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| **resin**   |  |  |  | | --- | --- | --- | |  |  | [admin/configuration](http://192.168.86.128:8080/resin-doc/admin/index.xtp) |   [admin/configuration](http://192.168.86.128:8080/resin-doc/admin/index.xtp)  [**Quick Start**](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp) - Getting Started with Resin ------------------ [local](#_resin_installation_quick)  [**Eclipse**](http://192.168.86.128:8080/resin-doc/admin/resin-eclipse-support.xtp) - Resin Eclipse Support  [**Configuration**](http://192.168.86.128:8080/resin-doc/admin/config.xtp) - Configuration principles for the Resin Server  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/config-overview.xtp) - Overview of Resin configuration  [**resin.properties**](http://192.168.86.128:8080/resin-doc/admin/config-resin-properties.xtp) - Standard Resin properties for configuration  [**resin.xml**](http://192.168.86.128:8080/resin-doc/admin/config-resin-xml.xtp) - Custom resin.xml configuration  [**CanDI**](http://192.168.86.128:8080/resin-doc/admin/config-candi.xtp) - XML configuration for Dependency Injection services  [**EL expressions**](http://192.168.86.128:8080/resin-doc/admin/config-el.xtp) - EL expressions used in configuration  [**Resin Data Directory**](http://192.168.86.128:8080/resin-doc/admin/config-resin-data.xtp) -  [**Migrating**](http://192.168.86.128:8080/resin-doc/admin/migration.xtp) - Migrating to Resin 4.0  [**Administration**](http://192.168.86.128:8080/resin-doc/admin/resin-admin.xtp) - /resin-admin monitoring and administration  [**web console**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-console.xtp) - The web-based Resin administration console  [**Clustering**](http://192.168.86.128:8080/resin-doc/admin/clustering.xtp) - Clustering and load balancing of multiple coordinated Resin servers  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/clustering-overview.xtp) - Overview of Resin's clustering, load-balancing, elastic-computing and distributed caching features  [**Server**](http://192.168.86.128:8080/resin-doc/admin/cluster-server.xtp) - Server (JVM) configuration  [**Cloud**](http://192.168.86.128:8080/resin-doc/admin/cluster-cloud.xtp) - Dynamic Server (Cloud) configuration  [**Command Line**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-command-line.xtp) - The Command Line Resin Administration  [**REST Interface**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-rest.xtp) - Resin REST administration interface  [**Database**](http://192.168.86.128:8080/resin-doc/admin/database.xtp) - Configuration of the Resin database pool  [**Deployment**](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp) - Deploying applications and .war files to a Resin cluster.  [**cloud**](http://192.168.86.128:8080/resin-doc/admin/deploy-cloud.xtp) - deploying .wars to the cluster/cloud  [**command-line**](http://192.168.86.128:8080/resin-doc/admin/deploy-command-line.xtp) - deploying .wars using the Resin command line  [**Filters**](http://192.168.86.128:8080/resin-doc/admin/filters.xtp) - Built-in Filters  [**Health**](http://192.168.86.128:8080/resin-doc/admin/health.xtp)  [**Health Checking**](http://192.168.86.128:8080/resin-doc/admin/health-checking.xtp) - Health checks, conditions, and remediation actions  [**Meters**](http://192.168.86.128:8080/resin-doc/admin/health-meters.xtp) - Statistic graphing with meters  [**Report**](http://192.168.86.128:8080/resin-doc/admin/health-report.xtp) - Health Reporting  [**Watchdog**](http://192.168.86.128:8080/resin-doc/admin/health-watchdog.xtp) - Resin's watchdog process manages Resin servers and checks status for reliability.  [**Installation**](http://192.168.86.128:8080/resin-doc/admin/install.xtp) - Detailed Options for Installation  [**Apache HTTPd**](http://192.168.86.128:8080/resin-doc/admin/starting-resin-apache.xtp) - Using Apache HTTPd with Resin  [**IIS 7 Plugin**](http://192.168.86.128:8080/resin-doc/admin/starting-resin-iis-7.xtp) - Using Microsoft IIS 7 with Resin  [**directory layout**](http://192.168.86.128:8080/resin-doc/admin/resin-directory.xtp) - Resin directory layout  [**Logging**](http://192.168.86.128:8080/resin-doc/admin/logging.xtp) - java.util logging configuration in Resin  [**Scheduled Tasks**](http://192.168.86.128:8080/resin-doc/admin/scheduled-tasks.xtp) - Scheduled tasks  [**Security**](http://192.168.86.128:8080/resin-doc/admin/security.xtp) - Security and authentication configuration  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/security-overview.xtp) - Overview