

# Publishing Libraries & Frameworks

Sven Van Caekenberghe

Pharo is a platform

Enables you to write  
real world applications

Pharo is open source,  
has an eco system  
& active community

Pharo needs 3rd party  
libraries & frameworks

Solve specific  
enterprise & application needs

Connect & interface  
to the outside world

You wrote something that  
might be useful to others



Consider giving back  
to the community

Publish your library or  
framework as open source

# Pro's

- ✦ more users, more testers, more feedback
- ✦ feature requests, feature additions
- ✦ higher quality, better maintenance

# Con's

- ✦ more work, more responsibility
- ✦ a commitment for the future
- ✦ need for support, need for marketing

Pharo eco system  
offers various free tools

Write, publish & maintain  
high quality code

Let's get started

Define your  
component,  
library,  
framework



Boundaries  
Dependencies

Source Code

Source code  
package definition  
> Monticello, RPackage

Package names

Name space prefix

Extensions

NeoJSONReader

Type: Pkg1|^Pkg2|Pk.\*Core\$

- Neo-JSON-Core
- Neo-JSON-Tests
- Network-Kernel
- Network-MIME
- Network-Mail
- Network-Protocols
- Network-UUID
- Network-Url
- NetworkTests
- NewValueHolder
- NodeNavigation
- NonInteractiveTranscript
- OSWindow-Core

- NeoJSONMapper
- NeoJSONReader
- NeoJSONWriter
- NeoJSONMapping
- NeoJSONCustomMapping
- NeoJSONObjectMapping
- NeoJSONMappingNotFound
- NeoJSONParseError
- NeoJSONPropertyMapping
- NeoJSONStreamingWriter
- Object
- Boolean
- Collection
- Dictionary

- all --
- accessing
- initialize-release
- parsing
- private
- testing

- atEnd
- close
- consumeWhitespace
- error:
- expectChar:
- initialize
- listClass
- listClass:
- mapClass
- mapClass:
- match:do:
- matchChar:
- next

Groups   Hierarchy    Class side   Comments   History Navigator

```

NeoJSONMapper subclass: #NeoJSONReader
instanceVariableNames: 'readStream stringStream listClass mapClass propertyNameAsSymbols'
classVariableNames: ''
category: 'Neo-JSON-Core'

```

Dictionary>>#neoJsonOn:

Type: Pkg1|^Pkg2|Pk.\*Core\$

- Neo-JSON-Core
- Neo-JSON-Tests
- Network-Kernel
- Network-MIME
- Network-Mail
- Network-Protocols
- Network-UUID
- Network-Url
- NetworkTests
- NewValueHolder
- NodeNavigation
- NonInteractiveTranscript
- OSWindow-Core

- NeoJSONMappingNotFound
- NeoJSONParseError
- NeoJSONPropertyMapping
- NeoJSONStreamingWriter
- Object
- Boolean
- Collection
- Dictionary
- SmallDictionary
- String
- Number
- Integer
- UndefinedObject

testing

- \*Fuel
- \*Glorp-Core
- \*GT-InspectorExtensions-Core
- \*javascript-core
- \*JSON-writing
- \*monticellofiletree-core
- \*neo-json-core
- \*NewValueHolder
- \*seaside-core
- \*seaside-pharo-development-co
- \*seaside-pharo20-core-backtra

neoJsonOn:

Groups | Hierarchy |  Class side | Comments | History Navigator

neoJsonOn: neoJSONWriter

```
neoJSONWriter writeMap: self
```

47

Source code management  
> Monticello

Monticello Browser

+Package +Config +Slice Browse Changes +Repository Save Open

Hit return to accept Hit return to accept Package

NativeBoost-Unix (MarcusDenker.17)  
NativeBoost-Win32 (TheIntegrator.54)  
Nautilus (TheIntegrator.879)  
Nautilus-Tests (TheIntegrator.2)  
NautilusCommon (TheIntegrator.254)  
NautilusRefactoring (TheIntegrator.197)  
Neo-JSON-Core (SvenVanCaekenberghe.27)  
Neo-JSON-Tests (SvenVanCaekenberghe.24)  
Network-Kernel (StephaneDucasse.112)

/Users/sven/Develop/git/IntegrationScripts/current/package-cache  
http://mc.stfx.eu/Neo

