

FILEminimizer[™] Server

Startup Guide / Manual



- ✓ **Gain back storage space**
- ✓ **Reduce storage and data transfer costs**
- ✓ **Accelerate backups and network scans**
- ✓ **Increase server storage performance**
- ✓ **Optimize Primary Storage**

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1. Introduction

FILEminimizer Server, by balesio, is a quality software product for use on a server or virtual server/machine within a company environment. FILEminimizer Server allows the IT Administrator to compress Microsoft Office files, PDF files and images directly on servers while maintaining the original quality and format of the files. Provided a correct licensing, storage systems such as SAN and NAS as well as Unix and Linux servers can also be optimized using mapped network drives. With an average compression rate of 50-90%, the benefit of deploying FILEminimizer Server is a massive reduction of storage space occupied by unstructured files such as large Microsoft Office, PDF and image files, a consequent decrease in network traffic and data transfer costs as well as considerable time and volume savings for backups and drive scans. The overall result is more efficient usage of existing storage capacities which reduces all storage related costs throughout the whole data lifecycle and saves money for the organization.

1.1. Installation

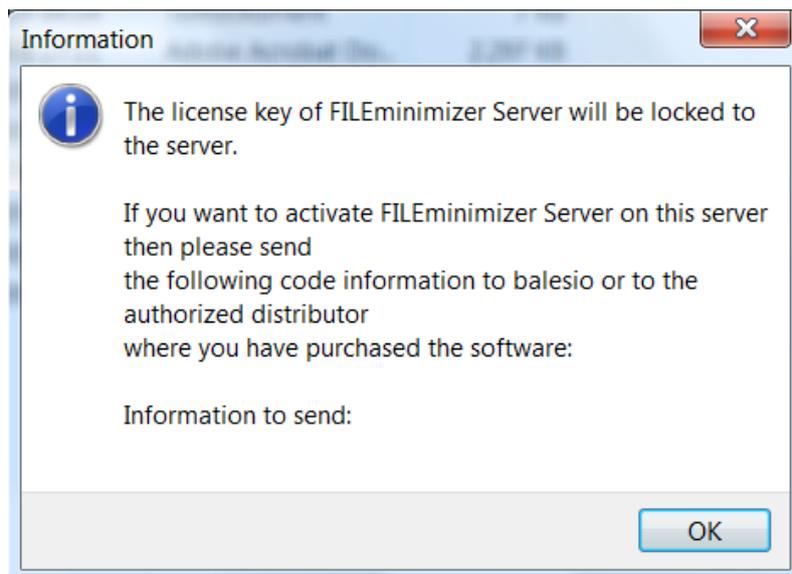
The software is installed directly onto a Windows Operating System, preferably a Windows Server system. To install FILEminimizer Server:

- Double click on the setup file.
- Read the program license carefully and accept the license agreement.
- Choose the directory where you wish to install the software.
- Follow the setup instructions.
- Click on “Install” to start the installation with the chosen settings.
- Click on “Finish” when the installation has been completed.

FILEminimizer Server has now been successfully installed on this server.

1.2. License Registration (Full Version)

At the first start of FILEminimizer Server, a window asks you if you want to activate FILEminimizer Server on this server.



If you wish to activate the license on this server, please send the information shown in the window to licensing@balesio.com

You will then receive a license file called "fm-server.lic" which is to be saved in the same directory where FILEminimizer Server is installed. Then the registration is completed and FILEminimizer Server can be used with full functionality.

1.3. Functionality and Editions

FILEminimizer Server can compress all Microsoft Office, PDF and image files directly on a server. There are different optimization criteria which can be defined in **Optimization Profiles** (see 2.3. **Profile Wizard**) and Optimization Profiles can be run as **scheduled tasks** (see 4.2. and 4.3. **Scheduling of optimization tasks**). This allows the IT Administrator to define the ideal compression job from case to case and experience the maximum configuration freedom. The software allows everybody to adapt the server optimization to specific, individual requirements and can, if configured accordingly, be used in each and every company department.

Currently the following file formats can be optimized:

	Available in FILEminimizer Server Edition:
	<i>PowerPoint 97 – 2003 (.ppt, .pps, .pot)</i>
	<i>PowerPoint 2007 – 2010 (.pptx, .ppsx, .potx, .pptm, .ppsm, .potm)</i>
	<i>Word 97 – 2003 (.doc, .dot)</i>
	<i>Word 2007 – 2010 (.docx, .dotx, .docm, .dotm)</i>
	<i>Excel 97 – 2003 (.xls, .xlt)</i>
	<i>Excel 2007 – 2010 (.xlsx, .xltx, .xlsm)</i>
	<i>PDF</i>
	<i>JPEG</i>
	<i>TIFF</i>
	<i>BMP</i>
	<i>GIF</i>
	<i>PNG</i>
	<i>EMF</i>

1.4. System Requirements

FILEminimizer Server is designed for Windows Server. However, it can be easily tasked to optimize also other storage systems such as NAS and SAN as well as Linux and Unix file servers using mapped network drives which FILEminimizer Server can access.

The following are the minimum system requirements to use FILEminimizer Server:

Function	Requirements
Main Program	Windows Server 2000, 2003 or 2008 (R2) Minimum 300MHz Pentium or compatible CPU 512 MB RAM / 30 MB of available hard disk space VGA graphics card capable of 1024x768 resolution No PowerPoint, Word or Excel installation required

balesio recommends at least 1 GB of available memory (RAM) per simultaneous optimization. The software supports multi-threading. If multi-threading is chosen, balesio recommends to run not more than one optimization per available core, e.g. on a dual-core system not more than 2 simultaneous optimizations should be performed. balesio further recommends attributing 1 GHz or higher CPUs per optimization/core to get fastest optimization results.

The software has been thoroughly tested on Virtual Machines and Virtual Servers as well.

2. Preparation of FILEminimizer Server

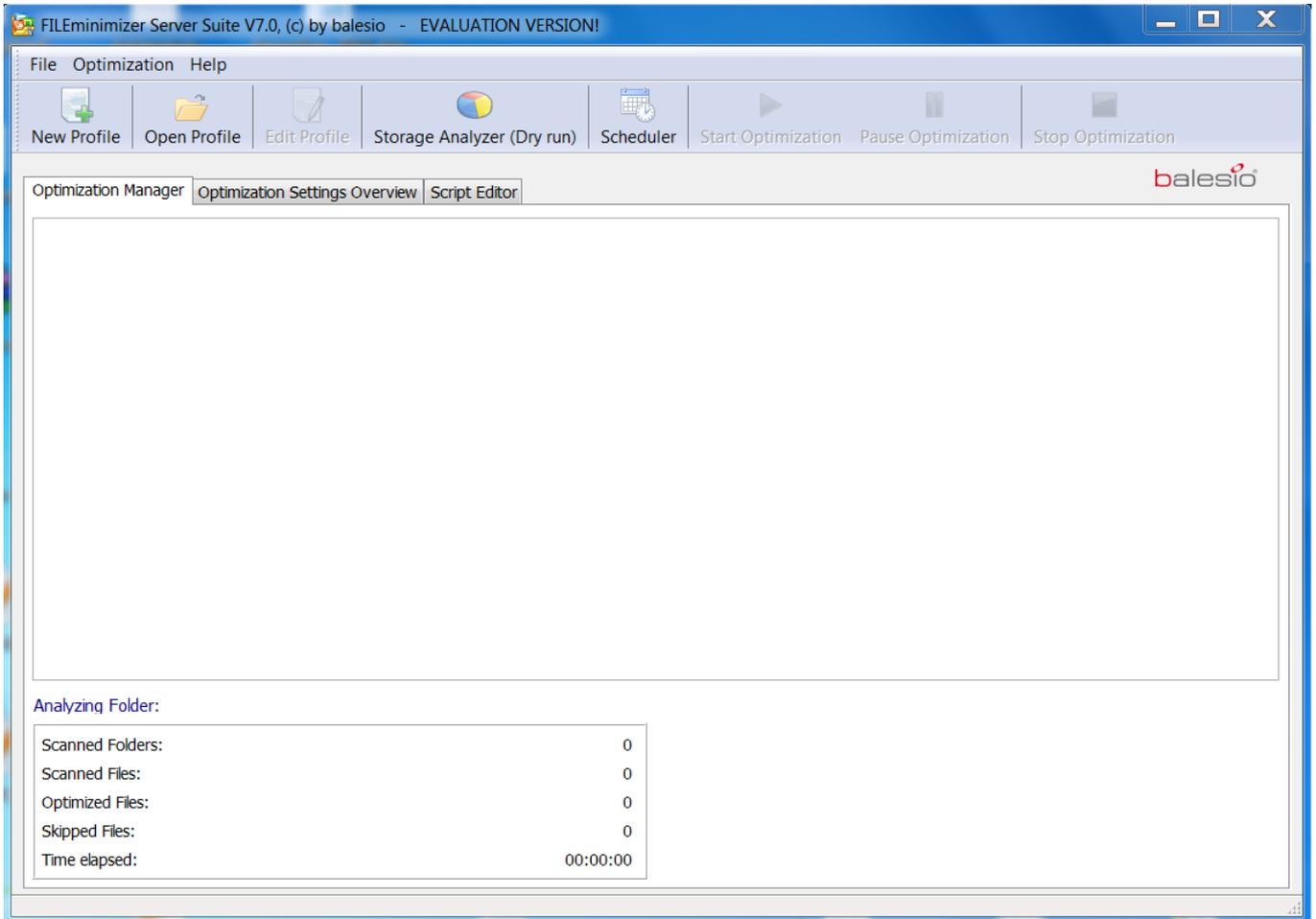
Ideally, FILEminimizer Server should be used by an IT Administrator or any other person who is working in an IT Department and responsible for the server environment.

