# Validation Report for Demo Environment Validation

## Eli Miller

## 2022-01-13

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## 1 Release details

## 1.1 Package Information

### 1.1.1 Change Log

Version	Effective Date	Activity Description
1.1	2022-01-12	Update with new directory structure
1.0	2021-12-08	Validation release notes for version 1.0

### 1.1.2 Validation Environment

Type	Resource	Version Detail
system	OS	Ubuntu 18.04.5 LTS
system	R	4.0.2
	devtools	2.4.3
	dplyr	1.0.7
	kableExtra	1.3.4
	knitr	1.36
session	magrittr	2.0.1
50551011	renv	0.14.0
	riskmetric	0.1.1
	stringr	1.4.0
	usethis	2.1.3
	valtools	0.4.0.9000

#### 1.2 Authors

#### 1.2.1 Requirements

Requirement ID	Editor	Edit Date
requirements	Eli Miller	2022-01-12
requirements	Eli Miller	2022-01-12
requirements	Eli Miller	2022-01-13
requirements	Eli Miller	2022-01-12

#### 1.2.2 Test Case Authors

Test Case ID	Editor	Edit Date
cases	Eli Miller	2022-01-12
cases	Eli Miller	2022-01-12
cases	Eli Miller	2022-01-13
cases	Eli Miller	2022-01-12

#### 1.2.3 Test Code Authors

Test Code ID	Editor	Edit Date
2.1	Eli Miller	2021-12-07
2.2	Eli Miller	2021-12-07
1.1	Eli Miller	2021-12-07
1.2	Eli Miller	2021-12-07
2.1	Eli Miller	2021-12-08
4.1	Eli Miller	2022-01-13
3.1	Eli Miller	2021-12-07
3.2	Eli Miller	2021-12-07

## 1.3 Traceability

#> Warning in sort(as.numeric(unique(unlist(lapply(strsplit(out\$req\_title, : NAs
#> introduced by coercion

Requirement Name	Requirement ID	Test Case Name	Test Cases
	1.1		1.1
Requirement 1	1.2	cases	1.2
	1.3		1.3
Requirement 2  Requirement 3	2.1		2.1
	2.2		2.2
	3.1		3.1
	3.2		3.2
	REQUIREMENT		TESTCASE

## 2 Risk Assessment

## 2.1 Requirement Assessments

Requirement Name	Requirement ID	Risk Assessment
	2.1	Low Risk
	2.2	Low Risk
	1.1	Low Risk
requirements	1.2	Low Risk
	1.3	Low Risk
	4.1	4.1
	3.1	Low Risk
	3.2	Low Risk

## 2.2 Package Assessments

This table displays the risk metric score of the <code>dplyr</code> and <code>Tplyr</code> packages. Other packages can be added as needed.

Package

riskmetric.Scores

Tplyr

0.5063052

 $\operatorname{dplyr}$ 

0.3079479

#### 3 Validation

- 2.1: The tests for {dplyr} run as expected
- 2.2: {dplyr} can count correctly
- Setup: Load in dplyr packages.
- 2.1: The function tools::testInstalledPackage("dplyr") returns a 0
- 2.2: Using the dplyr::count function, verify that the mtcars dataset has n=15 for gear=3, n=12 for gear=4, and n=5 for gear=5.
- #> Warning: package 'testthat' was built under R version 4.0.5

Test	Results	Pass/Fail
2.1.1	As expected	Pass
2.2.1	As expected	Pass

- 1.1: The R installation was installed with tests
- 1.2: The R installation tests complete successfully
- 1.3: The system must have the ability to work with the system png device
- Setup: None
- 1.1: A directory named tests exists in the R installation directory.
- 1.2: The function tools::testInstalledBasic() returns a 0
- 1.3: The system was compiled to support the png engine.

Test	Results	Pass/Fail
1.1.1	As expected	Pass
1.2.1	As expected	Pass
2.1.1	As expected	Pass

- 4.1: The shiny package must create html objects.
- Setup: Load shiny package
- 4.1: The shiny::div() function creates a div object.

