OPTIMAL SYSTEMS

enaio®

Software Documentation
enaio® file-system-archiver

Version 8.50

All software products and all related programs and functions are registered and/or used trademarks of OPTIMAL SYSTEMS GmbH, Berlin or one of its companies. They may only be used with a valid license agreement. The software and its associated documentation are protected by German and international copyright law. Unauthorized duplication and sales is plagiarism and subject to criminal prosecution. All rights reserved, including reproduction, transfer, translation, and storing on any media. Any names of companies and persons appearing in examples (screenshots) in preconfigured test scenarios or demo presentations are purely fictitious. Any resemblance to existing companies or persons is purely coincidental and unintentional.

Copyright 1992 – 2017 by OPTIMAL SYSTEMS GmbH
Cicerostraße 26
D-10709 Berlin

10/13/2017
Version 8.50

Contents

Introduction 4

About enaio® file-system-archiver ... 4
Installation and Licensing ... 4
Integration in enaio® client ... 4
Configuring Object Definitions ... 4
Module-spanning Document Types ... 5
Setup of the Context Menu ... 5

Operation Modes 7

Overview ... 7
Independent Mode ... 7
Client Mode ... 7
Silent Mode ... 8
Configuration Mode ... 8

Configuration 9

Initial Program Start ... 9
Assigning Object Definitions ... 10
Creating a Default Configuration ... 11
Field Assignment ... 11
Assignment Overview ... 11
Perform Field Assignments ... 12
Key Fields ... 13
Configuration Types ... 14
Default Configuration ... 14
Sub-configuration ... 14
enaio® file-system-archiver Options ... 15
Use UNC Path for the Source Directory ... 16
Archive Files with File Attribute 'Archive' only ... 16
Suppress File Extensions in File Names ... 17
Suppress Recursive Archiving ... 17
Setting the 'Archivable' Flag automatically ... 17
Remove the Attribute 'Archive' for Imported Files ... 17
Validate Catalog Fields server-sided ... 18
Using File Filters ... 18
Using Default Folder as Initial Filing Location ... 19
Using Single Instance Store ... 20
Archiving Procedure ... 20
Write Log ... 20

Archiving Process 22

Appendix 25

Available File System Information ... 25

Introduction

About enaio® file-system-archiver

enaio® file-system-archiver is an optional component of the enaio® document management, workflow and archiving system.

This program is an extensive tool for archiving of file systems and their structures.

With enaio® file-system-archiver you can recursively import directory structures as registers containing document files into the enaio® system in order to archive them. Status information regarding the folders or files, e.g. creation date or date of last change, along with additional information can be automatically adopted in enaio® as index data.

Installation and Licensing

enaio® file-system-archiver is provided along with enaio® and is installed in the installation directory `\clients\client32`. The directory also contains the executable file `axfsarch.exe` which starts enaio® file-system-archiver.

enaio® file-system-archiver requires the FSA license.

Integration in enaio® client

The integration of enaio® file-system-archiver in enaio® client requires two steps: you may have to adapt the object definition of the enaio® system to enaio® file-system-archiver requirements and you need to enable enaio® file-system-archiver to be executed through the Windows file context menu.

Configuring Object Definitions

When archiving directories and files with enaio® file-system-archiver, the object definition of the enaio® system must meet specific criteria to allow file system object depiction on the respective enaio® object during archiving.

- For cabinets to be used with enaio® file-system-archiver you need to define at least one register and one W-Document type.
- enaio® file-system-archiver can only refer to index fields that have unique internal names. Other index fields will not be supported.
- Users that want to employ enaio® file-system-archiver must have adequate access rights to the respective cabinet, register type and W-Document type. For more information, see the 'OS_Administrator_eng.pdf' handbook.

As it meets all requirements, you can use the example object definition available in the directory `client32\Samples\FileSystemArchiver` of your enaio® client installation as a template. The enaio® editor documentation describes how to import an object definition.

Module-spanning Document Types

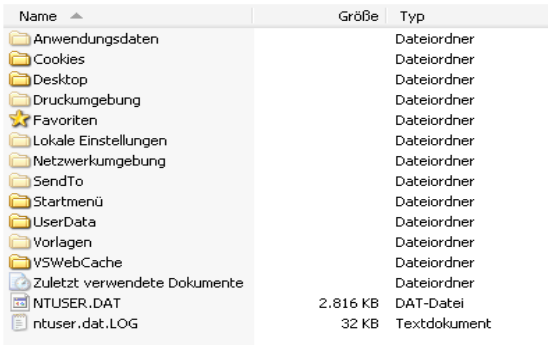
enaio® file-system-archiver supports module-spanning document types. When being set up, they will be automatically applied on the respective file types. The assignment is hereby oriented towards the file extension.

Files will be archived as W-Documents if no module-spanning type has been set up.

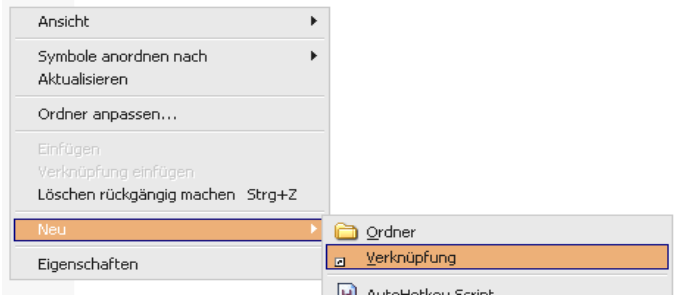
Setup of the Context Menu

You can run enaio® file-system-archiver from the Windows file context menu. To do so, you must add it manually to the **Send to** menu.

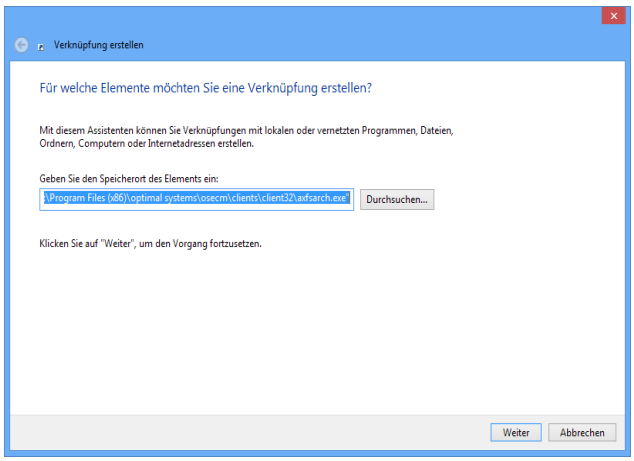
Open the explorer and your user directory. Usually, you will find it under `C:\Documents and Settings\<user name>`. Select the subdirectory `SendTo`.