2.1. Start

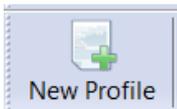
To start FILEminimizer Server, double click on the FILEminimizer Server shortcut on the desktop  or open the program from within the Windows program list.

2.2. Main Interface

The main window of FILEminimizer Server will open:



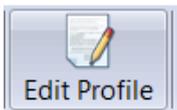
In the main window, the following main functions are available:



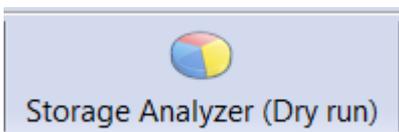
New Profile starts the Profile Wizard to create a new **Optimization Profile**



Open Profile opens an existing **Optimization Profile**



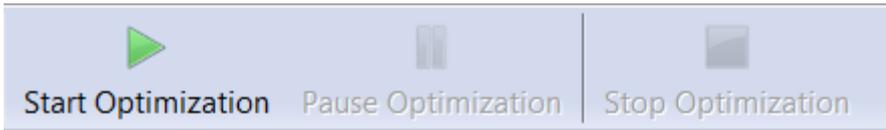
Edit Profile starts the **Profile Wizard** & loads the current Optimization Profile



Storage Analyzer (Dry run) starts a Storage Analysis and outputs an estimated savings report (see Chapter 3)

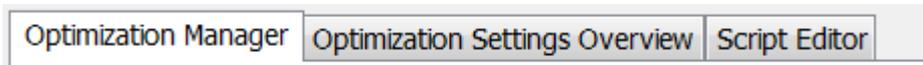


Scheduler starts the **Scheduler Wizard** of FILEminimizer Server

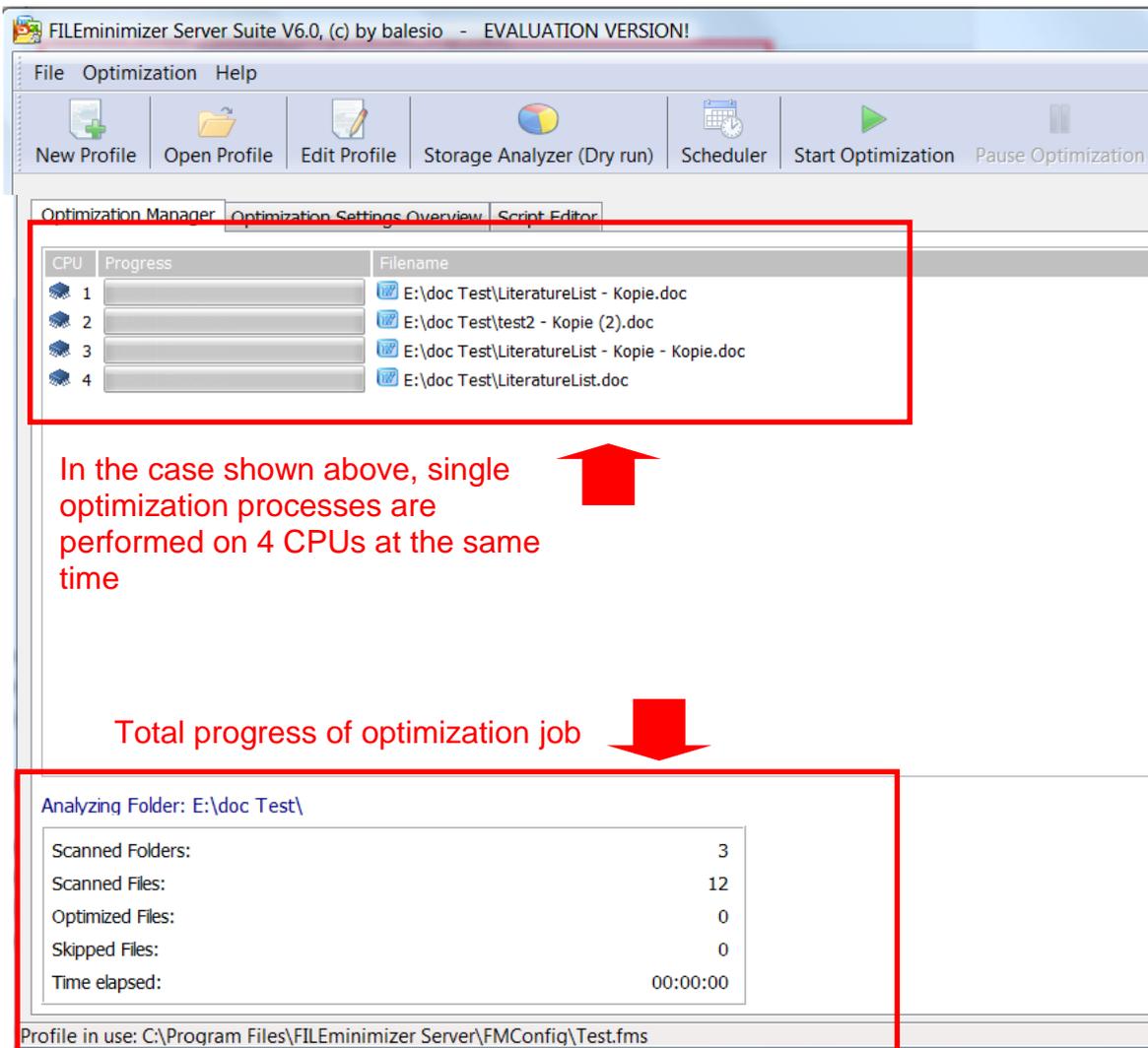


The functions **Start Optimization**, **Pause Optimization** and **Stop Optimization** will start, pause and stop the actual optimization process applying the criteria defined in the actively loaded Optimization Profile.

Below the main toolbar, the three tabs **Optimization Manager**, **Optimization Settings Overview** and **Script Editor** are shown:



The **Optimization Manager** shows the current state of the optimization including which CPU currently optimizes which file, the progress of each single compression and at the bottom a summary of the total progress of the optimization job.



FILEminimizer Server Suite V6.0, (c) by balesio - EVALUATION VERSION!

