| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/TabularDataSupport.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/management/openmbean/TabularData.html)   [**NEXT CLASS**](http://docs.google.com/javax/management/openmbean/TabularType.html) | [**FRAMES**](http://docs.google.com/index.html?javax/management/openmbean/TabularDataSupport.html)    [**NO FRAMES**](http://docs.google.com/TabularDataSupport.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#4d34og8) | [METHOD](#3rdcrjn) |

## **javax.management.openmbean**

Class TabularDataSupport

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.management.openmbean.TabularDataSupport**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Cloneable](http://docs.google.com/java/lang/Cloneable.html), [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>, [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)

public class **TabularDataSupport**extends [Object](http://docs.google.com/java/lang/Object.html)implements [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html), [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>, [Cloneable](http://docs.google.com/java/lang/Cloneable.html), [Serializable](http://docs.google.com/java/io/Serializable.html)

The TabularDataSupport class is the *open data* class which implements the TabularData and the Map interfaces, and which is internally based on a hash map data structure.

**Since:** 1.5 **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#javax.management.openmbean.TabularDataSupport)

| **Nested Class Summary** | |
| --- | --- |

| **Nested classes/interfaces inherited from interface java.util.**[**Map**](http://docs.google.com/java/util/Map.html) |
| --- |
| [Map.Entry](http://docs.google.com/java/util/Map.Entry.html)<[K](http://docs.google.com/java/util/Map.Entry.html),[V](http://docs.google.com/java/util/Map.Entry.html)> |

| **Constructor Summary** | |
| --- | --- |
| [**TabularDataSupport**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#TabularDataSupport(javax.management.openmbean.TabularType))([TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) tabularType)            Creates an empty TabularDataSupport instance whose open-type is tabularType, and whose underlying HashMap has a default initial capacity (101) and default load factor (0.75). |
| [**TabularDataSupport**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#TabularDataSupport(javax.management.openmbean.TabularType,%20int,%20float))([TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) tabularType, int initialCapacity, float loadFactor)            Creates an empty TabularDataSupport instance whose open-type is tabularType, and whose underlying HashMap has the specified initial capacity and load factor. |

| **Method Summary** | |
| --- | --- |
| [Object](http://docs.google.com/java/lang/Object.html)[] | [**calculateIndex**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#calculateIndex(javax.management.openmbean.CompositeData))([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)            Calculates the index that would be used in this TabularData instance to refer to the specified composite data value parameter if it were added to this instance. |
| void | [**clear**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#clear())()            Removes all rows from this TabularDataSupport instance. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**clone**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#clone())()            Returns a clone of this TabularDataSupport instance: the clone is obtained by calling super.clone(), and then cloning the underlying map. |
| boolean | [**containsKey**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#containsKey(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            Returns true if and only if this TabularData instance contains a CompositeData value (ie a row) whose index is the specified key. |
| boolean | [**containsKey**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#containsKey(java.lang.Object%5B%5D))([Object](http://docs.google.com/java/lang/Object.html)[] key)            Returns true if and only if this TabularData instance contains a CompositeData value (ie a row) whose index is the specified key. |
| boolean | [**containsValue**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#containsValue(javax.management.openmbean.CompositeData))([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)            Returns true if and only if this TabularData instance contains the specified CompositeData value. |
| boolean | [**containsValue**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#containsValue(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) value)            Returns true if and only if this TabularData instance contains the specified value. |
| [Set](http://docs.google.com/java/util/Set.html)<[Map.Entry](http://docs.google.com/java/util/Map.Entry.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>> | [**entrySet**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#entrySet())()            Returns a collection view of the index to row mappings contained in this TabularDataSupport instance. |
| boolean | [**equals**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Compares the specified obj parameter with this TabularDataSupport instance for equality. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**get**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#get(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            This method simply calls get((Object[]) key). |
| [CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) | [**get**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#get(java.lang.Object%5B%5D))([Object](http://docs.google.com/java/lang/Object.html)[] key)            Returns the CompositeData value whose index is key, or null if there is no value mapping to key, in this TabularData instance. |
| [TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) | [**getTabularType**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#getTabularType())()            Returns the *tabular type* describing this TabularData instance. |
| int | [**hashCode**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#hashCode())()            Returns the hash code value for this TabularDataSupport instance. |
| boolean | [**isEmpty**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#isEmpty())()            Returns true if this TabularDataSupport instance contains no rows. |
| [Set](http://docs.google.com/java/util/Set.html)<[Object](http://docs.google.com/java/lang/Object.html)> | [**keySet**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#keySet())()            Returns a set view of the keys contained in the underlying map of this TabularDataSupport instance used to index the rows. |
| void | [**put**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#put(javax.management.openmbean.CompositeData))([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)            Adds value to this TabularData instance. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**put**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#put(java.lang.Object,%20java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key, [Object](http://docs.google.com/java/lang/Object.html) value)            This method simply calls put((CompositeData) value) and therefore ignores its key parameter which can be null. |
| void | [**putAll**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#putAll(javax.management.openmbean.CompositeData%5B%5D))([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html)[] values)            Add all the elements in values to this TabularData instance. |
| void | [**putAll**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#putAll(java.util.Map))([Map](http://docs.google.com/java/util/Map.html)<?,?> t)            Add all the values contained in the specified map t to this TabularData instance. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**remove**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#remove(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            This method simply calls remove((Object[]) key). |
| [CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) | [**remove**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#remove(java.lang.Object%5B%5D))([Object](http://docs.google.com/java/lang/Object.html)[] key)            Removes the CompositeData value whose index is key from this TabularData instance, and returns the removed value, or returns null if there is no value whose index is key. |
| int | [**size**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#size())()            Returns the number of rows in this TabularDataSupport instance. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#toString())()            Returns a string representation of this TabularDataSupport instance. |
| [Collection](http://docs.google.com/java/util/Collection.html)<[Object](http://docs.google.com/java/lang/Object.html)> | [**values**](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#values())()            Returns a collection view of the rows contained in this TabularDataSupport instance. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### TabularDataSupport

