

public class

Summary: [Inherited Constants](#) | [Ctors](#) | [Methods](#) | [Inherited Methods](#) | [\[Expand All\]](#)  
Added in [API level 1](#)

# SpannableStringBuilder

extends [Object](#)

implements [Editable](#) [GetChars](#) [Spannable](#) [Appendable](#) [CharSequence](#)

[java.lang.Object](#)

↳ [android.text.SpannableStringBuilder](#)

## Class Overview

This is the class for text whose content and markup can both be changed.

## Summary

**Inherited Constants** [\[Expand\]](#)

► From interface [android.text.Spannable](#)

### Public Constructors

[SpannableStringBuilder\(\)](#)

Create a new [SpannableStringBuilder](#) with empty contents

[SpannableStringBuilder\(CharSequence text\)](#)

Create a new [SpannableStringBuilder](#) containing a copy of the specified text, including its spans if any.

[SpannableStringBuilder\(CharSequence text, int start, int end\)](#)

Create a new [SpannableStringBuilder](#) containing a copy of the specified slice of the specified text, including its spans if any.

### Public Methods

<a href="#">SpannableStringBuilder</a>	<a href="#">append(char text)</a>	Convenience for <a href="#">append(String.valueOf(text))</a> .
<a href="#">SpannableStringBuilder</a>	<a href="#">append(CharSequence text, int start, int end)</a>	Convenience for <a href="#">replace(length(), length(), text, start, end)</a>
<a href="#">SpannableStringBuilder</a>	<a href="#">append(CharSequence text)</a>	Convenience for <a href="#">replace(length(), length(), text, 0, text.length())</a>
char	<a href="#">charAt(int where)</a>	Return the char at the specified offset within the buffer.
	<a href="#">clear()</a>	
void	<a href="#">replace(0, length(), "", 0, 0)</a>	
	<a href="#">clearSpans()</a>	
void	<a href="#">removeSpan(Object what)</a>	Removes all spans from the <a href="#">Editable</a> , as if by calling <a href="#">removeSpan(Object)</a> on each of them.
<a href="#">SpannableStringBuilder</a>	<a href="#">delete(int start, int end)</a>	Convenience for <a href="#">replace(st, en, "", 0, 0)</a>
abstract void	<a href="#">drawText(Canvas c, int start, int end, float x, float y, Paint p)</a>	Just like <a href="#">drawText(char[], int, int, float, float, Paint)</a> .
boolean	<a href="#">equals(Object o)</a>	Compares this instance with the specified object and indicates if they are equal.
	<a href="#">getChars(int start, int end, char[] dest, int destoff)</a>	
void	<a href="#">copy(int start, int end, char[] dest, int destoff)</a>	Copy the specified range of chars from this buffer into the specified array, beginning at the specified offset.
<a href="#">InputFilter[]</a>	<a href="#">getFilters()</a>	Returns the array of input filters that are currently applied to changes to this <a href="#">Editable</a> .
	<a href="#">getSpanEnd(Object what)</a>	
int	<a href="#">getSpanEnd(Object what)</a>	Return the buffer offset of the end of the specified markup object, or -1 if it is not attached to this buffer.
	<a href="#">getSpanFlags(Object what)</a>	

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    int    Return the flags of the end of the specified markup object, or 0 if it is not attached to
           this buffer.
           getSpanStart (Object what)
    int    Return the buffer offset of the beginning of the specified markup object, or -1 if it is not
           attached to this buffer.
           getSpans (int queryStart, int queryEnd, Class<T> kind)
    <T> T[] Return an array of the spans of the specified type that overlap the specified range of the
           buffer.
           getTextRunCursor (int contextStart, int contextEnd, int flags, int offset, int cursorOpt, Paint p)
    int    This method was deprecated in API level 12. This is an internal method, refrain from using it
           in your code
           getTextWidths (int start, int end, float[] widths, Paint p)
    abstract int Just like getTextWidths(char[], int, int, float[]).
           hashCode ()
    int    Returns an integer hash code for this object.
    SpannableStringBuilder insert (int where, CharSequence tb, int start, int end)
           Convenience for replace(where, where, text, start, end)
    SpannableStringBuilder insert (int where, CharSequence tb)
           Convenience for replace(where, where, text, 0, text.length());
           length ()
    int    Return the number of chars in the buffer.