File Optimization Help

New Profile Open Profile Edit Profile Storage Analyzer (Dry run) Scheduler Start Optimization Pause Optimization

Optimization Manager Optimization Settings Overview Script Editor

CPU	Progress	Filename
1		E:\doc Test\LiteratureList - Kopie.doc
2		E:\doc Test\test2 - Kopie (2).doc
3		E:\doc Test\LiteratureList - Kopie - Kopie.doc
4		E:\doc Test\LiteratureList.doc

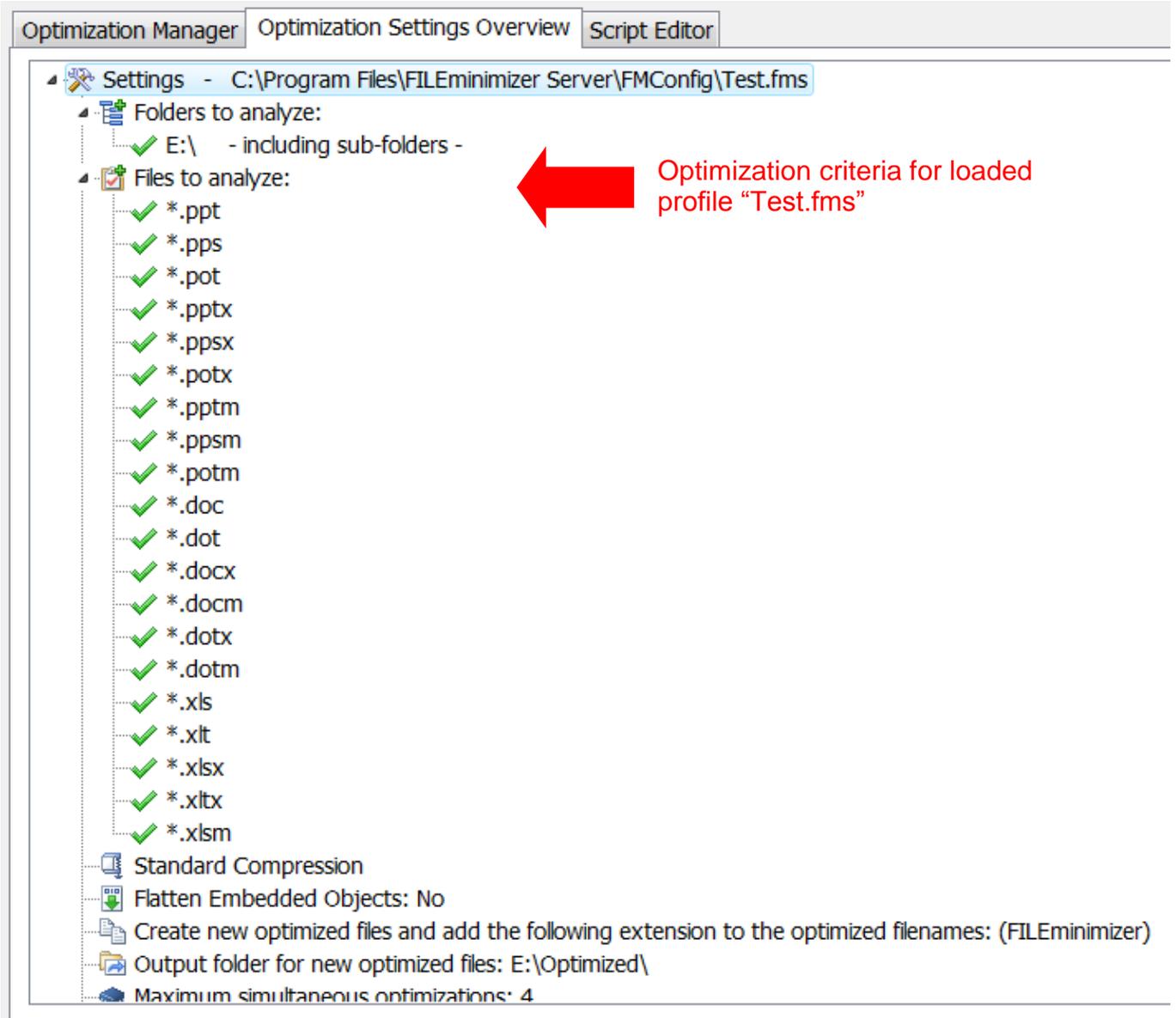
In the case shown above, single optimization processes are performed on 4 CPUs at the same time

Total progress of optimization job

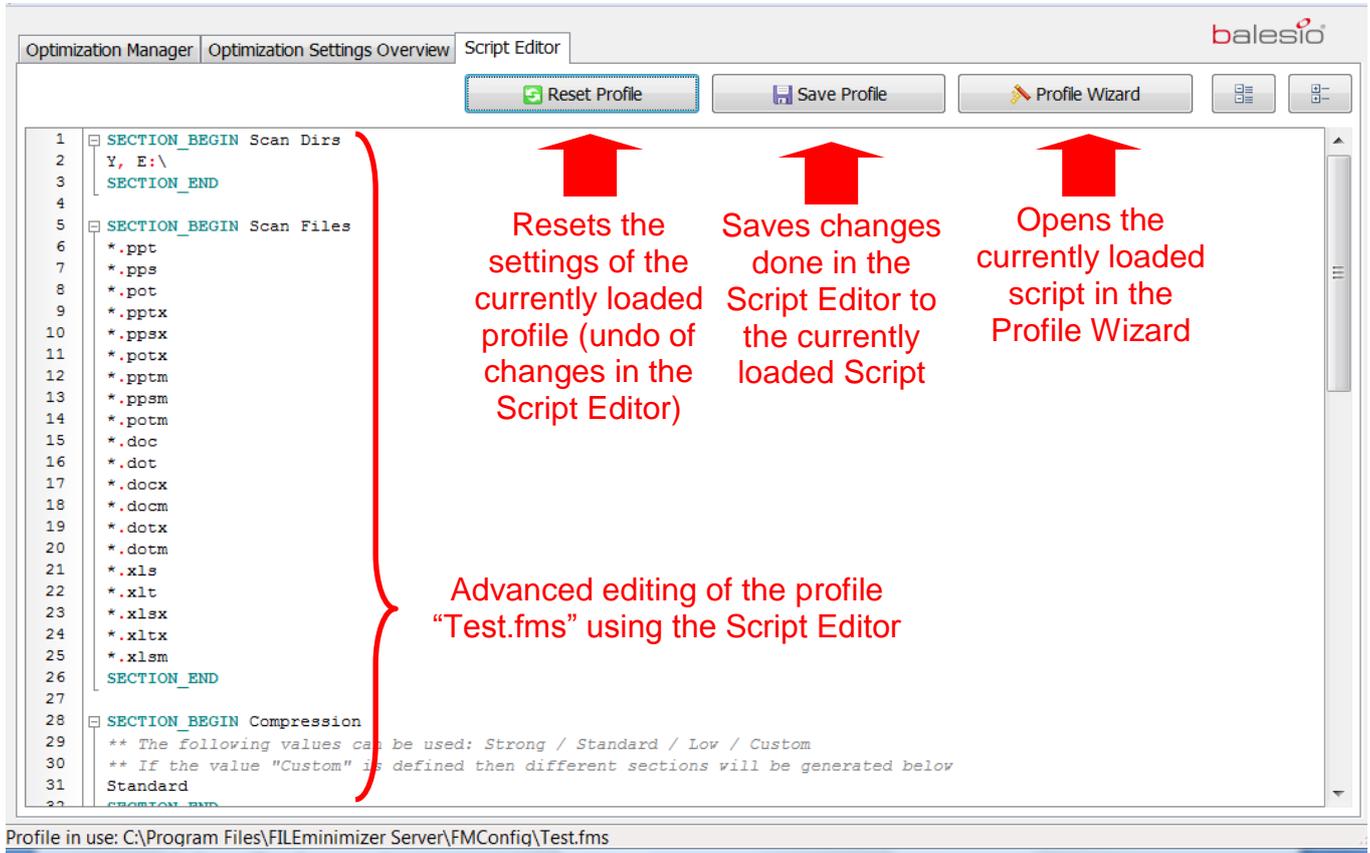
Analyzing Folder: E:\doc Test\
Scanned Folders: 3
Scanned Files: 12
Optimized Files: 0
Skipped Files: 0
Time elapsed: 00:00:00

Profile in use: C:\Program Files\FILEminimizer Server\FMConfig\Test.fms

The **Optimization Settings Overview** gives an overview of the optimization criteria set in the loaded optimization profile.



The **Script Editor** allows advanced users to modify an Optimization Profile directly by modifying the different optimization criteria.

