Jetbrains License Server
User Guide

Introduction

JetBrains License Server is a web application that can be used as a central point to distribute licenses among users of the following JetBrains software products in a network environment:

- IntelliJ IDEA 7.0 and higher
- ReSharper 3.1 and higher

License Server issues and revokes license tickets to/from network clients based on properties of license keys that are provided by JetBrains after purchase. The following two types of license keys are available for the JetBrains software products specified above, depending on conditions of a license agreement:

- *Single-user key* that allows a customer to provide the JetBrains software product to a **specific number of concurrent users** corresponding with the number of purchased license keys run by the License Server;
- *Multi-user key* that allows a customer to provide the JetBrains software to **unlimited number of concurrent users** pursuant to a separate license agreement with JetBrains that implies regular monitoring of concurrent product usage and providing quarterly usage reports for the purpose of the license "true-up" to JetBrains.

That said, each license key provides one or several license tickets. A single ticket grants permission to use a single copy of a product. License Server receives requests for license tickets from client applications and issues tickets to them upon verification, eliminating the need to configure clients individually.

There are two kinds of license tickets:

- Floating tickets are issued for a limited period of time and prolonged on a regular basis.
- Permanent tickets are issued without a specific time limit. They are released manually by a client application or server administrator.

Installing License Server

System Requirements

Java SE Runtime Environment (JRE)/Java SE Development Kit (JDK) 5 or later

Apache Tomcat 6.0

Internet Explorer 7.0 or Mozilla Firefox 2.0 for accessing control panel

The supplied License Server delivery package includes Apache Tomcat.

License Server does not support IntelliJ IDEA versions earlier than 7.0 (build #7294) and ReSharper versions earlier than 3.1.

Prerequisites

Extract the License Server delivery package (for example, *licenseServer-tomcat-134.zip*).

To install and configure the server, perform the following steps:

1. Install JRE/JDK
2. Run Apache Tomcat
3. Launch License Server
4. (Optionally) configure automatic License Server discovery
5. Setup License Server

If you have Apache Tomcat already installed, copy licenseServer.war from `<delivery package>/apache-tomcat-<version>/webapps/` into the `<Tomcat root>/webapps` subdirectory and launch License Server by typing `http://<host-name>:8080/licenseServer` in the address bar of your browser. Then proceed to guidelines in sections *"Configuring Automatic Server Discovery"* or *"Setup Server"*.

Installing JRE/JDK

If JRE 5 or later is already installed on your system, proceed to the section *"Running Apache Tomcat."*

Otherwise, install Java SE Runtime Environment (JRE) 5 or later, which you can download from http://java.sun.com/javase/downloads/.

Create an environment variable `JAVA_HOME` and assign it to the path where JRE is installed, e.g. *C:\Program Files\Java\jre1.6.0_03 or /usr/local/java/jre*.

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*NOTE: To define the `JAVA_HOME` environment variable in Windows, select **Start > Settings > Control Panel > System > Advanced > Environment Variables**. In **User environment variables for***…, *click **Create**. In the **New System Variable** dialog box, enter `JAVA_HOME` in the **Variable name** field, and then enter the path to the JRE installation in the **Variable value** field. Click **OK**.*

To define the `JAVA_HOME` environment variable in UNIX/Linux, execute the env `JAVA_HOME=path` command.

Running Apache Tomcat

To run Apache Tomcat, execute `<Tomcat root>\bin\startup.bat` (Windows) or `<Tomcat root>/bin/startup.sh` (UNIX/Linux/MacOS). This should not only launch Tomcat but also deploy the `licenseServer.war` package. License Server will start listening through port 8080 with the `licenseServer` path prefix.

NOTE: Consult Apache Tomcat help for guidelines on changing these parameters.

Launching License Server

Open your web browser and type http://<host-name>:8080/licenseServer in the address bar.

Configuring Automatic Server Discovery

If you want to configure automatic License Server discovery, add a DNS TXT record `"url=<server_url>"` for the name: `_jetbrains-license-server.<network-domain-name>`.

To verify the record, run `dig _jetbrains-license-server.<domain_name> TXT` in any Unix environment. A valid response should look like this:

```
_jetbrains-license-server.acme.com. 3600 IN TXT "url=http://lsserver:8080/
licenseServer"
```

Logging In

Setup Server

When you start License Server in your web browser for the first time, the **Setup Server** page opens (fig. 1) where you should complete four mandatory fields:

- **Administrator's E-mail** (used as admin ID);
- **Password** (min. 6 characters);
- **Confirmation** (confirm password);
- **SMTP Server** (the address of your company's SMTP server).

