

The Lisp-Stat Reference Manual

A statistical computing environment for Common Lisp, version 2.0

Steve Nunez <steve@symbolics.tech>

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1 Systems

The main system appears first, followed by any subsystem dependency.

1.1 lisp-stat

Author Steve Nunez <steve@symbolics.tech>

License MS-PL

Description

A statistical computing environment for Common Lisp

Version 2.0

Dependencies

- alexandria
- array-operations
- data-frame
- dfio
- num-utils
- select
- dexador
- split-sequence

Source [lisp-stat.asd], page 5, (file)

Directory s:/src/lisp-stat/

Components

- [pkgdcls.lisp], page 5, (file)
- [license], page 8, (file)
- [base], page 3, (module)
- [statistics], page 3, (module)
- [docs], page 3, (module)
- [ls-init.lisp], page 8, (file)

2 Modules

Modules are listed depth-first from the system components tree.

2.1 lisp-stat/base

Parent [lisp-stat], page 1, (system)

Location base/

Components

- [variables.lisp], page 5, (file)
- [rdata.lisp], page 5, (file)

2.2 lisp-stat/statistics

Parent [lisp-stat], page 1, (system)

Location statistics/

Component

[stats.lisp], page 8, (file)

2.3 lisp-stat/docs

Parent [lisp-stat], page 1, (system)

Location docs/

Component

[doc-strings.lisp], page 8, (file)

3 Files

Files are sorted by type and then listed depth-first from the systems components trees.

3.1 Lisp

3.1.1 lisp-stat.asd

Location lisp-stat.asd

Systems [lisp-stat], page 1, (system)

3.1.2 lisp-stat/pkgdcls.lisp

Parent [lisp-stat], page 1, (system)

Location pkgdcls.lisp

Packages [lisp-stat], page 9,

3.1.3 lisp-stat/base/variables.lisp

Parent [base], page 3, (module)

Location base/variables.lisp

Exported Definitions

- [def], page 26, (macro)
- [savevar], page 27, (function)
- [undef-var], page 27, (function)
- [variables], page 27, (function)

Internal Definitions

- [*ask-on-redefine*], page 28, (special variable)
- [*variables*], page 28, (special variable)
- [save-obj], page 31, (generic function)

3.1.4 lisp-stat/base/rdata.lisp

Dependency

[variables.lisp], page 5, (file)

Parent [base], page 3, (module)

Location base/rdata.lisp

Packages [rdata], page 9,

Exported Definitions

- [*r-default-datasets*], page 15, (special variable)
- [ability.cov], page 15, (special variable)
- [airmiles], page 15, (special variable)
- [airpassengers], page 15, (special variable)
- [airquality], page 15, (special variable)
- [anscombe], page 15, (special variable)
- [attenu], page 15, (special variable)
- [attitude], page 15, (special variable)

- [austres], page 16, (special variable)
- [base-url], page 16, (special variable)
- [bjsales], page 16, (special variable)
- [bod], page 16, (special variable)
- [cars], page 16, (special variable)
- [chickweight], page 16, (special variable)
- [chickwts], page 16, (special variable)
- [co2-1], page 16, (special variable)
- [co2-2], page 16, (special variable)
- [crimtab], page 17, (special variable)
- [discoveries], page 17, (special variable)
- [dnase], page 17, (special variable)
- [esoph], page 17, (special variable)
- [euro], page 17, (special variable)
- [eustockmarkets], page 17, (special variable)
- [faithful], page 17, (special variable)
- [formaldehyde], page 17, (special variable)
- [freeny], page 17, (special variable)
- [haireyecolor], page 18, (special variable)
- [harman23.cor], page 18, (special variable)
- [harman74.cor], page 18, (special variable)
- [index], page 18, (special variable)
- [indometh], page 18, (special variable)
- [infert], page 18, (special variable)
- [insectsprays], page 18, (special variable)
- [iris], page 18, (special variable)
- [iris3], page 18, (special variable)
- [islands], page 18, (special variable)
- [johnsonjohnson], page 19, (special variable)
- [lakehuron], page 19, (special variable)
- [lh], page 19, (special variable)
- [lifecyclesavings], page 19, (special variable)
- [load-r-default-datasets], page 27, (function)
- [load-r-metadata], page 27, (function)
- [loblolly], page 19, (special variable)
- [longley], page 19, (special variable)
- [lynx], page 19, (special variable)
- [morley], page 19, (special variable)
- [mpg], page 19, (special variable)
- [mtcars], page 20, (special variable)
- [nhtemp], page 20, (special variable)
- [nile], page 20, (special variable)
- [nottem], page 20, (special variable)

