

rlistings - Listings with R :: CHEAT SHEET



Basics

The **rlistings** R package is designed to create and display simple listings with R. Every listing is constructed from a data frame using the **as_listing** function. Listings are returned as **listing_df** objects, which inherit from the data frame class.

CODE

```
lstg_a <- as_listing(
  head(adsl, 10),
  key_cols = c("ARM", "STRATA1"),
  disp_cols = c(
    "STRATA2", "AGE", "BMRKR2"
  )
)
```

LISTING OUTPUT

Arm	Stratif. Factor 1	Stratif. Factor 2	Age	Bmrkr Lv1 2
ARM X	B	X	27	NA
		X	43	LOW
ARM Y	A	X	25	NA
		Y	34	HIGH
		Y	50	LOW
	B	Y	NA	LOW
		Y	42	HIGH
		X	NA	LOW
	NA	Y	26	LOW
		Y	32	HIGH

Customization Options

AS_LISTING PARAMETERS

Argument	Input	Description
df	A data frame	Data frame to be converted to a listing
key_cols	Names of columns to use as key columns	Key columns are printed to the left and used to group repeat occurrences
disp_cols	Names of columns to use as display columns	Display columns (in addition to key columns) are included in the listing
non_disp_cols	Names of columns to use as non-display columns	Columns to exclude from the listing. Can be specified instead of disp_cols
unique_rows	TRUE or FALSE	Whether only unique rows should be included
default_formatting	A named list of default format configurations	Default configurations to apply when formatting columns of different types
col_formatting	A named list of column-specific format configurations	Formatting configurations to apply to individually specified columns
main_title	String to use as a main title	Main title to display above listing
subtitles	Strings to use as subtitles	Subtitles to display under the main title
main_footer	Strings to use as main footers	Main footers to display below listing
prov_footer	Strings to use as provenance footers	Provenance footers to display below the main footers

Titles & Footers

CODE

```
main_title(lstg) <- "My Title"
subtitles(lstg) <- c("A subtitle")
main_footer(lstg) <- c("A footnote")
prov_footer(lstg) <- c("A provenance footer")
```

LISTING OUTPUT

My Title				
A subtitle				
Arm	Stratif. Factor 1	Stratif. Factor 2	Age	Bmrkr Lv1 2
ARM X	B	X	27	NA
		X	43	LOW
ARM Y	A	Y	34	HIGH
		Y	50	LOW
		Y	42	HIGH
	B	X	NA	LOW
		Y	26	LOW
A footnote				
A provenance footer				

For more information see the [Titles and Footers section](#) of the Introduction vignette, for information on adding referential footnotes see the [Referential Footnotes vignette](#)



Key Columns

Key columns can be specified in a listing so that sequentially repeated values are not displayed. This means that each unique combination of values for all key columns is printed only once per listing. Additionally, listings are sorted on the values of the specified key columns.

CODE

```
lstg <- as_listing(
  head(adsl, 8),
  key_cols = c("ARM", "STRATA1", "STRATA2"),
  disp_cols = c("AGE", "BMRKR2")
)
```

LISTING OUTPUT

Arm	Stratif. Factor 1	Stratif. Factor 2	Age	Bmrkr Lvl 2
ARM X	B	X	27	NA
			43	LOW
			25	NA
ARM Y	A	Y	34	HIGH
			50	LOW
			NA	LOW
	B	X	NA	LOW
			42	HIGH
			26	LOW
	NA	Y	32	HIGH

For more information see the [Key Columns section](#) of the Introduction vignette

Column Formatting

Formatting configurations can be specified for listings to specify the format, NA replacement string, and alignment to use for listing columns. Default formatting configurations can be set using the **default_formatting** parameter for the overall listing, as well as by column data type. In addition, column-specific formatting configurations can also be set using the **col_formatting** parameter.

DEFAULT FORMATTING

CODE

```
default_fmt <- list(
  all = fmt_config(na_str = "MISSING", align = "left"),
  numeric = fmt_config(format = "xx.xx",
    na_str = "<No data>", align = "decimal"
  )
)

lstg <- as_listing(
  adsl_missing,
  key_cols = c("ARM", "STRATA1"),
  disp_cols = c("AGE", "BMRKR2"),
  default_formatting = default_fmt
)
```

LISTING
OUTPUT

Arm	Stratif. Factor 1	Stratif. Factor 2	Age	Bmrkr Lvl 2
ARM X	B	X	27.00	MISSING
			43.00	LOW
			25.00	MISSING
ARM Y	A	Y	34.00	HIGH
			50.00	LOW
			<No data>	LOW
	B	Y	42.00	HIGH
			<No data>	LOW
			26.00	LOW
	MISSING	Y	32.00	HIGH

For information on column formatting, see the [Column Formatting vignette](#)

COLUMN FORMATTING

CODE

```
col_fmt <- list(
  BMRKR2 = fmt_config(
    format = function(x, ...) paste("Lvl:", x),
    na_str = "MISSING",
    align = "right"
  )
)

lstg <- as_listing(
  adsl_missing,
  key_cols = c("ARM", "STRATA1"),
  disp_cols = c("AGE", "BMRKR2"),
  col_formatting = col_fmt
)
```

LISTING
OUTPUT

Arm	Stratif. Factor 1	Stratif. Factor 2	Age	Bmrkr Lvl 2
ARM X	B	X	27	MISSING
			43	Level: LOW
			25	MISSING
ARM Y	A	Y	34	Level: HIGH
			50	Level: LOW
			NA	Level: LOW
	B	Y	42	Level: HIGH
			NA	Level: LOW
			26	Level: LOW
	NA	Y	32	Level: HIGH

Rendering

rlistings returns listings as listing data frames, with a custom print method for these **listing_df** objects. **rlisting** objects can also be paginated, converted to different output types in the console, and exported to various file types.

PAGINATION

```
paginate_listing(
  lsting,
  page_type = "letter",
  font_family = "Courier",
  font_size = 8,
  landscape = FALSE,
  verbose = FALSE
)
```

For more information on listing pagination and additional customization options, see the [Pagination vignette](#)

EXPORT



```
export_as_pdf(lstg, "lstg.pdf")
```

```
export_as_rtf(lstg, "lstg.rtf")
```

```
export_as_txt(lstg, "lstg.txt")
```

