



## R Coding Style - Indent and Comment Are Critical for Readibility and Reproducibiliy



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# ARTofR

### Do

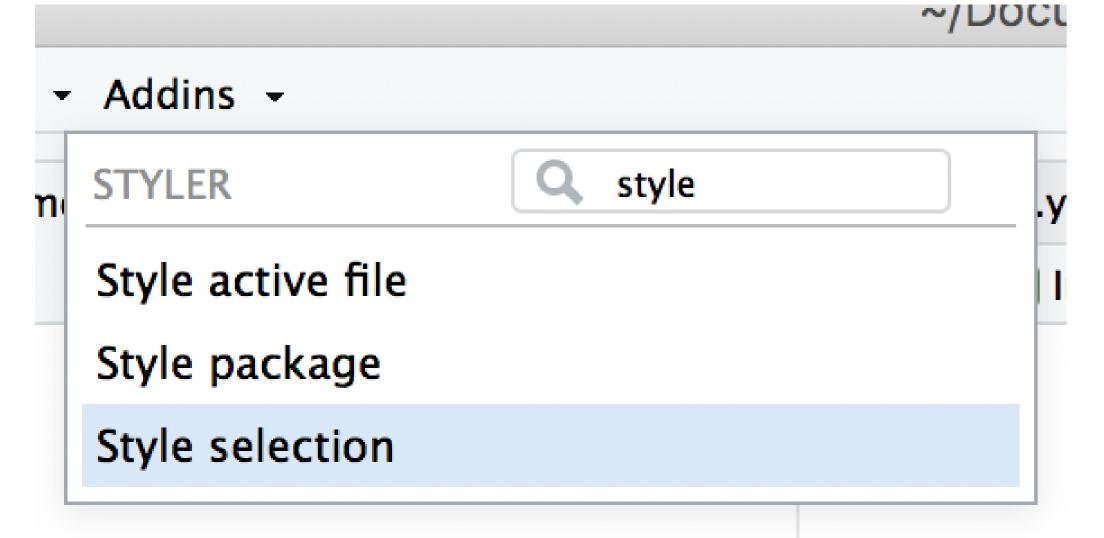
- Use snake case (e.g. my\_variable)
- Use "<-" to assign</li>
- Add a space after commas
- Use TRUE / FALSE
- Put "{" on the same line and "}" on its own line
- Use double quotation ("") mark for strings
- Add spaces around infix operators

### Don't

- Use dotted variable (e.g. my.variable)
- Use "=" to assign
- Explicitly type integers (e.g. 6L)
- Use T / F
- Terminate lines with semicolon
- Use single quotation (") mark for strings
- Use tab to indent

## soft.func <- function(m\_v, leaky = FALSE) { if (leaky) { warnings("using leaky RELU!") return(ifelse(m\_v > 0, m\_v \* 3)) } return(log(1 + exp(m\_v))) softFunc=function(m.v,leaky=F) { warnings("using leaky RELU!") return(ifelse(m.v > 0, m\_v \* 3)) return(ifelse(m.v > 0, m\_v \* 3)); }

### 'styler' for auto indent



### **Code structure**

Method 1: Rmarkdown + Rstudio

### Method 2: ARTofR (no Rstudio)

### Tips:

- sub-titles ✓ navigation panel ✓ divider ✓
- in-line comments ✓ Paragraph comments ✓
- inline comments are critical for reproduction
- Good to copy and paste paraph from email/paper to explain codes
- Read me embedded in the R script (Author; Contacts; Time; Instructions; Problems)

### Reference

There is no right in styling, the suggestions above are based on surveys and online guides:

Yen, C. Y., Chang, M. H. W., & Chan, C. H. (2022). A Computational Analysis of the Dynamics of R Style Based on 108 Million Lines of Code from All CRAN Packages in the Past 21 Years. *R JOURNAL*, 14(1), 6-

Wickham, The tidyverse style guide https://github.com/tidyverse/style

	return(log(1L+exp(m.v))); }		
exan	nple_R_code.R × ② example_R_code2.R ×	Vavigation panel	
	Source on Save	Run Source	<u> </u>
1 2 3	ARTofR::xxx_title1("My Title level 1") ## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	MY TITLE LEVE My Title Level ~ My Title Lev	EL 1 I 2
4	##	READ ME	
5 +	## MY TITLE LEVEL 1		
6	## ##		
8	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,~~~~~~~	
9	any_codes_here <- NA		
10	# replace this line with your own codes    In-line comm	Quat-c	
11	ARTofR::xxx_title2("My Title Level 2")	EVILS	
12	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,~~~~~~	
13 <del>-</del> 14	##		
15			
16	any_codes_here <- NA		
	ARTofR::xxx_title3("My Title Level 3")		
18	# This line will provide decorated title:		
19 20 -	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
21	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
22			
23	ARTofR::xxx_divider1("")		
24	#		
25 26	di	ivider	
27	ARTofR::xxx_divider2("I am a devider")		
28	# I am a devider ~~~		
29	# ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
30			
31 32	ARTofR::xxx_box1("I am lots of texts to explain the science behind a	hove R codes.	
33	I am lots of texts to explain the science behind ab		
34	I am lots of texts to explain the science behind ab	-	
35	I am lots of texts to explain the science behind ab	ove R codes;")	
36	#		
37 38	<pre># # I am lots of texts to explain the science behind above R codes; I</pre>	am lots	
	# of texts to explain the science behind above R codes; I am lots of		
40	# to explain the science behind above R codes; I am lots of texts t		
41	# the science behind above R codes;	-	
	# Paragraph comments	-	
43 44	#		
45			
46			
47	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,~~~~~~	
48 49 +			
50	## KEAD ME		
51	## ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	.~~~~~~	
52 53	ARTofR::xxx_box("This is an example readme: Xiongjie Deng and Huanyu	ıan Zhang-zheng r	
54 55	# This is an evample readmer Viencije Deng and Huanyuan Zhang zhang	ı mado	
55 56	# This is an example readme: Xiongjie Deng and Huanyuan Zhang-zheng # this file on 06/07/2023; Email contact is huanyuan.zhang@ouce.ox.		
57	# made this script as an example to show package ARTofR and explain		
58	# R script; The contants will be used in a poster for ICCS conferen		
59 60	# published on Github for free access afterward		