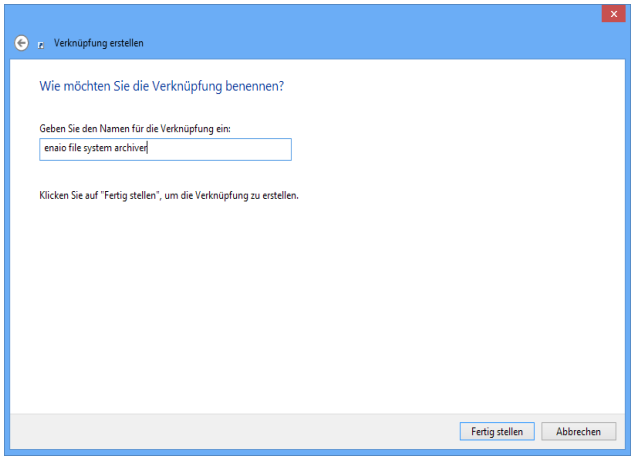
Right-click to open the context menu and select the entry **New › Shortcut**.



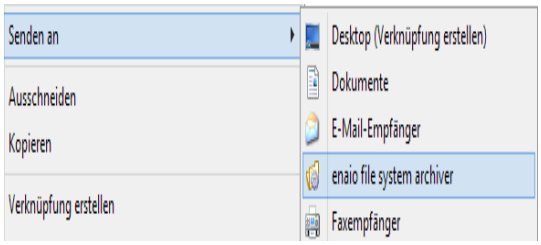
Use the **Browse** button in the **Create Shortcut** dialog to enter the path to the executable file `axFsArch.exe`. You can find it inside the directory client32 of your enaio® client installation.



Click **Next** and select a reasonable name for the shortcut.



Click **Finish**. Now you have added the enaio® file-system-archiver to the Sent to menu of your explorer.



Operation Modes

Overview

enaio® file-system-archiver disposes of the following operation modes:

- Independent Mode
- Client Mode
- Silent Mode
- Configuration Mode

You can run them using specific parameters when running the file `axfsarch.exe`. Only one mode can be executed at a time. You migrate files and directories to be archived into the program as parameters. If file or directory names contain space characters the parameter must be entered in quotation marks.

enaio® file-system-archiver administers configuration data in the application directory. If you want the configuration data instead to be administered in the central \etc directory of the data directory, add the parameter '-serverConfig' to the mode parameter when calling. If you use several servers, you have to copy the configuration data into all corresponding etc directories.

Independent Mode

Start this mode by executing `axfsarch.exe` without specific parameters but a list of file and/or directory paths represented as parameters:

```
axfsarch.exe "c:\My Documents\File.txt" "d:\Directory"
```

After having started enaio® file-system-archiver in this mode a configuration dialog of the current archiving is displayed (see p. 9). On the basis of the file and/or directory paths migrated as parameters, the archiving can be performed. enaio® file-system-archiver then connects directly to enaio® server.

Client Mode

This mode is used to define existing folders or registers as the initial archiving location. To do so, start enaio® client and open the respective folders or registers. Since hit lists do not specify explicit locations, objects will be taken into account only.

Furthermore, you must have created a sub-configuration (see page 9) that has the same cabinet type as the object to be archived.

Run the file axfsarch.exe with the -client parameter to start enaio® file-system-archiver in this mode. A list of file and/or directory paths is thereby migrated additionally:

```
axfsarch.exe -client "c:\My Documents\File.txt" "d:\Directory"
```

If you execute this parameter without having enaio® client started beforehand, enaio® file-system-archiver will start it automatically. As respective objects (folders, registers) are thus not opened, enaio® file-system-archiver will terminate and display a corresponding information.

If you have opened multiple folders and registers in enaio® client, enaio® file-system-archiver will display a corresponding selection menu. Here you can select a location for file system objects to be archived.

If you have opened just one object in enaio® client, enaio® file-system-archiver will automatically use it as archiving location.

enaio® file-system-archiver will then check whether all existing sub-configurations correspond to the specified archiving location. If there is no such sub-configuration, the program will terminate and display a corresponding information.

If there is just one sub-configuration available, enaio® file-system-archiver will use it automatically. If required, a selection dialog will display multiple corresponding sub-configurations.

Afterwards, enaio® file-system-archiver will continue the archiving process in independent mode (see page 7).

Silent Mode

In silent mode enaio® file-system-archiver starts with reduced interface. During archiving a progress bar is displayed which will be closed automatically after successful archiving. A dialog box will inform you about occurred errors and irregularities.

The `-silent` parameter starts this mode:

```
axfsarch.exe -silent "c:\My Documents\File.txt" "d:\Directory"
```

Use additional parameters to perform changes as follows:

Parameter	Description
-subconfig:"<Name>"	The sub-configuration to be applied can be specified here. If you do not set this parameter, the default configuration is used automatically. If either file names or paths of the sub-configuration files contain space characters the parameter must be entered in quotation marks.
-rootosid:<OSID>	This parameter allows you to specify the object ID of folders and registers to be initial archiving locations.

Configuration Mode

The configuration mode enables you to directly configure enaio® file-system-archiver upon launch of the application. Archiving processes cannot be performed. Use this mode to create a desktop shortcut that conveniently opens the configuration dialog.

Execute the file `axfsarch.exe` with the `-setup` or `-config` parameter to start this mode:

```
axfsarch.exe -config
```

Confirm the notice that the program was active in configuration mode with **OK**. The enaio® file-system-archiver setup dialog will appear.

Configuration

Initial Program Start

enaio® file-system-archiver is available in German and English and uses the language settings of enaio® client. If the enaio® client is set to English, enaio® file-system-archiver will also be displayed in English. If a non-available language is set in the Client, enaio® file-system-archiver will be run in German.