of security concepts  [**authenticators**](http://192.168.86.128:8080/resin-doc/admin/security-authenticators.xtp) - Authenticators for Resin server  [**authentication method**](http://192.168.86.128:8080/resin-doc/admin/security-authentication-method.xtp) - Authenticators for Resin server  [**authorization**](http://192.168.86.128:8080/resin-doc/admin/security-authorization.xtp) - Authenticators for Resin server  [**SSL**](http://192.168.86.128:8080/resin-doc/admin/security-ssl.xtp) - Integrating OpenSSL and JSSE  [**URL Rewrite**](http://192.168.86.128:8080/resin-doc/admin/http-rewrite.xtp) - Resin's URL rewriting capability, replacing mod\_rewrited sites  [**Web Server**](http://192.168.86.128:8080/resin-doc/admin/http.xtp)  [**HTTP server**](http://192.168.86.128:8080/resin-doc/admin/http-server.xtp) - Resin's built-in, high performance HTTP server  [**Virtual Hosts**](http://192.168.86.128:8080/resin-doc/admin/http-virtual-hosts.xtp) - HTTP Virtual Host configuration for multi-host sites  [**Web Applications**](http://192.168.86.128:8080/resin-doc/admin/http-web-apps.xtp) - HTTP servlet container for web applications  [**Proxy Cache**](http://192.168.86.128:8080/resin-doc/admin/http-proxy-cache.xtp) - Resin's built-in proxy cache  [**Classloaders**](http://192.168.86.128:8080/resin-doc/admin/advanced-classloaders.xtp) - Resin classloader architecture  [**Hessian**](http://192.168.86.128:8080/resin-doc/admin/hessian.xtp) - Hessian protocol  [**WebSocket**](http://192.168.86.128:8080/resin-doc/admin/websocket.xtp) - WebSocket support  [**JMX (MXBeans)**](http://192.168.86.128:8080/resin-doc/admin/advanced-jmx.xtp) - JMX management  [**Seam**](http://192.168.86.128:8080/resin-doc/admin/third-party-seam.xtp)  [development](http://192.168.86.128:8080/resin-doc/examples/index.xtp)  [Changes](http://192.168.86.128:8080/resin-doc/changes/index.xtp)  [**Release Notes**](http://192.168.86.128:8080/resin-doc/changes/release-notes.xtp)  [**Resin 4.0.51**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.51.xtp)  [**Resin 4.0.50**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.50.xtp)  [**Resin 4.0.49**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.49.xtp)  [**Resin 4.0.48**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.48.xtp)  [**Resin 4.0.47**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.47.xtp)  [**Resin 4.0.46**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.46.xtp)  [**Resin 4.0.45**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.45.xtp)  [**Resin 4.0.44**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.44.xtp)  [**Resin 4.0.43**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.43.xtp)  [**Resin 4.0.42**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.42.xtp)  [**Resin 4.0.41**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.41.xtp)  [**Resin 4.0.40**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.40.xtp)  [**Resin 4.0.39**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.39.xtp)  [**Resin 4.0.38**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.38.xtp)  [**Resin 4.0.37**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.37.xtp)  [**Resin 4.0.36**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.36.xtp)  [**Resin 4.0.35**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.35.xtp)  [**Resin 4.0.34**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.34.xtp)  [**Resin 4.0.33**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.33.xtp)  [**Resin 4.0.32**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.32.xtp)  [**Resin 4.0.31**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.31.xtp)  [**Resin 4.0.30**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.30.xtp)  [**Resin 4.0.29**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.29.xtp)  [**Resin 4.0.28**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.28.xtp)  [**Resin 4.0.27**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.27.xtp)  [**Resin 4.0.26**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.26.xtp)  [**Resin 4.0.25**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.25.xtp)  [**Resin 4.0.24**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.24.xtp)  [**Resin 4.0.23**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.23.xtp)  [**Resin 4.0.21**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.21.xtp)  [**Resin 4.0.20**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.20.xtp)  [**Resin 4.0.19**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.19.xtp)  [**Resin 4.0.18**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.18.xtp)  [**Resin 4.0.17**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.17.xtp)  [**Resin 4.0.16**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.16.xtp)  [**Resin 4.0.15**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.15.xtp)  [**Resin 4.0.14**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.14.xtp)  [**Resin 4.0.13**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.13.xtp)  [**Resin 4.0.12**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.12.xtp)  [**Resin 4.0.11**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.11.xtp)  [**Resin 4.0.10**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.10.xtp)  [**Resin 4.0.9**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.9.xtp)  [**Resin 4.0.8**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.8.xtp)  [**Resin 4.0.7**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.7.xtp)  [**Resin 4.0.6**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.6.xtp)  [**Resin 4.0.5**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.5.xtp)  [**Resin 4.0.4**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.4.xtp)  [**Resin 4.0.3**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.3.xtp)  [**Resin 4.0.2**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.2.xtp)  [**Resin 4.0.1**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.1.xtp)  [**Resin 4.0.0**](http://192.168.86.128:8080/resin-doc/changes/resin-4.0.0.xtp)  [**Change Logs**](http://192.168.86.128:8080/resin-doc/changes/change-logs.xtp)  [**Resin 4.0 Changes**](http://192.168.86.128:8080/resin-doc/changes/changes.xtp)  [**Resin 3.1 Changes**](http://caucho.com/resin-3.1/changes/changes.xtp)  [Reference](http://192.168.86.128:8080/resin-doc/reference.xtp)  Complete reference documentation |

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| **resin 4.0 reference**   |  |  |  | | --- | --- | --- | | [Resin 4.0](http://192.168.86.128:8080/resin-doc/index.xtp) |  | [Quick Start](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp) |   [Quick Start](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp)  If you're using Resin for the first time, this section will show you how to install Resin, start it, and deploy your application.  [**Eclipse**](http://192.168.86.128:8080/resin-doc/admin/resin-eclipse-support.xtp) - Resin Eclipse Support  [Configuration](http://192.168.86.128:8080/resin-doc/admin/config.xtp)  Many sites can modify the *resin.properties* and use the standard *resin.xml* for configuration of their servers, JVMs, clusters, and applications. More complicated sites can modify the *resin.xml* itself. The xml configuration file *resin.xml* supports CDI custom services, EL expressions and variables variables, imports and control structures.  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/config-overview.xtp) - Overview of Resin configuration  [**resin.properties**](http://192.168.86.128:8080/resin-doc/admin/config-resin-properties.xtp) - Standard Resin properties for configuration  [**resin.xml**](http://192.168.86.128:8080/resin-doc/admin/config-resin-xml.xtp) - Custom resin.xml configuration  [**CanDI**](http://192.168.86.128:8080/resin-doc/admin/config-candi.xtp) - XML configuration for Dependency Injection services  [**EL expressions**](http://192.168.86.128:8080/resin-doc/admin/config-el.xtp) - EL expressions used in configuration  [**Resin Data Directory**](http://192.168.86.128:8080/resin-doc/admin/config-resin-data.xtp) -  [Migrating](http://192.168.86.128:8080/resin-doc/admin/migration.xtp)  Resin 4.0 introduced a number of new features and capabilities over earlier versions of Resin. Along with these changes, configuration and some operating semantics changed. Certain configuration was deprecated and should be removed or rewritten using newer constructs.  [Administration](http://192.168.86.128:8080/resin-doc/admin/resin-admin.xtp)  The /resin-admin web-app provides an administration overview of a Resin server. Resin-Pro users can obtain information across the entire cluster, profile a running Resin instance, and obtain thread dumps and heap dumps.  All Resin users should familiarize themselves with the thread dump, profile, and heap capabilities.  [**web console**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-console.xtp) - The web-based Resin administration console  [Clustering](http://192.168.86.128:8080/resin-doc/admin/clustering.xtp)  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/clustering-overview.xtp) - Overview of Resin's clustering, load-balancing, elastic-computing and distributed caching features  [**Server**](http://192.168.86.128:8080/resin-doc/admin/cluster-server.xtp) - Server (JVM) configuration  [**Cloud**](http://192.168.86.128:8080/resin-doc/admin/cluster-cloud.xtp) - Dynamic Server (Cloud) configuration  [Command Line](http://192.168.86.128:8080/resin-doc/admin/resin-admin-command-line.xtp)  Starting with version 4.0.17 Resin provides extended set of commands that allow administrators and programmers perform debugging and monitoring tasks on remote Resin server using command line.  All Resin users should familiarize themselves with the thread dump, profile, and heap capabilities.  [REST Interface](http://192.168.86.128:8080/resin-doc/admin/resin-admin-rest.xtp)  Starting with version 4.0.26 Resin provides REST interface. Simple and secure, it can be used for integration with services such as RightScale® and others.  [Database](http://192.168.86.128:8080/resin-doc/admin/database.xtp)  Resin provides a robust and tested connection pool that is used to obtain connections to databases.  [Deployment](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp)  Resin's deployment capabilities include clustered deployment, remote deployment, versioning and rollback, command-line deployment, browser deployment, and standard webapps directory filesystem deployment.  [**cloud**](http://192.168.86.128:8080/resin-doc/admin/deploy-cloud.xtp) - deploying .wars to the cluster/cloud  [**command-line**](http://192.168.86.128:8080/resin-doc/admin/deploy-command-line.xtp) - deploying .wars using the Resin command line  [Filters](http://192.168.86.128:8080/resin-doc/admin/filters.xtp)  [Health](http://192.168.86.128:8080/resin-doc/admin/health.xtp)  Resin includes a powerful and configurable system for monitoring application server health and graphing performance metrics.  [**Health Checking**](http://192.168.86.128:8080/resin-doc/admin/health-checking.xtp) - Health checks, conditions, and remediation actions  [**Meters**](http://192.168.86.128:8080/resin-doc/admin/health-meters.xtp) - Statistic graphing with meters  [**Report**](http://192.168.86.128:8080/resin-doc/admin/health-report.xtp) - Health Reporting  [**Watchdog**](http://192.168.86.128:8080/resin-doc/admin/health-watchdog.xtp) - Resin's watchdog process manages Resin servers and checks status for reliability.  [Installation](http://192.168.86.128:8080/resin-doc/admin/install.xtp)  [**Apache HTTPd**](http://192.168.86.128:8080/resin-doc/admin/starting-resin-apache.xtp) - Using Apache HTTPd with Resin  [**IIS 7 Plugin**](http://192.168.86.128:8080/resin-doc/admin/starting-resin-iis-7.xtp) - Using Microsoft IIS 7 with Resin  [**directory layout**](http://192.168.86.128:8080/resin-doc/admin/resin-directory.xtp) - Resin directory layout  [Logging](http://192.168.86.128:8080/resin-doc/admin/logging.xtp)  Resin can perform access logging, specify where JDK logging interface messages go, and redirect the stderr and stdout for your applications.  [Scheduled Tasks](http://192.168.86.128:8080/resin-doc/admin/scheduled-tasks.xtp)  Resin's ScheduledTask capability lets you schedule events using a flexible cron-style trigger. The task can be any java.lang.Runnable bean, a method specified by EL, or a URL.  [Security](http://192.168.86.128:8080/resin-doc/admin/security.xtp)  [**Overview**](http://192.168.86.128:8080/resin-doc/admin/security-overview.xtp) - Overview of security concepts  [**authenticators**](http://192.168.86.128:8080/resin-doc/admin/security-authenticators.xtp) - Authenticators for Resin server  [**authentication method**](http://192.168.86.128:8080/resin-doc/admin/security-authentication-method.xtp) - Authenticators for Resin server  [**authorization**](http://192.168.86.128:8080/resin-doc/admin/security-authorization.xtp) - Authenticators for Resin server  [**SSL**](http://192.168.86.128:8080/resin-doc/admin/security-ssl.xtp) - Integrating OpenSSL and JSSE  [URL Rewrite](http://192.168.86.128:8080/resin-doc/admin/http-rewrite.xtp)  Resin comes with powerful and extensible rewrite capabilities that is as powerful as Apache's mod\_rewrite.  [Web Server](http://192.168.86.128:8080/resin-doc/admin/http.xtp)  Description and configuration of Resin's high-performance HTTP web server.  [**HTTP server**](http://192.168.86.128:8080/resin-doc/admin/http-server.xtp) - Resin's built-in, high performance HTTP server  [**Virtual Hosts**](http://192.168.86.128:8080/resin-doc/admin/http-virtual-hosts.xtp) - HTTP Virtual Host configuration for multi-host sites  [**Web Applications**](http://192.168.86.128:8080/resin-doc/admin/http-web-apps.xtp) - HTTP servlet container for web applications  [**Proxy Cache**](http://192.168.86.128:8080/resin-doc/admin/http-proxy-cache.xtp) - Resin's built-in proxy cache  [Classloaders](http://192.168.86.128:8080/resin-doc/admin/advanced-classloaders.xtp)  Resin organizes resources and classloaders into nested environments. Each environment context merges its own configuration with configuration inherited from the parent environment. Each environment context: server, host, web-app, etc. may be configured with any of the environment configuration tags.  [Hessian](http://192.168.86.128:8080/resin-doc/admin/hessian.xtp)  [WebSocket](http://192.168.86.128:8080/resin-doc/admin/websocket.xtp)  [JMX (MXBeans)](http://192.168.86.128:8080/resin-doc/admin/advanced-jmx.xtp)  JMX Consoles provide access to both the MBean's that Resin publishes for information about and control of the Resin server and Application specific MBeans.  [Seam](http://192.168.86.128:8080/resin-doc/admin/third-party-seam.xtp) |

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| resin installation quick start  |  |  |  | | --- | --- | --- | | [admin/configuration](http://192.168.86.128:8080/resin-doc/admin/index.xtp) |  | [Eclipse](http://192.168.86.128:8080/resin-doc/admin/resin-eclipse-support.xtp) |   If you're using Resin for the first time, this section will show you how to install Resin, start it, and deploy your application.   1. [Preconditions](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Preconditions) 2. [Directory Overview](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#DirectoryOverview) 3. [Installing Resin](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#quickstart)    1. [Debian Unix .deb and apt-get](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#DebianUnix.debandapt-get)    2. [RedHat and CentOS .rpm files](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#RedHatandCentOS.rpmfiles)    3. [Other Unix, Linux, Solaris, and Mac OS X](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#OtherUnixLinuxSolarisandMacOSX)    4. [Windows](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Windows) 4. [Installing a license file for Resin Pro](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#InstallingalicensefileforResinPro) 5. [Resin as a Web Server](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#ResinasaWebServer) 6. [Browser-Based Administration (/resin-admin)](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Browser-BasedAdministrationresin-admin)    1. [Installation with resin.properties and generate-password](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Installationwithresin.propertiesandgenerate-password)    2. [Installation with /resin-admin](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Installationwithresin-admin) 7. [Deploying Applications](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#DeployingApplications)    1. [Local network command-line deployment](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Localnetworkcommand-linedeployment)    2. [Remote network command-line deployment](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Remotenetworkcommand-linedeployment)    3. [webapps directory deployment](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#webappsdirectorydeployment) 8. [Running Resin as a Daemon](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#RunningResinasaDaemon) 9. [Command-Line PDF Reports](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#Command-LinePDFReports) 10. [Resin IDE Support](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#ResinIDESupport) 11. [More Installation Options](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#MoreInstallationOptions) 12. [Next Steps](http://192.168.86.128:8080/resin-doc/admin/starting-resin.xtp#NextSteps)  Preconditions  * Resin requires JDK 6.0 or later(JDK或以上版本). * An HTML 5 browser（支持H5的浏览器） for some /resin-admin features.   