

# A word on good practice code syntax in R

In the following you get some tips to style your code for the purpose of *good practice*, *readability* and *standardization*. This is not mandatory for your R code to work but it is nice to have.

## General tip

Have a look at all the options you have available if you go to **Tools -> Global Options**. You can click through different sections on the right (the top ones are probably most interesting to you) and for every section there are again some tabs on top that show different options.

I will show you some useful options below as well.

## White space

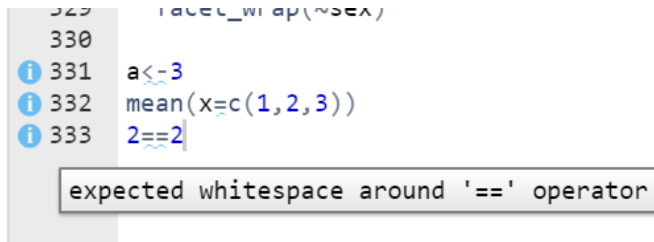
Use whitespace around operators, =, <-, ...

```
# works but not so nice
a<-3
mean(x=c(1,2,3))
2==2

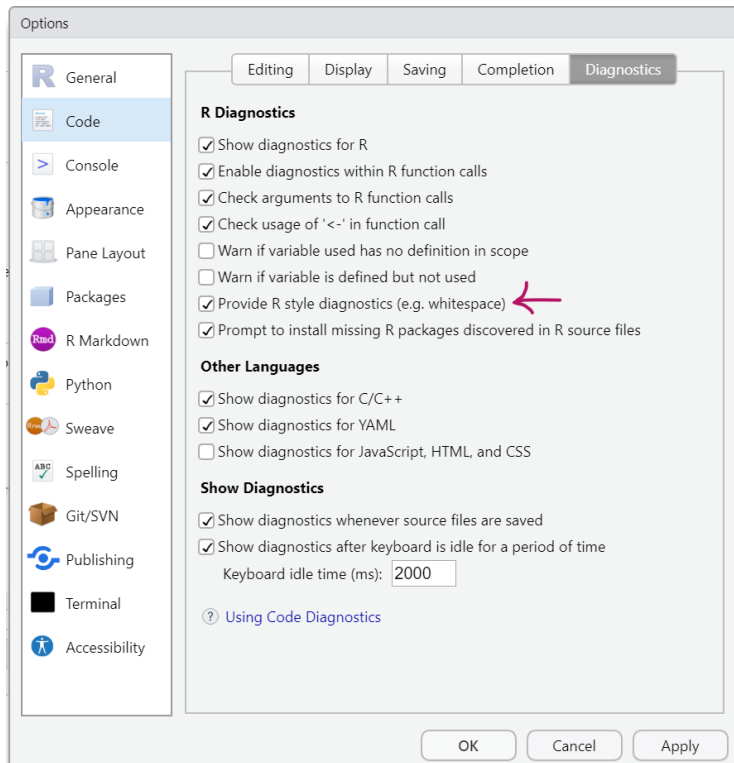
# better
a <- 3
mean(x = c(1,2,3))
2 == 2
```

## Tip:

You can turn on information about recommended white space in RStudio. Then RStudio will let you know in the side bar, if you are missing white space that is recommended. This information will look like this:



You can turn on this option by going to Tools -> Global Options -> Code -> Diagnostics and put a checkmark for Provide R style diagnostics



