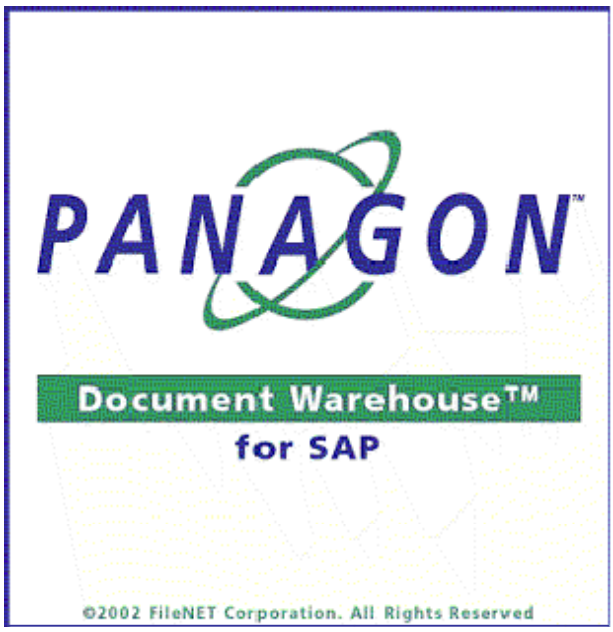
Panagon Document Warehouse for SAP



Installation and Configuration Manual

Release 5.0.1

April 2002

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See”Appendix B - FileNET End User Software License” on page 111.

1 About This Manual

The Panagon Document Warehouse for SAP Installation and Configuration Manual, dated April 2002, supports the 5.0.1 release of the Document Warehouse for SAP software. It covers the new IDM Services for R/3 (formerly known as ServerLink or Server Components), the applications related to it and the new IDM Desktop for R/3 as well as the possibility to use a web based client. Specifically, the components and applications covered in this manual are:

- cServer
- cBarcode
- Installation Program
- Configuration Program
- cDesktop
- iView

1.1 Skill Level Requirements

The installer will need an in-depth understanding of FileNET and SAP systems, as well as a working knowledge of Windows NT or Windows 95 and the corresponding hardware platforms. Specifically, the installer will need to understand the following:

- FileNET system operations
- SAP R/3 System
- PC Operations
- Windows NT 4.0 procedures

1.2 Related Publications

The Document Warehouse for SAP software integrates the standard FileNET system with the SAP system via the SAP ArchiveLink interface.

The following FileNET manuals and SAP documentation will prove useful in the software installation, operation, and administration of Document Warehouse for SAP:

- The “SAP R/3 4.5 Configuration” addendum to the DWSAP Coordinator’s Handbook
- System Administrator’s Handbook for IDM Image Services
- System Administrator’s Companion for your platform
- Software installation procedure for your platform
- Panagon Web Services online documentation
- Online documentation for R/3 System, in particular SAP ArchiveLink documentation

It is recommended that the SAP R/3 documentation for the SAP ArchiveLink interface be obtained and studied.

1.3 Tips, Notes, Cautions, and Background Information

Throughout this manual, there are assorted brief messages designed to draw your attention to different kinds of information:

Tip: Indicates hints to improve efficiency of performing a task.

Note: Provides important information, such as situations that can affect the outcome of an operation or affect some other part of the system.

Caution: Signals, where possible loss of data or time may occur.

Background: *Explains the concepts behind specific features and provides helpful information for understanding the design of SAP ArchiveLink and Document Warehouse for SAP.*

1.4 Education

FileNET offers introductory and advanced classes for system administrators, developers, management, and support personnel. These classes combine lecture and lab sessions to provide both conceptual understanding of the FileNET system and practice in its operation. For more information on class content and schedules, please visit the Education topics in the Services and Support area of FileNET’s web site (www.filenet.com).

You can also use the following phone numbers to request information and to ask questions.

Local: 1.714.327.3412
Toll free: 1.888.FNEDUC8 (888.363.3828)

1.5 Comments & Suggestions

FileNET invites all customers to communicate with the Documentation group on any question or comment related to FileNET manuals and online help. Fax, phone, mail, or email any questions or comments to Mike Calvert at one of the numbers or addresses listed below. We guarantee a response to each communication within one week. Your suggestions help us to improve the products that we deliver.

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2 Welcome to Document Warehouse for SAP, Release 5.0.1

2.1 What's new in the DWSAP 5.0 Release?

2.1.1 Overview

The Document Warehouse for SAP 5.0 release consists of the redesigned server components, referred to as IDM Services for R/3 and the largely enhanced client software IDM Desktop for R/3. IDM Services for R/3 5.0 is compatible with IDM Web Services 3.1 and IDM Desktop for R/3 5.0. It has been also qualified to run with IDM Desktop for R/3 4.0.1.

Note: When using IDM Desktop for R/3 4.0.1 to display documents created with ArchiveLink 4.5, patch 9 is required for proper operation.

Here is a brief overview over the major new functionalities, which are implemented in the 5.0 release of Document Warehouse for SAP:

- Support of SAP ArchiveLink 4.5, including support for the new HTTP Content Server.
- Robust Multiple Instance Support for RFC Communication.
- Improved Installation and Configuration
- SAP DMS Certification
- Document Warehouse for SAP in a web-based client environment
- Automatic Logon
- Support for Multiple Viewers
- Support of CS Libraries

These features are fulfilled with release 5.0 of Document Warehouse for SAP and are explained in the following subsections. Also, beginning with release 5.0, new component names will be used. For more information, see section New Component Names on Page 12.

2.1.2 SAP ArchiveLink 4.5

The Document Warehouse for SAP 5.0 release contains certified support for the new SAP ArchiveLink 4.5 interface. Previous versions of Document Warehouse for SAP were certified up to release 3.1 of the SAP ArchiveLink interface.

The new SAP ArchiveLink 4.5 interface includes a change of the protocol used for communication. Where previous versions used Remote Function Calls (RFC), a protocol proprietary to SAP, release 4.5 of the interface allows for using the non-proprietary and widely accepted Hypertext Transfer Protocol (HTTP). The Document Warehouse for SAP server components (now named "IDM Services for R/3") were completely redesigned, as had been done on the client side for release 4.0.

The SAP ArchiveLink 4.5 interface does not introduce any changes on the client side.

The SAP ArchiveLink 4.5 release does not add much new functionality to the interface. It contains some minor changes. First, the interface part for transferring document information via barcodes now uses a SAP Business API (BAPI) instead of calling a SAP Function Module directly. This approach is less susceptible to changes in the future.

Second, print lists now can be displayed, searched, and annotated from within SAPGUI. These features had only been available through the SAP ArchiveLink Viewer, which is no longer released as part of the SAP R/3 software beginning with release R/3 4.5B. It will still be supported by SAP and Document Warehouse for SAP until end-of-life of the SAP ArchiveLink Viewer has occurred.

2.1.3 Robust Multiple Instance Support for RFC Communication

Document Warehouse for SAP 5.0 still supports the SAP ArchiveLink RFC interface. Functionality has been enhanced by allowing for multiple SAP Gateways being used for communication in a single installation. This reduces the problems associated with the former restriction of using a single SAP Gateway.

All components of Document Warehouse for SAP now use Panagon Web Services for accessing IDM Library Services. The server components must now be installed on a dedicated Windows NT Server gateway machine and can co-exist with IDM Desktop and Panagon Web Services.

2.1.4 Improved Installation and Configuration

Installation and configuration of the product have been enhanced. A new configuration program used for configuring both client and server side of the product is introduced with Document Warehouse for SAP release 5.0.

2.1.5 SAP DMS Certification

Panagon Document Warehouse for SAP 5.0 release is certified for the SAP DMS Interface. In order to become DMS certified, an application has been developed that uses the CAD interface provided by the SAP R/3 system. The CAD interface offers a number of function packages, that allows external programs to create, modify and delete numerous SAP R/3 objects. Out of these function packages, the Document Management functions got implemented for the DMS certification, which allow a user to link external objects (e.g. documents from FileNET archives) to SAP DIRs (Document Info Records) and via these DIRs to SAP R/3 master data like material master etc.

Beginning with R/3 4.5B, SAP offers a new interface to its DMS sub-system, the DMS BAPI. SAP has stated that all future enhancements of the DMS interface will only be available through the DMS BAPI. Document Warehouse for SAP 5.0 release allows customers to use both ways of communication, the CAD interface and the DMS BAPI.

IDM Services for R/3 provides high level SAP DMS functionality in form of two reusable components, which act as an interface to SAP R/3. In order to act as an interface, these components encapsulate the “native” SAP R/3 DMS functions and offer a higher abstraction of the DMS functions. For a detailed description of these functions and how they can be used for programming please refer to the “Programmer’s Handbook 5.0”.

Within the application for the DMS components, which is integrated in the IDM Desktop for R/3, the user only deals with FileNET objects and SAP R/3 master data, the underlying concept of DIRs is hidden.

2.1.6 Document Warehouse for SAP in a Web-Based Client Environment

Document Warehouse for SAP 5.0 release introduces support for a web-based environment. A web-based client refers to a client machine on which IDM Desktop and IDM Desktop for R/3 is not installed, and access to the IDM Libraries is through an Internet browser and IDM Web Services. This web-based client environment can be addressed as followed:

- Access to R/3 is through a local SAPGUI. A local browser will be used for displaying documents from an IDM IS or IDM CS repository (SAPGUI/IDMWS).

In this scenario, Document Warehouse for SAP only supports the display of documents.

Note: A Document Warehouse for SAP web-based client will not interact with the Server Components. It will make use of the IDM Web Services for accessing IDM Libraries.

2.1.7 Automatic Logon

When displaying documents from R/3, the SAP user would need to logon to the FileNET repository because FileNET security cannot be switched off. However, the FileNET systems should be hidden from the user, and the user should not be requested to logon to yet another subsystem.

Document Warehouse for SAP 5.0 release will support the following logon scenarios:

- The user has to logon to the FileNET repository each time. This is the behavior of release 4.0.
- The user’s networking credentials can be used to gain access to the FileNET repository. Logon takes place in the background without user interaction. This is an IDM Desktop configuration option, which is already utilized in release 4.0.
- All SAP users share a generic (central) user in the FileNET repository. The generic user’s credentials will be used by Document Warehouse for SAP to log on. The process of logging on is hidden from the SAP user.
- Each SAP user has a corresponding user in the FileNET repository. On first access to the repository, the SAP user will have to enter his/her credentials once; the credentials will be stored by Document Warehouse for SAP and be used on subsequent logons of the user.

Document Warehouse for SAP 5.0 release will not support single or automatic logon in a web-based client environment where IDM Web Services are used instead of IDM Desktop due to security considerations.

2.1.8 Support for Multiple Viewers

The need to remove the hardcoded dependency of the IDM Viewer Application when displaying documents is realised in Document Warehouse for SAP 5.0 release. It is now possible to choose from three different viewers to display documents:

- standard IDM Viewer Application
- Internet browser
- custom-built viewer application based on the IDMViewerControl,

By supporting different viewers, the client components can be configured in a way such that the same viewer is used when invoking display from within SAPGUI, but not from a View within the IDM Desktop for R/3.

2.1.9 Support for IDM Content Services

It is now possible to use Document Warehouse for SAP 5.0 release for answering status and deletion request against an object in an IDM Content Services Library. Storage and retrieval of SAP generated documents for IDM Content Services is not supported.

3 Concepts

This section provides an overview of the concepts and functionality of FileNET's Document Warehouse for SAP application and its interface with the SAP ArchiveLink world.

In addition, a section explaining the new component names has been included.

Note: This manual contains periodic references to the SAP system where it works in conjunction with IDM Services for R/3 and IDM Desktop for R/3. These references are included for your convenience, as examples only, and to provide a clear understanding of IDM Services for R/3 and IDM Desktop for R/3 procedures. However, SAP is highly user customizable, and we cannot guarantee that your SAP system is configured in the same way as the one used for the examples shown in this manual.

3.1 Overview

FileNET has integrated its standard library systems with the SAP system using the SAP ArchiveLink interface. The result is an application called Document Warehouse for SAP. Document Warehouse for SAP enables SAP's business applications to process FileNET docu-ment images and provides document and data archiving. This documentation assumes that the reader is familiar with FileNET products. Furthermore, this documentation does not provide a comprehensive introduction to SAP R/3 or SAP ArchiveLink.

Tip: The SAP R/3 Online Documentation provides an introduction to the basic concepts of SAP ArchiveLink as well as to its typical usage scenarios.

Document Warehouse for SAP consists of two parts:

- "IDM Services for R/3" represents the product components that integrate SAP R/3 servers with FileNET libraries by implementing the SAP ArchiveLink server-side interface. All components of IDM Services for R/3 run on server machines.
- "IDM Desktop for R/3" represents those product components that implement the SAP ArchiveLink client-side interface either on a client desktop or on a web server.

3.2 SAP ArchiveLink and Document Warehouse for SAP

SAP ArchiveLink connects document imaging systems and document management systems, such as FileNET Panagon IDM Image Services and FileNET Panagon IDM Content Services, to SAP R/3 systems. SAP ArchiveLink is an intermediate layer that sits between the SAP business application and the FileNET system, providing a standard interface to both.

SAP ArchiveLink provides a library of functions to all SAP application modules that the modules use to manage documents stored on the FileNET system. This means that SAP business applications can use document imaging independent of any knowledge of the FileNET system.

Similarly, SAP ArchiveLink and the FileNET system communicate using a standard set of messages that are independent of SAP business applications.

In conjunction with the FileNET system, SAP ArchiveLink provides the following functionality:

- Processes incoming documents before, during, and after archiving.
- Links incoming documents to transactions in the SAP system.
- Links incoming documents to work items that are routed and processed using SAP Business Workflow.
- Archives SAP-generated outgoing documents and print lists directly on the FileNET system.
- Retrieves documents linked to a transaction in an SAP application from the FileNET system and displays the document on the user's workstation.
- Automatically stores data archiving files on optical media and transparently accesses the files as needed.

The following table contains examples of the types of documents that are SAP ArchiveLink enabled. Check the SAP R/3 online documentation for a complete list for each SAP R/3 release.

SAP Module	Original documents	SAP-generated documents
Document Management System (DMS)	Any document	Any document

SAP Module	Original documents	SAP-generated documents
Financial Accounting (FI)	Credit Memo Invoice Payment	Line Item Journal Full Audit Trail Classic Audit Trail Document Journal
Human Resources (HR)	Applications Contracts and related correspondence Photo of Employee Regulatory documents Certificates.	n/a
Materials Management (MM)	Credit Memo Invoice	LIFO valuation report Outline Agreement Purchase Order Schedule Line Master Material
Sales & Distribution (SD)	Complaint Contract Delivery Note Delivery Schedule Order Schedule Agreement Inquiry	Complaint Contract Credit Memo Delivery Note Delivery Schedule Order Confirmation Quotation Schedule Agreement Inquiry Invoice
Workflow (WF)	Any document	Any document

The list of SAP ArchiveLink-enabled applications and individual transactions will increase over time. With SAP ArchiveLink, the FileNET system will be able to process these new document types without modification.

3.3 New Component Names

In order to better reflect the usage of the Document Warehouse for SAP product, the component names have been changed. The following table lists the old and new names.

Old Name (Release 2.x)	Old Name (Release 4.0)	Release 5.0
Document Warehouse for SAP	Document Warehouse for SAP	Document Warehouse for SAP
ServerLink	IDM Services for R/3	IDM Services for R/3
SrvLink, SrvQLink	SrvLink, SrvQLink	cServer
LinkSAP	LinkSAP	cBarcode
SAPSearch, Search	SAPSearch, Search	SAPSearch
ClientLink, CliLink	IDM Desktop for R/3	IDM Desktop for R/3
n/a	CIM, Custom CIM	View
n/a	Browse CIM	Panagon Browse for R/3
n/a	Queue CIM	Panagon Queue for R/3
n/a	Capture CIM	n/a

3.4 System Architecture

The Document Warehouse for SAP 5.0 release contains the newly developed IDM Services for R/3, which consists of two components:

- “cServer” is the server component that fulfils SAP ArchiveLink requests using the RFC and HTTP protocols. For more information, refer to section “IDM Services for R/3 Component ‘cServer” on page 13.
- “cBarcode” is the server component that transfers information about new documents to SAP ArchiveLink based on document barcodes. For more information, refer to section “IDM Services for R/3 Component ‘cBarcode” on page 13.

These IDM Services for R/3 components communicate with IDM Image Services and IDM Content Services libraries through the Panagon Web Services API.

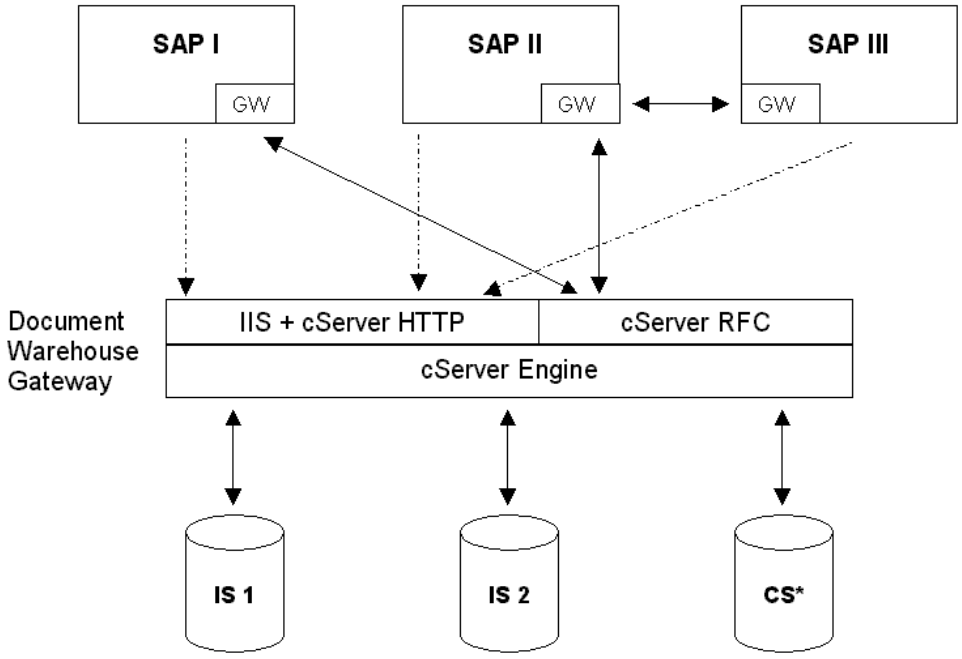
3.4.1 IDM Services for R/3 Component ‘cServer’

The SAP ArchiveLink interface requires the archive vendor to provide a server component that fulfils archiving-related requests. Examples for such requests are “archive a document asynchronously”, “restore a document synchronously”, or “search for a pattern in a print list”.

Depending on the SAP ArchiveLink version, different communication protocols are used. SAP ArchiveLink 3.0 and 3.1 use the Remote Function Call (RFC) protocol. The RFC protocol is proprietary to SAP. SAP has chosen to replace RFC by the widely accepted, industry standard HTTP protocol beginning with release 4.5 of the SAP ArchiveLink interface.

“cServer” is the Document Warehouse for SAP component that is responsible for fulfiling SAP ArchiveLink requests using the RFC and HTTP protocols. It consists of multiple executable and library files.

The following figure shows that the cServer component runs on a dedicated so-called "Document Warehouse Gateway" machine that would also host the Microsoft Internet Information Server. cServer can communicate with multiple SAP systems in a single configuration using both types of communication protocols, RFC and HTTP. For RFC communication, multiple SAP Gateways can be served. HTTP communication makes use of a web server, which can in itself already serve more than one client. And finally, cServer can access multiple FileNET IDM Image Services and IDM Content Services libraries simultaneously.



3.4.2 IDM Services for R/3 Component ‘cBarcode’

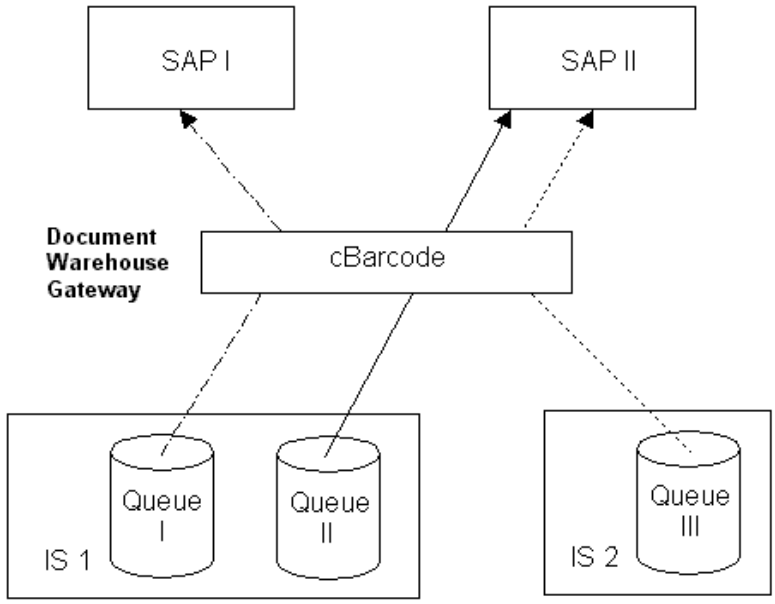
SAP ArchiveLink provides several input scenarios, some of which use barcodes, e.g. the “Late Input with Barcode” scenario. In this scenario the SAP user enters information (business data) from an incoming document into the SAP system and passes the document on to a scan station where the (paper) document is captured into a FileNET library. The business data within SAP must be linked to the FileNET document to complete the input. This can be done via barcodes: The user attaches a barcode label onto the paper document and enters the barcode along with the business data. During capturing, FileNET reads the barcode label and stores its value as a property of the document. The cBarcode component of IDM Services for R/3 is responsible for sending information about the new document along with its barcode to the SAP system, where a program finds the matching business data and creates the link information, which is stored in the SAP system.

Technically speaking, cBarcode uses a FileNET IDM Image Services distributor queue that contains references to the documents that have to be linked to SAP R/3 business objects. The cBarcode

configuration requires at least one mapping of a FileNET queue to an SAP system (as source and destination for the transfer). Multiple FileNET queue / SAP system mappings can be configured.

cBarcode is currently a command line program. When invoked, cBarcode looks up the Queue/SAP System mapping configuration and processes all queue entries of the first mapping. Then all queue entries of the second mapping are processed and so forth. After all mappings have been processed, cBarcode waits for a configurable sleep interval before processing all configured mappings again. In future releases, it is planned to have cBarcode run as a Windows NT Service.

The following figure shows an example of a mapping configuration (from Queue I in a first Image Services library to SAP system I, from Queue II in the same IS library to SAP system II, and from Queue III in a second IS library to SAP system II). The flow of information is indicated by arrows.



4 Installation of IDM Services for R/3

4.1 Requirements

Note: IDM Services for R/3 requirements are largely based on Panagon Web Services requirements.

Minimum hardware requirements are as follows:

- 266 Mhz Pentium II PC
- 128 MB RAM
- 25 MB hard disk space for installation in addition to Panagon Web Services

Operating system:

- Windows NT Server 4.0 with Service Pack 4, 5, or 6a or Windows 2000 with Service Pack 2, with Microsoft Internet Information Server 4.0 (NT Option Pack)

Note: The documentation of the installation is based on MS Windows NT as the operating system. In case the steps are different to Windows 2000, this will be described as well.

- TCP/IP networking protocol

File systems:

- FAT and NTFS for Windows NT

Other software:

- Panagon Web Services 3.1 or higher

Document Warehouse for SAP has been qualified to run with

- IDM Image Services 3.4.2 and later releases
- IDM Content Services 4.3 and 5.1 with Microsoft SQL Server 7.0 and Oracle 8.1.5 databases. Document Classes are required on IDM CS libraries.

Note: Storage and retrieval of SAP generated documents for IDM Content Services is not supported. The server side components are only able to answer status and delete request against an object in an IDM Content Services Library.

- Internet Information Server 4.0

4.2 Prerequisites

Before installing the IDM Services for R/3 software, check the following perequisites:

- The machine must meet the hardware and software requirements as outlined in section “Requirements” on page 15.
- Be logged on as a user with Windows NT/2000 Administrator rights on the machine.
- IDM Web Services must be installed using the IDM Web Services installation procedure.

  Caution: Panagon Web Services must not be installed on the same machine as IDM Image Services or IDM Content Services.

  Note: The installation of IDM Webservices requires that IIS has been installed.

4.3 IDM Services for R/3 Installation

4.3.1 Installation process

The installation program for IDM Services for R/3 is a GUI-based application that copies the program files to the target machine, registers the programs, and creates appropriate entries in the Windows “Start” menu.

IDM Services for R/3 can be installed in two ways:

- If the Microsoft Windows Installer is present on the machine, invoke the “FileNET IDM Services for R3.msi” installation script by double-clicking it or by choosing “Install” from the file’s context menu.

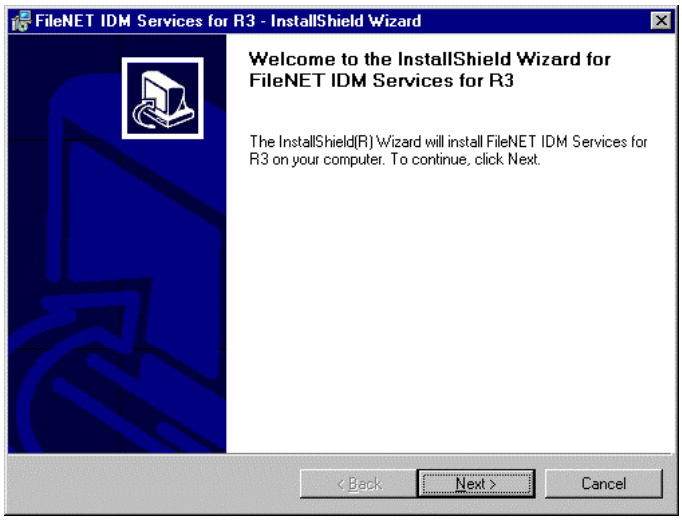
  or

- Execute “Setup.exe”.

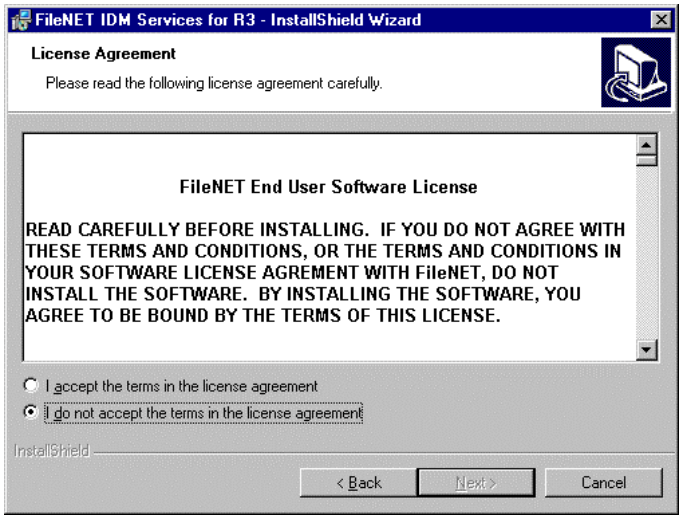
The GUI-based installation of IDM Services for R/3 performs the following steps:

1. The installation determines whether the Microsoft Windows Installer is already present on the target machine. If it is not present, the installation installs Windows Installer first. After a machine reboot, the installation continues with installing IDM Services for R/3.
2. The installation determines whether Panagon Web Services are present. If these are not present, installation cannot continue.

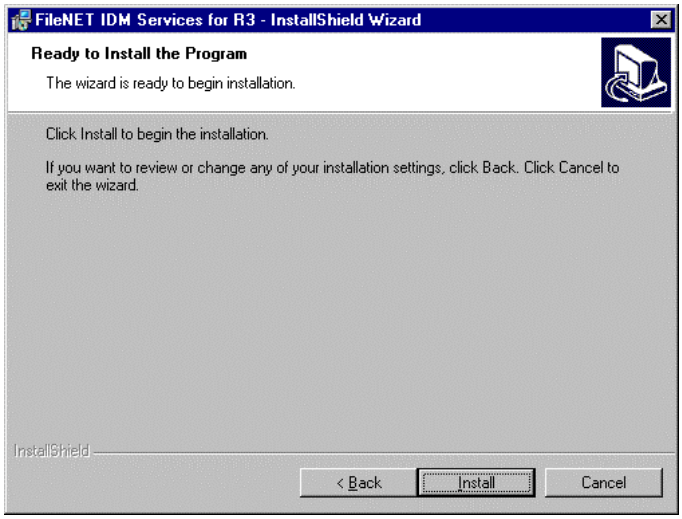
3. Welcome screen.



4. Legal License Agreement screen. The agreement must be accepted in order to continue with installation. Please refer to “Appendix B - FileNET End User Software License” on page 111 after installation, for consulting the Legal License Agreement.

