GNU Linear Programming Kit for Windows

Reference Manual

Version 4.65

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Chapter 1

Introduction

The GNU Linear Programming Kit (GLPK)[2] package supplies a solver for large scale linear programming (LP) and mixed integer programming (MIP). The GLPK project is hosted at http://www.gnu.org/software/glpk.

It has two mailing lists:

- help-glpk@gnu.org and
- bug-glpk@gnu.org.

To subscribe to one of these lists, please, send an empty mail with a Subject: header line of just "subscribe" to the list.

GLPK provides a library written in C and a standalone solver.

The source code provided at ftp://gnu.ftp.org/gnu/glpk/ contains the documentation of the library in file doc/glpk.pdf.

Project GLPK for Windows delivers precompiled executables for Windows. It is hosted at http://winglpk.sourceforge.net/.

Chapter 2

Installation

The GLPK for Windows package can be downloaded from http://winglpk.sourceforge.net/.

It is distributed as a compressed archive. Please decompress it to your preferred installation path (e.g. c:\program files\glpk).

The executables and dynamic link libraries for 32 bit Windows can be found in directory w32, those for 64 bit Windows can be found in directory w64.

The libraries have to be in the search path for binaries when executing the standalone solver glpsol.exe. Therefore it is suggested to copy the DLLs to %SystemRoot%\system32 (e.g. c:\windows\system32).

The documentation can be found in directory doc. If you want to use the GNU Math Programming Language (GMPL), please read gmpl.pdf. If you want to use the library in your own coding, please, refer to glpk.pdf.

Chapter 3

Building

As GLPK for Windows comes with precompiled binaries it is normally not necessary to build the software.

The script used to build the package is provided as Build_WinGLPK.bat with the distribution.

The following software is needed

- Windows 10 64bit or later release
- Java SE Development Kit (JDK) available at http://java.sun.com/javase/downloads/index.jsp.
- Microsoft Visual Studio Community 2015 available at https://www.visualstudio.com/en-us/products/visual-studio-community-vs.aspx
- Windows Software Development Kit (SDK) for Windows 7, and .NET Framework 4.0 available at http://www.microsoft.com/downloads/en/default.aspx
- GnuWin32 available at http://gnuwin32.sourceforge.net/
- SWIG (Simplified Wrapper and Interface Generator)[3] available at http://www.swig.org

When building, please, create a new directory and copy only Build_WinGLPK.bat to the directory. In the command shell execute the script. The distribution files are created in subdirectory release.

Chapter 4

License

GLPK for Windows is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License[1] as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

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Bibliography

[1] Free Software Foundation, Inc. *GNU General Public License*, 2007.

[2] Andrew Makhorin. *GNU Linear Programming Kit*. GNU Software Foundation, 2010.

[3] SWIG.org. *Simplified Wrapper and Interface Generator*, 2010.

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