    abstract float measureText (int start, int end, Paint p)
           Just like measureText(char[], int, int).

           nextSpanTransition (int start, int limit, Class kind)
    int    Return the next offset after start but less than or equal to limit where a span of the
           specified type begins or ends.
           removeSpan (Object what)
    void    Remove the specified markup object from the buffer.
    SpannableStringBuilder replace (int start, int end, CharSequence tb)
           Convenience for replace(st, en, text, 0, text.length())
           replace (int start, int end, CharSequence tb, int tbstart, int tbend)
    SpannableStringBuilder Replaces the specified range (st...en) of text in this Editable with a copy of the slice
           start...end from source.
           setFilters (InputFilter[] filters)
    void    Sets the series of filters that will be called in succession whenever the text of this
           Editable is changed, each of which has the opportunity to limit or transform the text that
           is being inserted.
    void    setSpan (Object what, int start, int end, int flags)
           Mark the specified range of text with the specified object.
           subSequence (int start, int end)
    CharSequence Return a new CharSequence containing a copy of the specified range of this buffer,
           including the overlapping spans.
    String toString ()
           Return a String containing a copy of the chars in this buffer.
    static SpannableStringBuilder valueOf (CharSequence source)

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#### **Inherited Methods** [Expand]

- ▶ From class java.lang.Object
- ▶ From interface android.text.Editable
- ▶ From interface android.text.GetChars
- ▶ From interface android.text.Spannable
- ▶ From interface android.text.Spanned
- ▶ From interface java.lang.Appendable
- ▶ From interface java.lang.CharSequence

## **Public Constructors**

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public **SpannableStringBuilder** () Added in [API level 1](#)

Create a new SpannableStringBuilder with empty contents

public **SpannableStringBuilder** ([CharSequence](#) text) Added in [API level 1](#)

Create a new SpannableStringBuilder containing a copy of the specified text, including its spans if any.

public **SpannableStringBuilder** ([CharSequence](#) text, int start, int end) Added in [API level 1](#)

Create a new SpannableStringBuilder containing a copy of the specified slice of the specified text, including its spans if any.

## Public Methods

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public [SpannableStringBuilder](#) **append** (char text) Added in [API level 1](#)

Convenience for `append(String.valueOf(text))`.

### Parameters

*text* the character to append.

### Returns

this `Appendable`.

public [SpannableStringBuilder](#) **append** ([CharSequence](#) text, int start, int end) Added in [API level 1](#)

Convenience for `replace(length(), length(), text, start, end)`

### Parameters

*text* the character sequence to append.  
*start* the first index of the subsequence of `csq` that is appended.  
*end* the last index of the subsequence of `csq` that is appended.

### Returns

this `Appendable`.

public [SpannableStringBuilder](#) **append** ([CharSequence](#) text) Added in [API level 1](#)

Convenience for `replace(length(), length(), text, 0, text.length())`

### Parameters

*text* the character sequence to append.