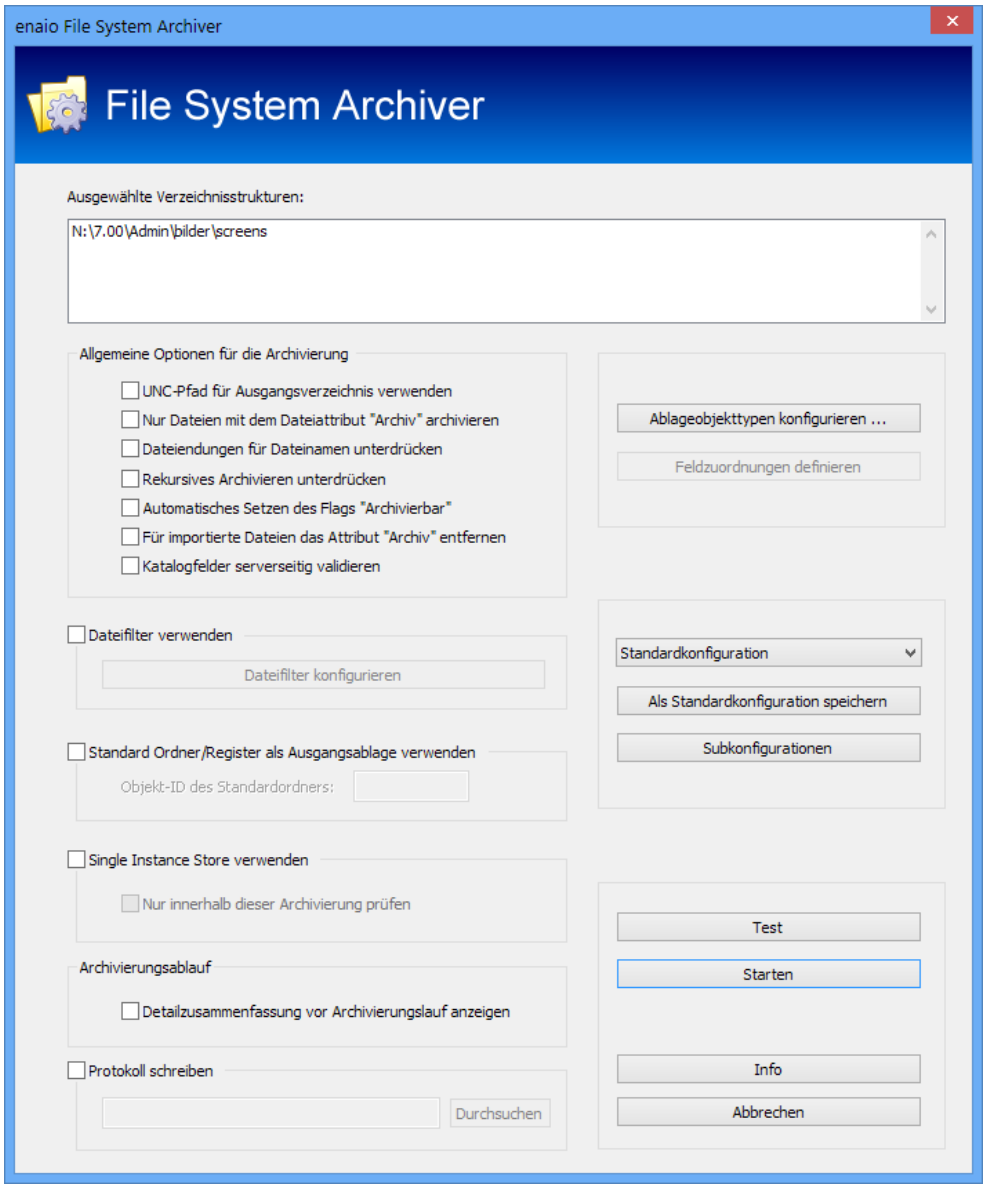
To change the display language in the Client start enaio® client and open the **View** menu. Select the entry **Settings**. There you will find the default settings areas, sorted thematically. Click on **Workspace** and select the intended language. Click the Apply button, the changes will take effect immediately. This also applies to other OS programs which start at your workstation.

If you start enaio® file-system-archiver for the first time, you have to configure it.

Select a file system object to be archived and start enaio® file-system-archiver with the context menu entry Send to or alternatively start the program in configuration mode (see page 8).

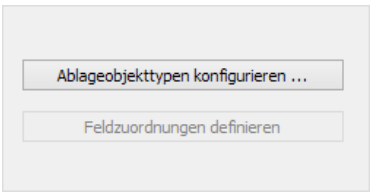
Confirm the notice that the program was active in configuration mode with **OK**. The enaio® file-system-archiver setup dialog will appear.

Configurations are administered in the application directory, but instead they can also be administered in the \etc directory of the data directory if you enter the additional '-serverConfig' parameter when calling.

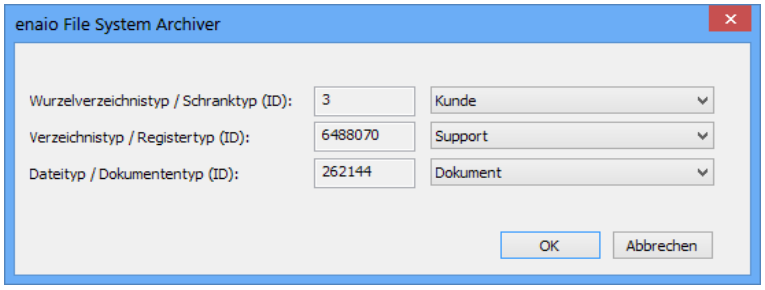


Assigning Object Definitions

In order to use a configuration with enaio® file-system-archiver, an object definition must be specified. Click the **Configure filing object types** button.



The following dialog will open:



Select the cabinet, register and document type from the list. The object IDs are entered in the left fields automatically.

Confirm with OK to apply all settings.

Creating a Default Configuration

In order to perform archiving with enaio® file-system-archiver a default configuration must be created. To do so click the **Save as default configuration** button.

Confirm the following dialog with YES. The file AXFSARCHCONFIG.XML will be created in the directory C:\PROGRAM FILES\OPTIMAL SYSTEMS\OSECM\CLIENTS\CLIENT32.

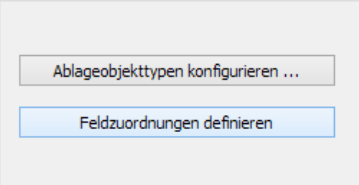
If no default configuration is created, archiving cannot be performed and data loss may occur.

Field Assignment

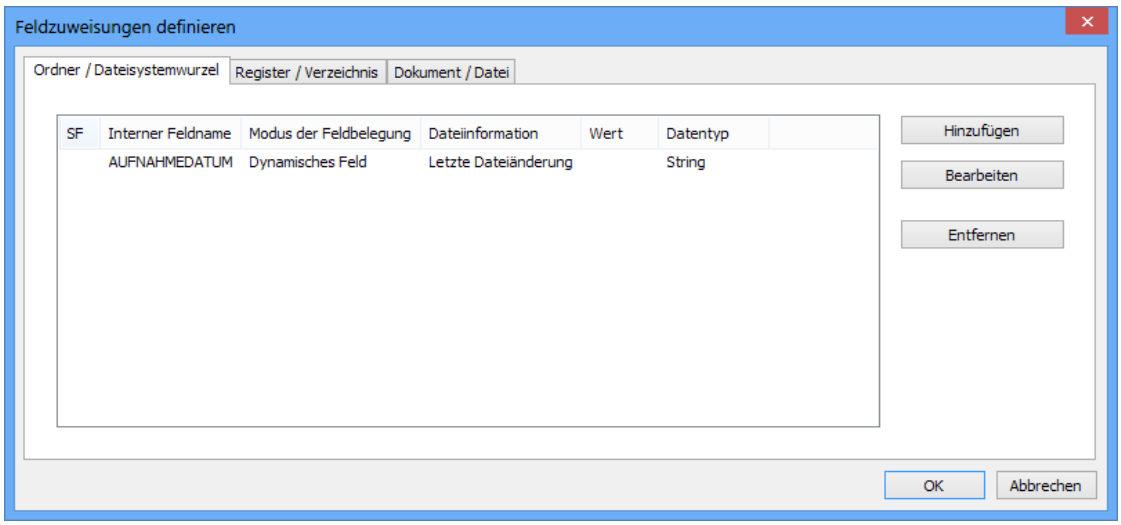
Migrating file system information into the enaio® system as index data is one of the main tasks of enaio® file-system-archiver. For this purpose, define which file system information must be assigned to which index fields.

Assignment Overview

Click the DEFINE FIELD ASSIGNMENT button to perform the assignment.



The following dialog will open:



Use the tabs to assign fields to folder, register and document types. A list will be displayed accordingly.

