

public class **AtomicBoolean**
extends `Object`
implements `Serializable`

A boolean value that may be updated atomically. See the `java.util.concurrent.atomic` package specification for description of the properties of atomic variables. An `AtomicBoolean` is used in applications such as atomically updated flags, and cannot be used as a replacement for a `Boolean`.

Since:
1.5

See Also:
[Serialized Form](#)

Constructor Summary

Constructors

Constructor and Description
AtomicBoolean() Creates a new AtomicBoolean with initial value false.
AtomicBoolean(boolean initialValue) Creates a new AtomicBoolean with the given initial value.

Method Summary

All Methods	Instance Methods	Concrete Methods
Modifier and Type	Method and Description	
boolean	compareAndSet (boolean expect, boolean update) Atomically sets the value to the given updated value if the current value == the expected value.	
boolean	get() Returns the current value.	
boolean	getAndSet (boolean newValue) Atomically sets to the given value and returns the previous value.	
void	lazySet (boolean newValue) Eventually sets to the given value.	
void	set (boolean newValue) Unconditionally sets to the given value.	
String	toString() Returns the String representation of the current value.	
boolean	weakCompareAndSet (boolean expect, boolean update) Atomically sets the value to the given updated value if the current value == the expected value.	

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

Constructor Detail

AtomicBoolean

public AtomicBoolean(boolean initialValue)

Creates a new AtomicBoolean with the given initial value.

Parameters:
initialValue - the initial value

AtomicBoolean

public AtomicBoolean()

Creates a new AtomicBoolean with initial value false.

Method Detail

get

public final boolean get()

Returns the current value.

Returns:
the current value

compareAndSet

public final boolean compareAndSet(boolean expect, boolean update)

Atomically sets the value to the given updated value if the current value == the expected value.

Parameters:
expect - the expected value
update - the new value
Returns:
true if successful. False return indicates that the actual value was not equal to the expected value.

weakCompareAndSet

public boolean weakCompareAndSet(boolean expect, boolean update)

Atomically sets the value to the given updated value if the current value == the expected value.

May fail spuriously and does not provide ordering guarantees, so is only rarely an appropriate alternative to `compareAndSet`.

Parameters:
expect - the expected value
update - the new value
Returns:
true if successful

set

public final void set(boolean newValue)

Unconditionally sets to the given value.

Parameters:
newValue - the new value

lazySet

public final void lazySet(boolean newValue)

Eventually sets to the given value.

Parameters:
newValue - the new value
Since:
1.6

getAndSet

public final boolean getAndSet(boolean newValue)

Atomically sets to the given value and returns the previous value.

Parameters:
newValue - the new value
Returns:
the previous value

toString

public String toString()

Returns the String representation of the current value.

Overrides:
toString in class `Object`
Returns:
the String representation of the current value