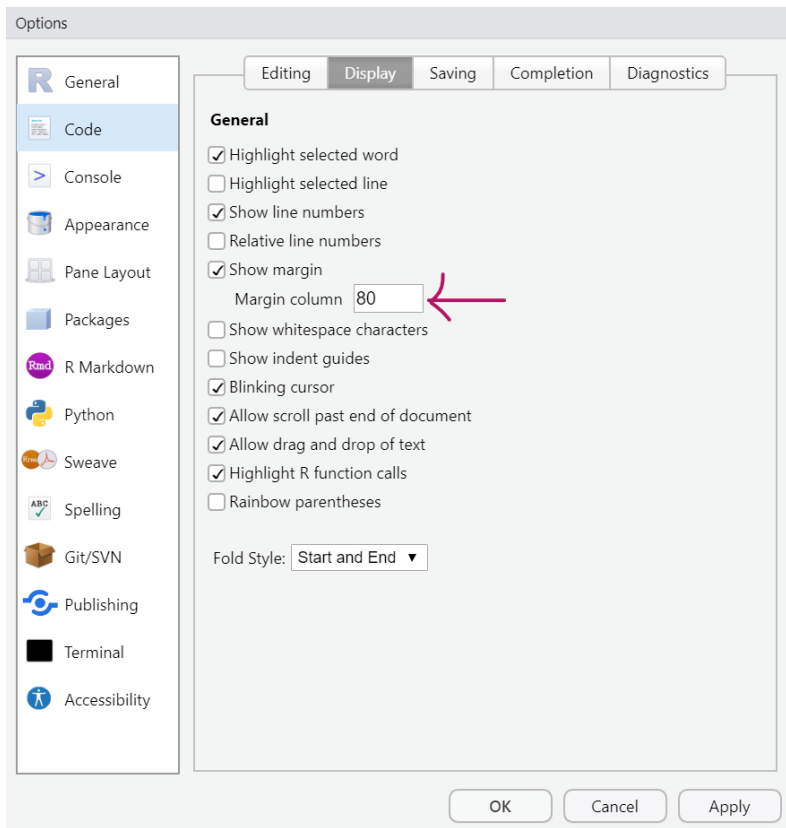
## Line width

Limit the width of a line of code and start a new line regularly. A standard is 80 characters.

This for example means:

- In ggplot always start a new line for each layer (after the +)
- If you have long comments, split them into multiple lines
- If you have functions with a lot of arguments, put each argument in its own line

There is a setting in RStudio that helps you with this. It puts a very thin, vertical line into each of your scripts to show you where you should better start a new line. To turn this on go to **Tools -> Global Options -> Code -> Display**, put a checkmark for **Show margin**



**Why?** Screens are always different and if you write very long lines you have to scroll right to read all your code.

A ggplot example:

```
# Don't do this:
ggplot(iris, aes(x = species, y = Petal.Width)) + geom_boxplot()

# Do this
ggplot(iris, aes(x = species, y = Petal.Width)) +
  geom_boxplot()

# Or even this (depending on how long your lines are - here it's a bit
# overkill):
ggplot(
```

```
iris,  
aes(x = species, y = Petal.Width)  
) +  
geom_boxplot()
```

## Use the styler package

Find the webpage with documentation of the package [here](#).

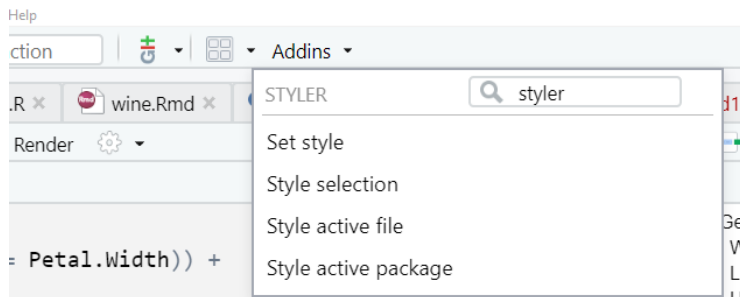
The styler package lets you style sections of your code automatically according to the tidyverse styleguide.

To use the package, you need to install it:

```
install.packages("styler")
```

After you did that you have some new styling options available. You might have to restart RStudio first.

Now on top of RStudio, look for **Addins**, there should now be a section for **Styler** that looks like this:



The two interesting options that you have are:

- **Style selection:** If you highlighted a piece of code (it always has to be an entire section of code, not just a small part of it) and you click on this, the section will be automatically styled for you.
- **Style active file:** If you click this, the R file that you have currently open will be styled automatically for you.

If you want, you can also add a keyboard shortcut to RStudio, so you don't have to click on the Addin buttons but you can style your code with a keyboard shortcut. To do this, go to **Tools -> Modify Keyboard Shortcuts**. Then on top filter for **style** and you can select the styler add in that you want to assign a keyboard shortcut to. Just type in the shortcut you want to use and you can start using the shortcut. My keyboard shortcuts e.g. look like this:

