| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/EnumMap.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/java/util/Enumeration.html)   [**NEXT CLASS**](http://docs.google.com/java/util/EnumSet.html) | [**FRAMES**](http://docs.google.com/index.html?java/util/EnumMap.html)    [**NO FRAMES**](http://docs.google.com/EnumMap.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#2et92p0) | FIELD | [CONSTR](#3dy6vkm) | [METHOD](#1t3h5sf) | DETAIL: FIELD | [CONSTR](#17dp8vu) | [METHOD](#35nkun2) |

## **java.util**

Class EnumMap<K extends [**Enum**](http://docs.google.com/java/lang/Enum.html)<K>,V>

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.util.AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<K,V>  
 **java.util.EnumMap<K,V>**

**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)<K,V>

public class **EnumMap<K extends** [**Enum**](http://docs.google.com/java/lang/Enum.html)**<K>,V>**extends [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<K,V>implements [Serializable](http://docs.google.com/java/io/Serializable.html), [Cloneable](http://docs.google.com/java/lang/Cloneable.html)

A specialized [Map](http://docs.google.com/java/util/Map.html) implementation for use with enum type keys. All of the keys in an enum map must come from a single enum type that is specified, explicitly or implicitly, when the map is created. Enum maps are represented internally as arrays. This representation is extremely compact and efficient.

Enum maps are maintained in the *natural order* of their keys (the order in which the enum constants are declared). This is reflected in the iterators returned by the collections views ([keySet()](http://docs.google.com/java/util/EnumMap.html#keySet()), [entrySet()](http://docs.google.com/java/util/EnumMap.html#entrySet()), and [values()](http://docs.google.com/java/util/EnumMap.html#values())).

Iterators returned by the collection views are *weakly consistent*: they will never throw [ConcurrentModificationException](http://docs.google.com/java/util/ConcurrentModificationException.html) and they may or may not show the effects of any modifications to the map that occur while the iteration is in progress.

Null keys are not permitted. Attempts to insert a null key will throw [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html). Attempts to test for the presence of a null key or to remove one will, however, function properly. Null values are permitted.

Like most collection implementations EnumMap is not synchronized. If multiple threads access an enum map concurrently, and at least one of the threads modifies the map, it should be synchronized externally. This is typically accomplished by synchronizing on some object that naturally encapsulates the enum map. If no such object exists, the map should be "wrapped" using the [Collections.synchronizedMap(java.util.Map)](http://docs.google.com/java/util/Collections.html#synchronizedMap(java.util.Map)) method. This is best done at creation time, to prevent accidental unsynchronized access:

Map<EnumKey, V> m  
 = Collections.synchronizedMap(new EnumMap<EnumKey, V>(...));

Implementation note: All basic operations execute in constant time. They are likely (though not guaranteed) to be faster than their [HashMap](http://docs.google.com/java/util/HashMap.html) counterparts.

This class is a member of the  [Java Collections Framework](http://docs.google.com/technotes/guides/collections/index.html).

**Since:** 1.5 **See Also:**[EnumSet](http://docs.google.com/java/util/EnumSet.html), [Serialized Form](http://docs.google.com/serialized-form.html#java.util.EnumMap)

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

| **Nested classes/interfaces inherited from class java.util.**[**AbstractMap**](http://docs.google.com/java/util/AbstractMap.html) |
| --- |
| [AbstractMap.SimpleEntry](http://docs.google.com/java/util/AbstractMap.SimpleEntry.html)<[K](http://docs.google.com/java/util/AbstractMap.SimpleEntry.html),[V](http://docs.google.com/java/util/AbstractMap.SimpleEntry.html)>, [AbstractMap.SimpleImmutableEntry](http://docs.google.com/java/util/AbstractMap.SimpleImmutableEntry.html)<[K](http://docs.google.com/java/util/AbstractMap.SimpleImmutableEntry.html),[V](http://docs.google.com/java/util/AbstractMap.SimpleImmutableEntry.html)> |

