

## Installing & uninstalling on Linux

SuperMap iServer(for Linux 64-bit system) provides product packages with .tar.gz extension. The basic operation steps for installing and using iServer on a Linux operating system is as follows:

### Configuring before Installation

Make sure that your machine meets the minimum hardware & software requirements before installing SuperMap iServer, refer to [System Configuration Requirements](#). After that, you also should check the necessary environment preparation, such as the dependent libraries, license and so on.

- Installing dependency libraries
  - Installing with scripts
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    - Ubuntu
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- Configuring license

### Installing dependency libraries

You can install dependent libraries in two ways: use the scripts provided in the iServer package to install automatically, or install them manually.

#### Installing with scripts

The `dependencies_check_and_install.sh` file provided in the iServer package can automatically detect the current operating system version, as well as the dependent libraries that iServer runs on this operating system and install these dependencies. Run the file as follows: In the `supermap_iserver_*_linux64/support` directory, execute the following command:

```
./dependencies_check_and_install.sh [command] [options]
```

[Command] (required parameters):

- Install: install dependent libraries.
- Uninst: uninstall dependency libraries.

[Options] (optional):

- -y: means "yes" is automatically selected for all interactions during installation.

For example, execute the following command to install the dependent libraries:

```
./dependencies_check_and_install.sh install -y
```

If you run iServer via Docker (download address: <http://hub.docker.com/r/supermap/iserver>), you can add the following parameters to specify the runtime environment. The script will install the dependencies correspondingly based on the operating system you specified when it runs:

- -r: does not detect the current operating environment, but will specify the operating environment as a Red Hat system.
- -s: does not detect the current operating environment, but the operating environment specified as SUSE system.
- -u: does not detect the current operating environment, but the operating environment specified as Ubuntu system.

For example, run iServer through the Docker, and specify that the operating environment is ubuntu, execute the following commands when you install the dependency libraries :

```
./dependencies_check_and_install.sh install -yu
```

## Installing manually

You can also install the relevant libraries by loading the system installation disk, or manually install them after getting them via the official website.

### Ubuntu

When installing and using iServer in the Ubuntu 14 Server operating system, these dependencies are needed: libx11-dev, xinit, gcc, etc., as well as the Chinese language package. You can install the relevant libraries by loading the system installation disk, or manually install them after getting them via the official website. If you are loading a system installation disk, or in an external network environment, you can install the relevant libraries with the apt-get install command.

- To install libx11-dev, xinit, gcc, etc., you need to execute the following commands orderly:

```
sudo apt-get install libx11-dev
sudo apt-get install xinit
sudo apt-get install gcc
sudo apt-get install libgomp1
sudo apt-get install libxtst6
sudo apt-get install libxi6
sudo apt-get install libXrandr2
sudo apt-get install libglu1-mesa
sudo apt-get install libglapi-mesa
sudo apt-get install libx11-xcb1
```

```
sudo apt-get install libxcb-glx0
sudo apt-get install libxdamage1
sudo apt-get install libxxf86vm1
sudo apt-get install libxfixes3
sudo apt-get install libgl1-mesa-glx
sudo apt-get install libxinerama1
sudo apt-get install libxcursor1
```

- To install 32bit dependencies, libc6-i386 and ia32-libs, which are needed when installing license driver, you need to execute the following commands orderly:

```
sudo apt-get install libc6-i386
sudo apt-get install ia32-libs
```

- Install Chinese language pack

Simplified Chinese version of iServer needs to rely on the Chinese environment. If you don't install the Chinese language pack when you install the Ubuntu system, you can execute the following command to install the Chinese language pack for the system:

```
sudo apt-get install language-pack-zh-hans
```

## Deepin

Deepin 15.3 OS supports installing iServer. There is no need to install a dependency library when installing iServer on Deepin. If your system language is non-Chinese, you need to modify it to Simplified Chinese. You can set it directly on the graphical interface, or by setting it at the terminal.