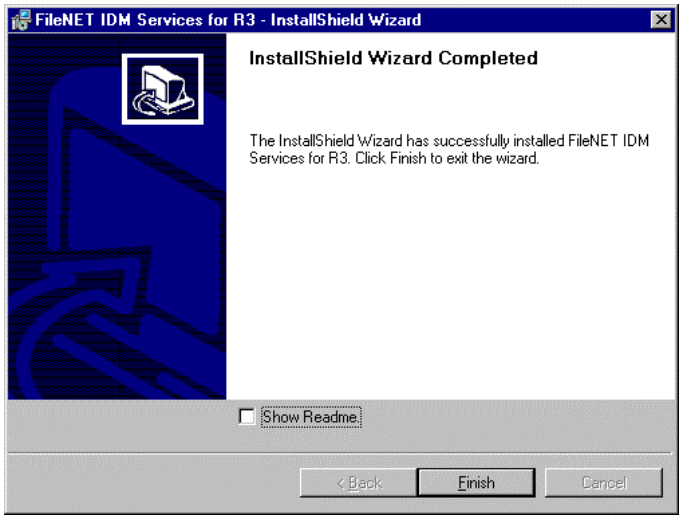


5. Summary screen. Click “Install” on this screen to install the program files. The program will inform you about the progress of the installation.



Tip: Until this point each screen allows the installer to cancel the installation, which would leave the system as it was before the installation program had been invoked, except for the Windows Installer if it was not previously present.

6. Installation Completed screen. This screen provides information on whether the installation performed with or without errors. To invoke the readme file after a successful installation, check the check box at the bottom of the screen.



7. After exiting the Installation wizard the system indicates that a reboot of the server needs to be done.

Note: After the installation has been successfully completed, the configuration program must be used to create the necessary settings for the IDM Services for R/3 components.

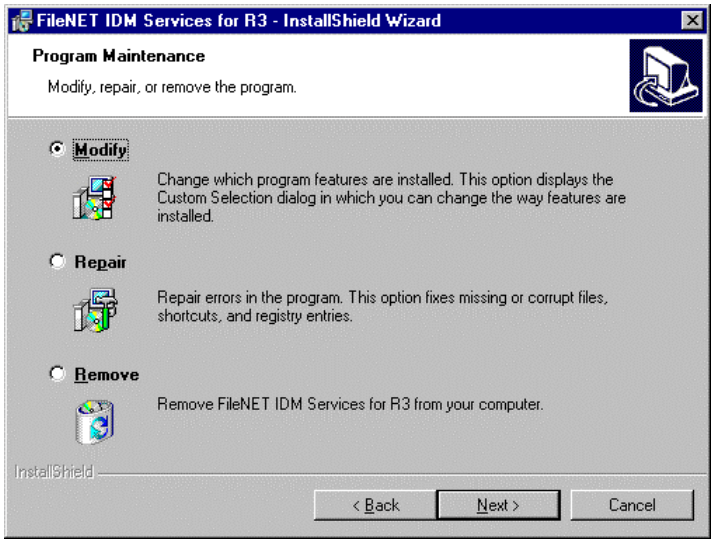
Note: In order to use HTTP communication, configure IDM Services for R/3 in the Internet Information Server. Refer to section “Configuring IDM Services for R/3 in Internet Information Server” on page 27.

4.3.2 Files Installed

The ReadMe file contained in the installation package lists the files that are being copied during the installation process. After the installation has been completed, the ReadMe file is also available in the application directory of IDM Services for R/3.

4.4 Reinstallation and Uninstallation

If some files of the product need to be re-installed for any reason invoke the “FileNET IDM Services for R3.msi” installation, invoke “Setup.exe”, or use the “Add/Remove Software” (“Add/remove programs” in Windows 2000) program of the Windows Control Panel, by choosing “FileNET IDM Services for R/3”. The following dialog will be displayed:



Choose one of the following options:

- Modify: Allows you to delete or install selected components. As Document Warehouse for SAP 5.0 does not have any such optional components, choosing this option has no effect.
- Repair: Re-installs the product by re-copying the program files. For this option, the original CD-ROM has to be in the original drive.
- Remove: Uninstalls the product by deregistering and deleting the program files and removing the product’s entries from the Windows “Start” menu and from the Windows Registry.

4.5 Upgrading from DWSAP Releases 2.2 and 4.0

The Document Warehouse for SAP 5.0 release does not perform automated upgrades from previous releases. Upgrades must be done manually by performing the following steps.

1. Install Document Warehouse for SAP IDM Services for R/3 on the target machine. Since co-existence with previous releases of Document Warehouse for SAP is not possible (due to the Image Services Toolkit (formerly known as “WAL”) installation), any previous releases of Document Warehouse for SAP and any releases of Image Services Toolkit must be deinstalled prior to the new installation. The Image Services Toolkit is not needed anymore for running Document Warehouse for SAP 5.0.

   Caution: As the information of the configuration files (srvlink.cfg, saprfc.ini, and RFCDES) are needed for the manual upgrade, please make a backup of these files, before deinstalling the previous version.

   Note: Review the Caution paragraph in the section “Prerequisites” on page 15 discussing co-existence with IDM IS and IDM CS.

2. Previous releases of Document Warehouse for SAP were configured using three configuration files (srvlink.cfg, saprfc.ini, and RFCDES) along with environment variable settings. These files and variables are obsolete because the storage location and structure have changed completely. During upgrade it is necessary to enter the information contained in these files into the configuration program. The following table provides details about how previous configuration settings can be converted to the new configuration settings using the configuration program. A new setting of “n/a” refers to an obsolete setting. Please refer to section “The Configuration Program” on page 28 for details on how to use it.

Source	Setting	New Setting
environment	RFCSYS	n/a
	RFC_INI	n/a

Source	Setting	New Setting
	SRVLINK	n/a
srvlink.cfg	LOGFILE	Logging / Log file name
	LOGALL	Logging / Log level
	CONSOLE	n/a
	SAP_VERSION	n/a
	PROGNUM	n/a
	VERSION	n/a
	TIME_FORMAT	n/a
	BASEPATH, ARCHPATH	Available for a specific SAP archive under SAP Systems / <system name> / <archive id>. These paths are now set individually for each archive. The default paths are not available anymore.
	DOC_DELETE	See new setting for BASEPATH.
	ARCHIVE=<id>, <fnlib>:<user>:<pw>	This information is now split into a FileNET Library part and an SAP-specific part. First, add the FileNET library (fnlib) under FileNET Libraries including the user and password information. Second, add the archive (now called “storage sytem”) to the appropriate SAP system at SAP Systems / <system name>. Note that the list of archives is now configured individually for each SAP system.
	[DOCTYPES] <sapdocclass>= <fndocclass> DEFAULT= <fndocclass>	This list maps SAP Technical Document Classes to FileNET Document Classes. It is used when creating a new document in a FileNET library. This list is now configured individually for each SAP archive under SAP Sytems / <system name> / <archive name> / Document Classes.
	[LINKSAP] WORKSPACE=… QUEUE=… INDEX=… BARCODELEN=…	The cBarcode (formerly called LinkSAP) information is now configured individually for each SAP archive. You can access the information in two ways. First, under SAP Sytems / <system name> / <archive name> / cBarcode. Second under cBarcode / <system name> / <archive name>. Note that the INDEX setting is now called Barcode Property.
	[ASYNCQUEUE] FNLOGON=… WORKSPACE=… QUEUE=…	The Asynchronous Queue of Document Warehouse for SAP release 4 and the Request Queue of Document Warehouse for SAP release 5 are not compatible with each other. The old queue can be deleted, therefore it is necessary to create a new queue using the Configuration Tool.
	[<LOGSYSTEMID>. <ARCHIVEID>]	The previously available concept of defining default values in general sections with potential override in an SAP storage system-specific section is no longer available. Instead, there is no default information but only SAP archive-specific information. This will improve the comprehensibility of the configuration. In order to convert the information of this section, gather the default information of sections [CONFIG], [DOCTYPES], and [LINKSAP] and merge it with what is defined under this section. The result is the SAP archive specific setting. A description of how to convert the individual settings can be found above in the [CONFIG], [DOCTYPES], and [LINKSAP] conversion details.

Source	Setting	New Setting
saprfc.ini	DEST=<sapsys> DEST=<sapsys>_SV	Maps to the SAP system name under SAP Systems. IDM Services for R/3 configuration has removed the need to have separate configurations for RFC servers (TYPE=R) and clients (TYPE=A). Instead, it uses a single set of RFC connection information for both types of RFC communication. This set of information is entered under SAP Systems / <system name> / RFC communication.
	TYPE=R TYPE=A	n/a (see above)
	ASHOST	Maps to SAP Application Server
	SYSNR	Maps to SAP Sytem Number
	GWHOST	Maps to SAP Gateway Host
	GWSERV	Maps to SAP Gateway Service
	PRODID	Maps to Program ID
	RFC_TRACE	Maps to RFC Trace Enabled in the RFC Server section and the RFC Client section.
RFCDES	<first identifier>	Enter the information contained in each line under SAP Systems / <system name> / RFC Communication, where <system name> maps to the first identifier of the RFCDES line.
	C=<client>	Maps to SAP Client
	U=<user>	Maps to SAP User
	P=<password>	Maps to SAP Password
	L=<language>	n/a
	M=<mode>	n/a
	T=<trace>	Maps to RFC Trace Enabled in the RFC Client section.

3. After having converted the previous configuration, it is mandatory to enter the new configuration information that has been introduced with this release of Document Warehouse for SAP. For more information, see section “IDM Services for R/3 Configuration” beginning on page 32.
4. It is possible to maintain a previous release of Document Warehouse for SAP if it is running on a separate maschine. For this scenario different RFC destinations must be used.

Caution: If it is desired to use the SAP ArchiveLink Viewer for searching in print lists, the Search program (NT Service “SapSearch” or UNIX daemon “search”) from the previous version of Document Warehouse for SAP must be used and kept running on any machine, except the server where Document Warehouse for SAP 5.0 is running. For more information regarding Search, please refer to section “Attribute and Free Search with the SAP ArchiveLink Viewer” on page 108.

4.6 Additional Installation for Web-Based Client Environment

If a web-based client environment is used following additional installation on the server needs to be done.

***Background**: A web-based client refers to a client machine on which IDM Desktop and IDM Desktop for R/3 is not installed, and access to the IDM Libraries is through an Internet browser and IDM Web Services. Access to the SAP system is through a local SAPGUI. A local browser will be used for displaying documents from an IDM IS or IDM CS repository (SAPGUI/IDMWS). In this scenario, Document Warehouse for SAP only supports the display of documents.*

4.6.1 Installation process

The installation program for IDM Services for R/3 is a GUI-based application that copies the program files to the IDM Web Services directory on the server and registers the programs.

IDM Services for R/3 can be installed in two ways:

- Invoke the “FileNET IDM Services for R3.msi” installation script by double-clicking it or by choosing “Install” from the file’s context menu.

  or

- Execute “Setup.exe”.

The GUI-based installation of IDM Services for R/3 performs the following steps:

1. Welcome Screen
2. Legal License Agreement screen. The agreement must be accepted in order to continue with installation. Please refer to “Appendix B - FileNET End User Software License” on page 111 after installation, for consulting the Legal License Agreement.
3. Setup Type screen.The default setting is on “custom”. Click on “next”.
4. Custom Setup screen. Click on the “change” button in order to chose the appropriate path for the installation. This must be the IDM Web Services directory, e.g. c:\program files\FileNET\IDM\Web\IDMWS, where the “home.asp” is located. Click “OK” and the custom setup screen appears again. Check if the path shown under “Install to” is correct. Click “Next” to continue.
5. Summary screen. Click “Install” on this screen to install the program files. The program will inform you about the progress of the installation.
6. Installation Completed screen. This screen provides information on whether the installation performed with or without errors. Click “finish” to close the Installation Wizard.

For more information regarding configuring server and client in a web-based environment, refer to the sections “Configuration for Web-Based Client Environment” on page 56 and “Configuration for SAPGUI/IDMWS Environment” on page 105.

5 General Server Configuration

In order to run Document Warehouse for SAP several general adjustments on the IDM Image Services and/or IDM Content Services server, as well as on the IDM Services for R/3 server need to be done. This configuration is described in the following sub-sections.

5.1 Configuring FileNET IDM Libraries

Background: *Document Warehouse for SAP uses FileNET Libraries to store incoming original documents, print lists, outgoing documents, document images, data archiving data, and other document types archived from the SAP system.*

Each FileNET Library system needs to be prepared for use with Document Warehouse for SAP by performing these steps:

- Define Index Fields. For more information, see section “Defining FileNET Index Fields” on page 23.
- Define Document Classes. For more information, see section “Defining FileNET Document Classes” on page 25.
- For RFC communication, create an IDM IS queue for asynchronous SAP ArchiveLink requests. For more information, see section “Creating the IDM Services for R/3 Request Queue” on page 25.
- Optionally, create distributor queues for barcode transfer. For more information, see section “Creating IDM Image Services Queues for Barcode Transfer” on page 26.
- Optionally, create distributor queues for further processing of new documents. For more information, see section “Creating IDM Image Services Queues for Processing Incoming Documents” on page 26.

5.1.1 Defining FileNET Index Fields

Background: *Documents stored in a FileNET library via SAP ArchiveLink are indexed in the SAP system using the link tables provided in the SAP database. Some additional information must be stored as part of the FileNET document requiring the definition of specific index fields for use in document classes.*

Tip: Define these index fields using the Database Maintenance (for IDM Image Services) or DocType and CVL tool (for IDM Content Services).

Note: All of the index fields that are required for previous versions of Document Warehouse for SAP still apply and are used.

The following table lists and describes the index fields that need to be defined. A detailed description of the index field parameters follows thereafter.

Index Field	Description
SAPType	SAP Technical Document Class. Required.
ALFpages	Number of IDM IS document pages containing the “data” component of a print list. Required for storing print lists. Applies to IDM IS only. ***Background:*** *Large print lists are split into multiple pages for faster retrieval.*
ALFdpages	Number of IDM IS document pages containing the “descr” component of a print list. Required for storing print lists. Applies to IDM IS only.
SAPDocId	SAP provides the document identifier for those documents created by an SAP system. Required for SAP ArchiveLink 4.5 and later.
SAPContType	MIME type, including optional MIME type information such as character set and application version. Although FileNET Libraries store the MIME type of a file during commital, SAP requires potentially different information. Required for SAP ArchiveLink 4.5 and later.
SAPDocProt	SAP document protection information. Combination of the access modes r, c, u, and d (read, create, update, delete), representing the need to verify the digital signature of SAP ArchiveLink requests. Required for SAP ArchiveLink 4.5 and later.
SAPCompCreated	SAP document component creation timestamps. Required for SAP ArchiveLink 4.5 and later.

Index Field	Description
SAPCompLengths	SAP document component lengths. In order to enhance perfomance, Document Warehouse for SAP stores components lenghts in this index. Required for SAP ArchiveLink 4.5 and later.
SAPCompModified	SAP document component modification timestamps. Required for SAP ArchiveLink 4.5 and later.
SAPComps	SAP document component IDs. SAP references components of a document by ID, not by page numbers. Required for SAP ArchiveLink 4.5 and later.
SAPDocDate	SAP document creation and modification timestamps. Required for SAP ArchiveLink 4.5 and later.

For IDM Image Services, the index fields must be defined as follows. Note that the index names are case sensitive.

Index Name	Type	Retrieval Key	Length	Convert to uppercase
SAPType	String	No	3	Yes
ALFpages	String	No	3	No
ALFdpages	String	No	3	No
SAPDocId	String	Yes	32	Yes
SAPContType	String	No	239	No
SAPDocProt	String	No	4	No
SAPCompCreated	String	No	239	No
SAPCompLengths	String	No	239	No
SAPCompModified	String	No	239	No
SAPComps	String	No	239	No
SAPDocDate	String	No	239	No

Note: To process documents with barcodes attached, an additional index field is required that will contain the barcode value. Any name can be chosen for this index field. It is referenced in the configuration of the cBarcode component. Compare section

IDM Services for R/3 Category ‘cBarcode’” on page 53.

5.1.2 Defining FileNET Document Classes

Background: *A FileNET document class generically defines the index fields, security, and further attributes for documents. When storing a new document, the document must be assigned to a FileNET document class from which it inherits its attributes. Document Warehouse for SAP uses the SAP-provided MIME type (HTTP) or SAP Technical Document Class (RFC) for determining the FileNET document class in which to store a new document. To configure this mapping of SAP types to FileNET document classes, the configuration program is used.*

Depending on the type of document, its format and contents, different index fields are required or recommended. SAP print lists, for example, require the ALFpages and ALFdpages index fields to be present in their document class whereas barcode scenarios require a barcode index field.

Tip: Define FileNET document classes using the Database Maintenance (for IDM Image Services) or the DocType and CVL tool (for IDM Content Services).

Tip: It is recommended that a separate FileNET document class should be created for each SAP Technical Document Class defined and used on the SAP system.

Tip: Additional customer-specific index fields can be assigned to the Document Warehouse for SAP document classes. These custom index fields will not be evaluated or changed by the Document Warehouse for SAP components.

Except for ALFpages and ALFdpages, all index are required for document classes to be used with SAP R/3. ALFpages and ALFdpages are required for printlist (ALF) document classes. For IDM Image Services, when assigning index fields to document classes, leave the attributes “Verify”, “Batch Total”, and “Auto Index” blank.

Note: If you want to use any scenarios for Incoming Documents involving barcodes, you will also have to define a field that will hold the barcode value. This index field has to be referenced in the cBarcoce configuration. For more information, refer to

IDM Services for R/3 Category ‘cBarcode’ “ on page 53.

5.1.3 Creating the IDM Services for R/3 Request Queue

Background: *Document Warehouse for SAP uses an IDM Image Services queue to store processing and status information for certain types of SAP ArchiveLink requests, namely asynchronous RFC requests. This queue must have a certain format, which is automatically created by the configuration program.*

Use the configuration program to create the IDM Services for R/3 Request Queue. For more information,refer to section “IDM Services for R/3 Component ‘cServer” on page 35.

5.1.4 Creating IDM Image Services Queues for Barcode Transfer

Background: *For background information, see section “IDM Services for R/3 Component ‘cBarcode” on page 13.*

A cBarcode compliant queue must contain the following user fields:

Queue Field	Type	Len	Required	Unique	Rend.	Display	Sorting
DocumentNumber	Document	4	Yes	Yes	No	Yes	No
DWStatus	String	20	No	No	No	Yes	No
DWRemark	String	239	No	No	No	Yes	No

The configuration program provides a means to create a queue containing this set of user fields. For more information, see section “

IDM Services for R/3 Category ‘cBarcode’“ on page 53.

Note: Document Warehouse for SAP does not provide a tool to create more complex queues or modify existing ones. Use the IDM Desktop “QMaintenance” program or another tool for these kinds of tasks.

5.1.5 Creating IDM Image Services Queues for Processing Incoming Documents

Background: *After incoming documents have been captured and stored in a FileNET Image Services library, they can be processed further, for example by the Queue CIM as input to SAP R/3. IDM Image Services “distributor queues” facilitate this approach by assigning a queue to a document class. This distributor queue automatically receives a new entry when a new document is comitted to the document class. If the distributor queue has a queue field of type “Document”, this field automatically receives the document id of the newly created document.*

A queue to be used for Incoming Documents must contain at least the following user field:

Queue Field	Type	Len	Required	Unique	Rend.	Display	Sorting
DocumentNumber	Document	4	Yes	Yes	No	Yes	No

Creating this queue is optional and cannot be done by the configuration program. Use the IDM Desktop “Qmaint” program or another tool for these kinds of task.

5.2 Configuring FileNET Panagon Web Services

IDM Services for R/3 uses Panagon Web Services to access IS and CS libraries. Typically, there is very little to configure for Document Warehouse for SAP. However, observe the following:

- Configure at least one FileNET IDM IS library. Response times have been found to be very slow if no Default Network Library exists.
- Do not enable IDM Trace when running IDM Services for R/3. If IDM Trace is enabled, none of the Document Warehouse for SAP components will be able run.

5.3 File Exchange Directories

Background: *Print lists, outgoing documents, document images, data archiving data, and other document types are archived from the SAP system and stored in FileNET library systems. Documents archived to the library can also be restored to the SAP system. When using RFC, documents can be archived and restored between the FileNET and SAP systems by reference, i.e. The messages exchanged between the two systems include the names of the data files that need to be processed, not the document data themselves. The data files for processing are typically placed in the following temporary directories, created for this purpose:*

- Archival Path/“Basic Path”. This directory contains data files to be stored in an archive (FileNET library).

- Retrieval Path / “Archive Path”. This directory contains data files restored by Document Warehouse for SAP.

Note: These directories are defined during SAP customization as well as during IDM Services for R/3 configuration for each archive.

5.3.1 Directory Guidelines

The Archive and Basic directories must be part of a Network File System (NFS) that both the SAP Application Server and IDM Services for R/3 can access. SAP ArchiveLink can then be scheduled to send archiving requests to Server Components at a time that suits the traffic on the network. This can be important if large numbers of documents are archived or if the documents themselves are large. If the SAP system contains more than one application server, each must have access to the directories.

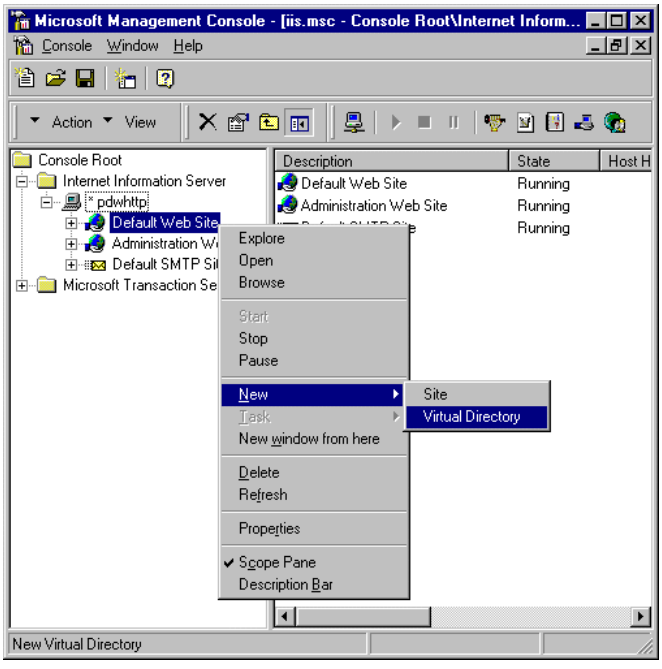
The following conditions affect the amount of disk space required for the Archive and Basic directories:

- The number and size of new documents being archived, and the size of data files being written to the archive directory.
- The number and size of new documents being retrieved from the FileNET Library Service and the corresponding files being written to the data directory.
- Whether print lists are indexed or not. Indexed print list data files have an accompanying description file that increases the amount of disk space required.
- Whether or not the SAP ArchiveLink archiving request messages sent to FileNET instruct IDM Services for R/3 to delete the file after the document has been successfully committed to the library. Storing data and archiving data via RFC keeps the files in place whereas storing print lists via RFC instructs IDM Services for R/3 to delete the file after proper storage.
- Whether or not the administrator deletes files from the Archive and Basic directories after they have been stored.

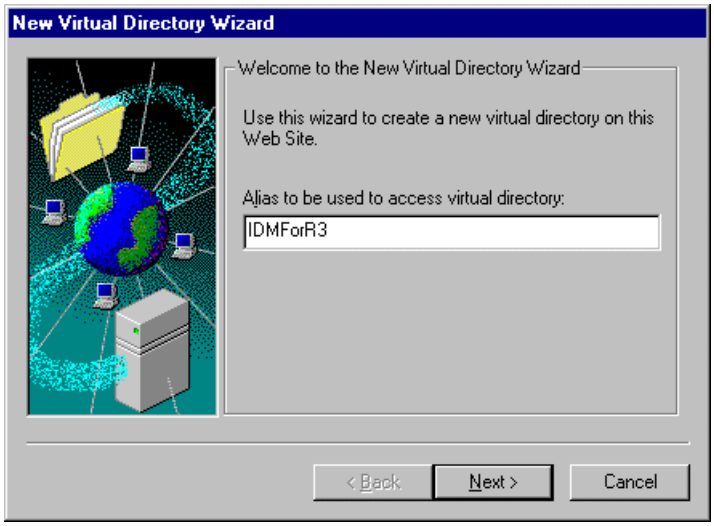
5.4 Configuring IDM Services for R/3 in Internet Information Server

For HTTP communication, IDM Services for R/3 uses the Microsoft Internet Information Server (IIS) as its web server. The following procedure describes how to add IDM Services for R/3 to IIS:

1. Start the Internet Service Manager. After a standard installation of IIS, this is done by selecting “Start”→”Programs”→”Windows NT 4.0 Option Pack”→”Microsoft Internet Information Server”→”Internet Service Manager”.
2. Select the “Default Web Site” and add a new Virtual Folder by choosing “New”→”Virtual Directory” from the Context Menu or the Action Command Box.

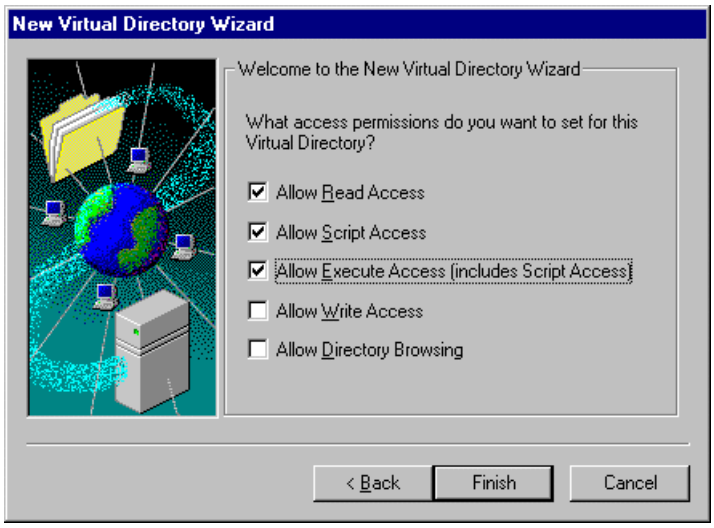


3. The “New Virtual Directory Wizard” starts. Add a name to be used as an alias to access the virtual directory, e.g. “IDMForR3”. Click Next.



4. Enter the physical path of the IDM Services for R/3 directory. You can use the “Browse” button to select the directory from a dialog. Click Next.

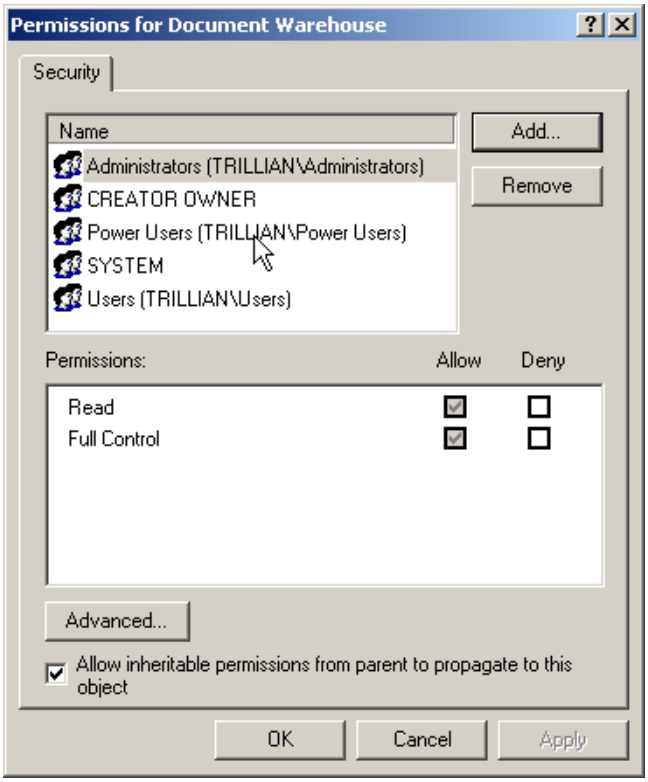
5. Set the access permissions for this directory. Make sure that “Allow Read Access”, “Allow Script Access” and “Allow Execute Access” are checked. Click Finish.