Snapshot Browser: Neo-JSON-Core

\*Extensions  
Neo-JSON-Core

NeoJSONObjectMapping  
NeoJSONParseError  
NeoJSONPropertyMappin  
NeoJSONReader  
NeoJSONStreamingWriter  
NeoJSONWriter

-- all --  
accessing  
initialize-release  
parsing  
private  
testing

parseCharacter  
parseCharacterHex  
parseCharacterHexDigit  
parseList  
parseListDo:  
parseListElementsDo:  
parseMap  
parseMapDo:

instance ? class

parseCharacterHex

| value |  
value := self parseCharacterHexDigit.  
3 timesRepeat: [  
    value := (value << 4) + self parseCharacterHexDigit ].  
^ Character codePoint: value



# Repository

> SmalltalkHub, github, ...

# SvenVanCaekenberghe / Neo PUBLIC

6

[Overview](#) [Source](#) [Commits](#) [Contributors](#) [Watchers](#) [Settings](#)

## Project infos

[Edit infos](#)

License	MIT
Tags	json, csv, timestamp
Creation date	Wed Jul 03 2013
Website	<a href="http://stfx.eu">http://stfx.eu</a>

## Monticello registration

```
MCHttpRepository
location:
'http://www.smalltalkhub.com/mc/SvenVanCaekenberghe/Neo/main'
user: ''
password: ''
```

## About Neo

Collection of various smaller projects: NeoJSON, NeoCSV and ZTimestamp



# svenvc / NeoJSON

Unwatch 3 Star 5 Fork 3

NeoJSON is an elegant and efficient standalone Smalltalk framework to read and write JSON converting to or from Smalltalk objects. — Edit

7 commits 1 branch 0 releases 1 contributor

branch: master NeoJSON / +

sync with upstream #stable v9		
Sven Van Caekenberghe	authored on Apr 24, 2014	latest commit de564111a9
repository	sync with upstream #stable v9	9 months ago
README.md	Update README.md	2 years ago
license.txt	added MIT license	2 years ago

## README.md

# NeoJSON

NeoJSON is an elegant and efficient standalone Smalltalk framework to read and write JSON converting to or from Smalltalk objects.

MIT Licensed.

Go ahead and read the [NeoJSON paper](#).

### <> Code

Issues 1

Pull Requests 0

Wiki

Pulse

Graphs

Settings

HTTPS clone URL

https://github.com/sven

You can clone with [HTTPS](#), [SSH](#), or [Subversion](#).