public **TabularDataSupport**([TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) tabularType)

Creates an empty TabularDataSupport instance whose open-type is tabularType, and whose underlying HashMap has a default initial capacity (101) and default load factor (0.75).

This constructor simply calls this(tabularType, 101, 0.75f);

**Parameters:**tabularType - the *tabular type* describing this TabularData instance; cannot be null. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the tabular type is null.

### TabularDataSupport

public **TabularDataSupport**([TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) tabularType,  
 int initialCapacity,  
 float loadFactor)

Creates an empty TabularDataSupport instance whose open-type is tabularType, and whose underlying HashMap has the specified initial capacity and load factor.

**Parameters:**tabularType - the *tabular type* describing this TabularData instance; cannot be null.initialCapacity - the initial capacity of the HashMap.loadFactor - the load factor of the HashMap **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the initial capacity is less than zero, or the load factor is nonpositive, or the tabular type is null.

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

### getTabularType

public [TabularType](http://docs.google.com/javax/management/openmbean/TabularType.html) **getTabularType**()

Returns the *tabular type* describing this TabularData instance.

**Specified by:**[getTabularType](http://docs.google.com/javax/management/openmbean/TabularData.html#getTabularType()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Returns:**the tabular type.

### calculateIndex

public [Object](http://docs.google.com/java/lang/Object.html)[] **calculateIndex**([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)

Calculates the index that would be used in this TabularData instance to refer to the specified composite data value parameter if it were added to this instance. This method checks for the type validity of the specified value, but does not check if the calculated index is already used to refer to a value in this TabularData instance.

**Specified by:**[calculateIndex](http://docs.google.com/javax/management/openmbean/TabularData.html#calculateIndex(javax.management.openmbean.CompositeData)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**value - the composite data value whose index in this TabularData instance is to be calculated; must be of the same composite type as this instance's row type; must not be null. **Returns:**the index that the specified value would have in this TabularData instance. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if value is null. [InvalidOpenTypeException](http://docs.google.com/javax/management/openmbean/InvalidOpenTypeException.html) - if value does not conform to this TabularData instance's row type definition.

### containsKey

public boolean **containsKey**([Object](http://docs.google.com/java/lang/Object.html) key)

Returns true if and only if this TabularData instance contains a CompositeData value (ie a row) whose index is the specified key. If key cannot be cast to a one dimension array of Object instances, this method simply returns false; otherwise it returns the the result of the call to this.containsKey((Object[]) key).

**Specified by:**[containsKey](http://docs.google.com/java/util/Map.html#containsKey(java.lang.Object)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**key - the index value whose presence in this TabularData instance is to be tested. **Returns:**true if this TabularData indexes a row value with the specified key.

