

Absolute Position = fixed

The Boolean trait `is-reference-area` determines whether or not an area establishes a coordinate system for specifying indents. An area for which this trait is true is called a reference-area. Only a reference-area may have a `block-progression-direction` which is different from that of its parent. A reference-area may be either a block-area or an inline-area. Only specific formatting objects generate reference areas. The Boolean trait `is-viewport-area` determines whether or not an area establishes an opening through which its descendant areas can be viewed, and can be used to present clipped or scrolled material; for example, in printing applications where bleed and trim is desired. An area for which this trait is true is called a viewport-area. A viewport-area also has the value true for the `is-reference-area` trait. A common construct is a viewport/reference pair. This is a viewport-area *V* and a block-area reference-area *R*, where *R* is the sole child of *V* and where the start-edge and end-edge of the content-rectangle of *R* are parallel to the start-edge and end-edge of the content-rectangle of *V*. Each area has the traits `top-position`, `bottom-position`, `left-position`, and `right-position` which represent the distance from the edges of its content-rectangle to the like-named edges of the nearest ancestor reference-area (or the page-viewport-area in the case of areas generated by descendants of formatting objects whose `absolute-position` is fixed); the `left-offset` and `top-offset` determine the amount by which a relatively-positioned area is shifted for rendering. These traits receive their values during the formatting process, or in the case of absolutely positioned areas, during refinement.