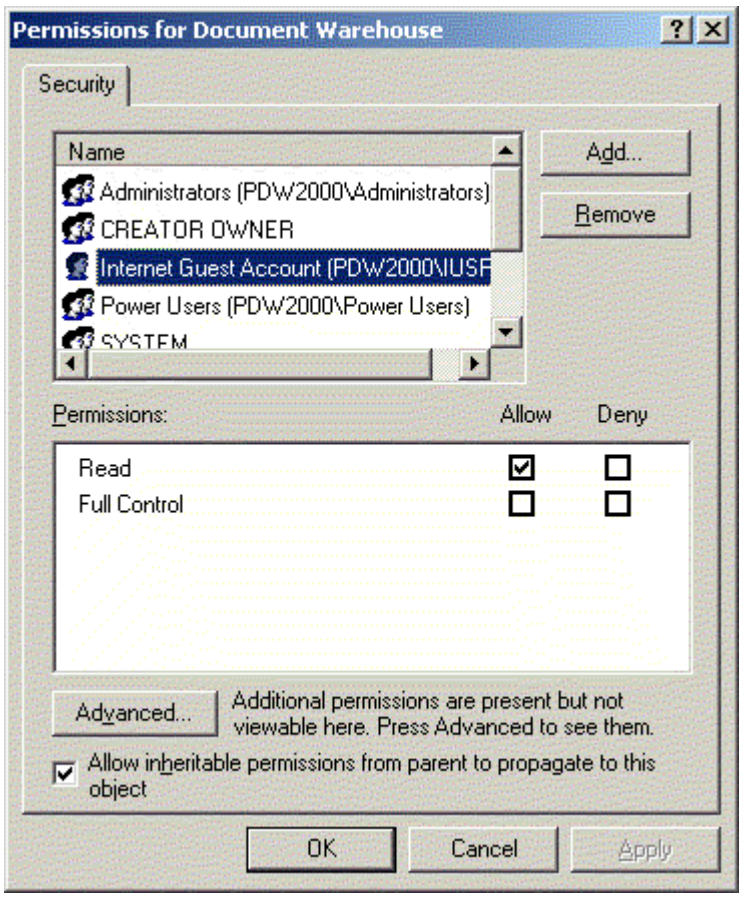
5.5 Changing registry rights for using HTTP

Note: If the operating system of the server is Windows 2000, following amendments in the registry needs to be done in order to use HTTP without problems.

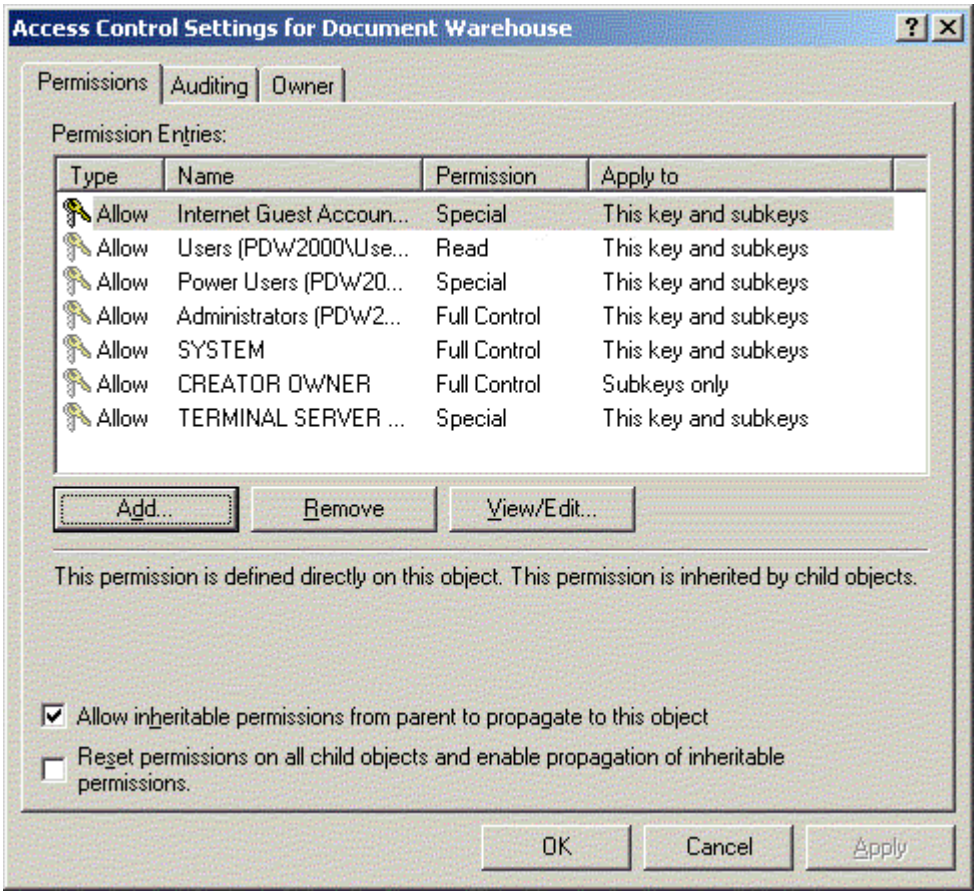
1. Run “regedt32”.
2. Choose window “HKEY_LOCAL_MACHINE” and open “Software”→”FileNET”→”Document Warehouse”.
3. In the menu click on “security”→”permissions..”



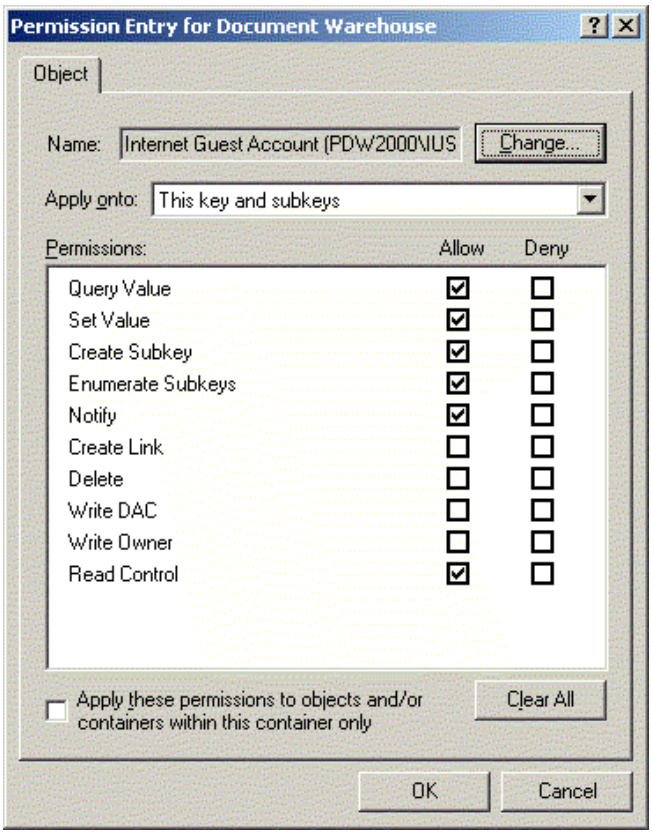
4. Click on the “add” button and choose the local machine in the field “look in”. A list of all users appear. Select the user “IUSR_<machinename>” and click on “Add”. After the user appears in the bottom window, click “ok”.



5. Click on the “Advanced…” button. The Internet Guest Account is already selected.



6. Click on the “View/Edit..” button and select check following boxes (additonal to the default settings): “set value” and “create subkey”.



7. Close all windows by clicking “ok”.

6 IDM Services for R/3 Configuration

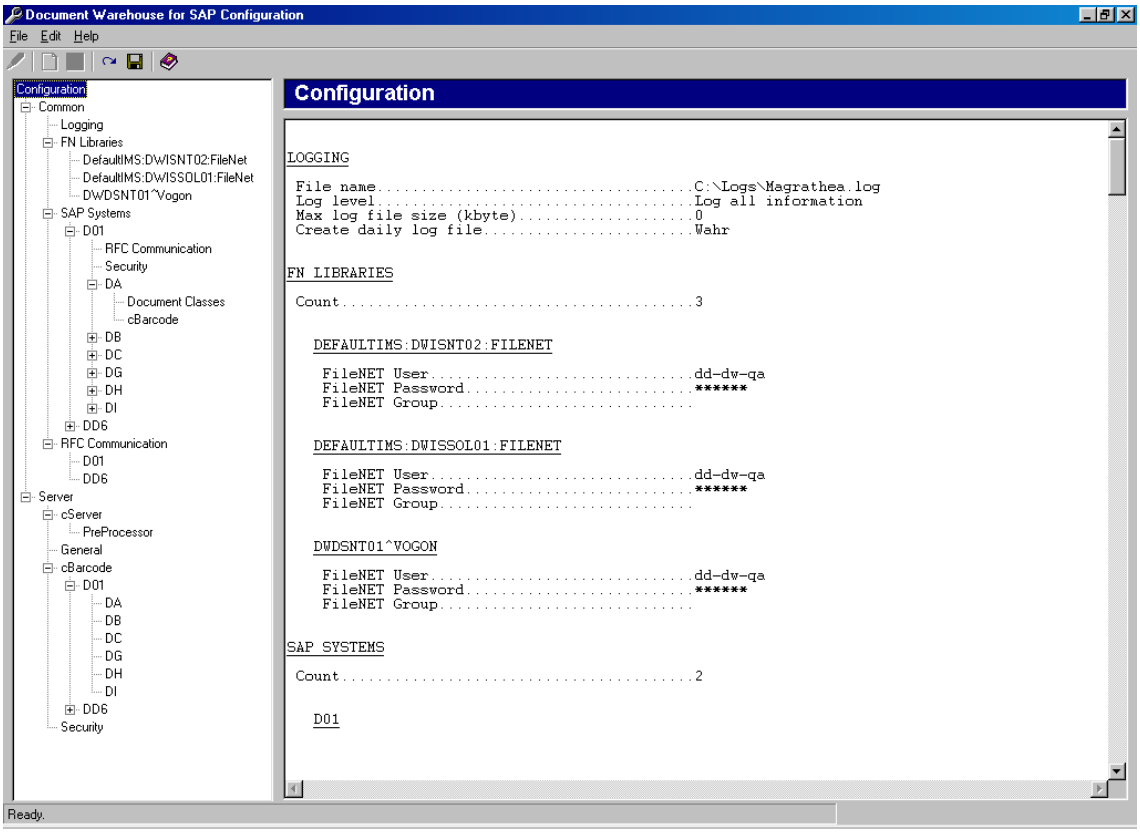
6.1 The Configuration Program

Document Warehouse for SAP release 5.0 provides a greatly improved configuration program. The product's configuration has been completely redesigned with regard to the user interface as well as to the configuration logic and storage. Most notably, there is no more need to manually configure the product using INI and similar configuration files. All features and settings are available through the user interface of the new configuration program.

The configuration program is started via the Microsoft Windows "Start" menu. Choose "Start"→"Programs"→"FileNET IDM Services for R3"→"Configure".

Note: In order for IDM Services for R/3 to recognize an updated configuration, the components must be restarted. For more information refer to section "Stopping and Starting cServer" on page 55.

The configuration program provides a menu bar, a tool bar, a tree of configuration categories, a status bar, and an area in which the actual preferences are set and modified. When started, the following user interface is displayed, where the configuration category is selected in the categories tree, and the preferences area shows a summary report of the current configuration. The configuration report can also be found in the file CfgReport.txt in the IDM Services for R/3 directory.



- The menu bar provides the following menus and menu items.

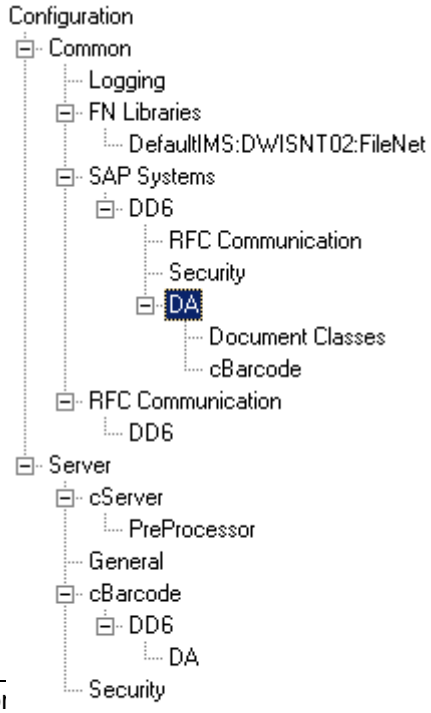
Menu	Menu Item	Description
File	Reload Configuration	Reloads the configuration from its storage location. All changes that have not been stored yet will be discarded.
	Save Configuration	Saves the current configuration permanently.
	Import	Imports a configuration from a *.dwc file. The current configuration will be overwritten.
	Export	Exports the current configuration and saves it in a *.dwc file.
	Exit	Closes the configuration program without saving. If any information was changed, a prompt will give a chance to save the changes.

Menu	Menu Item	Description
Edit	Rename	This item is available when a category has been selected that represents the name of an SAP system, an SAP archive, or a FileNET library. Choose this function to rename the category (and thereby the name under which the system is known to the Document Warehouse for SAP components).
	Add	This item is available when a category has been selected that contains a variable list of sub-categories. Currently, this applies to the SAP systems category, where you can add SAP systems, the FileNET Libraries category, where you can add FileNET libraries, and each SAP system category, where you can add SAP archives.
	Remove	Use the Remove option to remove those sub-categories that have been added using the Add function. First, select the sub-category to be removed, then execute this menu item.
Help	Contents	Displays this documentation: “Installation & Configuration Manual”.
	About	Displays the About box.

- The toolbar provides fast access to more frequently used features. All toolbar features are available via menu items as well. Please refer to the menu item’s descriptions for details.

Icon	Name	Description
	Rename	Renames a sub-category.
	Add	Adds a sub-category.
	Remove	Removes a sub-category.
	Reload	Reloads the configuration from its storage location.
	Save	Saves the configuration in its storage location.
	Help	Displays the online documentation.

- The categories tree provides a list of categories, that need to or can be configured. Selecting a category or a subcategory displays the related preferences in the preferences area to the right of the tree, where configuration information can be altered. The specific categories, preferences and configuration options are explained in subsequent sections of this documentation. When selecting certain categories, additional options are available, such as adding a sub-category or renaming a category. These are explained in detail in each category’s section.



- The status bar shows information about the program’s status, the success or failure of the last action, or other brief information. It is usually updated after an action has been performed.

Caution: All configuration information is currently stored in the Windows Registry. FileNET reserves the right to change the storage location without notice.

6.2 Configuration Overview

Invoke the configuration program via the Microsoft Windows “Start” menu. Choose Start→Programs→FileNET IDM Services for R3→Configure.

The configuration program displays IDM Services for R/3-specific categories in the categories tree. (See screenshot on

the right). The following table gives a short description for each category.

Refer to subsequent sections for details on configuring the preferences of a certain category.

Category	Description
Configuration	The preferences area displays a summary report of the current configuration.
Common	No information in preferences area. Top-level branche for Logging, FileNET Libraries, SAP Systems and RFC Communication.
Logging	Configuration of logging-related preferences.
FileNET Libraries	Contains list of FileNET libraries as sub-categories.
<fnlibid>	Name (identifier) of a configured FileNET library, e.g. “DefaultIMS:deepthought:FileNet”.
SAP Systems	Definition of SAP Systems known to IDM Services for R/3.
<sapsystemname>	Name of a configured SAP system, e.g. “P20”. This name is arbitrary but it is recommended that it reflects the actual name of the SAP system it represents.
RFC Communication	RFC communication-related preferences specific to an SAP system.
Security	Security-related preferences specific to an SAP system.
<storagesystemname>	Name of an SAP archive the SAP system uses, e.g. “A1”. An SAP system can have multiple SAP archives.
Document Classes	SAP and FileNET document classes used for storing a document in a specific SAP archive.
cBarcode	Configuration of preferences related to the cBarcode component, which are specific to an SAP archive.
RFC Communication	Configuration of preferences related to RFC communication.
<sapsystemname>	RFC communciation-related preferences specific to an SAP system.
Server	No information in preferences area. Top-level branche of cServer, General, cBarcode, Security.
cServer	Configuration of preferences specific to the cServer component.
PreProcessor	Configuration of preferences if a PreProcessor is used.
General	Configuration of commonly used preferences.
cBarcode	Configuration of preferences specific to the cBarcode component.
<sapsystemname>	Name of a SAP system defined under SAP Systems.
<storagesystemname>	Configuration of preferences related to the cBarcode component and which are specific to an SAP archive.
Security	Configuration of preferences related to security

Tip: Certain SAP system-specific or SAP archive-specific information is available through two or more sub-categories of the categories tree. For example, selecting the sub-category

Common / SAP Systems / <sapsystemname> / <storagesystemname> / cBarcode

displays the same (identical!) information in the preferences area as

Server / cBarcode / <sapsystemname> / <storagesystemname>.

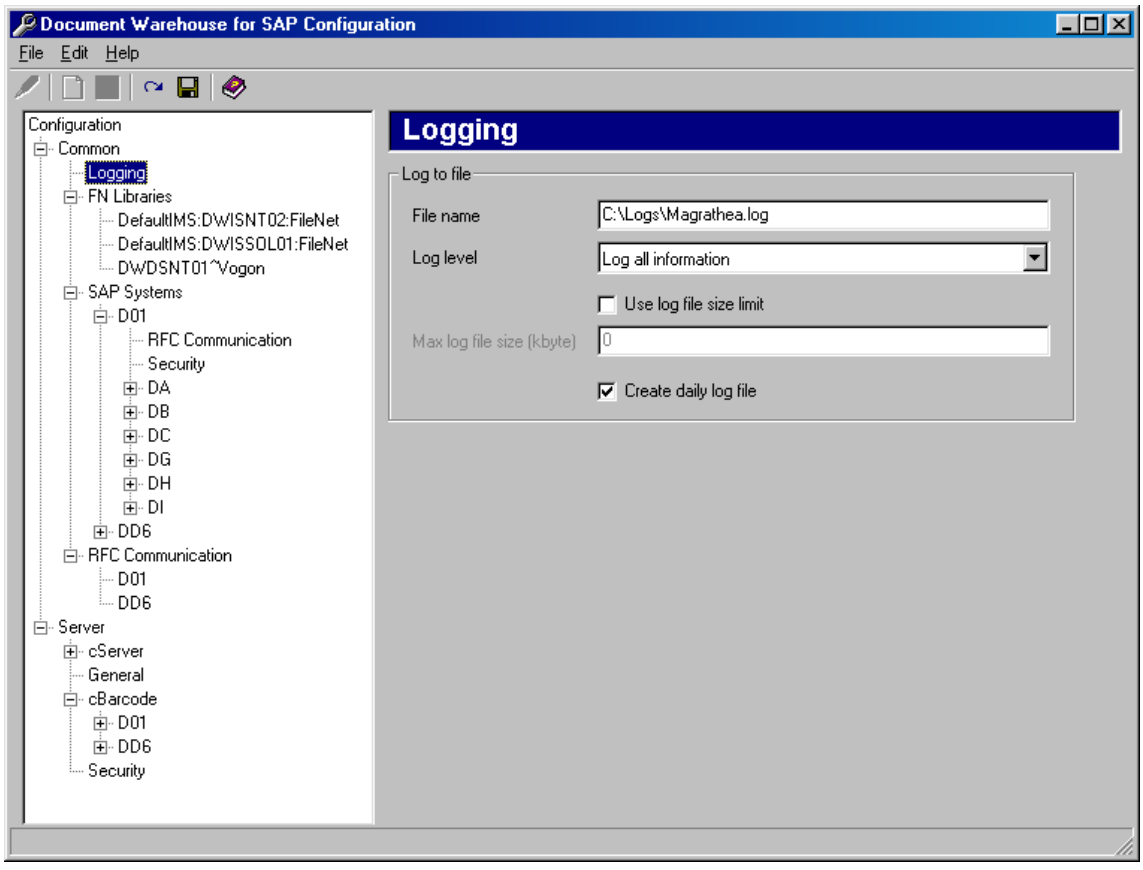
It is important to notice that the preferences altered under one of the two categories are instantly reflected under the other sub-category simply because it is one and the same information.

In the following, all IDM Services for R/3 categories and preferences are explained in detail. The categories are devided into two main categories: “Common” and “Server”.

6.3 IDM Services for R/3 Category ‘Logging’

Background: *All IDM Services for R/3 components log certain information. This information can be helpful in finding problems with the configuration or after an error has occured.*

The ‘Logging’ category contains preferences determining the amount and location of the logged information.



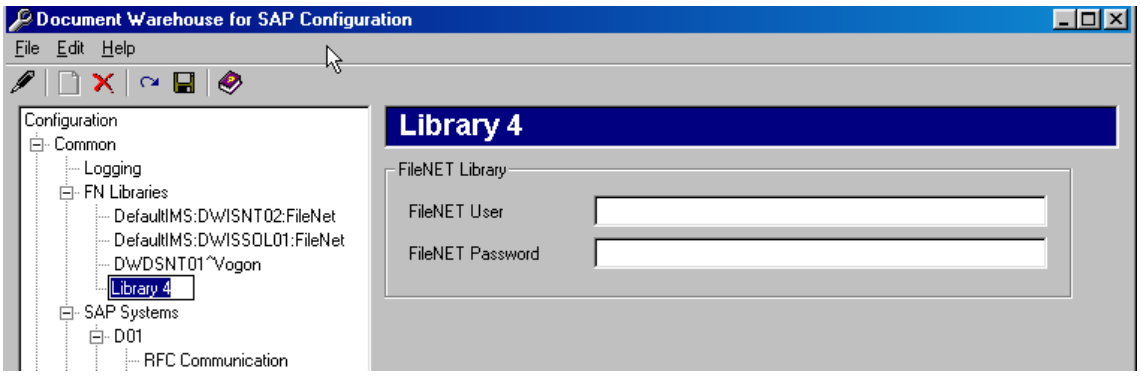
Preference	Description
File name	Enter a path and a file name for the file to be used for logging information.

Preference	Description
Log level	Determines the amount of information logged. The following levels are available: • Log errors and warnings only. This should be the typical setting for the usual IDM Services for R/3 operation. • Log all information. Use this setting when you are experiencing problems. If you have to contact FileNET CSS with a problem, make sure that you have a logfile available at this level that shows operation when the problem occurs.
Use log file size limit	If checked, the logfile will never grow larger than the maximum logfile size. If additional information is to be logged, older log entries will be discarded.
Create daily log file	If checked, each day a new log file will be started. The files will be named <filename>.<yyyymmdd>.<extension>.

6.4 Configuring FileNET Libraries

Background: *All FileNET libraries that are used by IDM Services for R/3 need to be defined in the IDM Services for R/3 configuration. Although different SAP systems and SAP archives may access the same library, only one set of credentials consisting of user name, password, and group name can be configured for each library.*

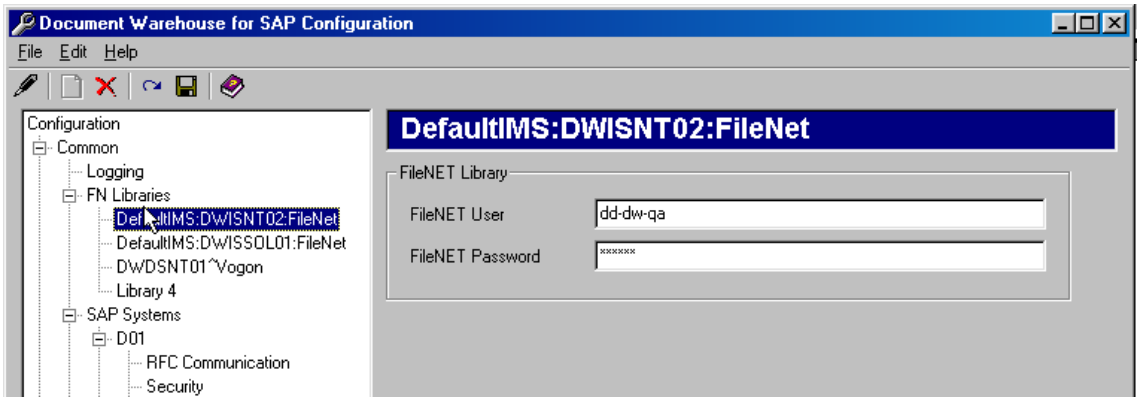
In order to add a new FileNET library, first select the FileNET libraries category in the categories tree and add a new sub-category using the menu item “Edit”→”Add” or the appropriate toolbar icon. The new sub-category represents the FileNET library.



The library’s name is in edit mode. Enter the identifier of the FileNET library, for example “DefaultIMS:deepthought:FileNet” (for IDM Image Services libraries) or “marvin^restaurant” (for IDM Content Services libraries).

Tip: FileNET library sub-categories can be renamed or removed by similar means as described for adding. For more information, see section “The Configuration Program” on page 32.

Selecting a FileNET library in the categories tree displays the FileNET library preferences in the preferences area.



Preference	Description
User	Required. The logon user name.
Password	The logon password. Can be empty.

6.5 Configuring SAP Systems

Background: *An "SAP System" in the IDM Services for R/3 configuration context is a Document Warehouse for SAP-internal logical name for an SAP System. An SAP System physically consists of one or more database and application server machines. It identifies itself to Document Warehouse for SAP through various means depending on the type of communication used. Any number of archives can be defined for an SAP System.*

In order to add a new SAP system, first select the SAP systems category in the categories tree and add a new sub-category using the menu item "Edit"→"Add" or the appropriate toolbar icon. The new sub-category represents the SAP system. The SAP system's default sub-categories are created automatically.

Tip: In previous Document Warehouse for SAP releases, the name had to be equivalent to the Logical System ID of the SAP R/3 system. With Document Warehouse for SAP release 5.0, you can now use descriptive names.

Tip: SAP system sub-categories can be renamed or removed by similar means as described for adding. For more information, see section "The Configuration Program" on page 32.

Currently, an SAP system does not provide any preferences except its name, thus, no preferences are displayed in the preferences area.

Each SAP system category has at least the "RFC Communication" and the "Security" sub-categories. In addition, if SAP archives have been defined for the SAP system, each archive is represented as a distinct sub-category under the SAP system category. These sub-categories are described in subsequent sections.

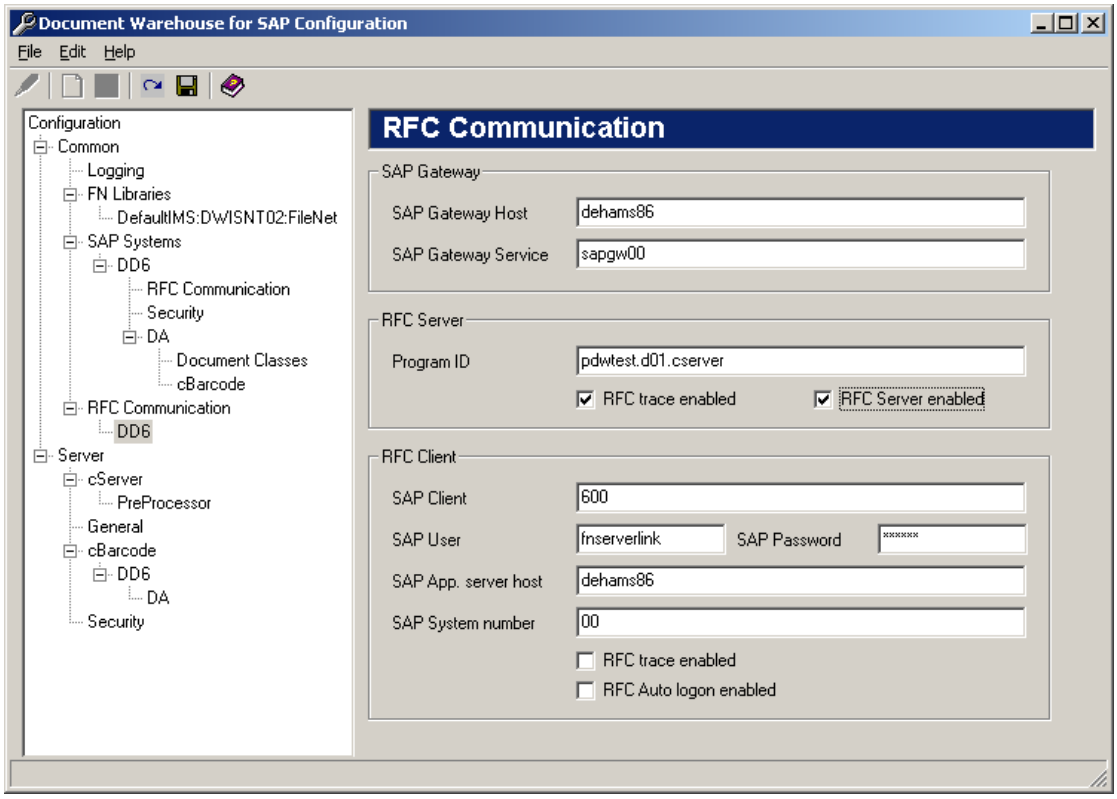
6.5.1 Configuring RFC Communication

Background: *The SAP ArchiveLink Interface releases 3.0 and 3.1 use the SAP-proprietary Remote Function Call protocol to communicate with IDM Services for R/3. Technically, RFC Communication always has an RFC Client program that invokes a remote function implemented in an RFC Server program. The cBarcode component, for example, is an RFC Client, which calls a specific barcode function in the SAP system to send document and barcode information. The cServer component implements both sides. On the one hand, it is an RFC Server whose function ARCHIV_REQUEST is being called by the SAP ArchiveLink software to request archival of documents, retrieval of documents, or status information on documents. On the other hand, when fulfilling asynchronous requests, cServer acts as an RFC Client that calls a specific function in the SAP system to send fulfillment or confirmation information.*

With regard to the RFC communication of cServer, release 5.0 of Document Warehouse for SAP has received the additional feature of being able to register itself as an RFC Server at multiple SAP gateways at the same time.