Terminal commands:

```
localedef -f UTF-8 -i zh_CN zh_CN.UTF-8
```

After that, restart the iServer.

## Red Hat/SUSE

When installing and using iServer on RedHat, SUSE series OS, the needed dependencies include libgomp, libpng12, etc. You can install them through yum install command.

- To install libgomp, libpng12, execute the following commands orderly:

```
sudo yum install libgomp
sudo yum install libpng12
sudo yum install libXext
sudo yum install libXi
sudo yum install libXrender
sudo yum install libXtst
```

- To install dependencies that license driver needs, execute the following commands orderly:

```
sudo yum install libstdc++-devel.i686
sudo yum install glibc.i686
sudo yum install libgcc.i686
sudo yum install libstdc++.i686
sudo yum install glibc-devel.i686
```

For the SUSE operating system, in addition to the above-mentioned library, you need to install glibc-32bit library:

```
sudo yum install glibc-32bit
```

## Configuring license

You need to [Configure the license](#) if this the first time you use iServer.

## Installing product

SuperMap iServer provides the easy use package. Start the service after decompress the package directly.

Take the Red Hat® Enterprise Linux® 5 as an example to introduce the SuperMap iServer installation:

1. Copy the installation package of SuperMap iServer to a certain directory of Linux, for example, /home/map/SuperMap. Locate to the directory of .tar.gz file with command, for example

**cd /home/map/SuperMap.**

2. Implement the following command to unzip the package

```
tar -zxvf filename.tar.gz
```

3. Execute the following command to start iServer service after enter bin path:

```
./startup.sh
```

Or you can stop the iServer service by the following command:

```
./shutdown.sh
```

After enable iServer service, you can use the iServer maps, data and analysis. Please refer to [Getting Started](#).

## Configuration after the installation

- Default configurations
- Optional custom configuration
  - Configure to use a custom JRE
  - Configure the use of custom iObjects and font libraries
  - Set the system encoding

- Configure the Oracle environment variables
- Configure the PG environment variables

## Default configurations

When starting SuperMap iServer, iServer uses the default settings defined by the environment configuration script (% SuperMap iServer\_HOME% / bin /setenv.sh), **and you do not need any post-installation configuration to start using iServer.**

The default configurations include:

- The default setting is: to use the built-in JRE (Java Runtime Environment) in iServer and SuperMap iObjects Java which is located in the % SuperMap iServer\_HOME% / support
- Use the font library in the built-in iObjects, located in the % SuperMap iServer\_HOME% / support / fonts directory, if you need to install a new font, please put the font file directly in the directory to take effect
- Set the encoding mode of the system to UTF-8

If you do not want to use the default configurations, you can modify the script file directly to use a custom configuration or do not use the script, and use the custom JRE and JDK by manually setting the environment variable. When using customized JRE and iObjects, when using 32-bit iServer, please use the 32-bit JRE / JDK and iObjects; when using 64-bit iServer, use 64-bit JRE / JDK and iObjects.

In addition to the above custom configuration, if you need to use Oracle datasource, you also need to configure the environment.

## Optional custom configuration

If you do not want to use the default configuration when iServer starts the service, that is, you do not want to use the default JRE and JDK in the environment configuration script, you can modify the script file directly to use a custom configuration, or by manually setting environment variables.

In addition to the above custom configuration, if you need to use Oracle datasource, you also need to configure the environment.

## Configure to use a custom JRE

When you use a custom JRE by modifying the environment variable, you need to rename or delete the jre directory in the % SuperMap iServer\_HOME% / support directory. otherwise, it will still use the built-in jre and iObjects java.

According to the [software requirements](#) of iServer, JRE requires 1.6 or above. If you are installing JDK, you need to set JAVA\_HOME to JDK directory; if you are installing JRE, set JRE\_HOME to JRE directory.

