public final class

Integer extends Number implements
Comparable<T>

Summary: <u>Constants</u> | <u>Fields</u> | <u>Ctors</u> | <u>Methods</u> |

Inherited Methods | [Expand All]

Added in <u>API level 1</u>

java.lang.Object

java.lang.Numberjava.lang.Integer

# **Class Overview**

The wrapper for the primitive type int.

Implementation note: The "bit twiddling" methods in this class use techniques described in <a href="Henry S. Warren">Henry S. Warren</a>, <a href="Jr.s">Jr.s</a> Hacker's Delight</a>, <a href="Henry S. Warren">(Addison Wesley</a>, <a href="2002">2002</a>) (<a href="http://www.hackersdelight.org/">http://www.hackersdelight.org/</a>) and <a href="Sean Anderson's Bit Twiddling Hacks">Sean Anderson's Bit Twiddling Hacks</a>. (<a href="http://graphics.stanford.edu/~seander/bithacks.html">http://graphics.stanford.edu/~seander/bithacks.html</a>)

See Also

Long

# **Summary**

#### Constants

int MAX\_VALUE Constant for the maximum int value,  $2^{31}$ -1. int MIN\_VALUE Constant for the minimum int value,  $-2^{31}$ .

int SIZE Constant for the number of bits needed to represent an int in two's complement form.

#### **Fields**

The Class object that public static final Class<Integer> TYPE represents the primitive type int.

#### **Public Constructors**

Integer (int value)

Constructs a new Integer with the specified primitive integer value.

Integer (String string)

Constructs a new Integer from the specified string.

#### **Public Methods**

bitCount (int i)

ified integer; Android APIs API level 19 <u>arrarora.vicvv</u> tins is also referred to as population of unt. android.view.accessibility android. Wew.animation android.view.inputmethod android.view.inputmethod android.view.textservice android.webkitompares two int values. android.wid@ethpareTo (Integer object) dalvik.bytecodempares this object to the specified integer object dalvik.systemto determine their relative order. java.awt.font decode (String string) iava.beans Parses the specified string and returns a Integer **jan**vaðaid of onteger ' ' ' to an integer java.lang <u>java.lang.annota</u>tion iava.lang.refdoubleValue() neturns this objects value as a double equals (Object o) Intel 4265 Compares this instance with the specified object and indicates if they are equal. Appendable. AutoCloneable () CharSequence Returns this object's value as a float. Cloneable getInteger (String string, Integer defaultV lue) Gamparable Returns the Integer value of the system property Iterable identified by string. Readable getInteger (String string) Runnable Figure Integer Between the Integer yalue of the system property identified by string. getInteger (String string, int defaultValue) **Glasis snees** er Returns the Integer value of the system property identified by string. Boolean hashCode() Byte Returns an integer hash code for this object. Character Character.SubsectioneBit (int i) Character.UnicodeBlock the highest (leftmost) bit o the Clas§tatic int specified integer that is 1 and returns the bit mask Clas<u>s</u>Loader value for that bit. Compiler intValue() Double int Gets the primitive value of this int. Enum longValue() Float Inheritable I hreadle scals object's value as a long. Integer

## lowestOneBit(int i)

Android APIs

f the API level 19

<u>arrarora.view specinea integer that is a analietums t</u>ie bit mask

android.view.avatressinthittybit.

android.viewanimaticadingZeros (int i)

android view inputmethod number of leading zeros in the

android.view.textservice android.view.textservice integer prior to the highest one bit.

android.webkiť

android.widget android.widget android.widget

dalv Ratio telepropertermines the number of trailing zero; in the

<u>dalvik.system</u>specified integer after the lowest one bit.

iava.awt.fontarseInt (String string)

iava <del>laga</del>nst Parses the specified string as a signed decimal

<u>java.i</u>o integer value.

java.lang

java.lang.annotation

Parses the specified string as a signed integer value

## reverse (int i)

#### static int Reverses the order of the bits of the specified Interfaces integer.

Appendable<sub>reverseBytes</sub> (int i)

AutoGloseable Reverses the order of the bytes of the specified

<u>CharSequen</u>centeger.

<u>Cloneable</u>

Comparable rotateLeft (int i, int distance)

Rotates the bits of the specified integer to the left Iterable int

by the specified number of bits. Readable

Runnable rotateRight (int i, int distance)

Threstdid intaun that exceptions beand be ecified integer to the right

by the specified number of bits.

#### shortValue()

# Classe Sort

Returns this object's value as a short.