Clone in Desktop

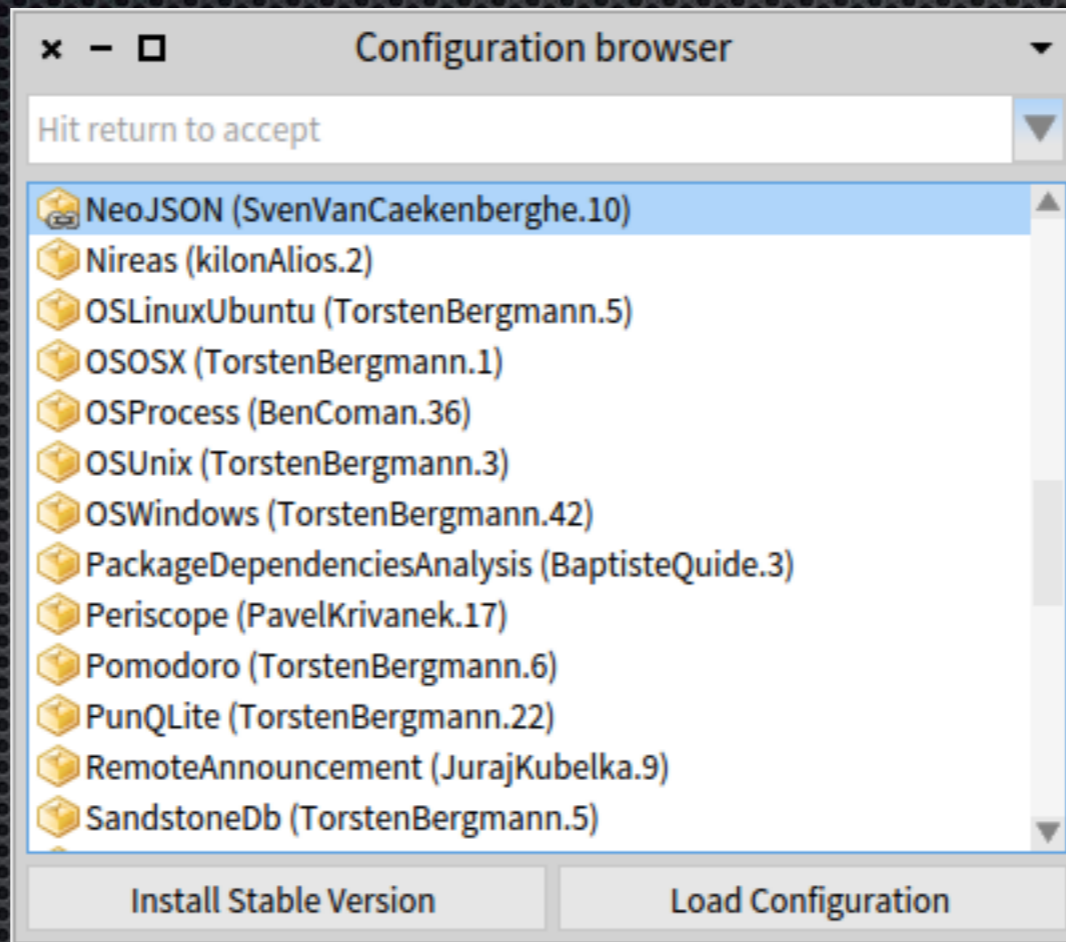
Download ZIP

Source code management  
> Metacello

One-click loading

One-expression loading

One-command loading



```
x - □ Playground
2015-01-27T22-14-19-97248+01-00 [▶] ⏸ ...
Gofer it
url: 'http://mc.stfx.eu/Neo';
configurationOf: 'NeoJSON';
loadStable|
```

```
prometheus:pharo4 sven$ ./pharo Pharo.image config http://mc.stfx.eu/Neo ConfigurationOfNeoJSON
--install=stable
'Installing ConfigurationOfNeoJSON stable'

Loading 9 of ConfigurationOfNeoJSON...
Fetched -> Neo-JSON-Core-SvenVanCaekenberghe.27 --- http://mc.stfx.eu/Neo --- http://mc.stfx.eu/
Neo
Fetched -> Neo-JSON-Tests-SvenVanCaekenberghe.24 --- http://mc.stfx.eu/Neo --- http://mc.stfx.eu
/Neo
Loaded -> Neo-JSON-Core-SvenVanCaekenberghe.27 --- http://mc.stfx.eu/Neo --- cache
Loaded -> Neo-JSON-Tests-SvenVanCaekenberghe.24 --- http://mc.stfx.eu/Neo --- cache
...finished 9prometheus:pharo4 sven$ █
```



Dependency management  
Version management  
Platform management

## baseline1: spec

<version: '1-baseline'>

spec for: #common do: [

spec

  blessing: #baseline;

  author: 'Sven Van Caekenberghe';

  repository: 'http://smalltalkhub.com/mc/SvenVanCaekenberghe/Reddit/main/'.

spec project: 'Seaside3' with: [

spec

  className: 'ConfigurationOfSeaside3';

  versionString: #stable;

  repository: 'http://www.smalltalkhub.com/mc/Seaside/MetacelloConfigurations/main' ].

spec project: 'Glorp' with: [

spec

  className: 'ConfigurationOfGlorp';

  versionString: #stable;

  repository: 'http://www.smalltalkhub.com/mc/DBXTalk/Configurations/main' ].

spec project: 'PostgresV2' with: [

spec

  className: 'ConfigurationOfPostgresV2';

  versionString: #stable;

  repository: 'http://www.smalltalkhub.com/mc/PharoExtras/PostgresV2/main' ].

**baseline1: spec** (cont'd)

spec

package: 'GlorpDriverPostgreSQL'

with: [

spec

repository: 'http://www.smalltalkhub.com/mc/PharoExtras/PostgresV2/main';

postLoadDolt: #postLoadGlorpPostgresNativeDriverDBXTalkPharo;

requires: #( 'Glorp' 'PostgresV2' ) ].

spec

package: 'Reddit'

with: [ spec requires: #( 'Seaside3' 'GlorpDriverPostgreSQL' ) ].

spec group: 'Core' with: #( 'Reddit' ).

spec group: 'default' with: #( 'Reddit' ) ]

Configuration browser

One-click install

Blessed repo for configurations

Tests

Unit Tests

Functional Tests

Regression Tests

Validate & Protect  
your code base

# Facilitate

- > refactoring

- > porting

- > contributions



“Something not tested  
does not exist”