Oracle's JDK for Windows, Solaris, and Linux can be found at <http://www.oracle.com/technetwork/java/javase/downloads/index.html>. Oracle also has links to some other ports of the JDK. Resin will not be fully functional while using a JRE. Directory Overview When Resin is installed on a **Unix** system:   * **resinctl** is the [command-line interface](http://192.168.86.128:8080/resin-doc/admin/starting-resin-command-line.xtp). * [Configuration properties](http://192.168.86.128:8080/resin-doc/admin/config-resin-properties.xtp) are in /etc/resin/resin.properties * [Deployed applications](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp)（应用部署路径及网站根目录） are put in /var/resin/webapps * Logs are in /var/log/resin * Licenses belong in /etc/resin/licenses * OpenSSL keys belong in /etc/resin/keys   **Unix Directories**  /etc/resin/resin.properties # configuration properties  /etc/resin/resin.xml # configuration file 配置文件  /etc/resin/licenses/ # license location 证书路径  /etc/resin/keys/ # openssl keys  /var/resin/ # resin.root (content)  /var/resin/webapps/ # default deployment directory 默认部署路径  /var/log/resin/ # resin logs 日志路径  /usr/local/share/resin/ # resin.home (binaries and libraries)  When Resin is installed on a **Windows** system:   * **resin** is the [command-line interface](http://192.168.86.128:8080/resin-doc/admin/starting-resin-command-line.xtp). * [Configuration properties](http://192.168.86.128:8080/resin-doc/admin/config-resin-properties.xtp) are in conf/resin.properties * [Deployed applications](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp) are in webapps * Logs are in log * Licenses belong in conf/licenses * OpenSSL keys belong in conf/keys   **Windows/unzip Directories**  resin-4.0.x/ # installation directory: resin.home, resin.root  conf/resin.properties # configuration properties  conf/resin.xml # configuration file  conf/licenses/ # license location  conf/keys/ # openssl keys  webapps/ # default deployment directory  logs/ # resin logs Installing Resin Installation steps for the major operating systems are outlined below: Debian Unix .deb and apt-get Debian users can download a .deb packaged version of Resin or use apt-get to install Resin. The Debian package performs all of the installation steps above for you and creates all the recommended server and content directories. Simply download from the [Resin download page](http://caucho.com/download) and install using dpkg.  Alternatively, you can add Caucho's Debian repository to your system's repositories to use automated update tools like Synaptic and apt-get. To do this, you can add the debian repository as follows:  unix# add-apt-repository http://caucho.com/download/debian  After adding this line, update your local repository cache by running:  unix# apt-get update  Install Resin Professional with this command:  unix# apt-get install resin-pro  Or install Resin Open Source with this command:  unix# apt-get install resin RedHat and CentOS .rpm files RPM files are available at <http://caucho.com/download>. The RPM public key is at <http://caucho.com/download/rpm/RPM-GPG-KEY-caucho>.  **RPM/yum install**  unix# rpm --import http://caucho.com/download/rpm/RPM-GPG-KEY-caucho  unix# yum install http://caucho.com/download/rpm/4.0.30/x86\_64/resin-pro-4.0.30-1.x86\_64.rpm Other Unix, Linux, Solaris, and Mac OS X  1. Install JDK 6 or later and link /usr/java to the Java home or define the environment variable *JAVA\_HOME*. 2. tar -vzxf resin-4.0.x.tar.gz 3. cd resin-4.0.x 4. ./configure    * some details on the [./configure options](http://192.168.86.128:8080/resin-doc/admin/starting-resin-command-line.xtp). 5. make 6. sudo make install 7. Execute sudo resinctl start    * or run java -jar lib/resin.jar start 由于resin也是由java写的服务，所以也可以执行jar包 8. Browse to [http://localhost:8080](http://localhost:8080/)  Windows  1. Install JDK 6 or later. 2. Check that the environment variable *JAVA\_HOME* is set to the JDK location, e.g. c:\java\jdk1.6.0\_14 3. Unzip resin-4.0.x.zip 4. Define the environment variable *RESIN\_HOME* to the location of Resin, for example c:\resin-4.0.x 5. Execute resin.exe    * or run java -jar lib/resin.jar start 6. Browse to [http://localhost:8080](http://localhost:8080/)  Installing a license file for Resin Pro After installing Resin Professional, you need to install the license file.  If you have a license file for Resin, save it in */etc/resin/licenses*. You can also install the license from the command line with:  unix> resinctl license-add mylicense.license Resin as a Web Server Resin includes a high-performance HTTP server that outperforms NginX and Apache httpd（比nginx和apache的性能还高）. The easiest and fastest Resin configuration uses Resin as the web server as well as the application server（应用Resin作为web服务器和应用服务器）. We highly recommend you start with this configuration although you are free（免费） to use other web servers like Apache or IIS with Resin.  Resin Web Server has been tested to serve 100,000 requests per second（每秒1万pv）, making it comparable in performance to top C-based web servers. See [Wiki: Resin Web Server: Resin 4.0.x vs nginx 1.2 performance](http://wiki4.caucho.com/NginX_1.2.0_versus_Resin_4.0.29_performance_tests) for a comparison of Resin's performance vs nginx, a fast C-based HTTP server.  