### containsKey

public boolean **containsKey**([Object](http://docs.google.com/java/lang/Object.html)[] key)

Returns true if and only if this TabularData instance contains a CompositeData value (ie a row) whose index is the specified key. If key is null or does not conform to this TabularData instance's TabularType definition, this method simply returns false.

**Specified by:**[containsKey](http://docs.google.com/javax/management/openmbean/TabularData.html#containsKey(java.lang.Object%5B%5D)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**key - the index value whose presence in this TabularData instance is to be tested. **Returns:**true if this TabularData indexes a row value with the specified key.

### containsValue

public boolean **containsValue**([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)

Returns true if and only if this TabularData instance contains the specified CompositeData value. If value is null or does not conform to this TabularData instance's row type definition, this method simply returns false.

**Specified by:**[containsValue](http://docs.google.com/javax/management/openmbean/TabularData.html#containsValue(javax.management.openmbean.CompositeData)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**value - the row value whose presence in this TabularData instance is to be tested. **Returns:**true if this TabularData instance contains the specified row value.

### containsValue

public boolean **containsValue**([Object](http://docs.google.com/java/lang/Object.html) value)

Returns true if and only if this TabularData instance contains the specified value.

**Specified by:**[containsValue](http://docs.google.com/java/util/Map.html#containsValue(java.lang.Object)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**value - the row value whose presence in this TabularData instance is to be tested. **Returns:**true if this TabularData instance contains the specified row value.

### get

public [Object](http://docs.google.com/java/lang/Object.html) **get**([Object](http://docs.google.com/java/lang/Object.html) key)

This method simply calls get((Object[]) key).

**Specified by:**[get](http://docs.google.com/java/util/Map.html#get(java.lang.Object)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**key - the key whose associated value is to be returned **Returns:**the value to which the specified key is mapped, or null if this map contains no mapping for the key **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the key is null [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the key is not of the type Object[] [InvalidKeyException](http://docs.google.com/javax/management/openmbean/InvalidKeyException.html) - if the key does not conform to this TabularData instance's TabularType definition

### get

public [CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) **get**([Object](http://docs.google.com/java/lang/Object.html)[] key)

Returns the CompositeData value whose index is key, or null if there is no value mapping to key, in this TabularData instance.

**Specified by:**[get](http://docs.google.com/javax/management/openmbean/TabularData.html#get(java.lang.Object%5B%5D)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**key - the index of the value to get in this TabularData instance; \* must be valid with this TabularData instance's row type definition; \* must not be null. **Returns:**the value corresponding to key. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the key is null [InvalidKeyException](http://docs.google.com/javax/management/openmbean/InvalidKeyException.html) - if the key does not conform to this TabularData instance's TabularType type definition.

### put

public [Object](http://docs.google.com/java/lang/Object.html) **put**([Object](http://docs.google.com/java/lang/Object.html) key,  
 [Object](http://docs.google.com/java/lang/Object.html) value)

This method simply calls put((CompositeData) value) and therefore ignores its key parameter which can be null.

**Specified by:**[put](http://docs.google.com/java/util/Map.html#put(K,%20V)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**key - an ignored parameter.value - the [CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) to put. **Returns:**the value which is put **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the value is null [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the value is not of the type CompositeData [InvalidOpenTypeException](http://docs.google.com/javax/management/openmbean/InvalidOpenTypeException.html) - if the value does not conform to this TabularData instance's TabularType definition [KeyAlreadyExistsException](http://docs.google.com/javax/management/openmbean/KeyAlreadyExistsException.html) - if the key for the value parameter, calculated according to this TabularData instance's TabularType definition already maps to an existing value

### put

public void **put**([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) value)

**Description copied from interface:** [**TabularData**](http://docs.google.com/javax/management/openmbean/TabularData.html#put(javax.management.openmbean.CompositeData)) Adds value to this TabularData instance. The composite type of value must be the same as this instance's row type (ie the composite type returned by this.getTabularType().[getRowType()](http://docs.google.com/javax/management/openmbean/TabularType.html#getRowType())), and there must not already be an existing value in this TabularData instance whose index is the same as the one calculated for the value to be added. The index for value is calculated according to this TabularData instance's TabularType definition (see TabularType.[getIndexNames()](http://docs.google.com/javax/management/openmbean/TabularType.html#getIndexNames())).

