JavaScript is disabled on your browser.

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/SPhraseSpec.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-files/index-1.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/simplenlg/phrasespec/PPPhraseSpec.html)
* [Next Class](http://docs.google.com/simplenlg/phrasespec/VPPhraseSpec.html)
* [Frames](http://docs.google.com/index.html?simplenlg/phrasespec/SPhraseSpec.html)
* [No Frames](http://docs.google.com/SPhraseSpec.html)
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* Summary:
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simplenlg.phrasespec

## Class SPhraseSpec

* java.lang.Object
  + [simplenlg.framework.NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html)
    - [simplenlg.framework.PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html)
      * simplenlg.phrasespec.SPhraseSpec
* public class SPhraseSpec  
  extends [PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html)
* This class defines a clause (sentence-like phrase). It is essentially a wrapper around the PhraseElement class, with methods for setting common constituents such as Subject. For example, the setVerb method in this class sets the head of the element to be the specified verb From an API perspective, this class is a simplified version of the SPhraseSpec class in simplenlg V3. It provides an alternative way for creating syntactic structures, compared to directly manipulating a V4 PhraseElement. Methods are provided for setting and getting the following constituents:
  + FrontModifier (eg, "Yesterday")
  + Subject (eg, "John")
  + PreModifier (eg, "reluctantly")
  + Verb (eg, "gave")
  + IndirectObject (eg, "Mary")
  + Object (eg, "an apple")
  + PostModifier (eg, "before school")
* Note that verb, indirect object, and object are propagated to the underlying verb phrase NOTE: The setModifier method will attempt to automatically determine whether a modifier should be expressed as a FrontModifier, PreModifier, or PostModifier Features (such as negated) must be accessed via the setFeature and getFeature methods (inherited from NLGElement). Features which are often set on SPhraseSpec include
  + Form (eg, "John eats an apple" vs "John eating an apple")
  + InterrogativeType (eg, "John eats an apple" vs "Is John eating an apple" vs "What is John eating")
  + Modal (eg, "John eats an apple" vs "John can eat an apple")
  + Negated (eg, "John eats an apple" vs "John does not eat an apple")
  + Passive (eg, "John eats an apple" vs "An apple is eaten by John")
  + Perfect (eg, "John ate an apple" vs "John has eaten an apple")
  + Progressive (eg, "John eats an apple" vs "John is eating an apple")
  + Tense (eg, "John ate" vs "John eats" vs "John will eat")

Note that most features are propagated to the underlying verb phrase Premodifers are also propogated to the underlying VP SPhraseSpec are produced by the createClause method of a PhraseFactory  
Version: 4.1 Author: E. Reiter, University of Aberdeen.

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [**SPhraseSpec**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#SPhraseSpec(simplenlg.framework.NLGFactory))([NLGFactory](http://docs.google.com/simplenlg/framework/NLGFactory.html) phraseFactory) create an empty clause |

### Method SummaryMethods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + void | * + [**addComplement**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#addComplement(simplenlg.framework.NLGElement))([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) complement) Adds a new complement to the phrase element. |
| * + void | * + [**addComplement**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#addComplement(java.lang.String))(java.lang.String newComplement) Adds a new complement to the phrase element. |
| * + void | * + [**addModifier**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#addModifier(java.lang.Object))(java.lang.Object modifier) Add a modifier to a clause Use heuristics to decide where it goes |
| * + void | * + [**addPreModifier**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#addPreModifier(simplenlg.framework.NLGElement))([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) newPreModifier) Adds a new pre-modifier to the phrase element. |
| * + java.lang.Object | * + [**getFeature**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getFeature(java.lang.String))(java.lang.String featureName) Retrieves the value of the feature. |
| * + [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) | * + [**getIndirectObject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getIndirectObject())() Returns the indirect object of a clause (assumes there is only one) |
| * + [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) | * + [**getObject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getObject())() Returns the direct object of a clause (assumes there is only one) |
| * + [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) | * + [**getSubject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getSubject())() Returns the subject of a clause (assumes there is only one) |
| * + [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) | * + [**getVerb**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getVerb())() Returns the verb of a clause |
| * + [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) | * + [**getVerbPhrase**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#getVerbPhrase())() |
| * + void | * + [**setFeature**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setFeature(java.lang.String,%20boolean))(java.lang.String featureName, boolean featureValue) A convenience method for setting boolean features. |
| * + void | * + [**setFeature**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setFeature(java.lang.String,%20java.lang.Object))(java.lang.String featureName, java.lang.Object featureValue) adds a feature, possibly to the underlying VP as well as the SPhraseSpec itself |
| * + void | * + [**setIndirectObject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setIndirectObject(java.lang.Object))(java.lang.Object indirectObject) Set the indirect object of a clause (assumes this is the only direct indirect object) |
| * + void | * + [**setObject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setObject(java.lang.Object))(java.lang.Object object) Sets the direct object of a clause (assumes this is the only direct object) |
| * + void | * + [**setSubject**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setSubject(java.lang.Object))(java.lang.Object subject) Sets the subject of a clause (assumes this is the only subject) |
| * + void | * + [**setVerb**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setVerb(java.lang.Object))(java.lang.Object verb) Set the verb of a clause |
| * + void | * + [**setVerbPhrase**](http://docs.google.com/simplenlg/phrasespec/SPhraseSpec.html#setVerbPhrase(simplenlg.framework.NLGElement))([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) vp) |

