

# Shiny gadgets

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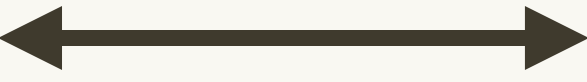
Chief Scientist, RStudio

# What's the difference between an app and a gadget?

Why?

Communicating  Programming

Who?

Decision maker  Analyst

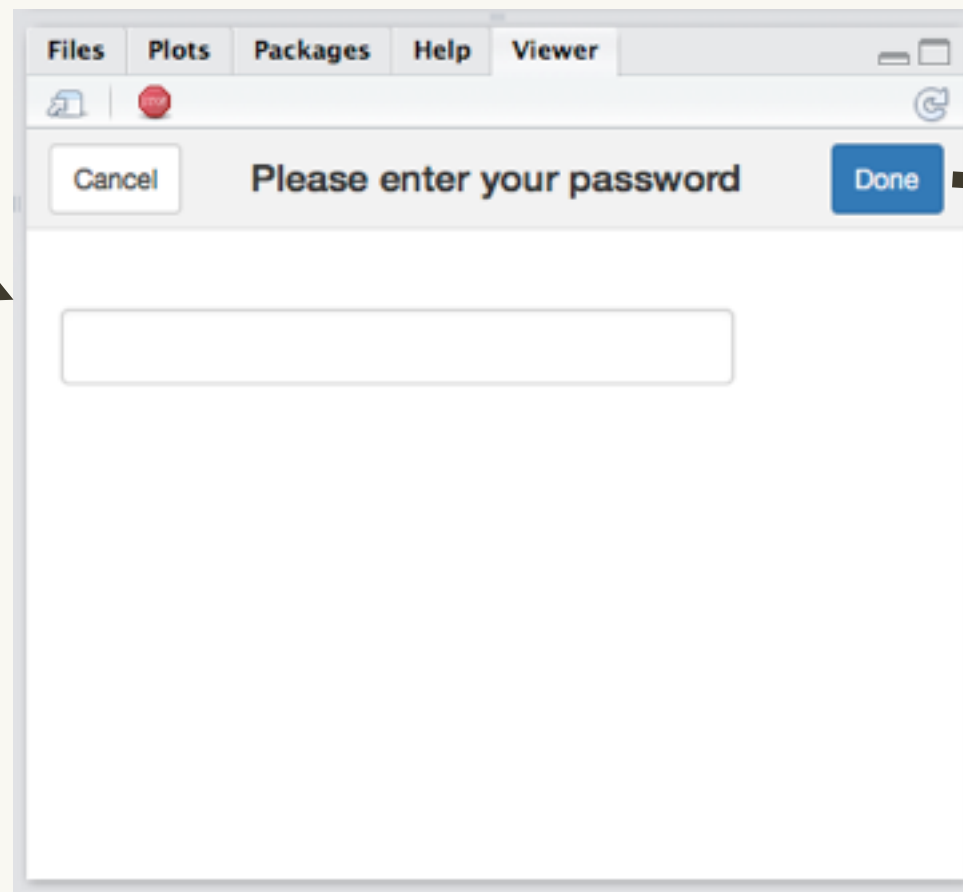
How?

Deployed  Invoked

Practically there are **three** main differences

`get_password()`

`library(miniUI)`



`stopApp()`

# The simplest useful gadget

```
get_password <- function() {  
  ui <- miniPage(  
    gadgetTitleBar("Please enter your password"),  
    miniContentPanel(  
      passwordInput("password", "")  
    )  
  )  
  
  server <- function(input, output) {  
    observeEvent(input$done, {  
      stopApp(input$password)  
    })  
    observeEvent(input$cancel, {  
      stopApp(stop("No password.", call. = FALSE))  
    })  
  }  
  
  runGadget(ui, server)  
}  
get_password()
```

