



## Lesson 9

# Android

## *Fonts*

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## Fonts

Ice Cream Sandwich introduced a new font type family named **Roboto**.

The new font intends to provide a uniform touch to Android apps and display well on high-resolution screens.

The current TextView framework supports **regular**, **bold**, ***italic***, and *****bold italic***** weights by default.

(this page is written with the Roboto Font)

### Roboto Regular

A B C D E F G H I J K L M N  
O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n  
o p q r s t u v w x y z

### Roboto Bold

A B C D E F G H I J K L M N  
O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n  
o p q r s t u v w x y z

Reference:

<http://developer.android.com/design/style/typography.html>

# Fonts

## Default type colors

The Android UI uses the following default text color styles:

**textColorPrimary** and  
**textColorSecondary**.

For light themes use  
**textColorPrimaryInverse** and  
**textColorSecondaryInverse**.

Text Color Primary Dark  
Text Color Secondary Dark

Text Color Primary Light  
Text Color Secondary Light

Reference:

<http://developer.android.com/design/style/typography.html>

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## Typographic Scale

The Android framework has a limited set of type sizes.

Users can also select specific **textSize** in scale-independent pixels (sp).

Text Size Micro 12sp

Text Size Small 14sp

Text Size Medium 18sp

Text Size Large 22sp

Reference:

<http://developer.android.com/design/style/typography.html>

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# Fonts

Android's **typeFace** attribute can be set using XML or code as follows:

1. XML clause      `android:typeFace="..."` clause, or
2. Method            `.setTypeFace(...)`

Options are:

**sans:**               An m is wider than i, mmm iiiii

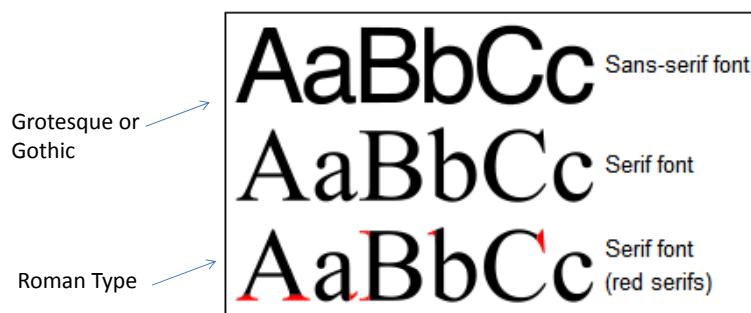
**serif:**              An m is wider than i, mmm iiiii

**monospaced:**      An mmm is not wider than iii

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# Fonts

Also know as:



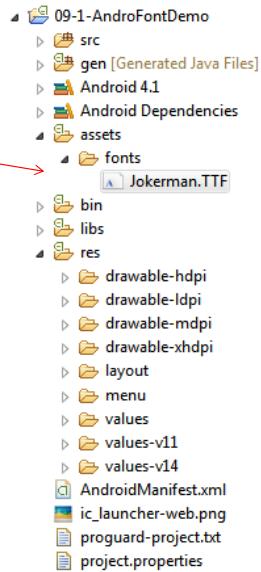
Source: <http://en.wikipedia.org/wiki/Serif>

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# Fonts

Developers may add any font to their application by following the next steps:

1. Create the **/fonts** folder in the **/assets** directory.
2. Copy *any fonts* you plan to use into the new folder (Look at `c:\Windows\Font` for your basic local collection).
3. Use Java code to bind the font with the UI widget wanting to display the custom typeface (see *example*).



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# Fonts

**Example:** Getting ready to use the **Jokerman.TTF** font.

```

09-1-AndroFontDemo
├── src
├── gen [Generated Java Files]
├── Android 4.1
├── Android Dependencies
└── assets
    ├── fonts
    │   └── Jokerman.TTF
    ├── bin
    ├── libs
    └── res
        ├── drawable-hdpi
        ├── drawable-ldpi
        ├── drawable-mdpi
        ├── drawable-xhdpi
        ├── layout
        ├── menu
        ├── values
        ├── values-v11
        ├── values-v14
        └── AndroidManifest.xml
            ic_launcher-web.png
            proguard-project.txt
            project.properties

```

Original font taken from `c:\Windows\Fonts`

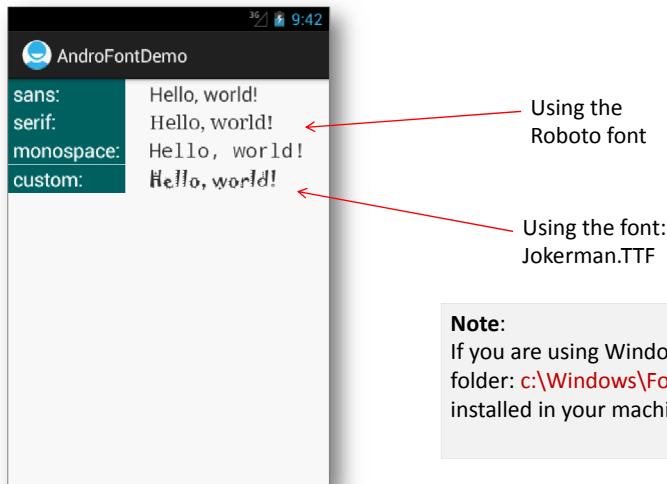
Example based on:  
The Busy Coder's Guide to Android Development  
by Mark L. Murphy  
Copyright © 2008-2009 CommonsWare, LLC.  
ISBN: 978-0-9816780-0-9

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# Fonts

## Example:

Display the **Hello World !** message using different fonts.



