

**Victi.ms**

# **Ant Task User Guide**

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## **Victi.ms Ant Task User Guide**

### **Edition 1.0**

This Ant Task provides the functionality to scan a Java projects dependencies against a database of publicly known vulnerabilities. The canonical version of the database is hosted at <https://victi.ms> and is maintained by Red Hat security teams.

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# Introduction

Victims-plugin-ant is an Ant Task which can be defined and utilised by the Ant build tool. The Task provides the functionality to scan a Java projects dependencies against a database of publicly known vulnerabilities. The canonical version of the database is hosted at <https://victi.ms> and is maintained by Red Hat Security teams. It also allows for other vulnerability databases to be compared against utilising the victims java library. The methods of comparing java libraries to vulnerabilities is by fingerprinting of class and jar files or matching jar manifest file information against records in the database.

# Implementation

Utilising the Victims Java library the program creates a local copy of the database which is then synchronised automatically/daily or not at all based on settings defined when executing the task. Please note that the first execution of the task will take some time as it synchronises the whole Victims database. The files to scan are passed to the Task via a path element parameter. The most effective way of doing this is via a fileset based on a directory and including all .jar files.

For example, you would point the fileset at a directory containing all your libraries and include all .jar files.

```
<path>  
  <fileset dir="lib" includes="**/*.jar" />  
</path>
```

Apache Ivy can be used in conjunction with Ant to resolve dependencies in a user friendly manner.

You can download Apache Ant at: [ant.apache.org](http://ant.apache.org)

And Apache Ivy at: [ant.apache.org/ivy](http://ant.apache.org/ivy)

The Task will utilise the caching capabilities of Victims-lib-java to make repeated builds more efficient. It also has a concurrent implementation to make large builds with many dependencies quicker.

# Usage

*For the purposes of this guide we assume you have Apache Ant installed and are currently using it for the project you wish to add this task to.*

## 3.1. Project Dependencies

Use of the Victims task requires all project dependencies, including the Victims task itself, to be located in a directory named **lib**.

The Victims task has a dependency on the Victims Java lib which can be downloaded by Ivy, Maven or manually from the [Maven Repository](#)<sup>1</sup>.

If you do not wish to manually move all dependencies to your lib directory you can use Apache Ivy to retrieve dependencies.

## 3.2. Obtaining Victims Task Jar

Currently the Victims task can only be obtained by compiling from [source](#)<sup>2</sup>. The project is built using Maven with the following command:

```
mvn compile jar:jar
```

Once the Victims task is hosted on the Maven central repository it will be available for download there, along with being able to be downloaded by Apache Ivy.

## 3.3. Editing build.xml

Two entries are required in your build.xml to use the Victims task.

Firstly the task needs to be defined. This is done by the following:

```
<target name="define" description="Define the task">
  <taskdef name="victims" classname="com.redhat.victims.plugin.ant.VictimsTask">
    <classpath>
      <fileset dir="lib" includes="**/*.jar"/>
    </classpath>
  </taskdef>
</target>
```

Secondly we need to tell Ant to execute the Victims task. This is done through the addition of:

```
<target name="scan" depends="define" description="Run the victims scan">
  <victims>
    <path>
      <fileset dir="lib" includes="**/*.jar"/>
    </path>
  </victims>
</target>
```

<sup>1</sup> <http://mvnrepository.com/artifact/com.redhat.victims/victims-lib>

<sup>2</sup> <https://github.com/victims/victims-plugin-ant>

## 3.4. Configuration Options

The following options can be specified as child elements of **<victims>**

### **baseUrl**

The URL of the victims web service used to synchronize the local database.

default: "https://victims"

### **entryPoint**

The endpoint of the victims webservice to synchronize against.

default: "/service"

### **metadata**

The severity of exception to be thrown when a dependency is encountered that matches the known vulnerable database based on metadata. Fatal indicates the build should fail, warning indicates a warning should be issued but the build should proceed.

allowed: warning, fatal, disabled

default: warning

### **fingerprint**

The severity of exception to be thrown when a dependency is encountered that matches the known vulnerable database based on a fingerprint. Fatal indicates the build should fail, warning indicates a warning should be issued but the build should proceed.

allowed: warning, fatal, disabled

default: fatal

### **updates**

Allows the configuration of the synchronization mechanism. In automatic mode new entries in the victims database are pulled from the victims-web instance during each build. In daily mode new entries are pulled from the victims-web instance only once per day. The synchronization mechanism may be disabled and processed manually for closed build environments.

allowed: auto, offline, daily

default: auto

### **jdbcDriver**

The jdbc driver to use for the local victims database. By default victims uses an embedded H2 database.

default: org.h2.Driver

### **jdbcUrl**

The jdbc connection URL to for the local victims database.

default: .victims (embedded h2 instance)

### **jdbcUser**

The username to use for the jdbc connection.

default: "victims"

### **jdbcPass**

The password to use for the jdbc connection.

default: "victims"

## **3.5. Editing ivy.xml**

If you are using Apache Ivy to resolve your dependencies then the following line needs to be added for the Victims Java lib dependency.

```
<dependency org="com.redhat.victims" name="victims-lib" rev="1.3.1"/>
```

## **3.6. Building Your Project**

Once all of this is done simply run Ant from your project directory to build the project.