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Instalando Oracle R Enterprise

Este manual tem como objetivo demonstrar a instalação das soluções Oracle para a linguagem R. São 3 componentes principais:

- Oracle R Enterprise Server
- Oracle R Enterprise Client
- Pacote ROracle

O Oracle R Enterprise Server requer a instalação de um banco de dados Oracle, não coberto neste manual (consideramos que o banco Oracle estará instalado e configurado no seu ambiente). Abaixo a lista de 2 serviços Oracle que demonstram que o banco de dados está criado e operacional.

 OradeOraDb11g_home1TNSListener	Started	Manual	Local System
 OradeServiceORADB	Started	Manual	Local System

A instalação do Oracle R Enterprise será realizada na seguinte sequência:

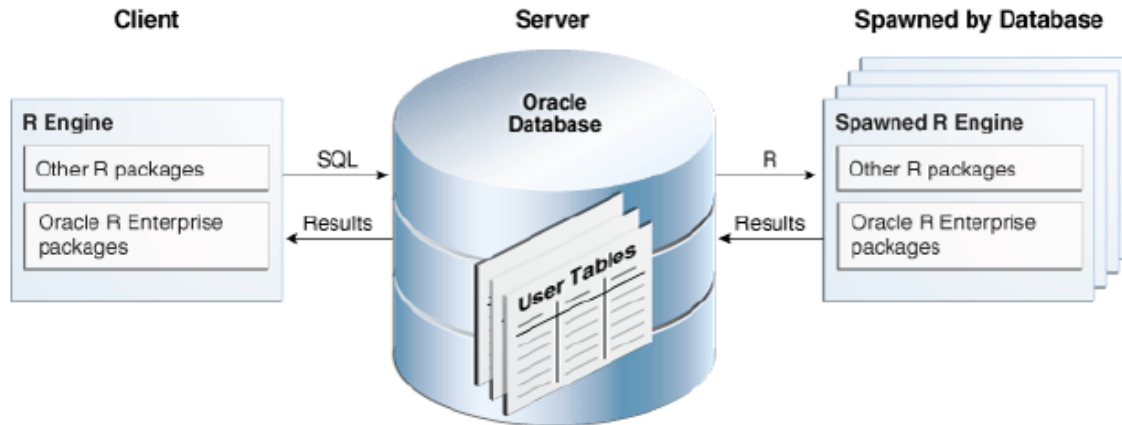
Oracle R Enterprise Client Components

- Oracle Database Client
- Oracle R Package

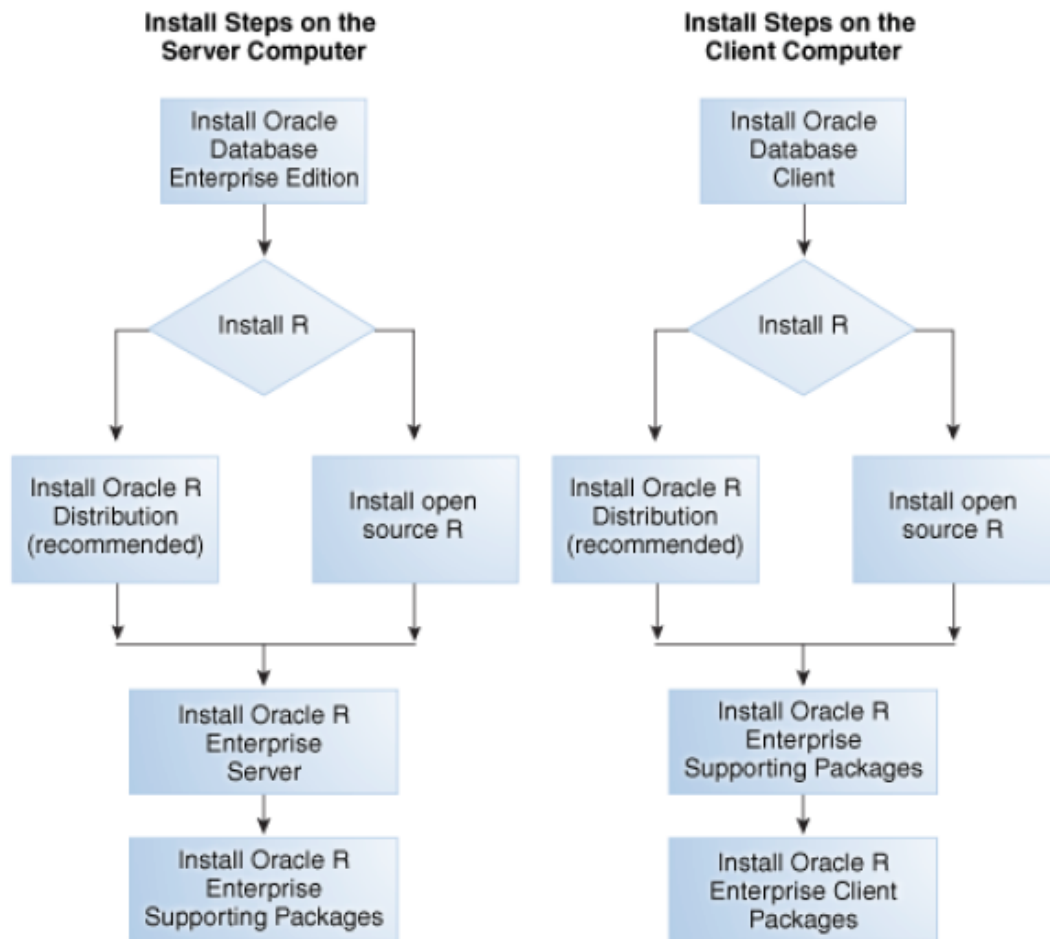
Oracle R Enterprise Server Components

- Oracle Database
- Oracle R Package

Pacote ROracle



As soluções da Oracle têm o banco de dados Oracle como componente central

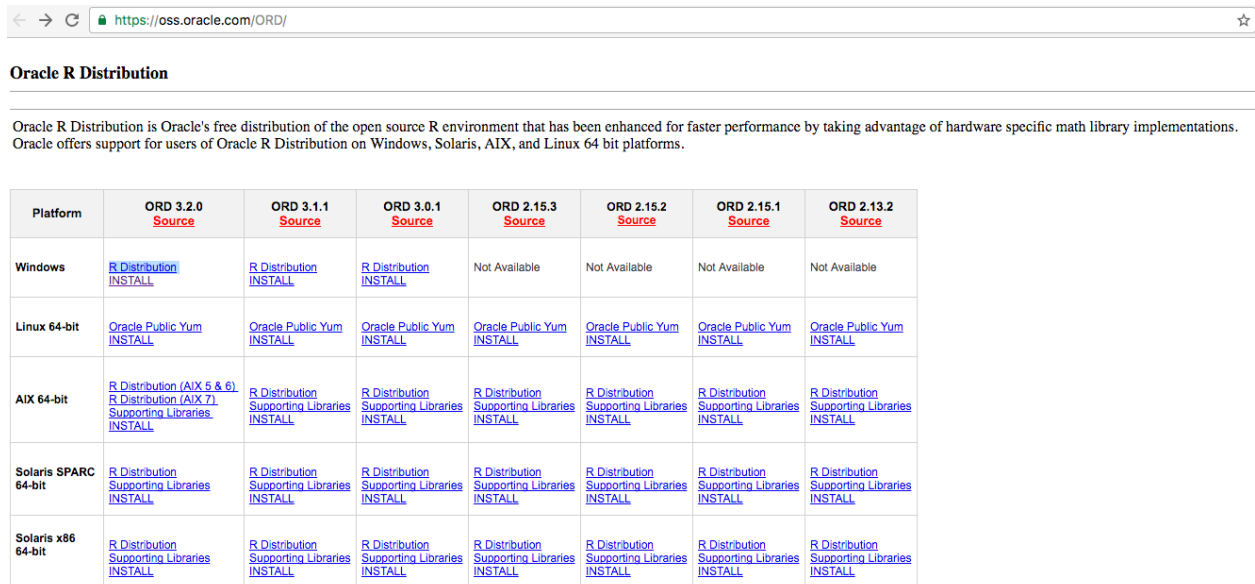


Fluxo de instalação do Oracle Enterprise

Instalação da Distribuição R da Oracle

- 1- Acesse o site: <https://oss.oracle.com/ORD> para fazer o download do Oracle R Distribution (ORD) e selecione a opção para Windows, ORD 3.2.0: <https://oss.oracle.com/ORD/ORD-3.2.0-win.zip>.

