

# Light Development File Server

for Java EE Compliant Servlet Containers

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Administrator Manual

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This document is available online at <http://www.lightdev.com/doc/filesrv/AdminManual.pdf>

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## About the Light Development File Server

The Light Development File Server is the server side implementation of the Light Development File System class library [1]. It implements two servlets that make available the file system of a remote machine running a Java EE compatible servlet container. The servlets can be used for remote file management using interface `FileSystem` as declared by the Light Development File System class library [1].

## File Server Components

The Light Development File Server distribution package contains two components:

- A web archive with a servlet that implements a file server accessible via XML-RPC [2] and
- a ZIP compressed folder with a class that implements a file server as an agent for the Light Development TREC platform [3].

The web archive is meant for testing purposes. It does not implement authentication or security in any way. It can be used to test functionality of and communication between a file server and a file management client. The web archive should not be used in any productive environment unless authentication and security is implemented in addition.

The TREC agent is meant for use in a productive environment based on the Light Development TREC platform which implements proper authentication. This ensures that file services provided by the file server agent are available to authenticated users only. The file server agent should only be used in a TREC environment that is operated using HTTP over secure socket layer encryption (HTTPS).

## Installation

The first step to install the Light Development File Server is to download respective distribution package at [4] and to extract the contents of the downloaded ZIP compressed file. For installation of both variants, the servlet web archive and the TREC agent a Java EE compliant servlet container such as Tomcat [5], Resin [10], JBoss [11] or Orion [12], etc. is assumed to be present.

For the rest of this documentation Tomcat is assumed for the server. Tomcat is easily installed on Windows through an included installer. For information about how to install Tomcat on Linux you can refer to [6].

## Web Archive Installation

To deploy the web archive with the Light Development File Server component use following steps

1. Open the manager console of Tomcat at `[URL to Tomcat]/manager/html`
2. At the bottom of the manager console in field "Select war file to deploy" click the button to select a file
3. In the file chooser dialog select file `rpc.war` from your copy of the Light Development File Server distribution package
4. Click the "Deploy" button

Tomcat manager will respond with "OK" when the deploy was successful. Your file server is accessible at URL `[URL to Tomcat]/rpc/RPCServer` after deployment.

**Warning:** The file server web archive does not implement any security mechanisms. Do not install the Light Development File Server web archive as described above without appropriate additional security measures. By installing the web archive as described above the machine that hosts the servlet is open for anonymous remote file management via XML-RPC for anyone that can access that machine.

## TREC Agent Installation

For installation of the TREC file server agent a running TREC platform [3] is assumed. For a step by step documentation about how to install and use the TREC platform please refer to [7]. Use the TREC Manager application to

1. Upload the file system library (file `ldfs.jar`) to the TREC server
2. Upload the file server TREC agent (file `FileServerAgent.zip`) to the TREC server
3. Start the file server TREC agent with  
Agent name: `FileServerAgent`  
Agent class: `com.lightdev.app.fileserver.trec.FileServerAgent`

The file server agent can be accessed via XML-RPC using a TREC client for requests. Use the URL of your TREC server, e.g. `https://www.yourdomain.com/trec/apps` along with the agent name from the installation (`FileServerAgent`).

## Using the Light Development File Server

The Light Development File Server is meant for remote file management of a server machine that runs a Java EE compliant servlet container such as Tomcat [5]. To use the file server a client application needs to be built that uses the XML-RPC API provided by the server as documented in [8].

By installation as described in chapter Installation above the Light Development File Server can be used for remote file management. A reference implementation of a client application to the Light Development File Server can be found with the Light Development File Manager available at [9].

The Light Development File Manager is a Java client application that creates a typical client GUI for file management. Being developed in Java using the Swing package entirely it is platform independent and can be used for local and remote file management of machines that have a Java VM available such as Linux, Unix, Mac OS or Windows.

Besides of its file management capabilities the Light Development File Manager serves to document common practices in Java GUI development as well as utilisation of distributed computing through Java and XML-RPC.

## References

- [1] The Light Development File System  
<http://www.lightdev.com/page/107.htm>
- [2] XML-RPC  
<http://www.xmlrpc.com>
- [3] The Light Development TREC Platform  
<http://www.lightdev.com/page/104.htm>
- [4] The Light Development File Server distribution package  
<http://www.lightdev.com/page/108.htm>
- [5] Apache Tomcat  
<http://tomcat.apache.org>
- [6] Tomcat on Linux made easy  
<http://www.ipernity.com/blog/photomotion/17814>
- [7] The Light Development TREC Platform Manual  
<http://www.lightdev.com/sjh/jh.doc/trec/help/help.hs.item5>
- [8] API documentation for the Light Development File Server  
<http://www.lightdev.com/doc/filesrv/api/index.html>
- [9] The Light Development File Manager application  
<http://www.lightdev.com/page/109.htm>

[10] Caucho Resin  
<http://caucho.com/>

[11] JBoss  
<http://www.jboss.org/>

[12] Orion  
<http://orionserver.com/>

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