**Note:**

If you are using Windows look into the folder: **c:\Windows\Fonts** for fonts installed in your machine.

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# Fonts

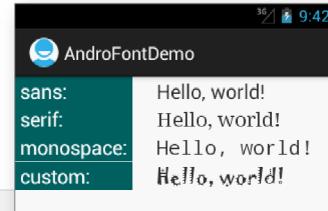
## Example Application:

Showing different FONT types.

XML Layout: **main.xml** (1 of 5)

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical"
    android:stretchColumns="1" >

    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal" >
```



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# Fonts

**Example Application:**

Showing different FONT types.

XML Layout: **main.xml** (2 of 5)

```

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginRight="24dp"
        android:background="#ff006666"
        android:text=" sans:"
        android:textColor="@android:color/primary_text_dark"
        android:textSize="20sp" >

```

```

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="sans" > ←

```

```

    </TableRow>

```

sans:	Hello, world!
serif:	Hello, world!
monospace:	Hello, world!
custom:	Hello, world!

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# Fonts

**Example Application:**

Showing different FONT types.

XML Layout: **main.xml** (3 of 5)

```

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginRight="24dp"
        android:background="#ff006666"
        android:text=" serif:"
        android:textColor="@android:color/primary_text_dark"
        android:textSize="20sp" >

```

```

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="serif" > ←

```

```

    </TableRow>

```

sans:	Hello, world!
serif:	Hello, world!
monospace:	Hello, world!
custom:	Hello, world!

# Fonts

**Example Application:**

Showing different FONT types.

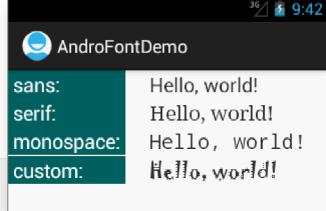
XML Layout: **main.xml** (4 of 5)

```

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginRight="24dp"
        android:background="#ff006666"
        android:text=" monospace: "
        android:textColor="@android:color/primary_text_dark"
        android:textSize="20sp" >
    </TextView>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="monospace" > ←
    </TextView>
</TableRow>
```



Font Type	Text Content
sans	Hello, world!
serif	Hello, world!
monospace	Hello, world!
custom	Hello, world!

# Fonts

**Example Application:**

Showing different FONT types.

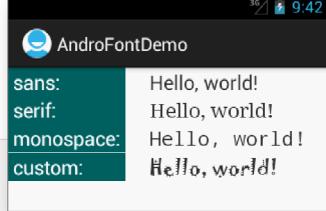
XML Layout: **main.xml** (5 of 5)

```

<TableRow
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginRight="24dp"
        android:background="#ff006666"
        android:text=" custom: "
        android:textColor="@android:color/primary_text_dark"
        android:textSize="20sp" >
    </TextView>

    <TextView
        android:id="@+id/custom"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp" > ←
    </TextView>
</TableRow>
</TableLayout>
```

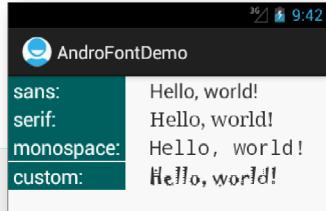


Font Type	Text Content
sans	Hello, world!
serif	Hello, world!
monospace	Hello, world!
custom	Hello, world!

## Fonts

**Example Application:**  
Showing different FONT types.  
XML Layout: **main.xml** (5 of 5)

```
public class AndroFontDemo extends Activity {  
    @Override  
    public void onCreate(Bundle icicle) {  
        super.onCreate(icicle);  
        setContentView(R.layout.main);  
  
        // bind the "custom" TextView with chosen font  
        TextView txtCustom=(TextView)findViewById(R.id.custom);  
  
        txtCustom.setTypeface(Typeface.SANS_SERIF); ←  
        Typeface myNewFace=Typeface.createFromAsset(getAssets(),  
                                         "fonts/Jokerman.TTF"); ←  
        txtCustom.setTypeface(myNewFace);  
    } //onCreate  
} //class
```



The screenshot shows a black Android application window titled "AndroFontDemo". It contains four TextViews. The first three are in a dark teal box and the fourth is in a white box. The text in each view is: "sans: Hello, world!", "serif: Hello, world!", "monospace: Hello, world!", and "custom: Hello, world!". A grey arrow points from the text "txtCustom.setTypeface(Typeface.SANS\_SERIF);" to the first "Hello, world!" text. Another grey arrow points from the text "Typeface myNewFace=Typeface.createFromAsset(getAssets(),"fonts/Jokerman.TTF");" to the fourth "Hello, world!" text.

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## Fonts

# Questions ?

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