**Ziz**

**Really Simple Monitoring**

Reference Guide

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# Introduction & Background

The background behind this software is fairly simple – I wanted a basic, lightweight tool for monitoring my personal websites and a few PCs at home. From this fairly basic goal, Ziz was born. The whole remit of the project was to create something simple, but useful. Lightweight enough to be run on a laptop or home PC. Additionally I wanted to write something that wasn’t so complex that it would never get finished. This software has been developed in my spare time so I wanted to keep it realistic and achievable. This should hopefully explain why some areas are very basic and “bare bones”

This guide assumes a fair level of technical knowledge, if you’re not a bit of a techie Ziz isn’t for you. In fact if you aren’t a techie you probably aren’t interesting in monitoring full stop!

# Prerequisites

Ziz is written in Java, it’s a standalone J2SE application so it doesn’t need an application server or separate webserver. The following is a list of the main pre-requisites needed to run Ziz

* Operating system – Windows. Ziz has been developed and tested on Windows and will work on any recent version of Windows (XP, Server 2003, Vista, 7, Server 2008). In principal it will run on Unix/Linux due to Java’s multiplatform nature but I haven’t tested it.
* CPU, RAM, Disk – Minimal. Ziz will happily run on any desktop/laptop spec’ed system.
* Java Runtime Environment (JRE) – v1.6.0 (Tested & developed with 1.6.0\_16) It’s likely that version 1.5 will work, but hasn’t been tested.
* .NET Framework v2+ –Required to run the Windows Collector

Viewing the Ziz web user interface:

* A recent web browser – Chrome 4.x/5.x, Firefox 3.x and IE 8 have all been tested.
* Abode Flash – 9.x or 10.x

# Installation

If you are reading this then you have figured out how to download and unzip the distribution! In fact that’s pretty much all you need to do, to install Ziz. Once unzipped you can simply run the start-up script **\bin\run.cmd** and Ziz will start, and that’s it. There is no installer or other steps you need to run. With this in mind it’s worth moving your unzipped Ziz directory to somewhere permanent and renaming it, e.g. **C:\Ziz\** or **C:\Program Files\Ziz\**

### Folder Structure

Once unzipped the main Ziz directory should look like this:

***<root ziz folder>***  
 **⮡ alert**  - Alert scripts (alert.js & alert\_utils.js)  
 **⮡ bin**  - Start-up batch scripts and other binaries  
 **⮡ config** - Main configuration directory with monitors.xml & system.properties  
 **⮡ data**  - Historic monitoring data is logged and stored here  
 **⮡ docs**  - Documentation & licenses   
 **⮡ lib**  - Java runtime libraries (JAR) and DLLs  
 **⮡ log**  - Log files  
 **⮡ monitors** - Monitor scripts   
 **⮡ web**  - Root folder for the embedded Ziz webserver  
 **⮡ Ziz.jar** - Folder for alert scripts (alert.js & alert\_utils.js)  
 **⮡ LICENSE.txt** - License information  
 **⮡ README.txt** - Readme help file and release notes

### Installing as a Windows Service

Launching Ziz via **bin/run.cmd** will run it interactively in a console window on the desktop, this is great for getting started. If you want Ziz to run in the background and at start-up you need to install it as a Windows Service, there are two scripts in the **bin** directory to support this.

* **bin\service-install.cmd** - Install the Ziz Service
* **bin\service-uninstall.cmd** - Remove the Ziz Service

The short name of the service is ‘zizsvc’ and by default it is set to auto start.

# Getting Started

Checklist for getting started with Ziz

1. Ensure the machine you intend to run Ziz meets the pre-requisites – See section XXX
2. Download and extract the Ziz installation – See section XXX
3. Start Ziz server – See section XXX
4. Ensure you can view the Ziz user interface – See section XXX
5. Configure what you want to monitor – See section XXX
6. Validate results of monitoring, via the user interface – See section XXX
7. *Optional* Configure Alerts – See section XXX

# Configuration

The configuration file **system.properties** is the main method for controlling how the Ziz server runs. It can be found in the **config** directory. It’s a standard Java properties file, so is made up of a number of key-value pairs, each one controlling some system setting or other runtime aspect.  
The hash symbol ‘#’ is used to denote a comment line

*Note. In order for changes in this file to be picked up, you will need to re-start Ziz if it is running.*