Test	Results	Pass/Fail
4.1.1	As expected	Pass

- 3.1: The tests for  $\{Tplyr\}$  run as expected.
- 3.2: {Tplyr} table objects can be created successfully
- Setup: Load in Tplyr packages.
- 3.1: the function tools::testInstalledPackage("Tplyr") returns a 0
- 3.2: Using Tplyr::tplyr\_table create a table with the mtcars dataset as the target and gear as the target variable.

Test	Results	Pass/Fail
3.1.1	As expected	Pass
3.2.1	As expected	Pass

#### 3.1 Installed System Packages

```
Diagnostics Report [renv 0.14.0]
# Session Info =======
R version 4.0.2 (2020-06-22)
Platform: x86_64-pc-linux-gnu (64-bit)
Running under: Ubuntu 18.04.5 LTS
Matrix products: default
       /usr/lib/x86 64-linux-gnu/openblas/libblas.so.3
LAPACK: /usr/lib/x86_64-linux-gnu/libopenblasp-r0.2.20.so
locale:
 [1] LC_CTYPE=C.UTF-8
                            LC_NUMERIC=C
                                                   LC_TIME=C.UTF-8
[4] LC_COLLATE=C.UTF-8
                            LC_MONETARY=C.UTF-8
                                                  LC_MESSAGES=C.UTF-8
[7] LC_PAPER=C.UTF-8
                            LC NAME=C
                                                   LC ADDRESS=C
[10] LC_TELEPHONE=C
                            LC_MEASUREMENT=C.UTF-8 LC_IDENTIFICATION=C
attached base packages:
[1] tools
              stats
                        graphics grDevices datasets utils
                                                               methods
[8] base
other attached packages:
[1] Tplyr_0.4.4
                         shiny_1.7.1
                                             testthat_3.1.1
[4] renv_0.14.0
                                             dplyr_1.0.7
                         riskmetric_0.1.1
[7] stringr_1.4.0
                         devtools_2.4.3
                                             usethis_2.1.3
[10] magrittr 2.0.1
                                             knitr 1.36
                         kableExtra 1.3.4
[13] valtools_0.4.0.9000
loaded via a namespace (and not attached):
[1] httr_1.4.2
                         pkgload_1.2.4
                                             tidyr_1.1.4
 [4] jsonlite_1.7.2
                         viridisLite_0.4.0
                                             assertthat_0.2.1
[7] BiocManager_1.30.16 triebeard_0.3.0
                                             urltools_1.7.3
                                             remotes_2.4.2
[10] highr_0.9
                         yaml_2.2.1
[13] sessioninfo_1.2.2
                         pillar_1.6.4
                                             backports_1.4.0
[16] glue_1.5.1
                                             promises_1.2.0.1
                         digest_0.6.29
                                             httpuv_1.6.5
[19] rvest_1.0.2
                         colorspace_2.0-2
[22] htmltools_0.5.2
                                             xtable_1.8-4
                         pkgconfig_2.0.3
[25] purrr_0.3.4
                         scales_1.1.1
                                             webshot_0.5.2
[28] processx_3.5.2
                         svglite_2.0.0
                                             whisker_0.4
[31] later_1.3.0
                         tibble_3.1.6
                                             generics_0.1.1
[34] ellipsis_0.3.2
                         cachem_1.0.6
                                             withr_2.4.3
[37] cranlogs_2.1.1
                         lazyeval_0.2.2
                                             cli_3.1.0
[40] mime_0.12
                         crayon_1.4.2
                                             memoise_2.0.1
[43] evaluate_0.14
                         ps_1.6.0
                                             fs_1.5.1
[46] fansi_0.5.0
                         forcats_0.5.1
                                            xm12_1.3.3
```

```
[49] pkgbuild_1.2.1
                         prettyunits_1.1.1
                                             lifecycle_1.0.1
[52] munsell_0.5.0
                         callr_3.7.0
                                             rex_1.2.1
[55] compiler_4.0.2
                         covr_3.5.1
                                             systemfonts_1.0.3
[58] rlang_0.4.12
                         rstudioapi_0.13
                                             rmarkdown_2.11
[61] waldo_0.3.1
                         roxygen2_7.1.2
                                             curl_4.3.2
[64] R6_2.5.1
                         lubridate_1.8.0
                                             fastmap_1.1.0
[67] utf8_1.2.2
                         rprojroot_2.0.2
                                             desc_1.4.0
[70] stringi 1.7.6
                         whoami 1.3.0
                                             Rcpp 1.0.7
[73] vctrs 0.3.8
                         tidyselect_1.1.1
                                             xfun 0.29
# Project ==============
Project path: "~/Environment-Demo"
* The project is already synchronized with the lockfile.
# Packages ==========
                                Lockfile Source Path Dependency
               Library Source
BiocManager
               1.30.16
                         RSPM
                                 1.30.16
                                           RSPM
                                                [1]
                                                        indirect
                                                 [2]
KernSmooth
               2.23-17
                         CRAN
                                    <NA>
                                           <NA>
                                                            <NA>
MASS
              7.3-51.6
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
Matrix
                1.2-18
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
R6
                 2.5.1
                         RSPM
                                   2.5.1
                                           RSPM [1]
                                                        indirect
RColorBrewer
                 1.1-2
                         RSPM
                                   1.1-2
                                           RSPM [1]
                                                        indirect
