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# **JayWormNET Documentation**

***Release beta10***

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JayWormNET is a lightweight Worms Armageddon WormNET server, which basically is a bundle of specialized HTTP and IRC servers. JayWormNET provided with such features as:

- Multi-channel support
- White and ban-lists
- Native W:A charset support
- Extended customization through scripting



## Building JayWormNET

To build *JayWormNET* in automated way, you need JDK 7 and Apache Ant.

*JayWormNET* uses *nProperty* library to parse the main configuration file, so you need to download it first and put it into 'lib' directory. You can get it [here](#).

Then, get into *JayWormNET* directory, and run *ant*. On Windows you can use 'Shift + Right Click' to quickly open cmd window by selecting it from context menu. Executable jar will be created in the 'build' folder. Before building, you may want to change *JayWormNET*'s default configuration files in 'config' directory.

## Embedding configuration files

Usually, *JayWormNET* stores its configuration files inside its own .jar package. Any of them may be overridden by an external copy, placed to the current working directory. It's a good practice (for convenient deploying) to pre-configure the server before the build right in the *config* directory, so once your .jar gets built, it already will be configured and ready for use.

See [Configuration](#) for further instructions.

## Running

*JayWormNET* only requires Java SE 7.

With default settings (and HTTP port value unchanged on 80) on *nix* hosts it should be executed with root privileges. By default, it shows up GUI (when available) to let it be visible on graphical environment after you run it by double-click in file manager — GUI can be forced to be disabled by configuration file of by *-nogui* command-line flag.

## Note about logging

Logging to file is disabled by default and you may set `loggingEnabled = true` in `wnet.cfg` file to enable it back. Log file (`wn.log`) will be written in the current working directory (when using desktop environment, it's usually the same folder where jar is placed).

## Configuration

Configuring JayWormNET isn't a complicated task (until you ain't going deeper to the scripting). There is a few configuration files, most of them have well-commented templates presented in the jar package or in the `config` directory. **No one of them is necessary**, as the default file set (mostly) represents JayWormNET's hard-coded defaults.

### The main configuration file

`wnet.cfg`

Example:

```
IRCPort = 6667
commandsEnabled = true
serverHost = example.com
```

By the way, this file is the only one which name can't be changed (or even the file be moved).

This file is a set of variables with the simplest syntax `suchVariable = true` per line. Any unrecognized stuff (unknown variables, empty lines, symbols, etc.) is simply ignored, so you can write comments in this file absolutely free. The only exception for commenting goes for *after-line-comments*, which is not allowed and will cause your value to not be parsed properly.

Strings should be written *as is*, without " or '.

There are any possible variables listed below.

### Generic variables

| Type   | Variable     | Example / Defaults | Description / Notes  |
|--------|--------------|--------------------|--|
| int    | HTTPPort     | 80                 |  |
| int    | IRCPort      | 6667               |  |
| String | serverHost   | localhost          | Server host name, must be changed to your real server address  |
| int    | gameLifeTime | 240                | How long a hosted game should be kept in the list (in seconds) |



## IRC-specific settings

| Type    | Variable                       | Example / Defaults | Description / Notes   |
|---------|--------------------------------|--------------------|---|
| boolean | useStealthIP                   | true               | Hide real user's IP by replacing it with stealthIP                          |
| String  | stealthIP                      | no.address.for.you |   |
| String  | networkName                    |                    |   |
| String  | charset                        | native             | IRC charset (native, utf-8, etc.)   |
| boolean | useIRCPassword                 | true               |   |
| String  | IRCPassword                    | ELSILRACLIHP       | Default Worms Armageddon IRC password                                       |
| String  | IRCOperPassword                | kenny              | Operator password, <b>don't forget to change it!</b>                        |
| int     | specialMessagesPermissionLevel |                    | Who is able to use <i>special green</i> messages (0 nobody, 1,opers, 2 any) |

## IRC pinging

Pings avoid non-responding or unexpectedly disconnected users stay on server by dropping them when the ping response timeout is reached.

| Type    | Variable     | Example / Defaults | Description / Notes |
|---------|--------------|--------------------|---------------------|
| boolean | pingsEnabled | true               |                     |
| int     | pingInterval | 60                 | (in seconds)        |
| int     | pingTimeout  | 60                 | (in seconds)        |

## IRC login message settings

This section describes a configuration of messages, which client receives after successful login.