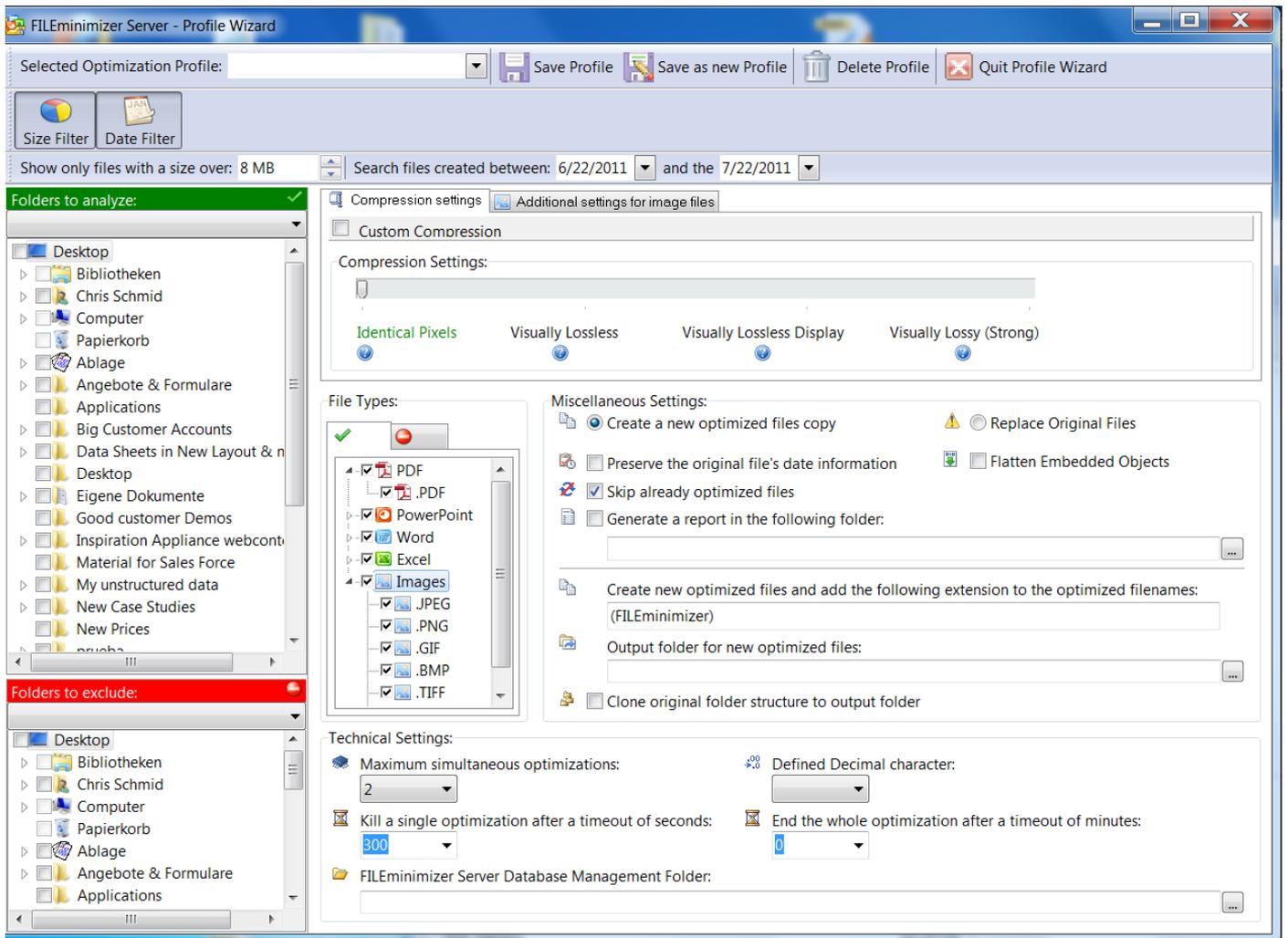


2.3. Profile Wizard (Creation of Optimization Profiles)

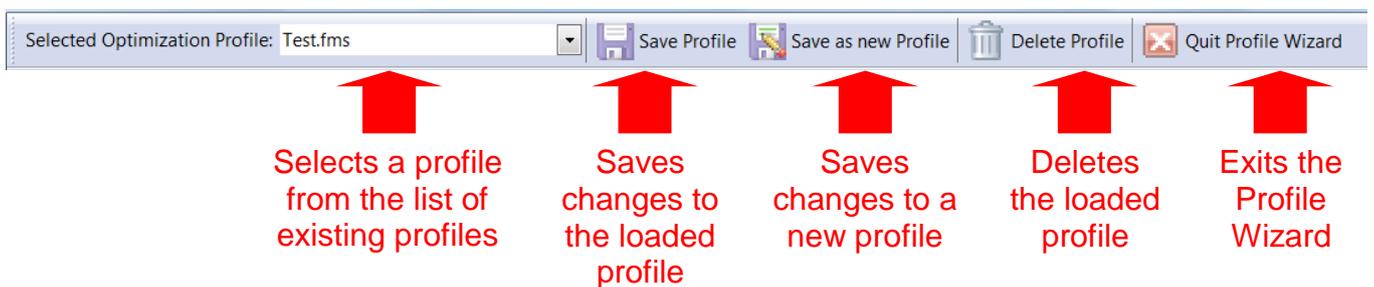
The **Profile Wizard** allows you to define **Optimization Profiles** which contain the optimization criteria that are applied when launching an optimization process. The Profile Wizard is launched when you click on **New Profile** (). When you already have a profile opened, this is shown in the Profile Wizard when you click on **Edit Profile** ().

The Profile Wizard can also be launched from within the **Script Editor** when an Optimization Profile is loaded ().

In the **Profile Wizard**, the main window allows for the different optimization criteria to be set (view following page).



From the top toolbar, the following main functions are available:

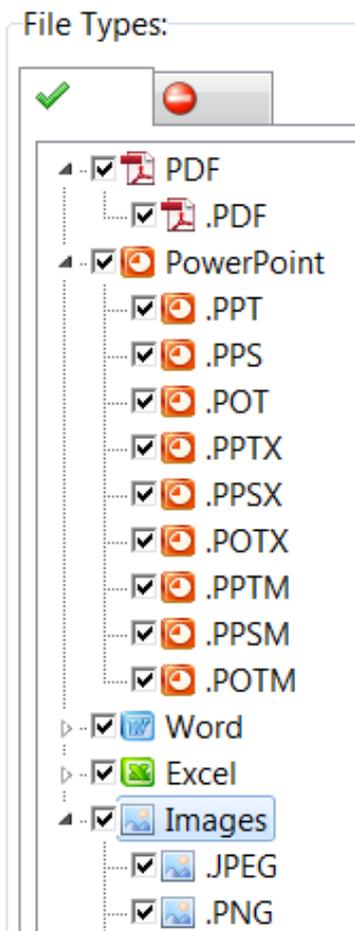


In the Profile Wizard's main area, certain criteria or settings can be added to an Optimization Profile. The criteria are grouped into different areas:

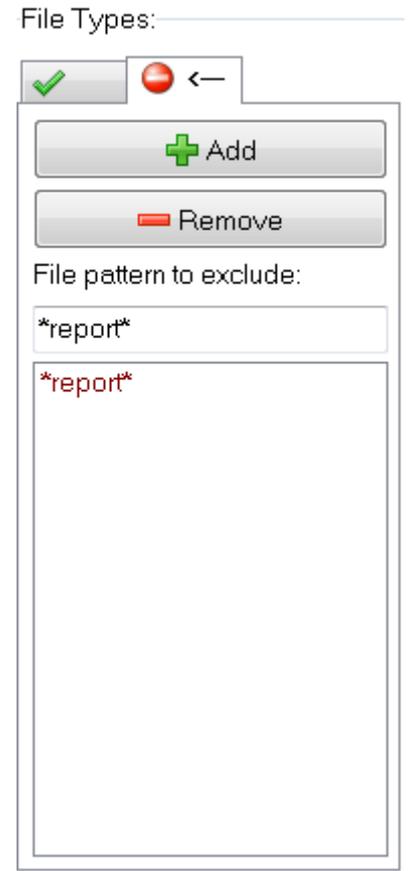
- **File Characteristics:** Select which file types, file sizes and creation dates should be considered in the optimization profile and also define *exclude parameters* (see below) of files that should be excluded from the optimization process.

- **Location Characteristics:** Select which folders should be optimized and which folders should be excluded.
- **Compression Characteristics:** Select which compression level should be used. There are four standard compression levels available: *Identical Pixels*, *Visually Lossless*, *Visually Lossless Display*, *Visually Lossy (Strong)* or choose *Custom Compression* to create your own.
- **Miscellaneous Settings:** Define certain miscellaneous criteria for an optimization profile, such as if embedded objects should be flattened, if original files should be replaced by optimized versions, etc.
- **Technical Settings:** Define numerous technical settings such as the number of CPUs to be used for an optimization profile.