                 1.0.7
                         RSPM
                                   1.0.7
                                           RSPM [1]
                                                        indirect
Rcpp
Tplyr
                 0.4.4
                         CRAN
                                   0.4.4
                                           CRAN [1]
                                                          direct
                   1.1
                         RSPM
                                           RSPM /17
                                                        indirect
askpass
                                     1.1
assertthat
                 0.2.1
                         RSPM
                                   0.2.1
                                           RSPM [1]
                                                        indirect
                         RSPM
backports
                 1.4.0
                                   1.4.0
                                           RSPM /17
                                                        indirect
                                           RSPM [1]
base64enc
                 0.1-3
                         RSPM
                                   0.1 - 3
                                                        indirect
boot
                1.3-25
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
                 1.0-6
                         RSPM
                                           RSPM [1]
                                                        indirect
brew
                                   1.0 - 6
brio
                 1.1.3
                         RSPM
                                   1.1.3
                                           RSPM [1]
                                                        indirect
                                                [1]
bslib
                 0.3.1
                         RSPM
                                   0.3.1
                                           RSPM
                                                        indirect
                 1.0.6
                         RSPM
                                   1.0.6
                                           RSPM [1]
                                                        indirect
cachem
                                                 [1]
callr
                 3.7.0
                         RSPM
                                   3.7.0
                                           RSPM
                                                        indirect
class
                7.3-17
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
cli
                 3.1.0
                         RSPM
                                   3.1.0
                                           RSPM [1]
                                                        indirect
                 0.7.1
clipr
                         RSPM
                                   0.7.1
                                           RSPM [1]
                                                        indirect
cluster
                 2.1.0
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
codetools
                0.2-16
                         CRAN
                                    <NA>
                                           <NA>
                                                 [2]
                                                            <NA>
colorspace
                 2.0-2
                         RSPM
                                   2.0-2
                                           RSPM [1]
                                                        indirect
                   1.7
                         RSPM
                                     1.7
                                           RSPM [1]
                                                        indirect
commonmark
covr
                 3.5.1
                         RSPM
                                   3.5.1
                                           RSPM /17
                                                        indirect
cpp11
                 0.4.2
                         RSPM
                                   0.4.2
                                           RSPM [1]
                                                        indirect
cranlogs
                 2.1.1
                         RSPM
                                   2.1.1
                                           RSPM [1]
                                                        indirect
crayon
                 1.4.2
                         RSPM
                                   1.4.2
                                           RSPM [1]
                                                        indirect
credentials
                 1.3.2
                         RSPM
                                   1.3.2
                                           RSPM [1]
                                                        indirect
                 4.3.2
                         RSPM
                                   4.3.2
                                           RSPM [1]
                                                        indirect
curl
desc
                 1.4.0
                         RSPM
                                   1.4.0
                                           RSPM [1]
                                                        indirect
devtools
                 2.4.3
                         RSPM
                                   2.4.3
                                           RSPM
                                                 [1]
                                                          direct
diffobj
                 0.3.5
                         RSPM
                                   0.3.5
                                           RSPM
                                                 [1]
                                                        indirect
digest
                0.6.29
                         RSPM
                                  0.6.29
                                           RSPM
                                                [1]
                                                        indirect
```