- `[npk]`, page 20, (special variable)
- `[nycflights13-airlines]`, page 20, (special variable)
- `[nycflights13-airports]`, page 20, (special variable)
- `[nycflights13-flights]`, page 20, (special variable)
- `[nycflights13-planes]`, page 20, (special variable)
- `[nycflights13-weather]`, page 21, (special variable)
- `[occupationalstatus]`, page 21, (special variable)
- `[orange]`, page 21, (special variable)
- `[orchardsprays]`, page 21, (special variable)
- `[plantgrowth]`, page 21, (special variable)
- `[precip]`, page 21, (special variable)
- `[presidents]`, page 21, (special variable)
- `[pressure]`, page 21, (special variable)
- `[puromycin]`, page 21, (special variable)
- `[quakes]`, page 22, (special variable)
- `[randu]`, page 22, (special variable)
- `[rivers]`, page 22, (special variable)
- `[rock]`, page 22, (special variable)
- `[save-r-data]`, page 27, (function)
- `[save-r-default-datasets]`, page 27, (function)
- `[seatbelts]`, page 22, (special variable)
- `[stackloss]`, page 22, (special variable)
- `[sunspot.month]`, page 22, (special variable)
- `[sunspot.year]`, page 22, (special variable)
- `[sunspots]`, page 22, (special variable)
- `[swiss]`, page 23, (special variable)
- `[theoph]`, page 23, (special variable)
- `[titanic]`, page 23, (special variable)
- `[toothgrowth]`, page 23, (special variable)
- `[treering]`, page 23, (special variable)
- `[trees]`, page 23, (special variable)
- `[ucbadmissions]`, page 23, (special variable)
- `[ukdriverdeaths]`, page 23, (special variable)
- `[ukgas]`, page 23, (special variable)
- `[usaccdeaths]`, page 24, (special variable)
- `[usarrests]`, page 24, (special variable)
- `[usjudgeratings]`, page 24, (special variable)
- `[uspersonalexpenditure]`, page 24, (special variable)
- `[uspop]`, page 24, (special variable)
- `[vadeaths]`, page 24, (special variable)
- `[volcano]`, page 24, (special variable)
- `[warpbreaks]`, page 24, (special variable)
- `[women]`, page 24, (special variable)

- [worldphones], page 25, (special variable)
- [wwwusage], page 25, (special variable)

Internal Definitions

- [*r-default-dataframes*], page 28, (special variable)
- [student-sleep], page 28, (special variable)

3.1.5 lisp-stat/statistics/stats.lisp

Parent [statistics], page 3, (module)

Location statistics/stats.lisp

Exported Definitions

- [fivenum], page 26, (function)
- [interquartile-range], page 27, (function)

3.1.6 lisp-stat/docs/doc-strings.lisp

Parent [docs], page 3, (module)

Location docs/doc-strings.lisp

3.1.7 lisp-stat/ls-init.lisp

Parent [lisp-stat], page 1, (system)

Location ls-init.lisp

Packages [ls-user], page 12,

Internal Definitions

[setup-ls-translations], page 31, (function)

3.2 Static**3.2.1 lisp-stat/license**

Parent [lisp-stat], page 1, (system)

Location LICENSE

4 Packages

Packages are listed by definition order.

4.1 lisp-stat

Base functions for Lisp-Stat

Source [pkgdcls.lisp], page 5, (file)

Nickname ls

Use List

- split-sequence
- select
- num-utils.print-matrix
- num-utils.utilities
- num-utils.elementwise
- num-utils.statistics
- num-utils.arithmetic
- dfio
- data-frame
- array-operations/all
- alexandria
- common-lisp

Used By List

[ls-user], page 12,

Exported Definitions

- [def], page 26, (macro)
- [fivenum], page 26, (function)
- [interquartile-range], page 27, (function)
- [savevar], page 27, (function)
- [undef-var], page 27, (function)
- [variables], page 27, (function)