2.3.1 File Characteristics



The *green tab on the left* allows you to define which **file types** should be considered in the optimization profile. For example, an optimization profile can be generated only for PowerPoint presentations by selecting only the appropriate file types from the list to the left. The *red tab on the right* lets you define **exclude parameters** for an optimization profile. As an example, the term **report** will assure that all selected files containing the word “report” won’t be considered.

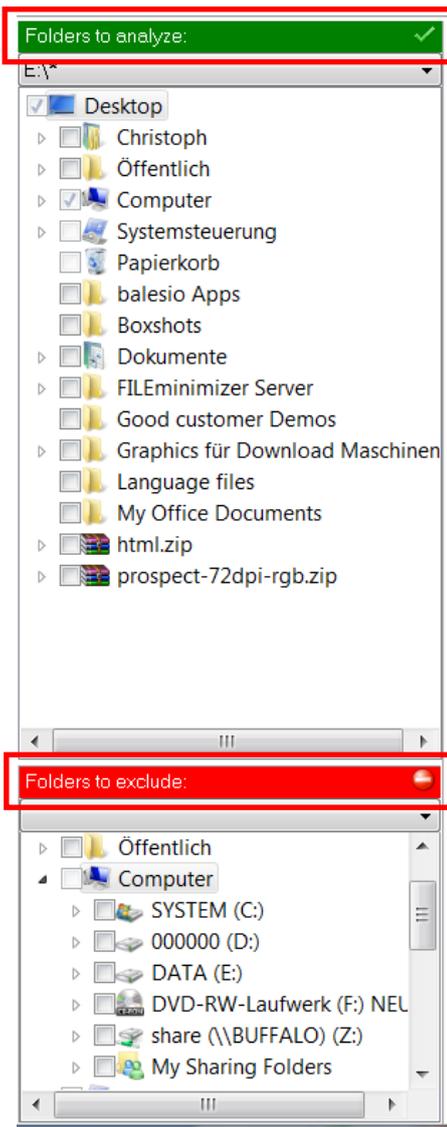




The **Size Filter** allows you to define the minimum size of files to be considered in the optimization profile. If 8 MB is selected, only files bigger than 8 MB are taken into consideration when this optimization profile is launched.

The **Date Filter** allows you to narrow down the list of files by date. If a date is set in an optimization profile, FILEminimizer Server will only optimize files created between the set dates.

2.3.2 Location Characteristics

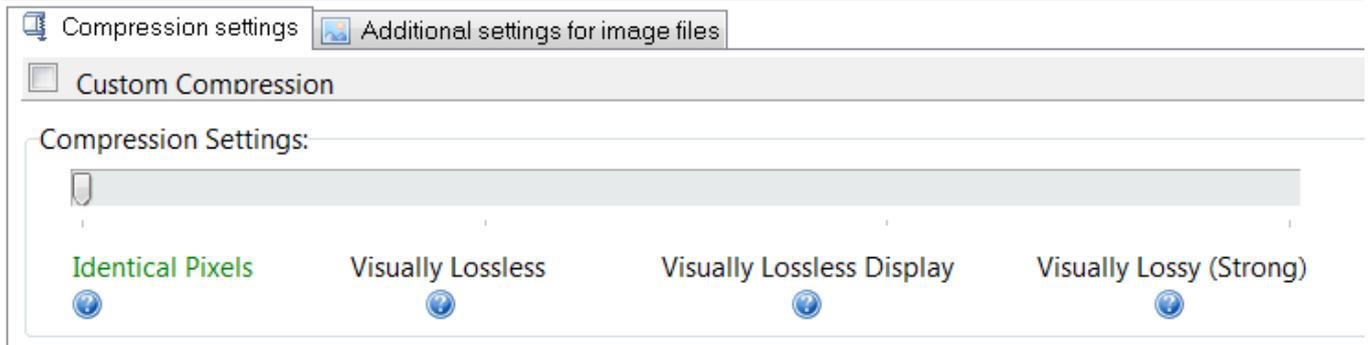


The area to the left allows you to define the **location settings** which are applied by the optimization profile. The green section *Folders to analyze* defines the folders which **are analyzed** when the optimization is running. In other words, it defines the folders and directories where the user **wants to optimize** files.

The red section *Folders to exclude* defines the folders which **are excluded** from the optimization. In other words, it defines the folders and directories where the user **does not want to optimize** files.

2.3.3 Compression Characteristics

The Profile Wizard lets you choose between four different compression levels for unstructured files:



Identical Pixels offers native format optimization without manipulating any image data within unstructured files. The result is a pixel wise identical display but optimization ratios are usually lower.

Visually Lossless offers native format optimization maintaining the maximum visual quality of the unstructured files. Compared to the original files, the naked eye is unable to detect any differences neither on screen nor on print.

Visually Lossless Display offers native format optimization ratio maintaining the maximum visual screen quality of the unstructured files. Compared to the original files, the naked eye is unable to detect any differences on a normal sized screen.

Visually Lossy (Strong) offers the strongest compression for web or e-mail distribution. It offers the highest compression ratio at acceptable image quality. It can be applied to Microsoft Office, PDF and image files.

Custom Compression offers the possibility to individually select the compression characteristics for unstructured files and provides additional settings for the optimization of image files (view following page):

Compression settings

Additional settings for image files

Custom Compression

Compression Settings:

Optimize the files for the following screen resolution: Keep original JPEG compression factor

Use the following JPEG quality: %

Use the following PPI quality:

Optimizes files for this screen resolution. Applies to: .PDF, .PPT, .PPS, .POT, .PPTX, .PPSX, .POTX, .PPTM, .PPSM, .POTM, .XLS, .XLT

Selects the JPEG quality to be maintained during the optimization of Microsoft Office, PDF and image files

Selects PPI quality to be used. Applies to: .DOC, .DOT, .DOCX, .DOCM, .DOTX, .DOTM, .XLSX, .XLTX, .XLSM

Compression settings

Additional settings for image files

Keep original image format

Allow change of image format

Use for the output only a lossless image format

Allow image to be resized

Keep EXIF / Meta-data information

The **additional settings for image files** (see above) apply only to image files (JPG, TIFF, GIF, EMF, BMP and PNG). The question mark () provides detailed explanation as to the scope of these settings.

2.3.4 Miscellaneous Settings

This section allows you to set miscellaneous criteria for an optimization profile. The following table explains the different miscellaneous settings available:

Setting	Explanation
<i>Create a new optimized files copy</i>	Will create an optimized copy of the original unstructured file.
<i>Replace Original Files</i>	Will replace an existing file by an optimized version of the same.
<i>Preserve the original file's date information</i>	Will not alter the file's date information when the file is optimized. If this function is checked, an existing Data Lifecycle Management (DLM) is not affected by the optimization.

<i>Flatten Embedded Objects</i>	Will flatten embedded objects within files and transform them to plain images.
<i>Skip already optimized files</i>	If this function is checked, files which have been previously optimized will be skipped.
<i>Generate a report in the following folder</i>	Generates a .txt summary overview and generates a detailed analysis of the completed optimization (.csv table).
<i>Create new optimized files and add the following extension to the optimized filenames</i>	Active only if an optimized copy of the original file is created. Adds the defined text to the file name.
<i>Output folder for new optimized files</i>	Active only if an optimized copy of the original file is created. Saves all optimized copies in the defined output folder.
<i>Clone original folder structure to output folder</i>	Active only if an optimized copy of the original file is created. Clones the original folder structure in the defined output folder.

All of the above settings can be defined in the Miscellaneous Settings section of the Profile Wizard (see below):

Miscellaneous Settings:

Create a new optimized files copy
  Replace Original Files

 Preserve the original file's date information

 Flatten Embedded Objects

 Skip already optimized files

 Generate a report in the following folder:
 

 Create new optimized files and add the following extension to the optimized filenames:

 Output folder for new optimized files:
 

 Clone original folder structure to output folder

2.3.4 Technical Settings

This section allows you to define various technical settings which are shown in the following image.