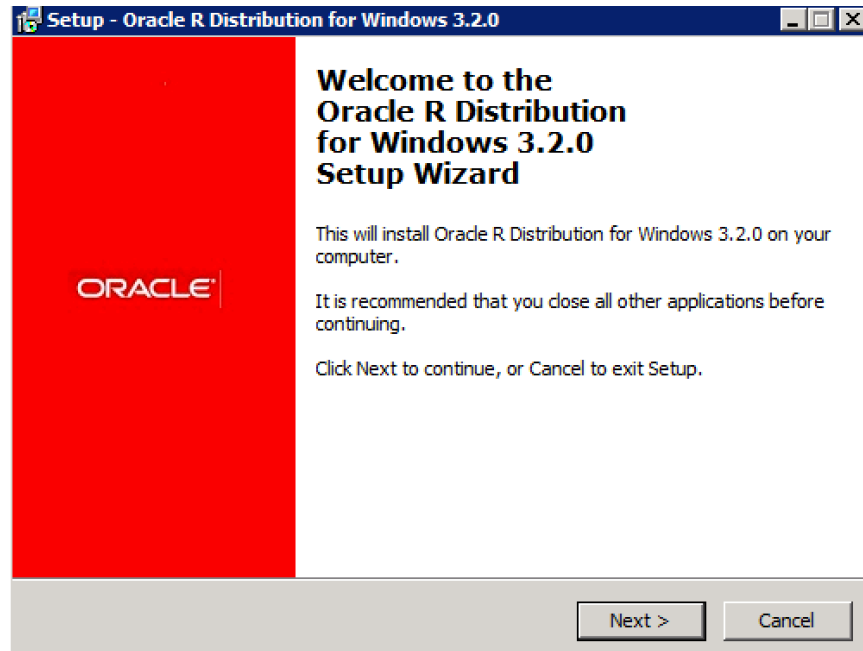
Esta é a distribuição R da Oracle, com algumas diferenças da versão oficial do R, que está disponível no CRAN.



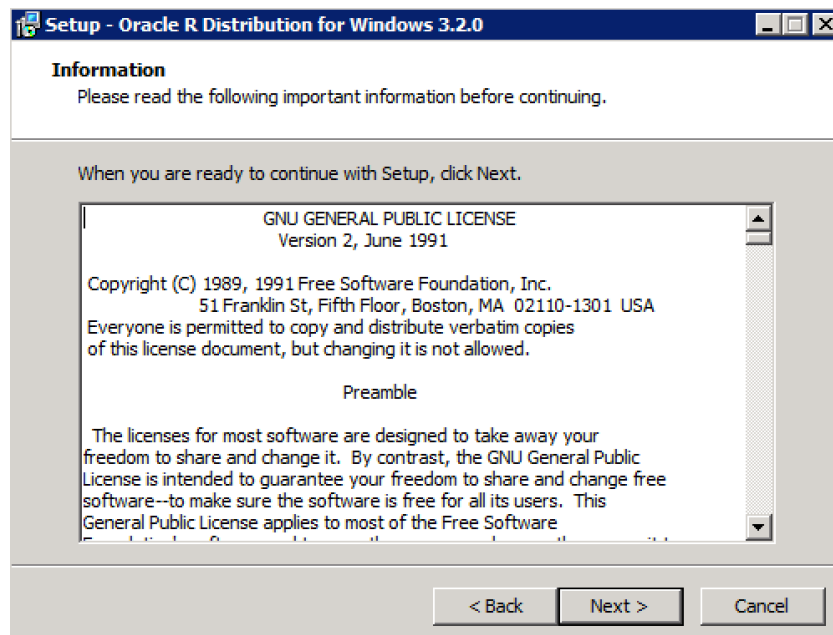
The screenshot shows the Oracle R Distribution website. It includes a navigation bar with 'Oracle R Distribution' and a description of the distribution. Below the description is a table with columns for Platform, ORD 3.2.0 Source, ORD 3.1.1 Source, ORD 3.0.1 Source, ORD 2.15.3 Source, ORD 2.15.2 Source, ORD 2.15.1 Source, and ORD 2.13.2 Source. The table lists download links for Windows, Linux 64-bit, AIX 64-bit, Solaris SPARC 64-bit, and Solaris x86 64-bit.

Platform	ORD 3.2.0 Source	ORD 3.1.1 Source	ORD 3.0.1 Source	ORD 2.15.3 Source	ORD 2.15.2 Source	ORD 2.15.1 Source	ORD 2.13.2 Source
Windows	R Distribution INSTALL	R Distribution INSTALL	R Distribution INSTALL	Not Available	Not Available	Not Available	Not Available
Linux 64-bit	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL	Oracle Public Yum INSTALL
AIX 64-bit	R Distribution (AIX 5 & 6) R Distribution (AIX 7) Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL
Solaris SPARC 64-bit	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL
Solaris x86 64-bit	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL	R Distribution Supporting Libraries INSTALL

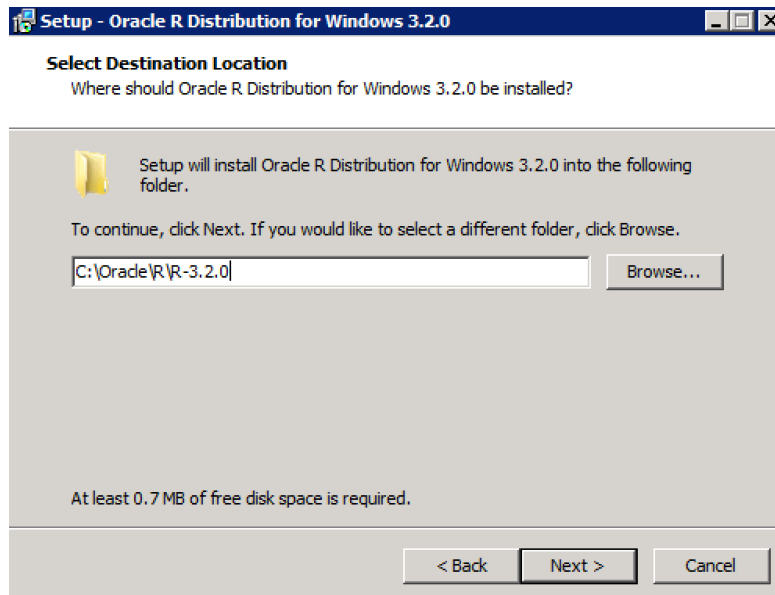
- 2- Descompacte o arquivo zip.
- 3- Execute o arquivo R-3.2.0-win.exe.
- 4- Inicie a instalação.