### Returns

this `Appendable`.

public char **charAt** (int where) Added in [API level 1](#)

Return the char at the specified offset within the buffer.

public void **clear** () Added in [API level 1](#)

Convenience for `replace(0, length(), "", 0, 0)`

public void **clearSpans** () Added in [API level 1](#)

Removes all spans from the Editable, as if by calling `removeSpan(Object)` ([`removeSpan\(java.lang.Object\)`](/reference/android/text/Spannable.html#removeSpan(java.lang.Object))) on each of them.

public [SpannableStringBuilder](#) **delete** (int start, int end) Added in [API level 1](#)

Convenience for `replace(st, en, "", 0, 0)`

public abstract void **drawText** ([Canvas](#) c, int start, int end, float x, float y, [Paint](#) p)

Just like [drawText\(char\[\], int, int, float, float, Paint\)](#)  
([/reference/android/graphics/Canvas.html#drawText\(char\[\], int, int, float, float, android.graphics.Paint\)](#)).

public boolean **equals** ([Object](#) o)

Added in [API level 1](#)

Compares this instance with the specified object and indicates if they are equal. In order to be equal, o must represent the same object as this instance using a class-specific comparison. The general contract is that this comparison should be reflexive, symmetric, and transitive. Also, no object reference other than null is equal to null.

The default implementation returns true only if this == o. See [Writing a correct equals method](#) ([/reference/java/lang/Object.html#writing\\_equals](#)) if you intend implementing your own equals method.

The general contract for the equals and [hashCode\(\)](#) ([/reference/java/lang/Object.html#hashCode\(\)](#)) methods is that if equals returns true for any two objects, then hashCode() must return the same value for these objects. This means that subclasses of Object usually override either both methods or neither of them.

#### Parameters

- o the object to compare this instance with.

#### Returns

true if the specified object is equal to this Object; false otherwise.

public void **getChars** (int start, int end, char[] dest, int destoff)

Added in [API level 1](#)

Copy the specified range of chars from this buffer into the specified array, beginning at the specified offset.

public [InputFilter\[\]](#) **getFilters** ()

Added in [API level 1](#)

Returns the array of input filters that are currently applied to changes to this Editable.

public int **getSpanEnd** ([Object](#) what)

Added in [API level 1](#)

Return the buffer offset of the end of the specified markup object, or -1 if it is not attached to this buffer.

public int **getSpanFlags** ([Object](#) what)

Added in [API level 1](#)

Return the flags of the end of the specified markup object, or 0 if it is not attached to this buffer.

public int **getSpanStart** ([Object](#) what)

Added in [API level 1](#)

Return the buffer offset of the beginning of the specified markup object, or -1 if it is not attached to this buffer.

public T[] **getSpans** (int queryStart, int queryEnd, [Class](#)<T> kind)

Added in [API level 1](#)

Return an array of the spans of the specified type that overlap the specified range of the buffer. The kind may be Object.class to get a list of all the spans regardless of type.

public int **getTextRunCursor** (int contextStart, int contextEnd, int flags, int offset, int cursorOpt, [Paint](#) p)

Added in [API level 11](#)

This method was deprecated in API level 12.

This is an internal method, refrain from using it in your code

Returns the next cursor position in the run. This avoids placing the cursor between surrogates, between characters that form conjuncts, between base characters and combining marks, or within a reordering cluster.

The context is the shaping context for cursor movement, generally the bounds of the metric span enclosing the cursor in the direction of movement. `contextStart`, `contextEnd` and `offset` are relative to the start of the string.

If `cursorOpt` is `CURSOR_AT` and the offset is not a valid cursor position, this returns -1. Otherwise this will never return a value before `contextStart` or after `contextEnd`.

#### Parameters

<i>contextStart</i>	the start index of the context
<i>contextEnd</i>	the (non-inclusive) end index of the context
<i>flags</i>	either <code>DIRECTION_RTL</code> or <code>DIRECTION_LTR</code>
<i>offset</i>	the cursor position to move from
<i>cursorOpt</i>	how to move the cursor, one of <code>CURSOR_AFTER</code> , <code>CURSOR_AT_OR_AFTER</code> , <code>CURSOR_BEFORE</code> , <code>CURSOR_AT_OR_BEFORE</code> , or <code>CURSOR_AT</code>
<i>p</i>	the <code>Paint</code> object that is requesting this information

#### Returns

the offset of the next position, or -1

public abstract int **getTextWidths** (int start, int end, float[] widths, [Paint](#) p)

Just like `getTextWidths(char[], int, int, float[])`  
([/reference/android/graphics/Paint.html#getTextWidths\(char\[\], int, int, float\[\]\)](#)).

public int **hashCode** ()

Added in [API level 1](#)

Returns an integer hash code for this object. By contract, any two objects for which `equals(Object)` ([/reference/java/lang/Object.html#equals\(java.lang.Object\)](#)) returns true must return the same hash code value. This means that subclasses of `Object` usually override both methods or neither method.

