VMR PACKAGE MANAGE VIRTUAL MACHINES FOR/WITH R

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**{VMR} PACKAGE**
MANAGE VIRTUAL MACHINES FOR/WITH R

**PRÉSENTATION**

{VMR} R package allow to manage, provision and use a Virtual Machine preconfigured for R.

Develop, make tests and build a package in a clean environment with a choice of different providers and OS improve the quality, the productivity, the reproductibility and the share of R productions.

Here we present, the possibilities offered by {VMR} to manipulate a VM using R.

How these VMs are built using several pipelines over GitLab CI/CD and stored in the Vagrant cloud repository.

**TOOLS**

Vagrant is a tool for building and managing virtual machine environments in a single workflow and focus on automation.

Open Source MIT License – HashiCorp

Box – a Virtual Machine Provider – virtualization product

VirtualBox is a virtualization tool

Open Source GPL-v2 – ORACLE

Runs on and supports multiple OS

**BOXES AND VM CREATIONS**

Mount Local Directory

vmrMountDir(vmr_env, src, dest)

Guest informations

vmrInfo()

R in the VM

vmrExec('print("Hello User!")')

vmrProvision(cmd="Rscript -e mycode.R", elt="mycode.R")

R Packages

vmrPackageCheck()

vmrPackageTest()

vmrPackageBuild()

**WAB WITH VMR**

VirtualBox Options

opt <- virtualboxOptions()

opt$name <- "userR"

opt$gui <- TRUE

opt$modifyvm$memory <- 4096

opt$modifyvm$cpu <- 4

**PERSPECTIVES**

*Add new providers : Docker, VMware, *

*Find storage capacity for boxes *

*Improve boxes provisionning *

*Add new OS ( Fedora, Solaris, ...) *

*Improve integration for R Dev (simplify remote R, execution interactive shell, Rstudio addins)