### Methods inherited from class simplenlg.framework.[**PhraseElement**](http://docs.google.com/simplenlg/framework/PhraseElement.html)[addFrontModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addFrontModifier(simplenlg.framework.NLGElement)), [addFrontModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addFrontModifier(java.lang.String)), [addPostModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addPostModifier(simplenlg.framework.NLGElement)), [addPostModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addPostModifier(java.lang.String)), [addPreModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addPreModifier(java.lang.String)), [clearComplements](http://docs.google.com/simplenlg/framework/PhraseElement.html#clearComplements()), [getChildren](http://docs.google.com/simplenlg/framework/PhraseElement.html#getChildren()), [getFrontModifiers](http://docs.google.com/simplenlg/framework/PhraseElement.html#getFrontModifiers()), [getHead](http://docs.google.com/simplenlg/framework/PhraseElement.html#getHead()), [getPostModifiers](http://docs.google.com/simplenlg/framework/PhraseElement.html#getPostModifiers()), [getPreModifiers](http://docs.google.com/simplenlg/framework/PhraseElement.html#getPreModifiers()), [printTree](http://docs.google.com/simplenlg/framework/PhraseElement.html#printTree(java.lang.String)), [setComplement](http://docs.google.com/simplenlg/framework/PhraseElement.html#setComplement(simplenlg.framework.NLGElement)), [setComplement](http://docs.google.com/simplenlg/framework/PhraseElement.html#setComplement(java.lang.String)), [setDeterminer](http://docs.google.com/simplenlg/framework/PhraseElement.html#setDeterminer(java.lang.Object)), [setFrontModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setFrontModifier(simplenlg.framework.NLGElement)), [setFrontModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setFrontModifier(java.lang.String)), [setHead](http://docs.google.com/simplenlg/framework/PhraseElement.html#setHead(java.lang.Object)), [setPostModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setPostModifier(simplenlg.framework.NLGElement)), [setPostModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setPostModifier(java.lang.String)), [setPreModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setPreModifier(simplenlg.framework.NLGElement)), [setPreModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#setPreModifier(java.lang.String))

