

# Display right-to-left (RTL) language text on mobile devices without RTL support

## Abstract:

Languages such as Hebrew and Arabic are written and read from right-to-left (RTL). On a mobile device such as a digital media player, it is desired to display information such as song title in RTL language. Some devices offer Hebrew support in a partial way, by supporting the Hebrew character set, but not the RTL support. In such cases we say that it support a reversed or backward Hebrew, and the user need to do some mental work to read the song titles, or to rename her songs on a computer, prior to file transfer in reverse spelling.

This document describe a simple way to allow viewing RTL text on such devices without the added complexity of proper RTL or bidirectional (BiDi) support.

## Example:

שלום

The word שלום (Shalom) is written: ן then ל then ו then ם.  
With no LTR support it will be displayed: םולש

םולש

## The solution:

Instead of supporting the regular glyphs for RTL symbols (such as Hebrew letters) the device should provide the same glyphs, but rotated by 180 Degrees (put on its head).

So the glyph for ן might instead of being drawn as:

ן

.....  
.....  
.###.##.##.  
..##.##.##.  
##..##.##.  
##..##.##.  
#####.  
.....  
.....

should be drawn as:

א

.....  
.....  
..#####.  
.##..##..##.  
.##..##..##.  
.##..##..##.  
..##..##..##.  
.....  
.....

Then writing a Hebrew word such as שלום, in the order of ש then ל then ו then ם, will result in:

מזלם

Thus the user will see on her media device the word rotated by 180 degrees (put on its head), and all she need to do is to rotate the media player to read the word as normal RTL text.

