



# R PACKAGE DEVELOPMENT AND VALIDATION

## Modes of Validation

# Welcome

- Modes of R Package Validation
  - 3<sup>rd</sup> party
  - Source
  - Install
  - Re-validation
  - Build



THIRD PARTY



## vt\_validate\_report()

- Uses only packages already installed on system
- Report can be generated at any time
- Best for: validation of packages the org is consuming but not developing



SOURCE

# vt\_validate\_source()

- Temporarily installs the package and executes the validation Rmd
- For release of source code
- Users have access to install as necessary
- Report can be generated at any time
- Best for:
  - Checking validation during package development
  - c.i. integration
  - Sending report PDFs to a shared drive location



INSTALL

# vt\_validate\_install()

- Temporarily installs the package and executes the validation Rmd
- Copies contents into “output” directory – inst/validation
- Builds source code, includes all components of validation into tarball
- Installs and runs validation report on installed system
- Best for:
  - Installation is controlled by IT Administration
  - Validation Report needs co-located with installed package





# RE-V VALIDATION

# vt\_validate\_installed\_package()

- ONLY works for packages installed via  
`vt\_validate\_install()` or installed from tarball created by  
`vt\_validate\_build()`
- Run when environment has changed, but installation has not
- Best for:
  - Installation is controlled by IT Administration
  - Users who need to verify that environment changes does not affect validation performance



BUILD



## vt\_validate\_build()

- Temporarily installs the package and executes the validation Rmd
- Copies contents into “output” directory – inst/validation
- Builds source code, includes all components of validation into tarball
- For release of source code with controlled versions
- Users have access to install as necessary



# MATERIALS 04-E3

[Materials/Materials-04-Introduction\\_to\\_Valtools/Materials-04-E03-Validation\\_Modes](#)