### Methods inherited from class simplenlg.framework.[**NLGElement**](http://docs.google.com/simplenlg/framework/NLGElement.html)[clearAllFeatures](http://docs.google.com/simplenlg/framework/NLGElement.html#clearAllFeatures()), [equals](http://docs.google.com/simplenlg/framework/NLGElement.html#equals(java.lang.Object)), [equals](http://docs.google.com/simplenlg/framework/NLGElement.html#equals(java.lang.String)), [getAllFeatureNames](http://docs.google.com/simplenlg/framework/NLGElement.html#getAllFeatureNames()), [getAllFeatures](http://docs.google.com/simplenlg/framework/NLGElement.html#getAllFeatures()), [getCategory](http://docs.google.com/simplenlg/framework/NLGElement.html#getCategory()), [getFactory](http://docs.google.com/simplenlg/framework/NLGElement.html#getFactory()), [getFeatureAsBoolean](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsBoolean(java.lang.String)), [getFeatureAsDouble](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsDouble(java.lang.String)), [getFeatureAsElement](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsElement(java.lang.String)), [getFeatureAsElementList](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsElementList(java.lang.String)), [getFeatureAsFloat](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsFloat(java.lang.String)), [getFeatureAsInteger](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsInteger(java.lang.String)), [getFeatureAsList](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsList(java.lang.String)), [getFeatureAsLong](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsLong(java.lang.String)), [getFeatureAsString](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsString(java.lang.String)), [getFeatureAsStringList](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeatureAsStringList(java.lang.String)), [getParent](http://docs.google.com/simplenlg/framework/NLGElement.html#getParent()), [getRealisation](http://docs.google.com/simplenlg/framework/NLGElement.html#getRealisation()), [getTense](http://docs.google.com/simplenlg/framework/NLGElement.html#getTense()), [hasFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#hasFeature(java.lang.String)), [isA](http://docs.google.com/simplenlg/framework/NLGElement.html#isA(simplenlg.framework.ElementCategory)), [isNegated](http://docs.google.com/simplenlg/framework/NLGElement.html#isNegated()), [isPlural](http://docs.google.com/simplenlg/framework/NLGElement.html#isPlural()), [removeFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#removeFeature(java.lang.String)), [setCategory](http://docs.google.com/simplenlg/framework/NLGElement.html#setCategory(simplenlg.framework.ElementCategory)), [setFactory](http://docs.google.com/simplenlg/framework/NLGElement.html#setFactory(simplenlg.framework.NLGFactory)), [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20double)), [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20float)), [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20int)), [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20long)), [setNegated](http://docs.google.com/simplenlg/framework/NLGElement.html#setNegated(boolean)), [setParent](http://docs.google.com/simplenlg/framework/NLGElement.html#setParent(simplenlg.framework.NLGElement)), [setPlural](http://docs.google.com/simplenlg/framework/NLGElement.html#setPlural(boolean)), [setRealisation](http://docs.google.com/simplenlg/framework/NLGElement.html#setRealisation(java.lang.String)), [setTense](http://docs.google.com/simplenlg/framework/NLGElement.html#setTense(simplenlg.features.Tense)), [toString](http://docs.google.com/simplenlg/framework/NLGElement.html#toString())

### Methods inherited from class java.lang.ObjectgetClass, hashCode, notify, notifyAll, wait, wait, wait

### Constructor Detail

#### SPhraseSpec public SPhraseSpec([NLGFactory](http://docs.google.com/simplenlg/framework/NLGFactory.html) phraseFactory) create an empty clause

### Method Detail

#### setFeature public void setFeature(java.lang.String featureName, java.lang.Object featureValue) adds a feature, possibly to the underlying VP as well as the SPhraseSpec itself**Overrides:** [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20java.lang.Object)) in class [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) Parameters:featureName - the name of the feature.featureValue - the new value of the feature or null if the feature is to be removed.See Also:[NLGElement.setFeature(java.lang.String, java.lang.Object)](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20java.lang.Object))

#### addPreModifier public void addPreModifier([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) newPreModifier) **Description copied from class:**[**PhraseElement**](http://docs.google.com/simplenlg/framework/PhraseElement.html#addPreModifier(simplenlg.framework.NLGElement)) Adds a new pre-modifier to the phrase element.**Overrides:** [addPreModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addPreModifier(simplenlg.framework.NLGElement)) in class [PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html) Parameters:newPreModifier - the new pre-modifier as an NLGElement.