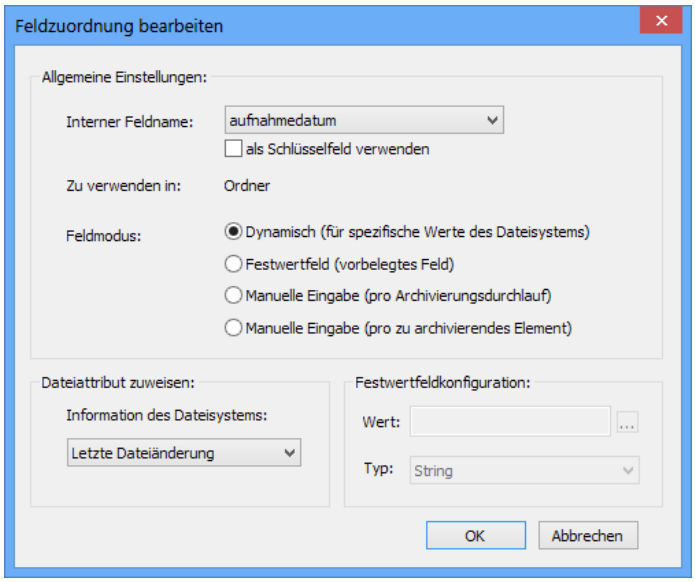
Click the ADD button to create a new assignment.

Select an existing assignment and click the EDIT button to change it.

Select a created assignment and click the REMOVE button to delete it.

Perform Field Assignments

If you want to create a field assignment, first select the object type using one of the three tabs called **Folder / file system root**, **Register / directory** or **Document / file**. Click the **Add** button to create a new assignment. The following dialog will open:

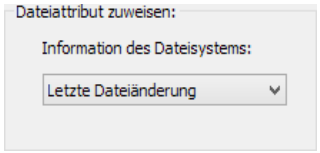


Now, you can select all index fields of the object types through their internal names in the upper list box. Index fields not having internal names are not listed here. Provide them with internal names to make these fields available (see page 10).

After having specified the index field for assignment you can define the field mode. There are four different modes: 'Dynamic (for specific file system values)', 'Fixed value field (ask once)', 'Manual entry (for each archiving)' and 'Manual entry (for each element to be archived)'.

Dynamic

In dynamic mode you can use selected file system information as index data. Having selected this mode, the **File system information** field lists all information that can be assigned to the index field.

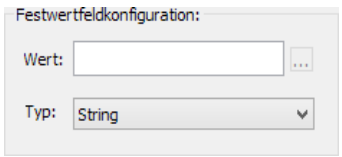


A list containing all available information can be found in the Appendix.

Fixed Value Field

In a fixed value field you can predefine fixed values during configuration. During file archiving the specified value is set corresponding to the object type for every archiving element without any further confirmation.

Select this mode to specify a value and a type in the **Fixed value field configuration** field.



At entry it is not checked whether the value and the value type correspond. Value types are only used to improve the overview and the readability of a configuration. The user must check whether the entered value is correct.

You can use the ... button next to the value field to open a catalog selection dialog for fields with deposited catalogs.

Manual Entry for each Archiving Process

In this mode you can enter values only when starting an archiving process. A dialog will be displayed containing all fields still to be filled in before archiving begins. You will see this dialog before each archiving process.

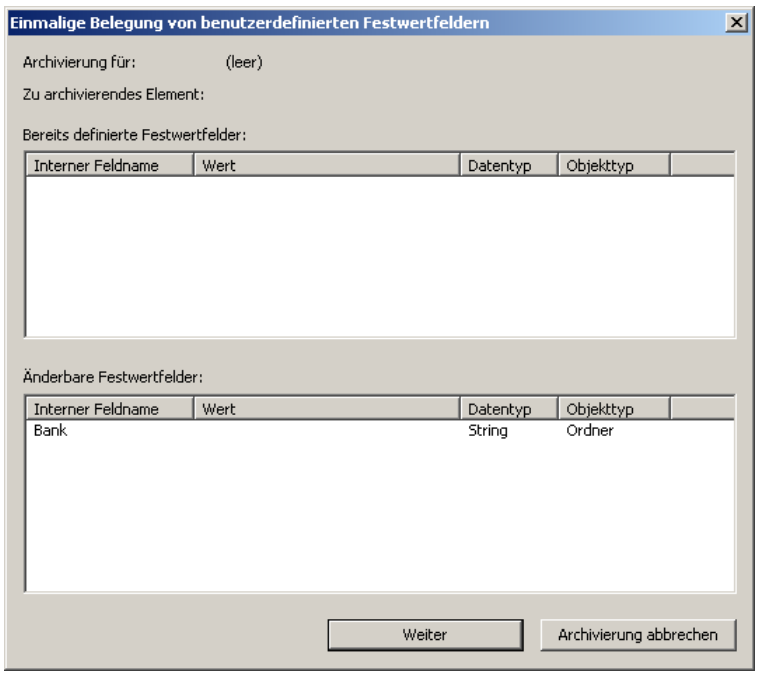
You can also enter a value type in this mode that nevertheless behaves like the value type of a fixed field definition.

A value entered here will be used as default value.

You can use the ... button next to the value field to open a catalog selection dialog for fields with deposited catalogs.

Mandatory fields are marked as such. If mandatory fields are not set or assigned, the enaio® server will ignore them and use empty values.

The **One time definition of user defined constant fields** dialog will then be displayed before executing an archiving process.



Double-click the respective entry to display a dialog in which you can change the corresponding value.

Manual Entry for each Element

This mode is almost identical to the Manual 'Entry for each Archiving Process' mode. The only difference is that you have to assign a value to each object type element. The ONE TIME DEFINITION OF USER DEFINED CONSTANT FIELDS dialog will then be displayed for each element to be archived.

For more information, see chapter Manual Entry for each Archiving Process.

Key Fields

With key fields you can keep your data pool consistent. If you define particular fields as key fields, enaio® already checks whether there are other objects in enaio® having the same key field values during the archiving process. The system also checks if all key fields are consistent with their values.

If there is an element with key field values that correspond to the key field values of the new enaio® object, the respective object is updated with the field values of the file system element (file, directory).

The updated element works as a root in the archive tree for possibly existing child objects like registers and documents or imported directories and files. The directory structure of the imported file system will not be available anymore.

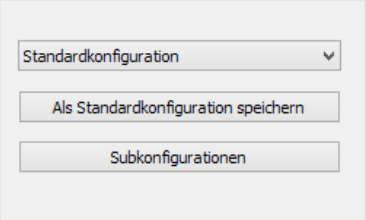
Key fields are labeled with a key icon.

Only uniquely labeled fields can be used as key fields.

Click OK to confirm your field assignment. Then click OK in the DEFINE FIELD ASSIGNMENTS dialog to apply all changes of the configuration.

Configuration Types

There are two configuration types: default configuration and sub-configuration. You can create, edit and save both of them in the setup dialog.



Default Configuration

Default configuration is automatically loaded at enaio® file-system-archiver start in independent or in configuration mode.

This configuration type facilitates working processes with enaio® file-system-archiver if it mostly runs in independent mode as it thus enables you to create a default configuration reducing configuration effort significantly.