Captures  
password  
without  
recording it in  
the history

# The simplest useful gadget

```
get_password <- function() {  
  ui <- miniPage(  
    gadgetTitleBar("Please enter your password"),  
    miniContentPanel(  
      passwordInput("password", "")  
    )  
  )  
}
```

miniUI package  
has UI customised

```
server <- function(input, output) {  
  observeEvent(input$done, {  
    stopApp(input$password)  
  })  
  observeEvent(input$cancel, {  
    stopApp(stop("No password.", call. = FALSE))  
  })  
}
```

stopApp() returns a

```
runGadget(ui, server)  
}  
get_password()
```

Gadget  
invoked

A richer example

# Overview of miniUI

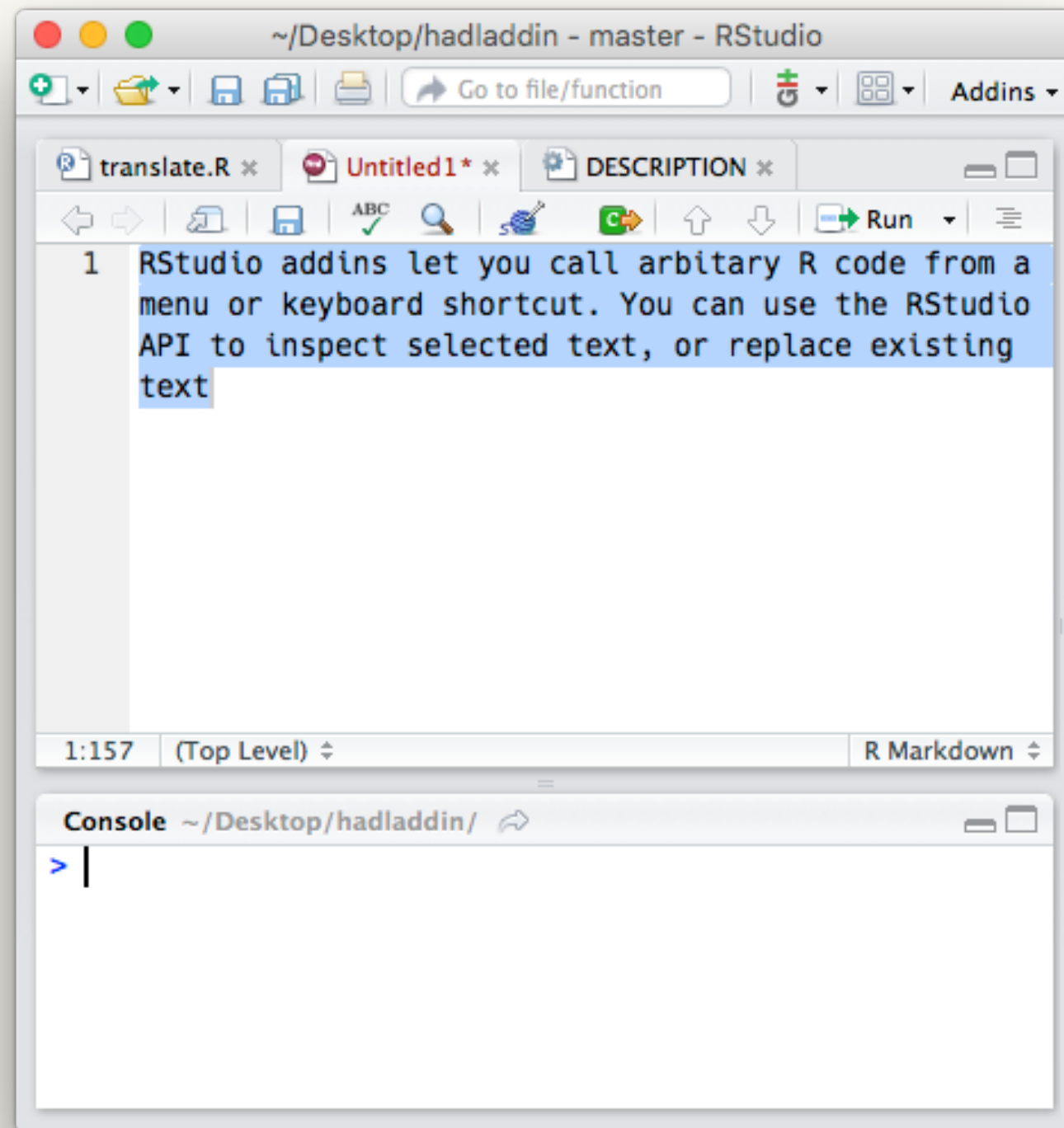
Main difference from shinyUI:  
fills all the available space.  
Designed for small spaces

