n2pdf Server Task / Archive Developer manual

n2pdf ...PDF your Notes

Version 7.0

n2pdf Archive Online-Hilfe

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1 n2pdf Archive Online Help

![n2pdf notes2pdf ...PDF your Notes.]

Version 7.0

This online Help is designed to help readers familiarize themselves with the basic technical aspects behind n2pdf Archive and how to use it.

The first section, called "Technical Details," is intended for Notes administrators and shows how to set up n2pdf Archive and the corresponding databases. The "Job Documents" section goes over conversion jobs. This section is intended for both administrators and users.

For
... additional information and product updates, please visit the n2pdf website.
... assistance with integration please contact n2pdf Support.

To get help on a specific subject or issue, use the "Search" command in the "Help" menu.

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Date: 23.11.2020

2 Introduction

n2pdf Archive is an application that can be used to index and convert entire Notes databases to PDF format, as well as to view the resulting documents. The application uses n2pdf and webPDF to convert Notes documents, e-mails, and entire Notes databases (including in-house developments, third-party applications, and Domino templates) to PDF format (PDF documents) in an automated manner for archiving purposes. Moreover, this conversion process can be run at will or at scheduled intervals.

n2pdf Archive stores generated PDF documents using the file system and structure elements such as directory structures, configurable file name syntaxes, the option to store documents as individual PDF documents or as "PDF document compilations" (e.g., "all the documents in a job in a single PDF document"), etc. In addition, it maintains all the Notes structures in the corresponding documents and/or databases (e.g., document linking between documents if both documents are found in the PDF) if possible.

The entire process is defined, controlled, and run using job documents (or jobs for short). These job documents are created and managed in a central database using Notes, and the application uses them as a basis for running all conversion and archiving processes.

A connection to webPDF enables the program to also use functions such as forcing document compliance with the PDF/A format (PDF/A-1 to PDF/A-3) and adding digital signatures or certificates (for protection against tampering) during the conversion process. This, in turn, ensures that the conversion process can provide PDF documents that can be used for legally compliant long-term archiving purposes.

In addition, n2pdf Archive is also designed to handle file attachments. In fact, these attachments can either be provided as a converted PDF document or embedded in their original format if they cannot be converted (e.g., for non-supported formats). One of the ultimate goals within this context is to ensure that the attachments in the target PDF can be used much the same way they would be used in Notes (e.g., double-clicking on them in order to open them, detaching them and saving them on a hard drive, etc.).

The program ensures that the entire conversion process is logged in the job document, making it possible to check the quality of converted documents. Moreover, a variety of information (e.g., number of documents generated, runtimes) is logged as well in order to make it possible to calculate the costs involved in running a job.

The application itself can be run as a stand-alone program (Client mode) or loaded as a "plug-in" (Server mode) in a Domino server.

The conversions are performed by individual "converter instances" (threads). This means that several jobs can be executed at once. Thus the application can be adapted to existing hardware (e.g. number of processors).

n2pdf Archive is licensed as an independent application.

The n2pdf website or n2pdf Support are available for further information.

2.1 Licensing

How does n2pdf Archive licensing work?

n2pdf Archive is made up of several modules.

- n2pdf Archive
- webPDF Business Edition
- n2pdf Archive Search & View (optional search and display program)
- n2pdf Archive Merger

A separate license for each program module needs to be purchased for each user or server (as applicable). Please note that webPDF Business Edition is used to convert file attachments, among other functions. You will get a separate registration key for each product module; however, the text below will simply refer to the modules as "n2pdf Archive" in general. The licensing type will depend on the environment in which the application will be used (on the Domino server or on a Notes client). Also, please note that you can optionally increase the number of processing instances for n2pdf Archive and webPDF Business Edition (the standard license allows for two instances of each to be running simultaneously) if necessary.

In addition to being available for purchase, n2pdf Archive is also available as leased software for servers. For more information on leasing n2pdf Archive (in-house SaaS), please visit www.n2pdf.de

There are two licensing environments available:

(1) Licensing as a Domino Server task (Server Mode)
This type of licensing always uses "per-server licensing." When this type is used, n2pdf Archive will be loaded as a server task on the Domino server (Server mode). The registration key will be based on the canonical name of the Domino server and can be

used as a single license for that server (see license agreement in the program group). When using this type of licensing, the number of users that can be connected to the Domino server and the number of databases, applications, and job documents that can be processed in Server mode are not limited by the license.

(2) Licensing as a client task (Client Mode)

When using a license for using the server task on a Notes client (Client mode), the corresponding licensing type is referred to as "per-computer licensing." In this case, n2pdf Archive will run as a stand-alone program on a computer that has the Notes client installed. The registration key will be based on the canonical name of the user ID being used with the installed client. When using this type of licensing, the number of databases, applications, and job documents that can be processed are not limited by the license when working with n2pdf Archive in Client mode.

You can purchase a subscription when you purchase the product (update or full version).
For a complete description of our subscription service, please refer to our "SVD Subscription Regulations."

If you have any questions or want more information on our licensing, please contact us by sending an e-mail to sales@n2pdf.de or calling +49 661 25100-0.

2.2 Notes name

Licenses for n2pdf Archive (Server or Client mode) are always tied to a Notes name (server name or username). In order for a license to be issued (for a registration key to be issued), the relevant Notes server name (for Server mode) or Notes username (for Client mode) will be required. The names must be provided in canonical format (with the CN, OU, O, and C identifiers).

Examples:
CN=Joe Bloggs/O=Company/C=DE
CN=Mail Server/O=Company/C=DE

Find Notes name?

The "n2pdf-Registrierung (n2pdfReg.Exe)" program, which you can find in the program group after installation, will show the name (username or server name) on the main window. Use the button to the left of the name in order to copy it and, for example, paste it in an e-mail.

2.3 Registration Key

In order to install (or unlock) the program, you will need a registration key (regardless of whether you are using the demo or full version). When you purchase a full version copy, you will get this registration key in the form of a license certificate.

During installation, you will need to enter your Notes name and the registration key when required to do so by the installation program. The registration key will be stored in the configuration file.

Registration key components

The key is made up of a total of 22 characters and is structured as follows:

Example: NA - 70 - 01234567890ABCEF

NA	Product identification
-	Separator
70	Version number
-	Separator
01234567890ABCEF	Registration information

Please always make sure to enter the key correctly. The key is not case-sensitive.

2.4 Full version

When purchasing a full version you must decide on a type of licensing. A full version is always tied to a Notes name.

When purchasing a full version you receive a license certificate with the license details and the registration key. The registration key lets you unlock an installed version without re-installing.

Order full version

Send an email to sales@softvision.de with the subject line "n2pdf – Order", or use the PDF order form. An email order must contain at least the following information:

- Number of licenses
- If you are updating to the new version, the serial number or registration key for the version you have been using to date
- The relevant Notes username or server name (depending on the type of licensing) in canonical format (with identifiers CN, OU, O, and C)
- The complete address for a contact person, including their name and e-mail address

2.5 Demo version

A demo license is available for n2pdf Archive. This demo license can run for 30 days.

A registration key is also needed for the demo license. You will find it on the download page when downloading the product, or in the document content when receiving it by email.

There are no functional restrictions in the demo version compared to the full version. There is a watermark in the created PDF files. This watermark is not present in the full version.

A demo version is not restricted to the Notes name and can thus be used on the Notes client or the Domino Server.

Unlock demo version

Once you have bought a full version, you can use the "n2pdf product registration" program (you will find the icon in the program group) to unlock the demo version. There is no need to re-install it.

2.6   Prices

To obtain the current price list for n2pdf Archive, please visit www.n2pdf.de.

2.7   Website

Our website provides additional documentation, updates, and the latest information on the product. The address is: www.n2pdf.de

2.8   Support

Support will provide assistance with solving any problems that occur when using the application.

SoftVision Support provides reactive support for all products and offers three support levels:

Bronze: Product support provided if you purchase a software license (no prerequisites). The costs for support will be billed by the hour.

Silver: Product support provided if you purchase a software license and obtain a support subscription for all products at the same time. This level of support includes free hours and more comprehensive support services. Any support hours exceeding the allotment of free hours will be billed on a time and material basis.

Gold: Product support provided if you purchase a software license and obtain a support subscription for all products at the same time. This level of support includes free hours, more comprehensive support services, and an additional amount of minimum hours. Moreover, support hours can also be used for on-site services or for developments (developer support).

During the evaluation phase for our software products, we will provide silver-level support free of charge. In addition, we will continue to provide introductory silver-level support for 30 days

starting on the date of purchase. After this period elapses, bronze-level support terms will start applying unless you obtain a support subscription within this period or beforehand.

You can contact Support in any of the following ways:

By phone at:	+49 661 25100-0
By fax at:	+49 661 25100-25
By e-mail at:	support@softvsion.de
Through our website at:	www.n2pdf.de

2.9   Icons and Labels

This developer manual has been designed to make your work as easy as possible, which is why it features clearly labeled and/or marked elements throughout. These highlighted aids, as well as their purpose, are as follows:

Caution!

Used to warn of potential usage errors and indicates what you need to do in order to avoid them.

Help in the event of a problem

Used to describe potential problems and how to solve them.

Note

Used to provide important information, as well as the steps that you should take and how to do so if applicable.

Tip

Used to provide alternative ways to do things and additional information.

2.10 Copyright and Trademark Information

n2pdf is a registered trademark of SoftVision Development GmbH, Fulda, Germany.

n2pdf is a product of SoftVision Development GmbH, Fulda, Germany.

wPDF and WPTools are products of the wpCubed GmbH, Munich, Germany.

Lotus, Lotus Notes, LotusScript and Domino are registered trademarks of the IBM Corporation.

Windows NT, Windows 2000, Windows XP, Windows 2003, Windows Vista, Windows 7, Windows 2008, Windows 98, Windows 95, Windows ME, Microsoft Excel, Microsoft Word, Microsoft PowerPoint and Microsoft Office are registered trademarks of the Microsoft Corporation.

Adobe and Acrobat are registered trademarks of the Adobe Systems Incorporated.

StarOffice, OpenOffice, and Java are registered trademarks of Oracle Corporation.

7-Zip is used to process archives. 7-Zip is licensed under the GNU General Public License. For the latest 7-Zip version and source code, please visit www.7-zip.org.

Parts of the image import function were implemented using the Vampyre Imaging Library. This library was published under the Mozilla Public License (MPL) and the use of this library is governed strictly by the regulations of the MPL V 1.1. Additional information about the MPL can be found on the MPL website.

TIFF support was implemented using the LibTIFF library. This library is available for free. For more information, please visit http://www.libtiff.org/misc.html.

Parts of the web service connection were implemented using the [Synapse](#) library (copyrighted by Lukas Gebauer). Synapse is a free and open-source software library available under a modified "[BSD-style license](#)."

3   Technical Details

This section of the documentation goes over the technical aspects behind n2pdf Archive. It includes information on [how it works](#) and on [operation modes](#). In addition, it also provides information on [installation](#), on the [operating systems](#) that are supported, and on [configuration](#). Finally, it provides information on [constants](#) and on how to work with [attachments](#).

3.1   Functional description

n2pdf Archive works with two databases. These two databases are stored in the data directory during an installation, in the form of Notes design templates ("n2pdfInbox.ntf" and "n2pdfJobs.ntf"). The first time you run n2pdf Archive, these two templates will be used in order to generate the corresponding databases (.nsf).

n2pdf Archive needs these two databases in order to be able to generate PDF files.

3.1.1   n2pdf Inbox
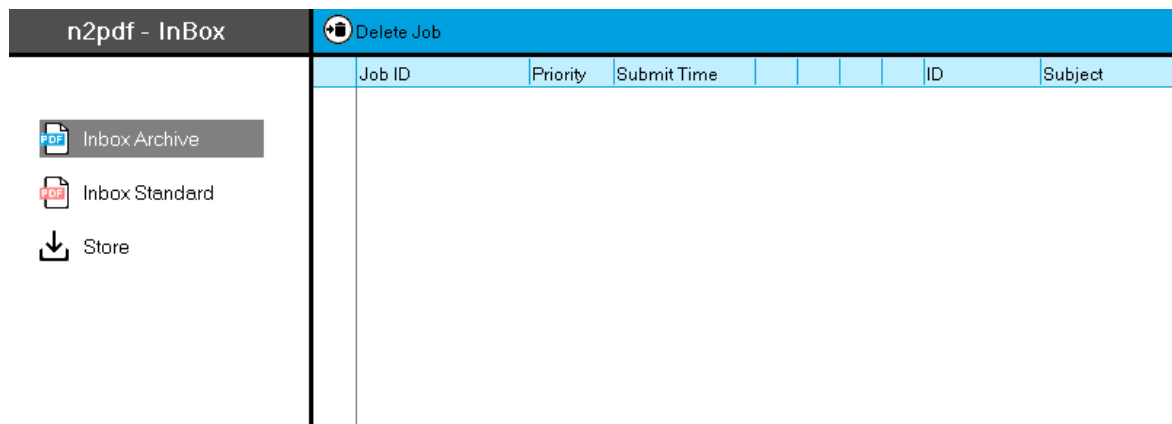
Much like the Domino mail router, n2pdf works the way inboxes work. It constantly monitors the database "n2pdfInbox.nsf". Whenever a job appears in this database, n2pdf Archive takes the job and uses it to generate the corresponding PDF file(s). The job documents are normal Notes documents, which have a particular structure. These documents contain all the information that n2pdf Archive needs in order to generate the PDF file. The information is stored in the job documents using fields with set

names. Each of these fields begins with the prefix "$N2PDF" and is therefore easily distinguished from other Notes fields. It makes no difference to the Server Task whether the job document is a scheduled or a one-off job. It will take every single job document that appears and process it as specified by the settings in the document. A document can reach this database in various ways:

- via the database "n2pdfJobs.nsf" (one-off or scheduled job)
- by defining the database as a mail-in database (Notes address book)
- through agents/scripts in other databases which create documents directly in this database

3.1.2 n2pdf Jobs
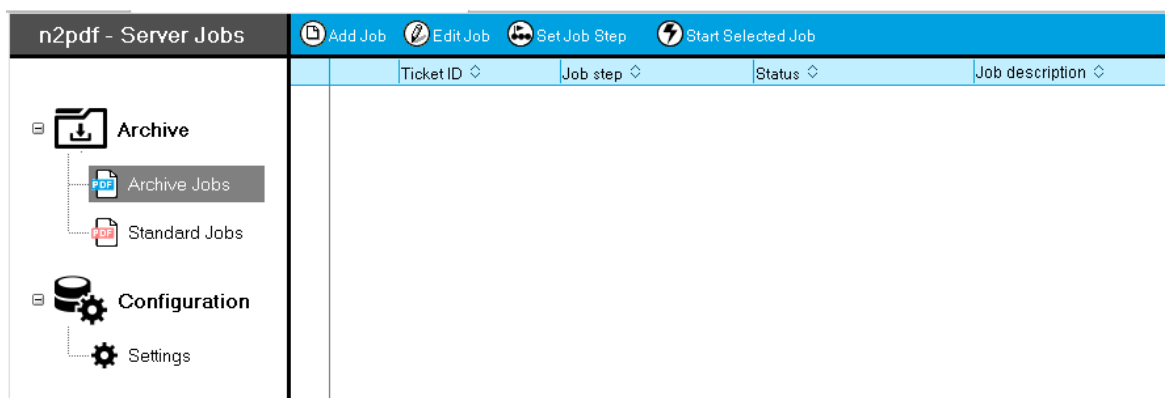
n2pdf Archive uses this database for two purposes. On the one hand, the jobs that have to be executed periodically are stored in this database: the Server Task monitors this database, and starts jobs when their time interval dictates that they have to be run. On the other hand, the database offers the option of defining one-off jobs and starting them. When a job is started (regardless of whether it is a scheduled or one-time job), the job document is always copied from this database to the inbox database. In fact, n2pdf Archive will not start processing the job until it is in the inbox database.

3.1.3 Archive and Standard Jobs

n2pdf Archive version 5.0.1 and higher supports two types of jobs: [PDF icon] standard jobs and [PDF icon] archive jobs
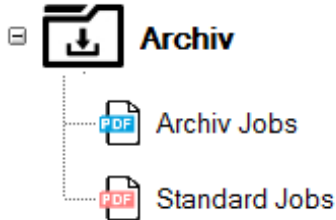
Standard jobs are intended primarily for "ad-hoc reporting," analyses, and for simple default view conversions. Meanwhile, archive jobs can be used for a variety of purposes, going from reproducing entire Notes databases, through full-text indexing, to automatically providing converted data.

	Standard jobs	Archive jobs
Task	Conversion only	Varies depending on the process step selected: conversion, indexing, packaging, etc.
Inbox jobs	A single inbox job is created for each job. Inbox jobs can also be created directly in the inbox database	A large package of multiple inbox jobs grouped together. These jobs belong together and, after being converted, will form a directory structure for the converted views or databases.

3.1.4 Creating Inbox Jobs Directly

The inbox and jobs databases contain (sub)forms with Notes fields that have the following prefix: $N2PDF. These fields will be "recognized" by the server task and interpreted according to the corresponding information.

The "n2pdfJobs.nsf" database provides the easiest way (for users, for example) to create jobs for the server task. However, you can also create standard jobs directly in "n2pdfInbox.nsf." To do this, generate a document there using exactly the same field names as in this database. This way, you can design how jobs will be generated from your own database, for example.

3.1.5 Archive Jobs

Manual process steps can be used to run the various functions for an archive job. These steps are a property of the job document, and one of their main characteristics is that each step provides the user with various options specific to it.

There is no technical difference between standard jobs and the "Add Job" (1), "Edit Job" (2), and "Start Selected Job" (4) actions.

The aspect that makes archive jobs unique is the fact that they have configurable process steps (3). These steps have a modular configuration and can be modified as required for your own internal workflows if necessary.

3.1.5.1 Process Steps

The entire archiving process involves several steps. These steps are used to change the status of the actual job document. In addition, each step makes it possible to run explicit functions specific to it.

Configuration

After you create a job, it will automatically be set to the "**Configuration**" status and the corresponding process step will be activated. This step is used to define the basic settings for the job. For a detailed description of the available settings, please refer to the Job Document section. The next steps for the job document will generate the actual corresponding directory structure in the file system. This structure will be used to store explicit data based on the process steps that are run.

Data Verification

You can use the "**Data Verification**" step to run any formulas (the return value must be Boolean) you want from the Lotus Notes Formula language in order to check all the documents that you will be converting. For example, you can use the "$Seal=Null" formula to check whether the data includes any encrypted documents.

Process step options

Data verification formula: $Seal = NULL
(Notes formula)

Test Run

You can use the "**Test Run**" step to limit the number of documents that should be converted per view. You can run this step as many times as you want. Its purpose is to enable you to run a preliminary check of the configuration settings you chose without having to convert the entire database first.

The converted test data for each test run will be found in the "Test" folder in the archive structure.

Process step options

Maximum documents for 100
a test run:

Conversion

The "**Conversion**" step is when the Notes documents and attachments are actually converted to PDF format. More specifically, n2pdf Archive and webPDF are used to convert the documents based on the settings configured in the job document.

The corresponding data will be found in the "Output" folder in the archive structure.

Indexing

The "**Indexing**" step generates a full text index for all the converted documents. The purpose of this index is to make it possible to quickly find information when there is a large amount of data to search through. The optional "n2pdf Archive Search & View" display program will take over the display.

Packaging

In order to make the generated data more manageable, the structures are zipped into ZIP format during the "**Packaging**" step. The generated archive is then stored in the "Archive" folder. In addition to the data, this ZIP archive will contain the index generated during the "Indexing" step and, if there is a license for it, the display program as well.

Copying

The "**Copying**" step provides the zipped file using the method defined in the job document settings. This method can either consist of a download link that can be used to retrieve the file (requires the HTTP service on the Domino server) or of moving the archive to a target directory.

Process step options	
Path and file name for archive package:	C:\pdf archive\sample.zip

Cleanup

The "**Cleanup**" step is used to clean up the work directories, i.e., the generated directory structures, the PDF documents they contain, all test run data, and the generated archives are all deleted in this step. If the corresponding Notes databases were made available with replicas or copies, these replicas / copies will be deleted in this step as well.

3.1.5.2 Cancelling and Resuming

Add Job	Stop Selected Job	
	Ticket ID ◇	Job step ◇

Process steps – especially document conversion – can be cancelled. In order to enable users to do this, a cancel trigger ("**Stop selected job**" button) to which the running application will respond is set in the job document. When this trigger is used, the step will be cancelled in a controlled manner so that it can be resumed later on. This means that there might be a delay between the moment the cancel trigger is activated and the moment the application stops the job in order to enable the application to terminate individual operations properly so that they can be resumed later on if necessary.

Steps can also be cancelled as a response to an external condition, such as the Domino server being shut down. This will cancel the application's current process step. In both cases, it will be possible to continue / resume the job starting from the cancelled step.

In addition, users can instead choose to restart the entire "Conversion" process step if, after a system crash, for example, the current step state cannot be restored or the existing output data cannot be considered reliable (after it is verified following resumption).

In order to make it possible to resume conversion processes, the application maintains an XML log listing all of the conversion process' processing steps. This log is saved in the "xml" folder (see "Directory Structure"), and is used to monitor the conversion process' state and every single generated PDF file. When a job is resumed, the log is used for checking purposes: If a file in the log no longer exists, or if the file is damaged (CRC), the file will be generated again. If, on the other hand, the log file no longer exists or is damaged, the conversion process will be restarted.

3.1.5.3 Monitoring Documents

n2pdf Archive comes with the option of monitoring data if a job is run repeatedly. This applies to jobs that are scheduled, as well as to jobs that are manually run more than once.

If the data in the selected views has changed since the last time the job was run, n2pdf Archive will respond as follows:

- New documents: will be converted and added to the project
- Modified documents: will be converted again
- Deleted documents: will remain part of the project (PDF documents will not be deleted)

3.1.5.4 Log Documents

n2pdf Archive will generate a separate log document (under the relevant job document) for each process step that has been carried out.

These log documents contain information (messages, warnings, errors, etc.) regarding the corresponding process step. More specifically, they hold information regarding runtimes, file sizes, and, if one or more errors occur, regarding the errors (including a description of the corresponding cause).

n2pdf Archive Log

Inbox

Customer Ticket ID:	MMUN-9P2J64
Step:	Conversion(100 %)
Last message:	[17.09.2014 15:48:26] conversion is completed
Runtime:	00:00:04

Statistic

Initial number of PDF files:	
Initial total size of PDF files:	0,00 MByte
Number of PDF files:	13
Total size of PDF files:	1,64 MByte

Log

[17.09.2014 15:48:22] Ticket Processing
[17.09.2014 15:48:22] Working directory: C:\pdf\archive\MMUN-9P2J64\
[17.09.2014 15:48:22] Loading 'C:\pdf\archive\MMUN-9P2J64\xml\convert.xml'
[17.09.2014 15:48:22] Analyes job documents in the InBoxDB
[17.09.2014 15:48:22] Current Ticket include 13 jobs
[17.09.2014 15:48:22] 1 folders created
[17.09.2014 15:48:22] 13 new job document for the conversion in the InBox created
[17.09.2014 15:48:22] 'C:\pdf\archive\MMUN-9P2J64\xml\convert.xml' are saved
[17.09.2014 15:48:22] Starting conversion
[17.09.2014 15:48:26] Closing check started: PDF files and job documents
[17.09.2014 15:48:26] 13 PDF files found in the project folder (1716692 bytes)
[17.09.2014 15:48:26] 13 new PDF files created in the project folder (1716692 Bytes)
[17.09.2014 15:48:26] 'C:\pdf\archive\MMUN-9P2J64\xml\convert.xml' are saved
[17.09.2014 15:48:26] conversion is completed

3.1.5.5 Directory Structure

An archive job always has a set directory structure generated on the basis of a base folder and the corresponding job folder.
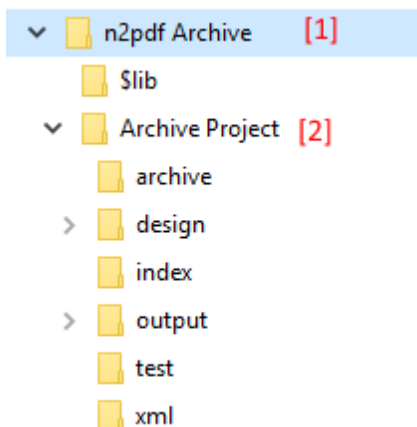
The default **base folder** **[1]** is set during installation. It can be overwritten in the "Archive" tab when configuring a job document ("Base folder" field).

The base folder must exist already, as the application will not be able to generate it.

The **job folder** **[2]** is defined when configuring the job (<u>"Archive" tab</u>, "Job folder" field) and will be generated by the application.

The following subfolders will be generated under the job folder:

- "archive": used to store the ZIP archive file with the packed structure from "output."
- "design": used by the <u>Search and Indexer tool</u> to display the design elements of the views
- "index": used by the <u>Search and Indexer tool</u> to generate index files
- "output": the repository structure with generated PDF documents based on the selected data and <u>operation mode</u>.
- "test": the test run's documents. A subfolder will be generated for each test run.
- "xml": used by the application in order to store its internal logging files. The information in this subfolder is used, for example, in order to make it possible to <u>resume</u> cancelled jobs.

3.2   Client or Server Mode

You can use n2pdf Archive in two modes:

- Client mode
- Server Mode

There is technically no difference between the two modes in terms of their performance or range of functionalities. However, the two modes allow you to adapt the use of n2pdf Archive to your infrastructure.

Client mode

In this mode you start n2pdf Archive as a stand-alone application directly from the program group. The application runs as an independent Windows application. In order to be able to run it, you will need to have the <u>Notes client</u> installed. n2pdf Archive will

be installed in the corresponding Notes directory and use the corresponding Notes connection (e.g., the Notes client's ID or the work environment that has been set up).

This operating mode is suitable for the following cases:

- Your Notes servers run on "non-windows" operating systems and/or you have no Windows server in use.
- You have high (service) requirements (continuous load) for the PDF creation and need the computing power / hardware exclusively for this (dedicated server for PDF creation).
- You also use the external conversion server "webPDF Server" and want to run both applications on the same machine (optimal performance).

Server Mode

In Server Mode n2pdf Archive is loaded as an "add-in" on the Domino Server ("load n2pdf"). It works as a server task on the Domino Server and also with its ID and settings. A Domino Server on a Windows operating system is required.

This operating mode is suitable for the following cases:

- You are using a Windows based Domino Server.
- You have free (hardware) resources on the server and/or only normal load (no continuous load) for the PDF creation.