Boolean signum (int i)

Byte<sub>static</sub> int Returns the value of the signum function for the

Character specified integer. Character.Subset Character.UnicodeBlock

Converts the specified integer into its I inary string representation.

ClassLoader toHexString (int i) Compiler

Dotatic String Converts the specified integer into its I exadecimal

Enum string representation.

Float toOctalString (int i)

Inheritable Thread Local a specified integer into its cotal string

Integer

<u>Long</u>

ICDICOCITIATION.

#### toString()

Android APIs API level 19 umanariarola.vicvv readable description or this object. <u>android.view ஒளுகளி</u>ழ்ந்ty android view animation android view inputmethod android view inputmethod

android.view.textservice android.webkit ring (int i, int radix)

and on Styling Converts the specified signed integer into a string

dalvik.bytecodepresentation based on the specified radix.

dalvik.systemalueOf (String string, int radix)

iaMaicalwtegent Parses the specified string as a signed integer value

<u>iava.beans</u> using the specified radix.

<u>java.i</u>o valueOf (int i)

java.lang java.lang.annotation java.lang.ref integer value.

iava.lang.ref

valueor (othing othing)

static Integer Parses the specified string as a signed decimal integer value.

**Interfaces** 

[Expand] **Inherited Methods** 

Appendable From class java.lang.Number AutoCloseable

Charse Glass jaya.lang.Object

ட்டு நூற்று by the erface java.lang.Comparable

Comparable

Iterable

# Constants

Runnable Thread.UncaughtExceptionHandler

public static final int MAX\_VALUE Added in API level 1

Classes for the maximum int value,  $2^{31}$ -1.

Bo@ patant Value: 2147483647 (0x7fffffff)

Byte

Character final int MIN\_VALUE Character. Subset

Added in API level 1

Charasteent ton toe de Bhorok int value, -231.

Class

C|த்துந்துப்பு 2147483648 (0x80000000)

Compiler

DOUBLE Static final int SIZE

Added in API level 1

Floatnstant for the number of bits needed to represent an int in two's

InhoenitalehteThforadLocal

Integer

Lofienstant Value: 32 (0x00000020)

# **Fields**

Android APIs

API level 19

<u>andibioatate final Class (leteger) TYPE</u>

Added in API level 1

android yiew animation object that represents

android view inputmethod

android.view.textservice

android.webkit

android widget

# Public Constructors

<u>dalvik.syste</u>m

java.awt.font public **integer** (int value) java.beans

Added in API level 1

javanigtructs a new Integer with the specified primitive integer java.lang

java.lang.annotation

ia **Van lametere**f

value the primitive integer value to store in the new instance.

## Interfaces

Apolobic dateger (String string)

Added in API level 1

AutoCloseable

Charstycen agew Integer from the specified string

Cloneable

<u>Parameters</u> Comparable

the string representation of an integer value. Iterasbieg

<u>Readable</u> Runnable

Thre Man the content ion if the real three contents in the parties of the content in the content integer value.

# See Also Classes parseInt(String)

Boolean

Byte

# <del>Public</del>Methods

Character.UnicodeBlock

କ୍ରାଞ୍ଚଳିତ static int bitCount (int i)

Added in API level 1

ClassLoader

Copposite the number of 1 bits in the specified integer; his is also

Dong forced to as population count.

Enum

Float

Inheritable integent becarding.

Integer Long Long the number of 1 bits in i.

Android APIs

API level 19

<del>புயலால் மழுடி bytevalue</del> ()

Added in API level 1

android.view.accessibility

anមិទ្ធម្ចាប់ ទៅមាន អ្នក នៅ មាន a byte. Might involve rounding and/or anមេខាងប្រាស់ អ្នក ខេត្ត មាន a byte. Might involve rounding and/or anមេខាងប្រាស់ អ្នក ខេត្ត មាន a byte.

android.view.textservice

android webkit

anthopamiting byte value of this object.

dalvik.bytecode

dalvik svate int compare (int lhs, int rhs)

Added in API level 19

java.awt.font

ja√anneanes two int values.

<u>java.i</u>o

iava.lang

ja Waiflans of the notation 0 if lhs < rhs, and greater than 0 if lhs > rhs.

iava.lang.ref

public int compareTo (Integer object)

Added in API level 1

Compares this object to the specified integer object to determine their relative order.

<u>Appendable</u>

Autocioseable

Charspequente integer object to compare this object to.