With Document Warehouse for SAP release 5.0, RFC communication is always specific to an SAP system, i.e. for each SAP system that cServer and cBarcode communicate with there has to be one set of connection information. In order to configure the RFC communciation information for an SAP system, select the appropriate SAP system sub-category under the RFC Communication category. The following preferences are displayed in the preferences area.

Tip: Most of these values have to be provided by the SAP Administrator.



Preference	Description
SAP Gateway Host	Name of the machine the SAP gateway is running on. IDM Services for R/3 uses this specific gateway to communicate with the SAP system. This value is used by both the RFC server and the RFC client.
SAP Gateway Service	Name or number of the service the SAP gateway listens on. Usually a value in the range of sapgw00 to sapgw99. This value is used by both the RFC server and the RFC client. Note that these service numbers usually need to be defined on the IDM Services for R/3 machine in the Services file. See note below for additional information.
Program ID	Identifier under which cServer registers at the SAP gateway. Since this id must be unique on the SAP gateway machine, the id should follow the syntax <IDM Services for R/3 machine name>.<sapsystemname>.cServer
RFC Trace enabled	Enables logging RFC Server trace information to a file. The file can be found in the application's current directory and is usually named dev_rfc*.trc.
RFC Server enabled	Check this option to register cServer as an RFC server at the SAP gateways to receive SAP ArchiveLink requests via RFC. This option can be used to temporarily or permanently disable registration at the configured gateway.
SAP Client	The logon client number.
SAP User	The logon user name.
SAP Password	The logon password.
SAP Application Server Host	Machine name of the SAP application server to log on to.
SAP System Number	System number of the SAP system.
RFC Client Trace enabled	Enables logging RFC Client trace information to a file.
RFC Auto logon enabled	Enables the automatic logon of RFC to the SAP system.

Refer to section “Testing RFC Communication Parameters” on page 42 for information on how to ensure that your preference values are valid.

Note: In order to communicate with an SAP gateway, you need to add the following information to the Services file on the IDM Services for R/3 machine. The Services file is located under the Windows operating system directory under system32\drivers\etc.

sapdp## 32##/tcp

sapgw## 33##/tcp

where ## refers to the actually used service port (two digit number in the range from 00 to 99). In addition, make sure that the machine entered as SAP Gateway Host can be pinged from the IDM Services for R/3 machine. It might be necessary to add the name as an IP alias in the Hosts file on the IDM Services for R/3 machine. The Hosts file is located in the same directory as the Services file. Obtain the SAP gateway host and service information of the SAP gateway to use from your SAP administration.

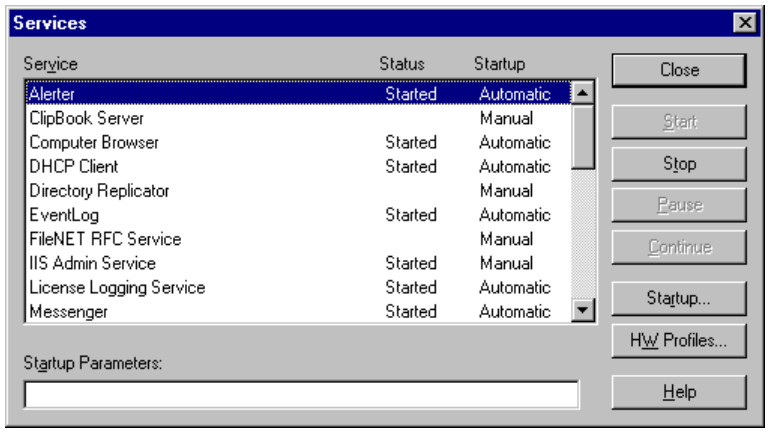
6.5.2 Configuring the cServer RFC Service

Background: *The IDM Services for R/3 component cServerRFC is installed as a Windows Service in order to start up each time the machine it runs on is started. cServerHTTP is not started as a service as it is invoked by the MS Internet Information Server, which itself is typically started as a service.*

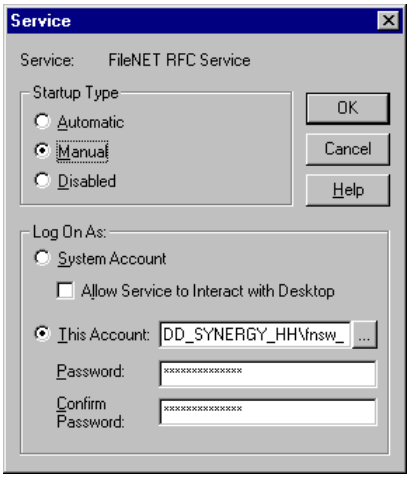
The user that is used to run the “FileNET RFC Service” can be configured as follows:

Windows NT:

1. Start the services applet from the Windows Control Panel.



2. Select the “FileNET RFC Service” entry and click the “Startup …” button.

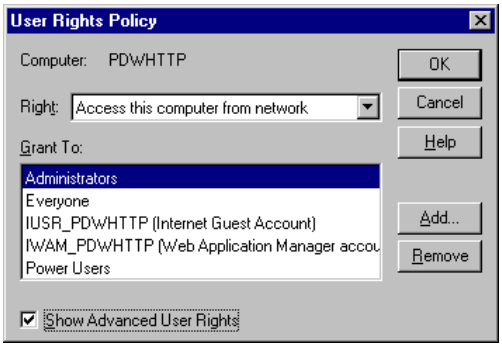


3. Click the “This Account:” radio button, and enter the user in the adjacent field. Using the “…” button to select the user from a list of possible entries is also an option. In addition, the user’s password needs to be entered.

Tip: The “Startup Type” can be either set to “automatic” or “manual”, this depends on which type of communication is used. Select “automatic” for RFC, select “manual” for HTTP settings.

The account used to run the cServerRFC service must have the following rights:

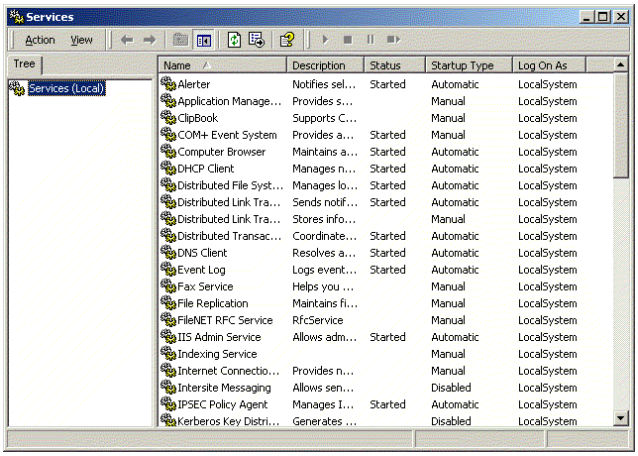
- The user must have the NT User Rights “Logon as a Service” and “Create a token object”. These rights can be configured using the User Rights Policy Editor. You can start the Editor from the NT User Manager (“Start”→”Administration Tools” (Common)→”User Manager for Domains”) for your local machine by selecting the User Rights command from the Policies menu. Check the “Show Advanced Rights” checkbox, select “Logon as a Service” and “Create a token object” from the “Rights” list box and add the user to run the cServerRFC service to the “Grant to:” list.



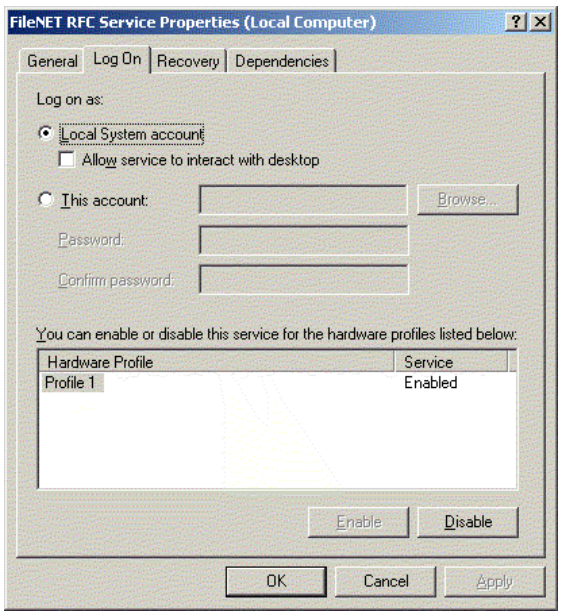
- The user must also have full rights (read, write and delete) on the directories used to transfer files between the SAP R/3 server and cServer. For more information, please refer to section “File Exchange Directories” on page 26.

Windows 2000:

1. Start the services applet from “Start” → “Programs” → “Administrative Tools” .



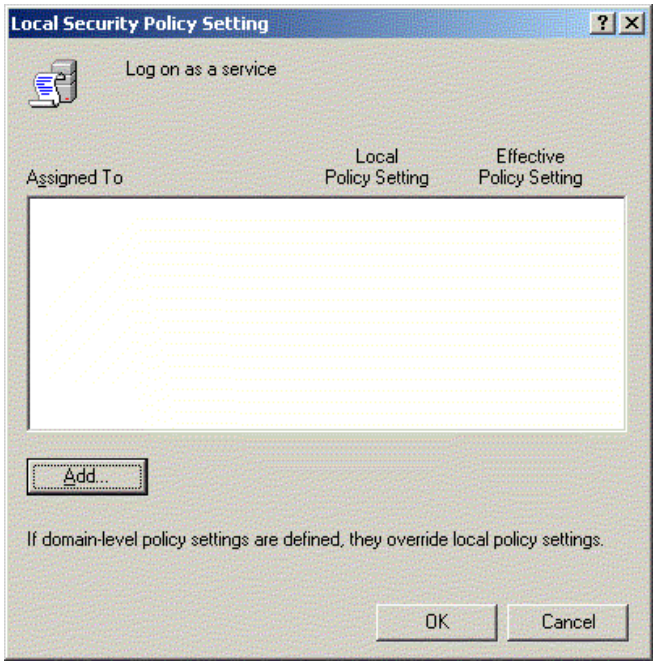
2. Double-click on the “FileNET RFC Service” entry and click the “Log On” tab folder.



3. Click the “This Account:” radio button, and enter the user in the adjacent field. You can also use the “Browse…” button to select the user from a list of possible entries. In addition, you have to enter the user’s password.

The user to run the cServerRFC service must have the following rights:

- The user must have the Windows User Rights “Logon as a Service” and “Create a token object”. These rights can be configured by invoking “Start”→ “Programs” → ”Administrative Tools” →”Local Security Policies”. Open “Local Policies” and then “User Right Assignment” in the tree-view. A window “Local security settings” opens up. Choose the appropriate policy (“Logon as a Service” and “Create a token object”) and click on the “Add” button. Select the right user to run the cServerRFC service and click on “add” again.



- The user must also have full rights (read, write and delete) on the directories used to transferring files between the SAP R/3 server and cServer. For more information, please refer to section “File Exchange Directories” on page 26.

The service’s executable files (RFCService.exe) also offers the following command line options:

- /r (remove) to remove the service from the list of Windows NT services

- /i (install) to add the service to the list of Windows NT services.

6.5.3 Testing RFC Communication Parameters

Two SAP-provided tools for testing RFC communication are delivered with IDM Services for R/3: The RFC Client “srfctest.exe” and the RFC Server “srfcserv.exe”. Both are command line tools that take your RFC communication settings as command line parameters.

In order to test the RFC Client parameters, perform the following steps.

1. Make sure that the SAP Application Server Host can be pinged from the IDM Services for R/3 machine.
2. Open a command line box, change to the IDM Services for R/3 directory (usually under Program Files\FileNET\IDMForR3) and invoke srfctest.exe.
3. From the options menu, select the Connection option (2.). The program now prompts for the RFC connection parameters.

Server is R/2, R/3 or External:	3
Using data of SAP logon:	N
Working with saprfc.ini:	N
Use load balancing:	N
Host name of application server:	Your SAP Application Server Host
System number:	Your SAP System Number
Working with SNC:	N
Working with ABAP debugger:	N
Use SAPGUI:	N
RFC Trace:	Your RFC Trace Enabled
Client:	Your SAP Client
UserID:	Your SAP User
Password:	Your SAP Password
Language:	E
#Calls of this RFC-function:	1

4. The program then provides information on whether the connection could be established and the logon was successful. If not, it provides error information.

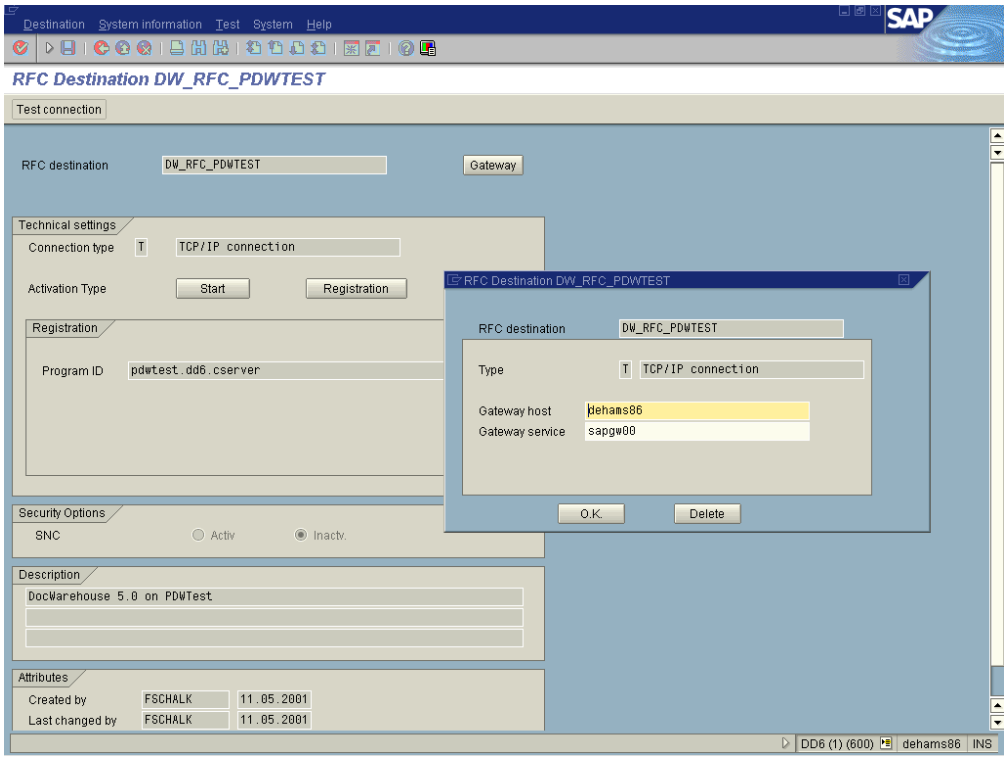
In order to test the RFC Server parameters, perform the following steps:

1. Make sure that the SAP Gateway Host can be pinged from the IDM Services for R/3 machine.
2. Open a command line box, change to the IDM Services for R/3 directory (usually under Program Files\FileNET\IDMForR3) and invoke srfcserv.exe with the following parameters:
   - srfcserv.exe –aYourProgramId –gYourSapGatewayHost –xYourSapGatewayService

   e.g. `c:\program files\filenet\idmforr3> srfcserv.exe –apdwtest.d01.cserver -gdehams88 -xsapgw00`
3. If the program does not terminate, it has successfully registered its RFC function STFC_CONNECTION at the SAP gateway you have specified:

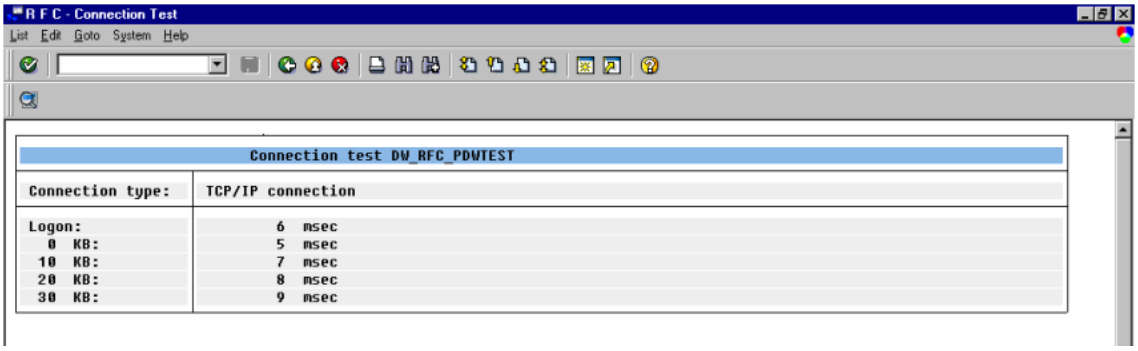
   ```
   Wait for next RFC call with or without RfcListen /RfcWaitForRequest
   < = = RfcDispatch…
   ```

   If it terminates, it provides error information.
4. Open a SAPGUI and log on to the SAP system you need to receive requests from. Go to the RFC Destinations maintenance transaction via transaction code “sm59”.
5. If the RFC Destination for your archive has already been defined, select that destination. Otherwise, create a temporary destination for testing by clicking the “Create” button or select “Create” from the RFC menu. For the temporary destination, enter a name, a description and “T” in the “Connection type” field and press Enter. Then choose at “Acitivation Type” the “Registration” button and enter your Program ID. Select “Gateway options” from the “Destination” menu and enter your SAP Gateway parameters. The temporary destination must be saved for the test to function properly. If an existing destination is being used, make sure the Program ID matches the Program ID used with srfcserv.exe. For more information regarding RFC Destinations refer to section “RFC Destinations” on page 70.



Tip: The entry for your Program ID must be exactly the same entry as in the sub-category “RFC connection” of the configuration program. For more information refer to “Configuring RFC Communication” on page 37.

6. Click the “Connection test” button. Success will result in a list similar to that of an IP ping.



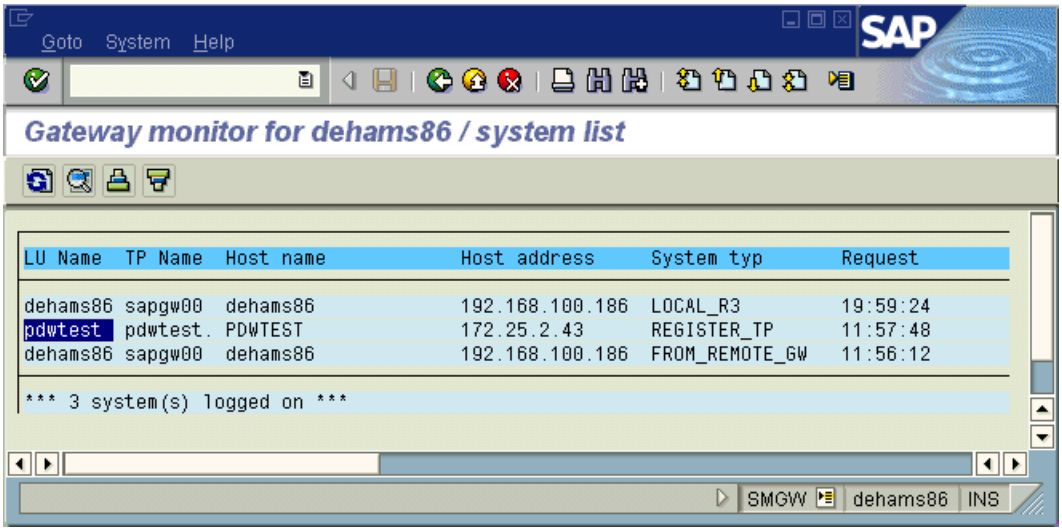
On the command line box following line will appear:

```
< == RfcDispatch…
< == RfcDispatch                rfc_rc = 0
```

In case of failure, the SAP system will indicate about the reason.

7. If a temporary destination was used do not forget to delete it.

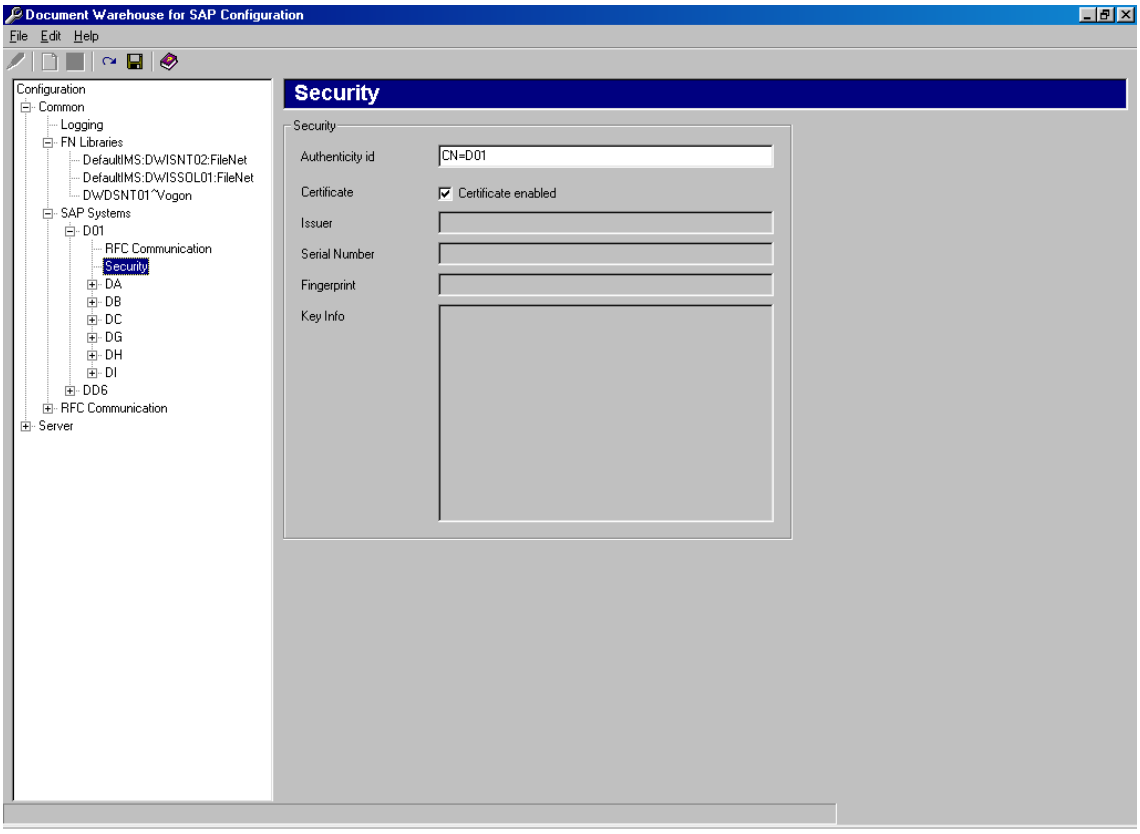
Tip: You can also use the SAP Gateway Monitor (transaction “smgw”) to view the systems that are using a gateway. In transaction “smgw”, use the menu option “Goto”→”Logged on systems”:



6.5.4 Configuring SAP System-Specific Security

***Background**: When SAP sends an HTTP request to cServer, it identifies itself by an authenticity id. Typically, this is "CN=" followed by a three-letter identifier like "DD6" or ID3". This authenticity id is used by cServer to identify the configuration for this particular SAP system.*

After selecting "Security" under the relevant SAP system in the categories tree control, the authenticity id of the selected SAP system is displayed and can be changed.



Preference	Description

Preference	Description
Authenticity id	Enter the SAP system's authenticity id in the form "CN=<three letter identifier>". **Note**: In SAP 4.5 the authenticity ID is build from the system name, e.g. "DD6". In SAP 4.6 the default identifier ist "ID3". This can be changed by the SAP administrator. Please check with the SAP administrator, whether the identifier is still set to "ID3" or has been changed to the SAP system name. Enter the appropriate identifier in this field.
Certificate	If checked, the SAP certificate is activated.
Issues	Information from SAP system regarding the SAP certificate
Serial Number	Information from SAP system regarding the SAP certificate
Fingerprint	Information from SAP system regarding the SAP certificate
Key Info	Information from SAP system regarding the SAP certificate

In order to enable IDM Services for R/3 to work with an SAP system via HTTP, the SAP system's certificate (public key) must first be sent to IDM Services for R/3 and manually configured by an administrator. Only then will IDM Services for R/3 fulfil SAP ArchiveLink requests from this SAP system via HTTP. If the SAP system's certificate for an archive has been transferred, the fields "Certificate", "Issues", "Serial Number", "Fingerprint" and "Key Info" contain information about the certificate. The certificate should only be enabled if an administrator has checked this information. For information regarding sending the authenticity ID, please refer to "Send a Certificate to an Archive" on page 74.

6.6 Configuring SAP Archives

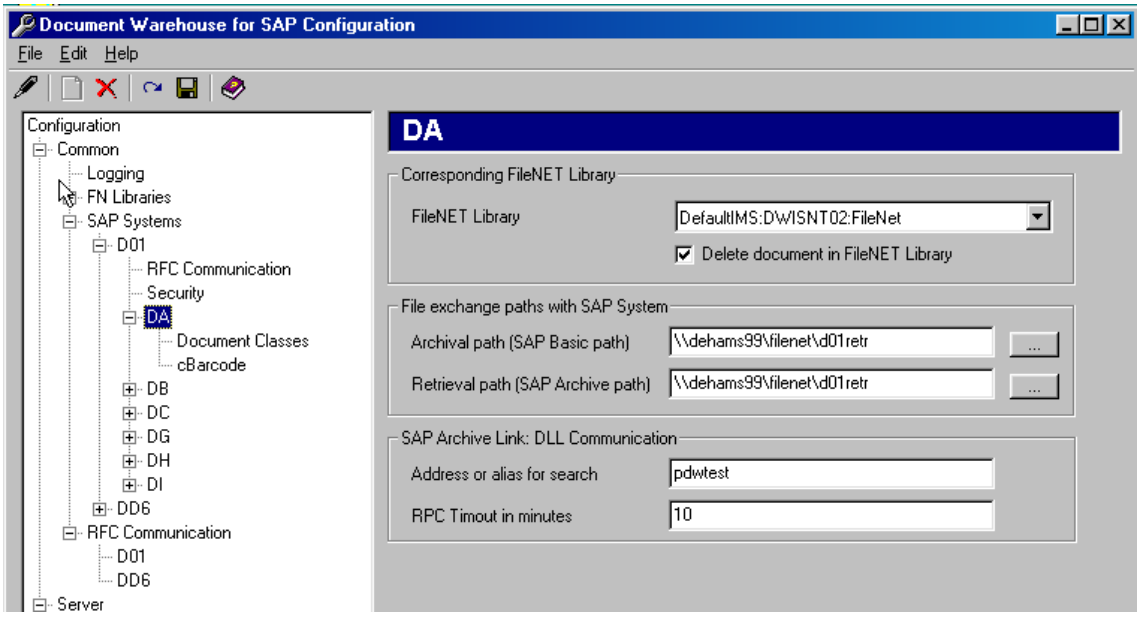
Background: *An "SAP archive" corresponds to an archive defined in the SAP ArchiveLink customizing such as "A2" or "Z1". Another synonym is "Content Repository". Multiple SAP archives can point to the same FileNET library.*

In order to add a new SAP archive, first select the SAP system in the categories tree to assign the new SAP archive to and add a new sub-category using the menu item "Edit"→"Add" or the appropriate toolbar icon. The new sub-category represents the SAP archive. The SAP archive's default sub-categories are created automatically.

After adding an SAP archive, the SAP archive's name is in edit mode. Enter the two character name as defined in the SAP ArchiveLink customizing of archives.

Tip: SAP system sub-categories can be renamed or removed by similar means as described for adding. For more information, see section "The Configuration Program" on page 32.

Selecting an SAP archive in the categories tree displays the SAP archive preferences in the preferences area.



Preference	Description
FileNET Library	Select a defined FileNET library from the list. This entry creates a logical assignment from an SAP System + SAP archive to a FileNET Library.
Delete Document	Documents in IDM Image Services can either be deleted or their status can be set to “Closed” when SAP requests to delete a document.
Archival Path	Fully qualified directory containing files to be stored in an archive. Use the “Browse…” button to select a directory or enter a path. It is also possible to type in an UNC path name directly, i.e. \\<machine>\<share>\<directory>. **Note**: For more information, see section “File Exchange Directories” on Page 26.
Retrieval Path	Fully qualified directory containing files restored by IDM Services for R/3. Use the “Browse…” button to select a directory or enter a path. **Note**: For more information, see section “File Exchange Directories” on Page 26.
Adress or alias for search	Leave blank, as configuration is for client side only.
RPC timeout in minutes	Leave blank, as configuration is for client side only.