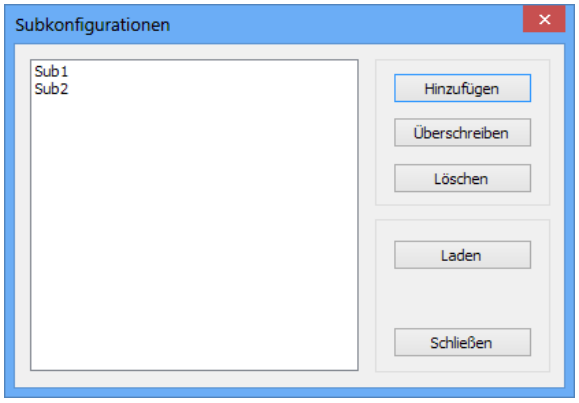
Sub-configuration

A sub-configuration offers two possibilities:

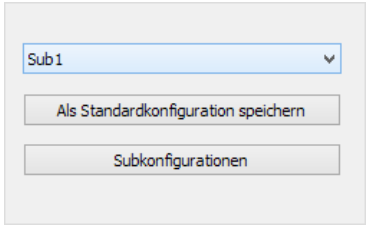
- On the one hand, it is a storage facility for several configurations that differ from the default configuration. It allows you to quickly and conveniently select different configurations from a collection created beforehand.
- On the other hand, existing sub-configurations are the basis of configurations that verify object types selected in enaio® client (see page 7).

If the user determines a sub-configuration, its entire settings will be applied to all client archiving processes.

Click the SUB-CONFIGURATION button to create, edit, load or remove sub-configurations.



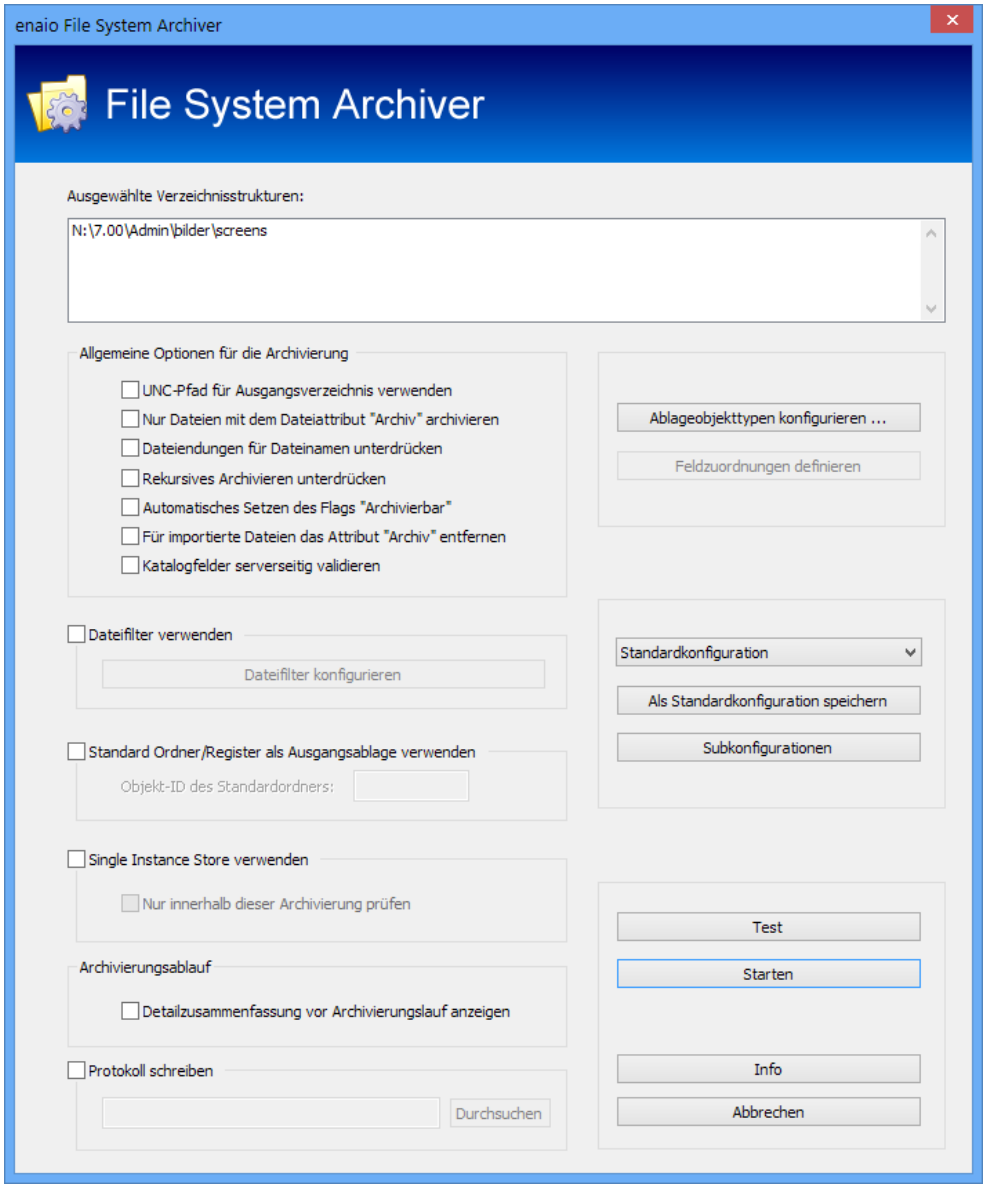
You can also use the selection list in the setup dialog to choose a sub-configuration.



enaio® file-system-archiver Options

enaio® file-system-archiver offers numerous options to optimally scale your archiving processes.

Use the setup dialog to change the enaio® file-system-archiver settings. Each configuration step is explained below.



Use UNC Path for the Source Directory

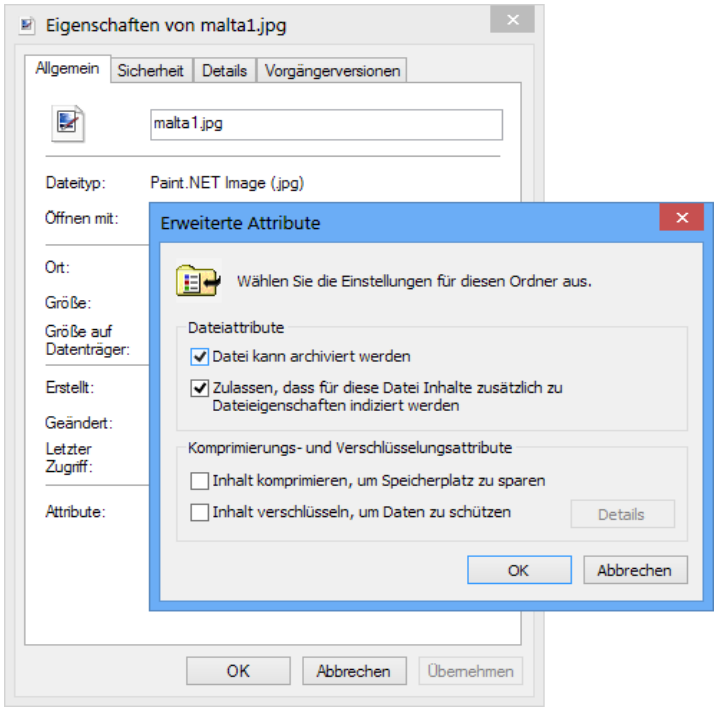
Activate this option to apply UNC notation to file names.