**Specified by:**[put](http://docs.google.com/javax/management/openmbean/TabularData.html#put(javax.management.openmbean.CompositeData)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**value - the composite data value to be added as a new row to this TabularData instance; must be of the same composite type as this instance's row type; must not be null.

### remove

public [Object](http://docs.google.com/java/lang/Object.html) **remove**([Object](http://docs.google.com/java/lang/Object.html) key)

This method simply calls remove((Object[]) key).

**Specified by:**[remove](http://docs.google.com/java/util/Map.html#remove(java.lang.Object)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**key - an Object[] representing the key to remove. **Returns:**previous value associated with specified key, or null if there was no mapping for key. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the key is null [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if the key is not of the type Object[] [InvalidKeyException](http://docs.google.com/javax/management/openmbean/InvalidKeyException.html) - if the key does not conform to this TabularData instance's TabularType definition

### remove

public [CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html) **remove**([Object](http://docs.google.com/java/lang/Object.html)[] key)

Removes the CompositeData value whose index is key from this TabularData instance, and returns the removed value, or returns null if there is no value whose index is key.

**Specified by:**[remove](http://docs.google.com/javax/management/openmbean/TabularData.html#remove(java.lang.Object%5B%5D)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**key - the index of the value to get in this TabularData instance; must be valid with this TabularData instance's row type definition; must not be null. **Returns:**previous value associated with specified key, or null if there was no mapping for key. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the key is null [InvalidKeyException](http://docs.google.com/javax/management/openmbean/InvalidKeyException.html) - if the key does not conform to this TabularData instance's TabularType definition

### putAll

public void **putAll**([Map](http://docs.google.com/java/util/Map.html)<?,?> t)

Add all the values contained in the specified map t to this TabularData instance. This method converts the collection of values contained in this map into an array of CompositeData values, if possible, and then call the method putAll(CompositeData[]). Note that the keys used in the specified map t are ignored. This method allows, for example to add the content of another TabularData instance with the same row type (but possibly different index names) into this instance.

**Specified by:**[putAll](http://docs.google.com/java/util/Map.html#putAll(java.util.Map)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Parameters:**t - the map whose values are to be added as new rows to this TabularData instance; if t is null or empty, this method returns without doing anything. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if a value in t is null. [ClassCastException](http://docs.google.com/java/lang/ClassCastException.html) - if a value in t is not an instance of CompositeData. [InvalidOpenTypeException](http://docs.google.com/javax/management/openmbean/InvalidOpenTypeException.html) - if a value in t does not conform to this TabularData instance's row type definition. [KeyAlreadyExistsException](http://docs.google.com/javax/management/openmbean/KeyAlreadyExistsException.html) - if the index for a value in t, calculated according to this TabularData instance's TabularType definition already maps to an existing value in this instance, or two values in t have the same index.

### putAll

public void **putAll**([CompositeData](http://docs.google.com/javax/management/openmbean/CompositeData.html)[] values)

Add all the elements in values to this TabularData instance. If any element in values does not satisfy the constraints defined in [put](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#put(javax.management.openmbean.CompositeData)), or if any two elements in values have the same index calculated according to this TabularData instance's TabularType definition, then an exception describing the failure is thrown and no element of values is added, thus leaving this TabularData instance unchanged.

**Specified by:**[putAll](http://docs.google.com/javax/management/openmbean/TabularData.html#putAll(javax.management.openmbean.CompositeData%5B%5D)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Parameters:**values - the array of composite data values to be added as new rows to this TabularData instance; if values is null or empty, this method returns without doing anything. **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if an element of values is null [InvalidOpenTypeException](http://docs.google.com/javax/management/openmbean/InvalidOpenTypeException.html) - if an element of values does not conform to this TabularData instance's row type definition (ie its TabularType definition) [KeyAlreadyExistsException](http://docs.google.com/javax/management/openmbean/KeyAlreadyExistsException.html) - if the index for an element of values, calculated according to this TabularData instance's TabularType definition already maps to an existing value in this instance, or two elements of values have the same index

### clear

public void **clear**()

Removes all rows from this TabularDataSupport instance.

**Specified by:**[clear](http://docs.google.com/java/util/Map.html#clear()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[clear](http://docs.google.com/javax/management/openmbean/TabularData.html#clear()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)

### size

public int **size**()

Returns the number of rows in this TabularDataSupport instance.