Technical Settings:

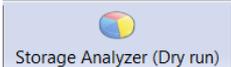
Maximum simultaneous optimizations:	<input type="text" value="4"/>	Defined Decimal character:	<input type="text" value="."/>
Kill a single optimization after a timeout of seconds:	<input type="text" value="300"/>	End the whole optimization after a timeout of minutes:	<input type="text" value="0"/>
FILEminimizer Server Database Management Folder:	<input type="text" value="C:\Program Files\FILEminimizer Server\DBManager\"/>		

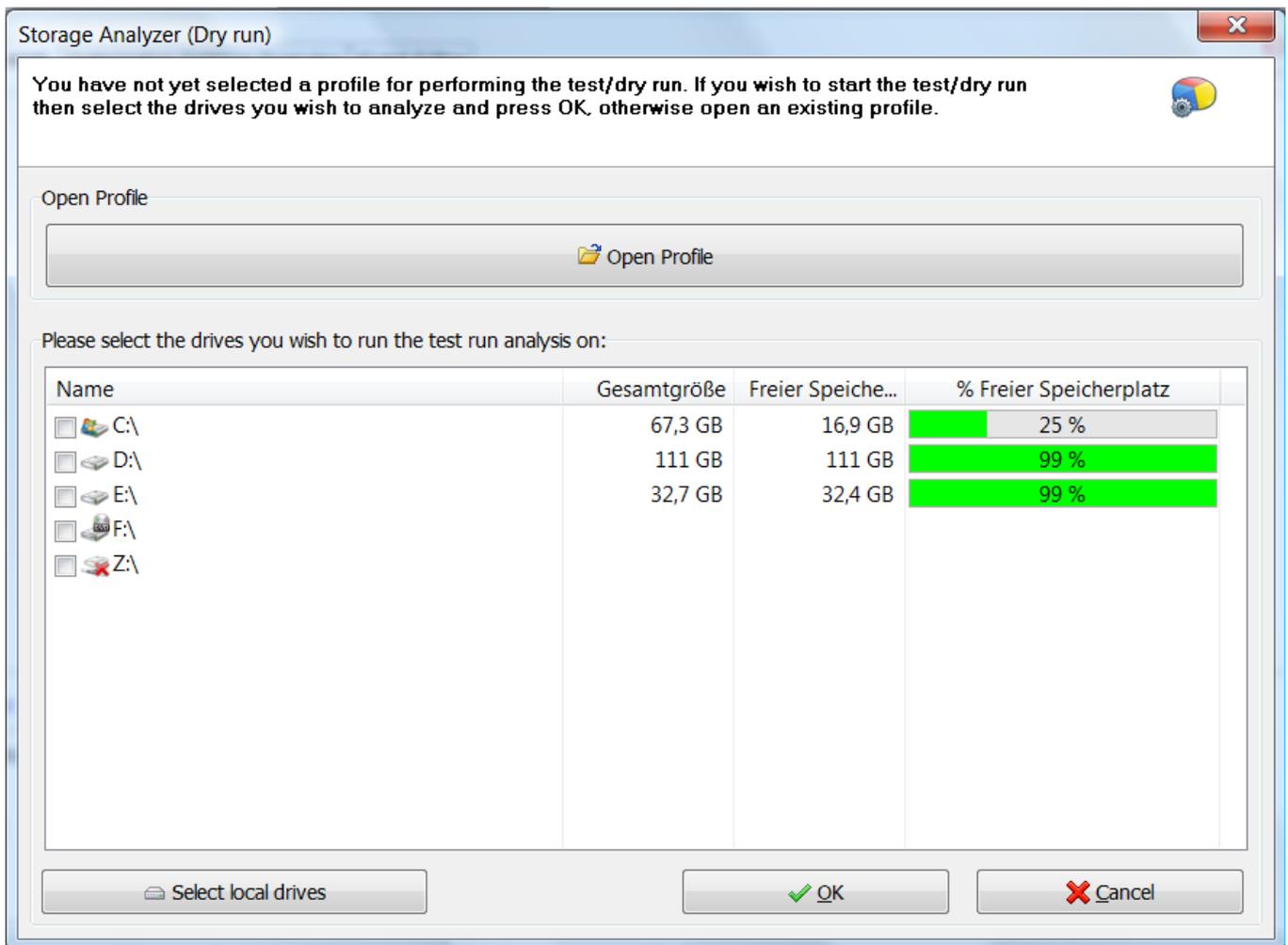
The table on the following page explains the different technical settings.

Setting	Explanation
<i>Maximum simultaneous optimizations</i>	Defines the number of server CPUs to utilize. Each CPU will optimize a single file. Choose carefully the number of simultaneous optimizations depending on how powerful your server environment is. Usually each optimization process will consume less than 100MB of RAM, however in some cases each optimization process may consume about 1GB of RAM.
<i>Kill a single optimization after a timeout of seconds</i>	If, during the optimization run, a corrupted or invalid file is encountered, the optimization process could be infinite. The defined timeout sets the time in seconds after a single optimization is ended automatically. This assures a stable optimization.
<i>Define Decimal character</i>	Lets you define the decimal character used in the report file. This feature allows for different international standards.
<i>End the whole optimization after a timeout of minutes</i>	Ends a complete optimization job prior to full completion after a certain period of time. Allows you, for example, to stop the optimization after 4 hours. This feature is helpful if you wish to stop a scheduled optimization job after a certain period of time.
<i>FILEminimizer Server Database Management Folder</i>	This folder contains the optimization history and should not be deleted. We highly recommend using the same Database Management Folder for all profiles.

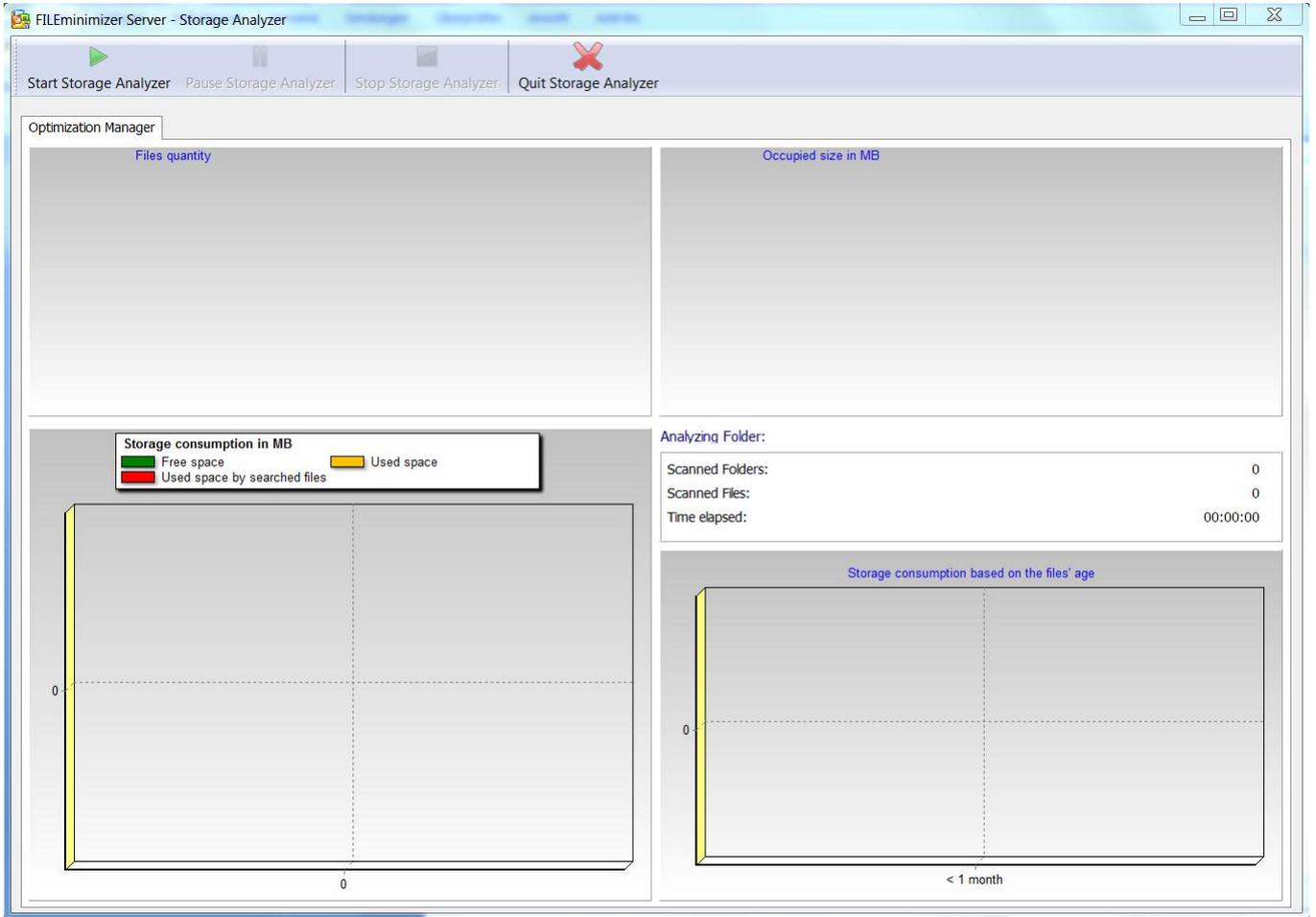
3. Storage Analyzer (Dry Run)

The Storage Analyzer is a convenient method to assess the optimization potential and the expected savings on a server beforehand. The Storage Analyzer performs a “Dry Run”, i.e. it scans through the defined drives on a server and calculates the optimization of single files found there. It then adds the values to the FILEminimizer Server Storage Report which can be printed or saved in the PDF format.

