String |
| concat | concat | Modifies receiver |
| cr | cr | No Changes |
|  | lf | New |
| tab | tab | No Changes |
|  | find | New |
| get | at | Renamed |
| length | size | Renamed |
| put | putAt | Renamed |
| copy | subString | Renamed |
|  | unmarchal | New / Not Yet Fully Supported |
|  | splitOn | New |
|  | splitOnWhiteSpace | New |
|  | isBoolean | New |
|  | isChar | New |
|  | isReal | New |
|  | isInteger | New |
|  | toBoolean | New |
|  | toChar | New |
|  | toReal | New |
|  | toInteger | New |
| < | < | No Changes |
| <= | <= | No Changes |
| > | > | No Changes |
| >= | >= | No Changes |

# Boolean

The syntax now also support expressions where prefix symbol ! is used as Boolean negation.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| & | & | No Changes |
| | | | | No Changes |
| not | not ! | No Changes & Extra Syntax |
|  | xor | New |

# Char

An important extension in version 3.0 is support for escape sequences as common in programming languages.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
|  | asciiIndex | New |
|  | asString | New |

# Integer

An important difference between version 2.0 and version 3.0 is that operations on *Integers* are limited to *Integer* parameters only (instead of also *Reals*). *Reals* can be used as parameters to operators on *Integers* by using method asInteger.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| - (negation) | - (negation) | No Changes |
| - (subtraction) | - (subtraction) | Integer Parameter Only |
| \* | \* | Integer Parameter Only |
| & | & | No Changes |
| + | + | Integer Parameter Only |
| < | < | Integer Parameter Only |
| <= | <= | Integer Parameter Only |
| > | > | Integer Parameter Only |
| >= | >= | Integer Parameter Only |
| | | | | No Changes |
| abs | abs | No Changes |
|  | asAsciiChar | New |
| asReal | asReal | No Changes |
| div | div | No Changes |
| / | / | Integer Parameter Only |
| fac | fac | No Changes |
| modulo | modulo | Integer Parameter Only |
| monus | monus | No Changes |
| not | not | No Changes |
| power | power | Integer Parameter Only |
| sqr | sqr | No Changes |
|  | max | New |
|  | min | New |
|  | xor | New |
| sqrt |  | Deprecated |
| asInteger |  | Deprecated |
| asString |  | Deprecated (Use printString) |

# Real

An important difference between Version 2.0 and Version 3.0 is that operations on *Reals* are limited to *Real* parameters only (instead of also *Integers*). *Integers* can be used as parameters for operators on *Reals* by using method asReal.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| - (negation) | - (negation) | No Changes |
| - (subtraction) | - (subtraction) | Real Parameter Only |
| \* | \* | Real Parameter Only |
| / | / | Real Parameter Only |
| + | + | Real Parameter Only |
| < | < | Real Parameter Only |
| <= | <= | Real Parameter Only |
| > | > | Real Parameter Only |
| >= | >= | Real Parameter Only |
| abs | abs | No Changes |
| acos | acos | No Changes |
| asin | asin | No Changes |
| asInteger | asInteger | No Changes |
| atan | atan | No Changes |
| atan2 | atan2 | No Changes |
| ceiling | ceiling | No Changes |
| cos | cos | No Changes |
| exp | exp | No Changes |
| floor | floor | No Changes |
| ln | ln | No Changes |
| log | log | No Changes |
|  | monus | New |
| power | power | Real Parameter Only |
| round | round | No Changes |
| sin | sin | No Changes |
| sqr | sqr | No Changes |
| sqrt | sqrt | No Changes |
| tan | tan | No Changes |
|  | max | New |
|  | min | New |
| div |  | Deprecated |
| modulo |  | Deprecated |
| asReal |  | Deprecated |
| asString |  | Deprecated (Use printString) |

# RandomGenerator

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| random | random | No Changes |
| randomInt | randomInt | No Changes |
| randomiseSeed | randomiseSeed | No Changes |
| setSeed | seed | Renamed |

# FileIn

An important change between version 2.0 and version 3.0 is that Strings read from file do not need to be between double quotes “ anymore (except for the new version of method readString which reads a syntactic representation of a String variable, which is between double quotes “, see the POOSL language reference available from <http://poosl.esi.nl/documentation/>).

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| source | source | No Changes |
| open | open | No Changes |
|  | atEndOfFile | New |
| close | close | No Changes |
|  | read | New |
|  | readUntil | New |
|  | readWord | New |
|  | readLine | New |
| readString | readString | Changed to Syntactic Representation of Strings |
| readInteger |  | Deprecated (Use for example readWord with String::isInteger and String::toInteger) |
| readNumber |  | Deprecated (Use for example readWord with String::isInteger and String::toInteger or String::isReal and String::toReal) |
| readReal |  | Deprecated (Use for example readWord with String::isReal and String::toReal) |
| readBoolean |  | Deprecated (Use for example readWord with String::isBoolean and String::toBoolean) |
| readChar |  | Deprecated (Use for example readWord with String::isChar and String::toChar) |

# FileOut

Notice especially the changed meaning of method *writeString*.

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| destination | destination | No Changes |
| open | open | No Changes |
| append | append | No Changes |
|  | flush | New |
| close | close | No Changes |
| writeString | write | Renamed |
| writeln | writeLine | Takes String as Parameter (Use writeLine(O printString) in Version 3.0 to replace writeln(O) from Version 2.0) |
|  | writeString | Takes String as Parameter (Writes its syntactic representation to the file) |
| Write |  | Deprecated (Use write(O printString tab) in Version 3.0 to replace write(O) from Version 2.0) |

# Socket

|  |  |  |
| --- | --- | --- |
| Version 2.0 | Version 3.0 | Remarks |
| connectFrom | acceptFrom | Renamed |
| connectTo | connectTo | No Changes |
| isConnected | isConnected | No Changes |
| isDisconnected | isDisconnected | No Changes |
| disconnect | close | Renamed |
| hasInput | hasCharacters | Renamed & Single Parameter |
| read | read | No Changes |
|  | hasCharacter | New |
|  | readUntil | New |
| hasInputWord | hasWord | Renamed |
| readWord | readWord | No Changes |
|  | hasLine | New |
|  | readLine | New |
| hasInputString | hasString | Renamed |
| readString | readString | No Changes |
| write | write | No Changes |
|  | writeLine | New |
|  | writeString | New |
| isConnecting |  | Deprecated |
| isDisconnecting |  | Deprecated |