

# SimpleMagic Package

---

Version 0.3  
May 2013

Gray Watson

---

This manual is licensed by Gray Watson under the Creative Commons Attribution-Share Alike 3.0 License.

Permission is granted to make and distribute verbatim copies of this manual provided this license notice and this permission notice are preserved on all copies.

## Table of Contents

SimpleMagic .....	1
1 Start Using Quickly .....	2
2 Using SimpleMagic .....	3
2.1 Downloading Jar .....	3
2.2 How To Load Magic Entries .....	3
3 Open Source License .....	4
Index of Concepts .....	5

# SimpleMagic

Version 0.3 – May 2013

This package provides some simple magic value features that simulate the Unix `file(1)` command to determine the type of a file or of `bytes` from the content. It has an internal set of magic number information or it can process the magic files from local ~Unix system configuration

To get started quickly using SimpleMagic, see [Chapter 1 \[Quick Start\]](#), page 2. There is also a [HTML version of this documentation](#).

Gray Watson <http://256.com/gray/>

# 1 Start Using Quickly

To use SimpleMagic you need to do the following steps. For more information, see [Chapter 2 \[Using\], page 3](#).

1. Download SimpleMagic from the [SimpleMagic release page](#). See [Section 2.1 \[Downloading\], page 3](#).
2. Optionally load in the magic entries from local file(s). By default, if you construct a `ContentTypeUtil` instance with the default constructor, it will load the internal magic entries file. See [Section 2.2 \[Loading Magic Entries\], page 3](#).
3. Use the `ContentTypeUtil` class to get content-types for files or `byte[]`:

```
ContentTypeUtil util = new ContentTypeUtil();
ContentType contentType = util.findMatch("/tmp/upload.tmp");
System.out.println("Content-type is: " + contentType.getName());
```

For somewhat more extensive instructions, see [Chapter 2 \[Using\], page 3](#).

## 2 Using SimpleMagic

### 2.1 Downloading Jar

To get started with SimpleMagic, you will need to download the jar file. The [SimpleMagic release page](#) is the default repository but the jars are also available from the [central maven repository](#).

The code works with Java 5 or later.

### 2.2 How To Load Magic Entries

The library uses various magic byte information to be able to find and determine details about random blocks of bytes. By default, SimpleMagic has a built in version of a magic file that was copied from a CentOS Linux system. It contains, ~2400 magic file entries describing a number of different file types. It also has an additional ~6600 lines which provide more details about the detected content types.

The magic entries are relatively complex but in general look something like the following. The configuration line says to look at the start of the file for the string "GIF8". If it is there then the file is "GIF image data".

```
0      string      GIF8      GIF image data
```

If you do not want to use the internal magic definitions, you can also construct the `ContentTypeUtil` class with a file or directory to have it parse and use another definition file.

```
ContentTypeUtil util = new ContentTypeUtil("/etc/magic");
ContentType contentType = util.findMatch(uploadedBytes);
```

*WARNING:* although we've tried to support different types of magic entries, there are local per-OS variations that may not be supported.

### 3 Open Source License

This document is part of the SimpleMagic project.

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted, provided that this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

The author may be contacted via <http://256.com/sources/simplemagic/>

## Index of Concepts

<b>/</b>		<b>J</b>	
/etc/magic .....	3	jconsole .....	1
<b>A</b>		<b>L</b>	
alternative magic files .....	3	license .....	4
author .....	1	loading magic entries .....	3
<b>C</b>		<b>M</b>	
ContentTypeUtil .....	2	magic files .....	3
<b>D</b>		<b>O</b>	
default magic entries .....	3	open source license .....	4
downloading the jars .....	3	<b>Q</b>	
<b>G</b>		quick start .....	2
getting started .....	2	<b>S</b>	
<b>H</b>		sample magic definition .....	3
how to download the jars .....	3	simple magic .....	1
how to get started .....	2	system magic entries .....	3
how to use .....	3	<b>U</b>	
<b>I</b>		using SimpleMagic .....	3
introduction .....	1	<b>W</b>	
		where to get new jars .....	3