D4Science Infrastructure - Task #207

Document the R installation on the statistical-manager nodes.

May 30, 2015 08:34 PM - Andrea Dell'Amico

Status:	Closed		**Start date:**	May 30, 2015
Priority:	Normal		**Due date:**	
Assignee:	Gianpaolo Coro		**% Done:**	100%
Category:	System Application		**Estimated time:**	0.00 hour
Target version:	UnSprintable			
Infrastructure:	Production			

Description

The R installation of wps.statistical.d4science.org is more complex than the one that runs on the workers nodes.

We need to automate and replicate it. The first steps needed are a packages lists with versions, and a way to install the ones that are not available on CRAN.

Related issues:

Related to D4Science Infrastructure - Task #422: Report libraries and configu...	**Closed**	**Jul 23, 2015**
Blocks D4Science Infrastructure - Task #217: Automate the installation and co...	**Closed**	**Jun 04, 2015**

History

#1 - Jun 03, 2015 11:17 AM - Gianpaolo Coro

- Status changed from New to In Progress

#2 - Jun 03, 2015 05:53 PM - Gianpaolo Coro

I have tried to gather the offline and the online packages required for both the Statistical Manager and the WPS service.

At this link there is a set of packages to be installed offline (see instructions below), plus one test script to check if many of the packages work:
http://goo.gl/tlG7QR

The required R version is 2.15.3

In the following, I report the non-R software, the packages, and the sequences of commands used to install the offline packages. The sequence is currently configured to take packages from a /root/download/ folder.

Please, correct this report should you find errors:

#Required software:
1 - GDAL:
wget http://download.osgeo.org/gdal/1.11.0/gdal1110.zip
unzip gdal1110.zip -d gdal1110
./configure --with-gdal-config=/usr/local/bin/gdal-config
2 - JAGS:
http://mcmc-jags.sourceforge.net/

#Packages to install from CRAN
data.table
doBy
multcomp
mvtnorm
survival
splines
TH.data
MASS
Matrix
lattice
abind
bayesmix
coda
R2jags
R2WinBUGS
rjags
runjags
abind

coda
maptools
rjags
sp
base
boot
class
cluster
codetools
compiler
datasets
foreign
graphics
grDevices
grid
KernSmooth
lattice
MASS
Matrix
methods
mgcv
nlme
nnet
parallel
rpart
spatial
splines
stats
stats4
survival
tcltk
tools
utils

#Packages for ICES processes - Install sequence
```
install.packages("/root/download/Rcpp_0.9.10.tar.gz", repos = NULL, type="source")
install.packages("/root/download/plyr_1.8.tar.gz", repos = NULL, type="source")
install.packages("stringr")
install.packages("/root/download/reshape2_1.2.tar.gz", repos = NULL, type="source")
install.packages("/root/download/data.table_1.9.2.tar.gz", repos = NULL, type="source")
install.packages("R2HTML")
install.packages("multcomp")
install.packages("Matrix")
install.packages("lattice")
install.packages("snow")
install.packages("/root/download/RcppEigen_0.3.2.0.tar.gz", repos = NULL, type="source")
install.packages("minqa")
install.packages("/root/download/lme4_1.0-5.tar.gz", repos = NULL, type="source")
install.packages("/root/download/doBy_4.5-3.tar.gz", repos = NULL, type="source")
install.packages("mvtnorm")
install.packages("survival")
install.packages("data.table")
help(package=splines)
help(package=TH.data)
help(package=MASS)
```

#Packages for FAO processes - Install sequence
```
install.packages("RCurl")
install.packages("digest")
install.packages("/root/download/httr_0.2.tar.gz", repos = NULL, type="source")
install.packages("memoise")
install.packages("whisker")
install.packages("evaluate")
install.packages("/root/download/devtools_1.4.1.tar.gz", repos = NULL, type="source")
require(devtools)
install_github("rsdmx", "opensdmx")
apt-get update
apt-get install libgdal1-dev
apt-get install libgeos-dev
apt-get install libspatialite-dev
install.packages("rgdal")
install.packages("rgeos")
require(devtools)
install_github("RFigisGeo", "openfigis")
```

#Test
source("/root/download/interpolateTacsat.r")

#3 - Jun 04, 2015 05:21 PM - Andrea Dell'Amico

- Subject changed from Document the R installation on wps.statistical.d4science.org to Document the R installation on the statistical-manager nodes.