<http://shiny.rstudio.com/articles/gadget-ui.html>

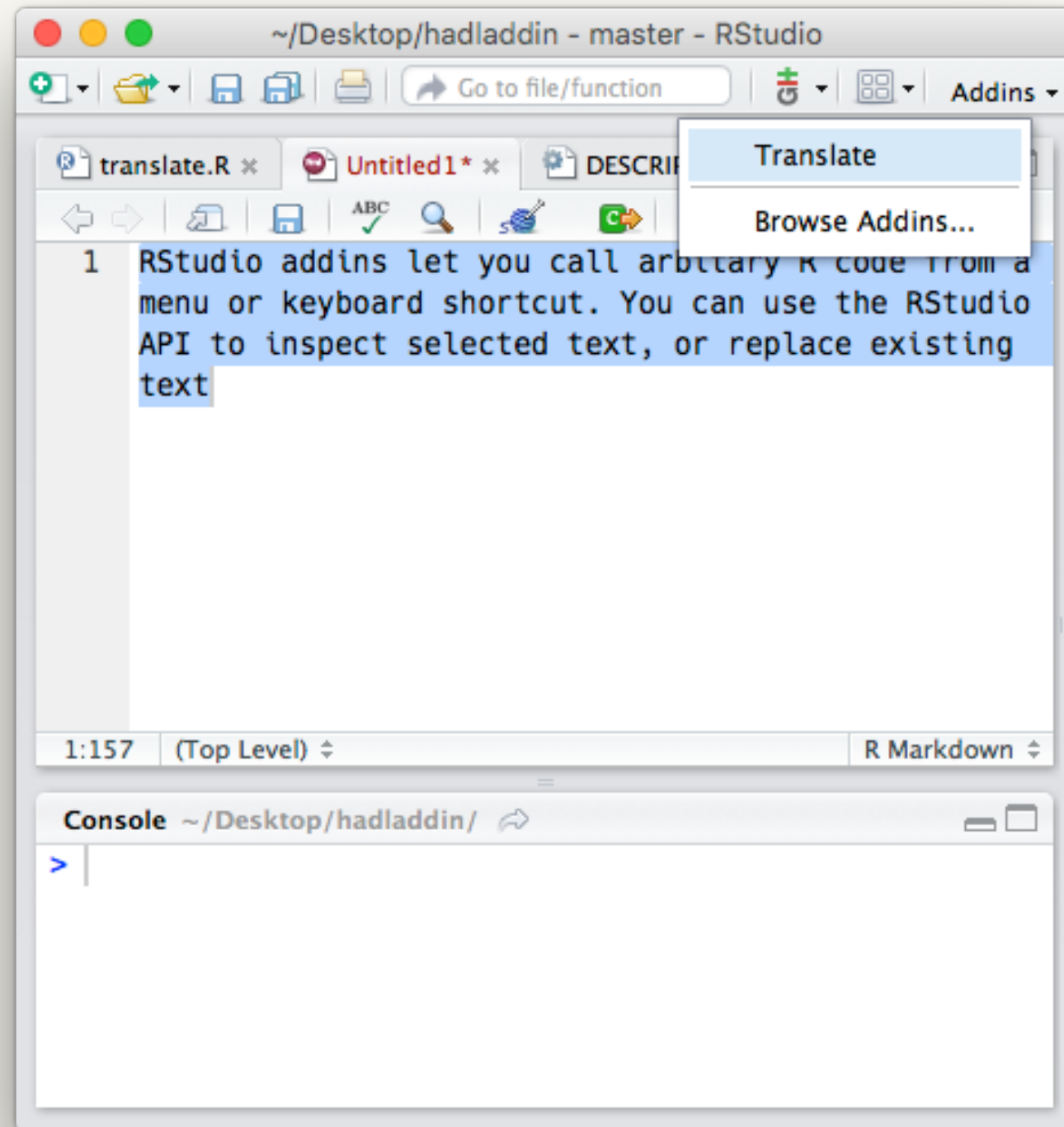