*Figure 1. The **Setup Server** page*

Login

Every time you open License Server after you have set it up, the **Login** page displays (fig. 2).

*Figure 2. The **Login** page*

Enter the credentials that you specified during server setup in the **E-mail** and **Password** fields.

Click **Remember me** so that License Server recognizes you at any time, unless the system is rebooted. You can open other web resources or close the browser window in the meantime.

You can subsequently log out by clicking the **Logout** link in the top right corner of any License Server page.

License Server Settings

After you have successfully logged in, the **JetBrains License Server** home page displays (fig. 3).

*Figure 3. **JetBrains License Server** > **Status***

It consists of two tabs, **Status** and **Settings**.

Settings

The Settings page (fig. 4) contains a number of essential server settings that can be modified when necessary:

- **Administrator's E-mail**: the e-mail address that you entered during server setup and used to log in;
- **Password**: your password;
- **Confirmation**: password confirmation;
- **SMTP Server**: the address of your SMTP server that is used to issue permanent licenses (specifically, to send and receive activation codes).

Figure 4. ***JetBrains License Server > Settings***

Status

The **Status** page (see fig. 3 above) contains a table designed to track ticket allocation statistics server-wide, across all supported products.

You can open a detailed product-specific control panel by clicking the name of the corresponding product (for example, **IntelliJ IDEA**) in this table.

Product-Specific Control Panel

A product-specific control panel (for example, IntelliJ IDEA) includes seven tabs: **General, License Keys, Permanent Tickets, Floating Tickets, Report, Settings**, and **Log**.

General

The **General** tab (fig. 5) contains a product-specific statistics table with four rows:

- **License Keys**: number of license keys that you have registered with the server;
- **Total Tickets**: total number of tickets provided by registered keys;
- **Free Tickets**: number of tickets available for issuing;
- **Issued Tickets**: number of issued tickets.

Figure 5. ***Product-Specific Control Panel > General***

If you have added an unlimited license key, the **Total Tickets** and **Free Tickets** rows are not assigned a numerical value because you can issue as many tickets as you wish.

This table is only populated with non-zero values after you have added at least one license key.

License Keys

This tab contains the **Add Keys From Purchase E-mail** link. Click it to open a pop-up window (fig. 6), and then paste the whole body of the e-mail message with license keys provided to you by a JetBrains representative.
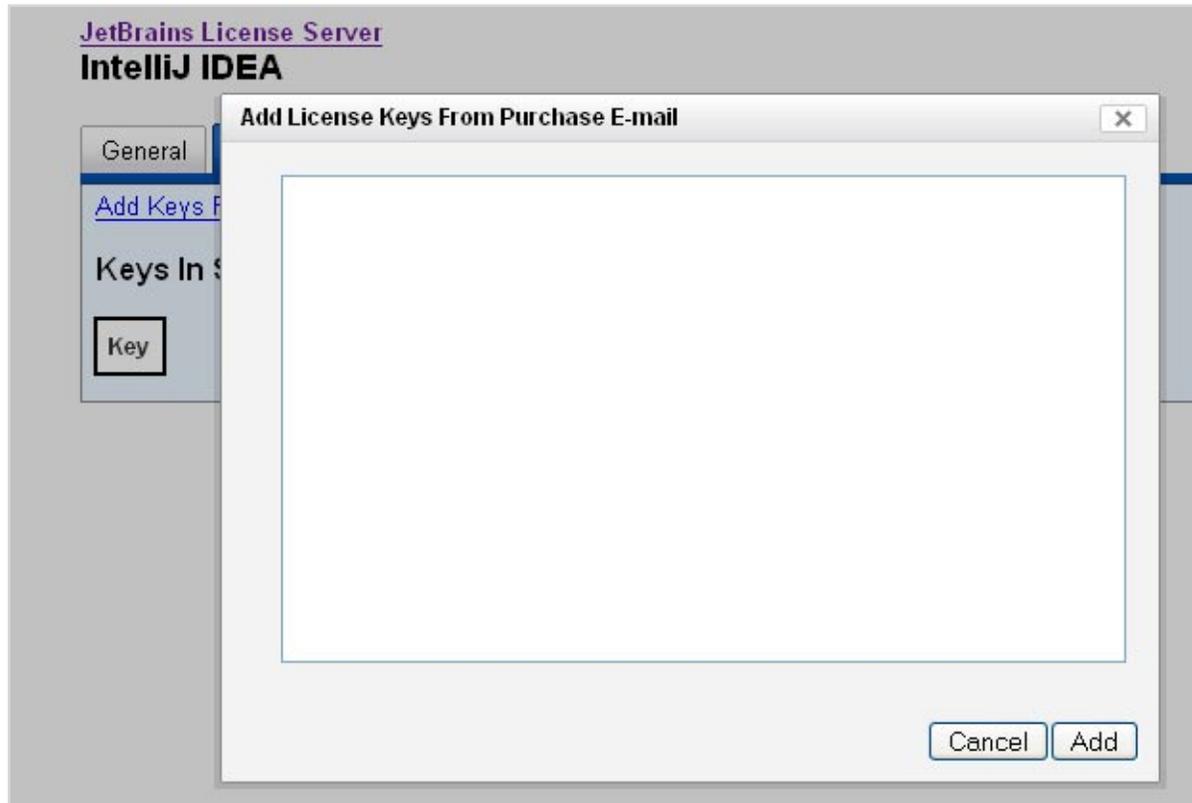