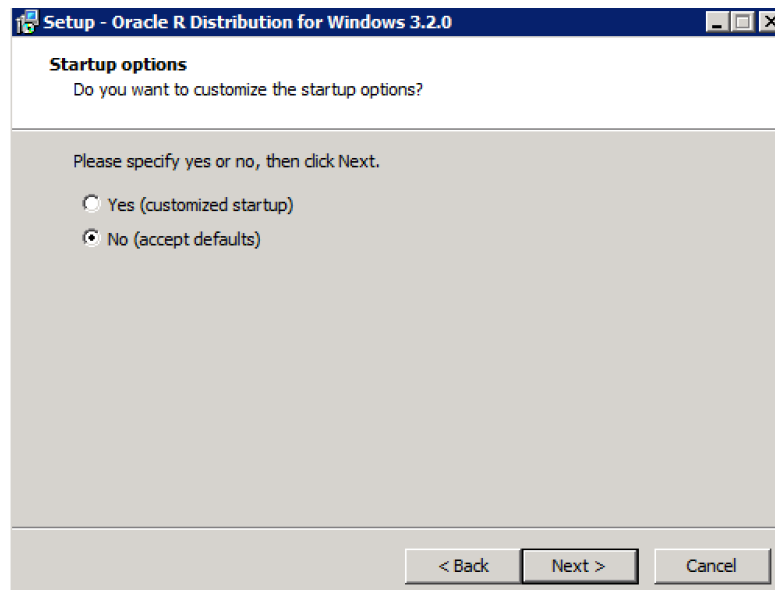
5- Aceite os termos de uso.



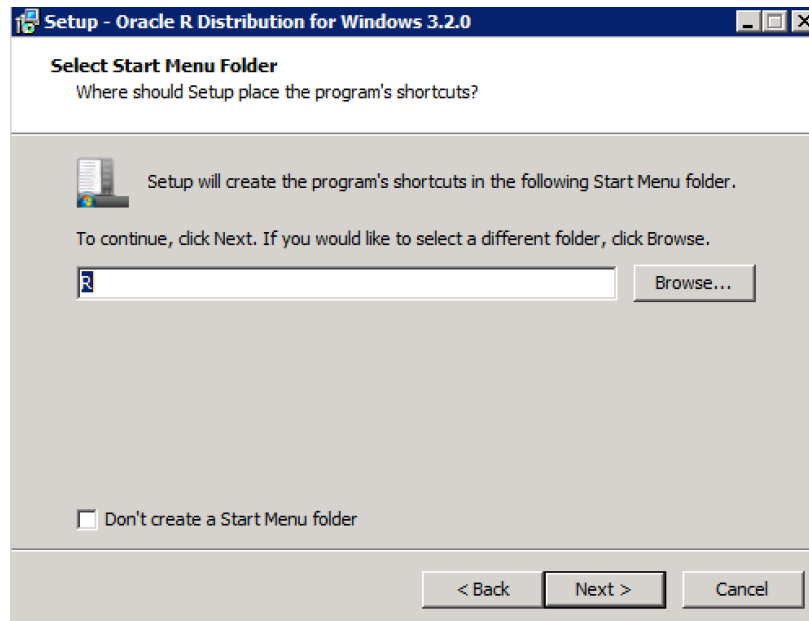
6- Diretório de instalação.



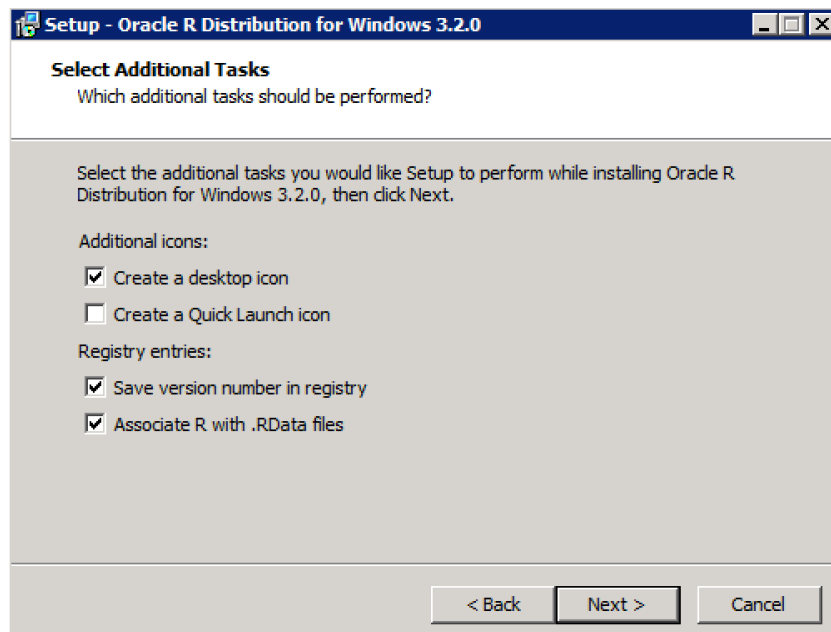
7- Clique em Next.



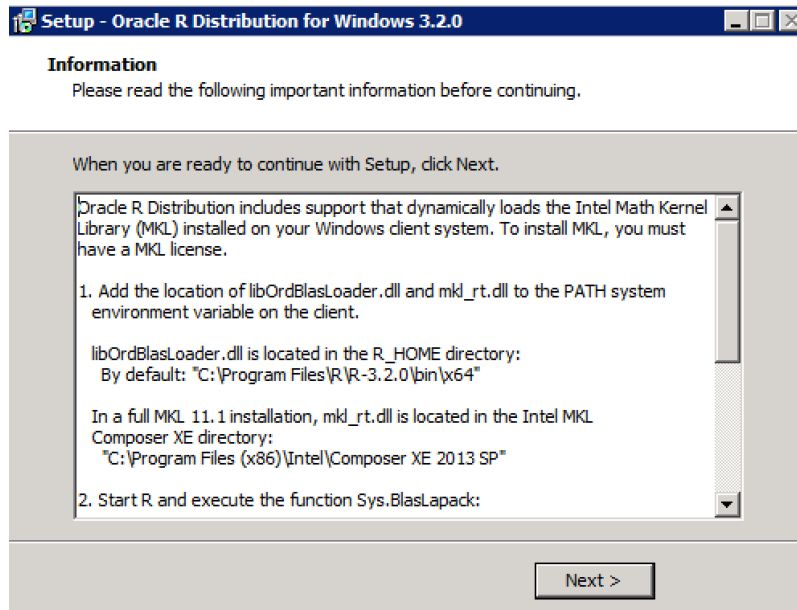
8- Clique em Next.



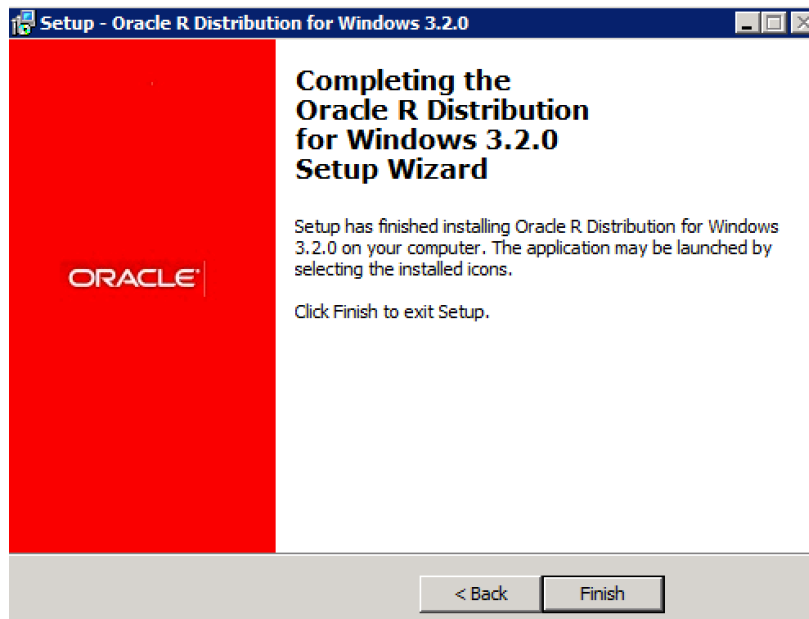
9- Clique em Next.



