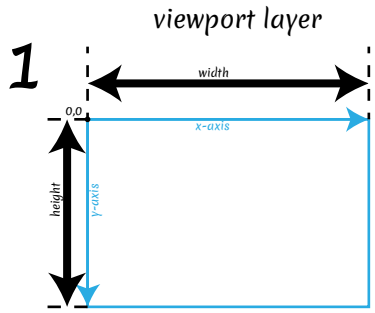
lesson 2

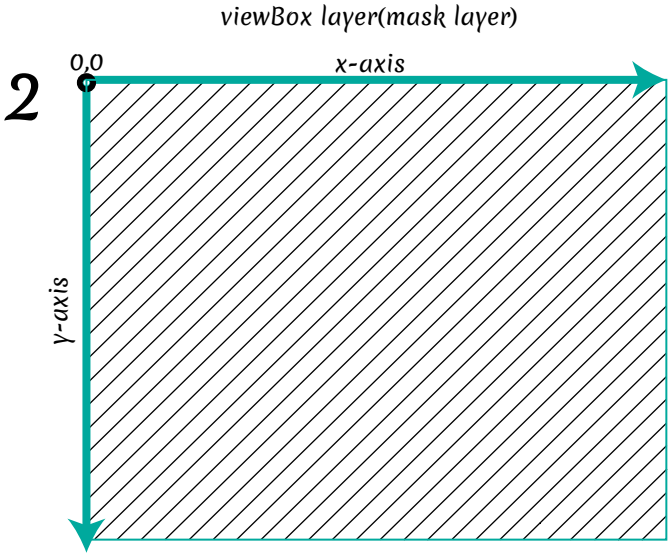
VIEWBOX

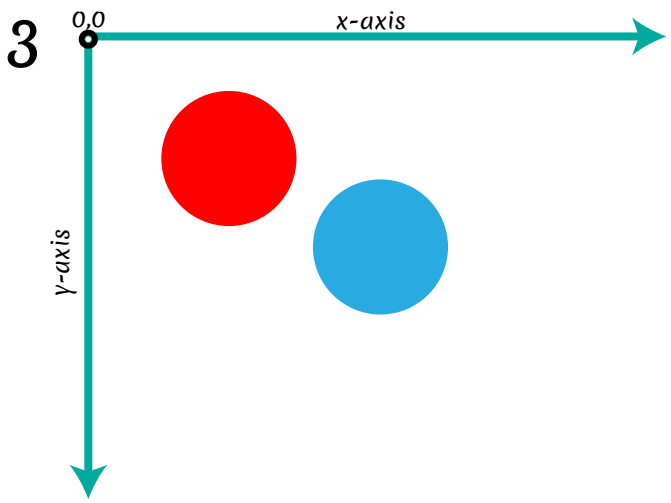
Three layer metaphor revision



When we add the svg element inside the SVG or HTML document the user-agent creates a three-layer structure. We will consider viewport, viewBox and the local coordinate systems as independent layers. In reality, there aren't such layers, it's just a metaphor that helps us understand what happens under the hood. The first layer is the viewport layer that main role is to be a placeholder. The viewport occupies the space in the HTML or SVG documents.

1.1 In module one, you can see the SVG element that doesn't contain any attributes or geometry properties. When we launch the liveserver we won't see anything on the screen, but let's check it thru the Chrome Devtools. Let's find the SVG element by using the "inspector". We can see that user agent use default values for the outermost SVG element that are equal 150 pixels for height and 300 pixels for width. The default values could work unpredictable for nested SVG elements in different browsers, so i highly recommend you to specify the height and width for SVG elements. Let's add width with a value equal to 500 and height with a value equal to 300. Then check the result. We can see that the viewport of the svg element changes its size. It occupies more space in the browser window.