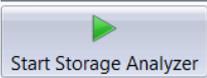
Clicking on () launches the Storage Analyzer. In the following window you can select if you want the Storage Analysis to be performed using a previously defined Optimization Profile by clicking on Open Profile. Otherwise the Storage Analysis can also be performed on whole drives and network drives.



After confirming the selection by clicking on  the following window opens the actual Storage Analyzer and shows the Optimization Manager.



The Optimization Manager provides users with real-time results of the storage analysis.

The actual storage analysis is started by clicking on .

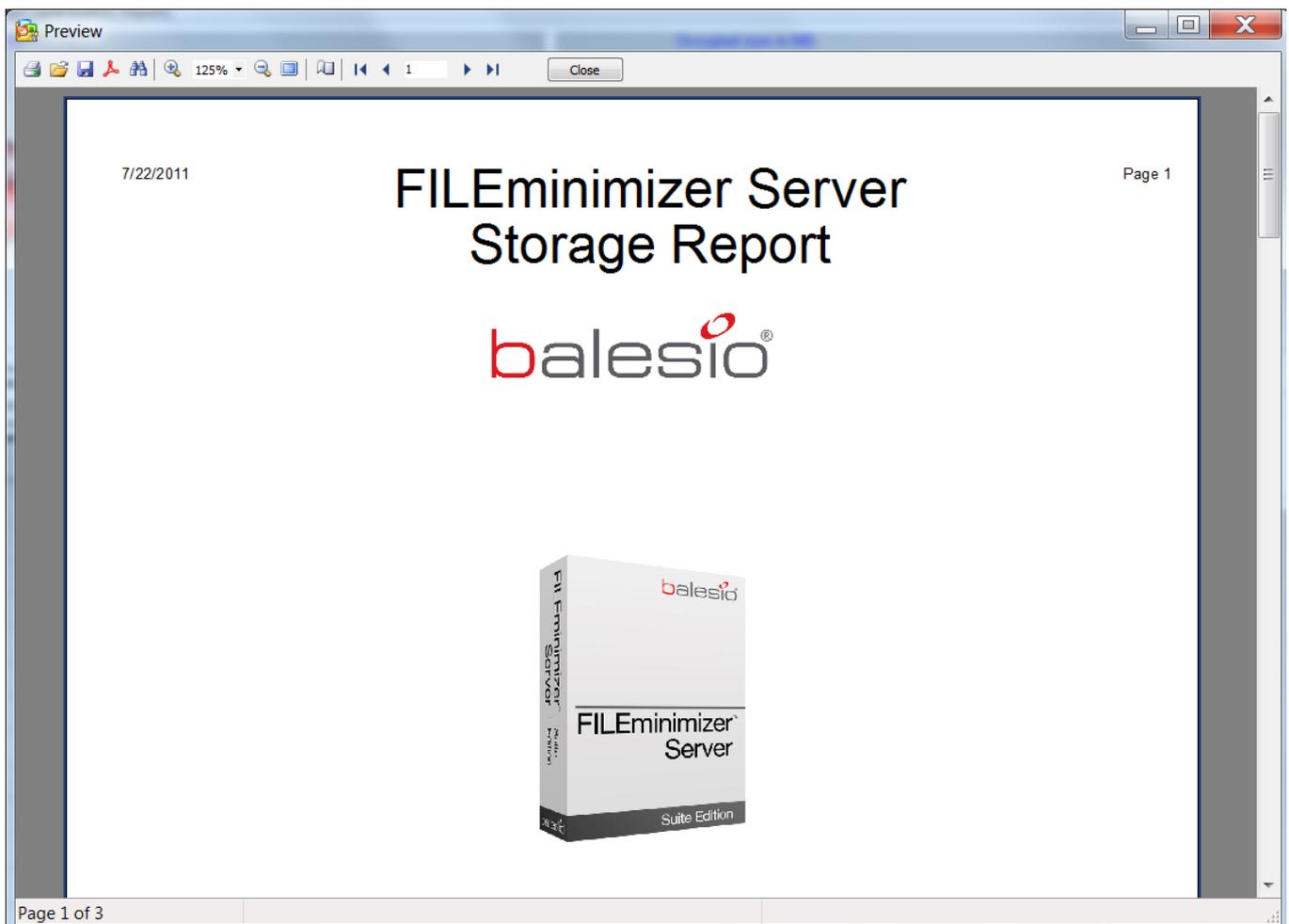


Pauses the Storage Analysis in act.



Stops the Storage Analysis in act.

After stopping the Storage Analyzer, a new window opens with the preview of the FILEminimizer Server Storage Report (view following page).

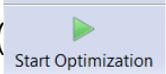
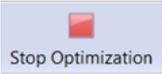


This report can be printed and saved. It illustrates which immediate direct savings and which long-term continuous savings the deployment of FILEminimizer Server can offer and gives a clear summary of all quantitative and qualitative benefits, taking into account the specific settings of the server as well as the defined settings of the optimization profile.

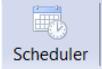
4. Using FILEminimizer Server (Run optimizations)

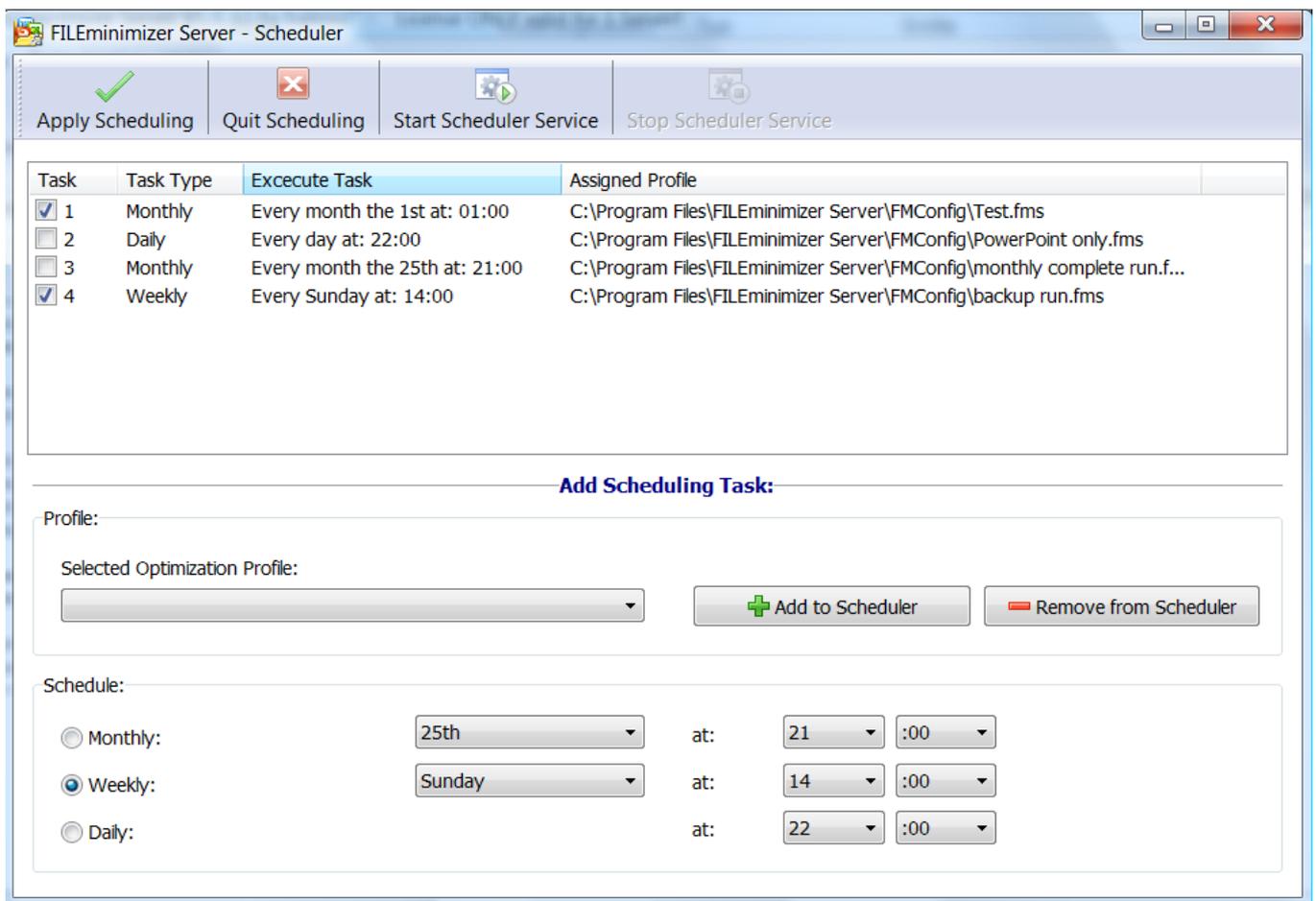
When you have created the Optimization Profiles as described in chapter 2, you can start optimizing Microsoft Office, PDF or image files on a server. The optimization run itself can be launched either manually or using the *integrated scheduler function*.