**Specified by:**[size](http://docs.google.com/java/util/Map.html#size()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[size](http://docs.google.com/javax/management/openmbean/TabularData.html#size()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Returns:**the number of rows in this TabularDataSupport instance.

### isEmpty

public boolean **isEmpty**()

Returns true if this TabularDataSupport instance contains no rows.

**Specified by:**[isEmpty](http://docs.google.com/java/util/Map.html#isEmpty()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[isEmpty](http://docs.google.com/javax/management/openmbean/TabularData.html#isEmpty()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Returns:**true if this TabularDataSupport instance contains no rows.

### keySet

public [Set](http://docs.google.com/java/util/Set.html)<[Object](http://docs.google.com/java/lang/Object.html)> **keySet**()

Returns a set view of the keys contained in the underlying map of this TabularDataSupport instance used to index the rows. Each key contained in this Set is an unmodifiable List<?> so the returned set view is a Set<List<?>> but is declared as a Set<Object> for compatibility reasons. The set is backed by the underlying map of this TabularDataSupport instance, so changes to the TabularDataSupport instance are reflected in the set, and vice-versa. The set supports element removal, which removes the corresponding row from this TabularDataSupport instance, via the [Iterator.remove()](http://docs.google.com/java/util/Iterator.html#remove()), [Set.remove(java.lang.Object)](http://docs.google.com/java/util/Set.html#remove(java.lang.Object)), [Set.removeAll(java.util.Collection)](http://docs.google.com/java/util/Set.html#removeAll(java.util.Collection)), [Set.retainAll(java.util.Collection)](http://docs.google.com/java/util/Set.html#retainAll(java.util.Collection)), and [Set.clear()](http://docs.google.com/java/util/Set.html#clear()) operations. It does not support the [Set.add(E)](http://docs.google.com/java/util/Set.html#add(E)) or [Set.addAll(java.util.Collection)](http://docs.google.com/java/util/Set.html#addAll(java.util.Collection)) operations.

**Specified by:**[keySet](http://docs.google.com/java/util/Map.html#keySet()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[keySet](http://docs.google.com/javax/management/openmbean/TabularData.html#keySet()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Returns:**a set view (Set<List<?>>) of the keys used to index the rows of this TabularDataSupport instance.

### values

public [Collection](http://docs.google.com/java/util/Collection.html)<[Object](http://docs.google.com/java/lang/Object.html)> **values**()

Returns a collection view of the rows contained in this TabularDataSupport instance. The returned Collection is a Collection<CompositeData> but is declared as a Collection<Object> for compatibility reasons. The returned collection can be used to iterate over the values. The collection is backed by the underlying map, so changes to the TabularDataSupport instance are reflected in the collection, and vice-versa. The collection supports element removal, which removes the corresponding index to row mapping from this TabularDataSupport instance, via the [Iterator.remove()](http://docs.google.com/java/util/Iterator.html#remove()), [Collection.remove(java.lang.Object)](http://docs.google.com/java/util/Collection.html#remove(java.lang.Object)), [Collection.removeAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#removeAll(java.util.Collection)), [Collection.retainAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#retainAll(java.util.Collection)), and [Collection.clear()](http://docs.google.com/java/util/Collection.html#clear()) operations. It does not support the [Collection.add(E)](http://docs.google.com/java/util/Collection.html#add(E)) or [Collection.addAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#addAll(java.util.Collection)) operations.

**Specified by:**[values](http://docs.google.com/java/util/Map.html#values()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[values](http://docs.google.com/javax/management/openmbean/TabularData.html#values()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) **Returns:**a collection view (Collection<CompositeData>) of the values contained in this TabularDataSupport instance.

### entrySet

public [Set](http://docs.google.com/java/util/Set.html)<[Map.Entry](http://docs.google.com/java/util/Map.Entry.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>> **entrySet**()

Returns a collection view of the index to row mappings contained in this TabularDataSupport instance. Each element in the returned collection is a Map.Entry<List<?>,CompositeData> but is declared as a Map.Entry<Object,Object> for compatibility reasons. Each of the map entry keys is an unmodifiable List<?>. The collection is backed by the underlying map of this TabularDataSupport instance, so changes to the TabularDataSupport instance are reflected in the collection, and vice-versa. The collection supports element removal, which removes the corresponding mapping from the map, via the [Iterator.remove()](http://docs.google.com/java/util/Iterator.html#remove()), [Collection.remove(java.lang.Object)](http://docs.google.com/java/util/Collection.html#remove(java.lang.Object)), [Collection.removeAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#removeAll(java.util.Collection)), [Collection.retainAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#retainAll(java.util.Collection)), and [Collection.clear()](http://docs.google.com/java/util/Collection.html#clear()) operations. It does not support the [Collection.add(E)](http://docs.google.com/java/util/Collection.html#add(E)) or [Collection.addAll(java.util.Collection)](http://docs.google.com/java/util/Collection.html#addAll(java.util.Collection)) operations.

