



What you need to know about Java and JetTrac Licensing

This document is designed to get you up to speed on the multi-platform nature of the JetTrac Products, and the licensing system that protects them from software piracy. The JetTrac Products are written in the Java language, which lets them be able to run on any platform that supports Java, and almost all platforms now do, at least almost all platforms that Central runs on.

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1. Introduction to Java

By virtue of being written and run in Java, all JetTrac Products are automatically cross-platform. This allows users of JetTrac products to have maximum flexibility to use JetTrac products to solve their Central challenges. In order to run a Java program on your machine, you must first have either the Java Development Kit, (**JDK**), or at least the Java Runtime Environment, (**JRE**), installed. You can verify your installation by bringing up a command prompt and typing **java -version** at the prompt. If you have Java installed, you should get a message telling you the version number and possibly the usage options:

```
C:\WINDOWS>java -version
java version "1.3.0"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.3.0-C)
Java HotSpot(TM) Client VM (build 1.3.0-C, mixed mode)
```

If you see something like this, you are ready to run JetTrac Java products.

If you have an earlier version of Java, you might need to type **jre -version** at the command line to verify installation. Version **1.2 or later** of Java will be easier to work with, and if possible, you should check into upgrading your Java installation, but if your environment requires an earlier version, JetTrac Products can work with that as well. Contact Pro Technology for more information.

Installation on Windows

On Windows, Java is often used for web pages. However, even if you have Java installed for web browsing, chances are you will not have the JRE installed. If you type **java -version** on the command prompt and don't get a Java message like the one specified above, you should download and install Java. You can download Java version 1.3.0 from these addresses:

<http://java.sun.com/j2se/1.3/jre/download-windows.html>
<http://www.protechinc.com/software/java13win32.exe>
<http://www2.protechinc.com/software/java13win32.exe>

Run the installer with the defaults. Everything should be fine and you will be ready to go with Java.

Installation on Unix or AS/400

Your system administrator will have to be involved and (s)he will know how to install an application or update your Java installation. The Java Runtime Environment for most platforms can be found here

Sun OS/Solaris	http://java.sun.com/
HPUX	http://www.hp.com/
AIX	http://www.ibm.com/

Others can be found on their respective manufacturers' web sites.

2. JetTrac Java Command Line Execution

Because these Java programs can only be run inside of the Java subsystem, all command lines start with **java**. If you need to run an older version of Java, your command lines will probably start with **jre**. Adjust your command lines accordingly. However, if your system does not have the **default path to Java** set up, you will have to include the path to Java as well. This may be especially important in UNIX, because the Central Server may not know the path to Java, even though it is found in the default path in the user's setup. Alternatively, you can add the path to Java to the script that launches the Central Server.

Class Files

The JetTrac Site Code Manager and a few other JetTrac Products are packaged as Java class files. They are executed off of the command line by first calling Java, then referring to the class file name, **without specifying .class** on the end (even though the actual file name has .class on the end). The class file cannot be renamed and must be specified with the exact case (even on Windows). Here's an example:

```
java JetTracSiteCode
sometimes
java -cp . JetTracSiteCode
```

Jar Files

Most JetTrac products are encoded into specific Java executables called **jar** files. They are executed off of the command line by first calling Java, then using the switch **-jar**, then referring to the jar file name, **including the .jar**. They are launched like this:

```
java -jar c:\jettrac\JTRoute\JTRoute.jar
```

Refer to <http://java.sun.com/docs/books/tutorial/jar/basics/run.html> for more information about running jar-packaged software and for help on running jar files in pre-1.2 Java.

Executing Jar Files in Central

In order for a JetTrac Product to run inside of Central, it must be set up as a task in the JMD. Be careful to make the **Program Name** be simply Java, and put all of the options, including the **-jar** and the jar file name into the **Program Options**, followed by the other items that appear on the command line. Refer to each JetTrac product's User Guide for specific command line instructions.

3. JetTrac License Manager

All JetTrac Java products are protected from software piracy by the JetTrac License Manager system. JTLM locks a product to the individual machine that it was licensed for. This means that a JetTrac product licensed for one machine in your organization will not run on another machine unless you have obtained a new license file for that particular machine from Pro Technology Automation. There are two steps to this process:

Step 1 - Your Private Site Code

In order to enable a JetTrac product to run on your specific computer system, specific information about that system needs to be gathered so that Pro Technology can generate a key specific to that system. Several system tokens are gathered in order to ensure the uniqueness of each computer system. The JetTrac License Manager system includes a program called **JetTrac Site Code Generator**, which you run on the system that the JetTrac product(s) will run on. The Site Code Generator gathers the system tokens, encodes them into a number, and writes it to a file called **SiteCode.txt**.

If you have purchased/will be running more than one JetTrac product for a computer system, you **DO NOT** need to generate more than one site code for that system. However, if you will be running a JetTrac product on more than one computer system in your company, you will need to run the Site Code Generator on each system in the company.

Generating your Site Code

The Site Code Generator file is called JetTracSiteCode.class, which is a Java executable file. You can also run it from the command line by typing **java JetTracSiteCode** assuming that the JetTracSiteCode.class file is in the current directory. It will create a SiteCode.txt file, which you will then send to us (preferably through E-mail), or use to generate your temporary code off of the web.

You can download the Site Code Generator from:

<http://www.protechinc.com/software/JetTracSiteCode.class>

or

<http://www2.protechinc.com/software/JetTracSiteCode.class>

On Windows platforms, Pro Technology has provided a **self-running Site Code Generator**, as an .exe file. Simply point your browser to one of the links below and click “Open” when asked how to handle the file. Your site code should pop up in a notetab window.

You can download the Windows .exe Site Code Generator from:

<http://www.protechinc.com/software/JetTracSiteCode.exe>

or

<http://www2.protechinc.com/software/JetTracSiteCode.exe>

Step 2 - Your Private Product Key

You send your SiteCode.txt file to Pro Technology. Pro Technology will use your SiteCode.txt file to generate a license key file that will enable a specific JetTrac product to run on your system. It will be in the format of **PRODUCTCODE.lic**. You can place it anywhere in your system, but the recommend path is c:\jettrac\license. You will then refer to it in your command line, as specified in the next section.

It is possible to combine license files by copying the information from multiple license files into one file. In this case, each license needs to be on its own line.

Specifying the license key file on the command line

License files are specified by adding a parameter in front of the -jar switch. The parameter is **-DJETTRACLF=** and then the name of the license key file. Here's an example:

```
java -jar -DJETTRACLF=c:\jettrac\license\route.lic JTRoute.jar
```

Be careful on UNIX platforms to specify the exact case of your license file names exactly, or it won't be found.