Internal Definitions

- [*ask-on-redefine*], page 28, (special variable)
- [*variables*], page 28, (special variable)
- [save-obj], page 31, (generic function)
- [setup-ls-translations], page 31, (function)

4.2 rdata

Source [rdata.lisp], page 5, (file)

Use List common-lisp

Exported Definitions

- [*r-default-datasets*], page 15, (special variable)
- [ability.cov], page 15, (special variable)

- [airmiles], page 15, (special variable)
- [airpassengers], page 15, (special variable)
- [airquality], page 15, (special variable)
- [anscombe], page 15, (special variable)
- [attenu], page 15, (special variable)
- [attitude], page 15, (special variable)
- [austres], page 16, (special variable)
- [base-url], page 16, (special variable)
- [bjsales], page 16, (special variable)
- [bod], page 16, (special variable)
- [cars], page 16, (special variable)
- [chickweight], page 16, (special variable)
- [chickwts], page 16, (special variable)
- [co2-1], page 16, (special variable)
- [co2-2], page 16, (special variable)
- [crimtab], page 17, (special variable)
- [discoveries], page 17, (special variable)
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- [esoph], page 17, (special variable)
- [euro], page 17, (special variable)
- [eustockmarkets], page 17, (special variable)
- [faithful], page 17, (special variable)
- [formaldehyde], page 17, (special variable)
- [freeny], page 17, (special variable)
- [haireyecolor], page 18, (special variable)
- [harman23.cor], page 18, (special variable)
- [harman74.cor], page 18, (special variable)
- [index], page 18, (special variable)
- [indometh], page 18, (special variable)
- [infert], page 18, (special variable)
- [insectsprays], page 18, (special variable)
- [iris], page 18, (special variable)
- [iris3], page 18, (special variable)
- [islands], page 18, (special variable)
- [johnsonjohnson], page 19, (special variable)
- [lakehuron], page 19, (special variable)
- [lh], page 19, (special variable)
- [lifecyclesavings], page 19, (special variable)
- [load-r-default-datasets], page 27, (function)
- [load-r-metadata], page 27, (function)
- [loblolly], page 19, (special variable)
- [longley], page 19, (special variable)
- [lynx], page 19, (special variable)

- `[morley]`, page 19, (special variable)
- `[mpg]`, page 19, (special variable)
- `[mtcars]`, page 20, (special variable)
- `[nhtemp]`, page 20, (special variable)
- `[nile]`, page 20, (special variable)
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- `[orchardsprays]`, page 21, (special variable)
- `[plantgrowth]`, page 21, (special variable)
- `[precip]`, page 21, (special variable)
- `[presidents]`, page 21, (special variable)
- `[pressure]`, page 21, (special variable)
- `[puromycin]`, page 21, (special variable)
- `[quakes]`, page 22, (special variable)
- `[randu]`, page 22, (special variable)
- `[rivers]`, page 22, (special variable)
- `[rock]`, page 22, (special variable)
- `[save-r-data]`, page 27, (function)
- `[save-r-default-datasets]`, page 27, (function)
- `[seatbelts]`, page 22, (special variable)
- `[stackloss]`, page 22, (special variable)
- `[sunspot.month]`, page 22, (special variable)
- `[sunspot.year]`, page 22, (special variable)
- `[sunspots]`, page 22, (special variable)
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- `[usarrests]`, page 24, (special variable)
- `[usjudgeratings]`, page 24, (special variable)

- [uspersonalexpenditure], page 24, (special variable)
- [uspop], page 24, (special variable)
- [vadeaths], page 24, (special variable)
- [volcano], page 24, (special variable)
- [warpbreaks], page 24, (special variable)
- [women], page 24, (special variable)
- [worldphones], page 25, (special variable)
- [wwwusage], page 25, (special variable)

Internal Definitions

- [*r-default-dataframes*], page 28, (special variable)
- [student-sleep], page 28, (special variable)

4.3 ls-user

User package for Lisp-Stat

Source [ls-init.lisp], page 8, (file)