10- Confirme a instalação.



11- Instalação concluída com sucesso.



R Console

Instalação do Oracle R Server

- 1- Acesse o link abaixo e faça o download dos arquivos Supporting e Server.

<http://www.oracle.com/technetwork/database/database-technologies/r/r-enterprise/downloads/index.html>

www.oracle.com/technetwork/database/database-technologies/r/r-enterprise/downloads/index.html

Oracle Technology Network > Database > Database Technology Index > R > R Enterprise > Downloads

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Oracle R Enterprise Downloads

Thank you for accepting the OTN License Agreement; you may now download this software.

Platform	ORE 1.5 Documentation	ORE 1.4.1 Documentation	ORE 1.4 Documentation
Windows	Client (6M) Supporting (4M) Server (16M)	Client (6M) Supporting (4M) Server (16M)	Client (6M) Supporting (2M) Server (9M)
Linux 64-bit	Client (5M) Supporting (3M) Server (104M)	Client (5M) Supporting (4M) Server (102M)	Client (5M) Supporting (1M) Server (91M)
AIX 5/6 64-bit	Client (5M) Supporting (3M) Server (5M)	Client (5M) Supporting (4M) Server (5M)	Client (5M) Supporting (1M) Server (5M)
AIX 7 64-bit	Client (15M) Server (16M)		
Solaris SPARC 64-bit	Client (5M) Supporting (3M) Server (5M)	Client (5M) Supporting (5M) Server (5M)	Client (5M) Supporting (1M) Server (5M)
Solaris x86 64-bit	Client (5M) Supporting (3M) Server (5M)	Client (4M) Supporting (4M) Server (5M)	Client (5M) Supporting (1M) Server (5M)

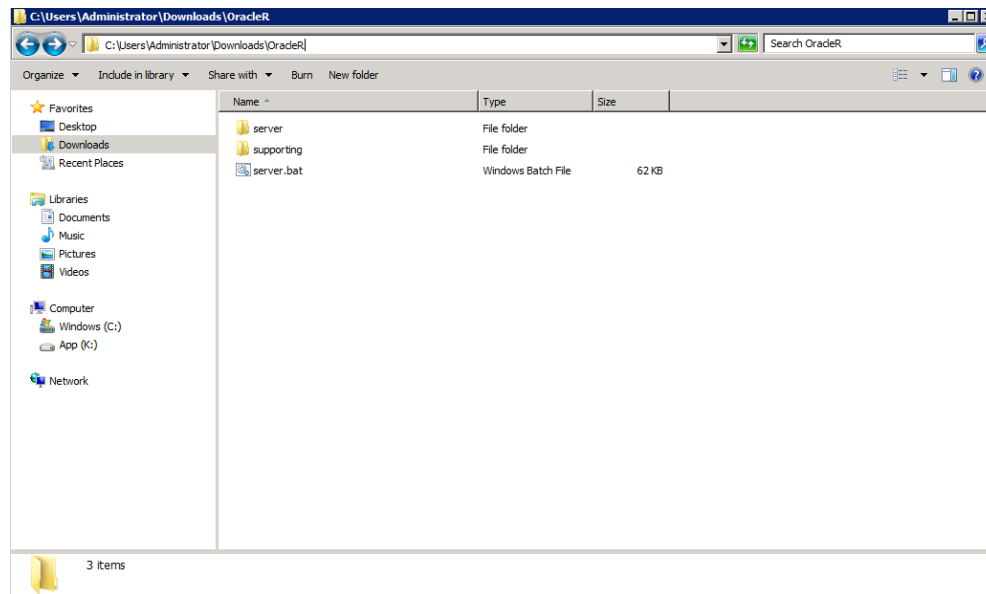
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- 2- Crie um diretório chamado OracleR. Descompacte os 2 arquivos que você fez o download no item anterior. O resultado final será esse:



- 3- Abra o prompt de comando, nevegue até o diretório que você criou no item anterior e execute o arquivo server.bat

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd Downloads
C:\Users\Administrator\Downloads>cd OracleR
C:\Users\Administrator\Downloads\OracleR>server.bat
```

4- Escolha o nome da tablespace de dados.

```
Administrator: C:\Windows\system32\cmd.exe - server.bat
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd Downloads
C:\Users\Administrator\Downloads>cd OracleR
C:\Users\Administrator\Downloads\OracleR>server.bat

Oracle R Enterprise 1.5 Server.

Copyright (c) 2012, 2015 Oracle and/or its affiliates. All rights reserved.

Checking platform ..... Pass
Checking R ..... Pass
Checking R libraries ..... Pass
Checking ORACLE_HOME ..... Pass
Checking ORACLE_SID ..... Pass
Checking sqlplus ..... Pass
Checking ORACLE instance ..... Pass
Checking CDB/PDB ..... Pass
Checking ORE ..... Pass

Choosing RQSYS tablespaces
PERMANENT tablespace to use for RQSYS [list]: USERS_
```

5- Defina a tablespace temporária.

```
Administrator: C:\Windows\system32\cmd.exe - server.bat
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd Downloads
C:\Users\Administrator\Downloads>cd OracleR
C:\Users\Administrator\Downloads\OracleR>server.bat

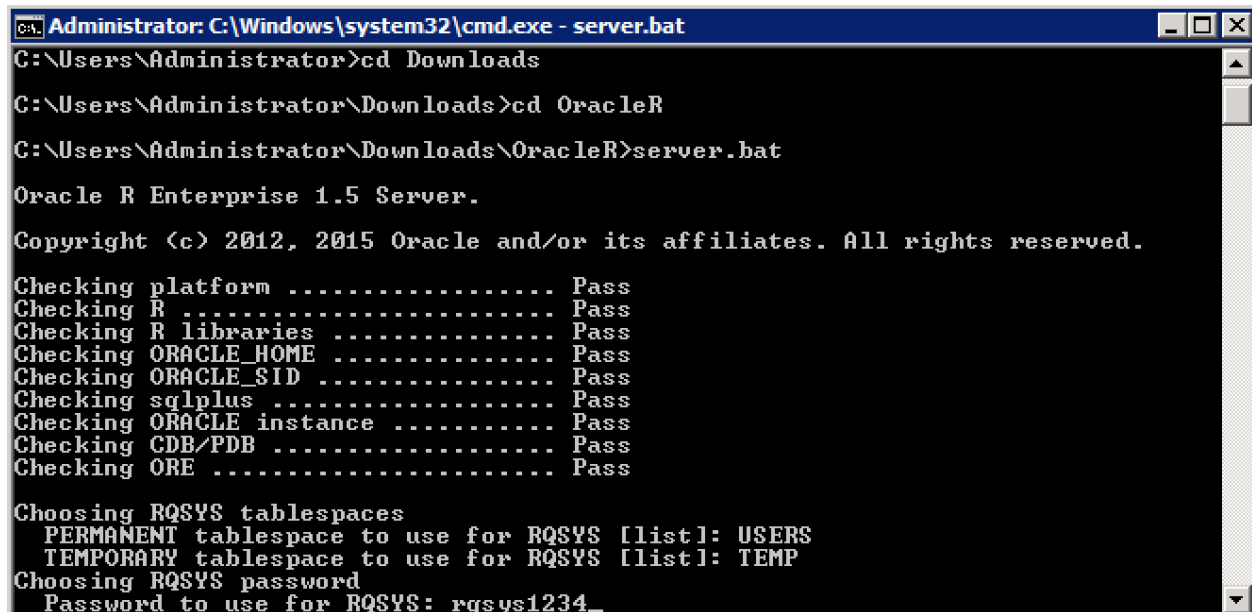
Oracle R Enterprise 1.5 Server.