3.3   Operating System and Notes Version

Operating system

n2pdf Archive is designed to run exclusively on Windows operating systems. When run in Server mode, it can be run on the following server operating systems: Windows 2003, Windows 2008 R2, Windows 2012 R2 – 32-bit or 64-bit. When run in Client mode, it can be run on Windows XP, Windows Vista, Windows 7, and Windows 8.

Notes version

When run in Server mode, n2pdf Archive can be used with version 7.0 or higher of the Domino Server (32-bit/ 64-bit). When run in Client mode, with Notes Client Version 7.0 or higher (32-bit only). Versions up to and including 9.0.x have been tested for both modes.

3.4 Installation

To install the software automatically, please run the n2pdf installation program. The n2pdf installation program lets you install the various product parts of n2pdf. This documentation describes the "n2pdf Archive" program module, which you can select in the dialog box shown below.
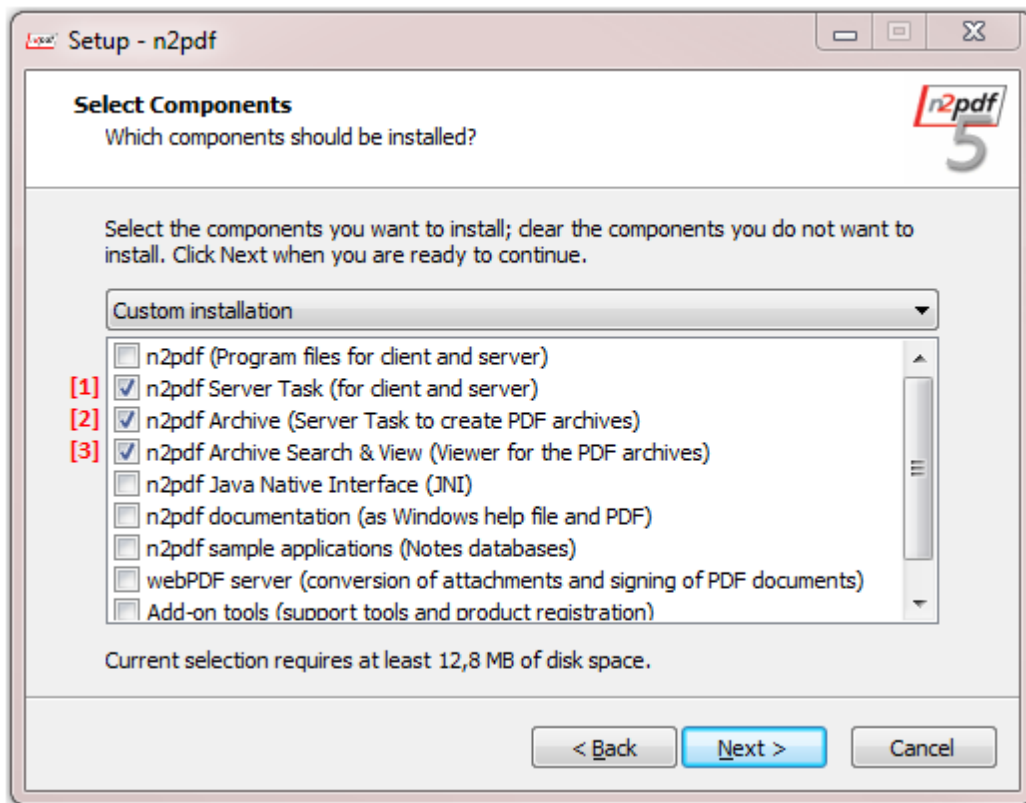
The installation program will configure and install the required files automatically.

The following are part of an n2pdf Archive installation:

1. Installing n2pdf Server Task Standard on the client or server.
2. Installing n2pdf Archive - the expanded version of Server Task.
3. Installing the Search & View tool - the tool for indexing, searching for, and viewing PDF contents.

When installing the components on the client (Client mode), all the required files will be stored in the Lotus Note client's directory. Within this context, it makes no difference whether you are using a local or shared installation.

When installing the components on the server (Server mode), all the required files will be stored in the Domino server's directory.

The Search & View tool will be installed in the n2pdf Archive directory.

For a detailed list of all the files (for manual installation purposes, for example), please refer to the "List of Files."

3.5   Configuration file

The general configuration of n2pdf Archive takes place in the "nn2pdf.ini" file. This file is created during installation in the Notes or Domino directory.

 Three sections can be present in this INI file:
- [RegKey]
- [Server]
- [ARCServer]

"[RegKey]" section
The license, i.e. the registration key, is stored in this section.

Key=
The registration key is stored in this entry.

"[Server]" section
All settings for the Server Task are stored in this section.

MaxThreads=
With this value you can set the max. number of converter instances used. Please note that the max. value for this setting is the max. value of the licensing. For example, if you have licensed five converter instances, this is the max. value for this setting. However, a lower value is possible.

LogLevel=
With this setting you decide the scope of the messages which appear on the console. Enter a value here between 0 and 3 (default: 2):

0 = no messages

1 = only error messages will be displayed

2 = error messages and short status messages (standard mode)

3 = detailed display of error and status messages

Interval=

This value specifies the time interval (default: 500 ms) at which the Server Task looks for new jobs. It is specified in milliseconds (minimum: 100 ms).

SchedulerInterval=

This value specifies the time interval (default: 2000 ms) at which the scheduler of the Server Task looks for scheduled jobs. It is specified in milliseconds (minimum: 1000 ms).

CompactInbox=

If this value is set to 1 (default), the "Inbox" of the Server Task is packed each night at 02:00. No conversion is possible during this time, because all converter instances are put on hold.

Language=

Set the language number for the message display:

7 = German

9 = English

The value from the operating system's settings will be used by default. The default language is English.

CommandLineMode=   (Client Mode only)

Set this value to 1 (default: 0) if you want the application to be closed automatically after all jobs have been processed. n2pdf Archive will open, process all currently pending jobs, and then close automatically.

WaitOnError=   (Client Mode only)

Set this value to 1 (default: 0), if the application should wait for a keystroke on completion. If an error occurred during the processing of jobs and the application comes to an end, the application waits for a keystroke. This enables you to read the error message. The use of this parameter is only meaningful in conjunction with *"CommandLineMode=1"*.

"[ARCServer]" section

Settings for the Archive Task are stored in this section.

Path=

The default directory for n2pdf Archive. This directory will contain the "n2pdf Archive Search & View" files and is where individual job directories will be generated by default.

3.6   Constants

Constants are a special type of variable, and are based on the same working principle. The difference is that they have permanent names and their content is automatically computed by n2pdf, which means it cannot be set from outside. Constants are inserted where placeholders are found in the PDF.

Example for a constant in a RichText field
Page [ACTPG] of [SUMPG]

> You cannot use any names for variables that are already assigned to constants.

The following constants can be used in the body field and in headers and footers:

[ACTPG]	Current page number	1
[SUMPG]	Number of pages	10
[DATETIME]	Current date and time	11/28/2003 16:21:40
[DATES]	Current date in short form	11/28/2003
[DATEL]	Current date in long form	Friday, 28 November 2003
[TIMES]	Current time in short form	16:21
[TIMEL]	Current time in long form	16:21:40
[DAYS]	Current day without preceding zero	5
[DAYL]	Current day with preceding zero	05
[DAYNAMES]	Current day name in short form	Fr
[DAYNAMEL]	Current day name in long form	Friday
[MONTHS]	Current month without preceding zero	5
[MONTHL]	Current month with preceding zero	05
[MONTHNAMES]	Current month name in short form	Nov
[MONTHNAMEL]	Current month name in long form	November
[YEARS]	Current two-digit year	03

[YEARL]	Current four-digit year	2003
[CWS]	Current calendar week without preceding zero	8
[CWL]	Current calendar week with preceding zero	08
[HOURS]	Current hour without leading zero	4
[HOURL]	Current hour with leading zero	04
[MINUTES]	Current minute without leading zero	6
[MINUTEL]	Current minute with leading zero	06
[SECONDS]	Current second without leading zero	9
[SECONDL]	Current second with leading zero	09
[CRLF]	Line break	
[NEWPG]	Page break	

Please keep in mind that some values for the constants depend on the system's regional settings, which means that in certain circumstances they may produce different results.

3.7 Attachments

n2pdf Archive can process attachments that are stored in the Notes documents. You have the option of embedding these attachments in the generated PDF file, converting the attachments themselves into PDF documents, or importing them as content. When you convert attachments, the server task will use webPDF Server for the conversion. The attachments in Notes documents may also be in packed format.

3.7.1 Embedding file attachments

n2pdf Archive can also transfer attachments from documents to be processed into the PDF file to be created. These attachments will be left in their original format and added to (embedded into) the PDF file as an attachment.

There are various available settings that can be used to define, for instance, whether the file will be embedded in its original position or whether it will be appended at the end of the PDF file. The way in which they will be shown, e.g., with the original program icon or with a PDF icon, can also be specified.

Please note that embedding will not be possible when PDF/A mode is activated due to the latter's specification.

3.7.2 Importing Attachments

n2pdf Archive features a series of small integrated import filters for image file formats. These filters can be used to read a variety of formats and import them into PDF format. The various file formats are processed "natively", i.e. the original application is not needed. The table below shows which formats are supported (these file formats can be added directly to the body of the PDF file).

For detailed information regarding the supported formats (versions), please refer to the "Supported Formats" document.

Please note that these import filters do not have the exact same capabilities as the corresponding original applications. Thus there may be variances in the display, in the import capabilities and/or the supported features of the file format in question. It is also possible for there to be certain features in the original file format that are not supported at all.

Format name	File extension
JPEG	*.JPG; *.JPEG
Portable Network Graphics images	*.PNG
TIFF images	*.TIF; *.TIFF
GFI fax images	*.FAX
Truevision images	*.TGA
ZSoft Paintbrush images	*.PCX
Kodak Photo CD images	*.PCD
CompuServe images	*.GIF
Standard Windows bitmap images	*.BMP
Photoshop images	*.PSD
PaintShop Pro images	*.PSP
Enhanced Windows Metafiles	*.EMF; *.WMF

If possible, files should not be encrypted, as it will not be possible to process or import them if they are.

3.7.2.1 Supported formats

Additional information regarding the supported file formats is provided below.

Please note that the import filters are "native filters," which means that they do not need the original application to work. As a result, the way the PDF file looks may vary from the original document and certain information may be missing.

JPEG (*.jpg; *.jpeg)

Byte orders: little-endian, big-endian

Sample sizes: 8 bits per sample

Color spaces: grayscale, RGB

Compression formats: baseline (standard), baseline optimized (progressive)

Portable Network Graphics images (*.png)

Byte order: big-endian

Sample sizes: 1, 2, 4, 8, 16 bits per sample

Color spaces: indexed, grayscale (alpha), RGB(A)

Compression format: LZ77

Special: supported chunks: IHDR, IDAT, IEND, PLTE, gAMA, tRNS, bKGD

Partial transparency support for RGB, which is stored in 32-bit format

TIFF images (*.tif; *.tiff)

Byte orders: little-endian, big-endian

Sample sizes: 1, 2, 4, 8, 16 bits per sample

Color spaces: indexed, grayscale, RGB(A), CMYK, L*a*b*

Compression formats: uncompressed, packed bits, LZW, CCITT T.4 (raw and modified fax group 3, possibly word aligned), ThunderScan, Deflate, new-style JPEG

GFI fax images (*.fax)

Sample size: 1 bit per sample

Color space: indexed

Compression format: CCITT T.4 (raw and modified fax group 3)

Truevision images (*.tga)

Byte order: little-endian

Sample sizes: 5, 8 bits per sample

Color spaces: grayscale, indexed, 15-bit RGB (555), 24-bit RGB(A)(888)

Compression formats: uncompressed, RLE

ZSoft Paintbrush images (*.pcx)

Byte order: little-endian

Sample sizes: 1, 2, 4, 8 bits per sample

Color spaces: grayscale, indexed, RGB

Compression formats: uncompressed, RLE

Kodak Photo CD images (*.pcd)

Byte order: little-endian

Sample size: 8 bits per sample

Color space: YCbCr

Compression: PCD Huffman

Special: sizes: all resolutions, from 192 x 128 up to 6144 x 4096 (Base64 vaporware)

Rotated: clockwise and counterclockwise

CompuServe images (*.gif)

Byte order: little-endian

Sample sizes: 1, 4, 8 bits per sample

Color space: indexed

Compression format: LZW

Special: interlaced, non-interlaced

Standard Windows bitmap images (*.bmp)

Byte order: little-endian

Sample sizes: 1, 4, 8 bits per sample

Color spaces: indexed, RGB(A)

Compression formats: uncompressed, RLE

Special: OS/2 bitmap format

Photoshop images (*.psd, *.pdd)

Byte order: big-endian

Sample sizes: 1, 8, 16 bits per sample

Color spaces: indexed, RGB, CMYK, CIE L*a*b*

Compression formats: uncompressed, packed bits

Special: duotone

PaintShop Pro images (*.psp)

Byte order: little-endian

Sample sizes: 1, 4, 8 bits per sample

Color spaces: indexed, grayscale, RGB

Compression formats: uncompressed, LZ77

Enhanced Windows Metafiles (*.emf; *.wmf)

Windows Metafile (WMF) and Enhanced Metafile (EMF) are the native file formats used by Microsoft Windows

Device-independent graphic exchange format

16-bit and 32-bit versions

3.7.3   Conversion of attachments

n2pdf Archive uses webPDF Server to convert attachments. It features an interface to this web service, which enables it to process a relatively large number of file formats "natively."