dplyr	1.0.7	RSPM	1.0.7	RSPM	[1]	direct
ellipsis	0.3.2	RSPM	0.3.2	RSPM	[1]	indirect
evaluate	0.14	RSPM	0.14	RSPM	[1]	indirect
fansi	0.5.0	RSPM	0.5.0	RSPM	[1]	indirect
farver	2.1.0	RSPM	2.1.0	RSPM	[1]	indirect
fastmap	1.1.0	RSPM	1.1.0	RSPM	[1]	indirect
fontawesome	0.2.2	RSPM	0.2.2	RSPM	[1]	indirect
forcats	0.5.1	RSPM	0.5.1	RSPM	[1]	indirect
foreign	0.8-80	CRAN	<na></na>	<na></na>	[2]	<na></na>
fs	1.5.1	RSPM	1.5.1	RSPM	[1]	indirect
generics	0.1.1	RSPM	0.1.1	RSPM	[1]	indirect
gert	1.4.3	RSPM	1.4.3	RSPM	[1]	indirect
gh	1.3.0	RSPM	1.3.0	RSPM	[1]	indirect
gitcreds	0.1.1	RSPM	0.1.1	RSPM	[1]	indirect
glue	1.5.1	RSPM	1.5.1	RSPM	[1]	indirect
grDevices	<na></na>	<na></na>	<na></na>	<na></na>	[2]	indirect
graphics	<na></na>	<na></na>	<na></na>	<na></na>	[2]	indirect
highr	0.9	RSPM	0.9	RSPM	[1]	indirect
htmltools	0.5.2	RSPM	0.5.2	RSPM	[1]	indirect
httpuv	1.6.5	RSPM	1.6.5	RSPM	[1]	indirect
httr	1.4.2	RSPM	1.4.2	RSPM	[1]	indirect
ini	0.3.1	RSPM	0.3.1	RSPM	[1]	indirect
jquerylib	0.1.4	RSPM	0.1.4	RSPM	[1]	indirect
jsonlite	1.7.2	RSPM	1.7.2	RSPM	[1]	indirect
kableExtra	1.3.4	RSPM	1.3.4	RSPM	[1]	direct
knitr	1.36	RSPM	1.36	RSPM	[1]	direct
labeling	0.4.2	RSPM	0.4.2	RSPM	[1]	indirect
later	1.3.0	RSPM	1.3.0	RSPM	[1]	indirect
lattice	0.20-41	CRAN	<na></na>	<na></na>	[2]	<na></na>
	0.2.2	RSPM	0.2.2	RSPM	[1]	indirect
lazyeval lifecycle	1.0.1	RSPM	1.0.1	RSPM	[1]	indirect
		RSPM	1.8.0		[1]	
lubridate	1.8.0	RSPM	2.0.1	RSPM RSPM	[1]	indirect direct
magrittr	2.0.1					
memoise	2.0.1	RSPM	2.0.1	RSPM	[1]	indirect
methods	<na></na>	<na></na>	<na></na>	<na></na>	[2]	indirect
mgcv	1.8-31	CRAN	<na></na>	<na></na>	[2]	<na></na>
mime	0.12	RSPM	0.12	RSPM	[1]	indirect
munsell	0.5.0	RSPM	0.5.0	RSPM	[1]	indirect
nlme	3.1-148	CRAN	<na></na>	<na></na>	[2]	<na></na>
nnet	7.3-14	CRAN	<na></na>	<na></na>	[2]	<na></na>
openssl	1.4.5	RSPM	1.4.5	RSPM	[1]	indirect
pillar	1.6.4	RSPM	1.6.4	RSPM	[1]	indirect
pkgbuild	1.2.1	RSPM	1.2.1	RSPM	[1]	indirect
pkgconfig	2.0.3	RSPM	2.0.3	RSPM	[1]	indirect
pkgload	1.2.4	RSPM	1.2.4	RSPM	[1]	indirect
praise	1.0.0	RSPM	1.0.0	RSPM	[1]	indirect
prettyunits	1.1.1	RSPM	1.1.1	RSPM	[1]	indirect
processx	3.5.2	RSPM	3.5.2	RSPM	[1]	indirect
promises	1.2.0.1	RSPM	1.2.0.1	RSPM	[1]	indirect
ps	1.6.0	RSPM	1.6.0	RSPM	[1]	indirect
purrr	0.3.4	RSPM	0.3.4	RSPM	[1]	indirect
rappdirs	0.3.3	RSPM	0.3.3	RSPM	[1]	indirect
rcmdcheck	1.4.0	RSPM	1.4.0	RSPM	[1]	indirect
			-			