Note that hash values must not change over time unless information used in `equals` comparisons also changes.

See [Writing a correct hashCode method](#) ([/reference/java/lang/Object.html#writing\\_hashCode](#)) if you intend implementing your own `hashCode` method.

#### Returns

this object's hash code.

public [SpannableStringBuilder](#) **insert** (int where, [CharSequence](#) tb, int start, int end)

Added in [API level 1](#)

Convenience for `replace(where, where, text, start, end)`

public [SpannableStringBuilder](#) **insert** (int where, [CharSequence](#) tb)

Added in [API level 1](#)

Convenience for `replace(where, where, text, 0, text.length());`

public int **length** ()

Added in [API level 1](#)

Return the number of chars in the buffer.

#### Returns

the number of characters.

public abstract float **measureText** (int start, int end, [Paint](#) p)

Just like `measureText(char[], int, int)`  
([/reference/android/graphics/Paint.html#measureText\(char\[\], int, int\)](#)).

public int **nextSpanTransition** (int start, int limit, [Class](#) kind)

Added in [API level 1](#)

Return the next offset after `start` but less than or equal to `limit` where a span of the

specified type begins or ends.

public void **removeSpan** (Object what)

Added in [API level 1](#)

Remove the specified markup object from the buffer.

public SpannableStringBuilder **replace** (int start, int end, CharSequence tb)

Added in [API level 1](#)

Convenience for `replace(st, en, text, 0, text.length())`

public SpannableStringBuilder **replace** (int start, int end, CharSequence tb, int tbstart, int tbend)

Added in [API level 1](#)

Replaces the specified range (st...en) of text in this Editable with a copy of the slice start...end from source. The destination slice may be empty, in which case the operation is an insertion, or the source slice may be empty, in which case the operation is a deletion.

Before the change is committed, each filter that was set with

`setFilters(InputFilter[])`

([/reference/android/text/Editable.html#setFilters\(android.text.InputFilter\[\]\)](#)) is given the opportunity to modify the source text.

If source is Spanned, the spans from it are preserved into the Editable. Existing spans within the Editable that entirely cover the replaced range are retained, but any that were strictly within the range that was replaced are removed. As a special case, the cursor position is preserved even when the entire range where it is located is replaced.

#### Returns

a reference to this object.

public void **setFilters** (InputFilter[] filters)

Added in [API level 1](#)

Sets the series of filters that will be called in succession whenever the text of this Editable is changed, each of which has the opportunity to limit or transform the text that is being inserted.

public void **setSpan** (Object what, int start, int end, int flags)

Added in [API level 1](#)

Mark the specified range of text with the specified object. The flags determine how the span will behave when text is inserted at the start or end of the span's range.

public CharSequence **subSequence** (int start, int end)

Added in [API level 1](#)

Return a new CharSequence containing a copy of the specified range of this buffer, including the overlapping spans.

#### Parameters

*start* the start offset of the sub-sequence. It is inclusive, that is, the index of the first character that is included in the sub-sequence.

*end* the end offset of the sub-sequence. It is exclusive, that is, the index of the first character after those that are included in the sub-sequence

#### Returns

the requested sub-sequence.

public String **toString** ()

Added in [API level 1](#)

Return a String containing a copy of the chars in this buffer.

#### Returns

a printable representation of this object.

public static SpannableStringBuilder **valueOf** (CharSequence source)

Added in [API level 1](#)