“How To” Unit Tests

Live, validated examples

Tools

Code critics  
Lint rules

Window title: Possible missing "; yourself"

- Platform dependent user interaction (To sort: 0, ToDo: 0, Wrong: 0)
- Possible missing "; yourself" (To sort: 1, ToDo: 0, Wrong: 0)**
- Possible three element point (e.g., x @ y + q @ r) (To sort: 0, ToDo: 0, Wrong: 0)
- References an abstract class (To sort: 0, ToDo: 0, Wrong: 0)
- Returns a boolean and non boolean (To sort: 0, ToDo: 0, Wrong: 0)
- Returns value of ifTrue:/ifFalse: without ifFalse:/ifTrue: block (To sort: 0, ToDo: 0, Wrong: 0)
- Subclass of collection that has instance variable but doesn't define class
- Temporaries read before written (To sort: 1, ToDo: 0, Wrong: 0)**
- Uncommon message send (To sort: 0, ToDo: 0, Wrong: 0)

Buttons: Run new configuration, Save Critics, Browse, Transform, Mark as wrong

**next**  
"Primary interface to parse a JSON value.  
Return either primitives, a listClass or a mapClass instance."

**self**  
consumeWhitespace;  
parseValue

NeoJSONReader>>#next (Neo-JSON-Core)

Time/space profilers  
Coverage tools

CI

# Continuous Integration



# Continuous Integration, Inria

Simple and flexible platform to improve your Quality of Software  
and reduce wasted time.



Host my project

Read Documentation



Users :

649

Projects :

231

## Designed for Inria and its Partners.

Why do I need your service? Read below

# Jenkins

Jenkins >

ENABLE AUTO REFRESH

- [People](#)
- [Build History](#)
- [Project Relationship](#)
- [Check File Fingerprint](#)
- [Pharo Jenkins](#)
- [Pharo Issue Tracker](#)
- [Pharo File Server](#)
- [Disk usage](#)
- [Job Import Plugin](#)
- [Global configuration](#)

# Contribution

The Pharo-Contribution CI server contains projects that are actively maintained by the Pharo Community.

Please note that each jenkins job should fulfill the following requirements:

- A project description
- A contact person, either in the description or in the email configuration of the job

Please see the [example job template](#) for more details on how to add a new job.

**Build Queue** -

No builds in the queue.

**Build Executor Status** -

#	Status
<b>RaspberryPi (offline)</b>	
<b>pharo-contribution-linux64-3.ci.inria.fr</b>	
1	Idle
2	Idle
<b>pharo-contribution-linux64-4.ci.inria.fr (offline)</b>	
<b>pharo-contribution-linux64-android</b>	
1	Idle
2	Idle
<b>pharo-contribution-linux64.ci.inria.fr</b>	
1	Idle
2	Idle
<b>pharo-contribution-raspberrypi-linux</b>	
1	Idle
2	Idle
3	Idle
<b>pharo-contribution-win7.ci.inria.fr</b>	
1	Idle

ARM	ARM-Experimentation	ARM-Raspberry	ARM-Tools	Books	Helper	NBOpenGL	Pharo-Kernel-2.0	Pharo-Kernel-3.0	Phobos	Phratch
S	W	Configure	Name ↓	Number of builds						
			<a href="#">Android-Cog-Git-Tracker</a>	1	0	0				
			<a href="#">AndrSDK</a>	2	0	1				
			<a href="#">ARM-Android</a>	1	0	1				
			<a href="#">ARM-Android-Debug</a>	0	0	0				
			<a href="#">ARM-Android-ImageSplitter</a>	1	0	0				
			<a href="#">Artefact</a>	2	26	3				
			<a href="#">asasm</a>	3	0	0				
			<a href="#">AsmJit</a>	26	0	0				
			<a href="#">ASTInterpreter</a>	26	0	0				
			<a href="#">Athens</a>	29	0	0				
			<a href="#">Blas</a>	0	5	0				

Independent,  
controlled build

For each change in source,  
dependencies or platform

Based on Configuration target  
Based on Source code repo

# Build Matrix

## Versions, Platforms, VMs

Run all tests  
Notify on failure  
Build artefacts

- [Back to Dashboard](#)
- [Status](#)
- [Changes](#)
- [Workspace](#)
- [Build Now](#)
- [Delete Multi-configuration project](#)
- [Configure](#)
- [Job Config History](#)
- [Embeddable Build Status](#)
- [URLTrigger Log](#)

## Project NeoJSON

NeoJSON is an elegant and efficient standalone Smalltalk framework to read and write JSON converting to or from Smalltalk objects.