rematch2	2.1.2	RSPM	2.1.2	RSPM	[1]	indirect	
remotes	2.4.2	RSPM	2.4.2	RSPM	[1]	indirect	
renv	0.14.0	RSPM	0.14.0	RSPM	[1]	direct	
rex	1.2.1	RSPM	1.2.1	RSPM	[1]	indirect	
riskmetric		GitHub		GitHub	[1]	direct	
rlang	0.4.12		0.4.12	RSPM	[1]	indirect	
rmarkdown	2.11		2.11	RSPM	[1]	direct	
roxygen2	7.1.2		7.1.2	RSPM	[1]	indirect	
rpart	4.1-15		<na></na>	<na></na>	[2]	<na></na>	
rprojroot	2.0.2		2.0.2	RSPM	[1]	indirect	
			0.13				
rstudioapi				RSPM	[1]	indirect	
rversions	2.1.1		2.1.1	RSPM	[1]	indirect	
rvest	1.0.2		1.0.2	RSPM	[1]	indirect	
sass	0.4.0	RSPM	0.4.0	RSPM	[1]	indirect	
scales	1.1.1		1.1.1	RSPM	[1]	indirect	
selectr	0.4-2		0.4-2	RSPM	[1]	indirect	
sessioninf			1.2.2	RSPM	[1]	indirect	
shiny	1.7.1		1.7.1		[1]	direct	
sourcetool	s 0.1.7		0.1.7	RSPM	[1]	indirect	
spatial	7.3-12	CRAN	<na></na>	<na></na>	[2]	<na></na>	
stats	<na></na>	<na></na>	<na></na>	<na></na>	[2]	indirect	
stringi	1.7.6	RSPM	1.7.6	RSPM	[1]	indirect	
stringr	1.4.0	RSPM	1.4.0	RSPM	[1]	direct	
survival	3.1-12	CRAN	<na></na>	<na></na>	[2]	<na></na>	
svglite	2.0.0	RSPM	2.0.0	RSPM	[1]	indirect	
sys	3.4		3.4	RSPM	[1]	indirect	
systemfont			1.0.3	RSPM	[1]	indirect	
testthat	3.1.1		3.1.1	RSPM	[1]	indirect	
tibble	3.1.6	RSPM	3.1.6	RSPM	[1]	indirect	
tidyr	1.1.4		1.1.4	RSPM	[1]	indirect	
tidyselect		RSPM	1.1.1	RSPM	[1]	indirect	
tinytex	0.36	RSPM	0.36	RSPM	[1]	indirect	
tools	<na></na>	<na></na>	<na></na>	<na></na>	[2]	direct	
triebeard		RSPM	0.3.0		[2]		
	0.3.0			RSPM		indirect	
urltools	1.7.3		1.7.3	RSPM	[1] [1]	indirect	
usethis	2.1.3	RSPM	2.1.3	RSPM	[1]	indirect	
utf8	1.2.2		1.2.2	RSPM	[1]	indirect	
utils	<na></na>	<na></na>	<na></na>	<na></na>	[2]	indirect	
valtools			0.4.0.9000		[1]	direct	
vctrs	0.3.8	RSPM	0.3.8	RSPM	[1]	indirect	
viridisLit		RSPM	0.4.0	RSPM	[1]	indirect	
waldo	0.3.1		0.3.1	RSPM	[1]	indirect	
webshot	0.5.2		0.5.2	RSPM	[1]	indirect	
whisker	0.4		0.4	RSPM	[1]	indirect	
whoami	1.3.0	RSPM	1.3.0	RSPM	[1]	indirect	
withr	2.4.3	RSPM	2.4.3	RSPM	[1]	direct	
xfun	0.29	RSPM	0.29	RSPM	[1]	indirect	
xm12	1.3.3	RSPM	1.3.3	RSPM	[1]	indirect	
xopen	1.0.0	RSPM	1.0.0	RSPM	[1]	indirect	
xtable	1.8-4		1.8-4	RSPM	[1]	indirect	
yaml	2.2.1	RSPM	2.2.1	RSPM	[1]	indirect	
zip	2.2.0	RSPM	2.2.0	RSPM	[1]	indirect	
r		,	=:=;				

```
[1]: /home/eli.miller/Environment-Demo/renv/library/R-4.0/x86_64-pc-linux-gnu
