# 0.1 Why program GUIs in R?

- Benefit to user of code complexity
- Convenience
- Reasonable speed, power
- many options: RGtk2, tcltk, RPad, rJava, RwxWidgets, DTL stuff
- Cross platform

# 0.2 Object Oriented Programming in R

### Principles of object oriented programming

Generic functions and methods in R

S3 Style

S4 Style

## 0.3 Programming Issues when programming GUIs

Pass by copy

Variable lookup: Scoping

Environments in R

Converting text into R commands and R commands to text.

### Efficient programming in R

#### Localization

<sup>\*</sup> nargs ..1 working with function args

<sup>\*</sup> stringToObject: get, eval(parse(text=...)), do.call, match.fun, serialize methods? assign, expressions?