
Subject: Painter and transformations

Posted by [mdelfede](#) on Tue, 22 Jan 2013 17:29:46 GMT

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Hi, usually (in many other geometric tools) this code

```
painter.Translate(-jg.center);
if(rot)
    painter.Rotate(-jg.angle);
painter.Translate(dx, dy);
```

(do something with painter)

```
painter.Translate(-dx, .dy);
if(rot)
    painter.Rotate(jg.angle);
painter.Translate(jg.center);
```

should behave exactly like this one :

```
Xform2D trsf;
trsf = Xform2D::Translation(-jg.center.x, -jg.center.y);
if(rot)
    trsf = trsf * Xform2D::Rotation(-jg.angle);
trsf = trsf * Xform2D::Translation(dx, dy);
```

```
// translate painter to fit left joint center
painter.Transform(trsf);
```

(do something with painter)

```
trsf = Inverse(trsf);
painter.Transform(trsf);
```

But it doesn't.... and I still don't understand how Upp does manage combined transformations. By now I solved with second way, but I guess it would be by far more intuitive to fix the first one; each transformation should apply to "modified" reference done by former ones.

Anyways, it would be useful to add some member functions to Xform2d, to make possible to do something like this :

```
Xform2d trsf = Xform2d().Translated(p).Rotated(a).Scaled(x);
```

Max