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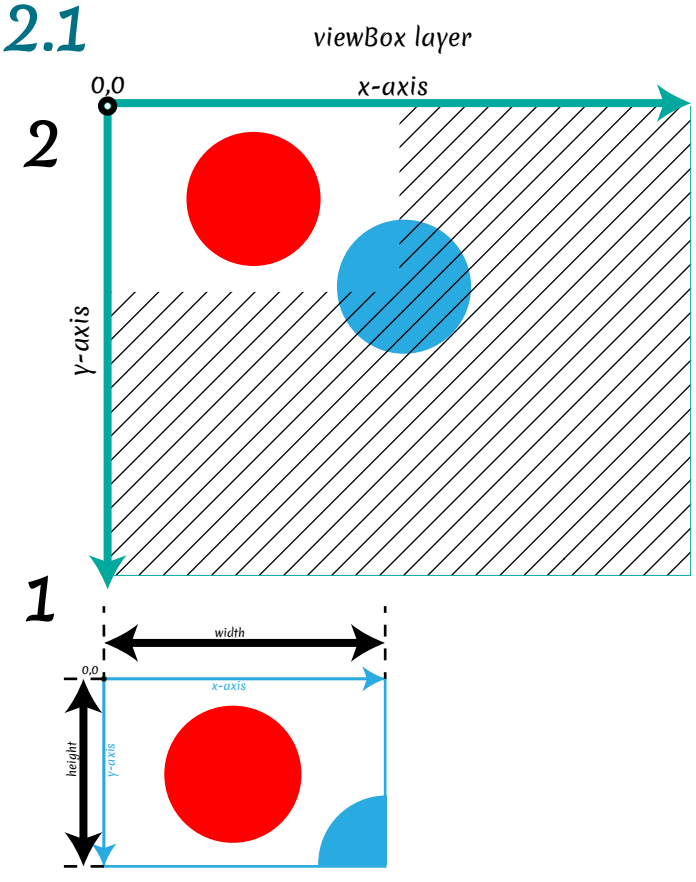
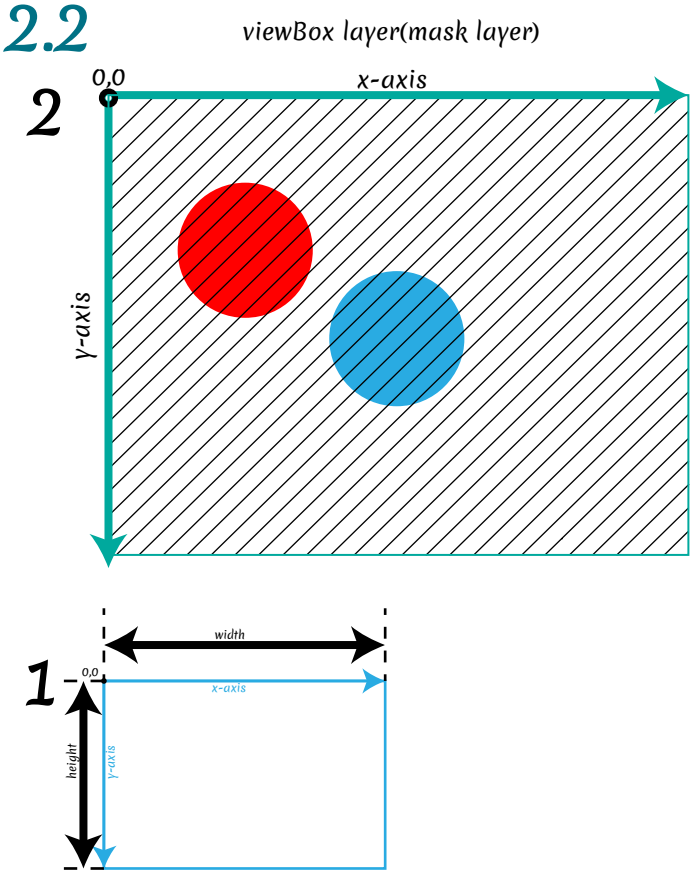
2.1



2.2



2.1 In module two, you can see the svg element embedded inside the HTML document. The width geometry property is equal to 300 and the height geometry property is equal to 200. You can see the two circle inside the svg element. The first circle has cx equal to 150 and cy equal to 100 and the radius equal to 50px. The second circle has cx equal to 300px and cy equal to 200 and the radius equal to 50. The first circle filled with red and the second filled with blue.

Let's look at the result. we can see only the quarter of the blue circle because the bigger part lay outside the viewBox. If we will look at the code we won't see any viewBox attribute. As I said in the lesson video if we didn't specify it the user agent uses the default value. In this case, the size of the viewBox is equal to the size of the viewport.

2.2 Let's add the viewBox attribute with the following values "0 0 0 0". Where the first pair of parameters are x-min and y-min parameters. We will talk about them in the next lesson. The second pair of the parameter are the width and height parameters that define the width and the height of the viewBox. That is why when we set these parametes to 0 the circles disappeared. There is no "window" on the "mask layer" anymore. That why dispite we have the circles on the local coordinate system