Tip: It is recommended that distinct exchange paths for each SAP system be created. Furthermore, we recommend separating basic and archive path. The directory name could contain the SAP system name and its function, e.g. “\DD6_Arch” and “\DD6_Retr”.

In addition, there are two sub-categories to each SAP archive, which are described in subsequent sections:

- “Document Classes”. Contains the mapping of SAP technical document classes and MIME types to FileNET document classes for storage. For more information, refer to section “Configuring Document Classes” on page 46.

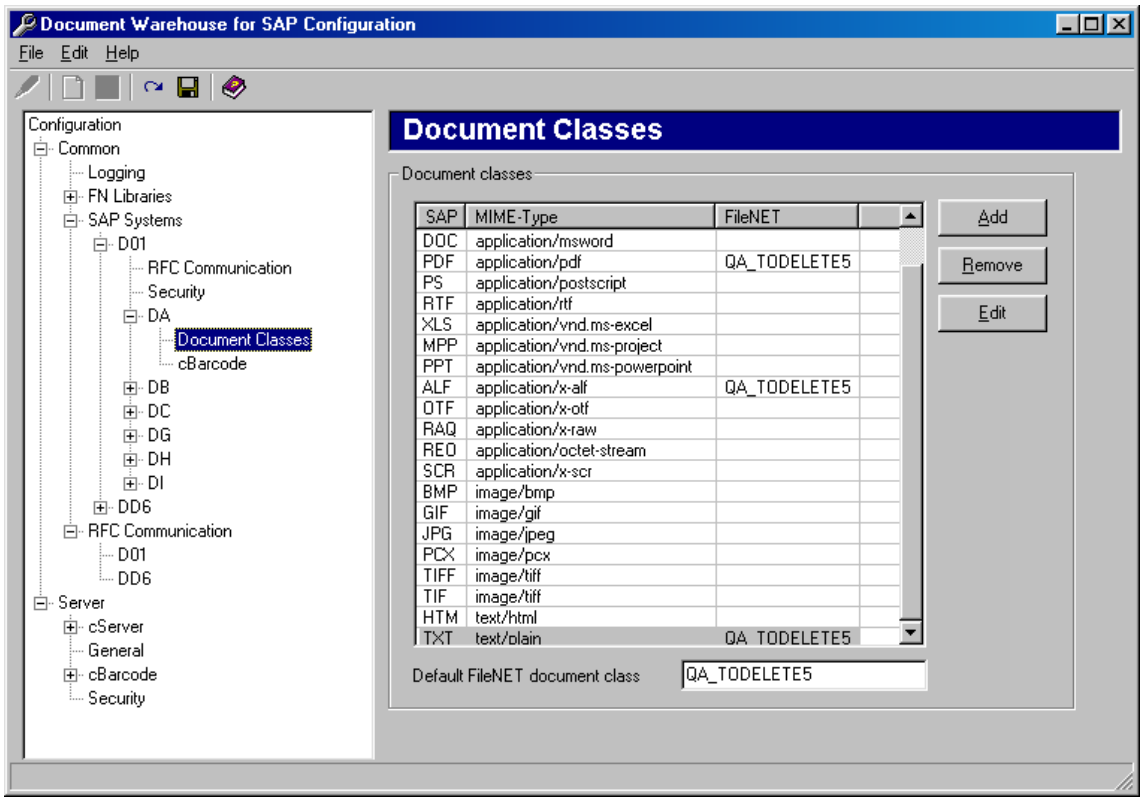
“cBarcode”. Contains SAP archive-specific settings for the cBarcode component. For more information, refer to section “

- IDM Services for R/3 Category ‘cBarcode’ “ on page 53.

6.6.1 Configuring Document Classes

***Background**: SAP uses SAP Technical Document Classes and MIME types to distinguish different classes of documents. This information is passed on with the archive request. It can be used by IDM Services for R/3 to determine which document class to use when storing the document in a FileNET library.*

In order to configure the FileNET Document Class used for an archive, select “Document Classes” in the tree control.



This table lists for each SAP Document Class or MIME type the corresponding FileNET Document Class to be used for archiving documents.

This table is also used during document archival to determine the value for the mandatory FileNET Index Field “SAPType” for HTTP requests which contains a MIME type, not an SAP type. If there is no predefined mapping from a MIME type to an SAP Type, the SAP Type “ZZZ” will be used. If SAP does not send a MIME type, a default MIME type of “application/octet-stream” is typically added by the web server. If this is not the case, cServer uses a default MIME type of “application/octet-stream”.

Tip: HTTP archival requests contain a MIME type and not an SAP Document Class name. The MIME type must be “translated” into a SAP Document Class before being stored in the “SAPType” index field.

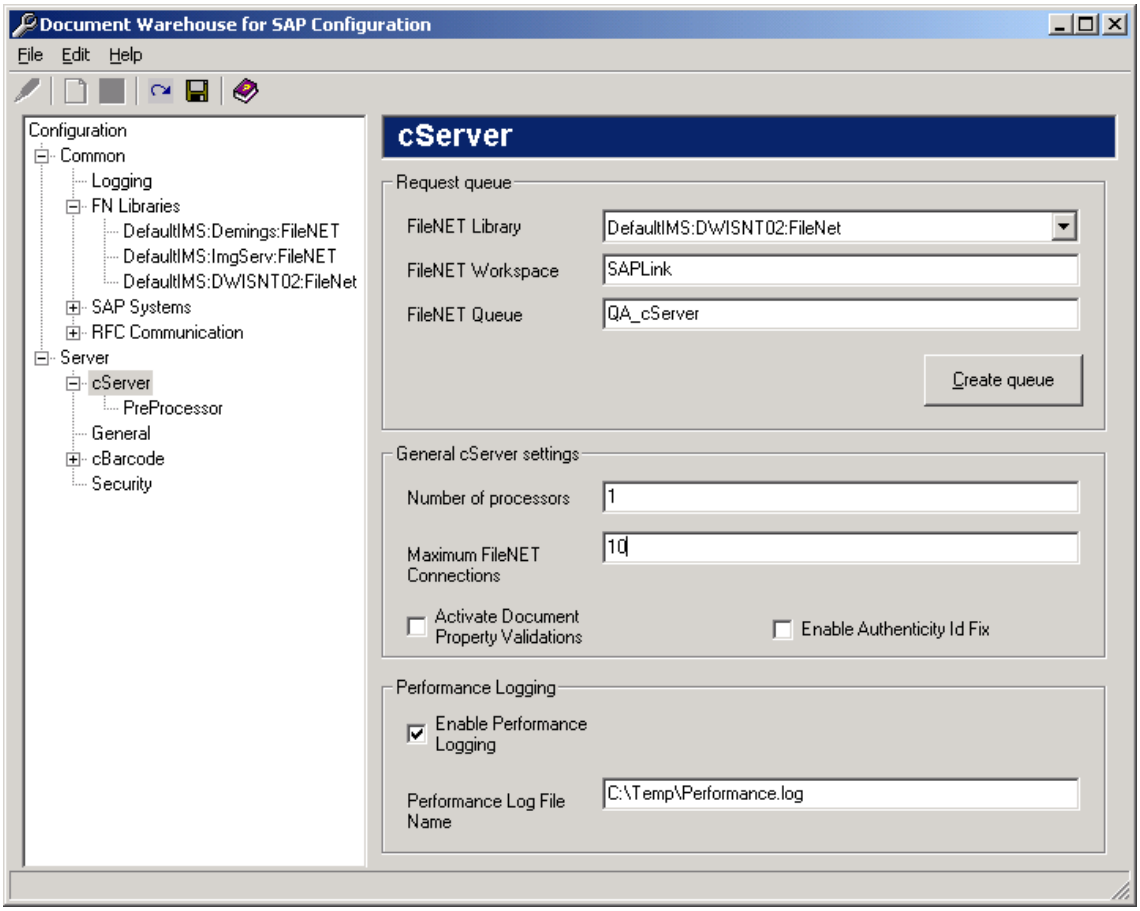
If SAP sends an archive request for an SAP Document Class or MIME type that has no configured FileNET Document Class or an unknown SAP Document Class or MIME type is encountered, the “Default FileNet document class” will be used.

For more information regarding the IDM Services for R/3 Category ‘RFC Connection’, please refer to section “Configuring RFC Communication” on page 37.

6.7 IDM Services for R/3 Category ‘cServer’

Background: *Refer to section “IDM Services for R/3 Component ‘cServer” on page 13 for background information on the cServer component.*

The ‘cServer’ category contains preferences specific to the cServer component.



If cServer is configured to use RFC communication, the component will need an IDM Image Services request queue to store processing and status information on asynchronously processed requests.

Preference	Description
FileNET Library	Select a defined FileNET library from the list. This entry creates a logical assignment from an SAP System + SAP archive to a FileNET Library.
FileNET Workspace	Required. Name of the FileNET Workspace where the request queue resides in.
FileNET Queue	Required. Name of the request queue where the status information is to be stored in.
Number of Processors	Number of Processors for the IDM Services machine. It can be increased in case multiple processors are present.
Maximum FileNET Connections	Maximum Limit of connections with FileNET Library that are to be maintained in the connection pool. Change the number of sessions for the specified user in the IS Security Services to this value. Default value for the number of sessions for a user is 1.
Activate Document property validations	Allows to enable or disable Document property validations using ADO for create request. Disabling Document property validations will remove the checks for uniqueness of SAP document ID, its Document Class and its properties.
Enable Authenticity Id Fix	Allows to enable or disable the fix for problem with SAP Authenticity ID. If this is enabled, one blank space id introduced after every comma in the SAP Authenticity ID. This fix is required for SAP 4.6C and above.

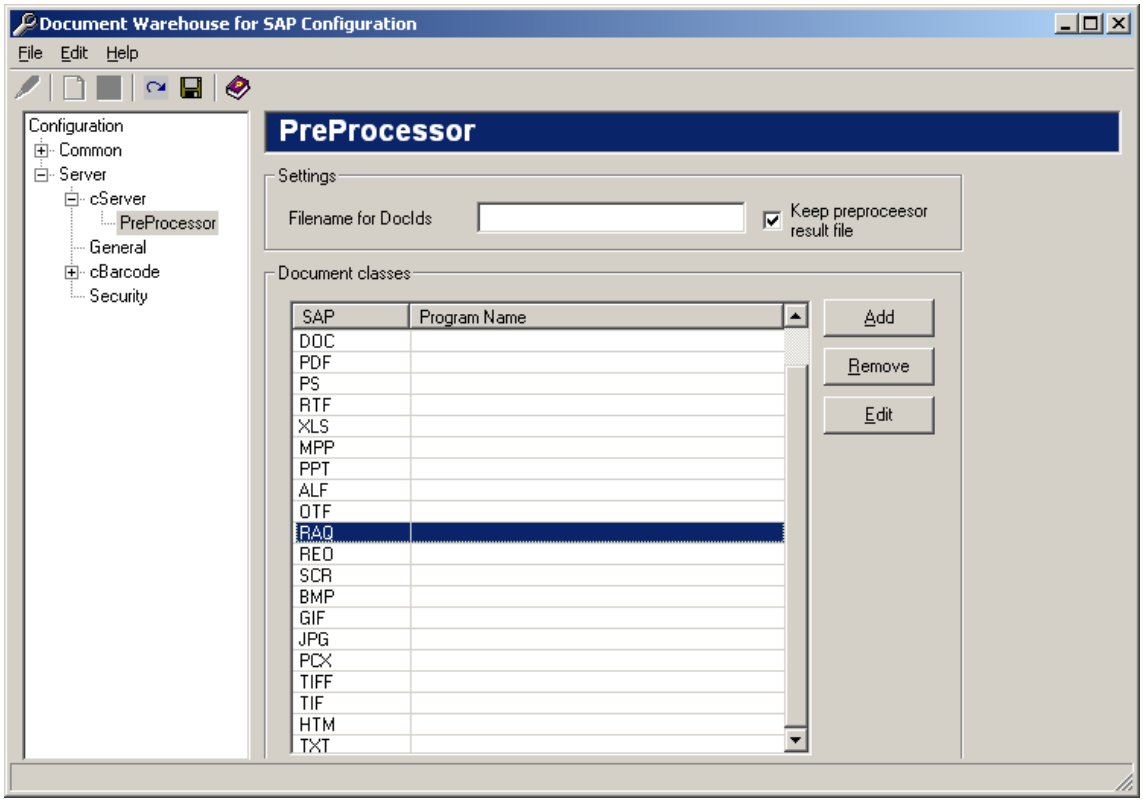
Preference	Description
Enable Performance Logging	Performance Logging has been added to three components cServerHTTP, cServer and DwRepos. This checkbox can be used enable or disable the performance logging for these components. The performance information includes time, available physical memory and thread ID.
Performance Log File Name	Enter the path and filename for the file to be used for logging performance information.

If such a queue does not exist yet, enter the values and click the “Create Request Queue” button.

6.7.1 Configuring the PreProcessor

***Background**: Panagon Document Warehouse for SAP provides an interface that enables cServier to use a custom external preprocessor while processing archive requests from SAP. The IDM Services for R/3 interface allows seamless integration of custom preprocessors and performing tasks specific to the customer’s needs while archiving documents.*

The following sections provide examples and describe the external interfaces for cServer. The preprocessor interface has many uses. For example, the preprocessor can direct an application to extract indexing information from a document and pass it to cServer to be indexed with the document. Another use is converting SAP documents from a proprietary format into a standard file format for easy viewing by an external conversion utility before being archived by cServer. The external preprocessor interface for IDM Services for R/3 involves a synchronous program call to the external preprocessor. The SAPType index field included in the archive request triggers which the preprocessor program gets called.



Preference	Description
Filename for DocIds	Enter a full pathname of the file that shall contain the document Ids of the files cServer archives. This file contains all of the template file’s (specified in the result) DocumentIDs archived by cServer. If this entry is not included, the name is DAT2OTF.DID. This entry is related to the LINK section of the result file, explained in the following section.

Preference	Description
Keep preprocessor result file	If this box is checked the system will keep the result file produced by the preprocessor after cServer has finished reading it. ***Background**: Because there is a large amount of various output information that the preprocessor might need to return to cServer, the preprocessor creates a result file to hold the output. This text file contains relevant information such as optional indexes, Document Class names, and names of related documents that also need to be archived. cServer then parses the result file and continues archiving the documents according to the content.*
Document classes	Select a document class which should use a PreProcessor. Click “edit” and use the “…” button to select a directory or enter a path for the appropriate exe-file of the PreProcessor.

6.7.2 Information regarding Preprocessor and the output file

Once configured, cServer automatically calls the appropriate preprocessor and passes the following string arguments:

Input: filename of the document to be archived.

Output: filename of the result file (INI file).

Note: Once the preprocessor is invoked, cServer waits until the preprocessor has finished processing before continuing. When finished, the preprocessor can return a zero (0) for successful completion, or a one (1) if it fails. cServer returns a general archiving error message to SAP on receipt of a failure result from the preprocessor.

Result File Format

The preprocessor creates the result file that provides cServer with archiving instructions from the preprocessor defining how a data file and any related file is archived and indexed. The result file format is similar to INI file formats, and includes the following sections:

```
[GLOBAL]
File=[<filename1>,<filename2>]...
DocType=<New doctype>
DocClass-<FN DocClass>
Link=[<LinkId1>,<LinkId2>]...

[<LinkId>.LINK]
File=<link filename>
DocClass=<FN DocClass>
Index=<index field>
<index field1>=<index value1>
<index field2>=<index value2>

[<LinkId2>.Link]
File=<link filename>
DocClass=<FN DocClass>
Index=<index field>
<index field1>=<index value1>
```

```
<index field2>-<index value2>


[INDEX]
<index field1>=<index value1>
<index field2>=<index value2>
```

Note that it is possible for the preprocessor to return an empty result file. In this case, cServer assumes that no customizing is needed, and continues archiving the original file as before. The following sections describe the result file parameters.

[GLOBAL] Section

The [GLOBAL] section describes the data file to be archived, its document class, and any links to other section. It contains the following entries:

Entry	Description
File	Name of the file to be archived. Multiple files can be specified in this entry for a FAX document type. For any other document type, only a single file is allowed. This entry can be comitted if the original file generated by ArchiveLink is to be used for archiving.
DocType	New SAP DocType, such as OTF, ALF, FAX, and so on. This is an optional entry.
DocClass	IS Document Class under which the document is to be archived. This is an optional entry.
Link	Specifies the <LinkId> of subsequent sections containing further instructions to archive other related documents. This entry can have more than one LinkId. This is an optional entry.

If DocType and/or DocClass entries are not specified, ServerLink will continue to use the SAP DocType in the archive request and the Doc-Class specified in the configuration file.

[<LinkId.Link>] Section

This section is required if <LinkId> is specified in the Link entry in the GLOBAL section. It specifies any template file that must be archived with the original document produced by SAP's ArchiveLink. The resulting Document ID can then be indexed with the data file. The following are possible entries:

Entry	Description
File	File to be archived.
DocClass	IS Document Class under which the document is to be archived. If you do not include this entry, the DocClass specified in the GLOBAL section will be used.
Index	The index field name of the Document Class specified in the GLOBAL section. Once the file is archived, its Document ID must be assigned to this index field.
<Index field1>	Additional index information to be indexed with the file. More than one index entry can be specified in this section.

The resulting DocId of the archived template file is also written to a default link file (DAT2OTF.DID) or a specified link file defined in the Filename DID entry in the cServer configuration program.

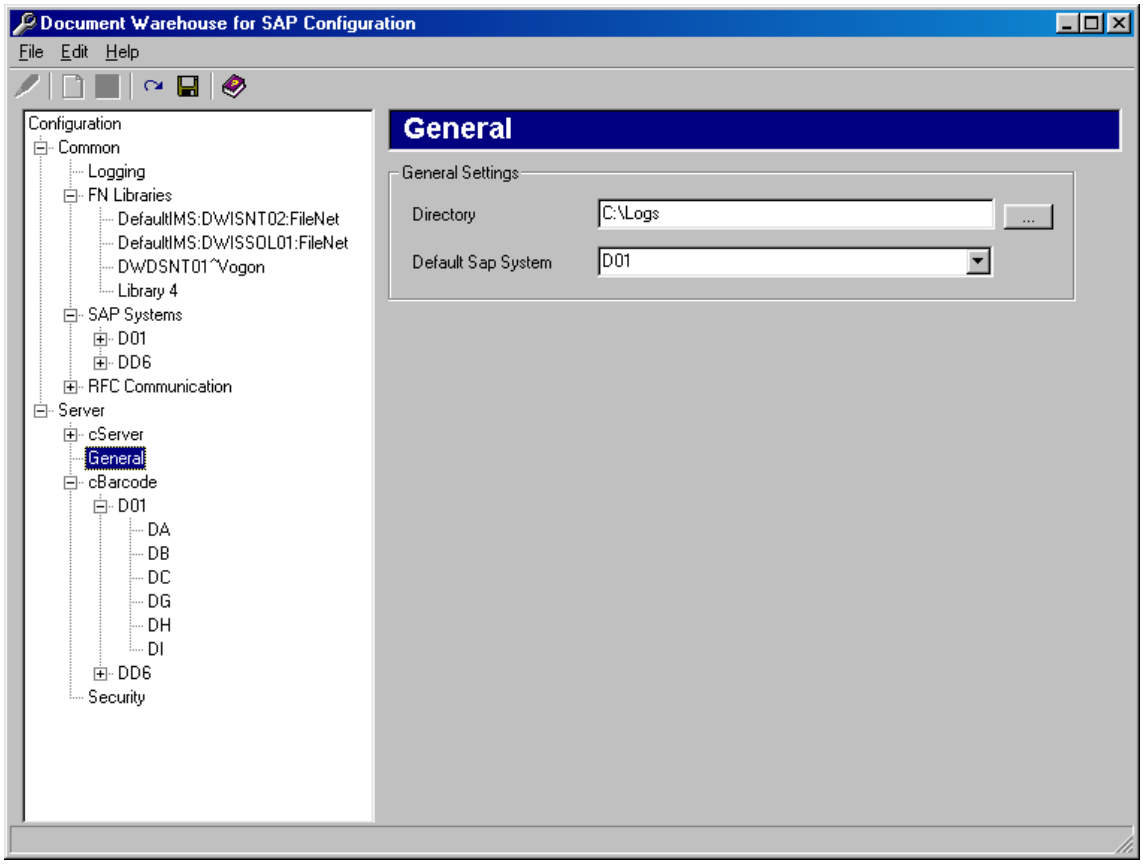
[INDEX] Section

Use the optional [INDEX] section to direct ServerLink to add additional indexes when archiving a document. It describes index information to be indexed with the document specified under the GLOBAL section.

There can be any number of index entries as long as they are valid and defined under the Document Class specified in the GLOBAL section. cServer can index string, numeric, and date data types.

6.8 IDM Services for R/3 Category 'General'

The General category contains preferences commonly used by more than one IDM Services for R/3 component.

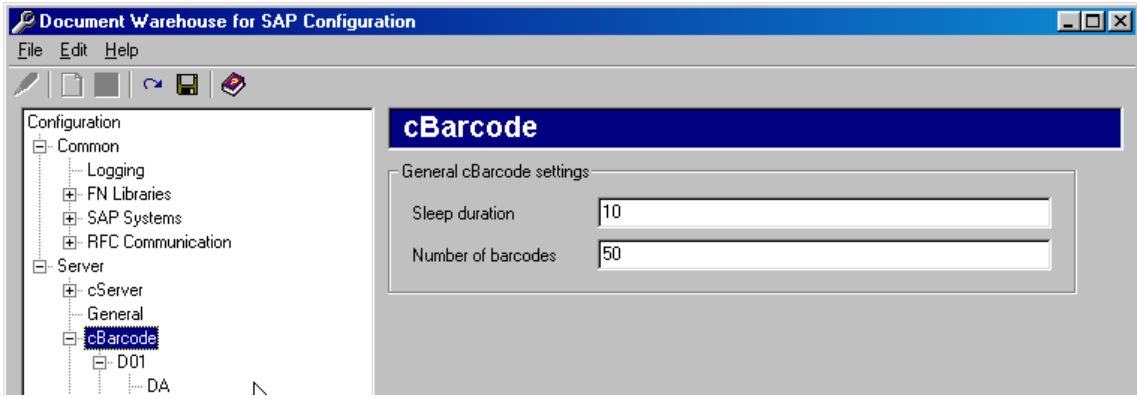


Preference	Description
Working Directory	Enter a path to store temporary files in, e.g. c:\temp. Alternatively, the "Browse" button can be used to select a directory. **Note**: IDM Services for R/3 require sufficient space in this directory for proper operation. There should be at least 250 MB of free space. As a lot of file get created and deleted in this directory, the drive should be defragmented on a regular basis.
Default SAP System	***Background:*** *For some HTTP requests, the parameter "Authenticity id" that identifies the SAP system is optional. In these cases, IDM Services for R/3 assume that the request was sent from the Default Sap System. If "digital signature" is not deactivated in SAP R/3 (see section "Basic Settings" on page 58), the authenticity id is always sent by SAP R/3.* If no authenticity id is sent by the SAP system, the settings of this SAP system will be used.

6.9 IDM Services for R/3 Category 'cBarcode'

Background: *Refer to section "IDM Services for R/3 Component 'cBarcode'" on page 13 for background information on the cBarcode component.*

The cBarcode category contains preferences specific to the cBarcode component.

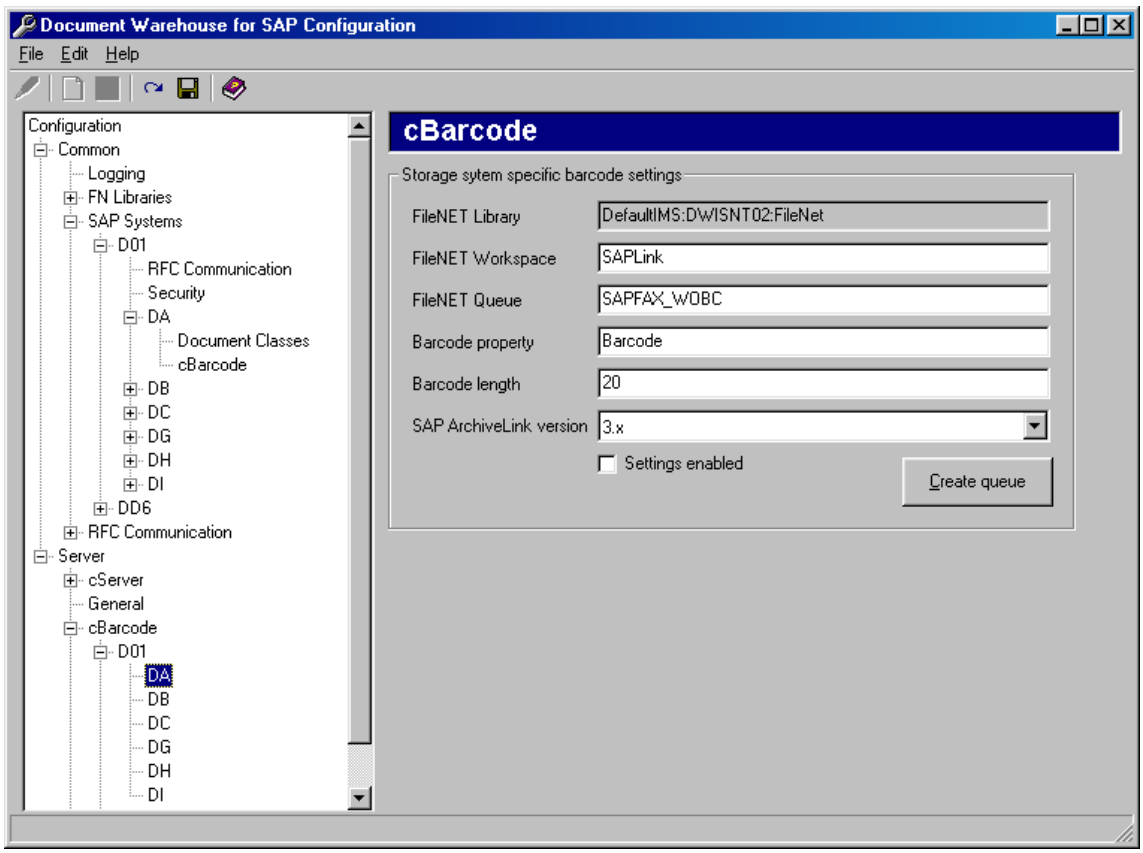


Preference	Description
Sleep Duration	Time in minutes that cBarcode waits after it has processed all configured queue / SAP system combinations before re-starting processing. The default is ten minutes.
Number of Barcodes	Number of barcodes (document information plus barcode) to be transferred in a single transactional step. The default is 50. A greater value might increase performance but also increases the potential number of failures.

The cBarcode category provides sub-categories that contain SAP archive-specific preferences. You need to add the SAP archives to be used by the cBarcode component under the SAP Systems category first. The archives will then be available under the cBarcode category.

Note: One barcode queue can be defined for each SAP archive. This definition serves as the source (the queue to read from) and the destination (the SAP system to send to) at the same time.

To define a FileNET queue / SAP system mapping, expand the appropriate SAP system node under the cBarcode category, then select the SAP archive in which the queue and the documents reside in. The selected category contains the following preferences.



Preference	Description
FileNET Library	Required. Name of the FileNET library in which the queue resides. This setting can not be changed, it is defined in the archive setting of the SAP system.
Workspace	Required. Name of the FileNET workspace in which the queue resides.
Queue	Required. Name of the queue that holds the document references.
Barcode Property	Required. Name of the document property (index field) that contains the barcode.
Barcode Length	Maximum length of a barcode. cBarcode cuts longer barcode values before transferring them to the SAP system.
SAP ArchiveLink version	“3.x” or “4.5”. SAP ArchiveLink interface version to be used for transfer.
Settings Enabled	If this queue should be used by cBarcode to process information contained in this queue, this box must be checked.

Note: The configuration program does not check the information you have entered for validity or consistency.

If the barcode queue does not exist yet, it can be created using the configuration program. Enter the preferences as described above and click the “Create Queue” button. The configuration program creates a barcode queue containing the set of queue fields required by the cBarcode component. For more information, see section “Creating IDM Image Services Queues for Barcode Transfer” on page 26. The queue’s definition permissions are set to the SysAdminG group, the content permissions are set to the currently logged on user’s primary group or, if no primary group has been specified, to the user.

Caution: Queues defined using IDM Desktop and the SysAdmin user of the IDM Image Services library have been found to be inaccessible under certain circumstances. Please make sure to use a different user than SysAdmin for creating barcode queues using the configuration program.