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Checking platform ..... Pass
Checking R ..... Pass
Checking R libraries ..... Pass
Checking ORACLE_HOME ..... Pass
Checking ORACLE_SID ..... Pass
Checking sqlplus ..... Pass
Checking ORACLE instance ..... Pass
Checking CDB/PDB ..... Pass
Checking ORE ..... Pass

Choosing RQSYS tablespaces
PERMANENT tablespace to use for RQSYS [list]: USERS
TEMPORARY tablespace to use for RQSYS [list]: TEMP_
```

6- Defina a senha do usuário.



```
Administrator: C:\Windows\system32\cmd.exe - server.bat
C:\Users\Administrator>cd Downloads
C:\Users\Administrator\Downloads>cd OracleR
C:\Users\Administrator\Downloads\OracleR>server.bat

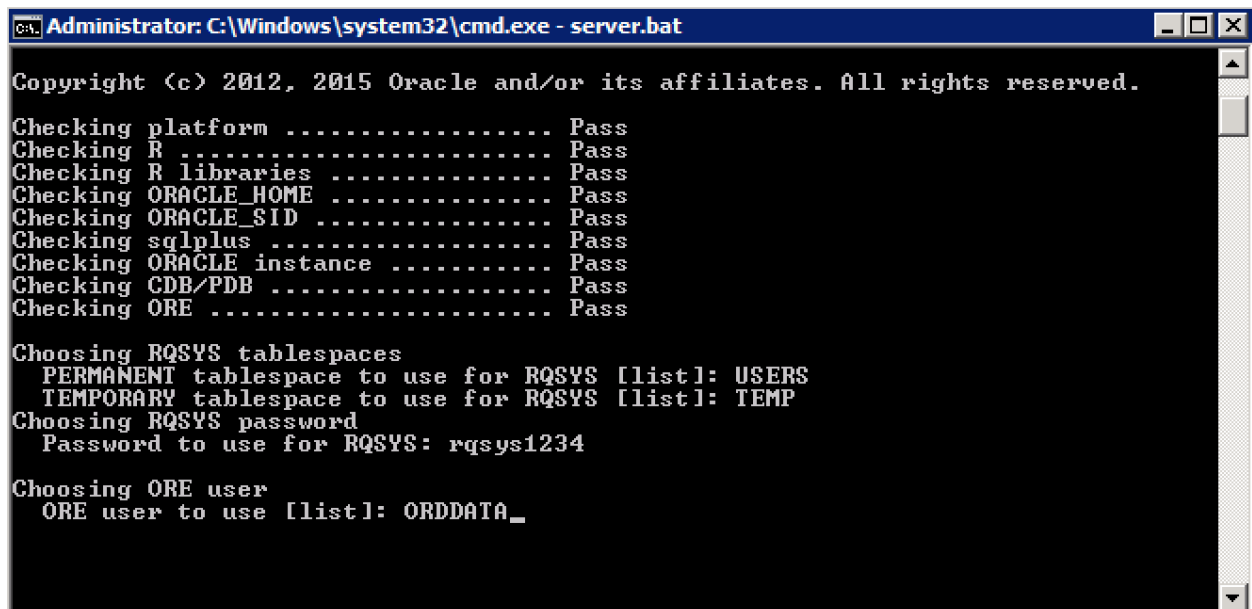
Oracle R Enterprise 1.5 Server.

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Checking platform ..... Pass
Checking R ..... Pass
Checking R libraries ..... Pass
Checking ORACLE_HOME ..... Pass
Checking ORACLE_SID ..... Pass
Checking sqlplus ..... Pass
Checking ORACLE instance ..... Pass
Checking CDB/PDB ..... Pass
Checking ORE ..... Pass

Choosing RQSYS tablespaces
  PERMANENT tablespace to use for RQSYS [list]: USERS
  TEMPORARY tablespace to use for RQSYS [list]: TEMP
Choosing RQSYS password
  Password to use for RQSYS: rqsys1234_
```

7- Defina o usuário.



```
Administrator: C:\Windows\system32\cmd.exe - server.bat

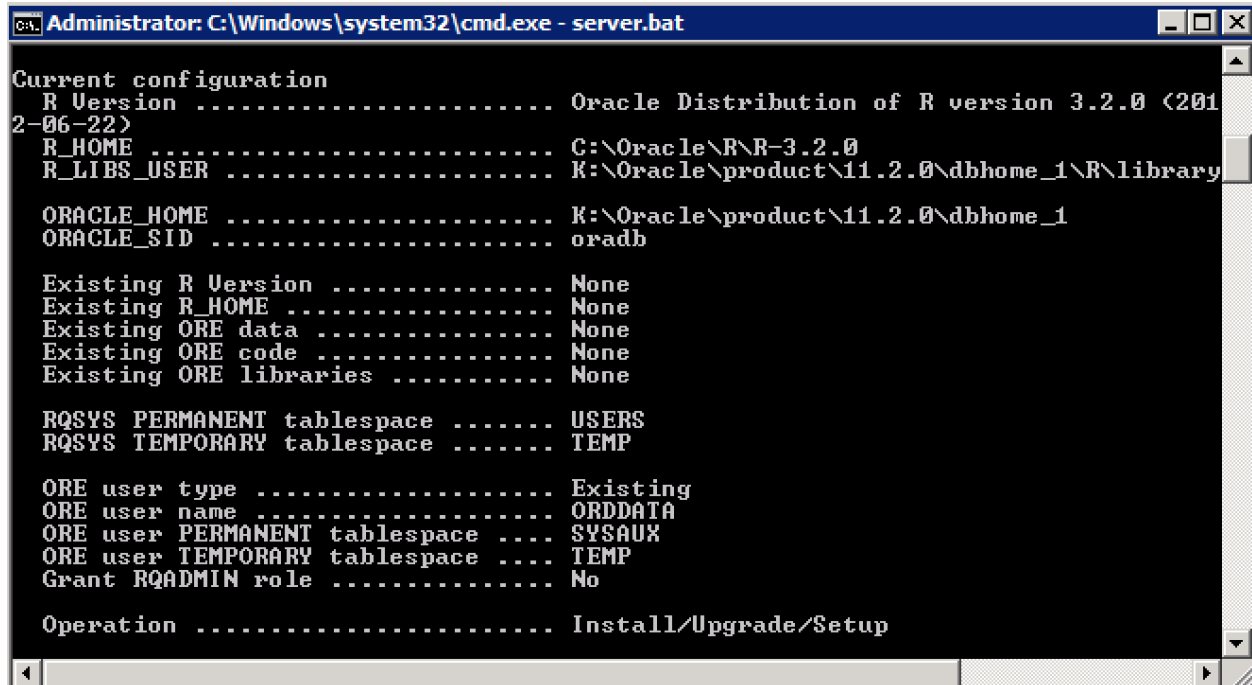
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Checking platform ..... Pass
Checking R ..... Pass
Checking R libraries ..... Pass
Checking ORACLE_HOME ..... Pass
Checking ORACLE_SID ..... Pass
Checking sqlplus ..... Pass
Checking ORACLE instance ..... Pass
Checking CDB/PDB ..... Pass
Checking ORE ..... Pass

Choosing RQSYS tablespaces
  PERMANENT tablespace to use for RQSYS [list]: USERS
  TEMPORARY tablespace to use for RQSYS [list]: TEMP
Choosing RQSYS password
  Password to use for RQSYS: rqsys1234

Choosing ORE user
  ORE user to use [list]: ORDDATA_
```

8- Confirme as informações.



