



roam: Remote Objects with Active-binding Magic

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Including data in a package without roam

Package pkg Writer

```
# data-raw/bee.R
library(readr)
bee <- read_csv(<bee.csv>)
usethis::use_data(bee)
```

User

```
library(pkg)
bee

# A tibble: 1,222 x 10
  year months state colony_n
<dbl> <chr> <chr> <dbl>
1 2015 Januar~ Alab~ 7000
2 2015 Januar~ Ariz~ 35000
# i 1,220 more rows
# i 6 more variables:
#   colony_max <dbl>,
#   colony_lost <dbl>,
#   colony_lost_pct <dbl>,
#   colony_added <dbl>,
#   colony_reno <dbl>, ...
```

Including data in a package without roam

Package pkg Writer

```
# data-raw/bee.R
library(readr)
bee <- read_csv(<bee.csv>)
usethis::use_data(bee)
```

- Data included in package
- CRAN size limit 5 MB
- The data are updated only when the package is updated

User

```
library(pkg)
bee
```

```
# A tibble: 1,222 x 10
  year months state colony_n
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# colony_added <dbl>,
# colony_reno <dbl>, ...
```

Including data in a package with roam

Package pkg Writer

```
obtainer <- function(version)
{
  readr::read_csv(<bee.csv>)
}

bee <- roam::new_roam(
  'pkg', 'bee', obtainer)

.onLoad <- function(libname,
                     pkgname)
{
  roam::roam_activate(bee)
}
```

User

```
library(pkg)
options(roam.autodownload = TRUE)
bee

# A tibble: 1,222 x 10
  year months state colony_n
  <dbl> <chr> <chr> <dbl>
1  2015 Januar~ Alab~      7000
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```

Including data in a package with roam

Package pkg Writer

```
obtainer <- function(version)
{
  readr::read_csv(<bee.csv>)
}

bee <- roam::new_roam(
  'pkg', 'bee', obtainer)

upload <- function(libname
```

- Data hosted remotely
- No size limit
- Updating data without updating package

User

```
library(pkg)
options(roam.autodownload = TRUE)
bee
```

```
# A tibble: 1,222 x 10
  year months state colony_n
  <dbl> <chr>   <chr>   <dbl>
1  2015 Januar~ Alab~     7000
# i 1,221 more rows
# i 6 more variables:
#   colony_max <dbl>,
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#   colony_added <dbl>,
#   colony_reno <dbl>, ...
```

Versioning with roam

Package pkg Writer

```
obtainer <- function(version) {  
  if(version == 'latest')  
    version <- '0.1.0'  
  # Specify the version  
  roam::roam_set_version(version)  
  readr::read_csv(<bee-v.csv>)  
}  
  
bee <- roam::new_roam(  
  'pkg', 'bee', obtainer)  
  
.onLoad <- function(libname,  
                    pkgname)  
  roam::roam_activate(bee)
```

User

```
library(pkg)  
library(roam)  
  
# Update to the latest version  
roam_update(bee)  
  
# Install a specific version  
roam_install(bee, version = '0.1.0')  
  
# Delete local cache  
roam_delete(bee)  
  
# Find currently installed version  
roam_version('pkg', 'bee')
```

Roadmap: Cache multiple versions

```
library(pkg)  
library(roam)
```

```
bee %v% "0.1.0"
```

```
bee %v% "0.1.1"
```

Roadmap: Cache multiple versions

```
library(pkg)  
library(roam)  
  
bee %v% "0.1.0"  
bee %v% "0.1.1"
```



Slides: yangzhuoranyang.com/talk/user-2024

roam: github.com/FinYang/roam

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