Cloneable

Combarable

Iterally pative value if the value of this integer is less than the value Rear patients; 0 if the value of this integer and the value of object

Ruarna ableal; a positive value if the value of this integer s greater

ThreandherneaucomtetizieentionHandler

See Also

# Classes

Boolean Buble static Integer decode (String string)

Added in <u>API level 1</u>

3vte

Chrages the specified string and returns a Integer instance if the

Charagter Subsection of integer value. The strir g may be an

<u>CharaatarhUnisadaB</u>lor6Nowed by a hexadecimal ("0 x..." or "#..."),

Classal ("0..."), or decimal ("...") representation of an integer.

ClassLoader

CoParaineeters

Double a string representation of an integer value

Enum

F|deturns

Inharitatelee inceard in continuous the value represented by string.

Integer Long

NumberFormatException if string cannot be parsed as an Android APIs API level 19 ariaroia.vicvv android.view.accessibility Added in API level 1 android view input matheds a double. Might involve rounding. android.view.textservice an**Bet**ichswebkit and coid wide a buble value of this object. dalvik.bytecode <u>dalvik.syste</u>m public boolean equals (Object o) Added in API level 1 java heares this instance with the specified object and indicates if java ipare equal. In order to be equal to must be an instance of java.lang java.lang.annotation ia waa laan araaf the object to compare this integer with. Interraces true if the specified object is equal to this Integer false AutoCloseable CharSequence முடுந்திர்க் floatValue () Added in API level 1 Comparable Returns this object's value as a float. Might involve rounding. Iterable <u>Readable</u> Runnable.
Thread.UncaughtExceptionHandler public static Integer getInteger (String string, Integer defaultValue) Added in API level 1 Bobeauns the Integer value of the system property ic entified by Bytering. Returns the specified default value if strir g is null or Chanacterthe property can not be found or if its value can not be Chanaeters Surbistetjer. Character.UnicodeBlock Classameters <u>ClassLoade</u>r the name of the requested system; roperty. Compiler defaultValue the default value that is returned if there is no Double' integer system property with the requested Enum name. Float Inhreritals le Thread Local Integer ..., . ...... default <u>Long</u>

value.

Android APIs

API level 19

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android.view.accessibility

andebicis/ខេត្តការគ្នាក្រុមប្រាស់ of the system property ic entified by

and to idea it is null or empty, i the property

anchoird wie fortest tree trice lue can not be parsed as in integer.

android.webkit

and windget

dalvskiba/tedodeame of the requested system property.

dalvik.system

iava.awt.font

ia the requested property's value as an Integer or null.

java.jo

<u>java.lang</u>

iava Javogiannotation

Added in API level 1

Added in API level 1

iava.lang.ref

Returns the Integer value of the system property it entified by string. Returns the specified default value if strir g is null or

Intertraiche property can not be found or if its value can not be parsed as an integer.

**Appendable** 

Au**le Grostea**ble

<u>CharSequen</u>ce the name of the requested system r roperty.

Cloneable Comparable

the default value that is returned if there is no integer system property with the requested

Readable Runnable

Iterable

Thread Uncaught Exception Handler teger or the default value.

name.

Classes

public int hashCode ()

Added in API level 1

Boolean

ByReturns an integer hash code for this object. By contract, any two

Chehiacts for which equals (Object) (/reference/java/lang

Characters 64 beets (java.lang.Object)) returns true n ust return the

Characters Unicode Block is means that subclasses of Object

Classally override both methods or neither method.

ClassLoader

Compatible that hash values must not change over time un ess

Doigtolenation used in equals comparisons also changes.

Enum

Float Writing a correct hashCode method (/reference/java lang

Ink<del>@bittshtyl性项fting\_bath</del>Codea if you intend implementing your own

Integer

#### Returns

Android APIs

API level 19

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android, yiew a greens bit (int i)

Added in API level 1

android.view.animation

and excion view the bighteset (heaton ost) bit of the specified integer that is and poid reviews the referred to and web Significant 1 Bit. Returns zero if the specified integer is

anztroid.widget

dalvik.bvtecode

da**rrik.syste**m

iavai.awth.fonteger to examine.

iava.beans

ia **Returns** 

java.lang

<u>java.lang.annota</u>tion

iava::lang:ref,\_... ^

Added in API level 1

Gets the primitive value of this int.

# Interfaces

Apthiemobjetotes primitive value.

AutoCloseable

CharSequence public long long Value () Cloneable

Added in API level 1

Companable object's value as a long. Might involve reunding and/or Itemable ting the value, so it fits into a long.

Readable

Ru**Retata** 

Thteadibinical applicate ptibis Hairedter

# public static int lowestOneBit (int i)

Added in API level 1

#### Classes

Determines the lowest (rightmost) bit of the specified integer that is Boolean
Byte
Start Least Significant 1 Bit. Returns zero if the specified integer is <u>Charact</u>er

Character.Subset

Character Unicode Block

Class

the integer to examine.