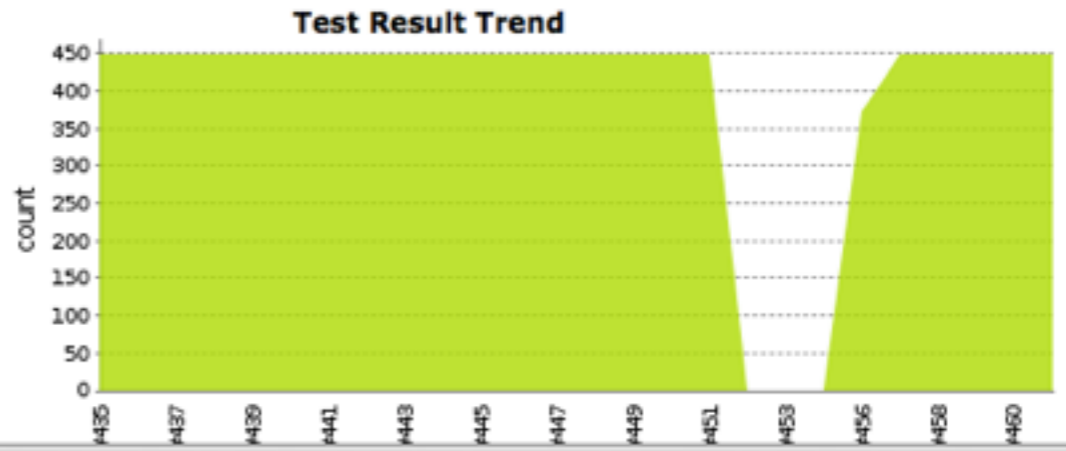
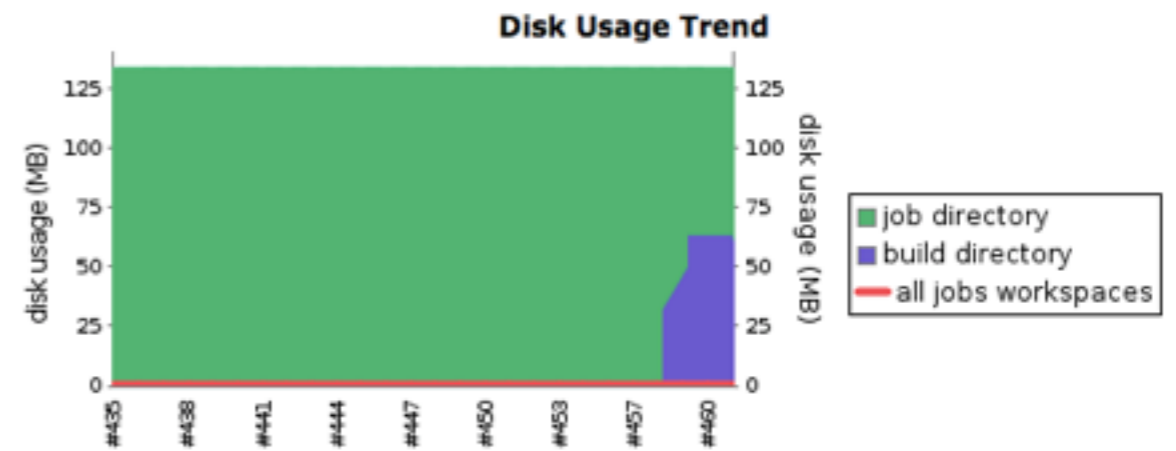
[edit description](#)  
[Disable Project](#)


Configuration Matrix	stable	bleedingEdge
20	<span style="color: green;">●</span>	<span style="color: green;">●</span>
30	<span style="color: green;">●</span>	<span style="color: green;">●</span>
40	<span style="color: green;">●</span>	<span style="color: green;">●</span>



 [Latest Test Result](#) (no failures)