If the file is located on a network shared path, UNC notation is applied to the field type 'file name'.

If the file path is not shared, the local path is used containing the drive letter.

Archive Files with File Attribute 'Archive' only

Activate this option to archive files with 'Archive' or 'File is ready for archiving' (Windows XP) file attribute only.



Suppress File Extensions in File Names

Activate this option to suppress file extensions in file names. For example, the file name 'example.doc' is converted into 'example'.

Suppress Recursive Archiving

Activate this option to suppress recursive archiving. Thus, files will be migrated without directory structure into the enaio® system.

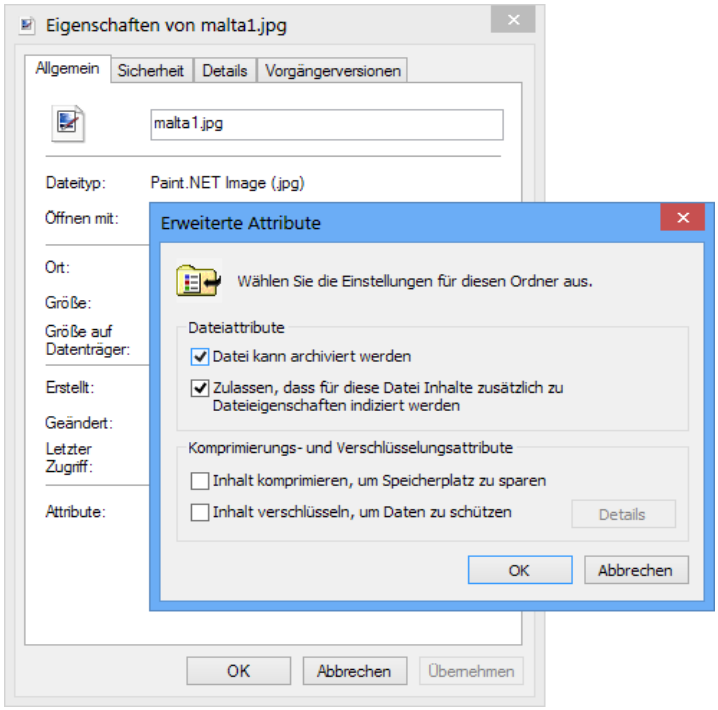
Although you have activated this option, all files will recursively be determined in a directory structure.

Setting the 'Archivable' Flag automatically

Activate this option to automatically set the 'Approved for archiving' attribute to all documents imported into the enaio® system.

Remove the Attribute 'Archive' for Imported Files

Activate this option to automatically remove the 'Archive' and 'File is ready for archiving'' (Windows XP) file system information of all files imported through enaio® file-system-archiver.



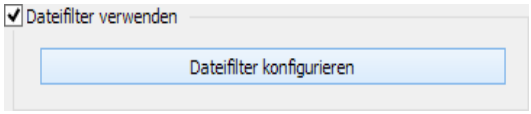
Validate Catalog Fields server-sided

Activate this option to validate field values corresponding to catalog values of fields with deposited catalogs. This validation is server-sided. A failed validation will be noted in a problem summary at the end of an archiving process.

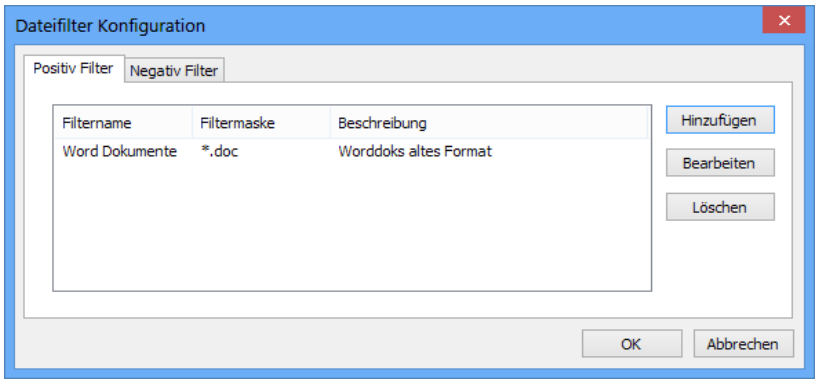
Using File Filters

Activate this option to define file filters. Only files matching the defined criteria will be archived.

Click the **Configure file filter** button to define file filters.

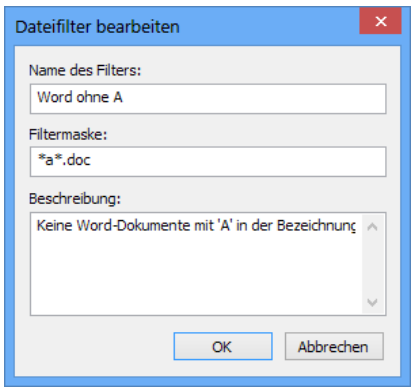


Use the **Configure file filter** dialog to define positive and negative filters:



Click the **Add** button to define a file filter. Select a list entry and click the **Edit** button to modify a file filter.

In both cases the **Edit file filter** dialog will open:



Enter the file filter name in the **Filter name** field.

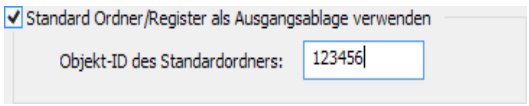
The **Filter mask** text box allows you to specify files to be archived or files explicitly excluded from the archiving process. An asterisk (‘*’) can be used as a wildcard for any string of characters and a question mark (‘?’) can be used as a wildcard for any single character. If you, for example, define *a*.doc as a filter mask in the **Negative filter** tab, word documents containing an 'a' in their names will not be archived.

The **Description** text box allows you to briefly describe the filter mask.

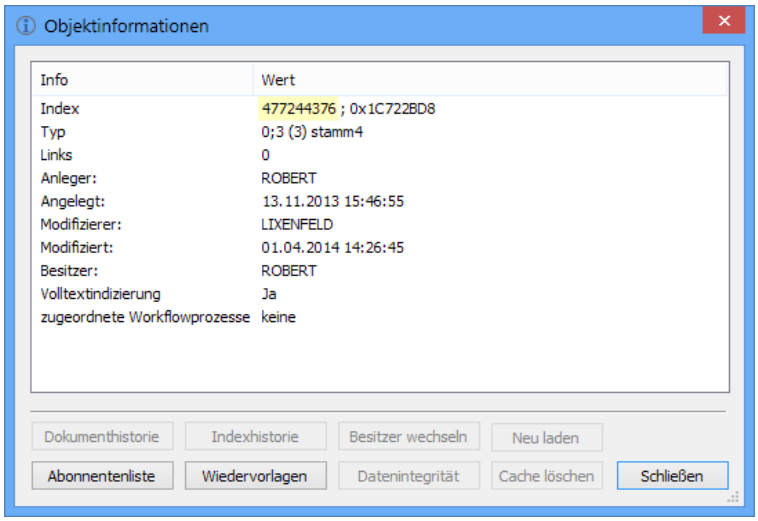
If you either create filter masks for positive and negative filters they will be linked with logical AND.

