

You are not doing transformations right:

```
Xform2D trsf;  
trsf = Xform2D::Translation(-center.x, -center.y);  
trsf = trsf * Xform2D::Rotation(angle);  
trsf = trsf * Xform2D::Translation(sz.cx / 2, sz.cy / 2);
```

You have reversed order of operands there, that is why you are getting different results.

Please refer to

http://en.wikipedia.org/wiki/Transformation_matrix#Composing_and_inverting_transformations

I have spend some time with your example to find out what is going on and it seems to me that everything behaves as expected (apart from the fact that the whole thing is perhaps not doing what you expect

```
void Transformations::PaintImage(PaintingPainter &painter, Color color)  
{  
    Size sz = imageCtrl.GetSize();  
    painter.Rectangle(0, 0, sz.cx, sz.cy);  
    painter.Stroke(10, color);  
  
    painter.Circle(0, 0, 50);  
    painter.Fill(color);  
  
    Pointf center(2000, 2000);  
    painter.Text(2000, 2000, "A", Roman(400));  
    painter.Fill(color);  
}
```

```
void Transformations::Paint1()  
{  
    Size sz = imageCtrl.GetSize();  
    PaintingPainter painter(sz);  
  
    painter.Clear(White());  
  
    painter.Scale(0.1, 0.1);  
    painter.Translate(3000, 3000);
```

```
painter.Scale(1, -1);
painter.Translate(0, -sz.cy);

PaintImage(painter, Black());

Pointf center(2000, 2000);
double angle = -45.0 * M_PI / 180;

painter.Translate(-center);
PaintImage(painter, Red());
painter.Rotate(-angle);
PaintImage(painter, Green());
painter.Translate(sz.cx / 2, sz.cy / 2);
PaintImage(painter, Blue());

ImageDraw dw(sz);
dw.DrawPainting(0, 0, sz.cx, sz.cy, painter);
imageCtrl.SetImage(dw);
}
```