[2]: /tmp/Rtmp1QkatK/renv-system-library
[3]: /tmp/Rtmp4SfI3w/renv-system-library
# User Profile ===========
[no R packages referenced in user profile
# Settings =============
List of 8
$ external.libraries : chr(0)
$ ignored.packages : chr(0)
 $ package.dependency.fields: chr [1:3] "Imports" "Depends" "LinkingTo"
$ r.version : chr(0)
$ snapshot.type : chr "implicit"
$ use.cache : logi TRUE
$ vcs.ignore.library : logi TRUE
$ vcs.ignore.local : logi TRUE
# Options ===========
List of 8
 $ defaultPackages
                                      : chr [1:6] "datasets" "utils" "grDevices" "graphics" ...
$ download.file.method
                                     : NULL
                                    : NULL
$ download.file.extra
 $ install.packages.compile.from.source: NULL
                                     : chr "source"
 $ pkgType
 $ repos
                                     : Named chr [1:2] "https://atorus-rspm.eastus2.cloudapp.azure.co
 ..- attr(*, "names")= chr [1:2] "CRAN" "atorus-latest"
 $ renv.consent
                                      : logi TRUE
 $ renv.verbose
                                      : logi TRUE
# Environment Variables ========
HOME
                           = /home/eli.miller
LANG
                           = C.UTF-8
MAKE
                           = make
                           = <NA>
R_LIBS
R_LIBS_SITE
R_LIBS_USER
                           = /home/eli.miller/Environment-Demo/renv/library/R-4.0/x86_64-pc-linux-gnu:
RENV_DEFAULT_R_ENVIRON = <NA>
RENV_DEFAULT_R_ENVIRON_USER = <NA>
RENV_DEFAULT_R_LIBS
                    = <NA>
RENV_DEFAULT_R_LIBS_SITE =
RENV_DEFAULT_R_LIBS_USER = ~/R/x86_64-pc-linux-gnu-library/4.0
RENV DEFAULT R PROFILE = <NA>
RENV_DEFAULT_R_PROFILE_USER = <NA>
RENV_PROJECT
                  = /home/eli.miller/Environment-Demo
# PATH ===========
- /home/eli.miller/bin
- /opt/anaconda3/condabin
- /usr/local/sbin
- /usr/local/bin
- /usr/sbin
- /usr/bin
```

- /sbin
- /bin
- /snap/bin
- /bin
- /opt/R/3.6.2/bin/
   /usr/lib/rstudio-server/bin/postback
- /usr/lib/rstudio-server/bin/postback
- /usr/lib/rstudio-server/bin/postback

#### 

There are a total of 151 package(s) installed in the renv cache. Cache path: "~/.local/share/renv/cache/v5/R-4.0/x86\_64-pc-linux-gnu"