| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PrintServiceAttributeSet.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) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html)   [**NEXT CLASS**](http://docs.google.com/javax/print/attribute/ResolutionSyntax.html) | [**FRAMES**](http://docs.google.com/index.html?javax/print/attribute/PrintServiceAttributeSet.html)    [**NO FRAMES**](http://docs.google.com/PrintServiceAttributeSet.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **javax.print.attribute**

Interface PrintServiceAttributeSet

**All Superinterfaces:** [AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) **All Known Implementing Classes:** [HashPrintServiceAttributeSet](http://docs.google.com/javax/print/attribute/HashPrintServiceAttributeSet.html)

public interface **PrintServiceAttributeSet**extends [AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html)

Interface PrintServiceAttributeSet specifies the interface for a set of print job attributes, i.e. printing attributes that implement interface [PrintServiceAttribute](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html). In the Print Service API, the Print Service instance uses a PrintServiceAttributeSet to report the status of the print service.

A PrintServiceAttributeSet is just an [AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) whose constructors and mutating operations guarantee an additional invariant, namely that all attribute values in the PrintServiceAttributeSet must be instances of interface [PrintServiceAttribute](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html). The [add(Attribute)](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#add(javax.print.attribute.Attribute)), and [addAll(AttributeSet)](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#addAll(javax.print.attribute.AttributeSet)) operations are respecified below to guarantee this additional invariant.

| **Method Summary** | |
| --- | --- |
| boolean | [**add**](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#add(javax.print.attribute.Attribute))([Attribute](http://docs.google.com/javax/print/attribute/Attribute.html) attribute)            Adds the specified attribute value to this attribute set if it is not already present, first removing any existing value in the same attribute category as the specified attribute value (optional operation). |
| boolean | [**addAll**](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#addAll(javax.print.attribute.AttributeSet))([AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) attributes)            Adds all of the elements in the specified set to this attribute. |

| **Methods inherited from interface javax.print.attribute.**[**AttributeSet**](http://docs.google.com/javax/print/attribute/AttributeSet.html) |
| --- |
| [clear](http://docs.google.com/javax/print/attribute/AttributeSet.html#clear()), [containsKey](http://docs.google.com/javax/print/attribute/AttributeSet.html#containsKey(java.lang.Class)), [containsValue](http://docs.google.com/javax/print/attribute/AttributeSet.html#containsValue(javax.print.attribute.Attribute)), [equals](http://docs.google.com/javax/print/attribute/AttributeSet.html#equals(java.lang.Object)), [get](http://docs.google.com/javax/print/attribute/AttributeSet.html#get(java.lang.Class)), [hashCode](http://docs.google.com/javax/print/attribute/AttributeSet.html#hashCode()), [isEmpty](http://docs.google.com/javax/print/attribute/AttributeSet.html#isEmpty()), [remove](http://docs.google.com/javax/print/attribute/AttributeSet.html#remove(javax.print.attribute.Attribute)), [remove](http://docs.google.com/javax/print/attribute/AttributeSet.html#remove(java.lang.Class)), [size](http://docs.google.com/javax/print/attribute/AttributeSet.html#size()), [toArray](http://docs.google.com/javax/print/attribute/AttributeSet.html#toArray()) |

| **Method Detail** |
| --- |

### add

boolean **add**([Attribute](http://docs.google.com/javax/print/attribute/Attribute.html) attribute)

Adds the specified attribute value to this attribute set if it is not already present, first removing any existing value in the same attribute category as the specified attribute value (optional operation).

**Specified by:**[add](http://docs.google.com/javax/print/attribute/AttributeSet.html#add(javax.print.attribute.Attribute)) in interface [AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) **Parameters:**attribute - Attribute value to be added to this attribute set. **Returns:**true if this attribute set changed as a result of the call, i.e., the given attribute value was not already a member of this attribute set. **Throws:** [UnmodifiableSetException](http://docs.google.com/javax/print/attribute/UnmodifiableSetException.html) - (unchecked exception) Thrown if this attribute set does not support the add() operation. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - (unchecked exception) Thrown if the attribute is not an instance of interface [PrintServiceAttribute](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html). [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - (unchecked exception) Thrown if the attribute is null.

### addAll

boolean **addAll**([AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) attributes)

Adds all of the elements in the specified set to this attribute. The outcome is the same as if the [add(Attribute)](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#add(javax.print.attribute.Attribute)) operation had been applied to this attribute set successively with each element from the specified set. If none of the categories in the specified set are the same as any categories in this attribute set, the addAll() operation effectively modifies this attribute set so that its value is the *union* of the two sets.

The behavior of the addAll() operation is unspecified if the specified set is modified while the operation is in progress.

If the addAll() operation throws an exception, the effect on this attribute set's state is implementation dependent; elements from the specified set before the point of the exception may or may not have been added to this attribute set.

**Specified by:**[addAll](http://docs.google.com/javax/print/attribute/AttributeSet.html#addAll(javax.print.attribute.AttributeSet)) in interface [AttributeSet](http://docs.google.com/javax/print/attribute/AttributeSet.html) **Parameters:**attributes - whose elements are to be added to this attribute set. **Returns:**true if this attribute set changed as a result of the call. **Throws:** [UnmodifiableSetException](http://docs.google.com/javax/print/attribute/UnmodifiableSetException.html) - (Unchecked exception) Thrown if this attribute set does not support the addAll() method. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - (Unchecked exception) Thrown if some element in the specified set is not an instance of interface [PrintServiceAttribute](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html). [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - (Unchecked exception) Thrown if the specified set is null.**See Also:**[add(Attribute)](http://docs.google.com/javax/print/attribute/PrintServiceAttributeSet.html#add(javax.print.attribute.Attribute))

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/PrintServiceAttributeSet.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) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/print/attribute/PrintServiceAttribute.html)   [**NEXT CLASS**](http://docs.google.com/javax/print/attribute/ResolutionSyntax.html) | [**FRAMES**](http://docs.google.com/index.html?javax/print/attribute/PrintServiceAttributeSet.html)    [**NO FRAMES**](http://docs.google.com/PrintServiceAttributeSet.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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