Graphical Parameters

You can customize many features of your graphs (fonts, colors, axes, titles) through graphic options.

One way is to specify these options in through the par() function. If you set parameter values here, the changes will be in effect for the rest of the session or until you change them again. The format is par(optionname=value, optionname=value, ...)

Text and Symbol Size

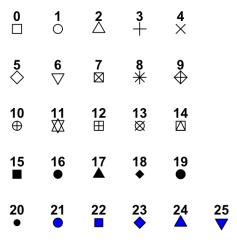
The following options can be used to control text and symbol size in graphs.

option	description
cex	number indicating the amount by which plotting text and symbols should be scaled relative to the default. 1=default, 1.5 is 50% larger, 0.5 is 50% smaller, etc.
cex.axis	magnification of axis annotation relative to cex
cex.lab	magnification of x and y labels relative to cex
cex.main	magnification of titles relative to cex
cex.sub	magnification of subtitles relative to cex

Plotting Symbols

Use the pch= option to specify symbols to use when plotting points. For symbols 21 through 25, specify border color (col=) and fill color (bg=).

For more details: http://www.sthda.com/english/wiki/r-plot-pch-symbols-the-different-point-shapes-available-in-r



Lines

You can change lines using the following options. This is particularly useful for reference lines, axes, and fit lines.

option	description
Ity	line type. see the chart below.
lwd	line width relative to the default (default=1). 2 is twice as wide.

For more details: http://www.sthda.com/english/wiki/line-types-in-r-lty

Line Types: Ity=



Colours

Options that specify colours include the following.

option	description
col	Default plotting color. Some functions (e.g. lines) accept a vector of values that are recycled.
col.axis	color for axis annotation
col.lab	color for x and y labels
col.main	color for titles
col.sub	color for subtitles
fg	plot foreground color (axes, boxes - also sets col= to same)
bg	plot background color

You can specify colors in R by index, name, hexadecimal, or RGB. For example **col=1**, **col="white"**, and **col="#FFFFF"** are equivalent. The following chart was produced with code developed by Earl F Glynn.

For more details: http://www.sthda.com/english/wiki/colors-in-r

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275
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You can also create a vector of *n* contiguous colors using the functions **rainbow**(*n*), **heat.colors**(*n*), **terrain.colors**(*n*), **topo.colors**(*n*), and **cm.colors**(*n*). **colors**() returns all available color names.

Fonts

You can easily set font size and style, but font family is a bit more complicated.

option	description
font	Integer specifying font to use for text. 1=plain, 2=bold, 3=italic, 4=bold italic, 5=symbol
font.axis	font for axis annotation
font.lab	font for x and y labels
font.main	font for titles
font.sub	font for subtitles
ps	font point size (roughly 1/72 inch) text size=ps*cex
family	font family for drawing text. Standard values are "serif", "sans", "mono", "symbol". Mapping is device dependent.

Margins and Graph Size

You can control the margin size using the following parameters.

option	description
mar	numerical vector indicating margin size c(bottom, left, top, right) in lines. default = $c(5, 4, 4, 2) + 0.1$
mai	numerical vector indicating margin size c(bottom, left, top, right) in inches
pin	plot dimensions (width, height) in inches

Some other useful links:

Add titles to a plot. http://www.sthda.com/english/wiki/add-titles-to-a-plot-in-r-software

Add legends to plots. http://www.sthda.com/english/wiki/add-legends-to-plots-in-r-software-the-easiest-way

Add texts to a plot. http://www.sthda.com/english/wiki/add-text-to-a-plot-in-r-software

Add straight lines. http://www.sthda.com/english/wiki/abline-r-function-an-easy-way-to-add-straight-lines-to-a-plot-using-r-software

Add an axis to a plot. http://www.sthda.com/english/wiki/add-an-axis-to-a-plot-with-r-software

Change axis scale in R. http://www.sthda.com/english/wiki/axis-scale-in-r-software-minimum-maximum-and-log-scale

Axes and Text. https://www.statmethods.net/advgraphs/axes.html

Combining Plots. https://www.statmethods.net/advgraphs/layout.html