# Add-ins



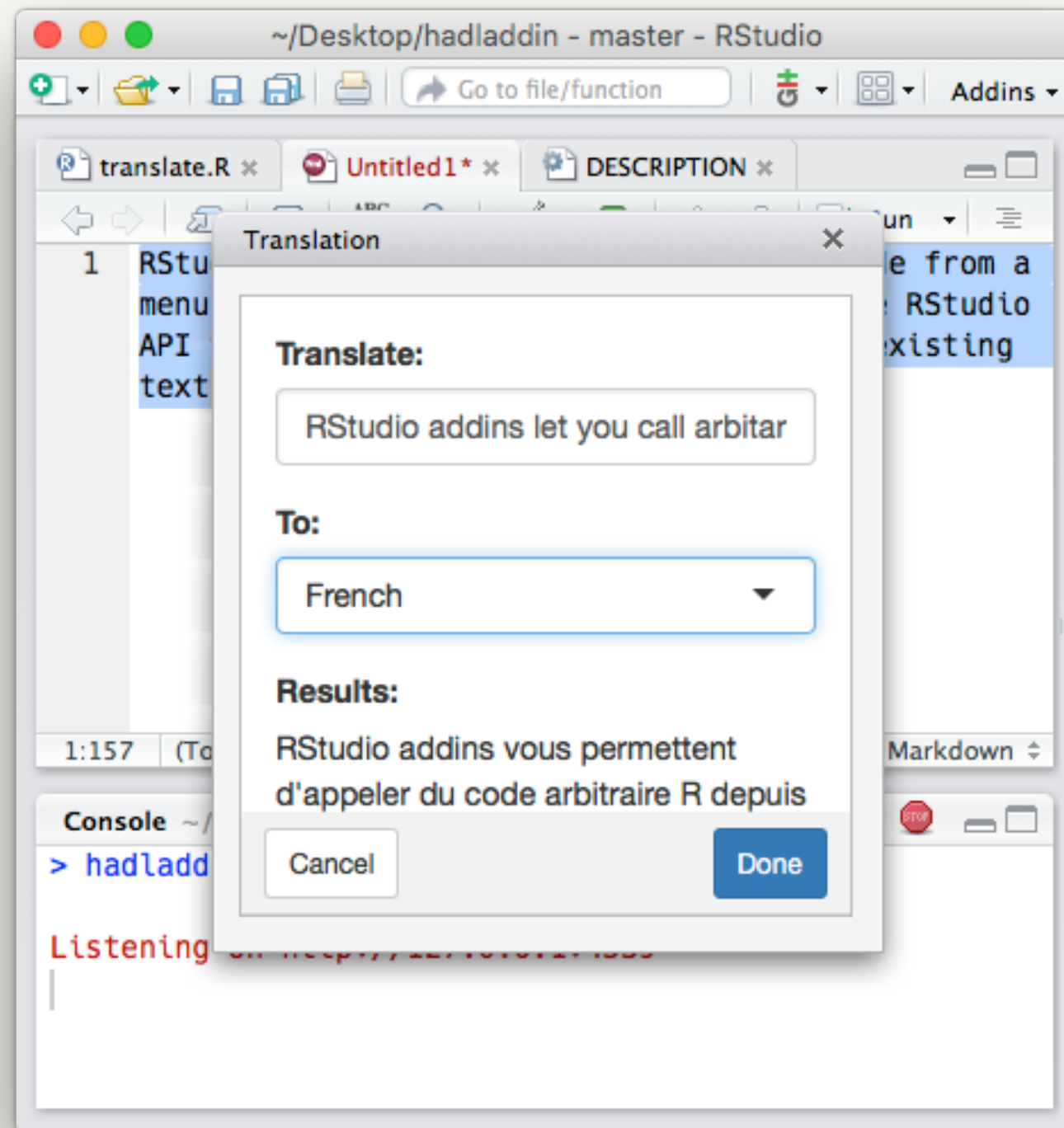
# RStudio add-ins let you call arbitrary R code



