

# Installation on Linux using packages

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## Prerequisites

 The recommended version of RHEL is 7 or higher

## Installation

1. First of all, download the FEJ distribution. The recent version of the packages is available at <https://clientspace.b2bits.com/>

The packages names look like:

- RHEL package: `fixedge-java-1.8.0.268-1.el7.x86_64.rpm`
- Debian package: `fixedge-java_1.8.0.268_amd64.deb`.

2. To install the package on RHEL, run the following command as a root or using `sudo` (installation requires superuser permissions):

```
yum install ./fixedge-java-1.8.0.268-1.el7.x86_64.rpm
```


To install the package on Ubuntu, run the following command (installation requires superuser permissions):

```
sudo apt install ./fixedge-java_1.8.0.268_amd64.deb
```

3. The FIXEdge Java package has the following structure:

Directory	Purpose
<code>/etc/fixedge-java</code>	Configuration files
<code>/etc/fixedge-java/spring</code>	Custom Spring configuration, initially it is empty
<code>/usr/lib/fixedge-java/&lt;VERSION&gt;</code>	FIXEdge Java binaries
<code>/usr/lib/fixedge-java/&lt;VERSION&gt;/sysconf</code>	Default Spring configuration
<code>/usr/share/doc/fixedge-java</code>	Documentation and examples
<code>/var/log/fixedge-java</code>	Application logs
<code>/var/lib/fixedge-java</code>	Application state: FIX sessions logs

4. Copy the license file (`fixaj2-license.bin`) to the configuration directory (`/etc/fixedge-java`).
5. The installation creates the `fixedge-java` group. So if it's required to get access to the logs or configuration from another user, the user should be added to the `fixedge-java` group.  
On RHEL it can be done with the command:

 `sudo usermod <user> -a -G fixedge-java`

## Running FIXEdge Service

The package provides the `systemd` unit to control the FEJ service.

The service runs as a dedicated `fixedge-java` user. The following commands can be used to control the service:

Action	Command
Start	<code>systemctl start fixedge-java</code>
Stop	<code>systemctl stop fixedge-java</code>

Restart	systemctl restart fixedge-java
View status	systemctl status fixedge-java
Enable start at system boot	systemctl enable fixedge-java
Disable start at system boot	systemctl disable fixedge-java

On RHEL systems, a member of the `fixedge-java` group can control the service on Ubuntu using `sudo` to gain the root access as required. For example:

```
$ sudo systemctl start fixedge-java
$ sudo systemctl status fixedge-java
fixedge-java.service - FIXEdge Java
   Loaded: loaded (/lib/systemd/system/fixedge-java.service; disabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-02-26 06:43:49 UTC; 4s ago
 Main PID: 31979 (java)
    Tasks: 11 (limit: 1018)
   CGroup: /system.slice/fixedge-java.service
           31979 /usr/bin/java -cp /etc/fixedge-java:/usr/lib/fixedge-java/1.8.0.268/* -Dspring.profiles.
           active=fej-standalone com.epam.fej.Application

Feb 26 06:43:51 ubuntu-18 java[31979]: file.separator = /
Feb 26 06:43:51 ubuntu-18 java[31979]: java.vendor.url.bug = http://bugreport.sun.com/bugreport/
Feb 26 06:43:51 ubuntu-18 java[31979]: sun.io.unicode.encoding = UnicodeLittle
Feb 26 06:43:51 ubuntu-18 java[31979]: sun.cpu.endian = little
Feb 26 06:43:51 ubuntu-18 java[31979]: sun.cpu.isalist =
Feb 26 06:43:51 ubuntu-18 java[31979]: 2021-02-26 06:43:51.892 [INFO ] [main] c.e.f.license - B2Bits FIX
Antenna Java 2.23.1. Please call +44 20 369-58-166 to report illegal B2Bits FIX Antenna Java copy or to obtain
/renew your license.
Feb 26 06:43:52 ubuntu-18 java[31979]: 2021-02-26 06:43:52.642 [INFO ] [main] c.e.c.r.ClassPathResourceLoader -
Load resource:/etc/fixedge-java/replication.properties
Feb 26 06:43:52 ubuntu-18 java[31979]: 2021-02-26 06:43:52.644 [INFO ] [main] c.e.c.r.ClassPathResourceLoader -
Load resource:/etc/fixedge-java/replication.properties
Feb 26 06:43:52 ubuntu-18 java[31979]: 2021-02-26 06:43:52.692 [INFO ] [main] o.s.s.c.ThreadPoolTaskScheduler -
Initializing ExecutorService 'taskScheduler'
Feb 26 06:43:52 ubuntu-18 java[31979]: 2021-02-26 06:43:52.982 [INFO ] [main] c.e.f.c.StorageManager - Storage
manager has been initialized
$ sudo systemctl stop fixedge-java
$ sudo systemctl status fixedge-java
fixedge-java.service - FIXEdge Java
   Loaded: loaded (/lib/systemd/system/fixedge-java.service; disabled; vendor preset: enabled)
   Active: failed (Result: exit-code) since Fri 2021-02-26 06:44:03 UTC; 1s ago
   Process: 31979 ExecStart=/usr/bin/java -cp /etc/fixedge-java:/usr/lib/fixedge-java/1.8.0.268/* -Dspring.
   profiles.active=fej-standalone com.epam.fej.Application (code=exited, status=143)
   Main PID: 31979 (code=exited, status=143)

Feb 26 06:43:55 ubuntu-18 java[31979]: 2021-02-26 06:43:55.366 [INFO ] [main] c.e.f.s.ScheduleManagerImpl -
Schedule task Task{name='start', timeZone='null', onLoad=true, events=null, properties=Schedules{properties=
[Property{key='id', value='session2'}]}} from schedule with id: 'session2'
Feb 26 06:43:55 ubuntu-18 java[31979]: 2021-02-26 06:43:55.366 [INFO ] [main] c.e.f.s.ScheduleManagerImpl -
Task 'start' in schedule 'session2' is about to run on start
Feb 26 06:43:55 ubuntu-18 java[31979]: 2021-02-26 06:43:55.366 [INFO ] [main] c.e.f.s.f.StartTaskFactory -
Endpoint 'session2' is about to be started.
Feb 26 06:43:55 ubuntu-18 java[31979]: 2021-02-26 06:43:55.368 [INFO ] [main] c.e.f.s.f.StartTaskFactory -
Endpoint 'session2' has been started.
Feb 26 06:43:55 ubuntu-18 java[31979]: 2021-02-26 06:43:55.369 [INFO ] [main] c.e.f.c.LeaderJob - All leader
services started
Feb 26 06:44:03 ubuntu-18 systemd[1]: Stopping FIXEdge Java...
Feb 26 06:44:03 ubuntu-18 java[31979]: 2021-02-26 06:44:03,377 SpringContextShutdownHook WARN Unable to
register Log4j shutdown hook because JVM is shutting down. Using SimpleLogger
Feb 26 06:44:03 ubuntu-18 systemd[1]: fixedge-java.service: Main process exited, code=exited, status=143/n/a
Feb 26 06:44:03 ubuntu-18 systemd[1]: fixedge-java.service: Failed with result 'exit-code'.
Feb 26 06:44:03 ubuntu-18 systemd[1]: Stopped FIXEdge Java.
```

## Uninstall package

To uninstall the package on RHEL, run the following command as a root or using `sudo` (installation requires superuser permissions):

```
yum remove fixedge-java
```

To uninstall the package on Ubuntu, run the following command (installation requires superuser permissions):

```
sudo apt remove fixedge-java
```