Project disk usage information + trend graph

**Disk Usage:** Workspace 69632, Builds {all=139874946, locked=814283}, Job directory 140036073



**Build History** (trend) 

<span style="color: green;">●</span> #461 <a href="#">Jan 27, 2015 8:32:00 AM</a> <span style="float: right;">● 63 MB</span>
<span style="color: green;">●</span> #460 <a href="#">Jan 26, 2015 8:32:00 AM</a> <span style="float: right;">● 63 MB</span>
<span style="color: green;">●</span> #459 <a href="#">Jan 25, 2015 8:32:00 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #458 <a href="#">Jan 24, 2015 8:32:00 AM</a> <span style="float: right;">● 324 KB</span>
<span style="color: green;">●</span> #457 <a href="#">Jan 23, 2015 8:32:00 AM</a> <span style="float: right;">● 324 KB</span>
<span style="color: red;">●</span> #456 <a href="#">Jan 22, 2015 8:32:00 AM</a> <span style="float: right;">● 324 KB</span>
<span style="color: gray;">●</span> #455 <a href="#">Jan 21, 2015 8:32:00 AM</a> <span style="float: right;">● 24 KB</span>
<span style="color: gray;">●</span> #453 <a href="#">Jan 19, 2015 8:46:33 PM</a> <span style="float: right;">● 23 KB</span>
<span style="color: red;">●</span> #452 <a href="#">Jan 17, 2015 8:32:01 AM</a> <span style="float: right;">● 72 KB </span>
<span style="color: green;">●</span> #451 <a href="#">Jan 16, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB </span>
<span style="color: green;">●</span> #450 <a href="#">Jan 15, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #449 <a href="#">Jan 14, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #448 <a href="#">Jan 13, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #447 <a href="#">Jan 12, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #446 <a href="#">Jan 11, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>
<span style="color: green;">●</span> #445 <a href="#">Jan 10, 2015 8:32:01 AM</a> <span style="float: right;">● 323 KB</span>



### Execute shell

```
Command # jenkins puts all the params after a / in the job name as well :(
export JOB_NAME=NeoJSON

wget --quiet -O - get.pharo.org/$PHARO+$VM | bash

./pharo Pharo.image save $JOB_NAME --delete-old
./pharo $JOB_NAME.image --version > version.txt

REPO=http://smalltalkhub.com/mc/SvenVanCaekenberghe/Neo/main
./pharo $JOB_NAME.image config $REPO ConfigurationOf$JOB_NAME --install-$VERSION
./pharo $JOB_NAME.image test --junit-xml-output "Neo-JSON.*"

zip -r $JOB_NAME.zip $JOB_NAME.image $JOB_NAME.changes

# clean up the workspace to not occupy too much stale space on the slaves
rm -rf *.image *.changes
```

See [the list of available environment variables](#)

Delete

Add build step

### Post-build Actions

#### Archive the artifacts

Files to archive

**❌ '\*\*/\*.zip' doesn't match anything: '\*\*' exists but not '\*\*/\*.zip'**

Advanced...

Delete

#### Publish JUnit test result report

Test report XMLs

**❌ '\*\*.-Test.xml' doesn't match anything**

Fileset 'includes' setting that specifies the generated raw XML report files, such as 'myproject/target/test-reports/\*.xml'. Basedir of the fileset is [the workspace root](#).

Retain long standard output/error

Delete

#### E-mail Notification

Recipients

Save

Apply

[Back to Project](#)[Status](#)[Changes](#)[Console Output](#)[View as plain text](#)[View Build Information](#)[Test Result](#)[Downstream build view](#)[Previous Build](#)