```

Administrator: C:\Windows\system32\cmd.exe - server.bat

Current configuration
R Version ..... Oracle Distribution of R version 3.2.0 (201
2-06-22)
R_HOME ..... C:\Oracle\R\R-3.2.0
R_LIBS_USER ..... K:\Oracle\product\11.2.0\dbhome_1\R\library

ORACLE_HOME ..... K:\Oracle\product\11.2.0\dbhome_1
ORACLE_SID ..... oradb

Existing R Version ..... None
Existing R_HOME ..... None
Existing ORE data ..... None
Existing ORE code ..... None
Existing ORE libraries ..... None

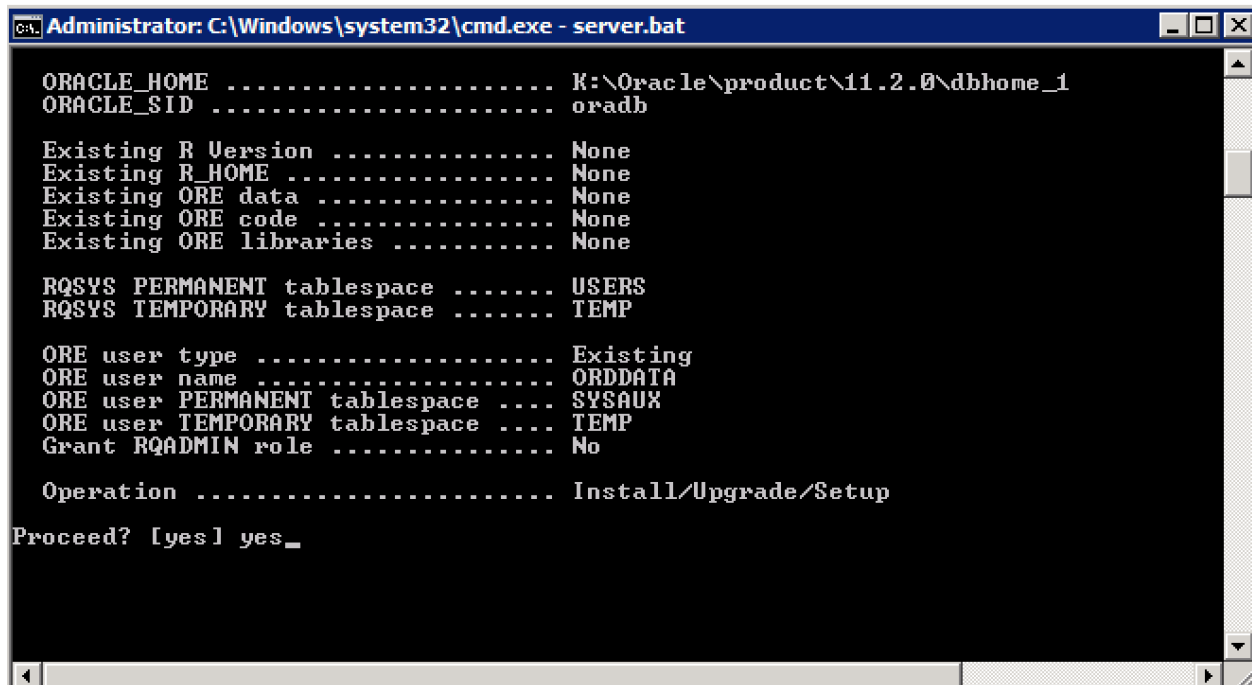
RQSYS PERMANENT tablespace ..... USERS
RQSYS TEMPORARY tablespace ..... TEMP

ORE user type ..... Existing
ORE user name ..... ORDDATA
ORE user PERMANENT tablespace ..... SYSAUX
ORE user TEMPORARY tablespace ..... TEMP
Grant RQADMIN role ..... No

Operation ..... Install/Upgrade/Setup

```

9- Digite yes para instalar o Oracle R Enterprise.



```

Administrator: C:\Windows\system32\cmd.exe - server.bat

ORACLE_HOME ..... K:\Oracle\product\11.2.0\dbhome_1
ORACLE_SID ..... oradb

Existing R Version ..... None
Existing R_HOME ..... None
Existing ORE data ..... None
Existing ORE code ..... None
Existing ORE libraries ..... None

RQSYS PERMANENT tablespace ..... USERS
RQSYS TEMPORARY tablespace ..... TEMP

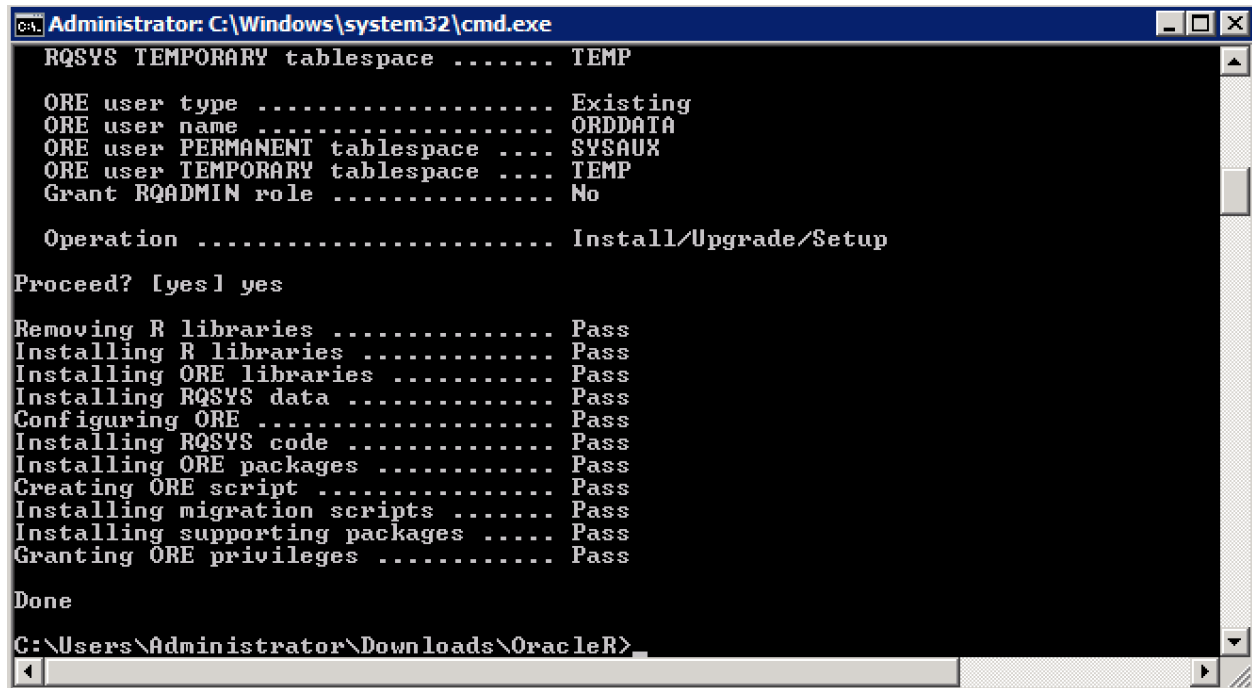
ORE user type ..... Existing
ORE user name ..... ORDDATA
ORE user PERMANENT tablespace ..... SYSAUX
ORE user TEMPORARY tablespace ..... TEMP
Grant RQADMIN role ..... No

Operation ..... Install/Upgrade/Setup

Proceed? [yes] yes_

```

10- Instalação concluída com sucesso.