Use List

- [lisp-stat], page 9,
- common-lisp

Exported Definitions

- [plantgrowth\$group], page 25, (symbol macro)
- [plantgrowth\$weight], page 25, (symbol macro)
- [plantgrowth\$x6], page 25, (symbol macro)
- [toothgrowth\$dose], page 25, (symbol macro)
- [toothgrowth\$len], page 25, (symbol macro)
- [toothgrowth\$supp], page 25, (symbol macro)
- [toothgrowth\$x5], page 25, (symbol macro)
- [usarrests\$assault], page 26, (symbol macro)
- [usarrests\$murder], page 26, (symbol macro)
- [usarrests\$rape], page 26, (symbol macro)
- [usarrests\$urbanpop], page 26, (symbol macro)
- [usarrests\$x7], page 26, (symbol macro)

Internal Definitions

- [*default-datasets*], page 28, (special variable)
- [+copyright-years+], page 28, (constant)
- [cars], page 28, (special variable)
- [cars\$acceleration], page 29, (symbol macro)
- [cars\$cylinders], page 29, (symbol macro)
- [cars\$displacement], page 29, (symbol macro)
- [cars\$horsepower], page 29, (symbol macro)
- [cars\$miles-per-gallon], page 29, (symbol macro)
- [cars\$name], page 29, (symbol macro)
- [cars\$origin], page 29, (symbol macro)

- `[cars$weight-in-lbs]`, page 29, (symbol macro)
- `[cars$year]`, page 29, (symbol macro)
- `[mtcars]`, page 28, (special variable)
- `[mtcars$am]`, page 29, (symbol macro)
- `[mtcars$carb]`, page 29, (symbol macro)
- `[mtcars$cyl]`, page 29, (symbol macro)
- `[mtcars$disp]`, page 30, (symbol macro)
- `[mtcars$drat]`, page 30, (symbol macro)
- `[mtcars$gear]`, page 30, (symbol macro)
- `[mtcars$hp]`, page 30, (symbol macro)
- `[mtcars$mpg]`, page 30, (symbol macro)
- `[mtcars$qsec]`, page 30, (symbol macro)
- `[mtcars$vs]`, page 30, (symbol macro)
- `[mtcars$wt]`, page 30, (symbol macro)
- `[mtcars$x4]`, page 30, (symbol macro)
- `[plantgrowth]`, page 28, (special variable)
- `[plantgrowth$x2]`, page 30, (symbol macro)
- `[toothgrowth]`, page 28, (special variable)
- `[toothgrowth$x1]`, page 30, (symbol macro)
- `[usarrests]`, page 28, (special variable)
- `[usarrests$x3]`, page 30, (symbol macro)

5 Definitions

Definitions are sorted by export status, category, package, and then by lexicographic order.

5.1 Exported definitions

5.1.1 Special variables

r-default-datasets	[Special Variable]
All data sets included by default in R	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
ability.cov	[Special Variable]
Ability and Intelligence Tests	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
airmiles	[Special Variable]
Passenger Miles on Commercial US Airlines, 1937-1960	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
airpassengers	[Special Variable]
Monthly Airline Passenger Numbers 1949-1960	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
airquality	[Special Variable]
New York Air Quality Measurements	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
anscombe	[Special Variable]
Anscombe's Quartet of 'Identical' Simple Linear Regressions	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
attenu	[Special Variable]
The Joyner-Boore Attenuation Data	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
attitude	[Special Variable]
The Chatterjee-Price Attitude Data	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)

austres	[Special Variable]
Quarterly Time Series of the Number of Australian Residents	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
base-url	[Special Variable]
Base URL for datasets included in R	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
bjsales	[Special Variable]
Sales Data with Leading Indicator	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
bod	[Special Variable]
Biochemical Oxygen Demand	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
cars	[Special Variable]
Speed and Stopping Distances of Cars	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
chickweight	[Special Variable]
Weight versus age of chicks on different diets	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
chickwts	[Special Variable]
Chicken Weights by Feed Type	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
co2-1	[Special Variable]
Carbon Dioxide Uptake in Grass Plants	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
co2-2	[Special Variable]
Mauna Loa Atmospheric CO2 Concentration	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	

crimtab Student's 3000 Criminals Data	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
discoveries Yearly Numbers of Important Discoveries	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
dnase Elisa assay of DNase	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
esoph Smoking, Alcohol and (O)esophageal Cancer	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
euro Conversion Rates of Euro Currencies	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
eustockmarkets Daily Closing Prices of Major European Stock Indices, 1991-1998	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
faithful Old Faithful Geyser Data	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
formaldehyde Determination of Formaldehyde	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
freeny Freeny's Revenue Data	[Special Variable]
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	