## Console Output

```
Started by upstream project
"[8mha:AAAAmR+LCAAAAAAAAAAP9b85aBtbiIQTGjNKU4P08vOT+v0D8nVc83PyU1x60yILUoJzMv2y+/JJUBAhiZGBgqihhk0NSjKDWzXb3RdLLBUSYGJk8GtpzUvPSSDB8G5tKinBIGIZ+sxLJE/ZzE
build number
[8mha:AAAAmR+LCAAAAAAAAAAP9b85aBtbiIQTGjNKU4P08vOT+v0D8nVc83PyU1x60yILUoJzMv2y+/JJUBAhiZGBgqihhk0NSjKDWzXb3RdLLBUSYGJk8GtpzUvPSSDB8G5tKinBIGIZ+sxLJE/ZzE
originally caused by:
  Started by timer
Building remotely on pharo-contribution-linux64.ci.inria.fr (32 64 linux) in workspace /builds/workspace/NeoJSON/PHARO/40/VERSION/bleedingEdge/VM/vm

Deleting project workspace... Deleting old artifacts from #460
[vm] $ /bin/sh -xe /tmp/hudson9024775108308335396.sh
+ export JOB_NAME=NeoJSON
+ bash
+ wget --quiet -O - get.pharo.org/40+vm
Downloading the latest 40 Image:
http://files.pharo.org/image/40/latest.zip
Pharo.image
Downloading the latest pharoVM:
http://files.pharo.org/vm/pharo/linux/stable.zip
pharo-vm/pharo
Downloading PharoV10.sources:
http://files.pharo.org/sources//PharoV10.sources.zip
Downloading PharoV20.sources:
http://files.pharo.org/sources//PharoV20.sources.zip
Downloading PharoV30.sources:
http://files.pharo.org/sources//PharoV30.sources.zip
Creating starter scripts pharo and pharo-ui
+ ./pharo Pharo.image save NeoJSON --delete-old
+ ./pharo NeoJSON.image --version
+ REPO=http://smalltalkhub.com/mc/SvenVanCaekenberghe/Neo/main
+ ./pharo NeoJSON.image config http://smalltalkhub.com/mc/SvenVanCaekenberghe/Neo/main ConfigurationOfNeoJSON --install=bleedingEdge
'Installing ConfigurationOfNeoJSON bleedingEdge'

Loading 2-baseline of ConfigurationOfNeoJSON...
Fetched -> Neo-JSON-Core-SvenVanCaekenberghe.29 --- http://mc.stfx.eu/Neo --- http://mc.stfx.eu/Neo
Fetched -> Neo-JSON-Tests-SvenVanCaekenberghe.26 --- http://mc.stfx.eu/Neo --- http://mc.stfx.eu/Neo
Loaded -> Neo-JSON-Core-SvenVanCaekenberghe.29 --- http://mc.stfx.eu/Neo --- cache
Loaded -> Neo-JSON-Tests-SvenVanCaekenberghe.26 --- http://mc.stfx.eu/Neo --- cache
...finished 2-baseline+ ./pharo NeoJSON.image test --junit-xml-output Neo-JSON.*
'Running tests in 2 Packages'
+ zip -r NeoJSON.zip NeoJSON.image NeoJSON.changes
  adding: NeoJSON.image (deflated 65%)
  adding: NeoJSON.changes (deflated 86%)
+ rm -rf NeoJSON.image NeoJSON.changes
Archiving artifacts
Recording test results
Regression reporter doesn't run because build is success
```

[Back to Project](#)

[Status](#)

[Changes](#)

[Console Output](#)

[View Build Information](#)

[History](#)

[Test Result](#)

[Downstream build view](#)

[Previous Build](#)

## Test Result : NeoJSON.Tests

0 failures (±0)

76 tests (±0)  
[Took 0.35 sec.](#)

### All Tests

Class	Duration	Fail	(diff)	Skip	(diff)	Pass	(diff)	Total	(diff)
<a href="#">NeoJSONBenchmarkTests</a>	0.33 sec	0		0		4		4	
<a href="#">NeoJSONObjectTests</a>	5 ms	0		0		2		2	
<a href="#">NeoJSONReaderTests</a>	6 ms	0		0		25		25	
<a href="#">NeoJSONWriteReadMockStreamTests</a>	6 ms	0		0		10		10	
<a href="#">NeoJSONWriteReadPrettyPrintedTests</a>	2 ms	0		0		4		4	
<a href="#">NeoJSONWriteReadTests</a>	5 ms	0		0		10		10	
<a href="#">NeoJSONWriterTests</a>	0 ms	0		0		21		21	

[Help us localize this page](#)

Docs

Documentation,  
documentation,  
documentation

Even well written code  
needs documentation

Class names  
Methods names  
Style & Design

Class comments

Method comments

Implementation comments



Not the obvious things  
Rephrase, externalise  
Guide new users

# Help System In Image Interactive Tutorial

Real, separate  
documentation

Papers, tutorials,  
articles, presentations

Pillar Markup

Pillar Tool - PillarHub

HTML, PDF, Markdown

Markdown  
Github, SmalltalkHub

# Catalog Info on Configurations Project Poster

Use mailing lists

Use MC package for contributions

Use github issue system - PR



Debugging in the field

> PharoDebug.log

> Fuel out stack

Support your software  
Engage your users

# Publishing Libraries & Frameworks

Thank you for your attention

Q & A