#### addComplement public void addComplement([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) complement) **Description copied from class:**[**PhraseElement**](http://docs.google.com/simplenlg/framework/PhraseElement.html#addComplement(simplenlg.framework.NLGElement)) Adds a new complement to the phrase element. Complements will be realised in the syntax after the head element of the phrase. Complements differ from post-modifiers in that complements are crucial to the understanding of a phrase whereas post-modifiers are optional. If the new complement being added is a *clause* or a CoordinatedPhraseElement then its clause status feature is set to ClauseStatus.SUBORDINATE and it's discourse function is set to DiscourseFunction.OBJECT by default unless an existing discourse function exists on the complement. Complements can have different functions. For example, the phrase *John gave Mary a flower* has two complements, one a direct object and one indirect. If a complement is not specified for its discourse function, then this is automatically set to DiscourseFunction.OBJECT.**Overrides:** [addComplement](http://docs.google.com/simplenlg/framework/PhraseElement.html#addComplement(simplenlg.framework.NLGElement)) in class [PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html) Parameters:complement - the new complement as an NLGElement.

#### addComplement public void addComplement(java.lang.String newComplement) **Description copied from class:**[**PhraseElement**](http://docs.google.com/simplenlg/framework/PhraseElement.html#addComplement(java.lang.String)) Adds a new complement to the phrase element. Complements will be realised in the syntax after the head element of the phrase. Complements differ from post-modifiers in that complements are crucial to the understanding of a phrase whereas post-modifiers are optional.**Overrides:** [addComplement](http://docs.google.com/simplenlg/framework/PhraseElement.html#addComplement(java.lang.String)) in class [PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html) Parameters:newComplement - the new complement as a String. It is used to create a StringElement.

#### setFeature public void setFeature(java.lang.String featureName, boolean featureValue) **Description copied from class:**[**NLGElement**](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20boolean)) A convenience method for setting boolean features.**Overrides:** [setFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#setFeature(java.lang.String,%20boolean)) in class [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) Parameters:featureName - the name of the feature.featureValue - the boolean value of the feature.

#### getFeature public java.lang.Object getFeature(java.lang.String featureName) **Description copied from class:**[**NLGElement**](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeature(java.lang.String)) Retrieves the value of the feature.**Overrides:** [getFeature](http://docs.google.com/simplenlg/framework/NLGElement.html#getFeature(java.lang.String)) in class [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) Parameters:featureName - the name of the feature. Returns:the Object value of the feature.

#### getVerbPhrase public [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) getVerbPhrase()Returns:VP for this clause

#### setVerbPhrase public void setVerbPhrase([NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) vp)

#### setVerb public void setVerb(java.lang.Object verb) Set the verb of a clauseParameters:verb -

#### getVerb public [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) getVerb() Returns the verb of a clauseReturns:verb of clause

#### setSubject public void setSubject(java.lang.Object subject) Sets the subject of a clause (assumes this is the only subject)Parameters:subject -

#### getSubject public [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) getSubject() Returns the subject of a clause (assumes there is only one)Returns:subject of clause (assume only one)

#### setObject public void setObject(java.lang.Object object) Sets the direct object of a clause (assumes this is the only direct object)Parameters:object -

#### getObject public [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) getObject() Returns the direct object of a clause (assumes there is only one)Returns:subject of clause (assume only one)

#### setIndirectObject public void setIndirectObject(java.lang.Object indirectObject) Set the indirect object of a clause (assumes this is the only direct indirect object)Parameters:indirectObject -

#### getIndirectObject public [NLGElement](http://docs.google.com/simplenlg/framework/NLGElement.html) getIndirectObject() Returns the indirect object of a clause (assumes there is only one)Returns:subject of clause (assume only one)

#### addModifier public void addModifier(java.lang.Object modifier) Add a modifier to a clause Use heuristics to decide where it goes**Overrides:** [addModifier](http://docs.google.com/simplenlg/framework/PhraseElement.html#addModifier(java.lang.Object)) in class [PhraseElement](http://docs.google.com/simplenlg/framework/PhraseElement.html) Parameters:modifier -

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/SPhraseSpec.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-files/index-1.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/simplenlg/phrasespec/PPPhraseSpec.html)
* [Next Class](http://docs.google.com/simplenlg/phrasespec/VPPhraseSpec.html)
* [Frames](http://docs.google.com/index.html?simplenlg/phrasespec/SPhraseSpec.html)
* [No Frames](http://docs.google.com/SPhraseSpec.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* Field |
* [Constr](#id.3znysh7)|
* [Method](#id.2et92p0)
* Detail:
* Field |
* [Constr](#id.4d34og8)|
* [Method](#id.17dp8vu)