

Unicode bi-directional and right to left text in PDF documents

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Introduction

Apitron PDF Kit for .NET component fully supports right to left texts written in languages such as Arabic, Hebrew and others, as well as bi-directional writings created by mixing RTL and LTR languages. In this article we'll show how to create a PDF document containing all these variations.

The code

Code sample below creates a grid in on PDF page which contains LTR, BIDI and RTL text blocks.

```
class Program
{
    static void Main(string[] args)
    {
        // create flow document
        FlowDocument doc = new FlowDocument()
        {
            Margin = new Thickness(10)
        };

        // register style for grid rows
        doc.StyleManager.RegisterStyle("gridrow", new Style()
        {
            Font = new Font("Traditional Arabic", 20),
            Align = Align.Center
        });

        // register style for header row
        doc.StyleManager.RegisterStyle("gridrow.header", new Style()
        {
            Background = RgbColors.Gray,
            Color = RgbColors.White,
            Font = new Font(StandardFonts.Helvetica, 20)
        });

        // create grid
        Grid grid = new Grid(150, Length.Auto, 150);

        // add header row
        grid.Add(new GridRow(new TextBlock("LTR"), new TextBlock("BIDI"),
            new TextBlock("RTL")) { Class = "header" });

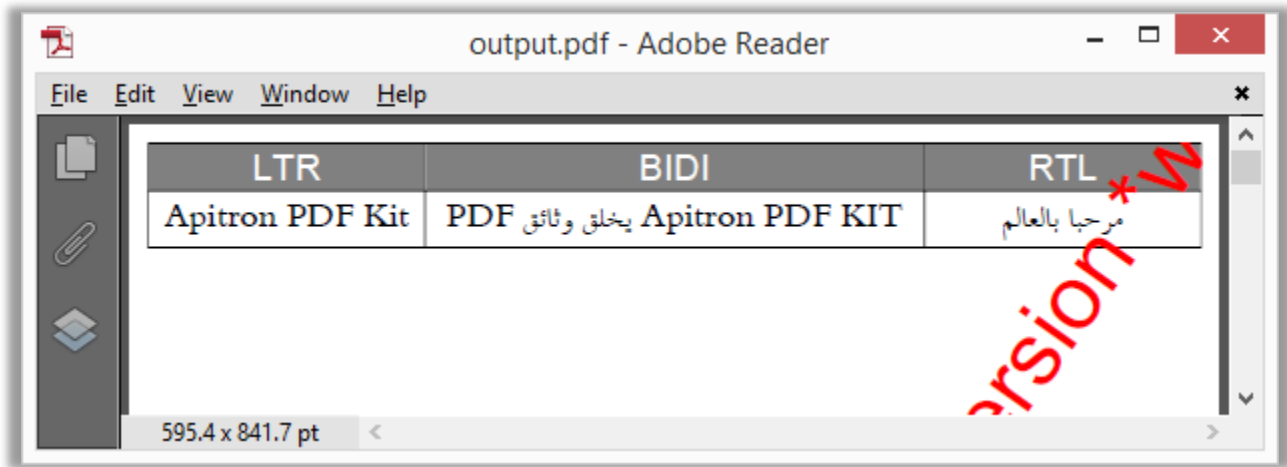
        // add content row
        grid.Add(new GridRow(
            new TextBlock("Apitron PDF Kit"),
            new TextBlock("PDF وثائق يخلق Apitron PDF KIT"),
            new TextBlock("بالعالم مرحبا") // hello world
        ));

        // add grid to the document object
        doc.Add(grid);

        // generate PDF document
        using (Stream fs = File.Create("output.pdf"))
        {
            doc.Write(fs, new ResourceManager());
        }
    }
}
```

This code sample uses FlowLayout API to create the document, but RTL and BIDI are supported by the FixedLayout API as well.

The image below demonstrates the resulting document:



Pic. 1 RTL and BIDI text in PDF document

You can see that Arabic text in both BIDI and RTL columns is written correctly.

Conclusion

[Apitron PDF Kit for .NET](#) component is flexible enough to handle any text manipulation task with the power of its unique PDF processing engine. In addition to PDF docs creation, it supports text searching in bidi and rtl documents, and implements advanced font substitution and resolution algorithms.