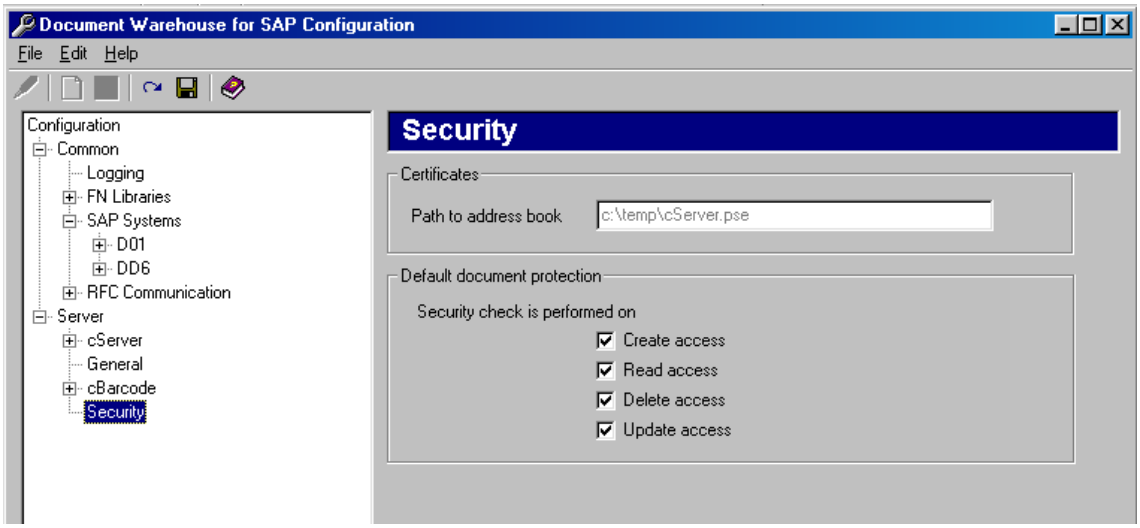
6.10 Configuring Security

***Background**: When SAP sends an HTTP request to cServer, it sends a URL that encodes the type of request (e.g. info) and the parameters of the request (e.g. the archive and the document ID). In order to ensure that this URL is not changed by a malicious user, SAP calculates a security key from the URL and the SAP systems's private key, and adds this security key to the URL it sends to cServer. cServer has to verify that the URL has not been changed by verifying the URL with the certificate (a public key) that SAP has sent at the time of initial configuration of the archive. These certificates are stored by cServer in an address book file. In the context of SAP, the process of signing a URL with a security key by SAP and verification by cServer that the URL was not changed is called security check. Note that this security check is not dependent on any FileNET security, in fact there is no connection between these two concepts.*

Usually, at the time of document creation, SAP also determines for what access modes (create, read, delete and update) this security check has to be performed by cServer. For example, SAP could tell cServer that delete should be protected (i.e. the URL that encodes a delete request for this document has to be signed with a security key) while read does not have to be protected (i.e. that the URL does not have to be signed with a security key). This document protection is stored in the FileNET index SAPDocProt. For those documents where SAP does not explicitly determine at creation time which access modes should be protected, cServer provides configurable default document protection values that will be used to determine whether a security check is required. For legacy documents created with an earlier version of ArchiveLink, the security check is performed for all access modes.

The SAP user does not have to be concerned with these settings or with the process of signing a URL for his archive requests. This is all done by the SAP R/3 system and cServer.

The settings for configuring the security can be accessed from the "Security" node in the categories tree control.



Preference	Description
Path to address book	Required. Fully qualified name of the address book file used to store certificates sent from SAP systems. This value cannot be changed in the configuration program. The address book is usually stored in the same directory as the configuration tool.
Default document protection	Determines whether a security check is performed for an access mode if no document protection is set by SAP at the time the document is created. If checked, the specific access method is protected. The standard value is to perform the security check for all access modes .

6.11 Stopping and Starting cServer

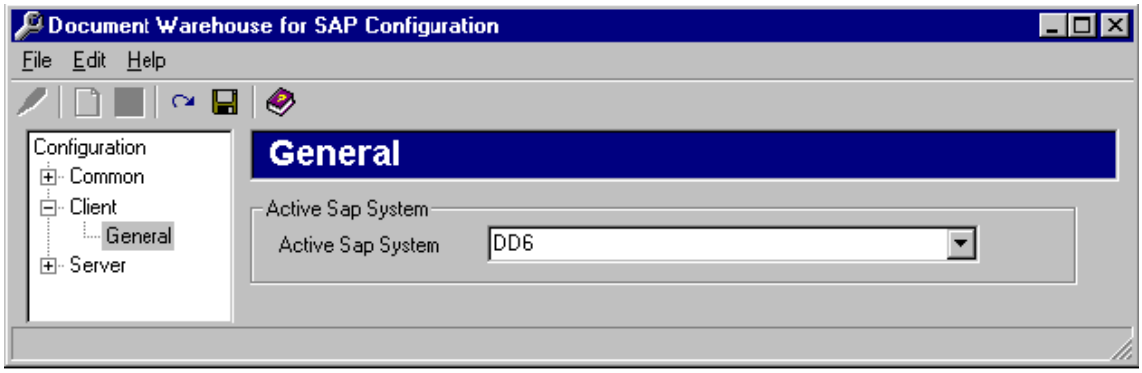
In order to stop and start cServer, use the following procedures:

- For cServerRFC, use the Services applet in the Windows Control Panel. The service is called “FileNET RFC Service”.
- cServerHTTP is automatically loaded and unloaded by Internet Information Server. To stop cServerHTTP you have to stop Internet Information Server by stopping the “World Wide Web Publishing Service” using the Services applet of the Windows Control Panel. Stopping the web site in the Microsoft Management Console is not sufficient. cServerHTTP is started as soon as the first request is sent by SAP R/3.

As cServer is not running as a normal application, stopping and starting cServer cannot be achieved through a menu option or the task manager.

6.12 Configuration for Web-Based Client Environment

If the additional installation for a web-based client environment on the server has taken took place, the configuration program changes slighly. A new main category “Client” is added.



Preference	Description
Active Sap System	Choose the active SAP system from the drop-down list.

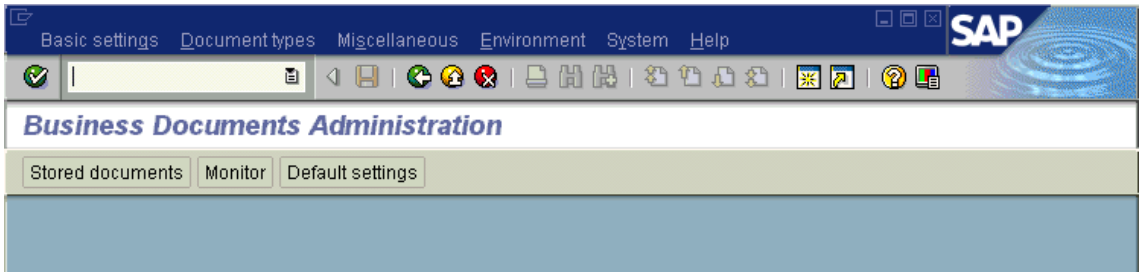
7 SAP Customizing

SAP ArchiveLink requires customization of the R/3 systems in order to work with a Content Server vendor such as FileNET. The following sections describe the necessary customizing for an SAP R/3 system. The documentation is based on a 4.5B system. Where a 4.6B system differs significantly from this, 4.6B is described as well. Other releases have slightly different screens and sometimes transaction codes; these will be considered in future documentations. Also, the screenshots in this manual have been produced using a SAPGUI Version 4.6D. Other versions of SAPGUI provide the same functionality but possibly with a different look and feel.

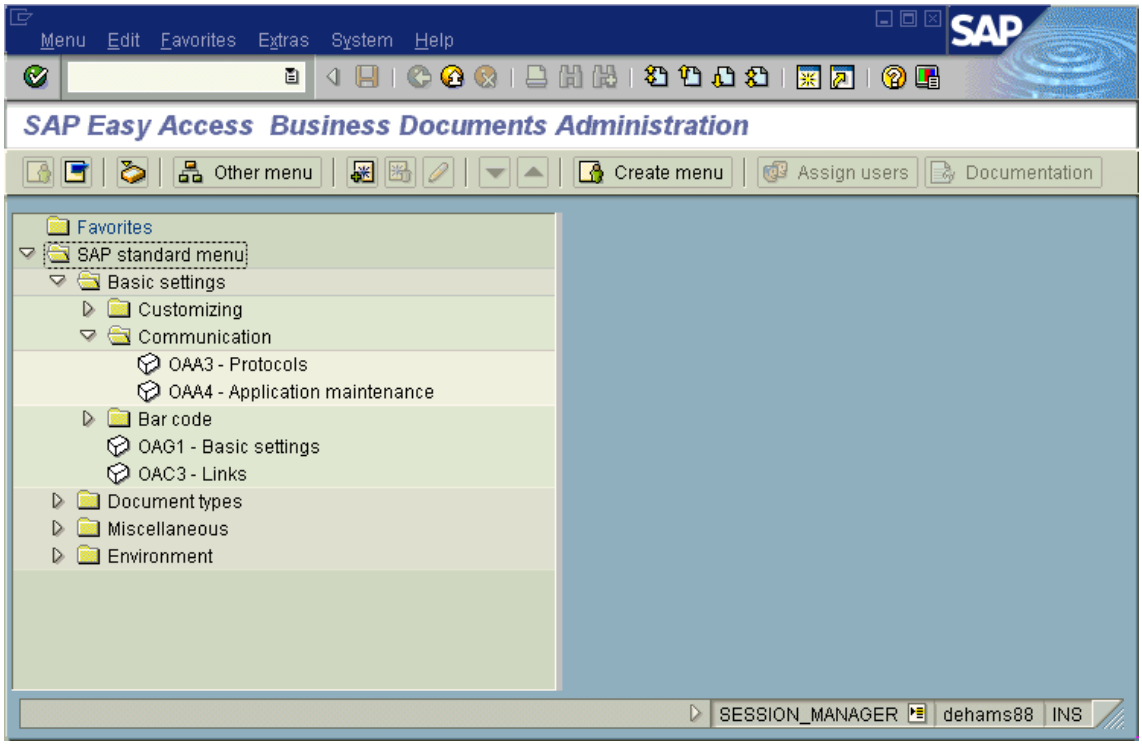
Tip: If the SAP system did run already with a former release (e.g.4.0) of Document Warehouse for SAP most of the customizing is already done and no changes are needed. Supplementary the SAP customizing for using HTTP needs to be done.

7.1 Overview

Most of the SAP ArchiveLink customizing starts in screen “Business Document Administration”. Use transaction code “soa” or click on “Tools”→”Business Documents” in the menu bar (without using the “dynamic menu” button).



Tip: In 4.6B, SAP has introduced “SAP Easy Access”, which, instead of changing the menu bar as in 4.5B and earlier versions, displays possible choices in a hierarchical structure.



Tip: As an alternative, to customize your SAP system, use the SAP Implementation Guide (IMG), which lists the necessary steps, provides context-sensitive SAP online documentation and automatically displays the customizing screens. The IMG can be found under
“Tools”→”Business Engineer”→”Customzing” or via transaction code “spro”.

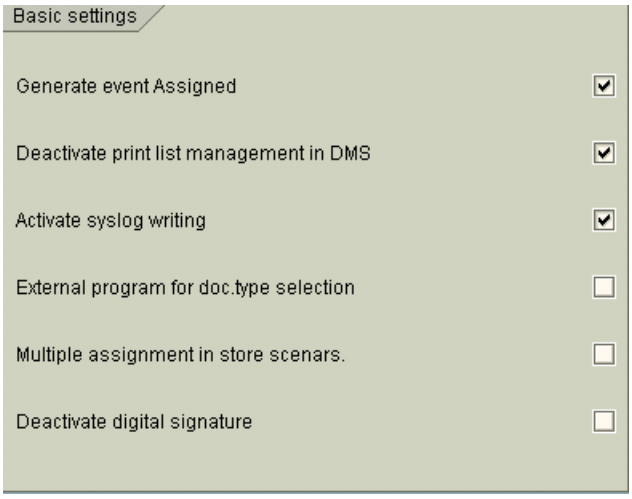
The SAP ArchiveLink customizing consists of two major sections:

1. Customizing specific to Document Warehouse for SAP. The tasks necessary for this type of customization are described in the following sections.
2. Customizing for SAP modules such as FI and SD, which is independent of the archive used. This type of customization is not part of this documentation. Refer to the SAP Online Documentation for more information.

7.2 Initial Customizing

7.2.1 Basic Settings

Menu: “Basic settings”→”Basic settings” (from “Business Document Administration”) or transaction “oag1”



Document Warehouse for SAP requires the following values:

Setting	Value	Remark
Generate event Assigned	Check	Required for “Storing for subsequent entry” and “Store and Enter” (formerly known as Early and Simultaneous Input).
Deactivate print list management in DMS	Check or uncheck	Not relevant to IDM Services for R/3.
Activate SysLog writing	Check	Recommended during testing. This setting is not available in 4.6B.
External program for document type selection	Uncheck	This setting is not available in 4.6B.
Multiple assignment in store scenarios	Check or uncheck	Not relevant to IDM Services for R/3.
Deactivate digital signature	Uncheck	In 4.6B, this setting can be set for each archive. For more information, refer to section “SAP Archive Definition in R/3 4.6B” on page 62.

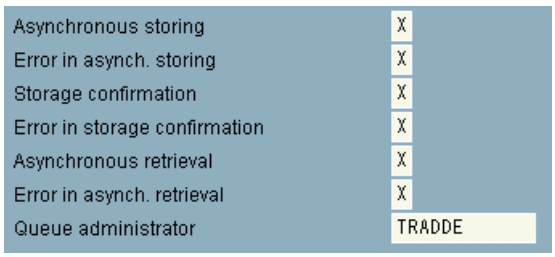
7.2.2 Create SAP Queues

Background: *SAP ArchiveLink maintains several queues to temporarily store asynchronous archiving and retrieval request and confirmation messages exchanged with IDM Services for R/3. The SAP system does not automatically create these queues, therefore, the queues must be created as part of SAP ArchiveLink setup. This needs only be done once per SAP system.*

Menu: 4.5B: “Basic settings”→”Create queues” (from “Business Document Administration”)
4.6B: ”Environment”→”Knowledge Provider”→”KPro”→”Create queues” (from “Business Document Administration”)

or transaction code “oaqi”

Caution: Re-creating the SAP queues deletes the queues’ contents! In the SAP ArchiveLink Monitor (transaction code “oam1”), check the “Queues” section. If numeric values are displayed next to the three buttons “Storage”, “Confirmation”, and “Retrieve” the SAP queues already exist.



Enter an “X” for all queues to be created. Enter the SAP user name of the administrator to be notified on errors that occur during queue processing.

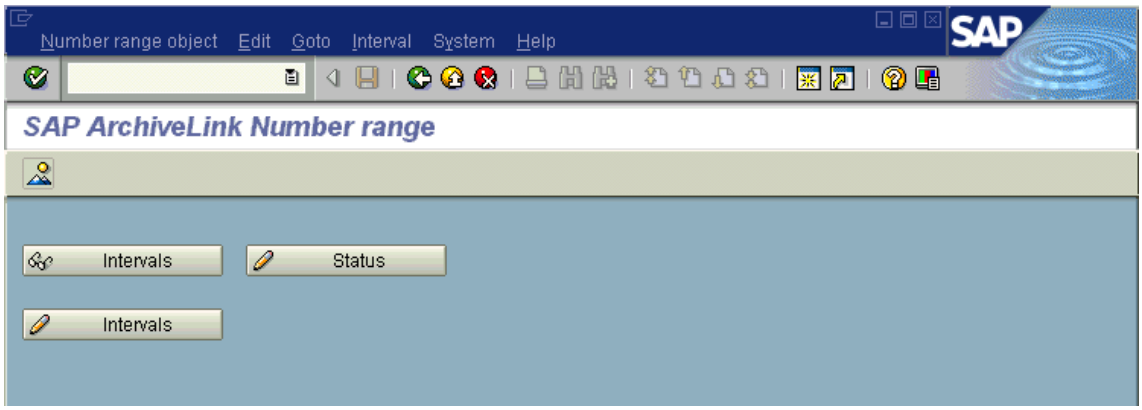
Although it is not necessary, it is recommended that you create all queues at the same time.

7.2.3 Maintain Number Range

Background: *SAP ArchiveLink requires a number range for generating unique file names as well as unique IDs for asynchronous requests.*

Menu: 4.5B: “Basic settings”→”Number range maint.” (from “Business Document Administration”)
4.6B: “Environment”→”Knowledge Provider”→”Kpro”→”Maintain number range” (from “Business Document Administration”)

or transaction code “oanr”



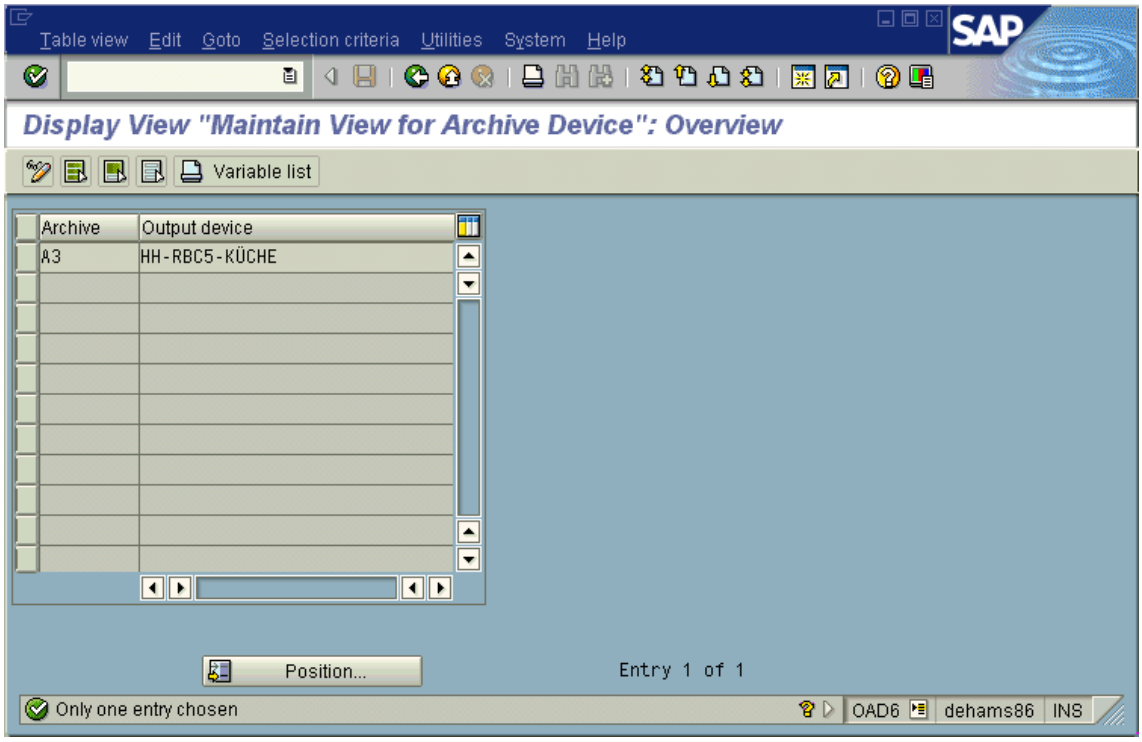
1. Check whether the required number range already exists. Click the “Overview” icon (or in menu “Number range object”→”Overview”). If a number range object (“No”) “01” exists, another number range does not have to be created.
2. Create the number range. Click the “Change Intervals” button (or in menu “Interval”→”Change”). Insert a new interval (“Edit”→”Insert interval”). Enter the following values:
   - No “01”
   - From Number “0000000001”
   - To Number “9999999999”
   - Current Number “1”
   - Ext “ “ (leave blank)

7.2.4 Maintain Archive Device

Background: *You can specify an archive-specific archive device, overriding the default archive device “ARCH”. This is an optional step.*

Note: This transaction is not available in 4.6B. In this release, the archive specific archive device can be set in the Content Repository Transaction. For more information, refer to section “SAP Archive Definition” on page 60.

Menu: “Basic settings”→”Maintain archive device” (from “Business Document Administration”) or transaction code “oad6”.



1. Enter change mode through “Table view”→”Display -> Change”. A notification that this table is client independent is given.
2. Alter existing entries or add new entries. Save your changes.

7.3 SAP Archive Definition

Background: *An archive is a logical representation of a physical storage system, for example a specific FileNET IDM Image Services library.*

Note: “Archives” are called “Storage Systems” in R/3 4.5B and “Content Repositories” in 4.6B. We have chosen to use the traditional term “archive” in this documentation.

Tip: It is possible – and may even be necessary in certain situations – to have multiple archives point to the same FileNET Library.

Before saving a new archive, the following must be prepared:

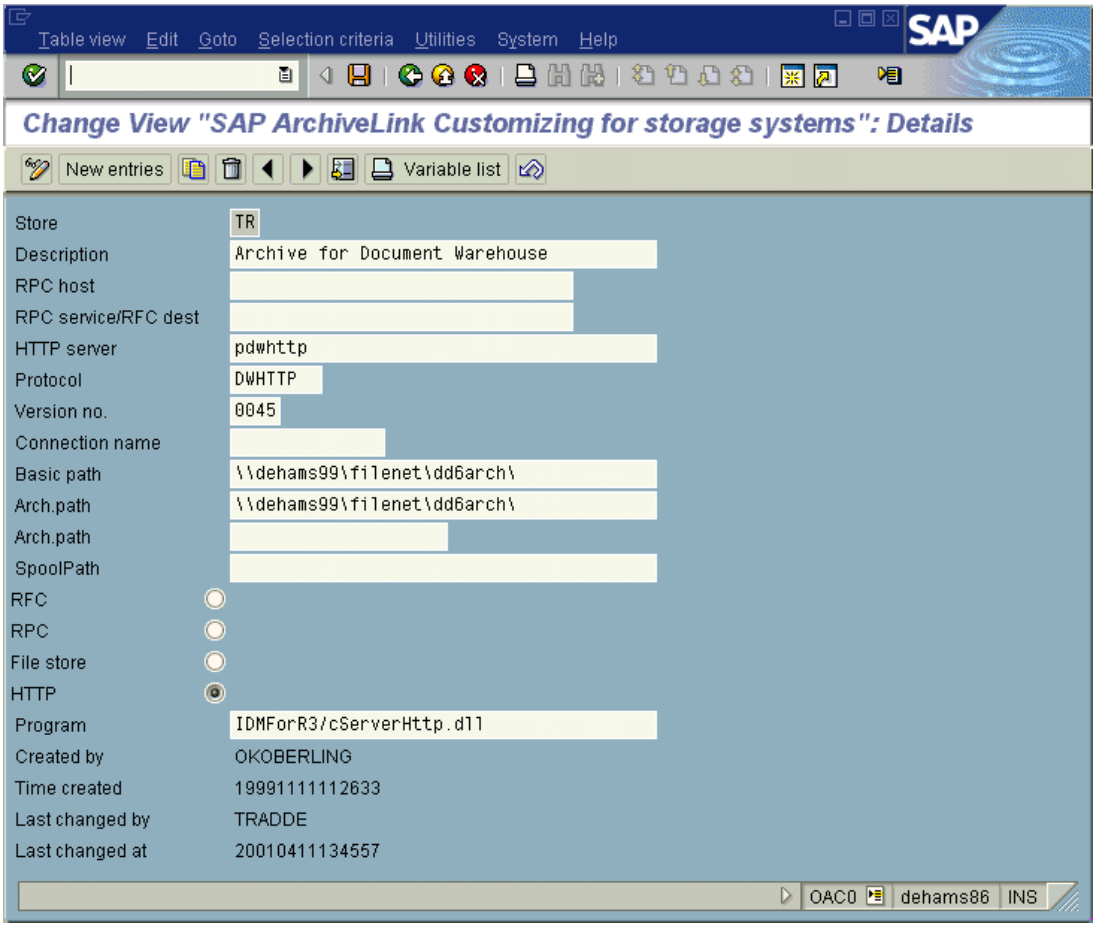
- The SAP ArchiveLink protocol for the new archive must already exist. For more information, see section “SAP ArchiveLink Protocols” on Page 65.
- The RFC Destination (if RFC is used) must already exist. For more information, see section “RFC Destinations” on Page 70.
- Obtain a Change Request ID from your SAP System Administration under which the settings can be saved.

As the screens in version 4.5B and 4.6B are quite different, each of these is described in its own subsection.

7.3.1 SAP Archive Definition in R/3 4.5B

Menu: “Basic settings”→”Storage systems” (from “Business Document Administration”) or transaction code “oac0”.

To see the details of an existing archive select a line with an archive and click on the icon “details” or double-click the line.



For a new archive

1. Start the transaction.
2. Switch to “Change” mode via “Table view”→”Display ->Change” or click on the icon “Display ->Change”. A message box will state that this transaction is client independent.
3. Click on the button “New entries” or choose “Edit→New entries” in the menu.
4. Enter the following values for the new archive:

Setting	Remark
Store	Name of archive (one alphabetical character plus one alpha-numerical character).
Description	Language dependent description.
RPC Host	Leave blank.
RFC Dest	When using RFC communication, enter the name of the RFC Destination to be used. For more information, see section “RFC Destinations” on page 70.
HTTP Server	When using HTTP communication, enter the domain of the web server under which IDM Services for R/3 runs. Do not enter “http://” or any path information. The domain could also be the IP address or the IP alias of the web server machine. If the HTTP Server uses a non-standard port, you can also enter this port by adding “:<port number>”.

Setting	Remark
Protocol	Name of the SAP ArchiveLink protocol defined in a different step of the SAP ArchiveLink customizing. For more information, see section “SAP ArchiveLink Protocols” on page 65.
Version no.	SAP ArchiveLink version to be used. Enter 0030, 0031, or 0045, depending on the version of the protocol (see setting above) used.
Connection name	Leave blank.
Basic path	Fully qualified path of a directory in which SAP ArchiveLink can store files temporarily or for exchange with FileNET IDM Services for R/3 (called “Archival path” in IDM Services for R/3 Configuration tool). **Caution**: The path must end with a “\” (Windows) or “/” (UNIX) because the actual file name is simply concatenated to this path value.
Arch. path (I)	Fully qualified path of a directory into which FileNET IDM Services for R/3 restores documents (called “Retrieval path” in IDM Services for R/3 Configuration tool). See also notes on “Basic paths”.
Arch. path (II)	Leave blank.
Spool path	Leave blank.
Option RFC/RPC/File store/HTTP	Default communication protocol. Overridden by SAP ArchiveLink protocol defined for this archive (see above). Choose either RFC or HTTP. For HTTP, the SAP ArchiveLink protocol version must be 0045 or later. For RFC, protocol versions must be 0030 or 0031.
Program	For HTTP communication, enter the virtual path configured in IIS to the FileNET IDM Services for R/3 ISAPI DLL, typically “IDMForR3/cServerHttp.dll”. The value must not start with a “/”.

5. Save your settings. Depending on the SAP R/3 system administrative customization, change request information will have to be entered. Obtain the information from your SAP System Administration.

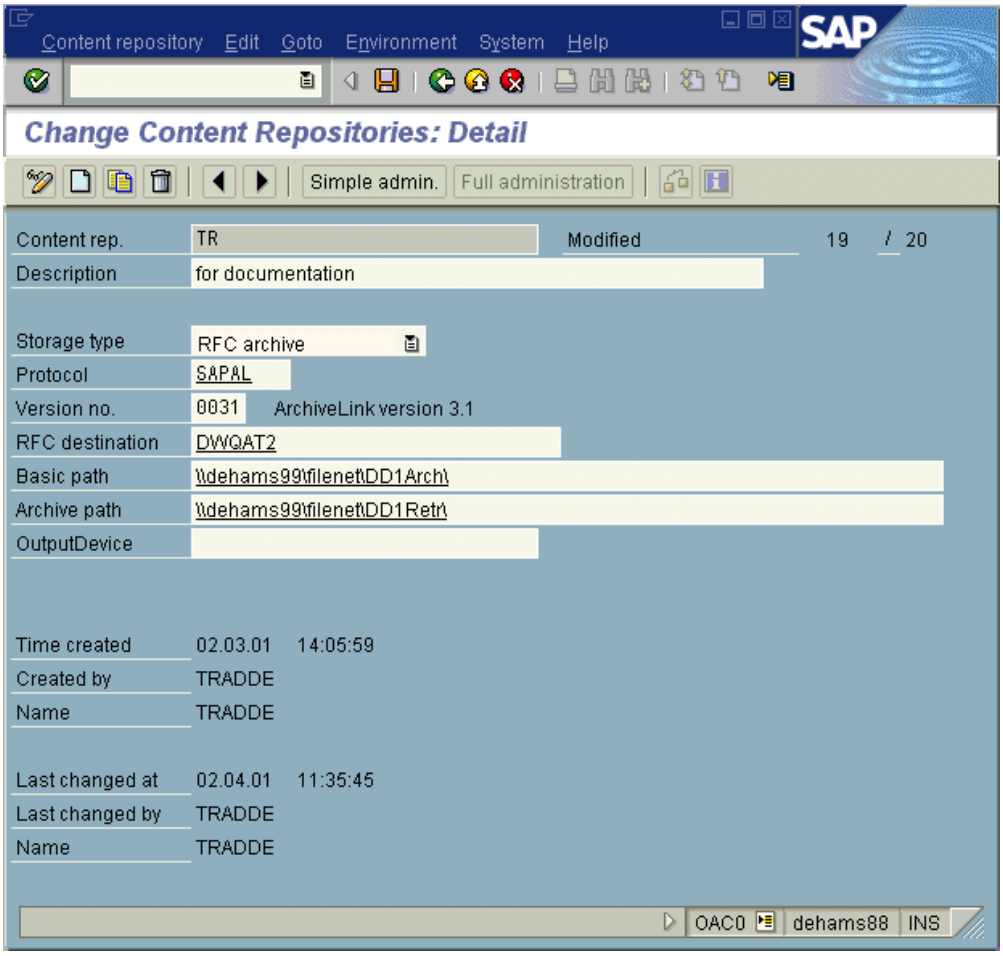
7.3.2 SAP Archive Definition in R/3 4.6B

Menu: “Environment”→”Knowledge Provider”→”KPro”→”Content Repositories” (from “Business Document Administration”) or transaction code “oac0”.