| **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** | |
| --- | --- |
| [**EnumMap**](http://docs.google.com/java/util/EnumMap.html#EnumMap(java.lang.Class))([Class](http://docs.google.com/java/lang/Class.html)<[K](http://docs.google.com/java/util/EnumMap.html)> keyType)            Creates an empty enum map with the specified key type. |
| [**EnumMap**](http://docs.google.com/java/util/EnumMap.html#EnumMap(java.util.EnumMap))([EnumMap](http://docs.google.com/java/util/EnumMap.html)<[K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)            Creates an enum map with the same key type as the specified enum map, initially containing the same mappings (if any). |
| [**EnumMap**](http://docs.google.com/java/util/EnumMap.html#EnumMap(java.util.Map))([Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)            Creates an enum map initialized from the specified map. |

| **Method Summary** | |
| --- | --- |
| void | [**clear**](http://docs.google.com/java/util/EnumMap.html#clear())()            Removes all mappings from this map. |
| [EnumMap](http://docs.google.com/java/util/EnumMap.html)<[K](http://docs.google.com/java/util/EnumMap.html),[V](http://docs.google.com/java/util/EnumMap.html)> | [**clone**](http://docs.google.com/java/util/EnumMap.html#clone())()            Returns a shallow copy of this enum map. |
| boolean | [**containsKey**](http://docs.google.com/java/util/EnumMap.html#containsKey(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            Returns true if this map contains a mapping for the specified key. |
| boolean | [**containsValue**](http://docs.google.com/java/util/EnumMap.html#containsValue(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) value)            Returns true if this map maps one or more keys to the specified value. |
| [Set](http://docs.google.com/java/util/Set.html)<[Map.Entry](http://docs.google.com/java/util/Map.Entry.html)<[K](http://docs.google.com/java/util/EnumMap.html),[V](http://docs.google.com/java/util/EnumMap.html)>> | [**entrySet**](http://docs.google.com/java/util/EnumMap.html#entrySet())()            Returns a [Set](http://docs.google.com/java/util/Set.html) view of the mappings contained in this map. |
| boolean | [**equals**](http://docs.google.com/java/util/EnumMap.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) o)            Compares the specified object with this map for equality. |
| [V](http://docs.google.com/java/util/EnumMap.html) | [**get**](http://docs.google.com/java/util/EnumMap.html#get(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            Returns the value to which the specified key is mapped, or null if this map contains no mapping for the key. |
| [Set](http://docs.google.com/java/util/Set.html)<[K](http://docs.google.com/java/util/EnumMap.html)> | [**keySet**](http://docs.google.com/java/util/EnumMap.html#keySet())()            Returns a [Set](http://docs.google.com/java/util/Set.html) view of the keys contained in this map. |
| [V](http://docs.google.com/java/util/EnumMap.html) | [**put**](http://docs.google.com/java/util/EnumMap.html#put(K,%20V))([K](http://docs.google.com/java/util/EnumMap.html) key, [V](http://docs.google.com/java/util/EnumMap.html) value)            Associates the specified value with the specified key in this map. |
| void | [**putAll**](http://docs.google.com/java/util/EnumMap.html#putAll(java.util.Map))([Map](http://docs.google.com/java/util/Map.html)<? extends [K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)            Copies all of the mappings from the specified map to this map. |
| [V](http://docs.google.com/java/util/EnumMap.html) | [**remove**](http://docs.google.com/java/util/EnumMap.html#remove(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) key)            Removes the mapping for this key from this map if present. |
| int | [**size**](http://docs.google.com/java/util/EnumMap.html#size())()            Returns the number of key-value mappings in this map. |
| [Collection](http://docs.google.com/java/util/Collection.html)<[V](http://docs.google.com/java/util/EnumMap.html)> | [**values**](http://docs.google.com/java/util/EnumMap.html#values())()            Returns a [Collection](http://docs.google.com/java/util/Collection.html) view of the values contained in this map. |

| **Methods inherited from class java.util.**[**AbstractMap**](http://docs.google.com/java/util/AbstractMap.html) |
| --- |
| [hashCode](http://docs.google.com/java/util/AbstractMap.html#hashCode()), [isEmpty](http://docs.google.com/java/util/AbstractMap.html#isEmpty()), [toString](http://docs.google.com/java/util/AbstractMap.html#toString()) |

| **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** |
| --- |

### EnumMap

public **EnumMap**([Class](http://docs.google.com/java/lang/Class.html)<[K](http://docs.google.com/java/util/EnumMap.html)> keyType)

Creates an empty enum map with the specified key type.