| Type    | Variable          | Example / Defaults | Description / Notes  |
|---------|-------------------|--------------------|--|
| int     | showIntro         | 2                  | IRC login messages settings, can be 0 (nothing), 1 (short) or 2 (full) |
| boolean | showCreated       | true               | Show server's creation date in IRC login                               |
| boolean | showPlayersCount  | true               | Show users count on IRC login  |
| boolean | showChannelsCount | true               | Show channels count on IRC login                                       |
| boolean | showOps           | false              | Show operators count on IRC login                                      |
| boolean | showCapabilities  | true               | Send server capabilities on IRC login                                  |
| String  | capPrefix         | (ov)@+             | Capabilities settings, not recommended to touch                        |
| String  | capChanTypes      | #                  | Capabilities settings, not recommended to touch                        |
| String  | capChanModes      | b,k,l,impst        | Capabilities settings, not recommended to touch                        |

## IRC anti-flood

| Type    | Variable         | Example / Defaults | Description / Notes                |
|---------|------------------|--------------------|------------------------------------|
| boolean | antiFloodEnabled | true               | Avoid flooders by kicking them out |
| int     | floodGate        | 1000               | Flood tolerance                    |
| int     | floodMaxLevel    | 4                  | Flood tolerance                    |

## Message Of The Day settings

| Type    | Variable         | Example / Defaults | Description / Notes |
|---------|------------------|--------------------|---------------------|
| boolean | ircShowMOTD      | true               | Show IRC MOTD       |
| boolean | httpShowMOTD     | true               | Show HTTP MOTD      |
| String  | ircMOTDFileName  | motd.txt           |                     |
| String  | httpMOTDFileName | motd.html          |                     |

## HTTP fallback settings

See [Fallback page](#)

| Type    | Variable                     | Example / Defaults | Description / Notes                        |
|---------|------------------------------|--------------------|--|
| boolean | httpFallbackEnabled          | false              | Enable custom fallback page                |
| String  | httpFallbackPage             | fallback.html      |  |
| boolean | httpAlwaysReloadFallbackPage | false              | Re-read the fallback page on every request |

## Logging settings

| Type    | Variable             | Example / Defaults | Description / Notes                        |
|---------|----------------------|--------------------|--|
| boolean | loggingEnabled       | false              | Enable logging to file                     |
| String  | loggingLevel         | FINER              | See <a href="#">Java logging levels</a>    |
| String  | logFile              | wn.log             |  |
| boolean | announceGameHosting  | false              | Announce game hosting to the IRC channel   |
| boolean | showOperatorsActions | true               | Show operator's actions to other operators |

## Lists

| Type    | Variable             | Example / Defaults | Description / Notes       |
|---------|----------------------|--------------------|---------------------------|
| boolean | enableBanList        | false              |                           |
| boolean | enableWhiteList      | false              |                           |
| String  | banListFileName      | banlist.csv        |                           |
| String  | whiteListFileName    | whitelist.csv      |                           |
| String  | channelsFileName     | channels.lst       | Path to IRC channels list |
| String  | commandsListFileName | commands.lst       |                           |

## Scripts configuration

| Type    | Variable                  | Example / Defaults | Description / Notes   |
|---------|---------------------------|--------------------|---|
| boolean | masterScriptEnabled       | false              |   |
| String  | masterScriptFileName      | master.js          |   |
| String  | scriptedCommandsPrefix    | commands/          | Path to scripted additional commands                        |
| boolean | invocationWarningsEnabled | false              | Log master script invocation failures, useful for debugging |

## GUI settings

| Type    | Variable           | Example / Defaults | Description / Notes |
|---------|--------------------|--------------------|---------------------|
| boolean | guiEnabled         | true               |                     |
| String  | guiBackgroundColor | default            |                     |
| String  | guiForegroundColor | default            |                     |

## In-chat commands

| Type    | Variable                | Example / Defaults | Description / Notes  |
|---------|-------------------------|--------------------|--|
| boolean | commandsEnabled         | false              | Enable additional commands, affects scripted commands too (when false) |
| boolean | scriptedCommandsEnabled | false              |  |
| boolean | showCommandsInChat      | false              | <b>WARNING: using of !oper command will result in password leak!</b>   |
| boolean | swallowAllCommands      | false              | Overrides showCommandsInChat   |