Using Default Folder as Initial Filing Location

Activate this option to use an existing folder or register as default filing location. All archived directories and files thus use this folder or register as a root. A new folder will not be created for every archiving process. When using a register as initial filing location, the register type must be a cabinet subtype (see page 10).



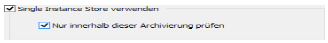
Use the object ID, which you will find in the **Object information** entry of the enaio® client context menu, to specify a folder or a register:



Using Single Instance Store

Activate this option to check during archiving whether files to be migrated into enaio® already exist in the system. If so, these files will not be added again but a reference to already existing files will be created in the enaio® system.

Additionally activate the CHECK DURING THIS ARCHIVING PROCEDURE ONLY option to check whether files were already added during the current archiving process.



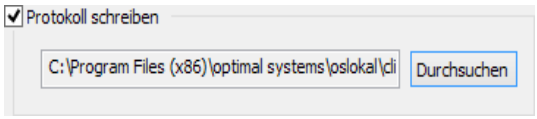
This file check is performed at binary level.

Archiving Procedure

Activate the SHOW FILE SUMMARY BEFORE ARCHIVING option to display a detail summary report before the archiving process starts. A summary is not displayed by default.

Write Log

It is possible to save a summarized enaio® file-system-archiver archiving process in a log. To do so, activate the **Write log** option in the setup dialog and use the **Browse** button to enter the path under which the log is to be saved.



Check if the specified path is available with the TEST button. If the path is not available, the archiving process will not be started.

Log files are created in a defined directory using the following file name syntax:

```
fsa-report-<DATE>-<TIME>.rep
```

These log files have text format and can be viewed with any text editor. Consult the logs to find out import errors which may have occurred, the number of import errors, the names of processed file system elements, and the configuration names amongst other things.

An excerpt of such a log is presented in the following:

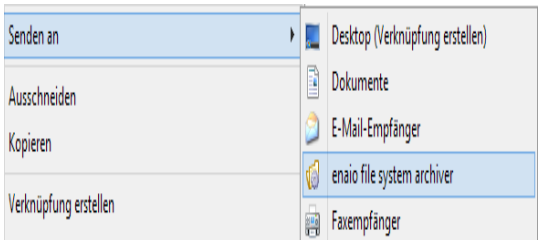
```
FSA log file
-------------------
Directory: C:\Users\Administrator\Desktop\Doku\
File:       C:\Users\Administrator\Desktop\Doku\OSR3 Deployment Guide.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS[CAD] Handbuch.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS[MOSS] Handbuch.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS[RepositoryManagerDocConnect].pdf
File:       C:\Users\Administrator\Desktop\Doku\OS[WinApp].pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_Administrator.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_Administrator_eng.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_AVS.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_Capture.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_Capture_eng.pdf
File:       C:\Users\Administrator\Desktop\Doku\OS_Capture_fra.pdf

Start time: 09/16/09 14:21:39
Time of archiving: 09/16/09 14:22:34

Configuration name: Default configuration

Logged-in OS user: F
Positive file filter:
```

```
Negative file filter:

Source directories:
* C:\Users\Administrator\Desktop\Doku

Total number of files and directories (not filtered):
- Directories: 3
- Files: 149

Total number of files and directories (filtered):
- Directories: 3
- Files: 149

Edited number of files and directories:
- Directories: 3
- Files: 149

Errors occured:
Number: 2

[08-59-33] C:\ArchiveFile.jpg:
    * Rootarchivierung fehlgeschlagen.
   - The file system element could not be integrated into the enaio® system.AxCdl: The >Kunden-ID<
field is a required field but has not been filled in
[08-59-36] C:\ ArchiveFile.jpg:
   - The file system element could not be integrated into the enaio® system.AxCdl: The >Typ< field
is a required field but has not been filled in
```

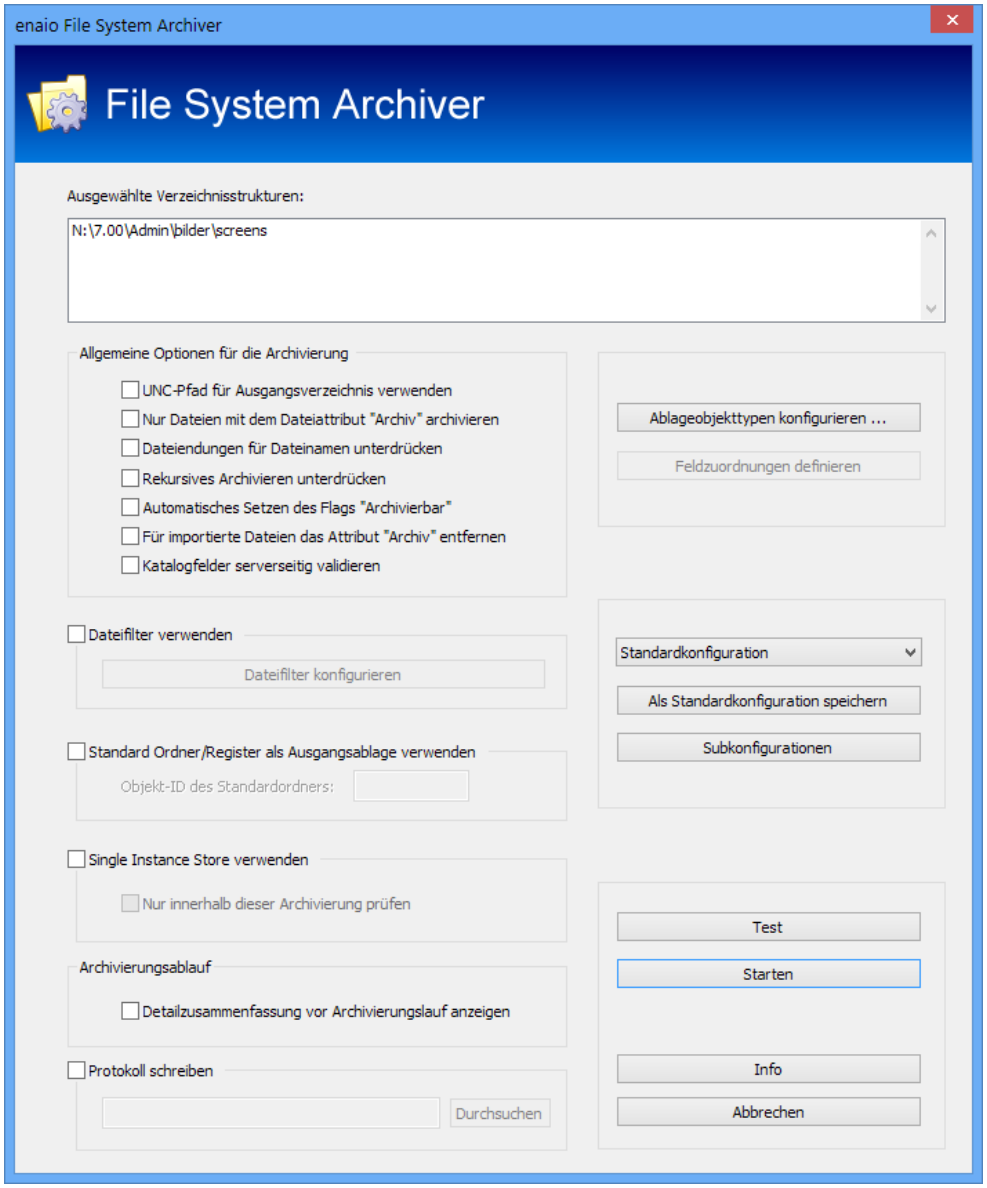
Archiving Process

Start the archiving process by selecting a directory or a file to be archived in the Windows explorer. The entire structure of a specified directory will be archived as registers by default. Use the SUPPRESS RECURSIVE ARCHIVING option to not depict the directory structure that way (see page 17).

