

Can R Draw Graphs?

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This talk will describe and demonstrate several new graphics features that are available with the release of R 2.3.0.

X-splines are smooth curves that are drawn relative to a set of control points, with a parameter controlling whether the curve approximates or interpolates each control point. We will look at a new X-spline drawing primitive and show some simple applications such as using an open X-spline to draw a curve connecting a label to a location of interest, and using a closed X-spline to produce a novel plotting symbol.

Connectors are straight, bent, or curvy lines that join nodes in a graph or flow diagram. We will look at new features in the grid graphics package that build on X-splines to allow quite general connectors to be drawn between graphical objects, with examples showing the construction of simple graphs and flow diagrams.

Vector images are images described in terms of geometric shapes (as opposed to individual pixels as in bitmap images). We will look at a new package, `grImport`, which provides support for importing vector images into an R plot. Demonstrations of this package will include adding a background "watermark" to a plot and importing novel plotting symbols.