In 4.6B, this screen has two versions, simple administration and full administration. Simple administration shows only the most common settings, while full administration shows all. You can toggle between these two versions by clicking the “Simple admin.” or “Full administration” buttons. The following screenshots show the full adminstration version.

The screen is also dependant on whether you choose to configure an archive of Storage Type “RFC Archive” or an “HTTP Content Server”.

For an RFC Archive, the detailed archive screen is displayed as follows:



For a new archive,

1. Start the transaction.
2. Click on the icon “Create” or choose “Content Repository”→”Create”.
3. Enter the following values for the new archive:

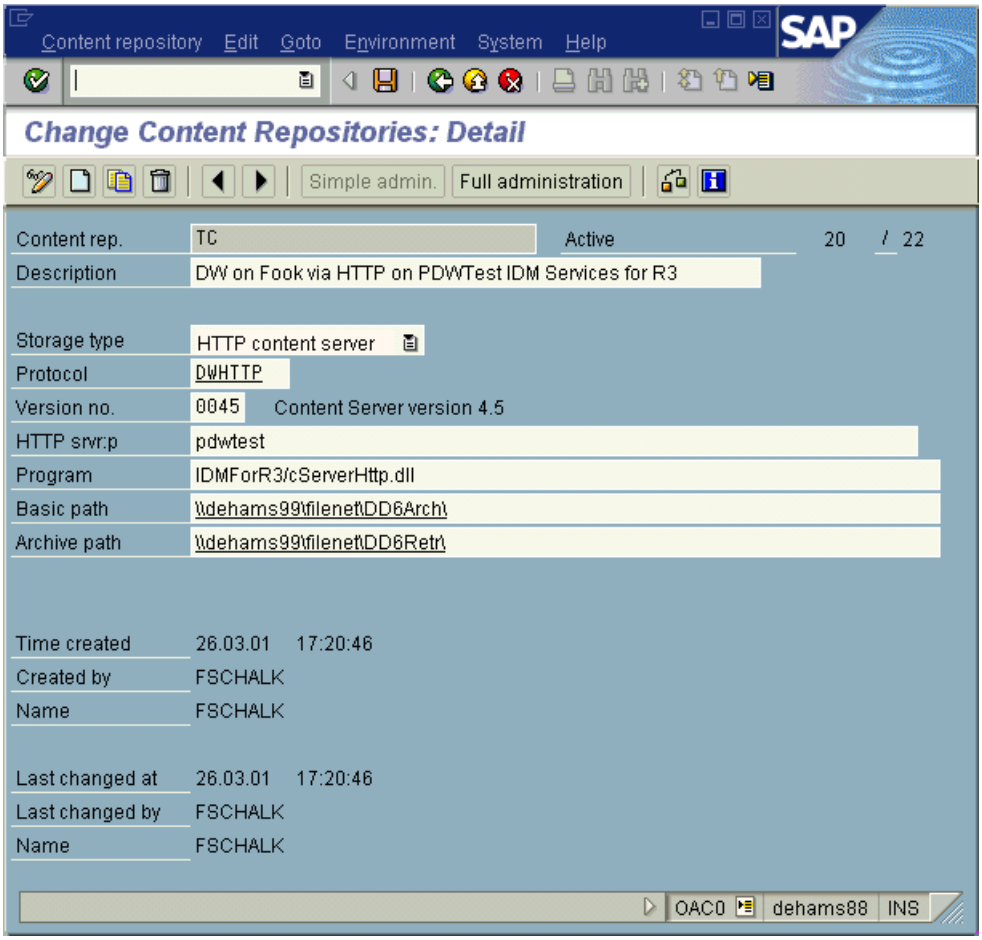
Setting	Remark
Content rep.	Name of archive (one alphabetical character plus one alpha-numerical character). Although the screen allows you to enter more than two characters, SAP ArchiveLink can only work with two character identifiers.
Description	Language dependent description.
Storage Type	Enter “RFC Archive”. For other values, the screen changes.
Protocol	Name of the SAP ArchiveLink protocol defined in a different step of the SAP ArchiveLink customizing. For more information, see section “SAP ArchiveLink Protocols” on Page 65.
Version no.	SAP ArchiveLink version to be used. Enter 0030, 0031, or 0045, depending on the version of the protocol (see setting above) used.
RFC destination	Enter the name of the RFC Destination to be used. For more information, see section “RFC Destinations” on Page 70.
Basic path	Fully qualified path of a directory in which SAP ArchiveLink can store files temporarily or for exchange with FileNET IDM Services for R/3 (called “Archival path” in IDM Services for R/3 Configuration tool). The path must end with a “\” (Windows) or “/” (UNIX) because the actual file name is simply concatenated to this path value.
Archive path	Fully qualified path of a directory into which FileNET IDM Services for R/3 restores documents (called “Retrieval path” in IDM Services for R/3 Configuration tool). See also notes on “Basic paths”.

Setting	Remark
Output device	You can specify an archive-specific archive device, overriding the default archive device “ARCH”.

4. Save your settings. Depending on the SAP R/3 system administrative customization, change request information will have to be entered. Obtain the information from your SAP System Administration.

Tip: If cserver has been configured and is running, it is possible to verify some of these settings with the “Test connection” icon. If the test is succesful, SAP R/3 can properly communicate with cServer.

For an HTTP Content Server, the screen is displayed as follows:



For a new archive

1. Start the transaction.
2. Click on the icon “Create” or choose “Content Repository”→”Create”.
3. Enter the following values for the new archive:

Setting	Remark
Content rep.	Name of archive (one alphabetical character plus one alpha-numerical character). Although the screen allows you to enter more than two characters, SAP ArchiveLink can only work with two character identifiers.
Description	Language dependent description.
Storage Type	Enter “HTTP content server”. For other values, the screen changes.

Setting	Remark
Protocol	Name of the SAP ArchiveLink protocol defined in a different step of the SAP ArchiveLink customizing. For more information, see section “SAP ArchiveLink Protocols” on Page 65.
Version no.	SAP ArchiveLink version to be used. Enter 0030, 0031, or 0045, depending on the version of the protocol (see setting above) used.
HTTP srvr:p	Enter the domain of the web server under which FileNET IDM Services for R/3 runs. Do not enter “http://” or any path information. The domain could also be the IP address or the IP alias of the web server machine. If the HTTP Server uses a non-standard port, you can also enter this port by adding “:<port number>”.
Basic path	Fully qualified path of a directory in which SAP ArchiveLink can store files temporarily. The path must end with a “\” (Windows) or “/” (UNIX) because the actual file name is simply concatenated to this path value. This setting is required even though the HTTP protocol does not require that the IDM Services for R/3 machine can access this path. It is used by SAP as a staging place before sending the files to cServer.
Archive path	Fully qualified path of a directory into which documents returned by cServer are restored. See also notes on “Basic paths”.
Output device	You can specify an archive-specific archive device, overriding the default archive device “ARCH”.
No signature	Do not check.

4. Save your settings. Depending on the SAP R/3 system administrative customization, change request information will have to be entered. Obtain the information from your SAP System Administration.

Tip: When cServerHTTP is operational, you can verify some of these settings with the “Test connection” icon. If the test is succesful, SAP R/3 can properly communicate with cServer.

7.4 Communication with Archives

7.4.1 SAP ArchiveLink Protocols

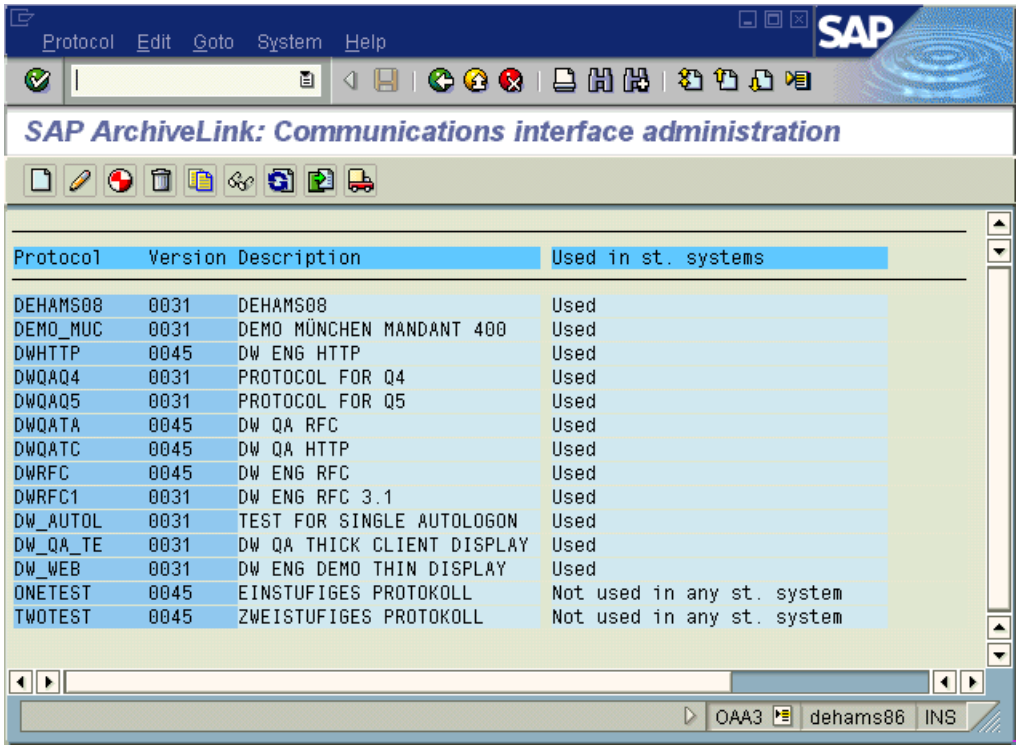
Background: *SAP ArchiveLink uses protocols to determine the type of communication to be used for a specific SAP ArchiveLink function, based on the document format. The document format is represented by SAP technical document classes. During the definition of an archive, identify the SAP ArchiveLink protocol to be used with the archive.*

Note:The following screenshots describe the configuration in an SAP R/3 4.5B system. There are some differences in 4.6B, and they are noted in the text.

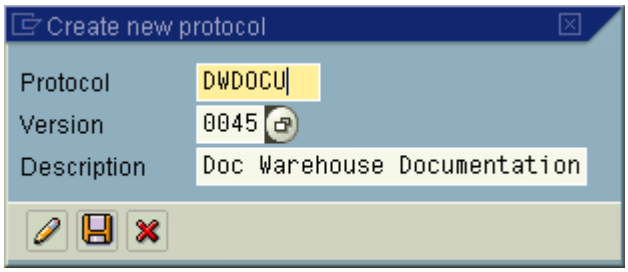
Menu: “Basic settings”→”Communication”→”Protocols” (from “Business Document Administration”) or transaction code “oaa3”.

For a new SAP ArchiveLink protocol

1. Start the transaction.

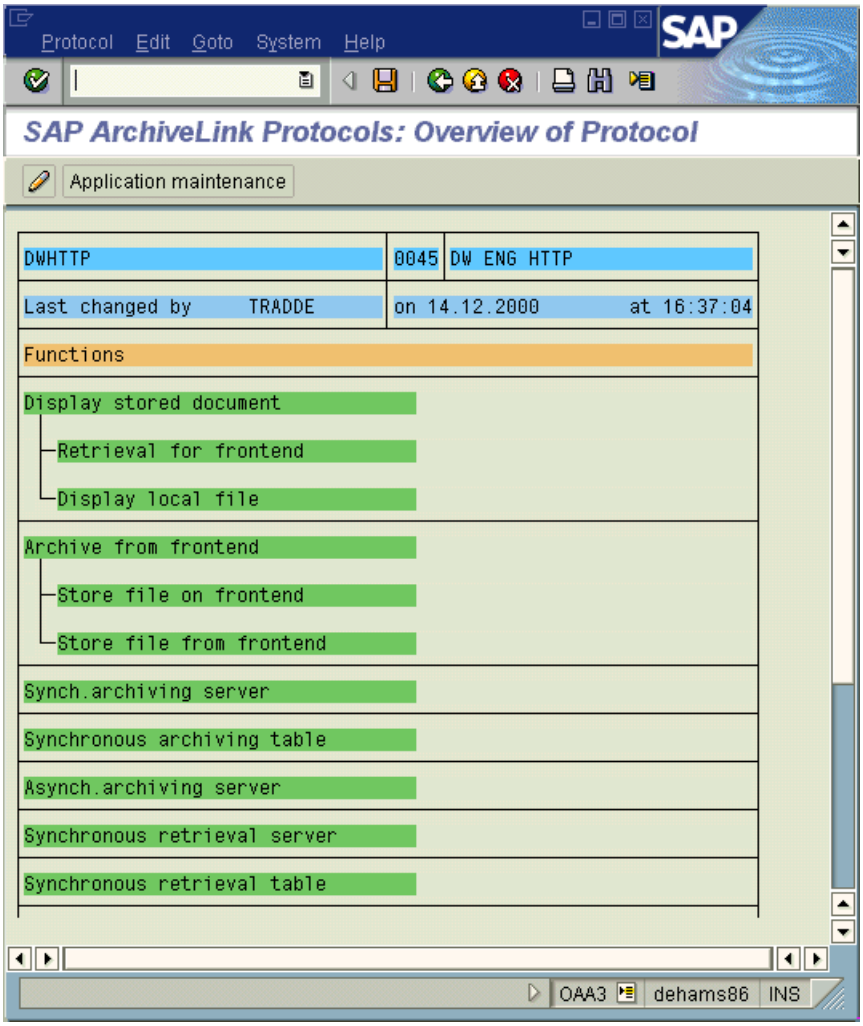


2. Select menu item “Protocol”→”Create” or click the “New Protokol” icon in the tool bar.



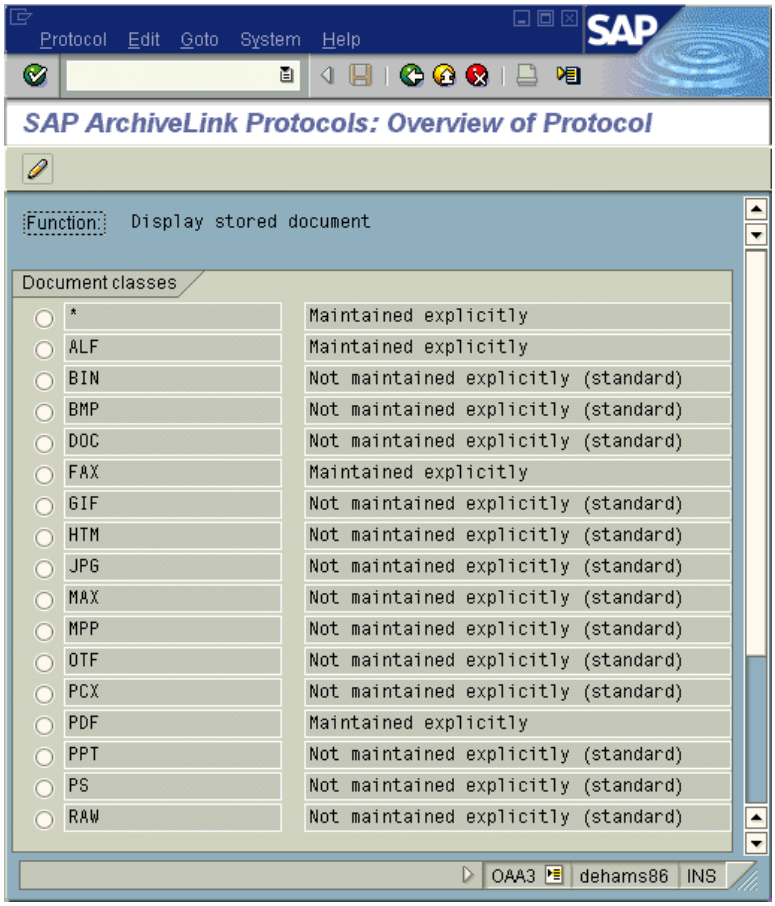
3. Enter the name of the new protocol, the SAP ArchiveLink version number the protocol will be based on, and a short description. If HTTP communication is to be used, choose SAP ArchiveLink version 0045 or higher. If RFC communication is to be used, choose ArchiveLink version 0031.

Note: The combination of protocol name and version forms the protocol’s identifier.

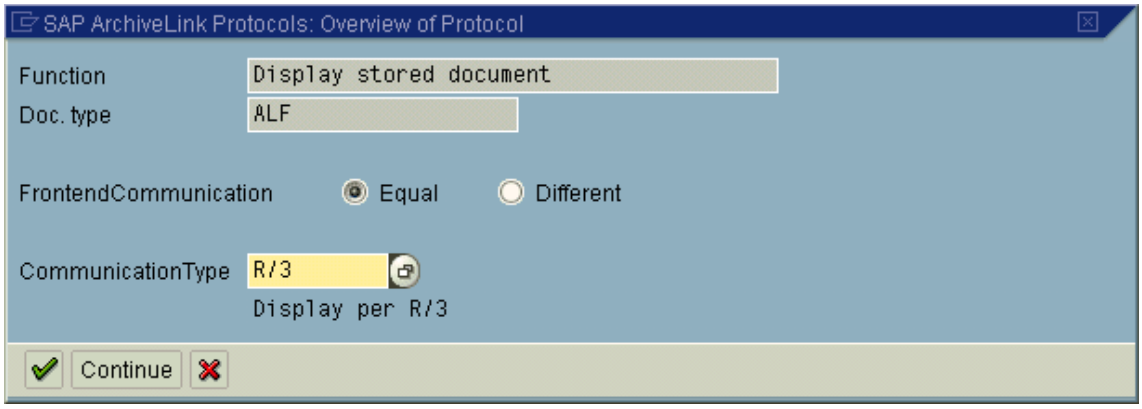


Note: In SAP R/3 4.6B, only the functions “Display stored document”, “Retrieval for frontend”, “Display local file”, “Archive from frontend”, “Store file on frontend”, “Store file from frontend”, “Close window” and “Start external application” are available. All other functions are using the standard communication defined for the archive, i.e. HTTP for an HTTP content server and RFC for an RFC archive.

4. The SAP ArchiveLink protocol overview screen displays the SAP ArchiveLink functions that can be configured. Select a function by double-clicking it. A list of available SAP technical document classes is displayed. The * document class represents the default for this function.



5. Select the document class to specifiy a communication type for by selecting the radio button and double-clicking the document class name. The document class "*" can be used to specify a default used by all other document classes unless overridden by a specific setting for a document class. See below for a summary of communication types used by Document Warehouse for SAP.



6. Enter the communication type that will be used in this protocol for the stated function and the stated document class. See below for a summary of communication types used by Document Warehouse for SAP.

7. Repeat steps 4 through 6 for all SAP ArchiveLink functions as specified in the table below.

The following table lists the communication types frequently used by Document Warehouse for SAP customers. It is not comprehensive with regard to the possible communication types. Please refer to the SAP ArchiveLink online documentation for detailed information about the SAP ArchiveLink functions.

Tip: In the following table, depending on the communication type chosen, additional parameters may be required. Currently, this holds true only for OLE communication where the OLE application to be called is entered. The OLE application for IDM Desktop for R/3 is defined in section "OLE Applications" on page 73. Also, for some of the document classes, more than one communication type is provided. See the respective comments field for more information.

Function	Document Class	Comm. method	Comments
Display stored document	*	OLE	IDM Desktop for R/3 application
	ALF	ICC	Print list display in SAP ArchiveLink Viewer.
	ALF	R/3	Print list display in SAPGUI. Protocol version 0045 required for searching in print lists.
	OTF	ICC	OTF format has been replaced with PDF. Can only be displayed by SAP ArchiveLink Viewer.
Retrieval for frontend	*	OLE	IDM Desktop for R/3 application.
Display local file			Define separately for each document class.
Archive from frontend	*	OLE	IDM Desktop for R/3 application.
Store file on frontend			Define separately for each document class.
Store file from frontend	*	OLE	IDM Desktop for R/3 application.
Synch. archiving server	*	RFC	
	*	TABLE	For RFC communication when not using files for exchange.
	*	HTTP	
Synch. archiving table	*	RFC	
	*	HTTP	
Asynch. archiving server	*	RFC	
	*	ARCHIVELNK	For HTTP communication or for print list archival and data archiving to be performed synchronously.
Synch. retrieval server	*	RFC	
	*	TABLE	For RFC communication when not using files for exchange.
Synch. retrieval table	*	RFC	
	*	HTTP	
Synch. bytestream retrieval	*	RFC	
	*	HTTP	

Function	Document Class	Comm. method	Comments
Asynch. retrieval server	*	RFC	
		ARCHIV ELNK	For HTTP communication or for print list archival and data archiving to be performed synchronously (not recommended).
Status query	*	RFC	
	*	HTTP	
	*	OLE	IDM Desktop for R/3 application (not recommended).
Delete stored document	*	RFC	
	*	HTTP	
		OLE	IDM Desktop for R/3 application (not recommended).

Tip: To review your protocol definitions, choose “Protocol”→”Display” in the Communication Interface Administration screen. (The screen displays the list of protocols.)

Caution: After having customized the SAP ArchiveLink protocol, make sure to save the changes. Some SAP R/3 releases do not notify the user about unsaved protocol changes when leaving the transaction.

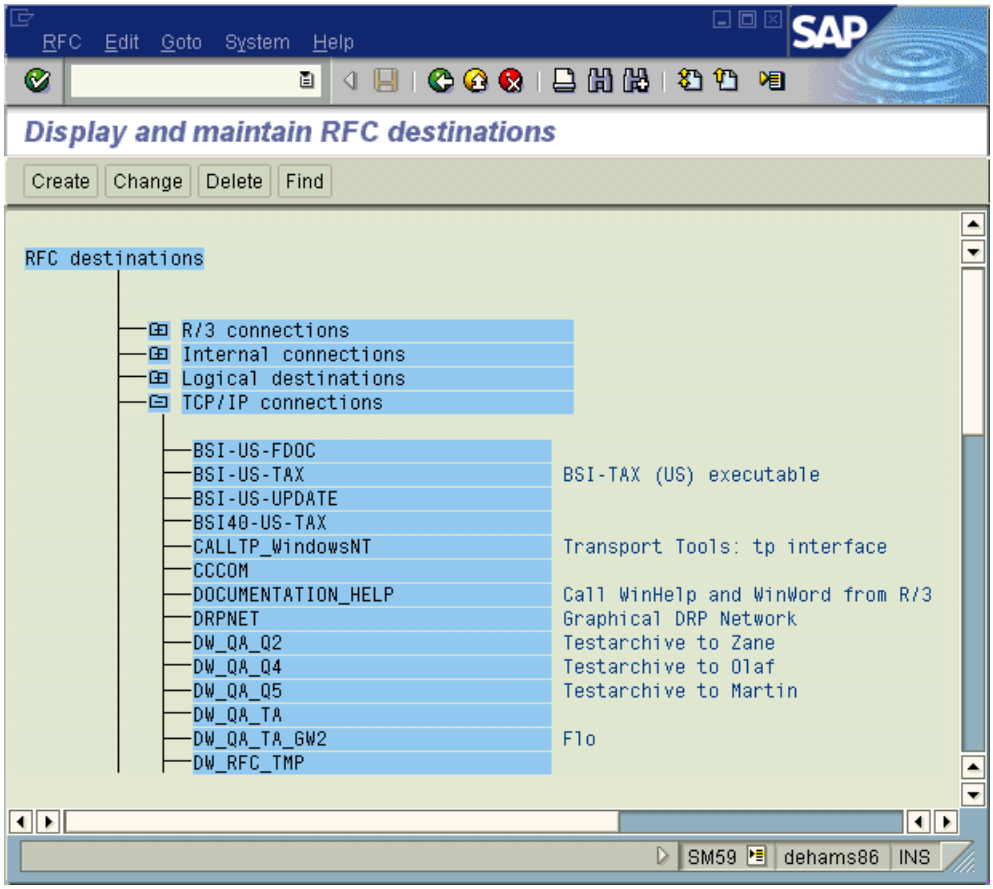
7.4.2 RFC Destinations

Background: *When using Document Warehouse for SAP as an RFC archive, the definition of an SAP archive requires an RFC destination.The RFC destination defines how the SAP R/3 system can communicate with IDM Services for R/3. The main parameters are the type of transport communication (TCP/IP), the SAP gateway at which IDM Services for R/3 is registered as an RFC server, as well as the program ID under which it is registered. This information is entered in the IDM Services for R/3 configuration as well, and the values have to match in order for the communication to work properly.*

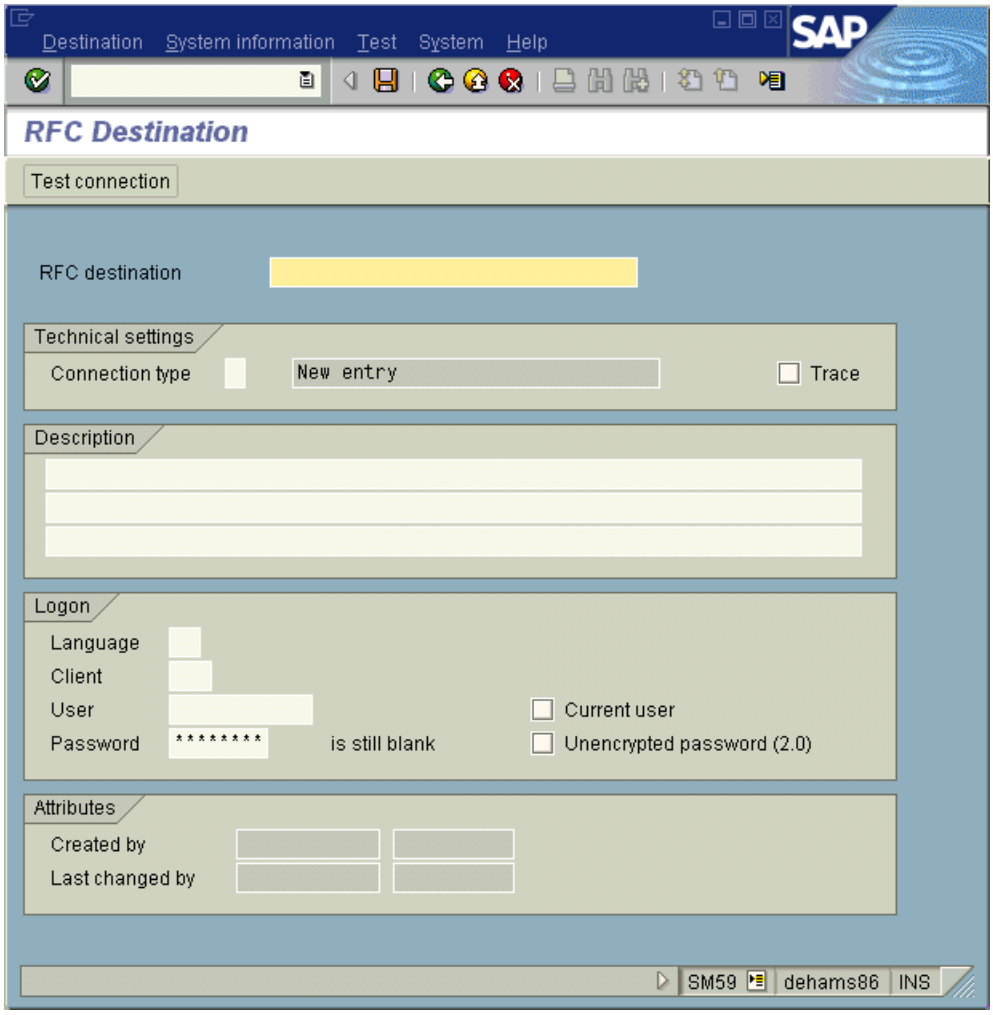
Menu: “Tools”→”Administration” “Administration”→”Network”→”RFC Destinations” (from entry screen) or transaction code “sm59”.