If you want to process a relatively large amount of attachments and work with many different file formats, it is recommended to use webPDF. The external converter is especially preferable for obtaining a more exact conversion of the file formats. In fact, the quality of the results obtained with it will be virtually identical to that provided by the original application(s).

> When you use this filter to convert an attachment, the entire attachment will always be converted to PDF format and appended at the end of the PDF file. This means, among other things, that this filter cannot be used to import content (Import mode).

webPDF Server is a platform-independent Java-based and server-based solution that can be used to convert over 100 file formats to PDF. More specifically, it uses a

converter to convert the various file formats to PDF without requiring the corresponding original applications to be installed or used.

webPDF works as an Apache Tomcat-based web service, and its services will be available to every user in your organization in the form of Java web services. In fact, the clearly defined (API) interfaces and the J2EE architecture mean that you can use the service in your own applications – this is the interface that is used to integrate the converter into n2pdf Archive.Moreover, you can use the web service on any J2EE server of your choice (for example: Sun J2EE Application Server, Apache Tomcat).

By using webPDF, you eliminate the need to use additional third-party products in order to be able to convert your documents. In fact, not only does it make it possible to convert documents to PDF "natively," but it also ensures that you do not have to pay a fee every time you generate a new PDF file. webPDF is available as a turnkey "out-of-the-box" solution (e.g., as a Windows service or Linux daemon).

Every application in your company that is able to communicate with a web service – regardless of whether it is a standard application or whether it was developed in-house – will be able to access the converter and its functionalities.

For more information, please visit the following website: http://www.webpdf.de

3.7.4 Supported formats

n2pdf Archive can process file attachments in various file formats by using a variety of filters, i.e., it does not need the original application in order to do so.

> Please note that these "filters" do not have the exact same capabilities as the corresponding original applications. Thus there may be variances in the display, in the import capabilities and/or the supported features of the file format in question. It is also possible for there to be certain features in the original file format that are not supported at all.

Import mode supports the following file formats:

Format name	File extension	Import mode
JPEG	*.JPG; *.JPEG	X
Portable Network Graphics images	*.PNG	X
TIFF images	*.TIF; *.TIFF	X
Truevision images	*.TGA	X
ZSoft Paintbrush images	*.PCX	X
CompuServe images	*.GIF	X
Standard Windows bitmap images	*.BMP	X
Photoshop images	*.PSD	X
Enhanced Windows Metafiles	*.EMF; *.WMF	X

n2pdf Archive uses the webPDF toolbox in order to **convert** (Convert mode) third-party formats (e.g., Office documents and image file formats) to PDF.

For a current list of the formats supported by webPDF, please visit the following link:

http://www.oracle.com/technetwork/middleware/webcenter/content/ds-oitfiles-133032.pdf

Embed mode supports all file formats.

> Files, regardless of their format (such as PDF), should not be encrypted if possible, as it will not be possible to process or import them if they are.

3.7.5 Compressed attachments

As part of its attachment processing capabilities, n2pdf Archive can also process packed attachments. You don't need a separate program for this. A packed file is automatically detected and the files it contains are included in the conversion process. SFX (self extracting) attachments can also be processed for some archive formats.

The list below contains all supported archive formats.

- ARJ (*.arj), ARJ SFX
- CAB (*.cab)
- GZIP (*.gz)
- JAR (*.jar), JAR SFX
- LHA (*.lha), LHA SFX, LZH (*.lzh), LZH SFX
- RAR (*.rar), RAR SFX
- TAR (*.tar)
- ZIP (*.zip), ZIP SFX
- 7Z (*.7z), 7z SFX

4　Job document

This Help section describes the individual parts that make up a job for n2pdf Archive.

A job document is a normal Notes document that is created in a specific database (please refer to "Functional Description") and that contains all the information required for the server task. This information is stored in the corresponding job documents using fields with defined names. Moreover, each of these fields starts with the prefix "$N2PDF", which makes it easy to distinguish them from other Notes fields.

Job documents are managed in the "n2pdf Jobs" database. In fact, this database can be used to create this type of job document by using the appropriate Notes form.

n2pdf Archive version 5.0.1 and higher supports two types of jobs: standard jobs and archive jobs. Following is more information on the individual "tabs" for a job document and the various configuration options available.

Tab	Standard jobs	Archive jobs
• Body	+	
• Archive		+
• Basics	+	
• Data source	+	+
• Schedule	+	+

• Return	+	
• Page setup	+	+
• PDF Settings	+	+
• PDF Metadata		+
• Digital Signature	+	+
• Format settings	+	+
• Attachments	+	+
• Variables	+	+
• Administration	+	+

4.1   Body (Standard Jobs Only)

The job document's "Body" field contains the contents that should be converted to a PDF file. You can use the settings under the "Basics" tab to specify whether these contents will be converted to a PDF file by themselves or together with other documents (see "Conversion mode"). If it is specified there that only the job document is converted, then the field represents the only content for the PDF file. If, instead, you use the "Basics" tab to to specify that a different database should be converted (see "Data source"), the way in which the contents will be used will depend on additional options.

The "Body" field can contain Rich Text Format contents, unformatted text, constants, or also attachments (supported formats).

Body

『Hello *World!*

ClownFish.gif
Date [DateL]
Current Page [ActPg]

Footer

The following pages go over the options that can be used to control how the above contents will be displayed and positioned.

4.2 Archive (Archive Jobs Only)

Available: 📄 Archive job

Description:

Freely selectable description of the new job document being created.

Customer Ticket-ID:

Freely definable ticket ID for an external workflow (e.g., connection for SAP applications, external archive systems).

Operation mode:

Used to select an operation mode

- List of views with calculated folder and file structure
- List of views with view based folder and file structure
- Use database folder tree and reproduce as directory structure (Mailbox mode)

Priority:

When processing the jobs in the ""n2pdf - InBox," n2pdf Archive distinguishes between five different priorities. If you want the job being created to be given preference in processing, choose a higher priority here. Default: Normal

Scheduled:

If you set this option to "Yes," you will be able to schedule the job.

Base folder:

Base folders are used to define where the project folder should be generated. If you leave this field blank (default), the default settings will be used. These default settings for the basis folder are configured during installation and saved in the "nn2pdf.ini" file.

The base folder must exist already.

Job folder:

With a base folder as the starting point, the program will generate a job folder for each job.

The following subfolders will be generated under this job folder:

- "archive" (repository for packed PDF documents)
- "index" (index tool files)
- "output" (PDF documents)
- "test" (test run documents)
- "xml" (the application's log information)

Use view name as folder:

Use this option to have the program create a subfolder for each view.

Folder name calculation:

Notes formula used to compute the folder names for the folders where PDF documents should be stored. This formula will be run for each Notes document. The return value must be a string. If you leave this field blank, the program will not create a subdirectory.

PDF file name calculation:

Notes formula used to compute PDF file names. This formula will be run for each Notes document. The return value must be a string.

If you leave this field blank, the program will use the "document universal ID" (UNID) as the filename. Or, if you are using the "List of views with view based folder and file structure," option,

the filename will be taken from the last visible column in the view.

Number of document response levels which are used for folder: :

Setting for the "List of views with view based folder and file structure" operation mode

Number of document response levels which are creating individual files. Higher levels are combined into a single file::

Setting for the "List of views with view based folder and file structure" operation mode

Prepend counter to file name: ([xxx]test.pdf)

Adds a count number as a prefix to computed PDF file names.

Allow backslashes in folder name calculation formula:

Yes - When a backslash is used in the formula, it will result in a subdirectory being generated

No - Any backslashes in the formula will be deleted

Char replacement for folders and file names :

Can be used to define characters that should be replaced after the results for a file or folder formula are computed. The characters that should be replaced need to be defined in a list with the following syntax for each line: [Character that should be replaced] [Character that should replace it]

Current process step:

Shows the current process step.

Settings specific to the current process step

Maximum documents for a test run:

"Test run" step.

Maximum number of documents per view.

Data verification formula: :

"Data verification" step.

Formula used to check data. The return value must be Boolean. For example: "$Seal = NULL" in order to search for encrypted documents.

Path and file name for archive package:

"Packaging" step.

Full filename for generated archive file.

In the "Data source" section, use "Select database" in order to select the database and one or more views that contain the documents that will be the basis for the conversion process.

Export the "Sent" view:
Export the "Calendar" view:
Export the "To Do" view:
Only in the Mailbox mode operation mode
The default setting in the Mailbox mode is for all **folders** from a database to be converted. Use these options to also define additional standard **views** for conversion.

The *Inbox* is a *folder* of the default mail template. It is converted automatically in the Mailbox mode and does not need to be defined separately.

Integrity check:
Yes -   Regardless of the settings made, this function ensures that all documents in the database are converted.
No -   Disables the check.

Export all views:
Yes -   Option for automatic selection of all available views
No -   Manual selection of the desired views

Export design:
Yes -   Enables the extraction of the database's design information for visual reproduction in the display program, including categories, answer documents and column definitions.
No -   Conversion without the design information from the database

Duplicates:

Convert all documents	A PDF file is created for every document in the database. While doing so, no check is made as to whether a document has already been converted in a different view.
Copy duplicates	A PDF file is created for every document in the database. While doing so, no check is made as to whether a document has already been

converted in a different view. In contrast to the above option, no conversion of a duplicate is carried out, only the original is copied.

Link duplicates This option creates a PDF file for every unique document (document universal ID) in the database. While doing so, a check is made as to whether a document has already been converted in a different view. If a document has already been created, a duplicate is created for every further one in dependence on the "Link type" option.

Link type:

This option is directly tied to the "Link duplicates" option.

No link   As can been seen from the name, this option creates no links for existing duplicates when enabled. Easy navigation within the folder structure based on the views is then only possible in Search & View.

Default link   Enabling this option causes all duplicates to be replaced by links which refer to the original document. This ensures that navigation directly in the file system is possible.

Symbolic link   Enabling this option causes all duplicates to be replaced by symbolic links which refer to the original document.

4.2.1   Operation Modes

n2pdf Archive has several different operation modes

List of views with calculated folder and file structure

When you use this mode, all the documents from one or more views will be exported and a PDF document will be generated for each Notes document. You can use **Notes formulas** to enable the program to compute the PDF filename and directory for each Notes document.

List of views with view based folder and file structure

When you use this mode, the directory structure will be **view-based**. You can also set corresponding rules that define, for example, when a folder will be generated and whether Notes documents (responses) will be grouped together into a single PDF or whether individual documents will be generated for them.

Use database folder tree and reproduce as directory structure (Mailbox mode)

Directory structure based on the **Notes folders**, with one PDF document per Notes document being stored in the corresponding folders. This option can be used with "mail templates," for example, in which users have organized the corresponding documents in Notes folders.

4.2.2 Settings for the "List of views with view based folder and file structure" Operation Mode

In this mode, the directory structure is based on a view. Accordingly, a **new subfolder** will be created for **each category** in order to reproduce the view's hierarchy in the directory structure.

The way in which responses are exported is configurable. The following options are available:
- Storing responses as separate PDF documents
- Grouping responses into a single PDF document
- Creating subdirectories (forming a hierarchy)

The two following options can be used to configure how responses will be handled:

Number of document response levels which are used for folder: :
The level up to which subfolders should be generated for responses.
0 - No subdirectories for individual documents
1 - Subdirectory for main documents
2 - Subdirectory for responses
3 – 32 - Response to response, etc.

Number of document response levels which are creating individual files. Higher levels are combined into a single file::
The response level starting from which responses should be grouped together into a single PDF document
0 - All documents in separate PDF documents
1 - Convert responses to PDF together with "main" document
2 – 32 - Group together starting from the second level (starting from response to response, etc.)