To configure the JDK as an example, you can set environment variables in the following ways:

(1) in the system profile file (default path: / etc / profile), set JAVA\_HOME as follows:

```
export the JAVA_HOME = / JDK directory
```

(2) Make above settings take effect:

```
source /etc/profile
```

(3) Implement the echo command to check whether it's a correct settings:

```
echo $JAVA_HOME
```

The JRE configuration is the same with JDK, only the environment variable name is changed to JRE\_HOME.

## Configure the use of custom iObjects and font libraries

When you use a custom iObjects by modifying the environment variable, you need to rename or delete the objectsjava directory in the % SuperMap iServer\_HOME% / support directory. otherwise, it will still use the built-in iObjects java.

Please use the corresponding version of iObjects according to iServer's [software requirements](#). If the version is inconsistent, you can not guarantee the availability of all services and functions of iServer.

The steps to set how to custom SuperMap iObjects Java and its font library are as follows:

(1) Set the environment variable named UGO\_HOME in the system profile file (default path: / etc / profile) and add \$ UGO\_HOME / Bin to the LD\_LIBRARY\_PATH variable:

```
export UGO_HOME= /SuperMap iObjects Java 9D directory
export LD_LIBRARY_PATH =$UGO_HOME/Bin:$LD_LIBRARY_PATH
```

(2) Set the SUPERMAP\_ROOT environment variable to point to the parent directory of the font library fonts folder. For example, in SuperMap iObjects Java it contains default fonts, located in \$ UGO\_HOME / Support, then set SUPERMAP\_ROOT as follows:

```
export SUPERMAP_ROOT=$UGO_HOME/Support
```

(3) Make above settings take effect:

```
source /etc/profile
```

(4) Implement the echo command to check whether it's a correct settings:

```
echo $LD_LIBRARY_PATH
```

## Set the system encoding

The environment encoding script used by SuperMap iServer (% SuperMap iServer\_HOME% / bin / setenv.sh) also sets the encoding mode of the system. If you have modified this environment setup script or configured not to use the script when starting service, then you need to manually set the system encoding.

(1) set RedHat system encoding:

```
export LANG=zh_CN.UTF-8
```

(2) set SUSE system encoding:

```
export LANG=zh_CN.UTF-8
unset LC_CTYPE
```

## Configure the Oracle environment variables

If you use the Oracle datasource, you need to configure the environment variables as follows:

(1) Set ORACLE\_HOME, point it to the Oracle installation directory; and add \$ ORACLE\_HOME / lib to the LD\_LIBRARY\_PATH variable, as follows:

```
export ORACLE_HOME=/Oracle installation directory
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
```

(2) If the Oracle database is encoded as GBK, set the NLS\_LANG parameter to "simplified chinese" \_china.zhs16gbk, as follows:

```
export NLS_LANG="simplified chinese" _china.zhs16gbk
```

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If you use the Oracle client, after downloading and installing the client of the appropriate system, you need to configure the following environment variables:

(1) Set ORACLE\_CLIENT\_HOME, point it to the installation directory of the Oracle Client, then add \$TNS\_ADMIN into the LD\_LIBRARY\_PATH variable, as follows:

```
export ORACLE_CLIENT_HOME=/Oracleclient installation directory
export LD_LIBRARY_PATH=$ORACLE_CLIENT_HOME:$LD_LIBRARY_PATH
```

(2) Set TNS\_ADMIN, point it to the next upper directory of the tnsnames.ora file, as follows:

```
export TNS_ADMIN=Oracleclient installation directory/network/admin
```

## Configure the PG environment variables

If you use the pg client, after downloading and installing the client of the appropriate system, you need to configure the following environment variables:

(1) Set PG\_CLIENT\_HOME, point it to the PGClient installation directory, then add \$PG\_CLIENT\_HOME into LD\_LIBRARY\_PATH variable, as follows:

```
export PG_CLIENT_HOME=/PgClient installation directory
export LD_LIBRARY_PATH=$PG_CLIENT_HOME:$LD_LIBRARY_PATH
```

## Uninstalling product

To uninstall iServer, delete the software directory from your computer after you stop iServer service.