**Parameters:**keyType - the class object of the key type for this enum map **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if keyType is null

### EnumMap

public **EnumMap**([EnumMap](http://docs.google.com/java/util/EnumMap.html)<[K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)

Creates an enum map with the same key type as the specified enum map, initially containing the same mappings (if any).

**Parameters:**m - the enum map from which to initialize this enum map **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if m is null

### EnumMap

public **EnumMap**([Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)

Creates an enum map initialized from the specified map. If the specified map is an EnumMap instance, this constructor behaves identically to [EnumMap(EnumMap)](http://docs.google.com/java/util/EnumMap.html#EnumMap(java.util.EnumMap)). Otherwise, the specified map must contain at least one mapping (in order to determine the new enum map's key type).

**Parameters:**m - the map from which to initialize this enum map **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if m is not an EnumMap instance and contains no mappings [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if m is null

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

### size

public int **size**()

Returns the number of key-value mappings in this map.

**Specified by:**[size](http://docs.google.com/java/util/Map.html#size()) in interface [Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[size](http://docs.google.com/java/util/AbstractMap.html#size()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Returns:**the number of key-value mappings in this map

### containsValue

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

Returns true if this map maps one or more keys to 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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[containsValue](http://docs.google.com/java/util/AbstractMap.html#containsValue(java.lang.Object)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**value - the value whose presence in this map is to be tested **Returns:**true if this map maps one or more keys to this value

### containsKey

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

Returns true if this map contains a mapping for the specified 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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[containsKey](http://docs.google.com/java/util/AbstractMap.html#containsKey(java.lang.Object)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**key - the key whose presence in this map is to be tested **Returns:**true if this map contains a mapping for the specified key

### get

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

Returns the value to which the specified key is mapped, or null if this map contains no mapping for the key.

More formally, if this map contains a mapping from a key k to a value v such that (key == k), then this method returns v; otherwise it returns null. (There can be at most one such mapping.)

A return value of null does not *necessarily* indicate that the map contains no mapping for the key; it's also possible that the map explicitly maps the key to null. The [containsKey](http://docs.google.com/java/util/EnumMap.html#containsKey(java.lang.Object)) operation may be used to distinguish these two cases.

**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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[get](http://docs.google.com/java/util/AbstractMap.html#get(java.lang.Object)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.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

### put

public [V](http://docs.google.com/java/util/EnumMap.html) **put**([K](http://docs.google.com/java/util/EnumMap.html) key,  
 [V](http://docs.google.com/java/util/EnumMap.html) value)

Associates the specified value with the specified key in this map. If the map previously contained a mapping for this key, the old value is replaced.

**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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[put](http://docs.google.com/java/util/AbstractMap.html#put(K,%20V)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**key - the key with which the specified value is to be associatedvalue - the value to be associated with the specified key **Returns:**the previous value associated with specified key, or null if there was no mapping for key. (A null return can also indicate that the map previously associated null with the specified key.) **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if the specified key is null

### remove

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

Removes the mapping for this key from this map if present.

**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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[remove](http://docs.google.com/java/util/AbstractMap.html#remove(java.lang.Object)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**key - the key whose mapping is to be removed from the map **Returns:**the previous value associated with specified key, or null if there was no entry for key. (A null return can also indicate that the map previously associated null with the specified key.)

### putAll

public void **putAll**([Map](http://docs.google.com/java/util/Map.html)<? extends [K](http://docs.google.com/java/util/EnumMap.html),? extends [V](http://docs.google.com/java/util/EnumMap.html)> m)

Copies all of the mappings from the specified map to this map. These mappings will replace any mappings that this map had for any of the keys currently in the specified map.