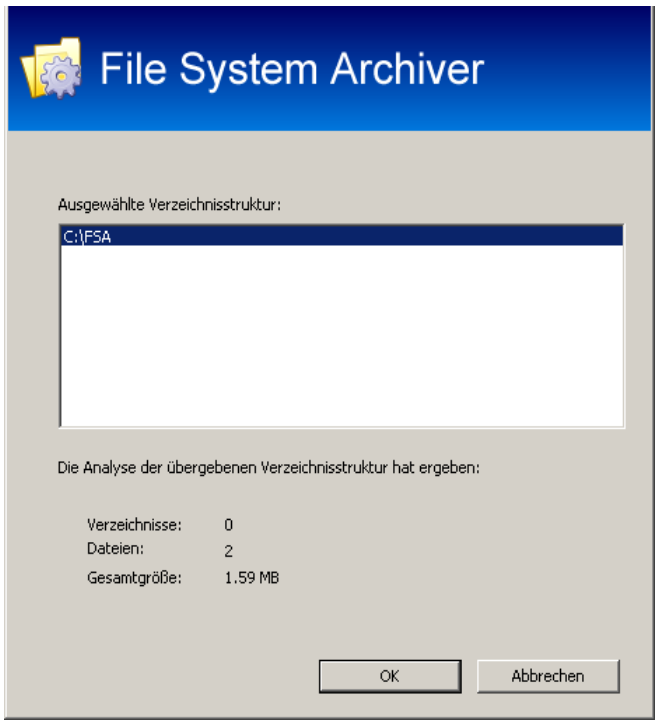
Open the context menu, select **Send To** first and then the enaio® file-system-archiver entry.



Log on to enaio® system and configure enaio® file-system-archiver. Then click the **Start** button.

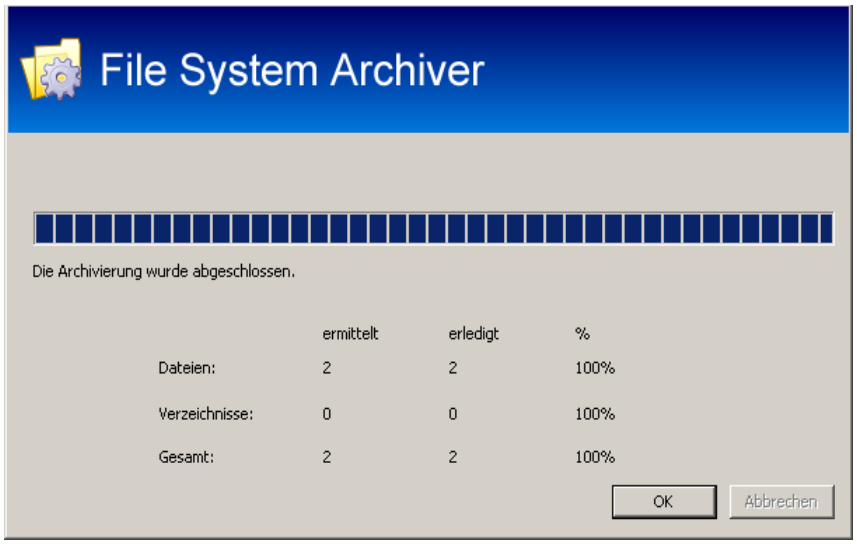


The file system will be analyzed. Afterwards, a detail summary report will be displayed if you have activated the **Show file summary before archiving** option.



Click the OK button to start the archiving process. The progress bar visualizes the archiving progress.

Click the OK button after the archiving process finished to close the dialog.



Appendix

Available File System Information

File information	Description
Number of paragraphs	Displays the number of paragraphs in a Microsoft Office document.
Current system time	Determines the current system time.
Provider (media file)	For selected media files only.
Annotations	Displays annotations of a Microsoft Office file.
Author	Displays the author of the advanced file information.
Owner (media file)	For selected media files only.
Subject	Displays the subject of a Microsoft Office file.
Number of bytes	Displays the file size of a Microsoft Office file in bytes.
Copyright (media file)	For selected media files only.
File extension	Displays the file extension.
File size	Displays the file size.
File name	Displays the file name.
Date of file creation	Displays the file attribute of the file's creation date.
Document security (file info)	For selected media files only.
Document parts	Displays the number of document parts of a Microsoft Office file.
Print format	Displays the print format of a Microsoft Office file.
Editor (media file)	For selected media files only.
Embedded multimedia clips	Displays whether multimedia clips are in a Microsoft Office file.
Creation date (file info)	For selected media files only.
Company	Displays the company of a Microsoft Office file.
Slides	Displays the number of slides in a Microsoft Office PowerPoint file.
Category	Displays the category of a file according to the advanced file information.
Comments	Displays comments of a file according to the advanced file information.
Last changed (file info)	Displays the date of the last change of a Microsoft Office file according to the advanced file information.
Last file change	Displays the date of the last change of the file according to the file attribute.
Last author	Displays the last author of a Microsoft Office file.
Last file access	Displays the date of the last file access according to the file attribute.
Current links	Not documented (Microsoft Office).
Manager	Displays the manager of a Microsoft Office file.

File information	Description
Production (media file)	For selected media files only.
Project (media file)	For selected media files only.
Source (media file)	For selected media files only.
Rating (media file)	For selected media files only.
Revision number	Displays the revision number of a Microsoft Office file.
Write protection file attribute	Displays whether write protection is enabled according to the file attribute.
Number of pages	Displays the number of pages in a Microsoft Office file.
Sequence number (media file)	For selected media files only.
Scaled selections	Displays whether scaled selections exist for a Microsoft Office file.
Status (media file)	For selected media files only.
Keywords	Displays keywords of a file according to the advanced file information.
System file attribute	Displays whether it is a system file according to the file attributes.
Title	Displays the title according to the advanced file attributes.
Headings pairs	Displays how many headings pairs exist in a Microsoft Office file.
Hidden file attribute	Displays whether it is a hidden file according to the file attribute.
Hidden slides	Displays how many hidden slides are in a Microsoft Office PowerPoint file.
Directory name	Displays the directory in which the file is located. Both the absolute and the relative path can be specified.
Template	Displays the template which was used for a Microsoft Office file.
Preview	Displays whether a preview for a Microsoft Office file exists.
Word count	Displays the number of words in a Microsoft Office file.
Number of characters	Displays how many characters are in a Microsoft Office file.
Number of lines	Displays the number of lines in a Microsoft Office file.
Corresponding application	Displays the corresponding application of a Microsoft Office file.
Last printed	Displays the last print date of a Microsoft Office document.
Last saved	Displays the last saved time of a Microsoft Office file.