*Figure 6. **Product-Specific Control Panel > License Keys > Add License Keys From Purchase E-Mail***

After you click Add, this window closes and the number of keys that were processed and saved displays in the yellow box at the top of the **License Keys** tab (fig. 7).

If no keys were processed and saved after you've copied the message into the pop-up window, make sure you've pasted the entire message body.

Figure 7. The message that displays after processing and saving license keys

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WARNING: *If the controls in* **Add License Keys From Purchase E-mail** *are grayed out, try upgrading your browser to Internet Explorer 7.0 or Mozilla Firefox.*

After you have added at least one key, the **Keys In System** table displays in the **License Keys** tab (fig. 8).

Figure 8. ***Product-Specific Control Panel > License Keys > Keys In System***

This table contains the following columns:

- **Key**: one or more license keys provided by JetBrains;
- **<2nd column>**: miscellaneous notes showing the scope of license;
- **Generated**: date and time when a key was created;
- **Expiration date**: expiration date of the license key;
- **Expiration status**: status of the license key, which can be either Active or Expired;
- **Licensed to**: the licensee's name;
- **Version**: version of the product that this license key makes available.

NOTE: *Any license key provided for a certain version of a product makes available not only this version, but all of its preceding versions. For example, a license key generated for IntelliJ IDEA 7.0 allows you to use IDEA 7.0, IDEA 6, and all other legacy versions of IDEA.*

NOTE: *License keys as well as server settings are stored in an encrypted database located at* `<Apache Tomcat root>/db/`. *No controls designed to delete previously added keys are currently available.*

Permanent Tickets

This tab displays only if the **Enable Permanent Tickets** check box is selected in the product-specific **Settings** tab.

It contains a table that identifies clients who have requested and received permanent tickets.

To obtain a permanent ticket for a copy of IntelliJ IDEA, choose **Help > Obtain Permanent License** in the IDEA menu bar. When the **Enter E-Mail Address** dialog box opens, enter a valid e-mail address to which a temporary activation code will be sent. Click **OK**. Next, the **Enter Activation Code** dialog box displays. Paste the activation code from the e-mail message that License Server sends to the e-mail address you specified. If the activation code is successfully validated, this will be confirmed by the **Permanent Ticket Received** dialog box.

When a client obtains a permanent ticket, its floating ticket is released.

When at least one permanent ticket has been issued, a table displays in the **Permanent Tickets** tab specifying e-mails to which activation codes were sent, as well as versions of client applications that received permanent tickets (fig. 9).