```
Administrator: C:\Windows\system32\cmd.exe
RQSYS TEMPORARY tablespace ..... TEMP

ORE user type ..... Existing
ORE user name ..... ORDDATA
ORE user PERMANENT tablespace .... SYSAUX
ORE user TEMPORARY tablespace .... TEMP
Grant RQADMIN role ..... No

Operation ..... Install/Upgrade/Setup

Proceed? [yes] yes

Removing R libraries ..... Pass
Installing R libraries ..... Pass
Installing ORE libraries ..... Pass
Installing RQSYS data ..... Pass
Configuring ORE ..... Pass
Installing RQSYS code ..... Pass
Installing ORE packages ..... Pass
Creating ORE script ..... Pass
Installing migration scripts ..... Pass
Installing supporting packages ..... Pass
Granting ORE privileges ..... Pass

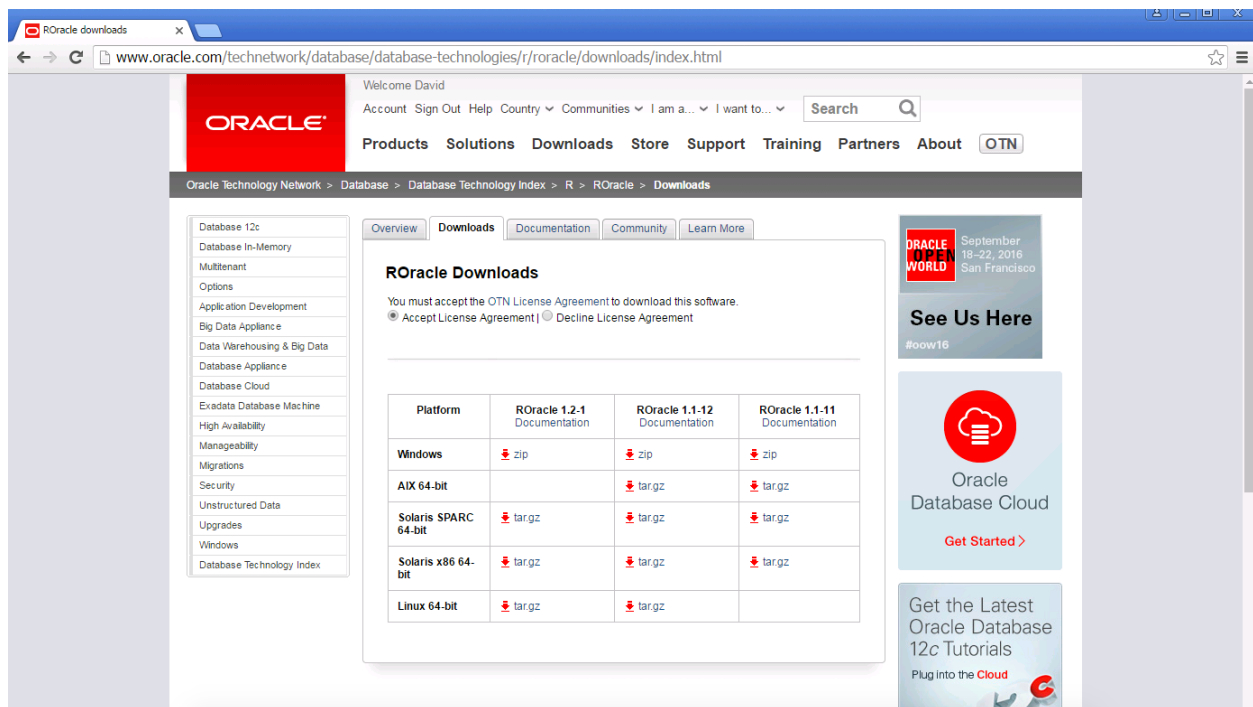
Done

C:\Users\Administrator\Downloads\OracleR>
```

Instalação do Pacote ROracle

1- Faça o download o arquivo zip com o pacote ROracle.

<http://www.oracle.com/technetwork/database/database-technologies/r/roracle/downloads/index.html>



Oracle Technology Network > Database > Database Technology Index > R > ROracle > Downloads

ROracle Downloads

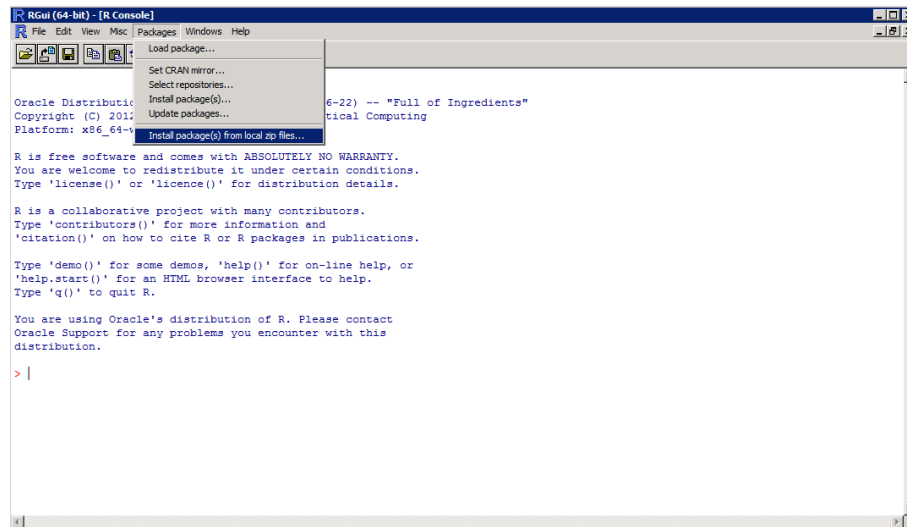
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Platform	ROracle 1.2-1 Documentation	ROracle 1.1-12 Documentation	ROracle 1.1-11 Documentation