## Various stuff

| Type    | Variable                    | Example / Defaults | Description / Notes   |
|---------|-----------------------------|--------------------|---|
| boolean | forceHosterIP               | false              | When a game hosted, it's address will be replaced with hoster's real IP |
| boolean | enableSabotageProtection    | false              | Allows to close a game only from it's hoster IP                         |
| boolean | enableWheatSnooperSchemeFix | true               | Fix for old versions of The Wheat Snooper, which were unable to join in |
| boolean | enableURLSpellCheck         | false              |   |

## Experimental / undocumented stuff

Use with care!

| Type    | Variable                  | Example / Defaults |
|---------|---------------------------|--------------------|
| int     | HTTPFailureSleepTime      | 750                |
| int     | IRCFailureSleepTime       | 2500               |
| boolean | IRCSkipBytesWhenAvailable | false              |
| boolean | dropIRCUserOnOverflow     | false              |
| int     | IRCBufferSize             | 262144             |

## Ban-list and white-list

banlist.csv  
whitelist.csv

Example:

```
Nickname, *
*, 192.168.1.10
mr_troll, 192.168.1.5 127.0.0.1
```

These lists are used for IRC server access restrictions. Ban-list prevents the listed clients to join, and vice-versa, white-list prevents **non-listed** clients to join (of course, when enabled). Both lists may be enabled and combined in use. Remember that ban-list has higher priority than the white-list.

Both files have the CSV-table (comma-separated values) format. There are two columns: *Nickname* and *Address*, and they are describing for whom the restrictions will be applied. The *Nickname* field can contain only one nickname or the \* wildcard (affecting any nickname). The *Address* field can contain single IP, list of addresses separated by space or the \* wildcard.

## Channels list

channels.lst

Example:

```
Robots::Aperture Science
AnythingGoes:Pf,Be:Open channel, blah blah.
WormnetCrew:Pf,Be:
ProfessionalPootis::03 Ranked channel
```

This is the list of statically pre-defined IRC channels, presented as a table with three columns, separated by colons:

- Channel name (without # or something)
- Game scheme (optional, defaulting to Pf, Be when is not present)
- Channel description (optional)

You may set a channel icon by adding a two-digit number with space to beginning of channel's description:  
HelpChannel::05 Description

This file cannot be reloaded on-the-fly.

## In-chat commands white-list

commands.lst

Example:

```
kick
oper
reload
```

This is a list of allowed for invocation IRC in-chat commands. It affects both the scripted and embedded commands. Non-white-listed commands will be “non-existent” even it is present. See [In-chat commands](#).

## Message of the Day

There are two MOTD files: *txt* is for IRC and *html* is the page being displayed at the right bottom in Worms Armageddon >= 3.7.0.0 on the channel selection menu.

motd.txt

Example:

```
I am the MOTD message!
```

```
motd.html
```

Example:

```
<center><FONT SIZE="2" COLOR="Yellow">
  <BR>Welcome to JayWormNET server!
</FONT></center>
```

## Fallback page

```
fallback.html
```

Fallback page is what HTTP client will receive, when trying to visit any non-WormNET (or simply non-existent) page (if enabled in configuration).

## In-chat commands

JayWormNET's IRC server supports in-chat commands (a.k.a. *Additional commands*), started from "!", for example, `!foo bar`. The commands should be enabled in the configuration file (see [The main configuration file](#)), otherwise you will just say it to chat; also don't forget to white-list required commands if it isn't done yet: [In-chat commands white-list](#).

Custom in-chat commands may be used to expand JayWormNET's functionality. There are two kinds of them: *embedded* and *scripted*. First written in Java and comes as plugins (Java classes), which can be embedded in distributive jar or injected via modifying of Java's Classpath variable. The second kind of commands are written in JavaScript and can be updated and re-evaluated on-the-fly.

## Standard set of embedded commands

JayWormNET comes with a set of standard in-chat commands.

### oper

Usage:

```
!oper <IRC operator password> [nickname]
```

Grants you with operator's privileges, or that guy, which nickname you optionally specified. Repeating invocation of `oper` revokes the privileges.

### kick

Usage:

```
!kick <nickname>
```

Removes client from server. *Requires operator's privileges.*

## reload

Usage:

```
!reload
```

Used to (mostly) reload server's configuration "on-the-fly". *Requires operator's privileges.*

## say

Usage:

```
!say <some text>
```

Prints cool green message to the channel. Usage of this command can be restricted through changing of `specialMessagesPermissionLevel` variable in the configuration.