4.1. Manual start of optimization runs

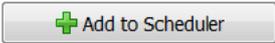
When you have loaded an **Optimization Profile** into FILEminimizer Server, you can start the manual optimization by clicking on the **Start Optimization** button (). This procedure will launch the actual optimization using the optimization criteria set in the loaded **Optimization Profile**. When the optimization is running, you can pause the optimization () or stop the optimization ().

4.2. Scheduling of optimization runs (Scheduler Wizard)

The **Scheduler Wizard** () allows you to schedule optimization tasks. When you click on the button, the following window appears where you can plan and schedule optimization tasks:



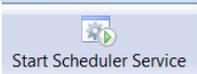
To schedule an optimization run, you need to select the existing optimization profile which you would like to schedule and define the schedule for this.

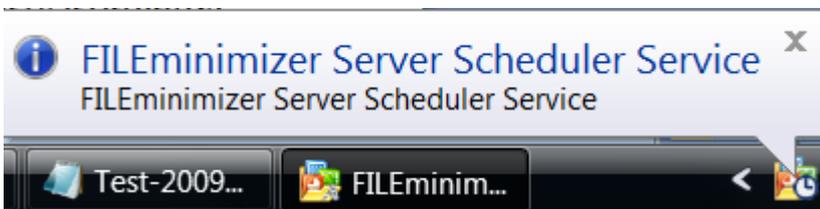
By clicking on **Add to Scheduler** () a task is added to the list of scheduled optimization tasks:

Task	Task Type	Execute Task	Assigned Profile
<input checked="" type="checkbox"/> 1	Monthly	Every month the 1st at: 01:00	C:\Program Files\FILEminimizer Server\FMConfig\Test.fms
<input type="checkbox"/> 2	Daily	Every day at: 22:00	C:\Program Files\FILEminimizer Server\FMConfig\PowerPoint only.fms
<input type="checkbox"/> 3	Monthly	Every month the 25th at: 21:00	C:\Program Files\FILEminimizer Server\FMConfig\monthly complete run.f...
<input checked="" type="checkbox"/> 4	Weekly	Every Sunday at: 14:00	C:\Program Files\FILEminimizer Server\FMConfig\backup run.fms

This list gives you a summary of your scheduled tasks, i.e. which **Optimization Profile** should be executed at what scheduled date and time. The first time you define scheduled optimizations and whenever you add or remove scheduled optimizations you need to confirm your choices by clicking on **Apply Scheduling** ().

The button **Quit Scheduling** () exits the **Scheduler Wizard**.

The button **Start Scheduler Service** () activates the scheduling of the active tasks which are marked with a check box (). The **FILEminimizer Server Scheduler Service** is now active and can be seen in the system tray:



When the scheduled time arrives, FILEminimizer Server will automatically start the optimization run using the criteria set in the assigned optimization profile. You can now exit the main application if desired.

The button **Stop Scheduler Service** () stops the **FILEminimizer Server Scheduler Service** and will stop any defined scheduled optimization tasks.

4.3. Scheduling optimization runs with Windows

As an alternative to using FILEminimizer Server's built-in **Scheduler Wizard** you can task **Optimization Runs** as well directly in Windows using the Windows own Task Planner. To do this, the FILEminimizer Server application "FMServer.exe" must be tasked together with the desired optimization profile.

The following syntax must be used:

FMServer.exe DesiredProfile.fms

If FILEminimizer Server is installed on C:\FILEminimizer_Server the optimization profile is saved on C:\OptimizePowerpointfiles.fms , the exact syntax to be used in the Windows Task Planner is the following:

C:\FILEminimizer_Server\FMServer.exe C:\OptimizePowerpointfiles.fms

5. After the optimization (Reporting)

If you defined in the **Miscellaneous Settings** of the **Profile Wizard** that an optimization report is to be created for an Optimization Profile, FILEminimizer Server generates two report files in the defined folder. A .txt report is generated to give an overall overview of the optimization results. It contains which **Optimization Profile** has been used, how many folders and files have been analyzed, optimized and skipped, how much disk space has been occupied before and after the optimization as well as the overall optimization ratio. This .txt report has the following layout:

```
-----  
FILEminimizer Server Optimization Summary Report  
-----  
Profile used           : C:\Program Files\FILEminimizer Server\FMconfig\All_Office.fms  
Generated CSV File    : E:\Optimized\Test-20090519-13593334.csv  
  
Optimization started at : 19.05.2009 13:11:09  
Optimization completed at: 20.05.2009 02:18:29  
  
Total Scanned Folders : 8000  
Total Scanned Files   : 50,000  
Optimized Files       : 49,250  
Skipped Files         : 750  
  
Used Disk Space Before : 415752.00 MB  
Used Disk Space After  : 117242.06 MB  
  
Saved Disk Space       : 298509.94 MB  
Global Optimization Ratio: 71.8%  
-----
```

In addition to this report, a .csv report is also generated, which contains the same information broken down on the single files. This report can be used in Microsoft Excel to do further analysis on the performance of the completed optimization job.

6. balesio Contact Information

6.1. Technical Support contact information

balesio is continuously developing FILEminimizer Server in order to meet our customers' expectations. If you have any technical problems, please refer first to our online FAQ section here: <http://www.balesio.com/fileminimizerverser/eng/support.php>.

If you do not find the answers to your technical questions there, please contact:

balesio - Technical Support -
Email Contact: support@balesio.com
Phone Contact: +41 43 501 4900

When you report a problem to balesio's Technical Support, please include the following information in order to make sure that you receive a satisfying answer as soon as possible:

- Name and version of the product (to retrieve this information, open FILEminimizer Server, select "Help" from the main toolbar and then select "About FILEminimizer Server")
- Full license information, if available
- Computer environment and hardware specifications
- The optimization profile (.fms file) that is being used
- Any error messages, if they appear, or a clear description of the problem

6.2. Sales and order contact information

FILEminimizer Server can be purchased directly from balesio or one of its partners. If you have questions regarding licensing or if you wish to have an official quote, please contact our sales department:

balesio - Sales -
Email Contact: sales@balesio.com
Toll Free USA & Canada: +1 877 264 6471 Toll Free UK: 0800 3030 7070
International: (+41) 43 501 4900

We also offer educational discounts for schools, universities and colleges as well as special prices for public institutions, governments and NGOs. Our solution is also available from the GSA schedule. Please contact us for a specific quote.

6.3. About balesio

balesio AG is a fast-growing provider of innovative data reduction technology and storage optimization solutions that enable organizations to release up to 85% of their existing storage capacity to achieve significant, permanent storage cost savings. Headquartered in Switzerland, the company delivers primary storage optimization as well as integrated solutions for Microsoft SharePoint, Microsoft Exchange and Lotus Notes under the brand FILEminimizer. balesio products are sold worldwide and have already helped small and medium-sized companies, universities, public and government institutions as well as the vast majority of Fortune 500 companies get more from their storage investments.

balesio's vision is to always provide the highest value to our customers by developing high quality, intuitive standard software which meets our customers' needs. Our mission is to grow together with its employees, customers and partners to become the first address for small and large companies for high quality, intuitive standard software.