

ProfiView

1.7

Installation manual

History track:

Ver.	Date	Description
1.05	24.4.2010	Corrected typo
1.06	25.6.2010	Font correction
1.07	28.6.2010	Post review corrections
1.08	12.7.2010	Corrected wrong sentences, update of installation flowchart, design corrections, updated configuration for more projects.

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1 About this document

This document will help you to install the ProfiView into your computer. For usage and project configuration, please check other documentation provided together with ProfiView product. This document doesn't cover project configuration of ProfiView. For configuration see Configuration manual document.

2 What is ProfiView

ProfiView is software which can:

Visualize	graphically and textually production process, measurement of quantities etc...
Monitor	production status, process, running systems etc...
Alarming	of unexpected situations, values etc...
Reporting	of monitored process or measurement.

ProfiView is a cheap and effective tool with modular architecture, which is possible to use in any area, where you need to visualize or monitor some process or status, where you need regularly report the status or process and alarm unexpected or limit situations/values.

ProfiView, thanks to it's modularity, is able to communicate with any device, which offers digital interface with implemented any communication protocol. You just need to have the right module for ProfiView. ProfiView still extends the device portfolio. Ask for support of your device.

Typical application of ProfiView is connection to industry PLC, e.g. product of OMRON, read memory of PLC, and then visualize them in pictures or text or numbers on the screen.

Example of application: Monitoring and reporting of sewage plant process, monitoring of machine run in production hall and calculation of productivity, monitoring and visualization free parking places.

ProfiView is free to download on <http://profiview.maxpro.cz> (under shareware licence). You can purchase support, installation, configuration, development and more.

2.1 Technical parameters of ProfiView ver 1.07

- Multi OS software (Windows, Linux), tested for Windows XP, Windows Vista
- Easy configuration and application change
- Detailed documentation for installation and project configuration
- Supports PLC with RS232 cable interface
- Supports remote connection via AT modem, AT GSM modem.
- Supports e.g. OMRON PLC with CMODE protocol – for other go to <http://profiview.maxpro.cz>
- Detailed logs of ProfiView activity = easy trouble shooting and analysis
- Possibility to integrate your own communication modules (for developers)
- One installation can handle more implementations/configuration (projects)
- Supports more languages: English, German, Czech
- Free download, under Shareware licence

ProfiView is distributed and developed by Maxpro s.r.o. with license included to the installation. Please, read the license condition before you install the ProfiView. By installing ProfiView you accept the license condition.

ProfiView is designed to monitor and present (visualize) the status of PLC products. It is configurable software able to handle PLC product of more producers. It is also allowed to develop your own module into the ProfiView.

3 Installation into WinXP

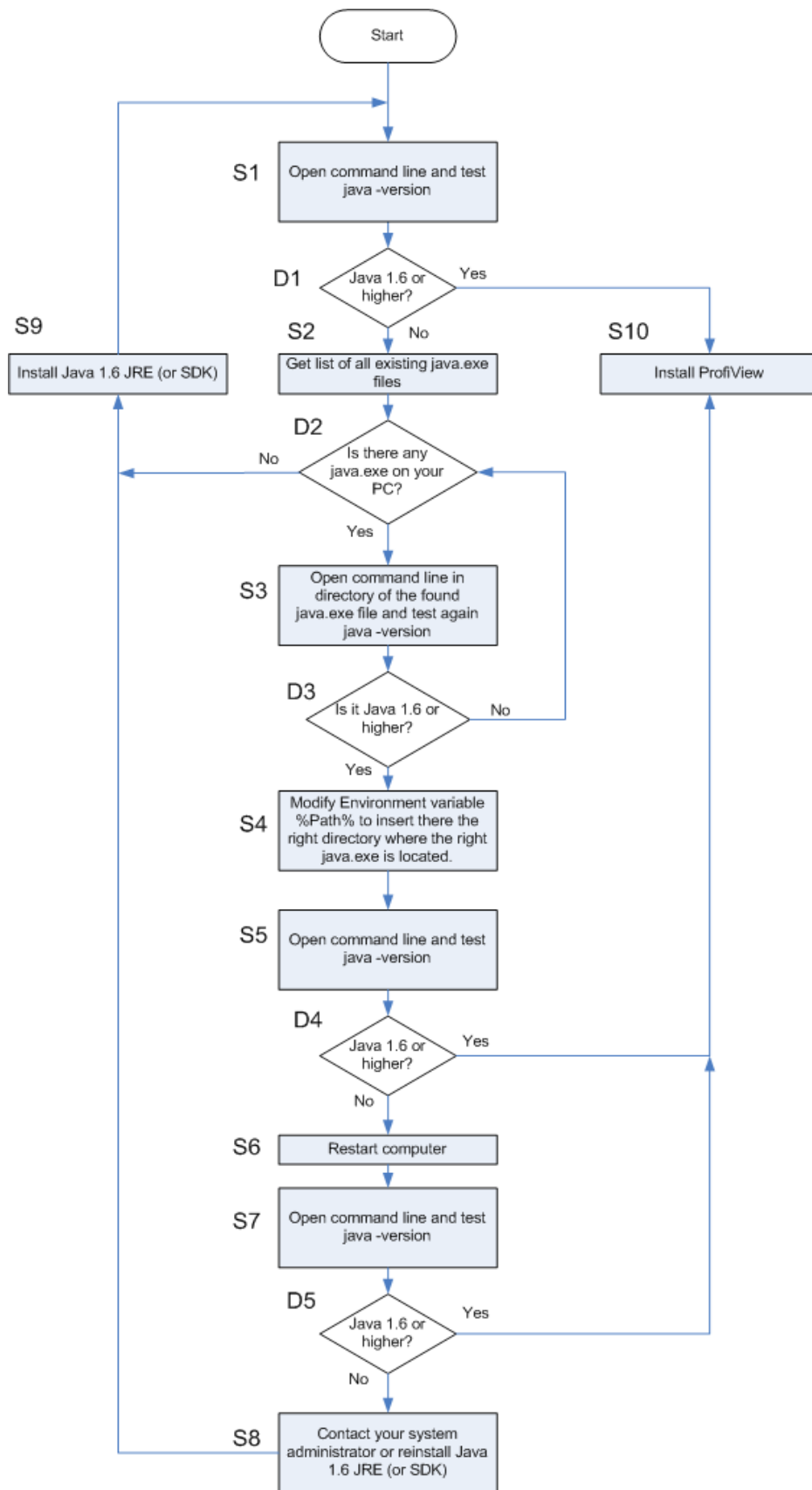
This chapter will tell you how to install ProfiView in WindowsXP operating system. We will use the English version of WindowsXP. Installation in other language mutations of WinXP is analogous. This version of ProfiView is not distributed with any automated installation utility. Therefore you have to do the installation manually. Fortunately installation of ProfiView is just copy of some files and update some text configuration files.

ProfiView is developed to run under Java Virtual Machine. For that purpose the basic step is to check whether Java is installed on your computer. If not, then you will have to follow the steps of installing Java Runtime Environment, sometimes called JRE. It is recommended that ProfiView will run with Java 1.6 or higher version. See SUN Microsystems web (java.sun.com) for more details. So let's start the installation.

3.1 *Installation process as chart*

Each step has an ID, which you can find in this document described in more details.

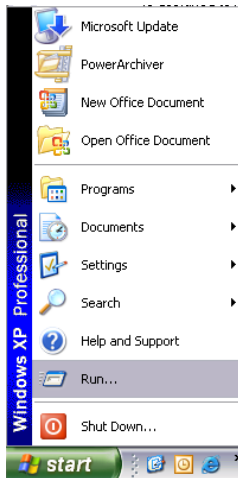
S = Step D = Decision



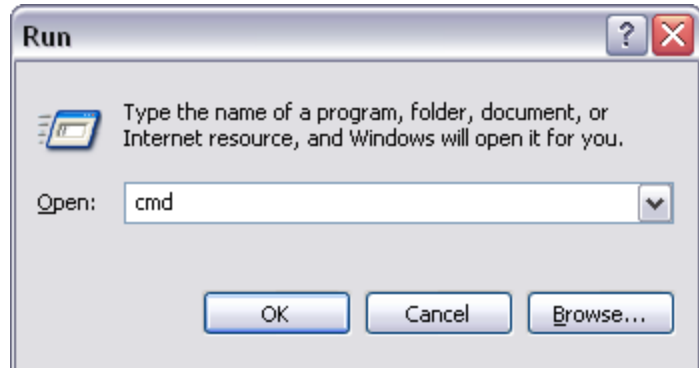
4 Installation steps

4.1 S1 - Open command line and test java -version

Step 1.1 Open menu Start -> Run



Step 1.2 Type "cmd" and press "OK".



Step 1.3 It should appear the command line. Type on the command line "java -version".



4.2 D1 - Is there Java?

You should see following response:

```
C:\WINDOWS\system32\cmd.exe

C:\Documents and Settings>java -version
java version "1.6.0_06"
Java(TM) SE Runtime Environment (build 1.6.0_06-b02)
Java HotSpot(TM) Client VM (build 10.0-b22, mixed mode, sharing)

C:\Documents and Settings>
```

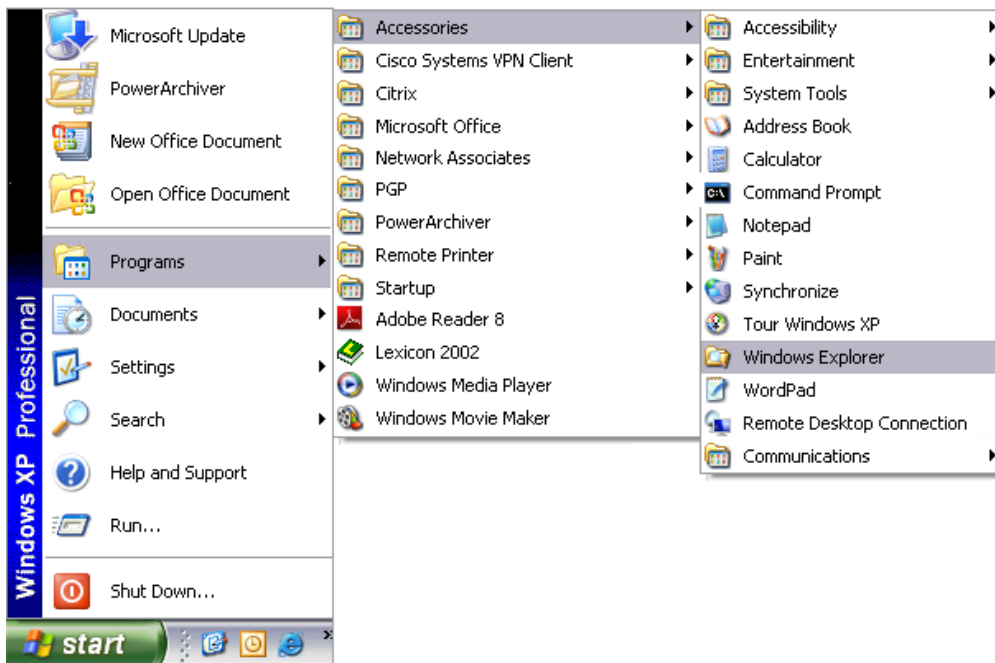
On the first line you see “java version “1.6.0_06”. To be sure that it is the right recommended java version, you should see 1.6.xxxx or higher (like 1.7 etc.) where “xxxx” can be any subversion.

What is on the other lines is not much important and can differ in each release of Java.

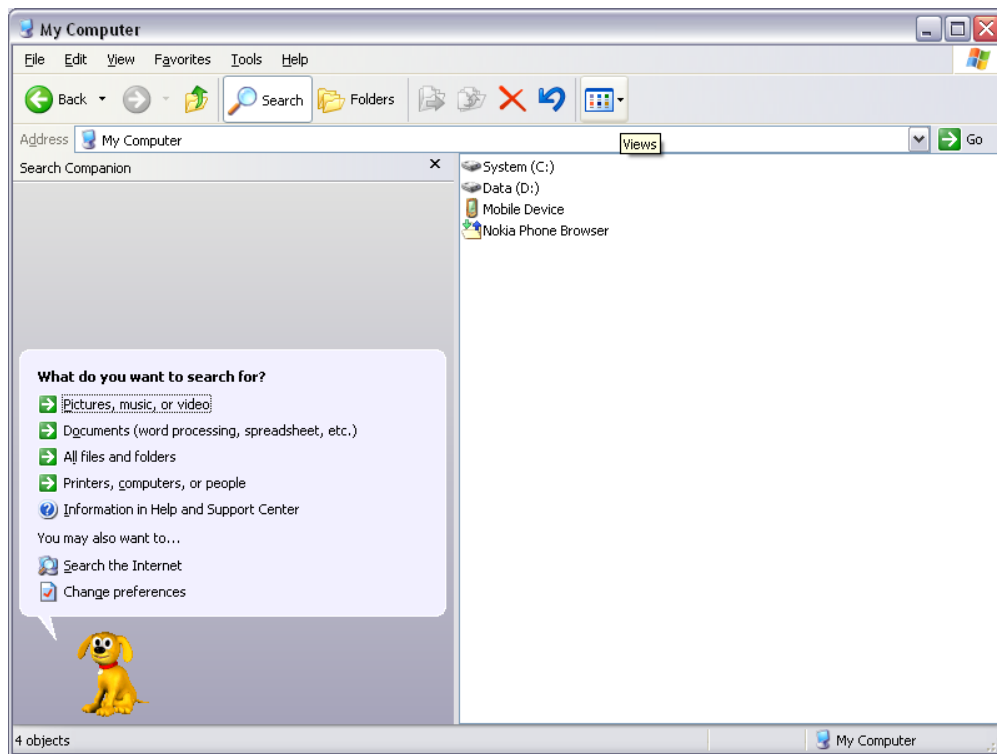
If the answer of command “java -version” is “ ‘java’ is not recognized as an internal or external command, operable program or batch file.” then either you have not Java installed or Java is installed but the path to the Java is not correctly configured. Continue in any case continue in following chapter.

4.3 S2 - Get list of existing java.exe files

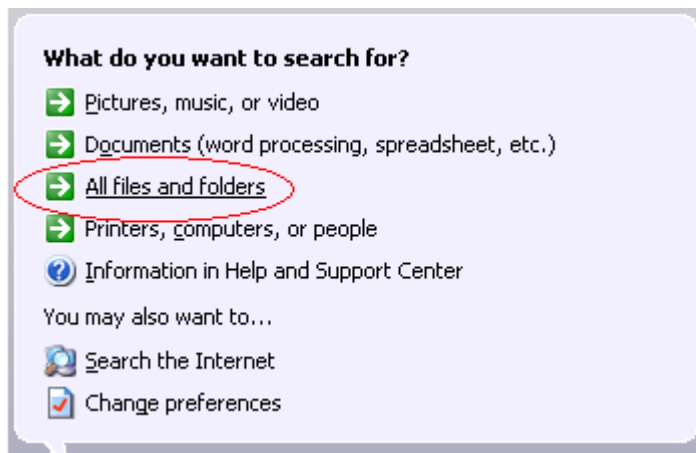
Step 2.1 Open Windows explorer in Menu “Start->Programs->Accessories->Windows Explorer”



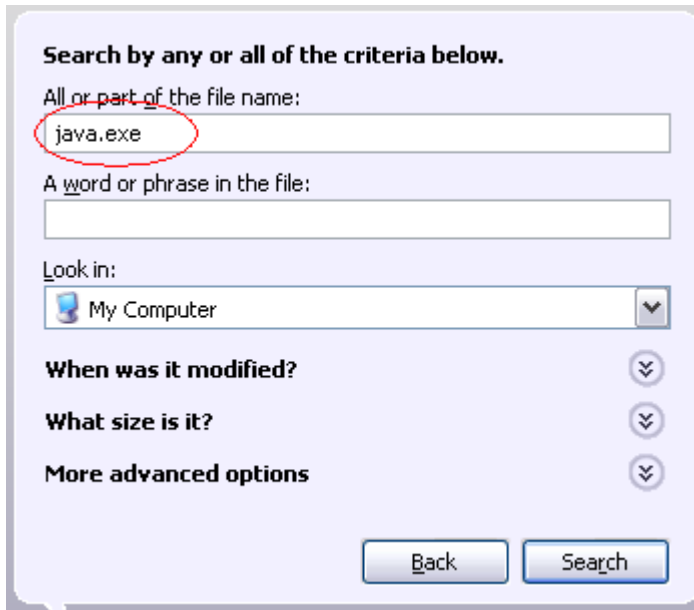
Step 2.2 Click on “Search” in menu or press F3 to switch to searching mode



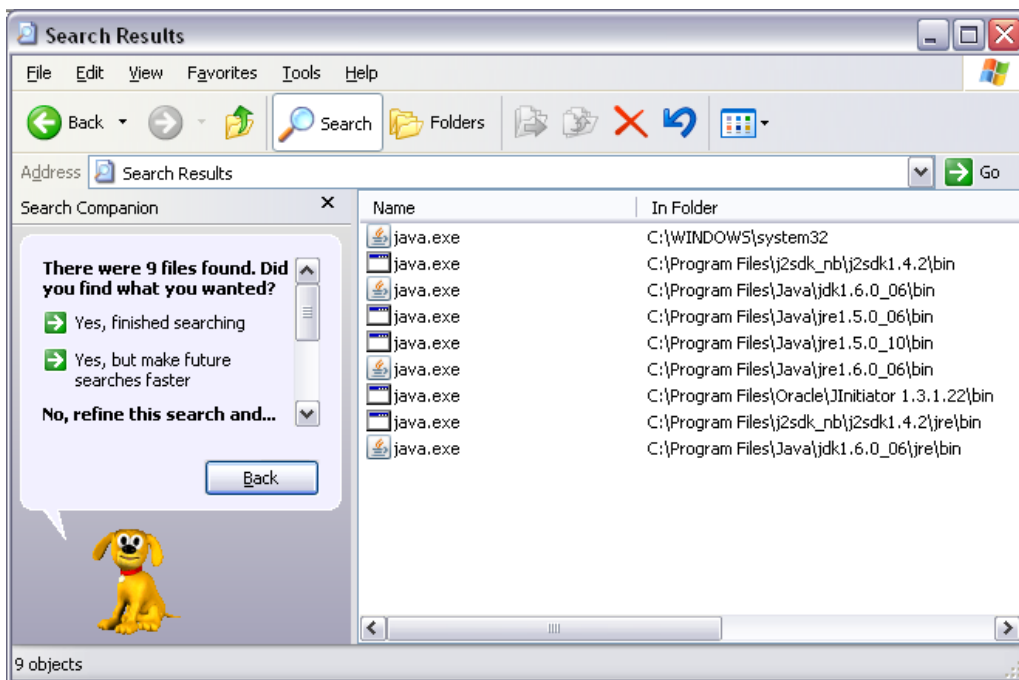
Step 2.3 Click on "All files and folders"



Step 2.4 type "java.exe" to editbox with title "All or part of the file name" and click on "Search".



Step 2.5 See the results.



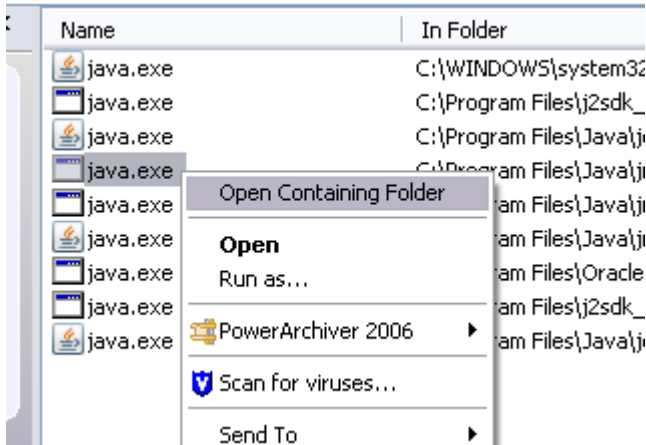
4.4 D2 - Is there any java.exe file found on your PC?

In our example in S2 we found 9 java.exe files on one PC. From the directory names where the files are located we can guess which of them is version 1.6. But if it is not obvious we will have to test all of the java.exe what is the version.

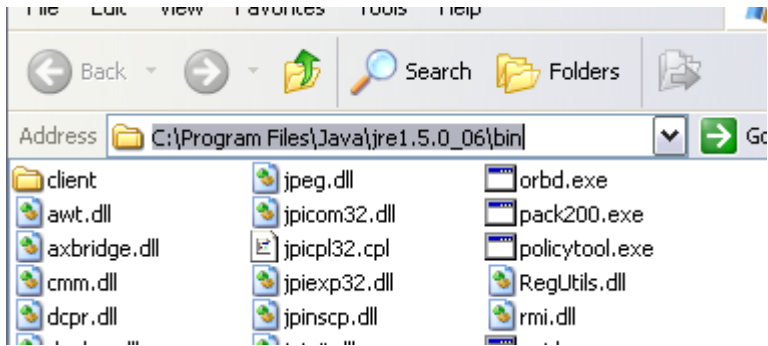
4.5 S3 - Test version of java.exe on command line

It is manual work to test the version of java.exe. But we can a little simplify it like following:

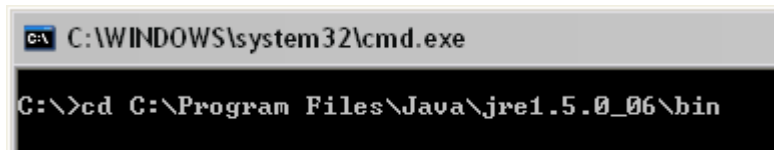
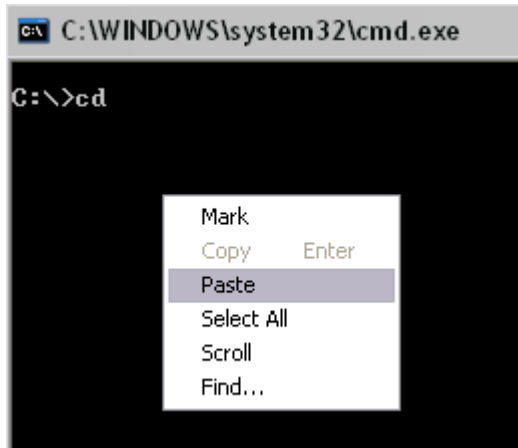
Step 3.1 Click by right button of the mouse on the file name (not only on the directory, but really on the file name). Click on "Open Containing Folder"



Step 3.2 Mark by mouse the directory name in the “Address” edit box and press Ctrl+C (to copy the text of directory name to clipbox).



Step 3.3 Switch to command line (or open it again like in S1), type “cd” one blank space and then press right button of mouse on this command line and select “Paste” to copy the directory name to the command line. Press Enter.



Step 3.4 You are now in the directory where one java.exe file was found. Type now “java -version”

```
C:\WINDOWS\system32\cmd.exe

C:\>cd C:\Program Files\Java\jre1.5.0_06\bin
C:\Program Files\Java\jre1.5.0_06\bin>java -version_
```

Step 3.5 In our example will look the result like following

```
C:\WINDOWS\system32\cmd.exe

C:\>cd C:\Program Files\Java\jre1.5.0_06\bin
C:\Program Files\Java\jre1.5.0_06\bin>java -version
java version "1.5.0_06"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.5.0_06-b05)
Java HotSpot(TM) Client VM (build 1.5.0_06-b05, mixed mode, sharing)
C:\Program Files\Java\jre1.5.0_06\bin>
```

You can see that this is the vesion 1.5, but we are loking for version 1.6

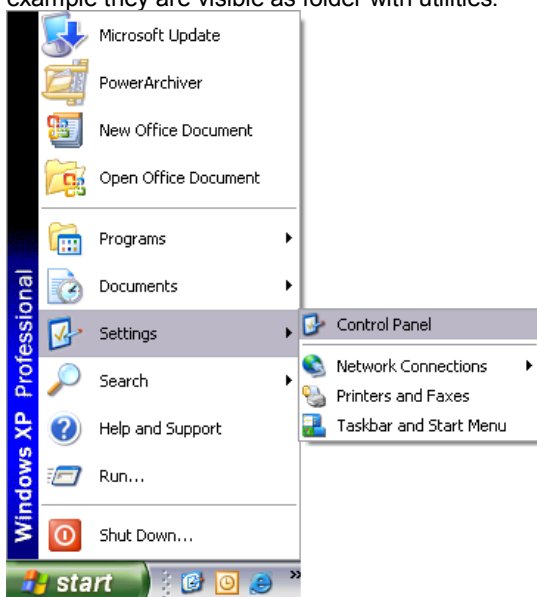
4.6 D3 - Is it version 1.6 of java?

As was mentioned in step 3.5, in our example we found java.exe of version 1.5. We must now go back and repeat D2 and S3 to test all of the java.exe files and find java.exe version 1.6.

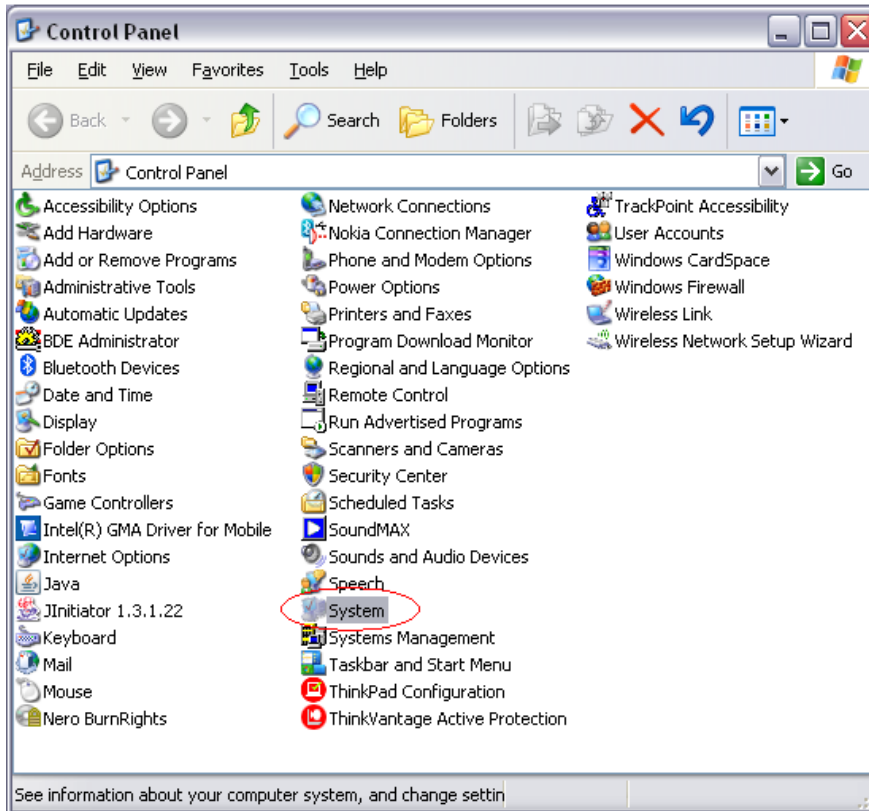
4.7 S4 - Modify environment variable to correct %Path%

For our example we will assume that the the right directory for Java version 1.6 is this directory: "C:\Program Files\Java\jre1.6.0_06\bin".

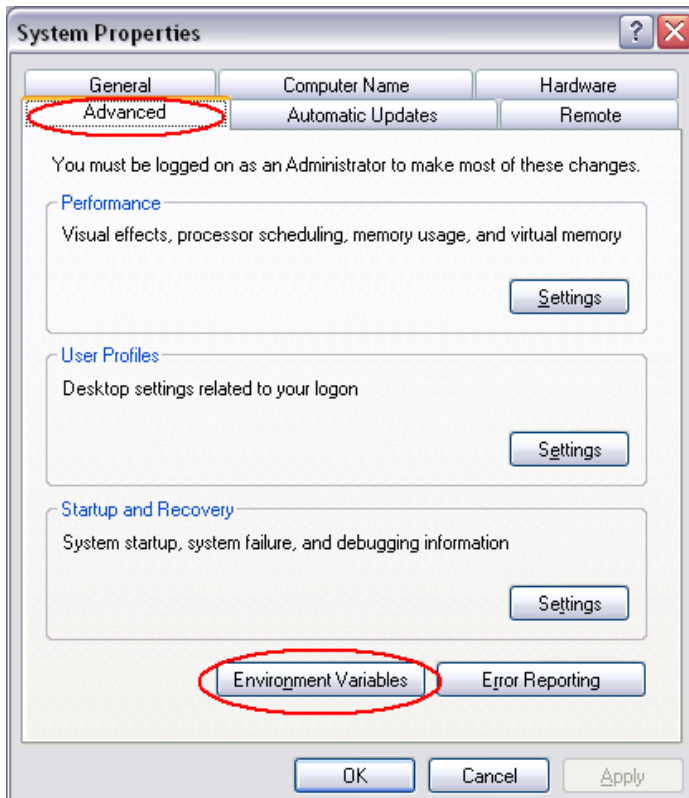
Step 4.1 Open "Control Panel" page... (sometimes are visible as menu, sometimes as folder with utilities. In our example they are visible as folder with utilities.



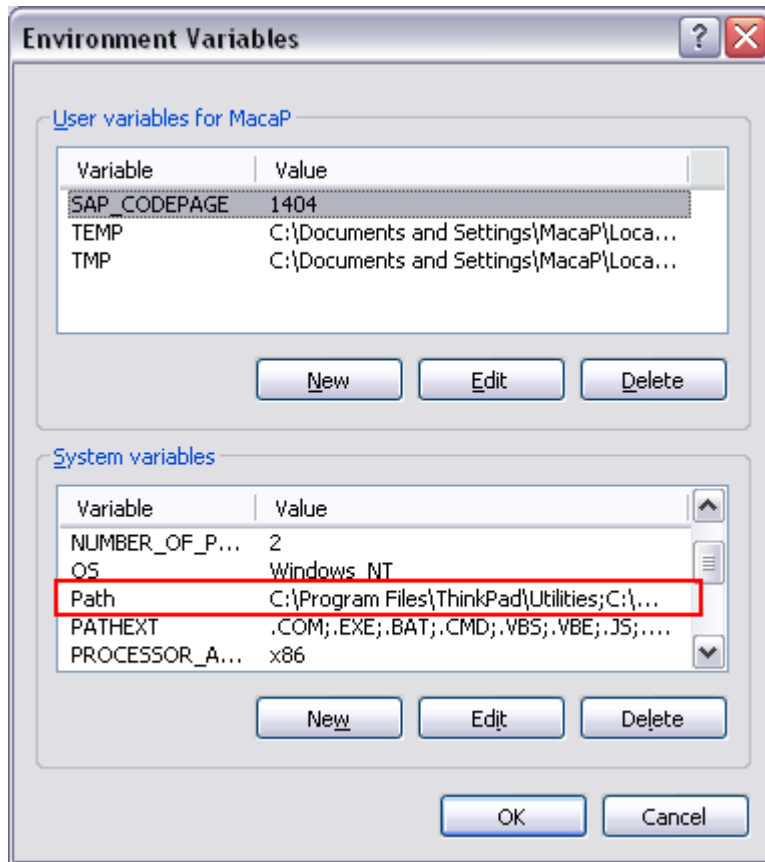
Step 4.2 Start utility called "System"



Step 4.3 Select tab called "Advanced" and click on "Environment Variable".



Step 4.4 In the lower part of the page is visible the variable “Path”. It is the section “System Variable”. Click on the path and then click on button “Edit”.



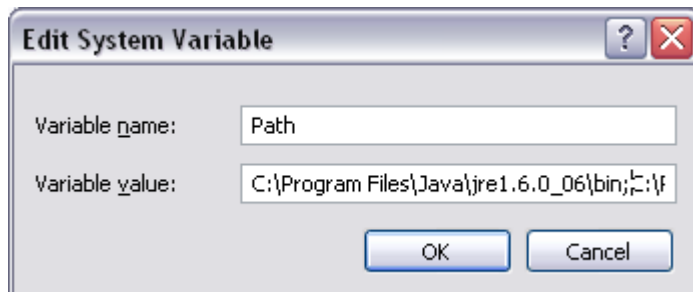
Step 4.5 Insert the name of the right java directory at the beginning of the line or anywhere in the line. You just have to be sure, that:

- the java folder name will be the first folder name, containing file java.exe.
- all folder names must be separated by semicolon “;”
- name of the directory must be precisely inserted including blank spaces, because otherwise the operating system will take it as a wrong directory and java will not work

If at any time in the future java will not work and you will see that directory in variable %Path% is given, then check the directory name exactly character by character.

In our example we have inserted directory name “C:\Program Files\Java\jre1.6.0_06\bin” at the beginning and separated it with semicolon from the original value.

Press “OK” once you are finished and press OK in all windows you had to previously open.



4.8 S5 - open command line and check version of Java

Follow S1 steps to check if you can now already see the right version of java. Don't use previously opened command lines. The changes take effect only in newly opened command lines.

4.9 D4 - Is there already java 1.6 available?

If result of S5 procedure is OK (java 1.6 or higher is available) then you can start installation of ProfiView it self. If the result is not OK then continue in S7

4.10 S7 - Restart computer

Close all programs and restart computer.

4.11 S8 - open command line and check version of Java

Follow S1 steps to check if you can now see the right version of java

4.12 D5 - Is there already java 1.6 available?

If result of S8 procedure is OK (java 1.6 or higher is available) then you can start installation of ProfiView it self. If the result is not OK then either contact a system administrator or try to install or reinstall Java 1.6 JRE (or Java 1.6 SDK) once again.

4.13 S9 - Installation of Java 1.6 JRE (or Java 1.6 SDK)

ProfiView is developed to run with Java Virtual Machine provided by SUN Microsystems. It is public software free of use, which you can download at <http://java.sun.com>. You can download either Java 1.6 JRE (so called Java Runtime Environment) or you can download Java 1.6 SDK (Software Development Kit). The difference is that JRE is a subpackage of SDK. SDK contains the same like JRE plus some libraries for developers. So you can use both. SDK will just need more space on your disk.

The Java installation package is self extracting exe file, which will take you through the installation. Once you are finished with installation, continues with S1 procedure to check, whether the installation completed successfully and java 1.6 is available on your command line.

5 S10 - Installation of ProfiView software it self

Thanks to Java technology, the installation of ProfiView is just a pure copy of files and configuration of basic parameters. Our example of installation will assume that you got ProfiView compressed in one ZIP file. This example will also assume, that you know how to unzip the file.

Be aware that you can fully start ProfiView only after you have basic configuration of ProfiView completed, as well as you have basic configuration of ProfiView project finished. For configuration of projects see ProfiView Project configuration manual. But you can anyway try to start ProfiView without project configuration done. If ProfiView will not fully start, check log files to see, what configuration is wrong or missing.

1.1 Unzip the ProfiView archive

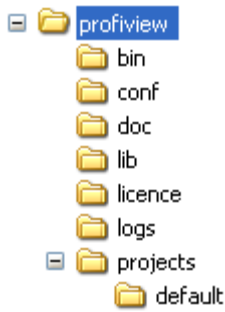
Unzip the ProfiView archive to a folder with name ProfiView. Typically eg. <C:/profiview>. Generally the ProfiView directory can be placed in any disk position. However try to avoid the situation when any directory in path to ProfiView has a blank space in his name like e.g. "Program files". It may generate a problem on some PCs but not necessarily.

If you got distribution that is not ZIPed, then simply create folder "ProfiView" somewhere on your disk and copy the content of ProfiView directory (from the copy or distribution you got) to the new ProfiView directory.

Note: If you copy ProfiView to <C:/profiview> then you should be able immediately start ProfiView with default project.

1.2 Check content of the ProfiView directory.

Check content of the ProfiView directory. There should be 7 subdirectories:

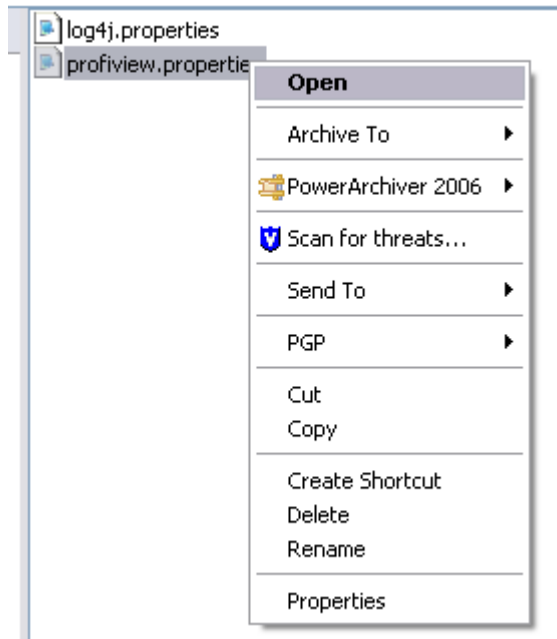


The directories above have following meaning:

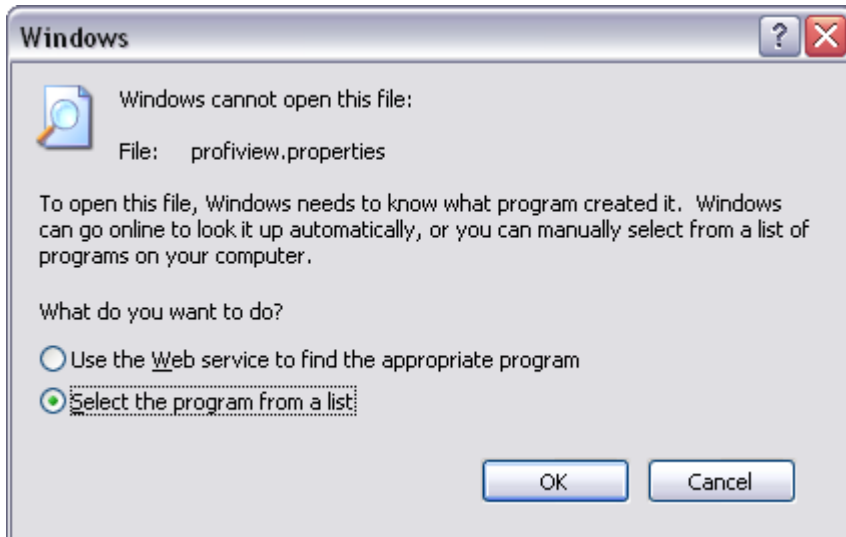
bin	contains executable utilities or files needed to start the executables
conf	contains configuration files
doc	contains documentation
lib	contains libraries
licence	contains licence file (if there is no licence file or wrong licence file, ProfiView runs in shareware mode).
logs	default location for log files
projects	contains projects for ProfiView. The distribution contains only default project.

1.3 Configuration of ProfiView installation

In `conf` directory is located file called "profiview.properties". Open this file in any Text Editor. For example by clicking by right mouse button and select option "Open".

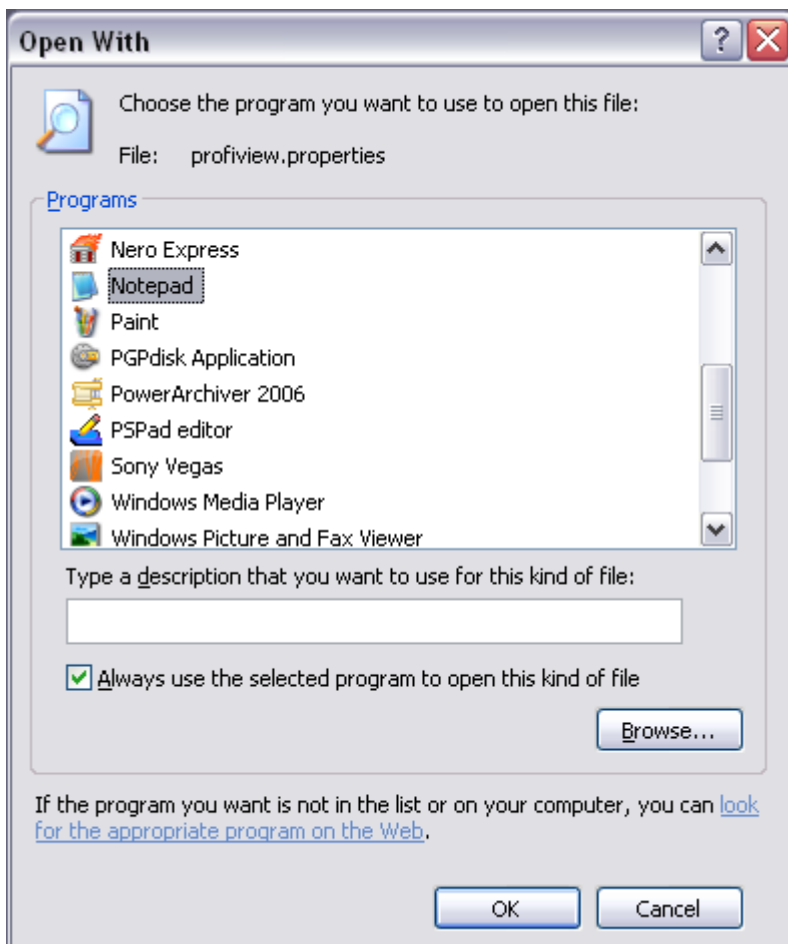


The extension of such file is not associated therefore the system will ask you probably following dialog (it may be skipped on some windows installations).



Select option "select the program from a list" and press OK.

The dialog with existing applications will be opened. Opening of this dialog can take a while. Select there "Notepad". You can select (or de-select) the check box: "Always use the selected program to open this kind of file" to avoid this dialog next time. But it is optional. Select Notepad and press OK.



The file will be opened in Notepad text editor. It should have four configurable parameters:


```

INSTALL_DIR=C:/profiview
PROFIVIEW_XML_CONFIGURATION_FILE=${INSTALL_DIR}/projects/default/default_project.xml
LANGUAGE=ENGLISH
LICENCE=${INSTALL_DIR}/licence

```

The first line contains variable “INSTALL_DIR” where must be the full installation directory path of ProfiView:
INSTALLATION_DIR=C:/profiview

In this example we have ProfiView directory directly in C:/ root. If your installation would be e.g. in disk D: in directory D:/myprograms/profiview, then the line would look like following:
INSTALLATION_DIR=D:/myprograms/profiview.

Description of parameters used in file profiview.properties:

Parameter name	Parameter meaning
INSTALL_DIR	Absolute path to directory, where ProfiView is installed. <i>Don't use slash as last character in the name.</i>
PROFIVIEW_XML_CONFIGURATION_FILE	This is absolute path to XML project file. The project used here, will be opened after ProfiView starts. In Unix system is case sensitive. <i>You can use parameter INSTALL_DIR as variable defining the path to directory, where ProfiView is installed. This is useful only if your directory with project(s) is in the same directory, where ProfiView is installed. The usage is then: \${INSTALL_DIR}/projects...</i>
LANGUAGE	Defines language of ProfiView. Possible values in this version: ENGLISH GERMAN CZECH
LICENCE	Defines absolute path to licence file. If the file is not defined, or not found or corrupted, then ProfiView runs in ShareWare mode. You can see current status of licence in window „About application“ in menu „Help“. <i>You can use INSTALL_DIR as part of the path if licence file is stored in the installation directory or its subdirectory.</i>

Generally the projects and licenses can be located on different place than the ProfiView installation itself. Just make sure, that the XML file of the project configuration contains correct values (regarding location of some files).

Once you have this configuration file updated, save it and close text editor.

Note: Use “/” instead of “\”. Reason is that windows is using backslash as separator of directories but Java technology rather use conventional slash.

1.4 Start ProfiView

Note: ProfiView cannot be fully started without project configuration. Or you can try to start the ProfiView without project to see that ProfiView itself is working, but will not fully open. It will just generate log file (profiview.log) saying that configuration of project was not found. You will find probably similar ERROR message in the log file:

```

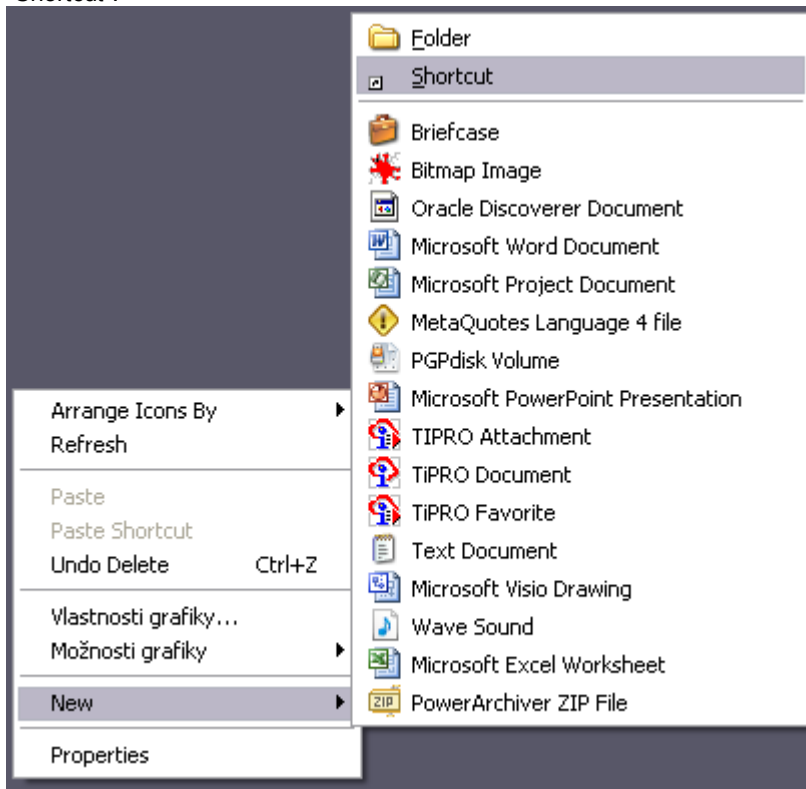
ERROR com.pmttech.profiview.VisualPanel.<init> - No node with name VISUALOBJECTS
found in XML configuration file: C:/profiview/projects/default/default\_project.xml

```

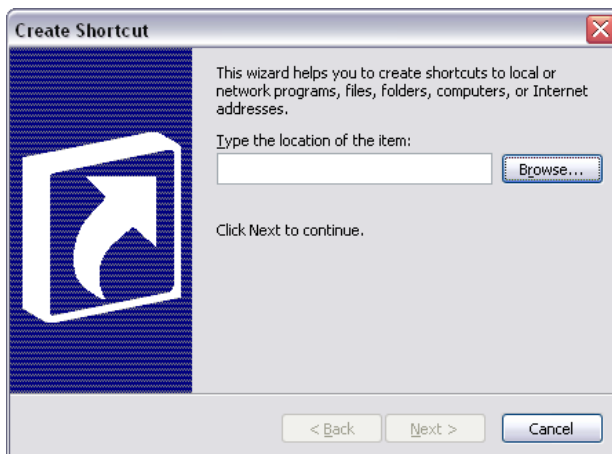
Note: If you copy ProfiView to <C:/profiview> then you should be able immediately start ProfiView with default project.

1.5 Create a shortcut on your desktop to quickly start ProfiView

Close all programs to see the screen of your PC and click by left mouse on the screen and select “New” and then “Shortcut”.



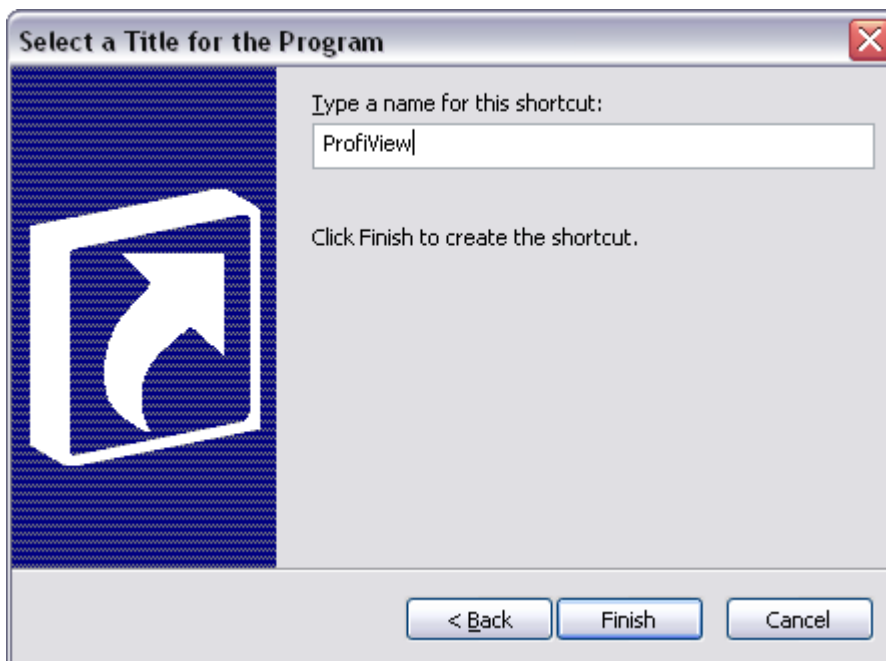
Click on button “Browse” in the opened dialog:



Find position of profiview.bat file (in installation it si located in /bin directory)and press OK.



In the dialog press “Next” and define name of the shortcut and press OK.



Then the shortcut is created. You can also change the icon clicking on the icon by right mouse button, select properties, in properties select button “Change Icon” and then select a new icon.

2 Configure ProfiView with more projects

It is possible to configure ProfiView if you want to use more projects on one PC. To do that you have to make two steps for configuration of each project:

- a) Make a copy of `profiview.properties` (`/conf` directory) files, where you name the new properties file e.g. `myproject1.properties`. If you have other project then make another copy e.g. `myproject2.properties` etc... Modify each properties file appropriately to the required project.

- b) Make a copy of `profiview.bat` (in `/bin` directory) for each project one e.g. to file "`profiview.myproject1.bat`" and "`profiview.myproject2.bat`" etc.... Open the batch file and change the name of properties file with it's path.

Example; default content of "`profiview.bat`" is:

```
set PROFIVIEW_PROPERTIES="./conf/profiview.properties"
java -classpath java -classpath .;..;../conf;../resources;../lib/commons-configuration-1.3.jar;../lib/commons-collections-3.2.jar;../lib/commons-lang-2.3.jar;../lib/commons-logging-1.1.jar;../lib/ProfiView.jar;../lib/RXTXcomm.jar;../lib/log4j-1.2.14.jar com.pmtech.profiview.ProfiView %PROFIVIEW_PROPERTIES% >
../logs/output.log 2>&1
```

So change just the name and position of `profiview.properties` file (see marked text above) in each bat file separately. So for example `profiview.myproject1.bat` will start ProfiView with name of `myproject1.properties` as a parameter. Analogously `profiview.myproject2.bat` will start ProfiView with `myproject2.properties` file as parameter etc. Keep the path and filename in quotations to make sure, that it will be working even in the path or file name is blank space.

You can use either full path (like [c:/profiview/conf/myproject1.properties](#)) or you can use relative path (like `../conf/myproject1.properties`). The relative path must be relative to position of your new `profiview.bat` file.

3 Starting up ProfiView

ProfiView 1.7 can run only with correctly configured project. ProfiView generates two log files during start up.

<code>Profiview.log</code>	log of ProfiView activities
<code>Output.log</code>	log of standard output (normally it would go to the screen of command line and would be lost once the command line is closed). But here the output goes to this log file.

There is possible to define so called "log level" which is saying whether ProfiView should run in debug mode, or normal mode. In other words, it defines how deep detail will be logged to the `profiview.log`. There is no parameter saying what should be logged in `output.log`. It has "fixed loglevel".

If you are not sure what ProfiView does, then change log level to `DEBUG`, delete all `*.log` files from `/logs` directory and start `profiview.bat`. If ProfiView is not started and `profiview.log` is not created, then it means you have probably wrong configuration in `profiview.bat`, or Java environment is not working or you don't have complete installation (like missing libraries etc.). Check `output.log` in `/logs` directory because this log is generated any time even it is the empty file.

If `ProfiView.log` exists but is saying some errors related to `VisualManager`, then you have a problem with ProfiView Project configuration. See ProfiView [Configuration manual](#).

4 Changing of log level

Open file `log4j.properties`, in `/conf` directory and modify first line:

```
log4j.rootCategory=DEBUG, ProfiView
```

You can replace `DEBUG` by one of the following: `DEBUG`, `INFO`, `WARN`, `ERROR`

Default content of `log4j.properties` file is:

```
log4j.rootCategory=DEBUG, ProfiView
log4j.logger.Reporter=DEBUG, Reporter
log4j.logger.AlarmReporter=DEBUG, AlarmReporter
```

```
#### log to screen
#log4j.appender.ProfiView=org.apache.log4j.ConsoleAppender
#log4j.appender.ProfiView.layout=org.apache.log4j.PatternLayout
```

```
#log4j.appender.ProfiView.layout.ConversionPattern=%-24d{yyyy.MMM.dd HH:mm:ss,SSS}
[%t] %-5p %C.%M - %m%n
```

```
### log to file
```

```
log4j.appender.ProfiView.layout=org.apache.log4j.PatternLayout
log4j.appender.ProfiView.layout.ConversionPattern=%-24d{yyyy.MM.dd HH:mm:ss,SSS}
[%t] %-5p %C.%M - %m%n
log4j.appender.ProfiView=org.apache.log4j.RollingFileAppender
log4j.appender.ProfiView.File=./logs/profiview.log
log4j.appender.ProfiView.MaxFileSize=1MB
log4j.appender.ProfiView.MaxBackupIndex=10
```

```
### Reporter - log to file
```

```
log4j.appender.Reporter.layout=org.apache.log4j.PatternLayout
log4j.appender.Reporter.layout.ConversionPattern=%-24d{yyyy.MM.dd;HH:mm:ss:SSS};%m
%n
log4j.appender.Reporter=org.apache.log4j.RollingFileAppender
log4j.appender.Reporter.File=./logs/reporter.log
log4j.appender.Reporter.MaxFileSize=1MB
log4j.appender.Reporter.MaxBackupIndex=10
```

```
### AlarmReporter - log to file
```

```
log4j.appender.AlarmReporter.layout=org.apache.log4j.PatternLayout
log4j.appender.AlarmReporter.layout.ConversionPattern=%-
24d{yyyy.MM.dd;HH:mm:ss:SSS};%m%n
log4j.appender.AlarmReporter=org.apache.log4j.RollingFileAppender
log4j.appender.AlarmReporter.File=./logs/alarms.log
log4j.appender.AlarmReporter.MaxFileSize=1MB
log4j.appender.AlarmReporter.MaxBackupIndex=10
```

We recommend to use `DEBUG` mode once you are starting with profiview and modifying a project. After the project is successfully running, is better to switch to `WARN` or `ERROR` mode. Switch back to `DEBUG` only if you are trouble shooting a problem.

In this file you can also modify number of generated log files (parameter `MaxBackupIndex`) and size of each logfile (parameter `MaxFileSize`). These two parameters together define the length of history saved in log files. If performance or size of your disk doesn't allow to save what you need in log files, you can redirect the loggin to remote computer. The only limitation is, that you have define right path to log files (parameter `File`).

Don't try to change anything else in this file if you are not expert of log4j tool.

5 Shareware mode

ProfiView is distributed under Shareware licence. This means, that after you try the software (after trial period), you can purchase it or you must delete it from your computer (see Shareware licence documentation to get more details). If you don't have valid licence file, then ProfiView runs in so called "Shareware mode". This means, that all functions and features are available, but you will be disturbed by reminder every 5 minutes, when ProfiView reminds, that you are in Shareware mode. You can click "OK" and continue.

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profiview.maxpro.cz