Example

Following is a view with one category and responses going all the way to "level 4,"
where "level 1" is the main document.
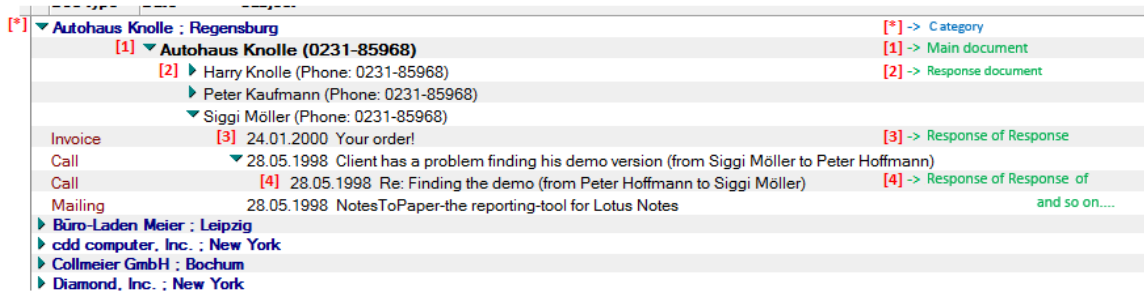
Export 1:

Response levels for folder = 0

Response levels in a single file = 0

All documents will be exported to a corresponding category directory:
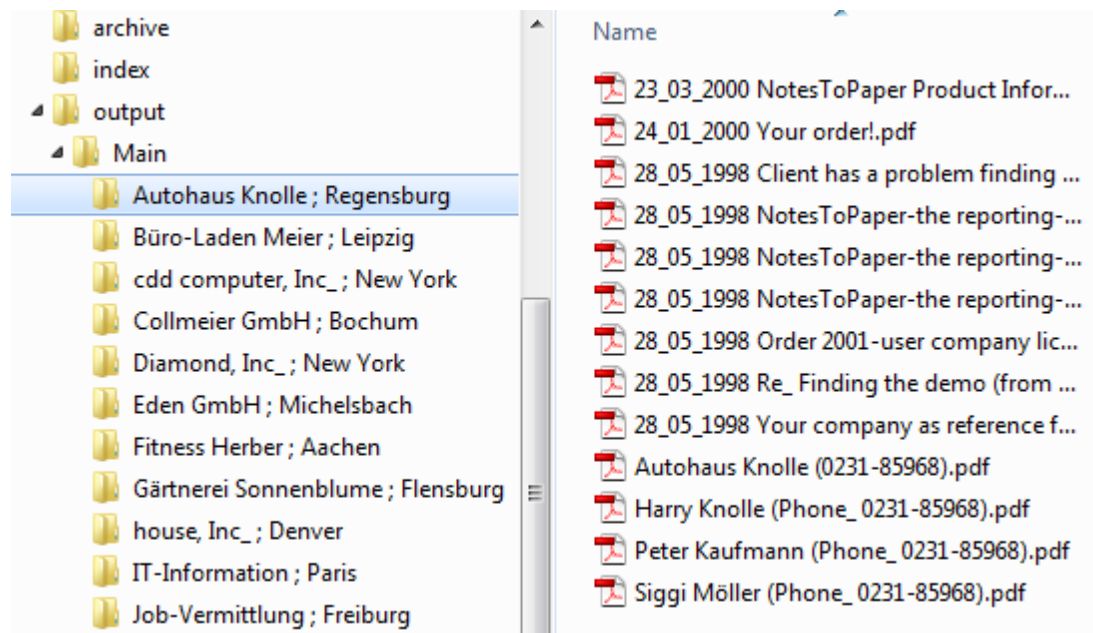
Export 2:

Response levels for folder = 1

Response levels in a single file = 2

The main document (company document, [1]) will get a subdirectory. The responses
(employee documents, [2]) and the corresponding communication documents will be
grouped together into a single PDF document for each employee [2]:
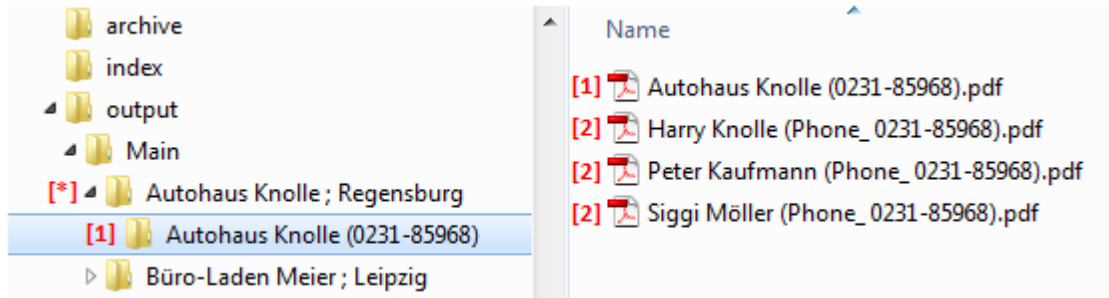
Export 3:

Response levels for folder = 2

Response levels in a single file = 2

The main document (company document, [1]) will get a subdirectory. The responses (employee documents, [2]) will also get a subdirectory, and the corresponding communication documents will be grouped together into a single PDF document for each employee [2]:
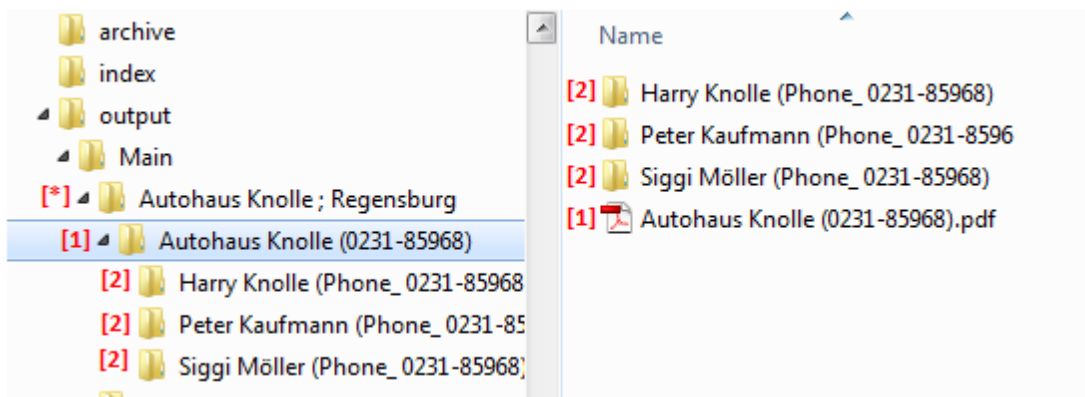
If the "PDF file name calculation:" field is left blank, PDF file names will be taken from the last visible column.

4.3 Basics (Standard Jobs Only)

Available: Standard job

Basics

Description:

Freely selectable description of the new job document being created.

Conversion mode:
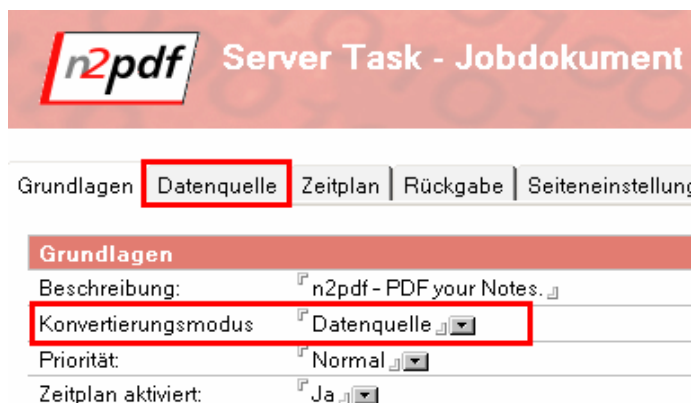
n2pdf Archive features two different conversion modes:

- Job document

When this mode is used, the "Body" field will be converted to a PDF file using all configured settings. This is the simplest way to create a PDF file quickly and easily. All you have to do is put the text to be converted (or the attachments) in the Body field and start the conversion process.

- Data source

If you use this mode, you will be able to specify the database from which the contents for the PDF file should be taken. Once you select the "Data source" option, an additional tab called "Data source" will appear in the job document. You can then open that tab and select the database and the documents that will be used as a basis for the PDF contents.

Priority:

When processing the jobs in the ""n2pdf - InBox," n2pdf Archive distinguishes between five different priorities. If you want the job being created to be given preference in processing, choose a higher priority here. Default: Normal

Scheduled:

If you set this option to "Yes," you will be able to schedule the job. An additional tab called "Schedule" will appear accordingly and can be used to configure detailed settings for the job schedule.

Single PDF file:
Select "Yes" if you want only one single PDF file to be generated for all the contents that you will be converting. If you select "No" and convert a series of Notes documents (refer to "Conversion mode" above), you will get an individual PDF file for each document.

Filename mode:
You can use these settings to control the syntax for the file names that will be used for the PDF files.

The following options are available:

- Unique filename with random number
The program will generate a unique random filename

- Static filename with number
The program will use a static value of your choice and a consecutive numbering placeholder in order to generate a filename
Example: n2pdf[%d].pdf

- Universal document ID as filename

The program will generate a filename using the universal document ID (UNID) of the document being converted

Job Storage

Storage mode:

You can use this setting to specify whether the job should be saved in a separate "n2pdf - InBox" view once the PDF file has been generated. Select "Delete job" to disable the function that normally saves the job.

> Jobs in which errors occur during processing will always be saved regardless of the settings you configure.

Job settings

The settings in this section will only apply if the "Job document" conversion mode is selected.

Use form for conversion:

If you select "Yes," you will be able to select a Notes form name (the second field in this section) that will be applied to the contents of the "Body" field during conversion. This way, you can define a layout for the PDF file that will be generated, for example. If you select "No," only the contents of the "Body" field will be converted.

The "Memo" and "$n2pdf" forms are defined in the drop-down field. You can find these forms in the "n2pdf Inbox". If you need to, you can go there and modify the forms as required for your own needs.

4.4   Data source

Data Source

Available: Standard job   Archive job

> The following options will become available only after you select the "Data source" option for "Conversion mode" under the "Basics" tab.

Basics

In the "Basics" section, use "Select database" to select the database and view that contain the documents that you want to use as a basis for the conversion. If you want to limit the number of documents further, use the search filter (see below).

The selected database's replica ID will be saved as additional information.

The "Form name" option can be used to specify an alternative form to be used for conversion purposes (e.g., print form).

Finally, you can optionally specify whether the documents' entire contents should always be used or whether only individual fields should be used. If you leave this final setting blank, the full documents will be converted. To specify more than one field, separate the fields with a semicolon (";").

Jobeinstellungen

Database options

The "Use replica ID to open database" option in this section can be used to specify whether n2pdf Archive should search for a replica of the database if the original database is not available.

Meanwhile, the option after it can be used to specify whether the server task should search for a replica of the database in the failover cluster if the primary server cannot be reached.

Content options

The following options in the "Content setting" section will affect the PDF file's appearance directly.

If single file, page break   『Yes』▾
between each document:

Use this option to specify whether a page break should be inserted before every new document. In order for this setting to work correctly, the "Single PDF file" option under the "Basics" tab must be enabled.

Use document content: 『Yes 』▼

If you disable this option, only the file attachments in the documents will be converted. To specify which file attachments (e.g., from which fields) should be converted, go to the "Attachments" tab.

Use job content: 『Don't use content 』▼

You can use this option to add the contents of the job document's "Body" field to the PDF file (in addition to the contents of the selected documents (entire document or individual fields)). The following three options for specifying where this content should be placed are available:

Do not use content	No processing
Insert content at beginning	The contents will be placed at the beginning of the PDF file (e.g., as a cover sheet)
Insert content at end	The contents will be placed at the end of the PDF file

Repeat job content for   『No 』▼
each document:

This is an additional option that can be used when the "Use job content" option is enabled. It can be used to specify whether the job contents will be placed before every new document (e.g., as a document "header") or one time only (e.g., as a cover sheet).

Search filter

You can use the search filter to limit the number of documents that will be used. The filter features four different options:

No option selected	The documents in the selected view will not be filtered, i.e., all documents will be used
Documents	If you select this filter option, you will be able to select specific individual documents manually, and only the documents you select will be converted.
View	You can use this filter option to define a filter for the view's first three columns. Simply enter the values that should be used to filter the view (e.g., "Car" or "1450"). Please note that the view columns must be sorted. In addition, make sure to select the right data types.
Full-text search	If you use this filter option, only the documents that match the "full-text search query" of your choice will be selected and converted. Moreover, there is an additional option that you can use to specify whether the search should cover the entire database or be limited to the view only.

Data modification

All the documents that are used to create the PDF file (even after the the search filter is used to limit the applicable documents) can be modified using a Notes formula (macro language). You can differentiate between two different formulas, one for successful PDF creation and one for errors. These formulas can be used, for instance, to set individual fields in a document or delete them.

Formula to be executed on success:	Use this field to enter the formula that should be run when the PDF file is generated successfully.
Formula to be executed on failure:	Use this field to enter the formula that should be run when the PDF file is not generated successfully.

4.5 Schedule

Available: Standard job Archive job

The options below will only become available after the "Schedule" option under the "Basics" tab is enabled.

In the case of archive jobs, the corresponding documents will be monitored if the job is run repeatedly.

Basics

Use the "Schedule type" button to select the type of schedule you want. n2pdf Archive has two schedule types:

- Interval

    The job will be run periodically on the specified days at the specified intervals.

- Once daily

    The job will be run once a day on the specified days at the specified time

The remaining available settings will depend on which action is selected.

Execution on the following days
Used to select the days on which the scheduler will be active.

Daily start time and end time of the execution
Use the two field to enter the period (time) when the job will be active and should be run. If the "Schedule type" is set to "Once daily," you will only be able to enter a start time.

Interval

You can use the "Interval in seconds" option to specify the intervals at which the action should be repeated within the selected timeframe (if "Schedule type" is set to "Interval").

The server task can be used to set shorter intervals than those normally allowed by Lotus Notes' agents, as it does not start any Notes agents in the back-end and instead uses its own methods in order to run scheduled actions.

4.6 Return (Standard Jobs Only)

Return

Available: Standard job

The settings under the "Return" tab can be used to specify how and in which format the generated PDF file should be returned.

Basics

The file can be returned using one of the following two modes:

- E-mail
  When this mode is used, the PDF file will be returned as an attachment in an e-mail. Moreover, additional settings for the e-mail's contents and format will be available

- File system
  When this mode is used, the PDF file will be saved on the file system in a defined directory

The available options will depend on which mode you select:

"E-mail" return mode

In the "Address used" option, you can choose between the address of the user who submits the job for conversion ("Sender address" option) and a static address ("Static address option") to which the converted PDF file should always be sent.

E-Mail

This section will only be available if "E-mail" has been selected as the return mode.

Reply-to address	Use the standard Notes dialog box to select the user to whom a reply to the e-mail should be sent.
Subject	Enter the subject text here. You can use placeholders that will be replaced as appropriate when the e-mail is sent. For more information, see Variables.
Display mode for file attachment	Use this setting to specify the way in which the file attachment will be shown in the e-mail. You can choose between it being displayed as an icon ("Symbol" option) or as a clickable text link ("Text link" option).
Body	Enter the e-mail body here. The text you enter will appear before the attachment in the e-mail.