- Parent task deleted (#206)

The packages list describes the installation on the statistical-manager* nodes.

#4 - Jun 04, 2015 05:26 PM - Andrea Dell'Amico

- Blocks Task #217: Automate the installation and configuration of the statistical-manager nodes added

#5 - Jun 24, 2015 12:07 PM - Gianpaolo Coro

- Status changed from In Progress to Closed

- % Done changed from 0 to 100

#6 - Jul 27, 2015 06:00 PM - Gianpaolo Coro

- Related to Task #422: Report libraries and configuration components for DataMiner added

#8 - Nov 27, 2015 05:58 PM - Andrea Dell'Amico

Some notes:

- Almost all the R packages must be installed specifying the version and take them from the archives, because the latest versions do not install on R 2.15.3
- maptools was not installed on dataminer1-d-d4s.d4science.org that I'm using as a reference for the packages versions that were not specified here. The same is true for runjags.

#9 - Nov 27, 2015 08:15 PM - Andrea Dell'Amico

This is the list of installed R packages with their versions:

```
           Package       Version
abind      "abind"       "1.4-3"
bayesmix   "bayesmix"    "0.7-4"
bitops     "bitops"      "1.0-6"
chron      "chron"       "2.3-47"
coda       "coda"        "0.18-1"
data.table "data.table"  "1.9.6"
devtools   "devtools"    "1.4.1"
digest     "digest"      "0.6.8"
doBy       "doBy"        "4.5-3"
evaluate   "evaluate"    "0.5.5"
httr       "httr"        "0.2"
lme4       "lme4"        "1.0-5"
maptools   "maptools"    "0.8-37"
Matrix     "Matrix"      "1.1-4"
memoise    "memoise"     "0.1"
minqa      "minqa"       "1.2.3"
multcomp   "multcomp"    "1.3-3"
mvtnorm    "mvtnorm"     "1.0-3"
plyr       "plyr"        "1.8"
R2HTML     "R2HTML"      "2.2.1"
R2jags     "R2jags"      "0.03-08"
R2WinBUGS  "R2WinBUGS"   "2.1-21"
Rcpp       "Rcpp"        "0.9.10"
RcppEigen  "RcppEigen"   "0.3.2.0"
RCurl      "RCurl"       "1.95-4.3"
reshape2   "reshape2"    "1.2"
RFigisGeo  "RFigisGeo"   "0.3"
rgdal      "rgdal"       "0.9-1"
rgeos      "rgeos"       "0.3-8"
rjags      "rjags"       "3-10"
rsdmx      "rsdmx"       "0.5-1"
runjags    "runjags"     "1.2.1-0"
sandwich   "sandwich"    "2.3-0"
snow       "snow"        "0.3-13"
sp         "sp"          "1.0-15"
stringr    "stringr"     "0.6.2"
TH.data    "TH.data"     "1.0-6"
```

```
uuid         "uuid"         "0.1-2"
whisker      "whisker"      "0.3-2"
XML          "XML"          "3.98-1.3"
zoo          "zoo"          "1.7-11"
base         "base"         "2.15.3"
boot         "boot"         "1.3-3"
class        "class"        "7.3-3"
cluster      "cluster"      "1.14.1"
codetools    "codetools"    "0.2-8"
compiler     "compiler"     "2.15.3"
datasets     "datasets"     "2.15.3"
foreign      "foreign"      "0.8-48"
graphics     "graphics"     "2.15.3"
grDevices    "grDevices"    "2.15.3"
grid         "grid"         "2.15.3"
KernSmooth   "KernSmooth"   "2.23-7"
lattice      "lattice"      "0.20-13"
MASS         "MASS"         "7.3-16"
Matrix       "Matrix"       "1.0-2"
methods      "methods"      "2.15.3"
mgcv         "mgcv"         "1.7-12"
nlme         "nlme"         "3.1-102"
nnet         "nnet"         "7.3-1"
parallel     "parallel"     "2.15.3"
rpart        "rpart"        "3.1-50"
spatial      "spatial"      "7.3-3"
splines      "splines"      "2.15.3"
stats        "stats"        "2.15.3"
stats4       "stats4"       "2.15.3"
survival     "survival"     "2.36-10"
tcltk        "tcltk"        "2.15.3"
tools        "tools"        "2.15.3"
utils        "utils"        "2.15.3"
```