haireyecolor	[Special Variable]
Hair and Eye Color of Statistics Students	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
harman23.cor	[Special Variable]
Harman Example 2.3	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
harman74.cor	[Special Variable]
Harman Example 7.4	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
index	[Special Variable]
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
indometh	[Special Variable]
Pharmacokinetics of Indomethacin	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
infert	[Special Variable]
Infertility after Spontaneous and Induced Abortion	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
insectsprays	[Special Variable]
Effectiveness of Insect Sprays	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
iris	[Special Variable]
Edgar Anderson's Iris Data	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
iris3	[Special Variable]
Edgar Anderson's Iris Data	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
islands	[Special Variable]
Areas of the World's Major Landmasses	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)

johnsonjohnson	[Special Variable]
Quarterly Earnings per Johnson & Johnson Share	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
lakehuron	[Special Variable]
Level of Lake Huron 1875-1972	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
lh	[Special Variable]
Luteinizing Hormone in Blood Samples	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
lifecyclesavings	[Special Variable]
Intercountry Life-Cycle Savings Data	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
loblolly	[Special Variable]
Growth of Loblolly pine trees	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
longley	[Special Variable]
Longley's Economic Regression Data	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
lynx	[Special Variable]
Annual Canadian Lynx trappings 1821-1934	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
morley	[Special Variable]
Michelson Speed of Light Data	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	
mpg	[Special Variable]
Fuel economy data from 1999 to 2008 for 38 popular models of cars	
Package [rdata], page 9,	
Source [rdata.lisp], page 5, (file)	

mtcars	[Special Variable]
Motor Trend Car Road Tests	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
nhtemp	[Special Variable]
Average Yearly Temperatures in New Haven	
Package	[rdata], page 9,
Source	[rdata.lisp], page 5, (file)
nile	[Special Variable]
Flow of the River Nile	
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Internet Usage per Minute

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Package [ls-user], page 12,

Source /Users/nunez/ls-init.lisp

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plantgrowth\$weight [Symbol Macro]

Package [ls-user], page 12,

Source /Users/nunez/ls-init.lisp

Expansion (aref (data-frame:columns ls-user::plantgrowth) 1)

plantgrowth\$x6 [Symbol Macro]

Package [ls-user], page 12,

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Expansion (aref (data-frame:columns ls-user::plantgrowth) 0)

toothgrowth\$dose [Symbol Macro]

Package [ls-user], page 12,

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Expansion (aref (data-frame:columns ls-user::toothgrowth) 3)

toothgrowth\$len [Symbol Macro]

Package [ls-user], page 12,

Source /Users/nunez/ls-init.lisp

Expansion (aref (data-frame:columns ls-user::toothgrowth) 1)

toothgrowth\$supp [Symbol Macro]

Package [ls-user], page 12,

Source /Users/nunez/ls-init.lisp

Expansion (aref (data-frame:columns ls-user::toothgrowth) 2)

toothgrowth\$x5 [Symbol Macro]

Package [ls-user], page 12,

Source /Users/nunez/ls-init.lisp

Expansion (aref (data-frame:columns ls-user::toothgrowth) 0)

`usarrests$assault` [Symbol Macro]

Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp
Expansion (aref (data-frame:columns ls-user::usarrests) 2)

`usarrests$murder` [Symbol Macro]

Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp
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`usarrests$rape` [Symbol Macro]

Package [ls-user], page 12,
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Package [ls-user], page 12,
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Expansion (aref (data-frame:columns ls-user::usarrests) 3)

`usarrests$x7` [Symbol Macro]

Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp
Expansion (aref (data-frame:columns ls-user::usarrests) 0)

5.1.3 Macros

`def NAME VALUE &optional DOCUMENTATION` [Macro]

Define a data variable

VALUE is not evaluated and must be a symbol. Assigns the value of FORM to VALUE and adds VALUE to the list *VARIABLES* of def'd variables. Returns VALUE. If VALUE is already bound and the global variable *ASK-ON-REDEFINE* is not nil then you are asked if you want to redefine the variable.

Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)

5.1.4 Functions

`fivenum X` [Function]

Returns the five number summary (min, 1st quartile, median, 3rd quartile, max) of the elements X.

