

PATTERN EXPERT legeoDev

Manual

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1. Introduction

PATTERN EXPERT legeoDev is a special edition of the code reading system PATTERN EXPERT legeo, which is designed to meet the requirements of application developers. Before proceeding here, you should have made yourself acquainted with the legeo manual ("legeo_EN.pdf") in order to learn how the system PATTERN EXPERT legeo works. This document describes how to use the same functionality as part of your own applications.

2. Registration

After installation, the system is equipped with a 30-day trial license. During this period, you may use the program "legeoMaster.exe" or the program "legeoDevRegistration.exe" (both included in the installation) to determine your computer ID. Please, pass the ID to PATTERN EXPERT in order to obtain your user license without time limit. You will receive two license files which you just need to copy into the legeoDev installation directory (replacing the existing trial license files). Now you have unlimited access to all parts of the system.

3. Interface

You can include the library "legeoDev.dll" into your C or C++ software projects in the usual way by using the header file "legeoDev.h" for compiling and the library file "legeoDev.lib" for linking. Both files are contained in the legeoDev setup. The environment variable "LEGEO_DIR" contains the path to these files (e.g., you may use it in VC6 by setting "\$(LEGEO_DIR)\Include" and "\$(LEGEO_DIR)\Lib"). The interface to legeoDev is very lean and easy to use. All the necessary functions are described in detail in the header file. You may also take a look at the implementation file "legeoDevSample.cpp" of the plain Win32 sample program called "legeoDevSample.exe" (both included in the setup).

4. Configuration

As described in the legeo manual ("legeo_EN.pdf"), the reading system as well as the selected code readers need to be configured and trained for the desired application. Both can be done with the included program "legeoMaster.exe".

All your settings as well as the results of the readers' automatic self adaption are contained in a set of *.cfg files. There is a configuration file for the system ("legeo.cfg") plus one file for each code reader ("PERDDaMa.cfg" for Data Matrix, "PERDPDF4.cfg" for PDF417). All *.cfg files must be in the same directory as the corresponding *.dll files. In this way, settings and training results saved by "legeoMaster.exe" are automatically used by any application which is based on legeoDev.

5. Automatic Self Adaption

Although the recommended procedure is to train the system using "legeoMaster.exe" and subsequently have the achieved training results used by the legeoDev-based application software, you should additionally allow the system to continue with the automatic self

adaption while running inside your software. In this way, the system remains able to respond appropriately to changing reading conditions.

In the section “Automatic Self Adaption: Number of Tests per Image” of the configuration dialog, the “live image mode” setting is the one, which is used by legeoDev. Here, you should enter a number between one and three (cf. the legeo manual).

If you nevertheless wish to switch off the automatic self adaption for your application, you may do so by setting the number of tests to zero.

6. Redistribution

When your software, which makes use of legeoDev, works as desired, and when the system PATTERN EXPERT legeo is configured and trained so that the reading performance (as measured with a set of sample images, which is characteristic of the target application, or with a working machine vision system) is satisfactory, you may wish to install the complete package on another computer or redistribute it in the form of a setup program.

For these purposes, legeoDev contains a special setup program called “legeo_runtime_setup.exe” in the subdirectory “Redist” of the installation directory. You may either start it directly for the new installation, or have it started automatically by your own setup program. In general, the legeo runtime setup program displays a progress bar on screen. If you wish to suppress this progress window, just call the setup with the parameter /s.

All the files will be installed in the windows system directory. As explained above, it is necessary to add the *.cfg files, which you have produced using your copy of “legeo Master”. If you put the *.cfg files into the same directory as “legeo_runtime_setup.exe” before calling it, these files will automatically be installed at the right place. Otherwise, you need to copy the *.cfg files into the windows system directory after running the setup program. In case you have a valid license file for the target computer, the above instructions apply to this file as well.

If you don't have a valid license file for the target system, the setup will install a 30-day trial license. In this case you may use “legeoDevRegistration.exe” to obtain the target system's computer ID. Alternatively, you may determine the computer ID by a call to the corresponding function in legeoDev. This ID is necessary to order a license file for the target computer, which just needs to be copied into the windows system directory.

To sum up, the easiest method for your own setup program is to create a subdirectory “legeo” on the target system, copy “legeo_runtime_setup.exe” and all the *.cfg files from your legeoDev installation directory (and possibly your valid license file for the target computer) into this directory, and call “legeo\legeo_runtime_setup.exe [/s]”.

If you prefer to include the legeoDev files in your own setup program (avoiding “legeo_runtime_setup.exe”), please contact PATTERN EXPERT to receive a list of the necessary files and locations.