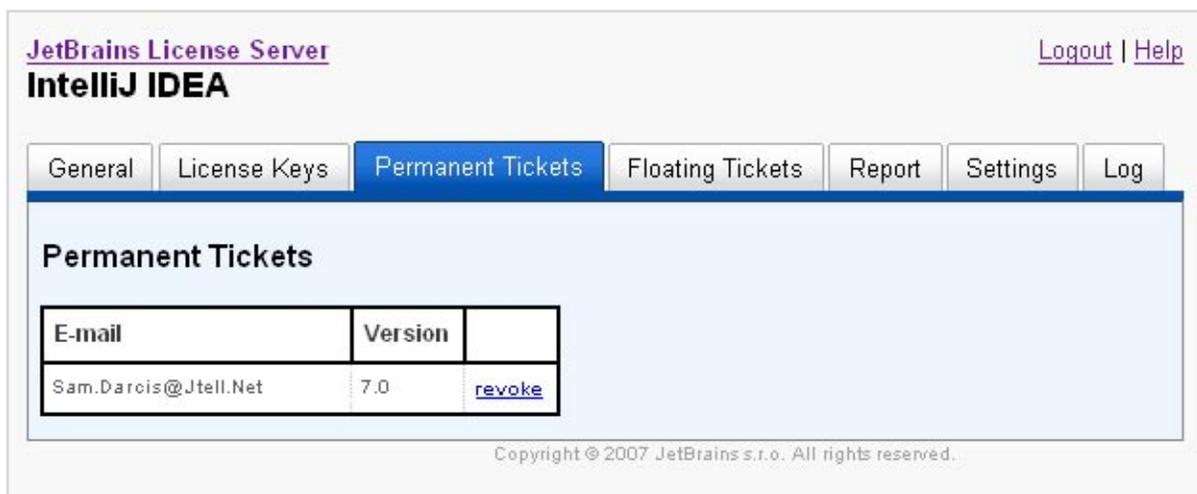*NOTE: As of version 3.1, ReSharper only accepts floating tickets.*

Figure 9. **Product-Specific Control Panel > Permanent Tickets**

To revoke a permanent ticket issued to a specific client, click the revoke link in the third table column next to this client's credentials. When the **Remove Permanent Ticket**? pop-up window opens, confirm or cancel the revocation.

Floating Tickets

This tab (fig. 10) contains a table with a list of clients that received floating tickets, consisting of three columns:

- **User Name**: name of the user to whom the product copy is assigned;
- **Machine ID**: a unique identifier that is common to all members of a product family installed on a specific client system;
- **Version**: product version.

*Figure 10. **Product-Specific Control Panel** > **Floating Tickets***

To obtain a floating ticket for a copy of IntelliJ IDEA, choose **Help** > **Register** in the IDEA menu bar. Click **Enter license server address** and paste the URL or your license server in the corresponding text field. Click **OK**.

To obtain a floating ticket for a copy of ReSharper, choose **ReSharper** > **License Informa-tion** in Visual Studio. Select **Obtain from License Server**, click **Specify License server** and paste the URL of your license server in the corresponding text field. Click **OK**.

Report

This tab helps you generate reports on the usage of tickets within any time span. To specify the time span, use the **Start date** and **End date** links. Click **Generate** to display a report table (fig. 11) with the following columns:

* **Date**: dates within the specified period when tickets were issued;
* **<Version>** (for example, **7.0**): one or several columns indicating the number of tickets issued for a specific product version;
* **Day Total**: the total number of tickets issued for all product versions day by day.

*Figure 11. **Product-Specific Control Panel > Report***

The **Total Max** row displays the maximum daily number of tickets issued to individual versions as well as to all versions of the product within the specified period of time.

The **Full XML Report** and **Short XML Report** links in the bottom part of the tab help create signed XML files with reports previously generated in this tab. A short XML report contains product version names and the number of tickets issued to each of them. A full XML report adds the total number of tickets issued every day.

Settings

Two user controls are available in this tab (fig.12):

- **Ticket Revocation Period (s)**: every client with a floating ticket must send a prolongation message to the server after a certain period of time has passed. You can specify that period in this field.
- **Enable Permanent Tickets**: select this check box to allow receiving requests for permanent tickets from clients. Keep in mind that the **Permanent Tickets** tab remains hidden unless you select this check box.
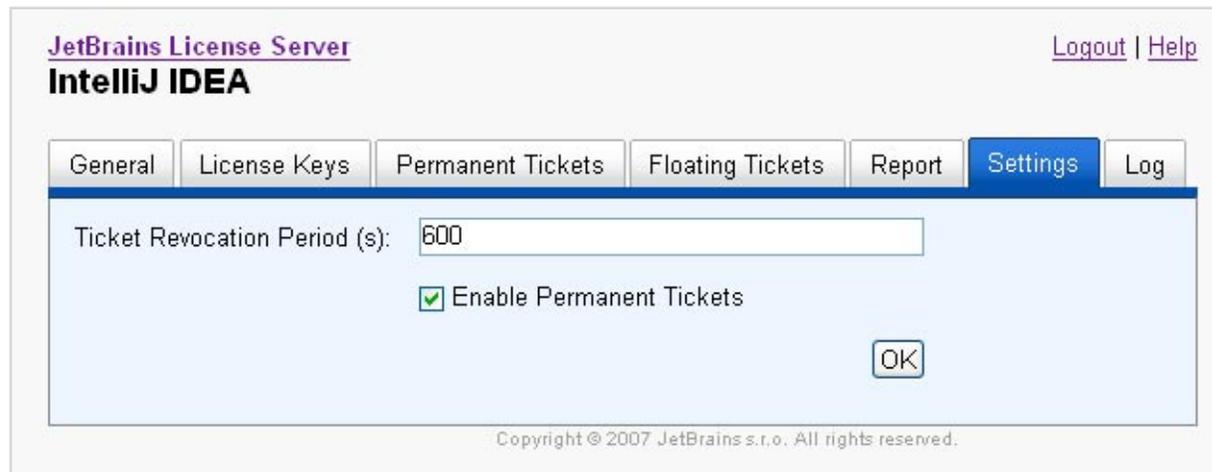