Keep in mind, Resin can be used for development or evaluation（激活） in addition to using it in production. If desired, you can easily apply for a development license to enable Resin Pro features（可以申请一个开发版本的证书来体验Resin专业版的特性）. You can also simply use Resin Open Source to start development.  browser <-> Resin httpd/servlets,beans <- html,jsp  The built-in HTTP server listens on port 8080 in the default configuration and can be changed to listen on the HTTP port 80 instead during deployment.  **Example: Starting Resin**  unix> resinctl start  c:\windows> resin start  For troubleshooting your installation, you can also run Resin in "console" mode, which will let you see the logging messages in your console.  **Example: Starting Resin in console mode**  unix> resinctl console 可以作为调试  For more details, see the [Resin Web Server](http://192.168.86.128:8080/resin-doc/admin/http-server.xtp) configuration page. Browser-Based Administration (/resin-admin) To enable the /resin-admin browser-based administration, you'll need to create an admin user and password（可以通过resin.properties配置文件添加或者通过浏览器添加）. You can either create the user in resin-admin itself, or if you are using the standard resin.xml and resin.properties you can generate the key from the command line resinctl Installation with resin.properties and generate-password You can generate the user and password properties from the command-line. Resin's password must be hashed for security.  **Example: generate-password**  unix> resinctl generate-password my-user my-password  admin\_user : my-user 此为上面命令指定的用户名  admin\_password : {SSHA}HTfP60Ceq0K0IAvN31wQtBxtql9D+8Wo 此为密码的加密后的值  Add the admin\_user and admin\_password lines to the end of the /etc/resin/resin.properties（需要将生成的admin\_user和密码添加到resin.properties文件并重启服务器才能通过这个用户登录管理页面） file. You may also use those values to change your admin-users.xml file.  You can update the resin.properties in one step on unix by using a pipe:  **Example: generate-password for resin.properties**  unix# resinctl generate-password my-user my-password >> /etc/resin/resin.properties #使用管道操作 Installation with /resin-admin  1. Create an admin user following the prompt at /resin-admin. 2. Rename admin-users.xml.generated to admin-users.xml. 3. Change the resin\_admin\_external to true in the resin.xml if you need access from a non-local IP address（如果允许）外网能够访问管理页面的话则可以将resin\_admin\_external设置为true). 4. Browse /resin-admin with an HTML 5 browser.   On Linux, *admin-users.xml.generated* is typically generated in /etc/resin/.  The steps are for security reasons. Copying the admin-users.xml verifies that you have access to the server. And the default resin\_admin\_external=false makes sure you're not exposing the /resin-admin to the internet.  For more information, see the [/resin-admin documentation](http://192.168.86.128:8080/resin-doc/admin/resin-admin-console.xtp). Deploying Applications Once you've made sure Resin is working, you can start to run applications and add content. Local network command-line deployment Command-line deployment(命令行部署) on a local network deploys a .war file（部署一个.war文件） to a running Resin server, using the .war file's name as the context-path（上下文路径）. It looks like the following example.  **Example: command-line deployment**  unix> resinctl deploy hello.war  unix> resinctl undeploy hello.war  The URL for the application would be: *http://localhost:8080/hello*.  To deploy to the root context-path（部署到根目录）, use a file name ROOT.war or use the --name attribute.  注：可能需要指定用户名或者密码，或者开启cluster\_system\_key  [root@master resin-4.0.53]# ./bin/resin.sh deploy /home/resiner/app/www-demo/hello.war  Authentication is required to access the remote service.  Include --user and --password parameters to connect, or enable 'cluster\_system\_key' in resin.properties.  BamError[type=auth,group=not-authorized,text=No user and password credentials were presented and cluster-system-key is not configured]  [root@master resin-4.0.53]# ./bin/resin.sh --user Daniel --password xxxxx deploy /home/resiner/app/www-demo/hello.war  Deployed production/webapp/default/hello from /home/resiner/app/www-demo/hello.war to http://127.0.0.1:8080/hmtp  **Example: root command-line deployment**  unix> resinctl deploy --name ROOT mywar.war  unix> resinctl undeploy --name ROOT Remote network command-line deployment Deploying to a remote network requires some more configuration for security reasons:   1. enable remote administration (disabled by default) 2. configure an admin user and password   After the changes, resin.properties will look something like:  **Example: resin.properties for remote deployment**  ...  