Windows	zip	zip	zip
AIX 64-bit		tar.gz	tar.gz
Solaris SPARC 64-bit	tar.gz	tar.gz	tar.gz
Solaris x86 64-bit	tar.gz	tar.gz	tar.gz
Linux 64-bit	tar.gz	tar.gz	

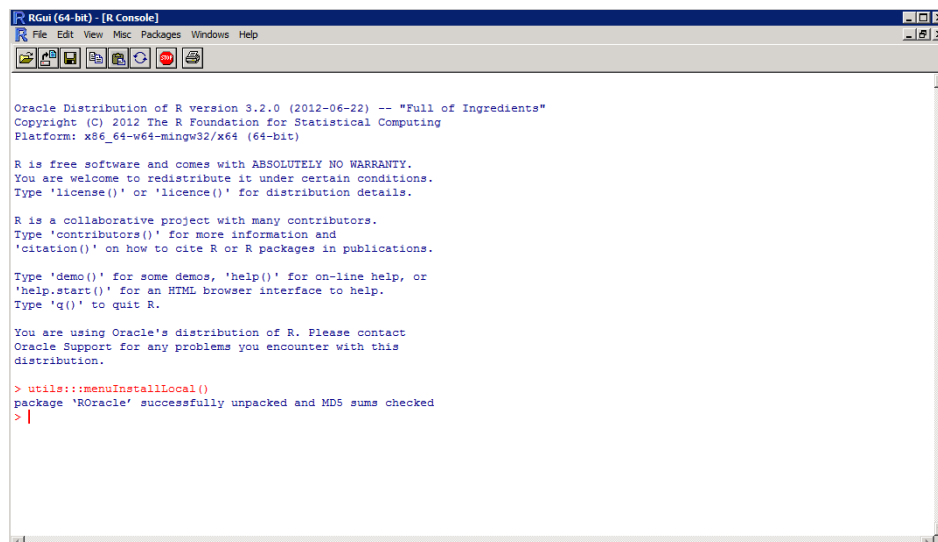
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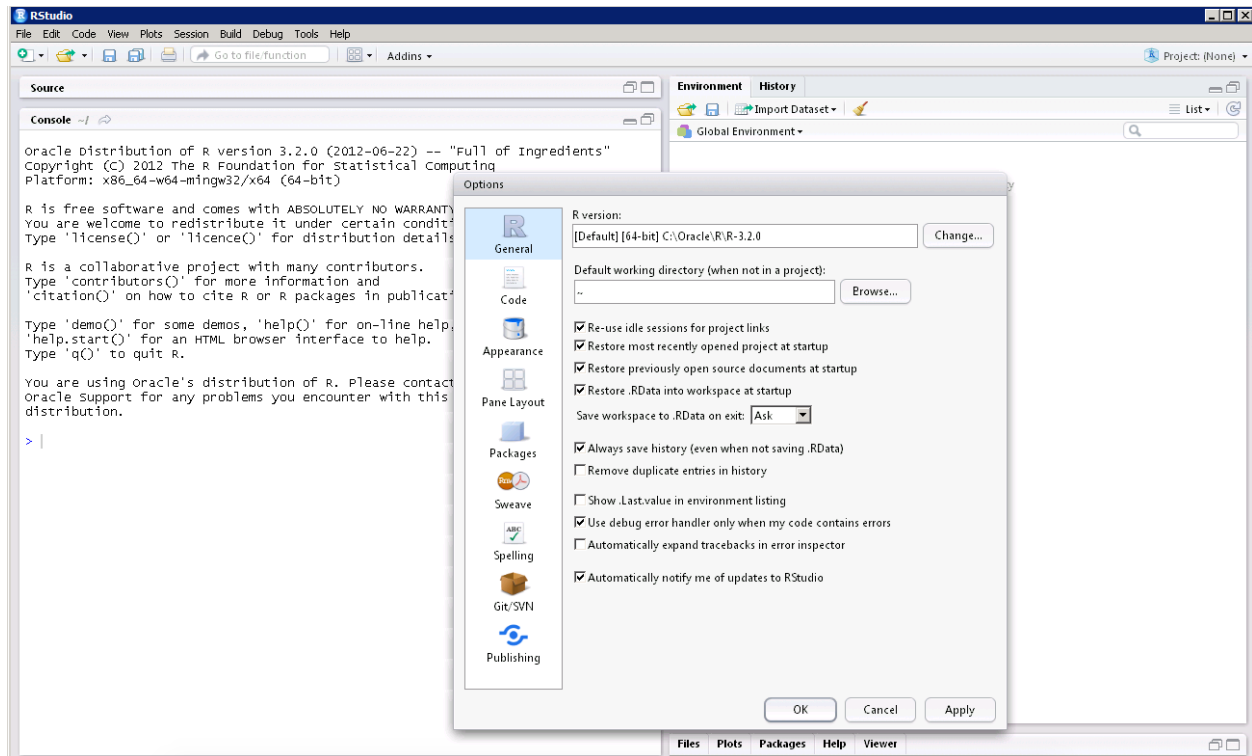
- 2- Abra o console do R, clique em Packages e selecione Install packages from zip files...selecione o arquivo zip que você fez o download no item anterior.



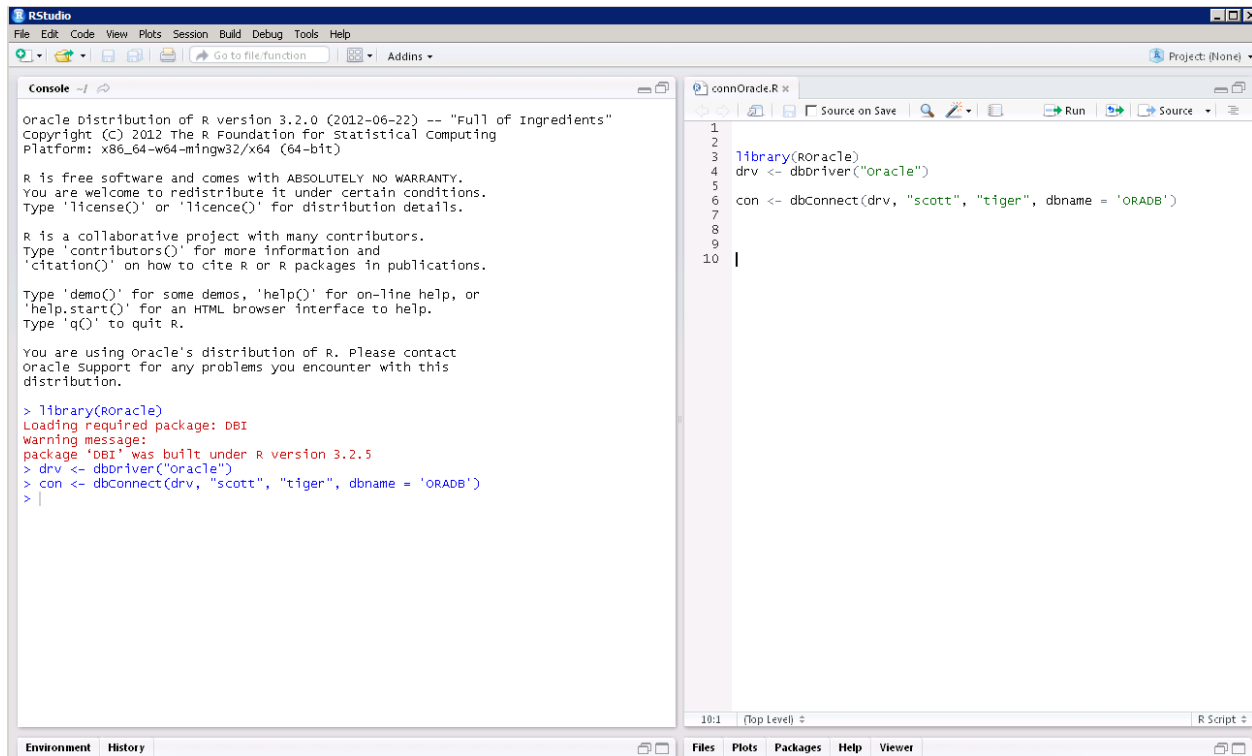
- 3- Pacote instalado com sucesso



4- No RStudio, defina o executável da distribuição R da Oracle como padrão.



5- Estabeleça a conexão com o banco de dados Oracle e comece seu trabalho de análise.



The screenshot shows the RStudio interface. The console on the left displays the R startup message and the execution of the following commands:

```
> library(Roracle)
Loading required package: DBI
Warning message:
package 'DBI' was built under R version 3.2.5
> drv <- dbDriver("Oracle")
> con <- dbConnect(drv, "scott", "tiger", dbname = 'ORADB')
> |
```

The script editor on the right shows the same code in a file named `connOracle.R`:

```
1
2
3 library(Roracle)
4 drv <- dbDriver("Oracle")
5
6 con <- dbConnect(drv, "scott", "tiger", dbname = 'ORADB')
7
8
9
10 |
```