**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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[putAll](http://docs.google.com/java/util/AbstractMap.html#putAll(java.util.Map)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**m - the mappings to be stored in this map **Throws:** [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - the specified map is null, or if one or more keys in the specified map are null

### clear

public void **clear**()

Removes all mappings from this map.

**Specified by:**[clear](http://docs.google.com/java/util/Map.html#clear()) in interface [Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[clear](http://docs.google.com/java/util/AbstractMap.html#clear()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>

### keySet

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

Returns a [Set](http://docs.google.com/java/util/Set.html) view of the keys contained in this map. The returned set obeys the general contract outlined in [Map.keySet()](http://docs.google.com/java/util/Map.html#keySet()). The set's iterator will return the keys in their natural order (the order in which the enum constants are declared).

**Specified by:**[keySet](http://docs.google.com/java/util/Map.html#keySet()) in interface [Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[keySet](http://docs.google.com/java/util/AbstractMap.html#keySet()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Returns:**a set view of the keys contained in this enum map

### values

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

Returns a [Collection](http://docs.google.com/java/util/Collection.html) view of the values contained in this map. The returned collection obeys the general contract outlined in [Map.values()](http://docs.google.com/java/util/Map.html#values()). The collection's iterator will return the values in the order their corresponding keys appear in map, which is their natural order (the order in which the enum constants are declared).

**Specified by:**[values](http://docs.google.com/java/util/Map.html#values()) in interface [Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[values](http://docs.google.com/java/util/AbstractMap.html#values()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Returns:**a collection view of the values contained in this map

### entrySet

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

Returns a [Set](http://docs.google.com/java/util/Set.html) view of the mappings contained in this map. The returned set obeys the general contract outlined in [Map.keySet()](http://docs.google.com/java/util/Map.html#keySet()). The set's iterator will return the mappings in the order their keys appear in map, which is their natural order (the order in which the enum constants are declared).

**Specified by:**[entrySet](http://docs.google.com/java/util/Map.html#entrySet()) in interface [Map](http://docs.google.com/java/util/Map.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Specified by:**[entrySet](http://docs.google.com/java/util/AbstractMap.html#entrySet()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Returns:**a set view of the mappings contained in this enum map

### equals

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

Compares the specified object with this map for equality. Returns true if the given object is also a map and the two maps represent the same mappings, as specified in the [Map.equals(Object)](http://docs.google.com/java/util/Map.html#equals(java.lang.Object)) contract.

**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)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)>**Overrides:**[equals](http://docs.google.com/java/util/AbstractMap.html#equals(java.lang.Object)) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Parameters:**o - the object to be compared for equality with this map **Returns:**true if the specified object is equal to this map**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### clone

public [EnumMap](http://docs.google.com/java/util/EnumMap.html)<[K](http://docs.google.com/java/util/EnumMap.html),[V](http://docs.google.com/java/util/EnumMap.html)> **clone**()

Returns a shallow copy of this enum map. (The values themselves are not cloned.

**Overrides:**[clone](http://docs.google.com/java/util/AbstractMap.html#clone()) in class [AbstractMap](http://docs.google.com/java/util/AbstractMap.html)<[K](http://docs.google.com/java/util/EnumMap.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[K](http://docs.google.com/java/util/EnumMap.html)>,[V](http://docs.google.com/java/util/EnumMap.html)> **Returns:**a shallow copy of this enum map**See Also:**[Cloneable](http://docs.google.com/java/lang/Cloneable.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/EnumMap.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/java/util/Enumeration.html)   [**NEXT CLASS**](http://docs.google.com/java/util/EnumSet.html) | [**FRAMES**](http://docs.google.com/index.html?java/util/EnumMap.html)    [**NO FRAMES**](http://docs.google.com/EnumMap.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#2et92p0) | FIELD | [CONSTR](#3dy6vkm) | [METHOD](#1t3h5sf) | DETAIL: FIELD | [CONSTR](#17dp8vu) | [METHOD](#35nkun2) |

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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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