* **web\_port**  
  This is the port used by the embedded Ziz HTTP webserver (Jetty). The default is 7777. Change this if the port clashes with another service. You can run the webserver on the standard HTTP port 80 if you wish. *REQUIRED*
* **web\_admin\_user**  
  If you wish to secure the admin part of the Ziz user interface, use this setting to specify the username required to login, if using this setting specify the password in the web\_admin\_password setting. The default is not set (commented out) which means no security. *OPTIONAL*
* **web\_admin\_password**  
  See web\_admin\_user above, password must be encrypted. *OPTIONAL*
* **sys\_update\_check**This setting controls how often Ziz checks the **monitors.xml** file for changes, it is specified in seconds. The default is 60 (i.e. 1 minute). *REQUIRED*
* **dashboard\_refresh**This setting controls how often the pages in the Ziz dashboard auto-refresh . *REQUIRED*
* **log\_level**This setting controls the level of logging for **system.log**. Acceptable values are:  
  **DEBUG, INFO, WARN, ERROR, FATAL**  
  Default is: INFO. *REQUIRED*
* **max\_results**This setting controls how many results for each monitor run Ziz will cache and store in memory. This setting affects two things, the number of data points monitor graphs and the monitor history view. Numbers much higher than 30 may result in unreadable graphs. Reducing this number may reduce the amount of memory used by Ziz. Note. This setting has no effect on the stored data (CSV). The default is 30. *REQUIRED*
* **data\_store\_enabled**This setting controls if Ziz will write monitor run results to disk in CSV files. Generally you should leave this enabled unless you *really* don’t want any historic data or are paranoid about disk space. Default is **true**.  *REQUIRED*
* **alert\_enabled**This setting controls if Ziz will try to send alerts. Set to **false** and Ziz will not attempt to send any alerts regardless of conditions. Set to **true** to enable alerting, Default is **false** and alerting is disabled. *REQUIRED*
* **alert\_status\_threshold**This setting controls what status a monitor needs to be, in order to trigger an alert:  
  0 = ERROR Monitors in *ERROR* or *FAILED* status will trigger an alert

5 = WARNING Monitors in *WARNING*, *ERROR* or *FAILED* status will trigger an alert

*Note. Setting this to 10 or higher will result in all monitors (including ones in GOOD status) sending alerts.*

The default is 0. *REQUIRED*

### monitors.xml

### wrapper.conf

### Passwords

# Monitors

### Provided Monitors

The following section describes all the monitors provided with the Ziz distribution.

General parameters – these are optional and can be used with any monitor

|  |  |
| --- | --- |
| ***General Optional Parameters*** | |
| warning\_threshold | If the value returned by the monitor is greater than this, the monitor will be set to *WARNING* status |
| error\_threshold | If the value returned by the monitor is greater than this, the monitor will be set to *ERROR* status |
| warning\_threshold\_low | If the value returned by the monitor is less than this, the monitor will be set to *WARNING* status |
| error\_threshold\_low | If the value returned by the monitor is less than this, the monitor will be set to *ERROR* status |

#### HTTP / URL Monitor

This monitor is intended for the monitoring of webservers, websites and HTML pages via the standard HTTP/HTTPS protocol. If the HTTP response code is considered OK (e.g. 200) then the monitor will be in *GOOD* status. Error HTTP codes such as 404 or 500 will result in this monitor returning *ERROR* status. This monitor uses the Java [HttpURLConnection](http://java.sun.com/javase/6/docs/api/java/net/HttpURLConnection.html) class to perform the HTTP connection. Additionally text checks can be performed on the contents of the page, ensuring a valid page is returned or checking some status or other message on the page

|  |  |
| --- | --- |
| **Type** | http |
| **Output** | Time taken to connect and download the page, in milliseconds |
| ***Required Parameters*** | |
| url | URL to be monitored, include the HTTP or HTTPS scheme, e.g. http://www.example.com/foo |
| ***Optional Parameters*** | |
| timeout | Timeout for the connection and download, in milliseconds. If not supplied the default value is 30000 (30 seconds) |
| check | Text string or regular expression to search for in the body of the page. If this is not found the monitor will return *ERROR* status |
| not\_check | Text string or regular expression to search for in the body of the page. If this is found the monitor will return *ERROR* status. This is a negative check |
| post | HTTP post data to send, this will be sent as a HTTP POST request. Probably best to URL form encode this. If this parameter is omitted a HTTP GET request is made |
| username | If the URL requires basic authentication, supply the username |
| password | If the URL requires basic authentication, supply the password. Password should be encrypted, see section 5.4 Passwords |

### Creating Your Own Monitors

# User Interface – The Ziz Dashboard

Asdasda

# Alerts

# Reporting

# Troubleshooting

# Reference

### Log Files