"File system" return mode

If you select this model, the generated PDF file will be saved on the file system. The following options will be available for selecting a directory:

- Temporary directory

    The directory defined in the computer's "Temp" environment variable will be used as a temporary directory.

- Static directory

    If you use this option, you will be able to select a directory with the "Directory for file storage" dialog box or enter one directly.

    When entering a static directory, you can use the UNC (Uniform Naming Convention) format. This makes it possible, for example, to store the file inside a remote computer's shared folder.

    Please make sure that the user has the appropriate permissions for the corresponding directory.

If you are using the "File system" return mode, there will be an option that you can use to save the generated PDF file with the "read-only" flag set.

4.7 Page setup

Page Settings

Available: Standard job   Archive job

Basics

You can use the "Paper size" setting to specify whether you want the generated PDF file to be based on a standard paper size or a custom paper size.

In addition, you can use the "Page orientation" setting to specify the orientation for the page (portrait or
landscape).

Finally, you can use the "Units" setting to specify which unit should be used to interpret specifications such as page and margin sizes.

Size

Use this option to define the paper size for your document. The available options will depend on the paper size you selected under "Basics."

If you selected the standard paper size option, the following sizes will be available:
- A3
- A4
- A5
- A6
- LETTER
- LEGAL
- EXECUTIVE

If you selected the custom size option, you will be able to define a custom paper size by entering the corresponding values directly.

Header and Footer

n2pdf Archive supports defining headers and footers for the PDF file. A header or footer can consist of plain text or RichText contents. If you enable the "Use header" and/or "Use footer" options, the corresponding rich text fields will be shown in the job document's lower area.

You will then be able to use them to place your content.

Header

n2pdf Tutorial   Page [ActPg] of [SumPg]

Body

Footer

(C) [YEARL] SoftVision Development GmbH, Fulda, Germany   [DATEL] [TIMEL]

Margins

You can use this section to configure the page's margins.

Top	Space between the main text and the top of the page
Bottom	Space between the main text and the bottom of the page
Left	Left page margin
Right	Right page margin
Header	Space between the header and the top of the page
Footer	Space between the footer and the bottom of the page

4.8 PDF Settings

PDF Settings

Available: Standard job   Archive job

In addition to the settings for the PDF file's contents (e.g., body, header and/or footer), there is also a series of settings for the PDF format itself. n2pdf Archive supports a large variety of these settings, including those related to security functions, PDF file descriptions, and font embedding.

All these settings can be configured under the "PDF Settings" tab. Below is a short description of the various available settings.

Basics

Compression	You can use this option to enable and disable PDF file compression.	
Font mode	The option you select here will determine whether and how fonts will be embedded into the PDF file.	
	Use TrueType fonts (no embedding)	TrueType fonts will be used, but the font will not be embedded
	Embed Base 14 Type 1 fonts	No TrueType fonts will be used. When this mode is activated you can only use the following fonts: Arial, Courier New and Times New Roman.
	Embed TrueType fonts completely	Any TrueType fonts used will be embedded.
	Embed symbol set and use TrueType fonts	Embed only the symbol TrueType fonts (WingDings etc.)
	Embed used characters	Only parts of the fonts will be embedded. More specifically, only the characters that are used will be embedded.
	Embed characters used in the code	Only parts of the fonts will be embedded. Only the characters which are used

	page	according to the current code page are embedded. Keep in mind that the embedding is based on the code page on which the PDF file is created
JPEG quality	You can use this option to configure the ratio between JPEG quality and level of compression (the higher the quality, the lower the compression)	
Page mode	No option selected	The reader's most recent settings will be
	Full screen mode	The reader will be launched in full screen
	Thumbnails opened	The reader will be launched with thumbna
	Outline opened	The reader will be launched with the outli
Zoom mode	No option selected	The reader's most recent settings will be
	Fit horizontally	The page will be resized so that it fits the window.
	Fit vertically	The page will be resized so that it fits the window.
	Fit to page	The page will be resized so that all of it c window.
Create outline	You can use this option to specify whether an outline should be generated in the PDF file.	
Create thumbnails	You can use this option to force the program to generate thumbnails, i.e., instead of having them be generated by the PDF reader being used.	

Links

Convert hyperlinks	You can use this option to specify whether hyperlinks in the PDF will be clickable or not.
Convert email links	You can use this option to specify whether e-mail links in the PDF will be clickable or not.

Convert user-defined links	You can use this option to specify whether links to user-defined named destinations in the PDF will be clickable or not. For a detailed description of how this works, please consult the "User-Defined Links" section in n2pdf Help.
Convert file links	You can use this option to specify whether links to files in the PDF will be clickable or not.
Convert hotspot links	You can use this option to specify whether elements defined as hotspots in Notes will be copied over to the PDF file in the form of clickable links.
Document links	This selection determines how document links are to be made available in the PDF • No links • Graphic symbol • Graphic symbol clickable • NDL link • Bookmark • Bookmark clickable
View links	This selection determines how view links are to be made available in the PDF • No links • Graphic symbol • Graphic symbol clickable • NDL link • Bookmark • Bookmark clickable
Database link	This selection determines how database links are to be made available in the PDF • No links • Graphic symbol • Graphic symbol clickable • NDL link • Bookmark • Bookmark clickable

File info

You can use the options below to fill out the information that will be shown in the PDF file's properties. Simply enter the information that you want shown into the appropriate fields.

> If you are using an archive job, these fields will be filled out using Notes formulas, making it possible to dynamically compute the file's properties.

Job document

Title:	n2pdf – PDF your Notes.
Subject:	Server based PDF creation with n2pdf server task
Author:	SoftVision Development GmbH, Fulda, Germany
Keywords:	n2pdf, PDF, server
Producer:	n2pdf Server Task

PDF file

Document Properties

Description | Security | Fonts | Initial View | Custom | Advanced

Description

File: ~7685963.PDF

Title: n2pdf - PDF your Notes.

Author: "SoftVision Development GmbH, Fulda, Deutschland"

Subject: Server-basierte PDF-Erstellung mit dem n2pdf Server Task

Keywords: n2pdf, PDF, Server

Created: 17.08.2007 09:13:09

Modified: 17.08.2007 09:13:09

Application: n2pdf Server Task

Security

> If you enable encryption and do not set an owner password, a random password will be automatically generated. If this happens, you will not be able to edit the file later on, as you will not have the required password. If you want to make sure that you can edit the file later on, make sure to set an owner password.

Following are all the available security settings that are recognized by the PDF format and that can be configured in n2pdf Archive.

> These settings will only apply if you have enabled encryption.

> Some of the settings can only be used if other security settings are configured in a specific way. To find out how the various individual security options affect each other, please consult the Acrobat SDK. In Version 8 of the SDK, the description is in the document "pdf_reference.pdf" in Chapter

"3.5.2 - Standard Security Handler". "TABLE 3.20 User access permission" is particularly important within this context.

Encryption

You can use this option to set the type of encryption that will be used for the PDF file.

No option selected	The PDF file will not be encrypted
40BIT	40-bit encryption will be used
128BIT	128-bit encryption will be used

Owner password

You can use this option to set an owner password in order to protect write access to the PDF file and make it possible to encrypt the file as well.

User password

You can use this option to set a user password that will be requested when someone attempts to read the PDF file.

Security settings

Print document	You can use this setting to allow or prohibit printing the PDF file
Change document	You can use this setting to allow or prohibit making changes to the PDF file
Document compilation	Compilation of content
Copy or extract content	You can use this setting to allow or prohibit extracting contents from the PDF file
Extract content for output help	Content accessibility
Comment	You can use this setting to allow or prohibit editing form fields and adding comments
Fill form fields	Setting for filling out and signing form fields

PDF/A

PDF/A is an ISO-standardized version of the "Portable Document Format" (PDF). PDF/A (A = Archiving) is a subset of the PDF options, specifically for the requirements of long-term archiving and accessibility, and also for reproduction on mobile devices such as PDAs. This standard is a subset of PDF 1.4 and is specified in ISO 19005-1:2005.

To generate a PDF file that meets the requirements in the PDF/A specification, simply set the "PDF/A enabled" option to "Yes."

Please note that enabling PDF/A compliance will disable certain settings automatically. This relates e.g. to the font mode or encryption of the file. This, in turn, may result in a marked change to the PDF file's size, for example.

Another available option is the "Language code" as specified in ISO 639-1. This setting can be used to uniquely identify the language being used and uses a code made up of two letters, e.g., "fr" for "French" and "de" for "German."

Watermark

Watermark mode

You can use this option to specify whether an image that will be placed in the PDF file's background as a watermark should be embedded. You can either select the file system or an image resource as a file source.

Then use the next option to specify which image should be added to the PDF file's background

Please note that if you specify a filename, the server task must be able to access the corresponding file. If you specify an image resource, the resource must be found in the "n2pdf Inbox" ("watermark.jpg" will be stored there by default).

You can then use the next option to specify the position on the page where the watermark should appear. The following positions are available:

Top left	Top left corner
Top center	Centered on the upper margin
Top right	Top right corner

Left center	Centered on the left margin
Right center	Centered on the right margin
Bottom left	Bottom left corner
Bottom center	Centered on the lower margin
Bottom right	Bottom right corner
Center	At the center of the page

As of this writing, only JPEG images are supported for use as watermarks!

4.9　PDF Metadata (Archive Jobs Only)

Available: Archive job

The settings under the "PDF Metadata" tab can be used to define XMP metadata for PDF documents.

PDF metadata

Include XMP metadata :

You can use this option to specify whether XMP data should be added to PDF documents.

If you enable XMP metadata, the archive task will add the following to every PDF document by default:

1) Information regarding the job document <n2pdfArchive:JobDocument>:

<jd:unid>　　　　　Job document Notes UNID

<jd:ticketid>　　　　Job document ticket ID

2) Information regarding the converted Notes documents
<n2pdfArchive:NotesDocument>:

<nd:unid>　　　　　Document Notes UNID

<nd:noteid>　　　　Document Note ID

<nd:viewname>　　View name

<nd:servername>　Server name

<nd:dbname>	Database name
<nd:replicaid>	Database replica ID
<nd:form>	Form
<nd:created>	Date created
<nd:modified>	Date modified
<nd:updatedby>	Editor username

User-defined XMP data

In addition to the default XMP information, additional user-defined XMP metadata can be added as well <n2pdfArchive:CustomData>:

Setting	*Description*
XMP node entry	Used to define the XMP node name (observe XMP syntax rules)
XMP node value	Notes formula for computing the node value
XMP node title	Used to define the node title. "n2pdf Archive Search & View" uses node titles for its filter functions.

> XMP node names can contain any of the following: Letters, numbers "0" through "9", underscores ("_"), and hyphens ("-"). The first character of a name must not be a number. Spaces are not permitted.

4.10 Digital Signatures

Signature

Available: 📄Standard job 📄Archive job

Together with the webPDF service, the server task makes it possible to add digital signatures to PDF documents.

Basics

Enable signature service:

Used to enable and disable digital signatures

Signature level:

This parameter can be used to select the signature level you want:

- Sign, but do not certify, the document, i.e., additional signatures and changes will be allowed.
- Certify the document and do not allow any additional changes.
- Certify the document, but allow fields to be filled out.
- Certify the document, but allow fields to be filled out and comments to be added.

New signature should be added if there is already a signature in the document:

"Yes" – The new signature will be added even if there is a signature in the document already.

"No" – If the document already contains a signature, an exception will be thrown.

Keystore

The name of the key:

Used to define the name of the key (the alias) that should be used when signing the document.

Password:

Used to define the password required in order to access the private "keystore.keyName" key.

Signature information

Reason:

Used to specify the reason why the document is signed.

Location:

Used to specify the place where the signature was added.

Contact:

Used to specify the name of the signer.

Application:

Used to specify the name of the application.

Settings

Visible:

If this setting is set to "Yes," the signature will be shows visually.

The page on which the signature is shown:

Used to specify the page on which the signature will be shown.

The name of the field in the document:

Used to specify the name of the field (in the document) in which the signature will be stored. If an existing field name is specified, a unique name will be computed automatically.

4.11 Format settings

Available: Standard job   Archive job

To configure general text format settings, open the "Format settings" tab. This allows the control of text breaks in tables or paragraphs, for example. The settings will be separated into paragraph format settings (Paragraphs) and table format settings (Tables).

Paragraphs

Ignore "Keep paragraph on one page"	You can use this option to specify whether the "Keep paragraph on one page" setting should be ignored for a text or whether it should be observed when formatting the text.
Ignore "keep paragraph with next paragraph"	You can use this option to specify whether the "Keep paragraph with next paragraph" setting should be ignored for a text or whether it should be observed when formatting the text.
No widows	You can use this option to specify whether a paragraph should be moved to a new page if only one line of the paragraph fits in the current page.
No orphans	You can use this option to specify whether a paragraph should be moved in its entirety to a new page if only one line of the paragraph would be on the next page.

Delete empty space at the end of the document	You can use this option to avoid unnecessary breaks and blank pages at the end of the document. If this option is activated, there is a check for an unnecessary page or line break on the last page of a document. If there is one and it results in a blank page at the end of the document, this blank page will be deleted if the option is enabled.

Sections

Open all sections	Use this option to define how the mask settings for handling sections are treated. When set to "Yes" the defined settings of the sections contained are ignored and they are opened for the PDF. When set to "No" the defined settings remain active and are evaluated.	
MIME EXPORT	Notes Export Filter	This is the standard method. It uses the standard backend conversion from Lotus Notes to transfer the content stored in the documents to the PDF format.
	n2pdf Export Filter	Uses n2pdf's own HTML parser to display the stored content. A conversion from HTML to RTF is carried out.
	Export as EML file	Exports the entire content as an EML file. This is subsequently processed further as a normal attachment. In doing so, your currently applicablemanner of attachment handling is used as the basis.

