RML Example 59: Rotations

ReportLab

Rotations

PDF rotations are always about the current origin. This is most counter intuitive.
To get around this we normally need to do a translation to the point around which the rotation is to occur.
All translations and rotations occur in graphics mode.
We will mark the graphics origin with a small green cross.
NB all the drawing operations are done in <illustration>s which define a local coordinate system.
We can include this in a <story>.
If the drawings should be done page relative then it's best to use <graphicsMode>...</graphicsMode>.

This is a cross hair at x=500 y=12 the illustration is 24 high

The same crossMark, but after <translate dx="-10" dy="0"/>
Notice that the origin shifts as well; we shifted the whole graphics context.

We draw a blue 15 x 5 rectangle at the blue cross using
<rect fill="0" stroke="1" x="500" y="12" width="15" height="5"/> ie at *x="500"* & *y="12"*.

Say we want to rotate the box 90 degrees.

We first used <translate dx="500" dy="12"/> to move the graphics origin to where the blue cross is.
Then we <rotate degrees="90"/> and finally draw the rectangle with
<rect fill="0" stroke="1" x="0" y="0" width="15" height="5"/> ie at the origin *x="0"* & *y="0"*.
Note that we used the same width and height though.

We can place paragraphs on the page; this is at 1in from the page bottom and 15 points in.
We mark that position with a small blue cross before any translation & rotation.

We draw a multi-line para at 2.2in from the page bottom and 15 points in.
We mark that position with a small green cross before any translation & rotation.
Note that the cross is at the SW corner of the paragraph if we disregard the rotation
and that the paragraph grows upward.

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