admin\_user : my-user  admin\_password : {SSHA}HTfP60Ceq0K0IAvN31wQtBxtql0D+8Wo  admin\_remote\_enable : true  When you deploy, you will need to give the user and password:  **Example: remote deploy**  unix> resinctl deploy --user my-user --password my-password hello.war webapps directory deployment You can deploy .war files by copying them to the webapps directory like this: resin-4.0.x/webapps/hello.war. The URL for the application would be:<http://localhost:8080/hello>.  You can also deploy .wars in exploded form like: resin-4.0.x/webapps/hello/index.php. The URL for the application would be: <http://localhost:8080/hello>.  You can use a web.xml file to configure the 'hello' web application: resin-4.0.x/webapps/hello/WEB-INF/web.xml.  For more information on deployment, see the [deployment documentation](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp). Running Resin as a Daemon Most production environments will run Resin as a background daemon. When running as a daemon, Resin detaches from the console and continues running until it is stopped.  The following are the basic steps to running Resin as a daemon:   1. Start resin with resinctl start 2. Stop resin with resinctl stop 3. Restart resin with resinctl restart   The .rpm and .deb files install Resin in /etc/init.d/resin, which will start Resin when the system boots. Command-Line PDF Reports PDF reports about the Resin server can be generated with the command-line, the /resin-admin browser-based GUI, or as automatic health system tasks.  From the command-line you can generate a pdf-report with the following:  **Example: generating a PDF snapshot report**  unix> resinctl pdf-report  generated /var/resin/log/default-Watchdog-20111010T1426.pdf  You can also generate a report for the most recent restart event saved by the watchdog. The watchdog report will give information about why Resin was last stopped.  **Example: generating a PDF watchdog report**  unix> resinctl pdf-report -watchdog  generated /var/resin/log/default-Watchdog-20111010T1426.pdf Resin IDE Support Resin includes excellent support for Eclipse. In fact, using the Eclipse support may be the easiest way get started with Resin.  Resin plugin support is included in Indigo (Eclipse 3.7) and above (you can install the Resin plugin manually for earlier Eclipse versions). The Resin plugin allows you to create new server instances, configure servers, start servers, stop servers, restart instances, deploy/undeploy applications, debug on the server and so on. You can even automatically download and install the latest version of Resin using the plugin or apply for a development license for Resin Pro.  Further details on the Resin Eclipse plugin is available [here](http://192.168.86.128:8080/resin-doc/admin/resin-eclipse-support.xtp). More Installation Options More installation and configuration are available at [installation options](http://192.168.86.128:8080/resin-doc/admin/install.xtp). Next Steps  * [**resin.properties**](http://192.168.86.128:8080/resin-doc/admin/config-resin-properties.xtp) configuration shows how to customize basic configuration. * [**resin.xml**](http://192.168.86.128:8080/resin-doc/admin/config-resin-xml.xtp) configuration shows more advanced and specialized configuration. * [**command-line**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-command-line.xtp) describes using the **resinctl** command line interface. * [**deployment**](http://192.168.86.128:8080/resin-doc/admin/deploy.xtp) deploying applications to a running server. * [**clustering**](http://192.168.86.128:8080/resin-doc/admin/clustering.xtp) describes clustering, cloud, and dynamic servers. * [**resin-admin**](http://192.168.86.128:8080/resin-doc/admin/resin-admin.xtp) describes the /resin-admin browser-based interface. * [**health**](http://192.168.86.128:8080/resin-doc/admin/health.xtp) describes the Resin health and monitoring system. * [**REST admin**](http://192.168.86.128:8080/resin-doc/admin/resin-admin-rest.xtp) describes the REST interface for remote third-party admin integration. * [**Resin HTTP Web Server**](http://192.168.86.128:8080/resin-doc/admin/http.xtp) describes fast, scalable HTTP web server. * [**HTTP URL Rewrite**](http://192.168.86.128:8080/resin-doc/admin/http-rewrite.xtp) describes Resin's URL rewriting (like mod\_rewrite). * [**Security**](http://192.168.86.128:8080/resin-doc/admin/security.xtp) describes authentication, authorization and SSL. |