

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("AGE", "BMRKR2")
)
```

LISTING OUTPUT

Arm	Stratification Factor 1	Age	Biomarker Level 2
ARM X	A	30	LOW
		39	HIGH
		32	HIGH
	B	26	LOW
		27	HIGH
		25	HIGH
ARM Y	A	39	HIGH
		27	LOW
		36	LOW
	B	30	HIGH
		26	LOW
		57	HIGH
		36	LOW
		26	LOW
		42	LOW

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	Stratification Factor 1	Age	Biomarker Level 2
ARM X	A	30	LOW
		39	HIGH
	B	26	LOW
		27	HIGH
ARM Y	A	27	LOW
		26	LOW
	B	57	HIGH
		A footnote	
A provenance footer			

For more information see the [Titles and Footers section](#) of the Introduction 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	Stratification Factor 1	Stratification Factor 2	Age	Biomarker Level 2
ARM X	A	X	30	LOW
		Y	39	HIGH
	B	X	27	HIGH
		Y	39	HIGH
ARM Y	A	Y	26	LOW
		X	27	LOW
	B	X	26	LOW
		Y	57	HIGH
			36	LOW

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	Stratification Factor 1	Age	Biomarker Level 2
ARM X	A	<No data>	LOW
		39.00	HIGH
	B	<No data>	HIGH
		26.00	MISSING
ARM Y	A	<No data>	HIGH
		27.00	LOW
	B	36.00	LOW
		30.00	MISSING
		26.00	LOW
		57.00	HIGH
	MISSING	36.00	LOW

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	Stratification Factor 1	Age	Biomarker Level 2
ARM X	A	NA	Lvl: LOW
		39	Lvl: HIGH
	B	NA	Lvl: HIGH
		26	MISSING
ARM Y	A	NA	Lvl: HIGH
		27	Lvl: LOW
	B	36	Lvl: LOW
		30	MISSING
		26	Lvl: LOW
		57	Lvl: HIGH
	NA	36	Lvl: LOW

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

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")`

