# Technical User Manual

## Overview of software

Library Path Search System (LPSS) system is a system that can help you find the shortest way to get those books you want. This software could only be used on Apache tomcat server and the server should contain java environment. A web browser is also needed. The most function could be used on major web browsers such chrome, Firefox and IE. The map edit function could only be used on the browser which supports HTML5.

## Hardware requirements

The hardware for the software shall satisfy the hardware requirements for Java Environment V7, Apache Tomcat V7, MySQL V5.5 and Chrome (latest) or Maxthon 3.

### Java Environment

**Java Runtime Environment version(s):** 7.0

#### Windows System Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Platform** | **Version** | **Memory** | **Browsers** | **Diskspace** |
| **Windows (32-bit)** | | | | |
| **Windows  x86** |  |  |  |  |
| Windows 7 | 128mb | Chrome IE 7, IE 8, IE 9 Firefox 3.6+, Firefox 4 | 98 MB |
| Windows Vista | 128mb |
| Windows Server 2008 | 128mb |
| Windows XP | 64mb |
| **Windows x64  64-bit mode** |  |  |  |  |
| Windows 7 | 128mb | * **64-bit OS, 32-bit Browsers:**  Chrome IE 7, IE 8, IE 9 Firefox 3.6+, Firefox 4 * **64-bit OS, 64-bit Browsers:**  IE 7, IE 8, IE 9 Firefox 4 | 98 M |
|  |  |

#### Linux System Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Platform** | **Version** | **Memory** | **Browsers** | **Diskspace** |
| **Linux 32-bit** | | | | |
| **Linux  x86** |  |  |  |  |
| Oracle Enterprise  Linux 5.5, 5.4 | 64mb | Firefox 3.0.x, Firefox 3.5.x, or Firefox 3.6 | 58 MB |
| Red Hat Enterprise  Linux 5.3, 5.4, 5.5 | 64mb | Firefox 3.0.x, Firefox 3.5.x, or Firefox 3.6 |
| Red Hat Enterprise  Linux AS/ES 4.0 (4.1-4.8) | 64mb | Firefox 2, Mozilla 1.4 Mozilla 1.7 |
| SUSE 10 | 64mb | Firefox 2.0.x |
| SUSE 9 | 64mb | Mozilla 1.4 |
| SLES 11 | 64mb | Firefox 3.0.6, Firefox 3.0.8 |
| **Linux 64-bit** | | | | |
| **Linux x64  64-bit mode** |  |  |  |  |
| Oracle Enterprise  Linux 5.5, 5.4 | 64mb | * **64-bit OS, 32-bit Browsers:**Firefox 3.0.x, Firefox 3.5.x, or Firefox 3.6 | 58 MB |
| Red Hat Enterprise  Linux 5.3, 5.4, 5.5 | 64mb | * **64-bit OS, 32-bit Browsers:**  Firefox 3.0.x, Firefox 3.5.x, or Firefox 3.6 |
| Red Hat Enterprise  Linux 5.0 (5.1, 5.2) | 64mb | * **64-bit OS, 32-bit Browsers:**  Firefox 3.0.x, Firefox 3.0.x, |
| Red Hat Enterprise  Linux AS/ES 4.0 (4.1-4.8) | 64mb | * **64-bit OS, 32-bit Browsers:**  Firefox 2.0.x  Mozilla 1.4.X or 1.7, |
| SUSE 8.2,  9, 9.1, 9.2 | 64mb | * **64-bit OS, 32-bit Browsers:**  Mozilla 1.4 |
| SLES 11 | 64mb | * **64-bit OS, 32-bit Browsers:**  Firefox 3.0.6 or 3.0.8 |  |
| SLES 10 | 64mb | * **64-bit OS, 32-bit Browsers:**  Firefox 2.0.x |  |
| SLES 9, 8 | 64mb | * **64-bit OS, 32-bit Browsers:**  Mozilla 1.4 |  |

<http://www.java.com/en/download/help/sysreq.xml>

### Apache Tomcat

Apache Tomcat 7.0 is required.

Apache Tomcat 7.0 requires the Java Standard Edition Runtime Environment (JRE) version 6.0 or later.

### MySQL

MySQL Workbench requires a system that runs smoothly.

The minimum hardware requirements are:

* CPU: 32-bit or 64-bit
* Cores: Single (Single Core 3GHz or higher, Dual Core 2GHz or higher recommended)
* RAM: 4 GB (6 GB or higher recommended)
* Graphic Accelerators: nVidia or ATI with support of OpenGL 2 or higher
* Display Resolution: 1280×1024 minimum (1920×1200 or higher recommended)

<http://dev.mysql.com/doc/workbench/en/wb-requirements-hardware.html>

### Browser

As partial function of the software is implemented using HTML5. It is better to use Chrome or Maxthon as they support HTML5.

#### Chrome system requirements

Google Chrome is available for Windows, Mac, and Linux. For optimal performance, we recommend the following system requirements:

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| --- | --- | --- | --- |
|  | **Windows requirements** | **Mac requirements** | **Linux requirements** |
| **Operating system** | Windows XP Service Pack 2+ Windows Vista Windows 7 | Mac OS X 10.5.6 or later | Ubuntu 10.04+ Debian 6+ OpenSuSE 11.3+ Fedora Linux 14 |
| **Processor** | Intel Pentium 4 or later | Intel | Intel Pentium 3 / Athlon 64 or later |
| **Free disk space** | 100 MB | | |
| **RAM** | 128 MB | | |

#### Maxthon 3 system requirements

|  |  |
| --- | --- |
| Minimum Requirements | Recommended System Configuration |
| 500MHz CPU  256MB Memory  20MB Free Disk Space  Microsoft Windows 2000 / XP / Vista  Microsoft Internet Explorer 6.0 | 1.2GHz CPU  512MB Memory  64MB Free Disk Space  Microsoft Windows Vista  Microsoft Internet Explorer 7.0 or Above Version |

## Prepare for software

### Java Environment

Download Java Runtime Environment (7 update 4)

Download link: <http://www.java.com/en/download/index.jsp>

Java Runtime Environment Installation: <http://java.com/en/download/help/index_installing.xml?user_os=Windows%207&user_jre=7.0>

### Apache Tomcat

Apache Tomcat V7: <http://tomcat.apache.org/download-70.cgi#7.0.27>

Apache Tomcat V7 documentation: <http://tomcat.apache.org/tomcat-7.0-doc/index.html>

The Apache Tomcat User Guide is in that page.

### MySQL

Download links: <http://www.mysql.com/downloads/mysql/>

Installing and Upgrading MySQL：<http://dev.mysql.com/doc/refman/5.5/en/installing.html>

### Browser

Download and install Chrome: <http://support.google.com/chrome/bin/answer.py?hl=en&answer=95346>

Download and install Maxthon 3: <http://www.maxthon.com/mx3/>