Comaniles

Double mask indicating the lowest 1 bit in i.

Enum

Float

ក្រុងស្រុក្សា នៅក្នុង នៅក្នុង

Added in API level 1

Long

### prior to the highest one bit (/reference/java/lang

Android APIs

API level 19

anaroia.vicvv

an**ប៊ីកិស៊ីឃុំស៊ីទើ**w.accessibility

android Neigh Marimation in e.

android.view.inputmethod

and the view texts ervice

anthrong many telegraphic telegraphic in i.

android.widget

dalvik bytecode numberOfTrailingZeros (int i)

Added in API level 1

<u>dalvik.system</u>

ja Vætæwtifies the number of trailing zeros in the specified integer after

ia watebleamest one bit (/reference/java/lang

iaVaniQaer.html#lowestOneBit(int)).

java.lang

<u>ia va langa snota</u>tion

iava.lang.ref

Returns

# Interprete of trailing zeros in i.

Appendable

ह्मिक्रीहाई parseInt (String string)

Added in API level 1

CharSeguence specified string as a signed decimal integer value. The

Cloneable ASCII character - ('-') is recognized as the minus sign Comparable

Itema la la la eters

Readable

the string representation of an integer value. Runnable

the primitive integer value represented by string.

# Classes

Boolean NumberFormatException

if string cannot be pa sed as an

integer value.

Bvte

Character

Share String string, int radix) Added in API level 1

Character UnicodeBlock

Classes the specified string as a signed integer value using the

Clapscified addix. The ASCII character - ('-') is recognized as the minus

Consider Consider

Double

Enum Enum

Floattring the string representation of an integer value.

Inheritable Thread ocale when parsing

Integer

Lo Returns

the primitive integer value represented by string using radix.

Android APIs

API level 19

android.view.accessibility if string cannot be pa sed as an

android.view.animation

integer value, or radix <

android.view.inputmethod<sup>Character.MIN\_RADIX</sup> ||

android.view.textservice

radix >

Character.MAX RAD1X. android.webkit

android.widget

Added in API level 1

dalvik.bytecode public static int reverse (int i) dalvik.system

java and order of the bits of the specified integer.

iava.beans ia v Panjameters

java.lang

java.lang.annotation

iav**Retenne**.ref

the reversed value.

# Inderfacies nt reverse Bytes (int i)

Added in API level 1

Appacadab hae order of the bytes of the specified integer.

AutoCloseable

Chargeretern ce

Cloneable integer value for which to reverse the byte crder.

Comparable

Ite Ratyles

Retandadolersed value.

Runnable

Thread.UncaughtExceptionHandler public static introtateLeft (int i, int distance)

Added in API level 1

Rotates the bits of the specified integer to the left by the specified Clausises f bits.

Booleanneters

Byte

Character

the integer value to rotate left.

CharactereSubsetumber of bits to rotate.

Character.UnicodeBlock

Class

Clabe rotated value.

Compiler

ଦ୍ରିପଞ୍ଚଳିକ୍ତtatic int **rotateRight** (int i, int distance)

Added in API level 1

Floratates the bits of the specified integer to the right by the specified

Inhembable Prife ad Local

Integer

Long Long

i the integer value to rotate right.

Android APIs

API level 19

anaroia.vicvv

andfមាយ view.accessibility

anthreoriotatieelwalumimation

android.view.inputmethod

android view textservice

Added in API level 1

<u>android.</u>webkit

and coich wilds et ject's value as a short. Might involve rounding and/or

datwikchwite coolealue, so it fits into a short.

dalvik.system

ia **Pertawns** font

ia **taebæianis** ve short value of this object.

java.io

java.lang

java.lang.annotation

Added in API level 1

ia Weatlown at the fvalue of the signum function for the specified integer.

#### **Parameters**

## Interfaciateger value to check.

### Ap**retruta**ble

AutoiCloiseableive, 1 if i is positive, 0 if i is zero.

CharSequence

Cloneable.

TÜÜDLE STATIC String toBinaryString (int i)

Added in API level 1

Itecablerts the specified integer into its binary string representation.

Readablerned string is a concatenation of '0' and '1' cl aracters.

Runnable

#### Th**Pageonleters**aughtExceptionHandler

i the integer to convert.

#### CIBESTES

the binary string representation of i. Boolean

Bvte

Colorabriae centeritic String to Hex String (inti)

Added in API level 1

Character.Subset

Character. Unicode Block

Class resentation. The returned string is a concatenation of characters

Class oade' and 'a' to 'f'.

