

# Inheritance Diagram Example

Charlotte Maia

May 23, 2011

*This vignette is temporary, and provides an example of using the iv package to create a simple inheritance diagram.*

## NOTE

This package replaces (and is derived from) the umlr package. Currently, much of this package, reflects the earlier package. Many functions may be renamed in the next revision.

## Simple Example

In the iv package, a uml model is treated in a similar way to a directed graph. We create some nodes (representing classes, etc), then some connections (aka edges) between pairs of nodes. Potentially, we can group a set of connections, to produce what I like to refer to as composite arrows (currently, north-facing only). Then create a model, from the nodes and connections.

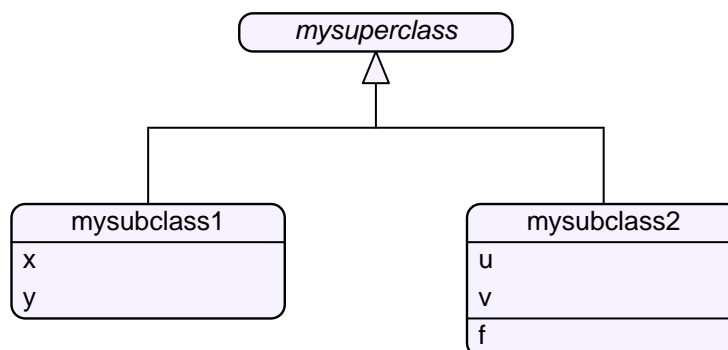
```
> umlro.fill (rgb (0.965, 0.95, 1) )

> v0 = umlclass ("mysuperclass", abstract=TRUE, y=-4)
> v1 = umlclass ("mysubclass1", c ("x", "y"), x=-4)
> v2 = umlclass ("mysubclass2", c ("u", "v"), "f", x=4)
> con1 = umlxtends (v1, v0)
> con2 = umlxtends (v2, v0)
> umlmerge (con1, con2)

> m = uml (v0, v1, v2, con1, con2)
```

We can create a simple GUI (more precisely an interactive plot) to adjust the layout. Closing the plotting window, or clicking on the edge of plot, sets the nodes in place.

```
> umlgui (m)
> umlpdf (m)
```



## Sweave Notes

Note that to successfully use this package with Latex, actual image sizes need to be used. In the case of Sweave, one needs to include something along the lines of:

```
\usepackage[nogin]{Sweave}
```

Also note that the commands `umlgui` and `umlpdf` don't work within sweave. The gui is interactive and the pdf command creates it's own graphics device.