Tables

Do not allow tables to break	You can use this option to specify whether tables can be broken across pages if there is a page break or whether tables should always be kept on a single page (provided there is enough space available).

Do not allow table rows to break	You can use this option to specify whether the individual rows in a table can be broken across pages if there is a page break or whether a table row should always be kept on a single page (provided there is enough space available).
Remove table offset when fields are used within a table	If a table contains a rich text field that needs to be converted. the table's offset is normally added to the rich text field's offset during export. This may have an unwanted effect on the output. Enabling this option will delete the table offset. This option will only work if only a single rich text field is being exported. It will not have any effect if an entire Notes document is being exported.
Expand last column of table to page width	You can use this option to specify whether tables will always be displayed with their defined width or whether the server task should adjust tables in line with the page's actual width. This option can come in handy, for example, when there is a table with a set column width in Notes and the total of all the column widths is greater than the actual width of the page in n2pdf. In this case, the table would be wider than the page. Enabling this option would maken2pdf Archive scale the column width instead so that the table would fit in the page's width. Please note, however, that this may result in a change in the visual layout of the table that is ultimately output.

Hide paragraph when

This parameter lets you determine which "Hide paragraph when" properties of a Notes document or RichText field should be included when being exported.

The options "Printed", "Hide paragraph if formula is true" and "Notes 4.6 or later" are activated by default. You can set any combination you like so that, for example, texts cannot be accepted into the PDF which have the option "Copied to the clipboard".

When set to "Yes" the following settings are taken into account. When set to "No" existing settings are ignored.

The following settings are supported:

Previewed for reading
Previewed for editing
Opened for reading
Opened for editing

Print
Copied to the clipboard
Hide paragraph if formula is true
Notes 4.6 or later

4.12 Attachments

Attachments

Available: [PDF]Standard job   [PDF]Archive job

n2pdf can work not only with individual fields from entire Notes documents or unformatted ASCII texts, but also with attachments.

Basics

Processing attachments

There are four different options when it comes to the way n2pdf can handle existing attachments:

- Not handling attachments ("None selected" option)
- Embedding the attachment in the PDF file ("Embed" option)
- Converting the attachment's contents (to PDF) and appending them at the end ("Convert" option)
- Inserting the attachment as content into the PDF ("Import" option)

"Embedding" a file attachment does not require any import filters or converters and can be used for any file format.

Meanwhile, the direct import function does require an import filter. Accordingly, n2pdf Archive features integrated import filters for processing attachments.

Finally, n2pdf Archive uses webPDF Server to convert file attachments.

An additional license is required in order to be able to use webPDF Server.

Field names for attachments

This option allows you to specify one or more fields (separated by a semicolon (";")) from which the attachments may be taken. If you do not enter anything into this field, all the attachments in the documents being converted will be used.

Hide attachment icon

This option can be used to specify whether the icons for Notes file attachments should be visible or hidden. Notes saves a small graphic in the associated RichText field for every attachment in the document. n2pdf Archive will normally export this image as well. You can use this parameter to disable the function that imports the image.

Break between attachments

You can use this option to specify how the file attachments being converted will be output.

The following settings are available:
- No line break
- Page break before
- Page break after
- Line break before
- Line break after

Stop job

With this option, the server task allows you to stop active processing for a job if n2pdf encounters an unknown file format while processing the attachments.

At original position

You can use this option, found in the "Basics" section, to specify whether n2pdf should attempt to display the file attachments at the same position as in the original document. When the option is disabled, n2pdf will output the file at the end of the document.

List of files that are not to be converted

Use this option to specifically select file attachments which are to be excluded from conversion.

Embed original file if there is a conversion error

This option allows you to specify whether the file should be embedded in the original format if there is a conversion error.

Process OLE files

Use this option to enable or disable extraction of OLE file attachments.

Extract packed file attachments

You can use this option to enable or disable extraction for packed file attachments.

List of files that are not to be unpacked

Use this option to specifically select file attachments which are to be excluded during extraction.

Images

You can use the following options to control how images will be displayed.

The settings in these options will only be applied to images that are added as content to the PDF file, i.e., that are imported as visible content.

Adjust images

- Keep image in original size.
- Fit image to page.
- Fit image to page and maintain aspect ratio.

Image size

The next two options can be used to define the maximum height and width for your images. If you leave the corresponding values blank, no adjustments will be made.

4.13 Variables

Variables

Available: Standard job   Archive job

In addition to the basic idea behind n2pdf Archive, i.e., putting together a PDF file based on Notes documents or rich text fields, you can also use variables to define the contents of Notes fields (that are not rich text fields) and integrate these variables into the PDF file's contents. Moreover, these variables can be used both in the "Body" field and in the headers and footers (please refer to "Page Setup") for the job document. A variable always has the name of the corresponding Notes field and is enclosed by [and] (example: [Server]).

Following is a description of the various options that can be used with variables, as well as an example showing how to define a variable:

Basics

Use the "Use variables" option to enable the variable generation and substitution function.

You can then use the option that follows, "Notes field names" to enter the names of the Notes fields that you want the program to provide as variables. If you need multiple variables, separate them with a semicolon (;). The field names you enter will also be the names of the corresponding variables (enclosed by [and]), which you will in turn be able to place in the body and/or header and footer.

E-mail addresses

One of the unique aspects of Notes fields are the fields that contain Notes names. These fields can also be used as variables. Following are a few additional options that you can use to format the corresponding contents.

Notes field names	Field names that contain Notes names and that should be made available as variables.
Shorten user name	All names will be output in short form, i.e., components such as "CN=" and "/O=" will be stripped.
Expand group name	If there is a group name in a field, the name will be resolved into the corresponding individual Notes names (using the address book).
New line for each address	If there are multiple names in a single field, the names will be separated by a line break when output.

Example showing how to define a variable with the sample database

The sample database must be set up with the "Log" view under the "Data source" tab. Once it is , set the "Use variables" option under the "Variables" tab to "Yes." The definition of variables is then activated. In the field "Notes field names", enter the name of the Notes field "Server". Each document in the log file documents has a field

named "Server". Entering the name in the job document means that the field's content will be provided in the form of a variable that you can use, for instance, in the document's header.

If you have the program generate the PDF file now, every page in the PDF document will display the server's name in the header.

4.14　Administration

Administration

Available: 📄Standard job　📄[Archive job](#)

The "Administration" tab can be used to configure the basic settings for the job document.

Basics

Use "Document author" to define which users may be editing the job document. Use "Default E-mail address" to enter an address that will be used by default if the server task finds out, during the conversion process, that an e-mail address has not been set. Make sure to use a generally valid address.

Error handling

Use the "Send E-mail on error" option in order to define whether a status report should be sent (to the e-mail address specified in the following option) if an error occurs.

5　n2pdf Archive Search & View

n2pdf Archive features a function that can be used to [index](#) the entire converted document(s) in an optional [process step](#).
The purpose of this indexing is to make it possible to search through all the data that has been converted (the n2pdf Viewer program can be used to search through the data once it has been indexed).
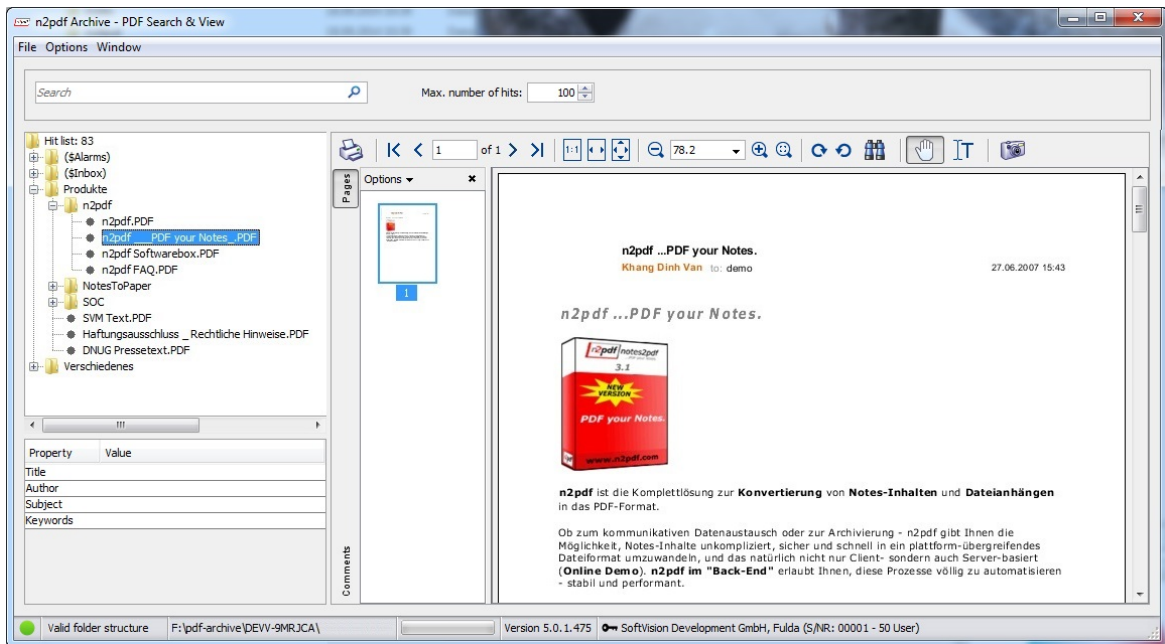
Please note that you will need a separate license in order to be able to use the indexing function.

5.1 Basics

The optional "n2pdf Archive Search & View" component will be made available during the "Packaging" step together with the converted documents and the generated index.

After being opened, n2pdf Archive Search & View will automatically load the index and show the converted documents in its directory structure.
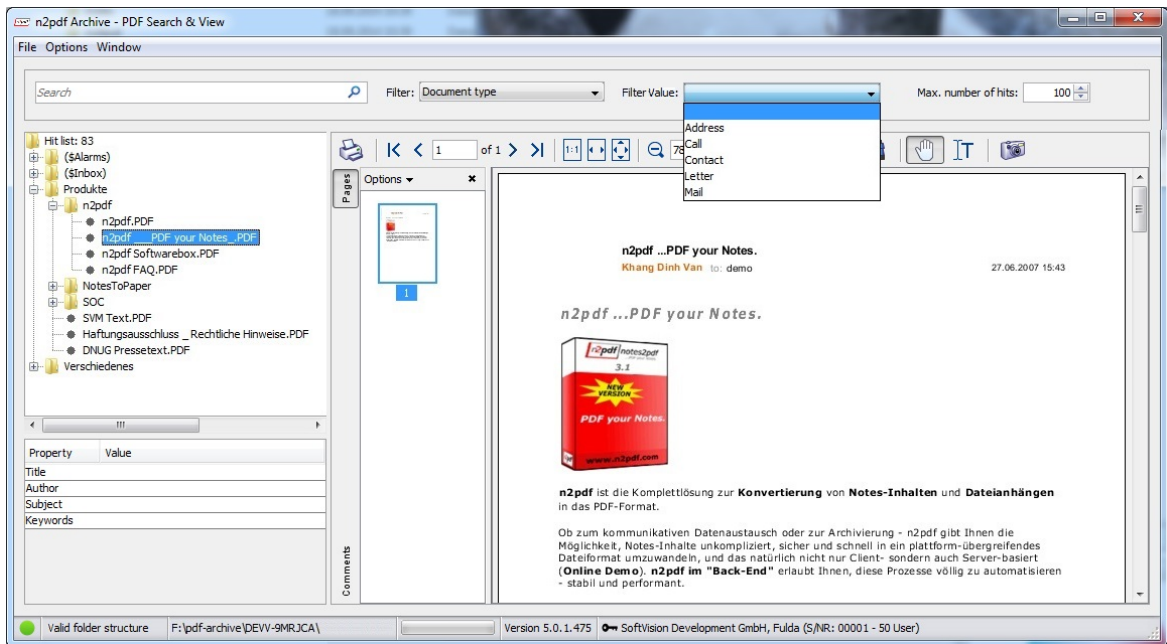
n2pdf Archive Search & View features a variety of functions that can be used to search through documents.

These include not only straightforward keyword-based searches in which hits are shown immediately, but also various search operators that can be used to limit search results.
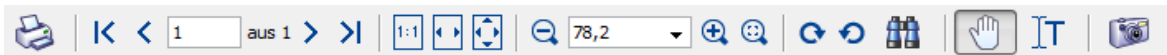
In addition, n2pdf Archive Search & View features the typical functions of a PDF viewer and puts them at the end user's disposal. These functions range from automatically showing PDF properties, through a direct print function, to zoom and snapshot functions.