Compiler Parameters Double

Enum the integer to convert.

Float InheritableThreadLocal

Integer

```
public static String toOctalString (int i)
                                                                                                                                    Added in API level 1
Android APIs
                                                                                                API level 19
                                                                                                                                   resentation.
The returned string is a concatenation of characters rom '0' to '7'. android.view.accessibility
android view.animation
android.view.inputmethod
andfoid!\\device\textsep\\cet.
and roid webkit
android widget and representation of i.
dalvik.bytecode
<u>dalvik.syste</u>m
iavaliavatring ()
                                                                                                                                    Added in API level 1
java.beans
Returns a string containing a concise, human-readable description
java.lo
java.lano.ref
Interfaces

() .getName() + '@' + Integer.toHexString
Appendable
Auto Closed December 1 and Auto Closed December 2 and Auto Closed December 
Ch/இந்து http://www.iting_toString) if you intend implementing your own
Cloneableg method.
Comparable
Iterstures
Readingle representation of this object.
Runnable
Thread Unicayant Exception Handler
                                                                                                                                    Added in API level 1
       Converts the specified integer into its decimal string representation.
Classes are string is a concatenation of a minus sign if the number
       is negative and characters from '0' to '9'.
Boolean
B<u>∨Pa</u>rameters
Character .
The integer to convert.
Character.Subset
Chractacter. Unicode Block
Class decimal string representation of i.
<u>ClassLoad</u>er
Compiler
ரு நடித்த tatic <u>String</u> toString (int i, int radix)
                                                                                                                                    Added in API level 1
Enum verts the specified signed integer into a string representation
Float sed on the specified radix. The returned string is a concatenation Inheritable I hread Local barries pagetive and charge ers from '0' to
Integer a to 2, depending on the radia. It radia is not in the interval
Long
```

# defined by Character.MIN RADIX and Character.MAX RADIX

Android APIs

API level 19

This method treats its argument as signed. If you want to convert android view. accessibility an unsigned value to one of the common non-decimal bases, you android view animation may find to binary string (int) (/reference/java/ and android binary string (int)) #toHeyString or

and total time and the string and the string, of the string and the string are string and the string are string and the string and the string are string as a string are string as a string are string and the string are string are string as a string are string are string as a string a

antipostaletring(int) (/reference/java/lang

and invited which the octal String (int)) more convenient.

dalvik.bytecode da Raike 1995 terem

java.awt.font signed integer to convert.

java.beans radix the base to use for the conversion.

iava.io

java.lang

javalanganpotation of i.

iava.lang.ref

# public static Integer valueOf (String string, int

radix)

Added in API level 1

# Interfaces

Parses the specified string as a signed integer value using the

Appendable AutoCloseable

Char Sague ace

<u>Cloneable</u>

<u>String</u>:
Comparable the string representation of an integer value.

the radix to use when parsing. Itera/1946×

Readable <u>Runnab</u>le

Thread. Uncarred by Thread. United the line of the lin string using radix.

#### **Throws**

Classes NumberFormatException if string cannot be pa sed as an

**Boolean** integer value, or radix < Byte Character.MIN\_RAD]X ||

Character radix >

Character.Subset Character.MAX RAD1X.

Character.UnicodeBlock

C| See Also

Classisceatder(String, int)

Compiler

Double

<del>ក្ខុប័ស្តី</del> static <u>Integer</u> valueOf (int i) Added in API level 1

Floaturns a Integer instance for the specified intege value.

<u>InheritableThreadL</u>ocal

Integer

it is

<u>Long</u> 14 of 15

recommended to use this method instead of the constructor, since it

API level 19 Android APIs

<u>anaroia.vic</u>vv

android view accessibility

android.view.animation

and roid भा संभाग अवाप in the instance.

android.view.textservice

android.webkit

a Integer instance containing i.

dalvik.bytecode

<u>daulviik.stratte</u>mteger valueOf (String string)

Added in API level 1

iava.awt.font

ia value.

java.jo

java.lang

javasteing.athrottairig representation of an integer value.

iava.Jang.ref

an Integer instance containing the integer value represented by

integer value.

strina.

Interfaces Throws

Appendable

Autocloseable

if string cannot be pa sed as an

CharSequence

Closeable

Comparable (String)

Ite<del>rable</del>

Readable

Runnable

Thread.UncaughtExceptionHandler

#### Classes

Boolean

Byte

Character

Character.Subset

Character.UnicodeBlock

Class

ClassLoader

Compiler

Double

Enum

Float

**InheritableThreadLocal** 

Integer