**IMPORTANT NOTICE**: Do not use the setValue method of the Map.Entry elements contained in the returned collection view. Doing so would corrupt the index to row mappings contained in this TabularDataSupport instance.

**Specified by:**[entrySet](http://docs.google.com/java/util/Map.html#entrySet()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)> **Returns:**a collection view (Set<Map.Entry<List<?>,CompositeData>>) of the mappings contained in this map.**See Also:**[Map.Entry](http://docs.google.com/java/util/Map.Entry.html)

### clone

public [Object](http://docs.google.com/java/lang/Object.html) **clone**()

Returns a clone of this TabularDataSupport instance: the clone is obtained by calling super.clone(), and then cloning the underlying map. Only a shallow clone of the underlying map is made, i.e. no cloning of the indexes and row values is made as they are immutable.

**Overrides:**[clone](http://docs.google.com/java/lang/Object.html#clone()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a clone of this instance.**See Also:**[Cloneable](http://docs.google.com/java/lang/Cloneable.html)

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Compares the specified obj parameter with this TabularDataSupport instance for equality.

Returns true if and only if all of the following statements are true:

* obj is non null,
* obj also implements the TabularData interface,
* their tabular types are equal
* their contents (ie all CompositeData values) are equal.

This ensures that this equals method works properly for obj parameters which are different implementations of the TabularData interface.

**Specified by:**[equals](http://docs.google.com/java/util/Map.html#equals(java.lang.Object)) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[equals](http://docs.google.com/javax/management/openmbean/TabularData.html#equals(java.lang.Object)) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the object to be compared for equality with this TabularDataSupport instance; **Returns:**true if the specified object is equal to this TabularDataSupport instance.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public int **hashCode**()

Returns the hash code value for this TabularDataSupport instance.

The hash code of a TabularDataSupport instance is the sum of the hash codes of all elements of information used in equals comparisons (ie: its *tabular type* and its content, where the content is defined as all the CompositeData values).

This ensures that t1.equals(t2) implies that t1.hashCode()==t2.hashCode() for any two TabularDataSupport instances t1 and t2, as required by the general contract of the method [Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()).

However, note that another instance of a class implementing the TabularData interface may be equal to this TabularDataSupport instance as defined by [equals(java.lang.Object)](http://docs.google.com/javax/management/openmbean/TabularDataSupport.html#equals(java.lang.Object)), but may have a different hash code if it is calculated differently.

**Specified by:**[hashCode](http://docs.google.com/java/util/Map.html#hashCode()) in interface [Map](http://docs.google.com/java/util/Map.html)<[Object](http://docs.google.com/java/lang/Object.html),[Object](http://docs.google.com/java/lang/Object.html)>**Specified by:**[hashCode](http://docs.google.com/javax/management/openmbean/TabularData.html#hashCode()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**the hash code value for this TabularDataSupport instance**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

Returns a string representation of this TabularDataSupport instance.

The string representation consists of the name of this class (ie javax.management.openmbean.TabularDataSupport), the string representation of the tabular type of this instance, and the string representation of the contents (ie list the key=value mappings as returned by a call to dataMap.[toString()](http://docs.google.com/java/util/AbstractMap.html#toString())).

**Specified by:**[toString](http://docs.google.com/javax/management/openmbean/TabularData.html#toString()) in interface [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a string representation of this TabularDataSupport instance

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/TabularDataSupport.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/management/openmbean/TabularData.html)   [**NEXT CLASS**](http://docs.google.com/javax/management/openmbean/TabularType.html) | [**FRAMES**](http://docs.google.com/index.html?javax/management/openmbean/TabularDataSupport.html)    [**NO FRAMES**](http://docs.google.com/TabularDataSupport.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#4d34og8) | [METHOD](#3rdcrjn) |

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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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