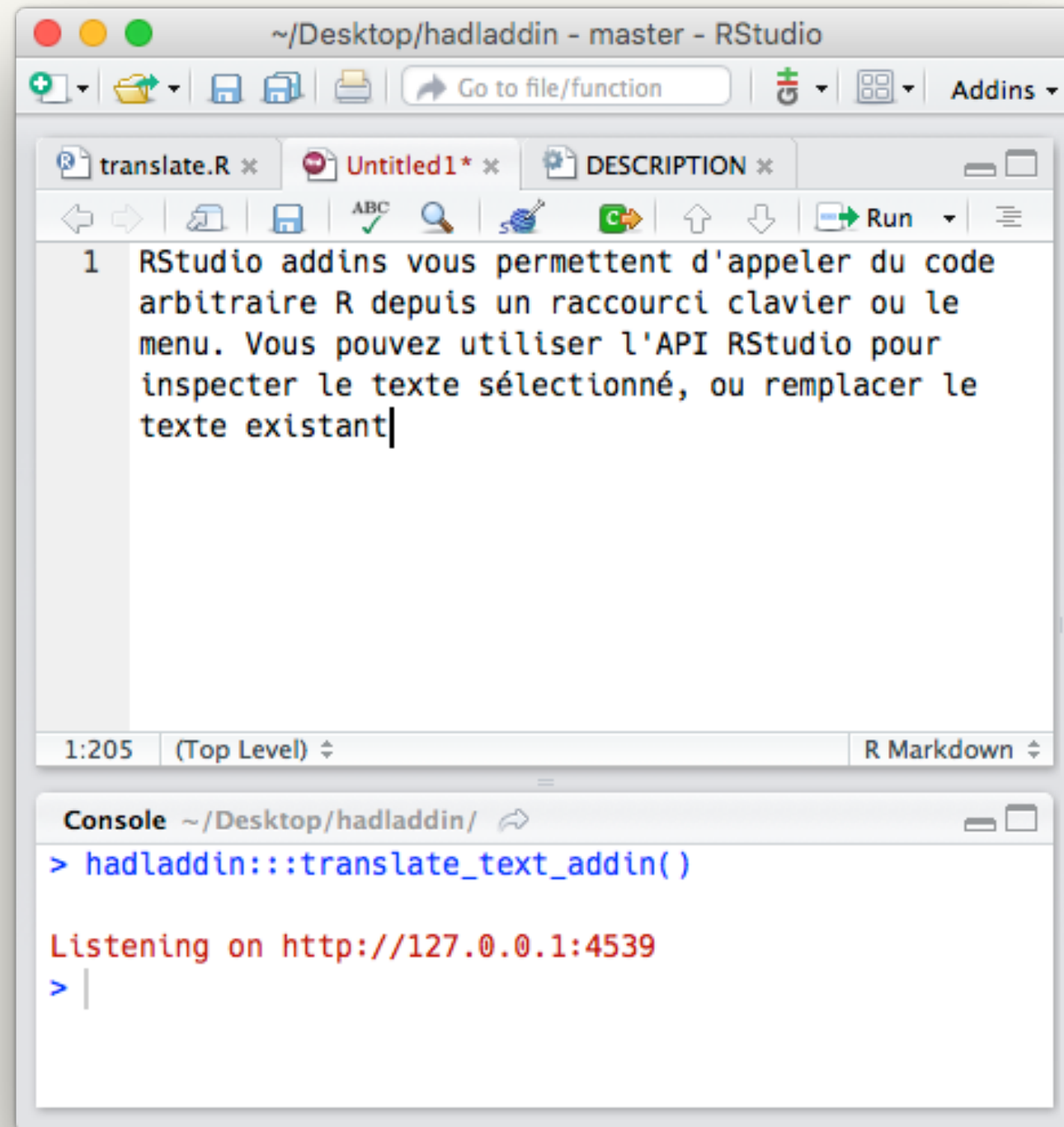
# From a menu or keyboard shortcut



# Add-ins and gadgets are a natural fit



# You can even replace existing text



In package, add `inst/rstudio/addins.dcf`:

Name: Translate

Description: Translate the currently selected text

Binding: `translate_text_addin`

Interactive: `true`

<https://github.com/hadley/hadladdin>

# Conclusion

# The potential of gadgets

Colour picker

