

About this wiki

The following best practices document aims to provide some hints and examples on how to install and configure R on a grid based infrastructure.

About R

- R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS.
- To download R, please choose your preferred CRAN mirror .
- If you have questions about R like how to download and install the software, or what the license terms are, please read the FAQs .

Source Pack

The following source packs are available for download.

Pack	File
rpm	R-2.14.1-1.el5.x86_64.rpm
rpm	libRmath-devel-2.14.1-1.el5.x86_64.rpm
rpm	R-devel-2.14.1-1.el5.x86_64.rpm
rpm	libRmath-2.14.1-1.el5.x86_64.rpm
rpm	R-core-2.14.1-1.el5.x86_64.rpm
rpm	xdg-utils-1.0.2-2.el5.noarch.rpm

System requirements

The instructions from this best practice have been tested on a:

- OS: Scientific Linux SL release 5.4 (Boron)
- Compiler: any
- Arch: x86_64

Before to install R, please install from repo the following list of packages:

```
$ yum install -y tk-devel
$ yum install -y tetex-latex
$ yum install -y tcl-devel
$ yum install -y pcre-devel
$ yum install -y bzip2-devel
$ yum install -y texinfo-tex
```

Create and deploy the SW tar in grid

By using the rpm2cpio command extract the rpm files and create the SW tar-ball to be deployed

```
rpm2cpio *.rpm | cpio -idmv

$ tree R-2.14.1-1.el5.x86_64 -L 3
R-2.14.1-1.el5.x86_64
|-- etc
|   |-- ld.so.conf.d
|   |   `-- R-x86_64.conf
|   `-- rpm
```

```

|      `-- macros.R
|-- usr
|   |-- bin
|   |  |-- R
|   |  |-- Rscript
|   |  |-- xdg-desktop-icon
|   |  |-- xdg-desktop-menu
|   |  |-- xdg-email
|   |  |-- xdg-icon-resource
|   |  |-- xdg-mime
|   |  |-- xdg-open
|   |  `-- xdg-screensaver
|   |-- include
|   |  |-- R
|   |  `-- Rmath.h
|   |-- lib
|   |  `-- rpm
|   |-- lib64
|   |  |-- R
|   |  |-- libRmath.so
|   |  `-- pkgconfig
|   `-- share
|       |-- R
|       |-- doc
|       |-- info
|       |-- man
|       `-- texmf

```

18 directories, 13 files

Testing the R Project for Statistical Computing in grid

This is an example of JDL file that can be used for testing:

```

$ cat R.jdl
[
Executable = "/bin/sh";
Arguments = "start_R_macro.sh macro.r";

StdOutput = "std.out";
StdError = "std.err";

InputSandbox = {"start_R_macro.sh", "macro.r"};
OutputSandbox = {"std.out", "std.err", "out.ps"};

Requirements = Member("VO-gridit-prod-R-2.14.1-1-SL5-x86_64-gccany", other.GlueHostApplications
]

```

This is the bash script and the macro sent in InputSandbox with the JDL file:

```

$ cat start_R_macro.sh
#!/bin/sh
${VO_GRIDIT_SW_DIR}/R-2.14.1-1.e15.x86_64/usr/bin/R --vanilla <$1 > std.out

$ cat macro.r
postscript("out.ps")
x

```

References

The R Project for Statistical Computing

Manual

-- GiuseppeLaRocca - 2012-02-07

This topic: UserSupport > R

Topic revision: r1 - 2012-02-07 - GiuseppeLaRocca



Copyright © 2008-2021 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback