OPTIMAL SYSTEMS

enaio®

Software Documentation
enaio® filetrigger

Version 8.50

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Introduction

What is enaio® filetrigger?

enaio® filetrigger is used to monitor directory structures. An application may be launched, if files are changed or deleted in these structures. Arguments possibly including the file which triggered the event, can be given to the application. enaio® filetrigger can be executed as a Windows application or as a Windows service.

Installation

Installation Requirements

All information on the supported operating systems and databases as well as the network requirements can be found in the technical documentation leaflet 'Hard- and software requirements of enaio®' which is available in our partner portal. For the installation of enaio® filetrigger on Windows Server 2008 please contact OPTIMAL SYSTEMS.

enaio® filetrigger as a Service

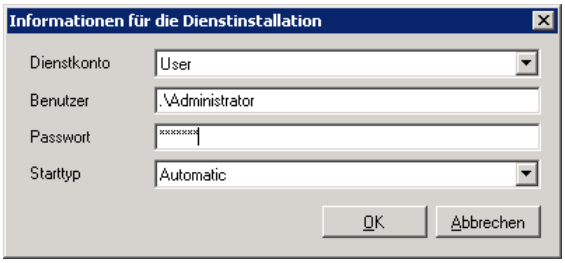
In order to install enaio® filetrigger as a service, save these files from the `...\clients\admin` directory to the Windows system directory:

- `axFileTrigger.exe`,
- `log4net.dll`,
- `axFileTriggerConfig.xml` and
- `axFileTriggerLogging.xml`.

Use the `System32` directory or the `sysWow64` directory for 64-bit systems. Use the command line or the command prompt to go to the directory and execute the call:

```
axFileTrigger.exe -install
```

After the installation is started, the installation dialog is displayed.



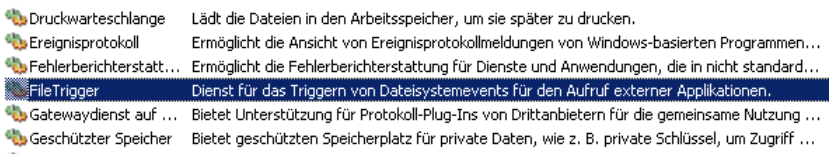
Specify the parameters that will be used for the service.

enaio® filetrigger can be run under the service accounts `User`, `LocalSystem`, `LocalService` and `NetworkService`.

The user name and the corresponding password are only required if you use the service account type `User`. You can select one of the service startup types provided by the Windows environment for services.

If you run enaio® filetrigger as a service in another user account, some access rights might not be provided which might endanger the functionality. Please note that with the local system account `LocalSystem` it is not possible to access UNC paths.

The FileTrigger service will then be listed in your Windows services administration. As the service does not start automatically after the installation, you must run it manually.



enaio® filetrigger is installed with the service name `FileTrigger`. You can only install one service per system.

In order to uninstall the FileTrigger service use the command line or the command prompt to go to the directory and execute the call:

```
axFileTrigger.exe -uninstall
```

The service will then be removed from your system.

Configuration

In order to configure enaio® filetrigger use the command line or the command prompt to go to the `System32` directory or the `sysWow64` directory and execute the call:

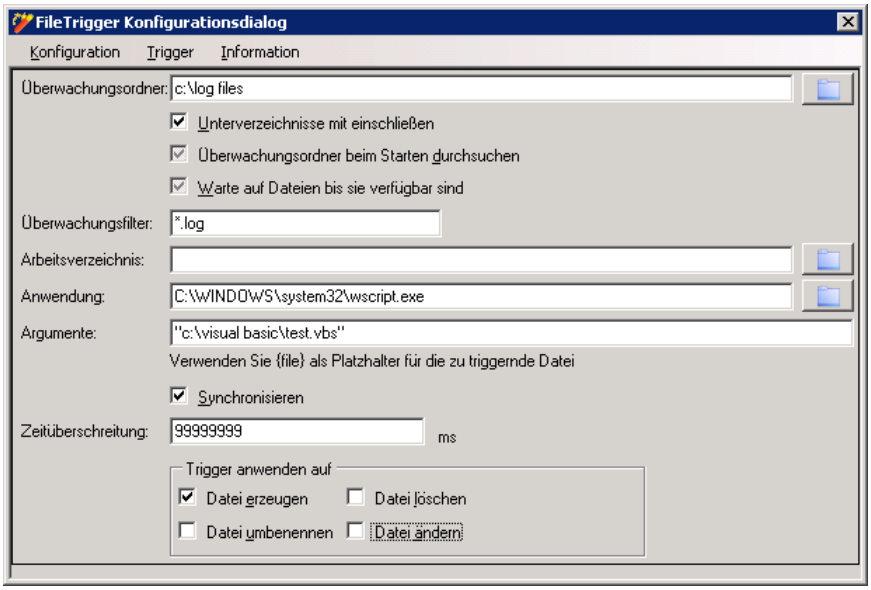
```
axFileTrigger.exe -config
```

The configuration dialog will open.

In the **Configuration** menu, you can load an existing configuration or save a new configuration. If you select **Save configuration**, the configuration saved last will be overwritten. If you select **Load configuration**, your changes will be lost.

You can create a new trigger in the **Trigger** menu. Every trigger is shown in a separate configuration area in the configuration dialog.

A trigger represents a monitoring scenario. You can create any number of monitoring scenarios. You can create any number of monitoring filters for one monitored directory structure or one monitoring filter for any number of directory structures.



The following specific settings can be made in the configuration dialog:

Monitoring path:

Specify a monitoring folder where a trigger will respond to file system events. With the button next to the text field, you can open a selection dialog for searching a folder.

Include subdirectories

If this option is enabled, all subdirectories will be monitored as well.

Scan monitoring path on startup

Enable this option to browse the directory at startup of the FileTrigger service.

Please note that when the FileTrigger service is restarted, all file system events to which enaio® filetrigger responds are captured again.

Wait if the file is locked

Occasionally, when a file is created by a program it can take some time until the process is completed. If you enable this option, enaio® filetrigger waits until the new file is completely available and only then executes the action configured in the trigger.

Monitoring filter

Define the files to be affected by the filter. You can either specify file names or filters. Such filters are common Windows file filters, such as '*.txt*'.

Please note that different Windows operating systems filter in different ways so that the same monitoring filter can lead to different results.

Working directory

The working directory specifies the directory where the external application is executed. Note that this may affect the proper functionality of the application. If you do not specify a working directory, the directory of the application will be used.

Application

Specify the application which will be started in case of a file system event. It has to be an executable file to which a process can be assigned. If you want to execute a batch file, you need to call it as an argument for the 'cmd.exe' application (see 'Arguments').

Use the same method to call Visual Basic scripts, specify the VBS host, e.g. `wscript.exe`, and the `\System32` directory as an application and specify the executable VBS file in the 'Arguments' field (see figure 'FileTrigger configuration dialog').

Arguments

Here, you can pass command line parameters to the application. The `{file}` string will be replaced by the path and the file name for which enaio® filetrigger was triggered. Put `{file}` in double quotation marks in order to prevent possible conflicts caused by space characters in the path. Also put all additional arguments in double quotation marks.

Furthermore, you need to stick to the use of capital and small letters in the `{file}` string.

Synchronize

This option allows you to force enaio® filetrigger to execute only one external instance per trigger at a time. If many file events take place in short succession, it may happen that external applications execute a great number of instances.

Timeout

The TIMEOUT option indicates the execution time of an external application. If the process exceeds the specified time, the process will be terminated and enaio® filetrigger will be executed. The value '0' deactivates this function.

A timeout will only be taken into account if the SYNCHRONIZATION option is enabled.

Use FileTrigger for

You can indicate the file system events to which enaio® filetrigger will respond.

Your file and event selection may be affected by the logic of the external application. If an application, for example, deletes or renames the file and you have configured enaio® filetrigger to respond to both file system events, it may happen that enaio® filetrigger responds multiple times.

Therefore it is recommended to analyze the logic of any given scenario and configure the option accordingly.

File created

enaio® filetrigger reacts if a new file is created that corresponds to the configured filter. The trigger reacts as soon as a new file is recognized. However, file creation may take some time. Therefore enable the 'WAIT IF THE FILE IS LOCKED' option if you want enaio® filetrigger to wait until the file is completely available.

File deleted

enaio® filetrigger reacts if a file that corresponds to the configured filter is deleted. It is not ensured that the file is still available at the time of the event. As a consequence, the deleted file may not be available anymore when the specified external application is run.

File renamed

enaio® filetrigger reacts if a file is renamed. The application will be executed, if the new file name corresponds to the configured filter.

File modified

enaio® filetrigger is triggered if 'Date modified' of the file is changed.

Streaming operations or nonatomic writing processes may result in inconsistencies when an external application tries to access the file.

enaio® filetrigger Operation Modes

Operation Modes

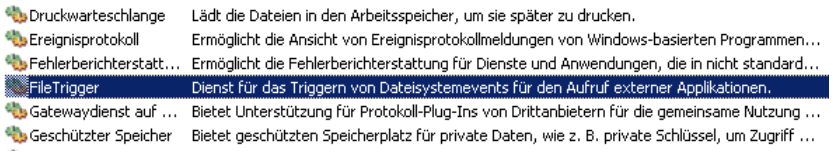
The `axFileTrigger.exe` file can be started with different parameters, every time launching another operation mode.

The following table presents an overview of possibly applicable parameters and the corresponding operation modes.

Parameters	Operation Modes
-install	Installs enaio® filetrigger as a service (see 'enaio® filetrigger as a Service').
-uninstall	Uninstalls the FileTrigger service (see 'enaio® filetrigger as a Service').
-console	Runs enaio® filetrigger in the console mode which is controlled by a system tray icon and its context menu (see 'Console Mode').
-createconfig	Creates a configuration scenario with an example XML configuration file which can be customized. Please note that the existing configuration file will be overwritten.
-help	Displays help information on available start parameters.
-config	Opens the configuration of enaio® filetrigger (see 'Configuration').
<no parameter>	Runs enaio® filetrigger as a service that can be used only by applications like InstallUtil.exe or net.exe. The direct program call using the command line is not supported (see 'Execute enaio® filetrigger as a Service').

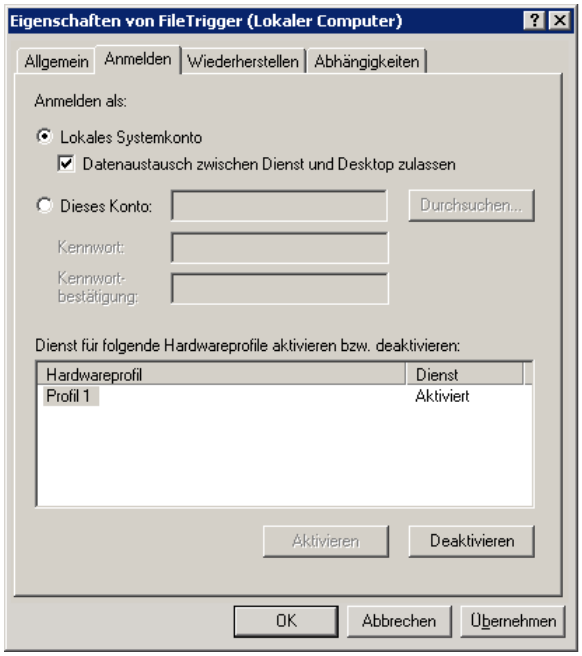
Execute enaio® filetrigger as a Service

Once you have installed enaio® filetrigger as a Windows service (see 'enaio® filetrigger as a Service'), you can run the service. Open Windows services administration and select FileTrigger from the list of Windows services.



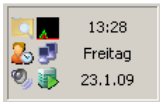
You can start, stop, continue, or cancel the FileTrigger service through the context menu.

If you have installed enaio® filetrigger on a local system account, the 'Allow service to interact with desktop' option has to be enabled in the service's properties.



Console Mode

In the console mode, enaio® filetrigger is displayed as an icon in the notification area.



Please note that the console mode is not a control instance of the FileTrigger service but an instance of the enaio® filetrigger application.

Right-click the icon in the notification area to open the enaio® filetrigger application menu.

Start

This command starts enaio® filetrigger. The current configuration is loaded each time enaio® filetrigger is run so that changes to the configuration become instantly effective. Thus, you can directly test different enaio® filetrigger configurations without the need to restart the console.

Stop

This command stops enaio® filetrigger. It behaves identically to the stop command of the FileTrigger service.

Pause

This command pauses enaio® filetrigger. It behaves identically to the pause command of the FileTrigger service.

Resume

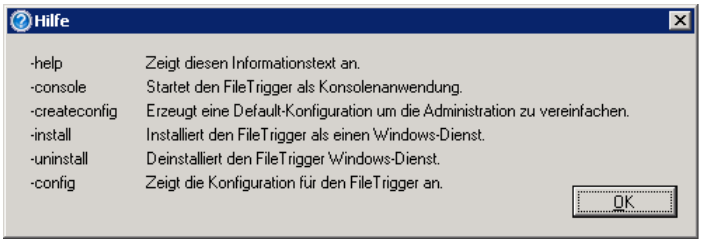
This command resumes enaio® filetrigger after you have stopped the FileTrigger service. It behaves identically to the resume command of the FileTrigger service.

Exit

This command stops enaio® filetrigger and closes the console.

Help

If you start the `axFileTrigger.exe` file with the parameter `-help`, enaio® filetrigger is run in the help mode. A dialog then lists all parameter options.



Logging

enaio® filetrigger has a logging mechanism. By default, all logs are saved to the ...`\OsLogs` directory.

The configuration file `axFileTriggerLogging.xml` allows for setting up the logging details.

As enaio® filetrigger uses the Log4Net framework, please refer to this documentation for details on the configuration file.