Plot builder

Minor pontification

Things that are hard to do with code

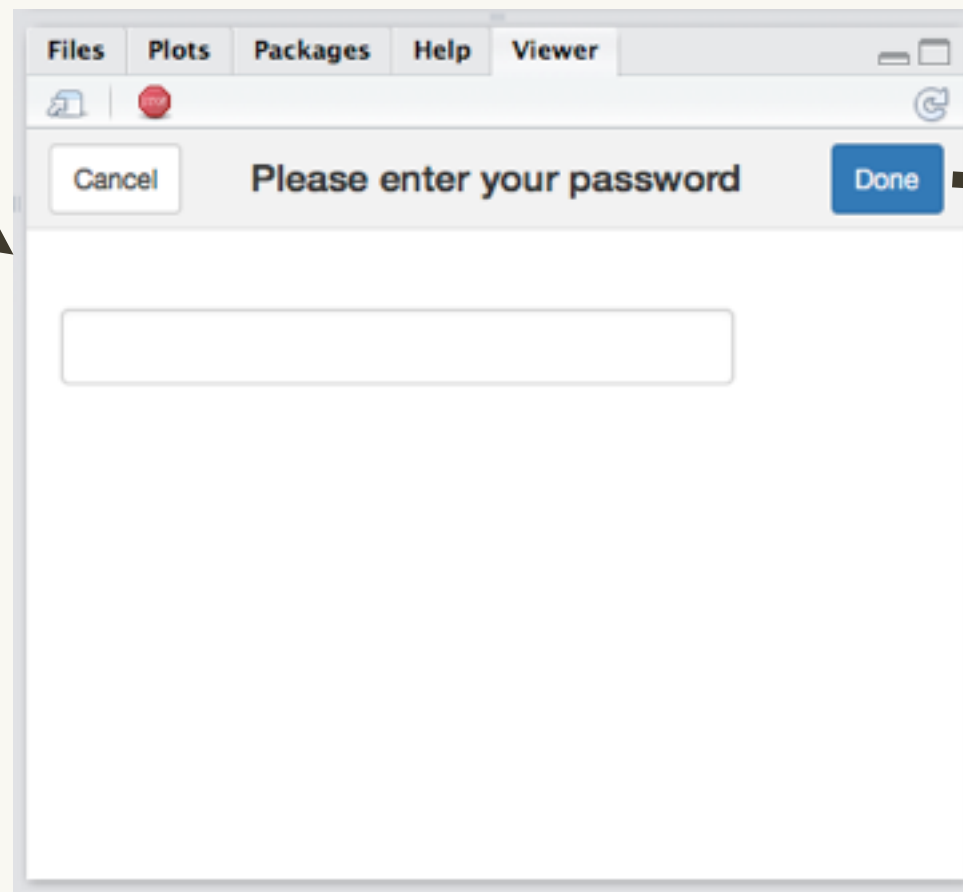
But want to be reproducibility

# To make a gadget, remember three things:

`get_password()`

<http://shiny.rstudio.com/articles/gadgets.html>

`library(miniUI)`



<http://shiny.rstudio.com/articles/gadget-ui.html>

`stopApp()`





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