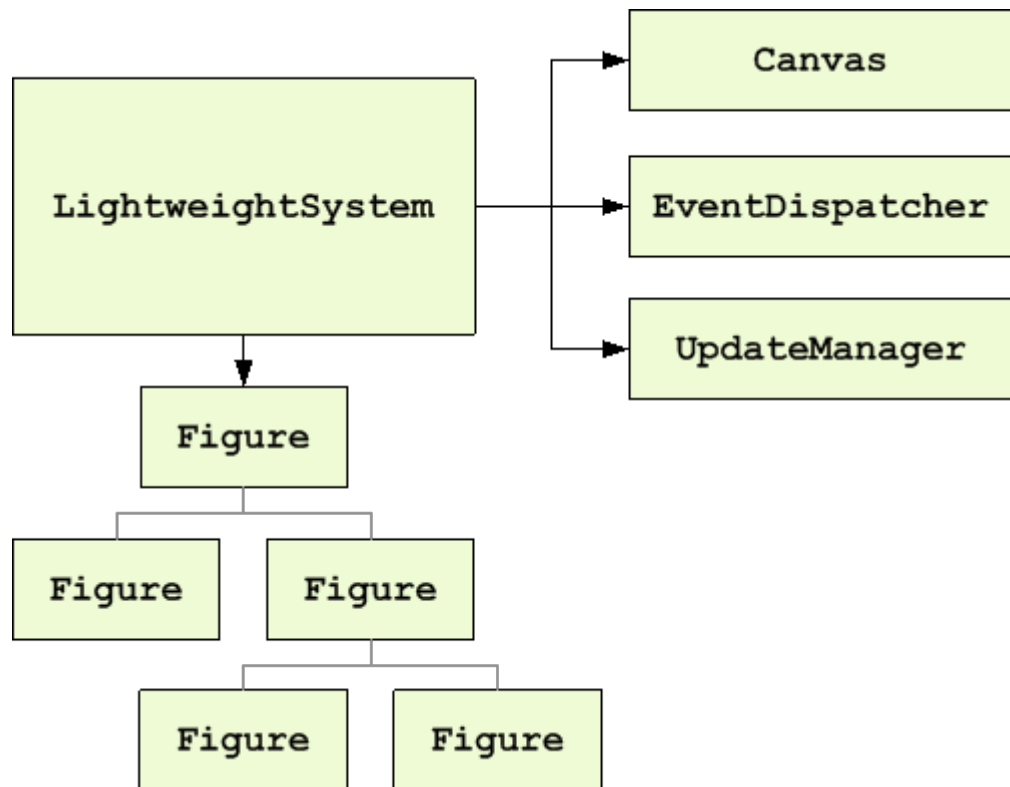


Draw2d Overview

Draw2d is a lightweight toolkit of graphical components called **figures**. Lightweight means that a figure is simply a java object, with no corresponding resource in the operating system. Figures can be composed via a parent-child relationship. Every figure has a rectangular **bounds** inside which it, and its children, paint. A layout manager can be used to place children based on their index and/or constraint.



A `LightweightSystem` associates a figure composition with an SWT Canvas. The lightweight system hooks listeners for most SWT events, and forwards most of them to an `EventDispatcher`, which translates them into events on the appropriate figure.

Paint events, however, are forwarded to the `UpdateManager`, which coordinates painting and layout. Figures can be updated in ways which affect their appearance or size, and the update manager ensures that only one layout occurs, followed by a repaint of only the region which was updated.

Any type of diagram, document, or drawing can be easily constructed and efficiently updated by combining the provided figure and layout implementations along with the use of custom figures or layouts when needed.

Additional topics:

- [Painting](#) - details of the paint process and how nesting affects painting
- [Layout](#) - preferred size, layout, validating figures
- [Hit Testing](#) - finding figures, correcting coordinates, modifying the space occupied by a figure
- [Connections and Routing](#) - connections, anchors, decorations, and routing
- [Coordinate Systems](#) - absolute and relative coordinates, working with absolute coordinates