5.2 Filter Function
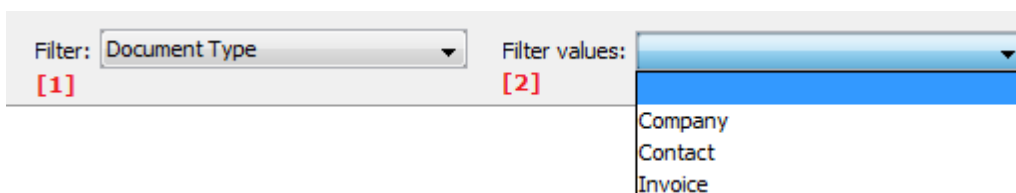
You can use the filter function in order to reduce the amount of data that the program will search through. The corresponding filters will use the information in the PDF files' XMP metadata, enabling you to limit searches in a targeted manner.

n2pdf Archive does not fill out XMP metadata information automatically. Instead, this data needs to be defined in the job document in the form of user-defined XMP data in the PDF Metadata section. Following is a table that provides more information on the screenshot above:

	Filter element	Job document setting
[1]	Filter name	XMP node title
[2]	Filter value	XMP node value

5.3   Search Queries

General information

Search queries use both expressions and operators. There are two types of expressions: Single expressions and phrases.
A single expression is a word such as "Hi". Meanwhile, a phrase is a group of words that is enclosed by quotation marks, e.g., "Hi there".
In addition to this, multiple expressions can be linked using Boolean operators in order to create more complex search queries.

Proximity searches

Proximity searches, which are formulated using a tilde symbol ("~"), can be used to search for content occurrences that do not exceed a maximum distance from each other.
Example:
If you enter **"n2pdf environment" ~4** as a search query, the program will search the index for instances of the terms "n2pdf" and "environment" in which these two terms are not separated by more than 4 words.

Wildcards

n2pdf Archive Search & View also supports searches with wildcards substituting one (?) or more (*) characters. Moreover, these wildcards can be combined. However, wildcards cannot be used within phrases or as leading characters.

Example:

Te?t

When a multi-character wildcard search is run, the search will search for terms that match the search query when the wildcard is substituted with 0 or more characters. For example, you could use the following search query to search for the words "test," "tests," "tester," and "testers":

Test*

"?", "*", or both can be used at any place in the expression:

scr?b*

Will search for "scrub," "scribe," "scribble," etc.

Regular expression search

Using regular expressions in the search query makes it possible to search for specific patterns enclosed by slashes.

Example:

/[cm]an/ This search query will find the words "can" and "man" in the indexed data.

Fuzzy search

To use a fuzzy search, please use the tilde symbol ("~") at the end of the search term you are using.

Example:

coil~ would return the following hits, for example: foil, coils, and oil

Boolean operators

You can use logical operatives, such as "AND" and "OR," to narrow down a search.

OR
If you want two expressions to be OR'd, write "OR" between them or simply do not add any operators, as "OR" is the operator that the search uses by default.
hi OR there
or
hi there

AND
If you want two expressions to be AND'ed, write "AND" between them or add a "+" symbol before each one.
hi AND there
or

+hi +there

+
If you want the word "hi" to be mandatory for all hits, but the word "there" to be optional, you can use
+hi there

You can also use logical negation operators.

To specify that an expression should not be found in any of the hits that are returned by the search, add "NOT" or a minus symbol ("-") before the expression.

NOT
hi NOT there
means that hits should contain "hi," but should not contain "there".

Grouping
n2pdf Archive Search & View supports the use of parentheses for grouping queries and creating subqueries. This can come in handy when you want to control the order in which Boolean operators in a query are evaluated or when you want to mix different query styles:

Example:
(hi OR there) AND I
will search for all documents in which "I" and either "hi" or "there" appear.

Using syntax characters
You can also use characters that are reserved for the search syntax. To do so, simply place a backslash ("\") before the corresponding character so that it will not be interpreted as a syntax character but will instead be included in the search expression.

Example:
\(1\+1\)\:2
means that the search function should literally search for "(1+1):2".

Reserved syntax characters:
+ - && || ! ( ) { } [ ] ^ " ~ * ? : \ /

5.4   n2pdf Archive Merger

The application n2pdf Archive Merger complements n2pdf Archive Search & View and

offers the possibility of combining existing n2pdf archive projects. When doing so, the

existing data for the structure and the view in the n2pdf archive projects are applied in

the new project. Another application option is the conversion of a simple folder with a

PDF structure to an n2pdf archive project.

The application can be used with either a graphic interfaceor with the Command line.

5.4.1 Options

There are several options for merging. While in the graphic interface these can be set using control elements, they can also be set on the Command line as arguments.

5.4.1.1 Graphic user interface

The handling of the graphic user interface is explained below.
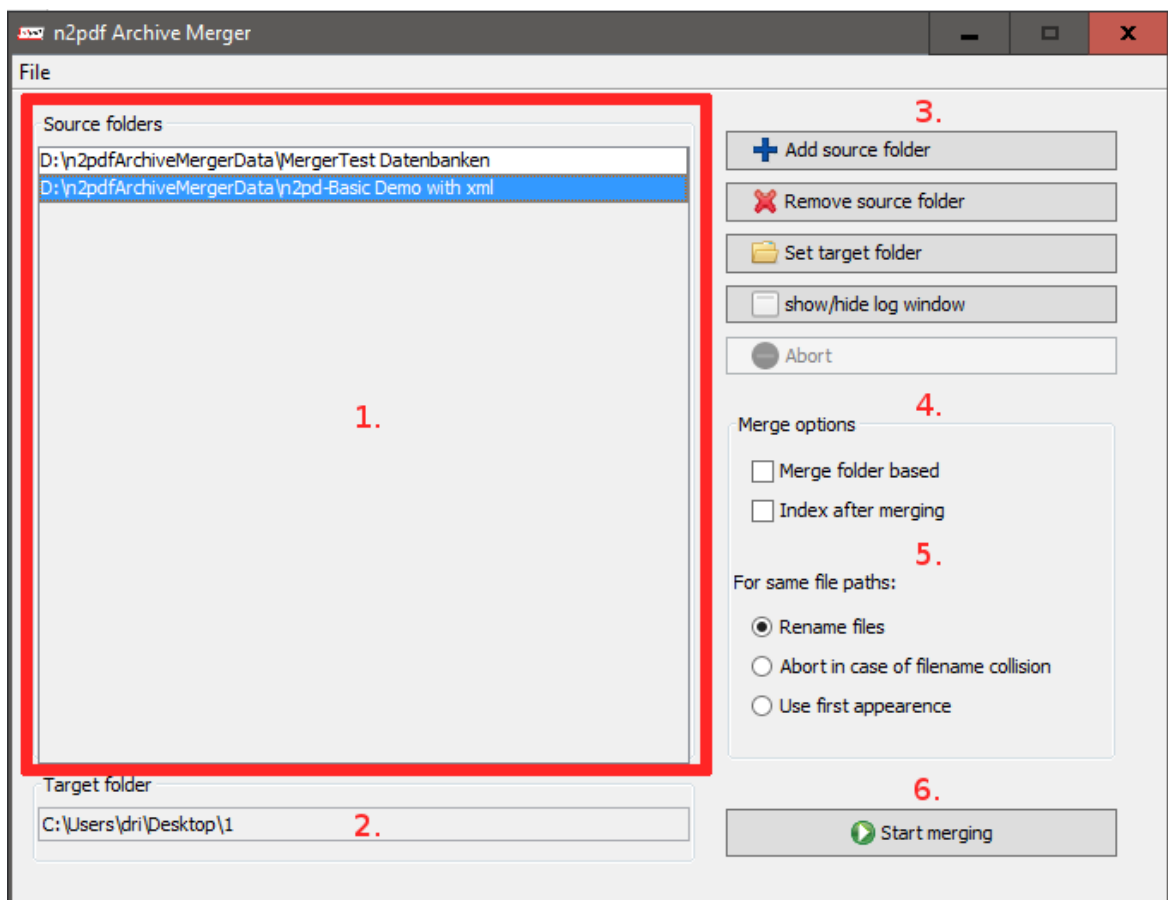
1	View of the selected source folders (the processing sequence can be changed using drag & drop).
2	Displays the selected destination folder
3	Offers folder options (to remove a source folder it must be selected). In addition, a window with the log output can be opened and the running process can be cancelled at the next possible position.

4	Provides options for merging. The use of separate subfolders for each source excludes the occurrence of duplicate file names and the sources remain separated in the default view. Indexing enables the use of the search function in 'n2pdf Search & View'.
5	An option to handle duplicate file names can be selected.
6	The actual process can be started here (to do so, the folders must be selected)

5.4.1.2 Command line

In addition to the graphic user interface, the n2pdf Archive Merger offers you the option of controlling the functions via the command line.

The following options are available for this purpose.

-? (--help, -h)	Displays Help
-fb (--folder-based)	Folder based merging. Each selected project is assigned a separate folder
-g (--gui)	Starts the application with a graphic interface
-i (--index)	After merging, indexing is performed
-mc (--merge-collision)	Duplicate file names are not accepted in the merge process. An occurrence of duplicate file names leads to a termination (*)
-ms (--merge-sequence)	Duplicate file names are not accepted in the merge process. The file processed first is applied (*)
-s (--source)	Specification of the project folders to be merged (order determines processing sequence)
-t (--target)	Specification of the target path
-v (--version)	Output of the version number
-wf (--write-force)	Also accepts folders containing items as the target directory (no n2pdf archive project folders)

(*) If none of the options has been selected, a number reflecting the order of processing is appended to duplicate file names.

5.4.2 Application scenarios

Files from the source folder that do not belong to the project are not copied.

Missing document entries in the structure data (xml/convert.xml) are automatically added during merging. This is not possible for the view data, as they refer to the original view in Notes.

The following conditions must be met for an existing n2pdf archive project to be recognized as such.

- The subfolders "output" & "xml" must exist in the project folder. In addition, the file "convert.xml" must exist in the subfolder "xml"
- There must be no relevant content (*.pdf, *.pdf.lnk) in any folder other than "output"

Multiple n2pdf archive projects

Suppose you want to combine several existing n2pdf archive projects. In this case, all structure data (xml/convert.xml) and view data (design/design.xml, design/view_*.xml) are copied. This means that in the standard view of 'n2pdf Search & View' you will see all entries as well as all previously existing entries in the view mode.

n2pdf archive projects with folders containing PDF structures

Suppose you want to combine one or more existing n2pdf archive projects with one or more folders (which contain PDF structures). In this case, all structure data (xml/convert.xml) and view data (design/design.xml, design/view_*.xml) are copied when the n2pdf archive projects are merged. The structure data are generated for the PDF folders. The result is an n2pdf archive project. The entire content for this project is displayed in the standard view of 'n2pdf Search & View'. The view mode displays the content defined using the existing view data from the n2pdf archive projects.

Folders containing PDF structures

Suppose you want to combine several folders containing PDF structures or just convert one folder into an n2pdf archive project.

In this case, the structure data for all documents is generated when the documents are combined or converted. There are no view data in the resulting project. The entire content for this project is displayed in the standard view of 'n2pdf Search & View' (the view mode is irrelevant here).

5.4.3   Configuration

Just like other components of "n2pdf Search & View", the "n2pdf Archive Merger" contains configuration files that can be customized.

logging-merger.properties

The 'n2pdf Archive Merger' uses the logging framework Log4j. The file logging-merger.properties contains the configuration to be loaded. This can be modified.

n2pdfMerger.vmoptions

In the file n2pdfMerger.vmoptions you can set Options for the Java virtual machine.

6   Attachment

In the appendix to this document you can find additional information on

- Error codes
- List of Files

6.1   Errors

If errors occur in the conversion of job documents, they appear as messages on the server console and are also written to the server's "Log.nsf". The cause of these displayed errors is often an incomplete or erroneous definition of the job document. Frequent reasons are e.g. the lack of selection of a database or the documents, and errors in the definition of formulas or of the search filter. Always begin by checking your job document for completeness and errors in the definition.

When an error message appears, you always find an error number with the message. This error number helps our support to find the cause of the error more quickly. If you cannot resolve the error, please make a note of the error number and contact our support.

6.2 List of Files

In order to manually install the product, you will need to copy the various files to specific directories. The list below shows which files should be put in which directories.

Legend:

xx = Language number

NOTES = Notes client or Domino server directory (where NNOTES.DLL is located)

DATA = Notes data directory (where all databases (*.NSF) are located)

ARCHIVE = Freely definable (during installation) default directory for n2pdf Archive

n2pdf Archive

Filename	Dir.	Description
NN2PDF.EXE	NOTES	Main application / server task
N2PDF.DLL	NOTES	PDF engine for server task
N2PDFARC.DLL	NOTES	Functions for editing packed attachments
NN2PDF.INI	NOTES	Configuration file
N2PDFSTxx.CHM	NOTES	Help file in the appropriate language: 07 = German 09 = English
NSFEXPRTF.DLL	NOTES	RTF export functions
NSFEXPIMGRES.DLL	NOTES	Image resource export functions
nsfExpHtml2Rtf.dll	NOTES	HTML export functions
7z.DLL	NOTES	Archive export functions
libjpeg-8.DLL	NOTES	JPEG export functions
libtiff-5.DLL	NOTES	TIFF export functions
zlib1.dll	NOTES	TIFF export functions

Support tools

Filename	Dir.	Description
SVDSINFO.EXE	NOTES	Program designed to help Support
N2PDFREG.EXE	NOTES	Program used to enter registration keys
N2PDFREG.INI	NOTES	N2PDFREG.EXE settings
N2PDFREG.LNG	NOTES	N2PDFREG.EXE language information

Search & View tool

Filename	Dir.	Description
n2pdfIndexer.exe	ARCHIVE	Program for indexing PDF documents
n2pdfSearch.exe	ARCHIVE	Program for viewing PDF documents
n2pdfMerger.exe	ARCHIVE	Program for merging several PDF document structures
n2pdfIndexer.vmoptions logging-indexer.properties n2pdfMerger.vmoptions logging-merger.properties n2pdfSearch.vmoptions logging-search.properties config.properties	ARCHIVE	Settings for Search, Indexer and Merger Tool

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