Note this is not Tukey's fivenum summary, which R returns. The results will differ when X contains an even number of elements. See:

<https://www.icalcu.com/stat/fivenum.html> <https://math.stackexchange.com/questions/398077/question-on-five-number-summary-quantile>

Package [lisp-stat], page 9,
Source [stats.lisp], page 8, (file)

- interquartile-range** *X* [Function]
Returns the interquartile range of the elements of *X*.
Package [lisp-stat], page 9,
Source [stats.lisp], page 8, (file)
- load-r-default-datasets** () [Function]
Load the data sets included in base R
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)
- load-r-metadata** () [Function]
Loads the master R data set index as a data frame. Use this to query the R data sets.
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)
- save-r-data** () [Function]
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)
- save-r-default-datasets** () [Function]
Save the data sets included in base R
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)
- savevar** *VARs FILE &optional SUFFIX* [Function]
VARs is a symbol or a list of symbols. *FILE* is a string (or a symbol whose print name is used) not ending in *SUFFIX* (defaults to ".lisp"). The *VARs* and their current values are written to the file *FILE.lisp* in a form suitable for use with the load command. NOTE: Ensure *VARs* doesn't contain CLOS objects that don't have a SAVE-OBJ method. Example (savevar 'urban "urban")
Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)
- undef-var** *V* [Function]
Remove *V* from the system
If *V* is the symbol of a defined variable the variable it is unbound and removed from the list of defined variables. If *V* is a list of variable names each is unbound and removed. Returns *V*. Example: (undef 'urban)
Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)
- variables** () [Function]
Returns a list of the names of all def'ed variables.
Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)

5.2 Internal definitions

5.2.1 Constants

+copyright-years+ [Constant]
Package [ls-user], page 12,

5.2.2 Special variables

ask-on-redefine [Special Variable]
Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)

default-datasets [Special Variable]
 Data sets loaded as part of personal Lisp-Stat initialisation. Available in every session.
Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp

r-default-dataframes [Special Variable]
 Data frames corresponding to the default R datasets
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)

variables [Special Variable]
Package [lisp-stat], page 9,
Source [variables.lisp], page 5, (file)

cars [Special Variable]
Package [ls-user], page 12,

mtcars [Special Variable]
Package [ls-user], page 12,

plantgrowth [Special Variable]
 Results from an Experiment on Plant Growth
Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp

student-sleep [Special Variable]
 Student's Sleep Data
Package [rdata], page 9,
Source [rdata.lisp], page 5, (file)

toothgrowth [Special Variable]
 The Effect of Vitamin C on Tooth Growth in Guinea Pigs
Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp

usarrests [Special Variable]
 Violent Crime Rates by US State
Package [ls-user], page 12,
Source /Users/nunez/ls-init.lisp

5.2.3 Symbol macros

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Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 2)	
<code>cars\$cylinders</code>	[Symbol Macro]
Package [ls-user], page 12,	
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<code>cars\$displacement</code>	[Symbol Macro]
Package [ls-user], page 12,	
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<code>cars\$horsepower</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 4)	
<code>cars\$miles-per-gallon</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 7)	
<code>cars\$name</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 8)	
<code>cars\$origin</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 0)	
<code>cars\$weight-in-lbs</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 3)	
<code>cars\$year</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::cars) 1)	
<code>mtcars\$am</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::mtcars) 9)	
<code>mtcars\$carb</code>	[Symbol Macro]
Package [ls-user], page 12,	
Expansion (aref (data-frame:columns ls-user::mtcars) 11)	
<code>mtcars\$cyl</code>	[Symbol Macro]
Package [ls-user], page 12,	
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<code>mtcars\$disp</code>	[Symbol Macro]
Package [ls-user], page 12,	
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<code>mtcars\$drat</code>	[Symbol Macro]
Package [ls-user], page 12,	
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Package [ls-user], page 12,	
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<code>usarrests\$x3</code>	[Symbol Macro]
Package [ls-user], page 12,	
Source /Users/nunez/ls-init.lisp	
Expansion (aref (data-frame:columns ls-user::usarrests) 0)	

5.2.4 Functions

`setup-ls-translations ()` [Function]

Package [lisp-stat], page 9,

Source [ls-init.lisp], page 8, (file)

5.2.5 Generic functions

`save-obj DATA` [Generic Function]

Save data object

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Source [variables.lisp], page 5, (file)

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