Figure 12. **Product-Specific Control Panel > Settings**
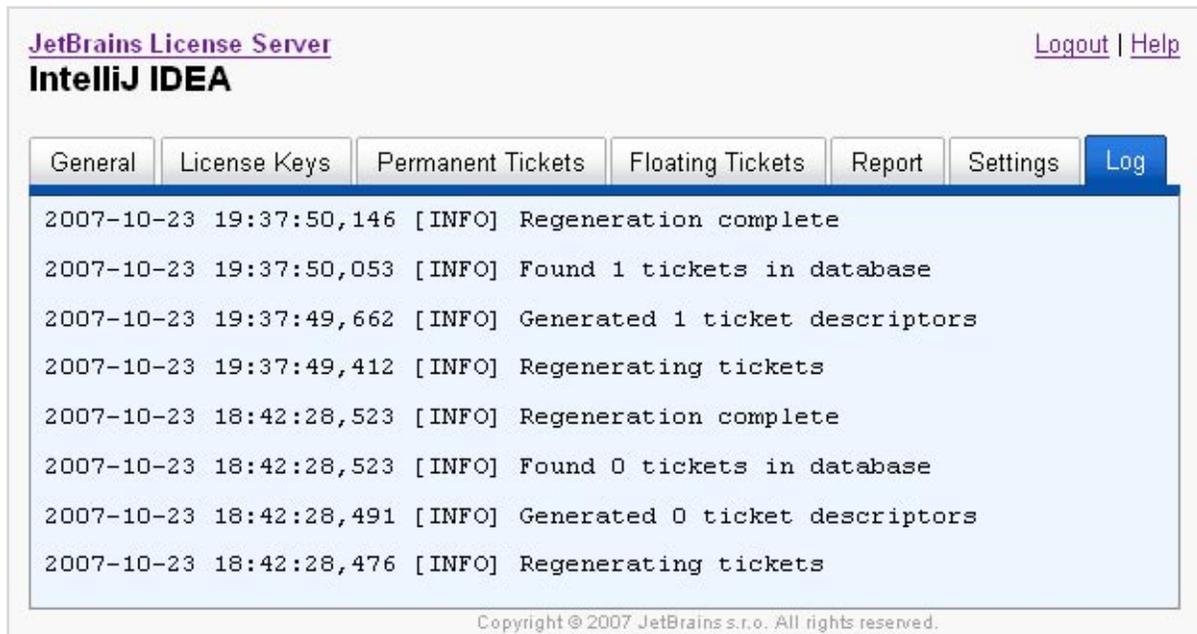
Click **OK** to save your settings.

Log

This tab (fig. 13) displays the contents of the log file maintained by License Server. The log file includes all ticket issue/release events along with additional data. Log records are generated with the following format:

```
Date Time [event severity] Action UserID, ticketID
```

For example:

```
2007-10-09 16:06:16,274 [INFO] Prolonged ticket for User.Name@unit-059.Int.YourCompany.Com, ticketId=5
```

Figure 13. **Product-Specific Control Panel** *>* **Log**

Note that only 10 Kb of the log's most recent records are displayed in this tab. You can view the entire log by opening it from the Tomcat root directory. Note that for every product managed by License Server, a separate log is maintained under the name *<ProductID>.log* where *ProductID* is the unique product family identifier that can also be found in the URL of the corresponding product-specific control panel in License Server.

NOTE: *You can generate custom reports that match your specific needs by retrieving specific data from the log files using awk scripts. General guidelines on awk scripts can be found at http://www. uga.edu/~ucns/wsg/unix/awk/#gs.*