
Subject: Problem with polygon inside polygon... in Painter

Posted by [Tom1](#) on Sat, 19 Nov 2011 11:30:15 GMT

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Hi,

I have run into trouble rendering maps using Painter. When there is an island within a pond within an island within a lake.... well you know, this is a nested polygon problem and rendering this complex polygon describing the water colored areas -- as well as the differently colored polygon describing the land areas produce unsatisfactory results. With X and GDI this works perfectly, but with painter there is a prerequisite to order the vertices at each nesting level to an alternating clockwise and counter-clockwise order.

Is there a possibility to change Painter to render polygons inside polygons using the same coverage logic as X and GDI does?

Here is a test case showing a green reference with X/GDI, a Painter result in red and a re-ordered Painter result in blue:

```
void Paint(Draw &w){
    Rect rect=GetSize();
    w.DrawRect(rect,White());

    // Create geometry (a polygon inside a polygon inside a polygon ...)
    Vector<Point> vertices;
    for(int i=0;i<80;i+=10){
        vertices.Add(Point(i,i));
        vertices.Add(Point(i,300-i));
        vertices.Add(Point(300-i,300-i));
        vertices.Add(Point(300-i,i));
        vertices.Add(Point(i,i));
    }

    // Draw reference geometry
    w.DrawPolygon(vertices,Green());

    // Draw painter geometry
    PaintingPainter pn(300,300);
    pn.Clear(White());
    pn.DrawPolygon(vertices,Red());
    w.DrawPainting(300,0,300,300,pn);

    // Create geometry (a polygon inside a polygon inside a polygon ...)
    // This time only with alternating clockwise and counter-clockwise vertex ordering
    vertices.Clear();
    for(int i=0;i<80;i+=10){
        if((i/10)%2){ // CCW
```

```
vertices.Add(Point(i,i));
vertices.Add(Point(i,300-i));
vertices.Add(Point(300-i,300-i));
vertices.Add(Point(300-i,i));
vertices.Add(Point(i,i));
}
else{ // CW
vertices.Add(Point(i,i));
vertices.Add(Point(300-i,i));
vertices.Add(Point(300-i,300-i));
vertices.Add(Point(i,300-i));
vertices.Add(Point(i,i));
}
}

// Draw alternate painter geometry
pn.Clear(White());
pn.DrawPolygon(vertices,Blue());
w.DrawPainting(600,0,300,300,pn);
}
```

Best regards,

Tom

Subject: Re: Problem with polygon inside polygon... in Painter

Posted by [mirek](#) on Sat, 19 Nov 2011 11:41:55 GMT

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pn.EvenOdd();

Mirek

Subject: Re: Problem with polygon inside polygon... in Painter

Posted by [Tom1](#) on Sat, 19 Nov 2011 12:36:08 GMT

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Thanks!

Best regards,

Tom
