Page coordinates sample

This sample shows the effects of the manipulation of the CTM (Current Transformation Matrix), that is the mathematical device which affects the page coordinate system used to place graphic contents onto the canvas.

The following steps represent the operations applied to this page's CTM in order to alter it. Each step writes the word "Step" at the lower-left corner of the current page frame:

Step 0) CTM (default): 1, 0, 0, 1, 0, 0

Step 1) CTM (after translate(72,72)): 1, 0, 0, 1, 72, 72

Step 2) CTM (after rotate(20)): 0.9396926, -0.3420202, 0.3420202, 0.9396926, 72, 72

Step 3) CTM (after translate(0,72) and scale(.5,.5)): 0.4698463, -0.1710101, 0.1710101, 0.4698463, 96.62545, 139.6579

Step 4) CTM (after resetting CTM): 0.9999999, -2.980232E-08, -2.980232E-08, 0.9999999, 0, -1.525879E-05

Note that the approximation (1.525879E-05) of the CTM components at step 4 is due to floating point precision limits; their exact values should be 1.0, 0.0, 0.0, 1.0, 0.0, 0.0.

Origin 2

inverted_text

vertical_minus90

vertical_text

Step 3

Step 1

Step 2

Step 4