For a new RFC destination

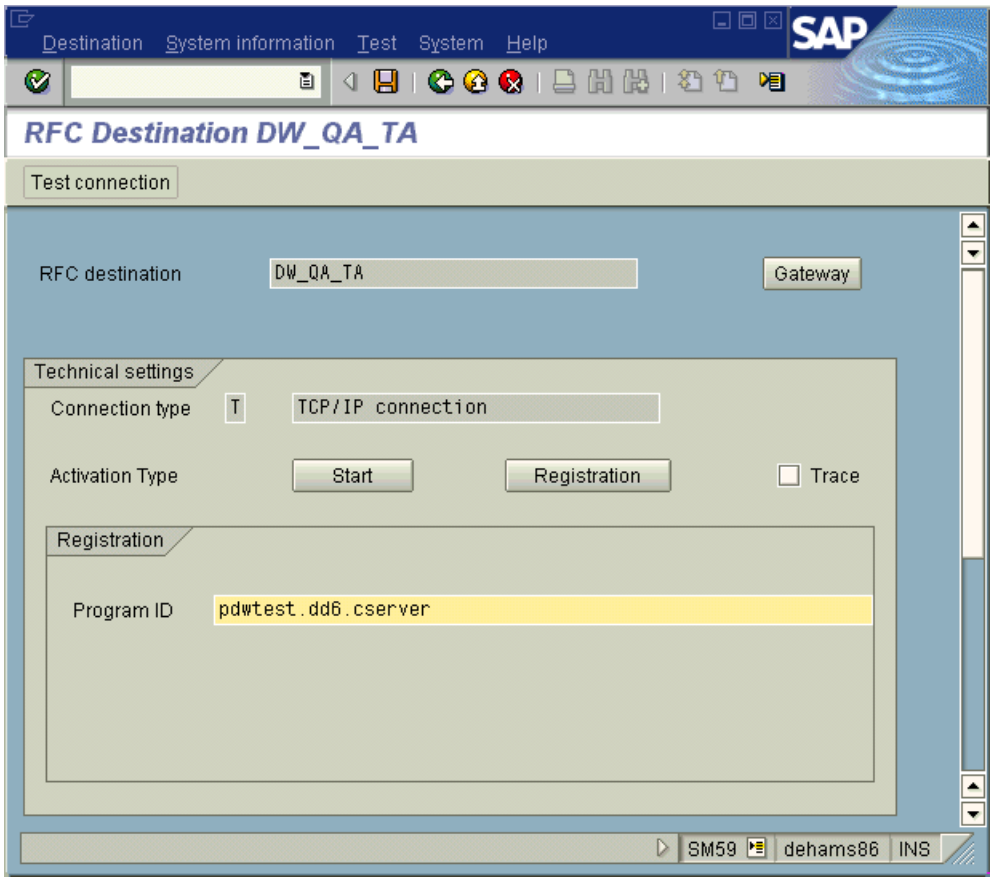
1. Start the transaction. A list of defined RFC destinations is displayed. Expand the TCP/IP connections node.


RFC Edit Goto System Help
SAP
Display and maintain RFC destinations
Create Change Delete Find
RFC destinations
R/3 connections
Internal connections
Logical destinations
TCP/IP connections
BSI-US-FDOC
BSI-US-TAX
BSI-TAX (US) executable
BSI-US-UPDATE
BSI40-US-TAX
CALLTP_WindowsNT
Transport Tools: tp interface
CCCOM
DOCUMENTATION_HELP
Call WinHelp and WinWord from R/3
DRPNET
Graphical DRP Network
DW_QA_Q2
Testarchive to Zane
DW_QA_Q4
Testarchive to Olaf
DW_QA_Q5
Testarchive to Martin
DW_QA_TA
DW_QA_TA_GW2
Flo
DW_RFC_TMP
SM59
dehams86
INS

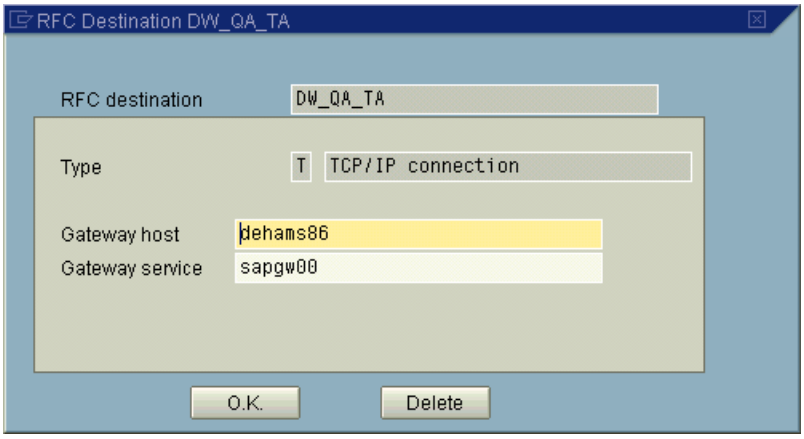
2. Click the “Create” button or choose menu item “Edit”→”Create”.



3. Enter the name of the new RFC destination and a description. Then enter “T” for TCP/IP as the “connection type” and press Enter. (The screen will change.) Select the “Registration” button as the “activation type”. Enter the program ID you have defined using IDM Services for R/3’s configuration program. For more information, see section “Configuring RFC Communication” on Page 37.



4. If you are not using the standard SAP Gateway of your SAP R/3 system, select “Destination”→”Gateway options”. Enter the SAP gateway parameters as defined in the configuration program.



5. Make sure to save your destination.

Refer to section “Configuring the cServer RFC Service” on page 39 for testing the RFC destination.

7.4.3 OLE Applications

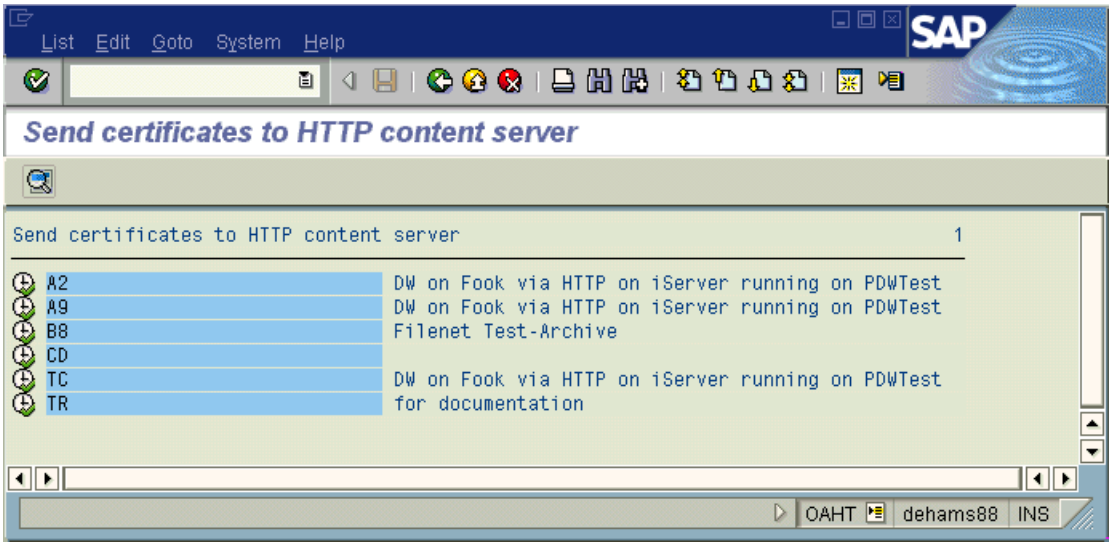
Note: For information on customizing SAP ArchiveLink for use on a client machine, please refer to section “Defining IDM Desktop for R/3 as an OLE Application” on page 77.

7.5 Send a Certificate to an Archive

Background: *SAP R/3 signs the URL of HTTP requests it sends to cServer. cServer uses a certificate that SAP R/3 has sent earlier to verify that the URL was not changed and that the URL was sent by the SAP system designated in the URL. For a detailed description of this process refer to section "Configuring Security" on page 55.*

Menu: 4.5B: "Miscellaneous"→"Send certificate" (from "Business Document Administration")
4.6B: "Environment"->"Knowledge Provider"→"Edit"→"Send certificates" (from "Business Document Administration")

or transaction code "oaht".



In order to send a certificate for an archive to cServer, click the "Execute" button on the left hand side of the archive ID. SAP R/3 will send a certificate to the archive and give you appropriate information in the status bar.

If sending the certificate is successful, the status bar will be cleared. If not, a message box will inform you whether there was a problem communicating with cServer or whether a cServer internal problem occurred.

Note: Certificates that are sent to cServer need to be activated in the configuration program of cServer. For more information, refer to section "Configuring SAP System-Specific Security" on page 44.

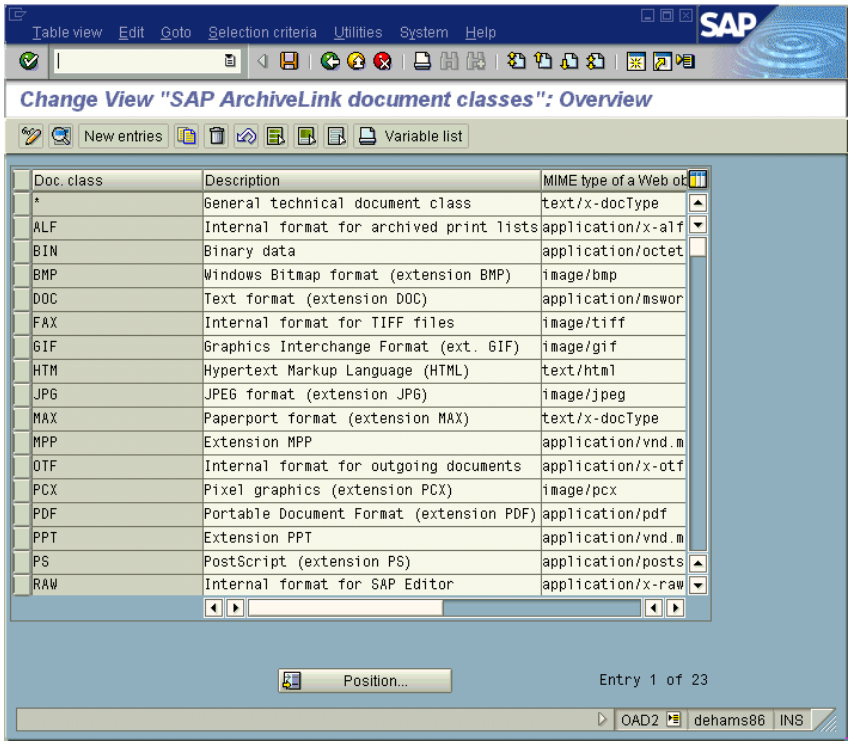
7.6 Business Configuration Elements

7.6.1 SAP Technical Document Classes and MIME types

Background: *SAP ArchiveLink uses SAP Technical Document Classes to identify the format of a document stored in an archive, e.g. print lists (Tech. Document Class "ALF") or MS Word documents (Tech. Document Class "DOC"). The technical document class of a document is maintained in the SAP ArchiveLink link tables as well as a document index in the FileNET library. The SAP ArchiveLink protocol uses the technical document class to determine how to perform an ArchiveLink function such as "Display" or "Retrieve". Beginning with SAP ArchiveLink 4.5, each SAP Technical Document Class correspondes to a MIME type, which is used in the HTTP protocol rather than the technical document class itself, which is used in the RFC protocol. Document Warehouse for SAP can handle both, technical document classes and MIME types.*

Menu: "Basic settings"→"Customizing"→"Doc. Classes" (from "Business Document Administration")
or transaction code "oad2". A notification that this table is client independent is given.

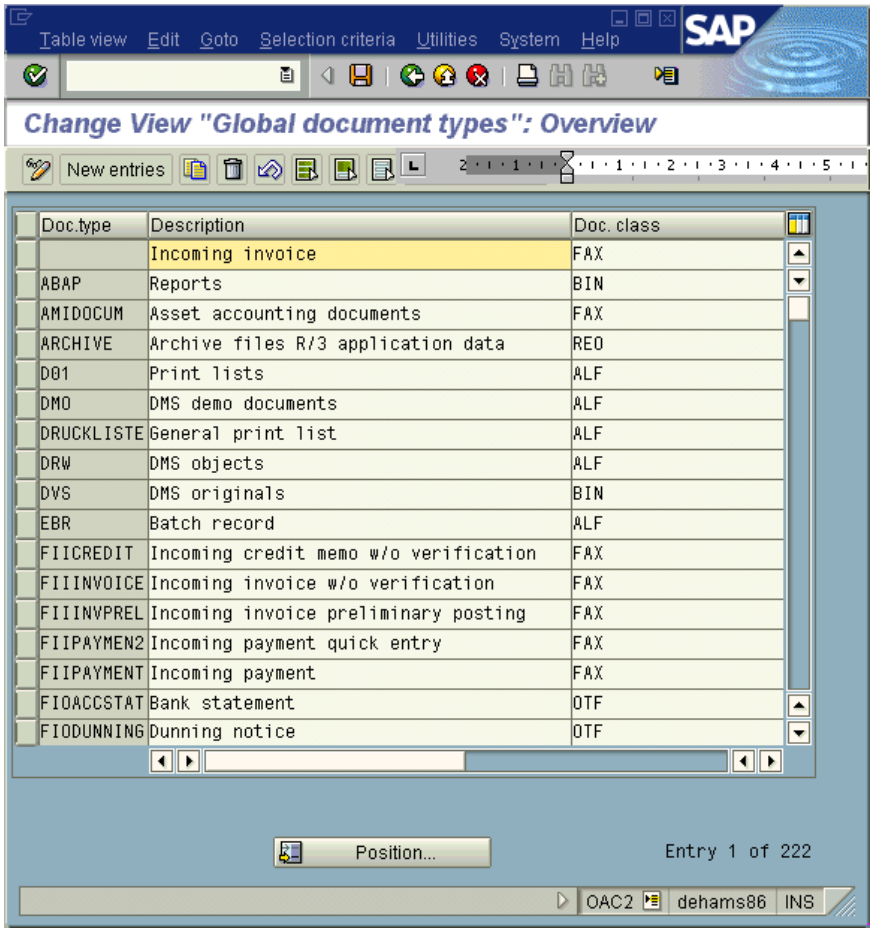
SAP ArchiveLink provides a list of predefined SAP Technical Document Classes and their corresponding MIME types. You can define additional technical document classes or change the description and MIME types of existing ones. Typically, the preconfigured SAP Technical Document Classes and their corresponding MIME types are sufficient and you do not have to define new ones.



7.6.2 ArchiveLink Document Types

Background: *An ArchiveLink document type is a content-related business definition of a document that can be stored in the FileNET repository. Typical examples are "Incoming Financial Invoice" or "Outgoing Sales Order". A document type has exactly one SAP technical document class associated, which defines the document format.*

Menu: "Document Types"→"Global document types" (from "Business Document Administration") or transaction code "oac2".



Note: Please refer to the Coordinator's Handbook of Document Warehouse for SAP release 4.0 for information on configuring workflow document types using the menu items "WFL document types" (transaction soa0) and "Workflow parameters" (transaction oaca). These settings are required for incoming documents. They are not required for R/3-generated documents such as printlists and outgoing documents.

Tip: It is recommended using the Customizing Wizard for creating or updating document types. The wizard not only includes the various steps required to completely define a document type but also creates the meta link information required to use the document type in business scenarios.

Caution: SAP requires new document type names to start with a "Y" or with a "Z". Document types of this name space will not be overwritten or deleted when updating SAP system software.

Tip: Naming conventions. The name of a new document type *should* be a concatenation of <name space id> <sap application> <direction> <description>. The name space id is "Y" or "Z" as described above. The SAP application is the usual SAP abbreviation for one of its business applications such as FI (financials), SD (sales and distribution), or HR (human resources). The direction is either "I" (incoming) or "O" (outgoing). The description specifies the contents of the doucment in detail, such as "INVOICE" or "ORDER". Valid names, according to the naming convention, would therefore be "ZFIIINVOICE" and "YSDOORDER".

In order to create a new document type, perform the following steps.

1. Obtain a Change Request ID from your SAP System Administration. This is necessary for saving your changes.

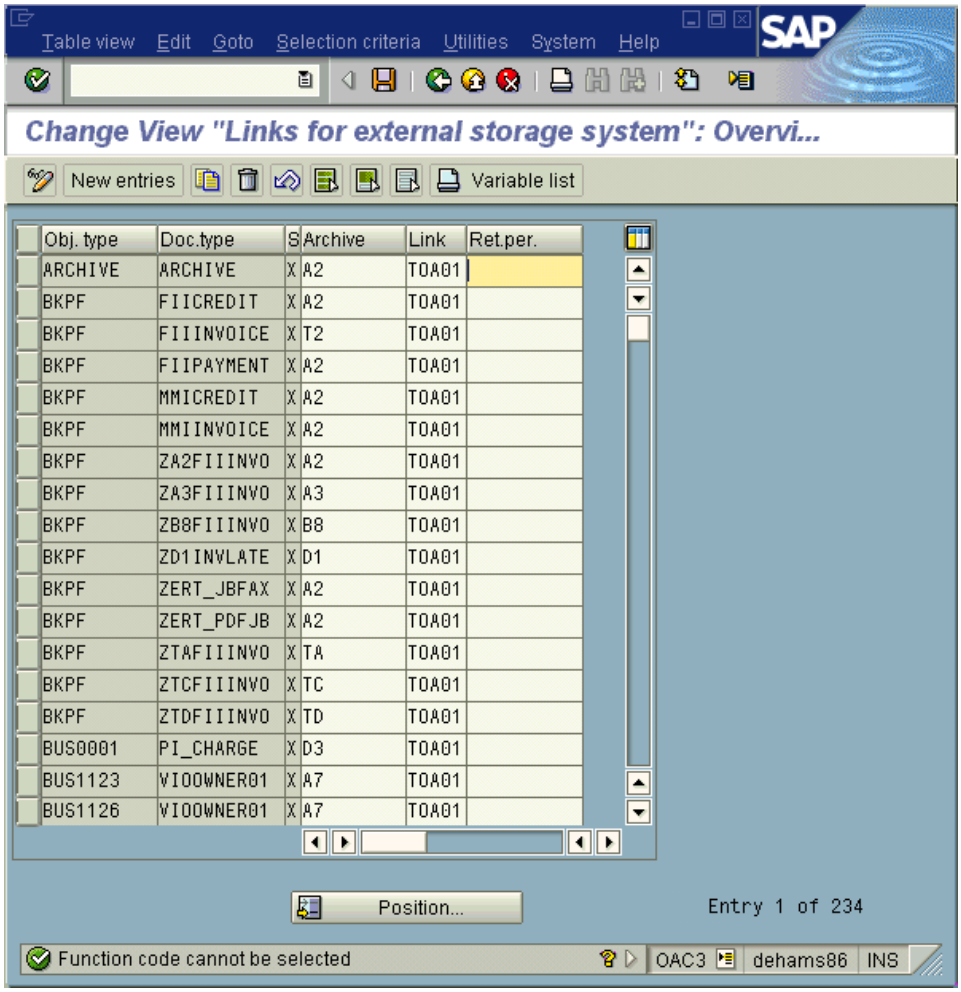
2. Create the global document type via menu "Document Types"→"Global document types" or transaction code "oac2". Click the "New entries" button or choose "Edit"→"New entries". Enter the name for the new document type (observing the Y or Z name space), the language-dependent description, and the technical document class. Enter as many new document types as needed.

7.6.3 How to Define Links

Background: *SAP R/3 uses a single transaction to define a document type (e.g. FIINVOICE), which SAP object type it belongs to (e.g. VBAK, a specific FI business object type), which archive is used to store documents of this type (e.g. A1, and which SAP link table is used to store the link information between a specifc document and a specific SAP object (e.g. TOA01). In the context of this transaction, all this information is called a link.*

Tip: It is possible to have multiple links for a document type, but only one of these links can be active at a given time.

Menu: “Basic Settings”→”Links” (from “Business Document Administration”)
or transaction code “oac3”.



For a new SAP ArchiveLink protocol,

1. Start the transaction.
2. Switch into change mode (click on the “display->change” icon or select “table view->display change” from the menu). In order to create a new entry, click the “New entries” button. An empty line will be appended. Enter the appropriate values and save the new entry.

   Note Only one link can be active for a given document type.

7.7 SAP Customizing for IDM Desktop for R/3

This section contains the procedures necessary to configure client/server communications.

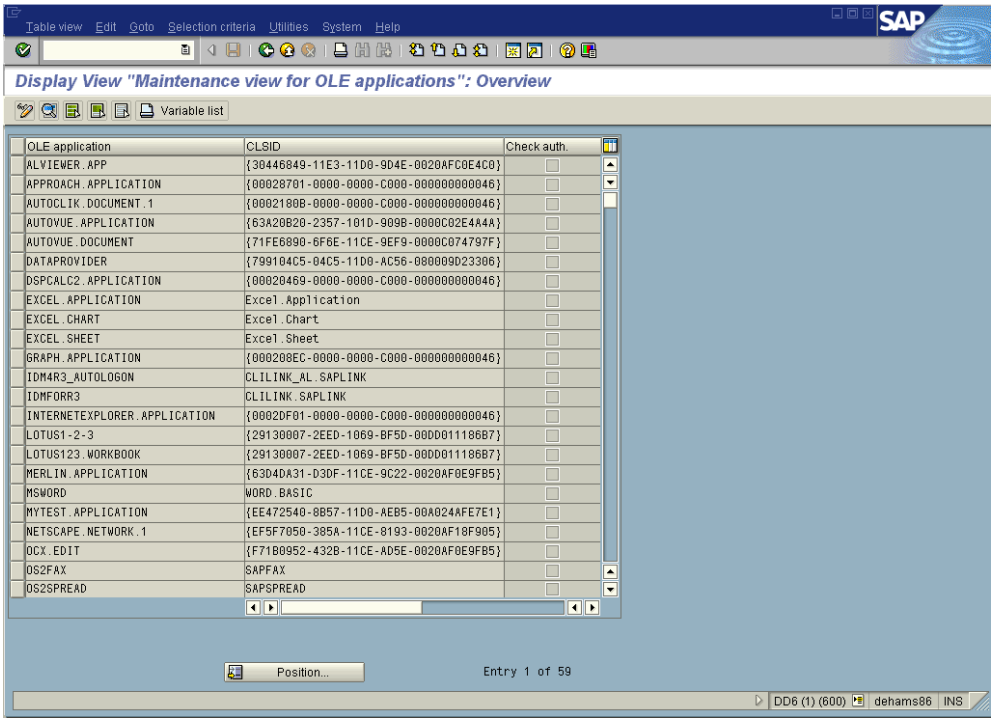
7.7.1 Defining IDM Desktop for R/3 as an OLE Application

This procedure declares Desktop for R/3 as an OLE server to SAP.

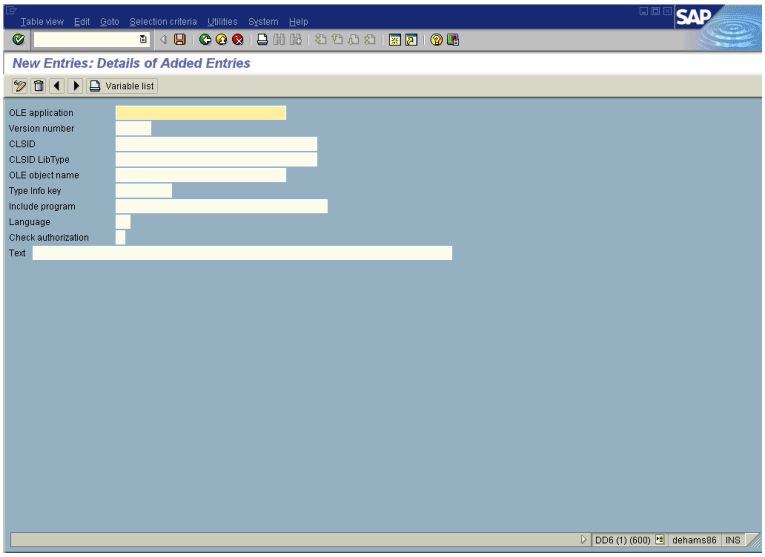
Menu: 4.5B: “Tools” → ”ABAP Workbench”

“Development” → “Programming Environment” →”OLE2” →”OLE2 Configuration”

or transaction code “sole”.



1. Start the transaction.
2. Switch to “Change” mode via “Table view”→”Display ->Change” or click on the icon “Display ->Change”. A message box will state that this transaction is client independent.
3. Click on the button “New entries” or choose “Edit→New entries” in the menu.



4. A new screen displays showing several blank edit boxes. Enter the value for each edit box as described in the table.

Field	Entry
OLE application	e.g. “IDMFORR3”
Version number	5.0

Field	Entry
CLSID	CLILINK.SAPLINK
CLSID LibType	Leave blank
OLE object name	CLILINK.SAPLINK
Type Info key	NO_TYPELIB
Include program	Leave blank
Language	Leave blank
Check authorization	Leave blank
Text	Leave blank

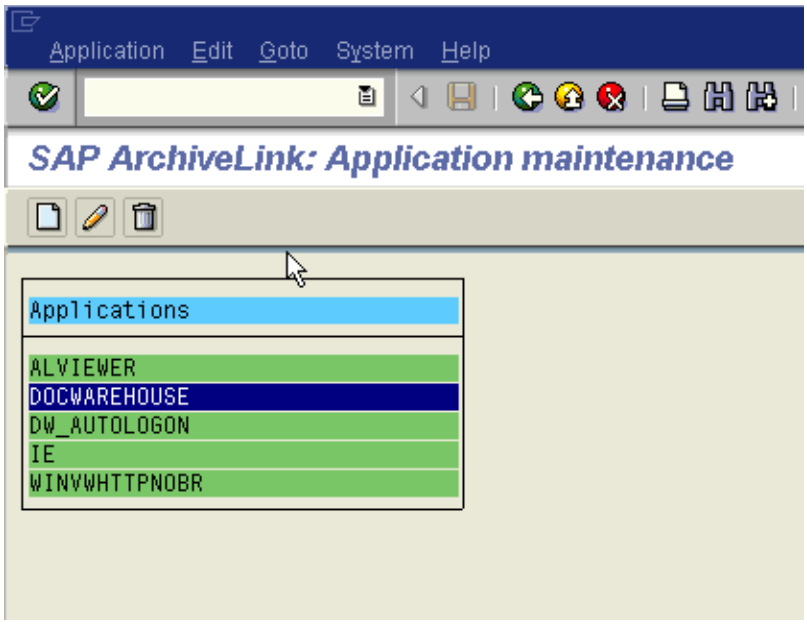
Tip : It is advisable to make a note of the OLE Application name, as it is used later in the configuration when the IDM Desktop for R/3 to SAP gets defined.

5. Click on the Save button to save the changes.

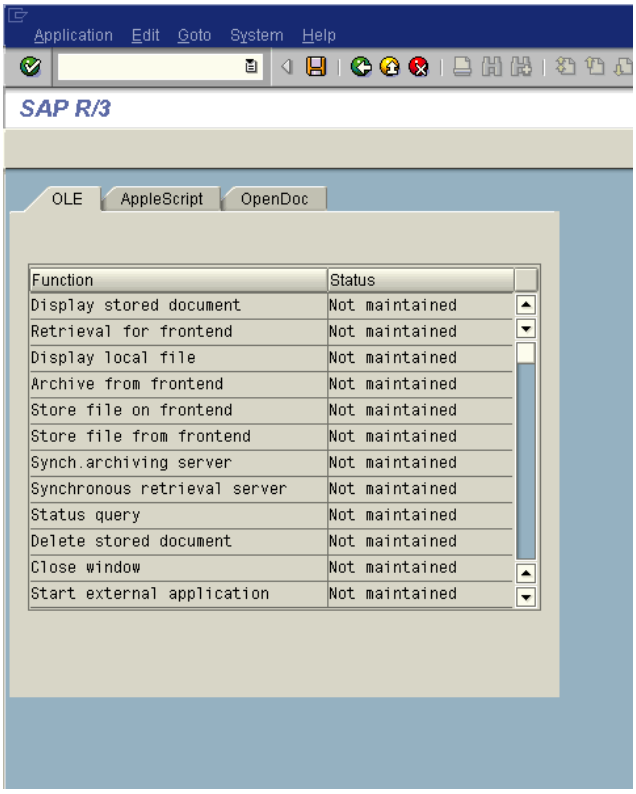
7.7.2 Defining IDM Desktop for R/3 to SAP

Background: For Panagon Document Warehouse to communicate with the SAP system, the functionality of IDM Desktop for R/3 to SAP needs to be defined. This involves setting up a list of all the methods that can be performed and defining the parameters that are sent and returned for each application.

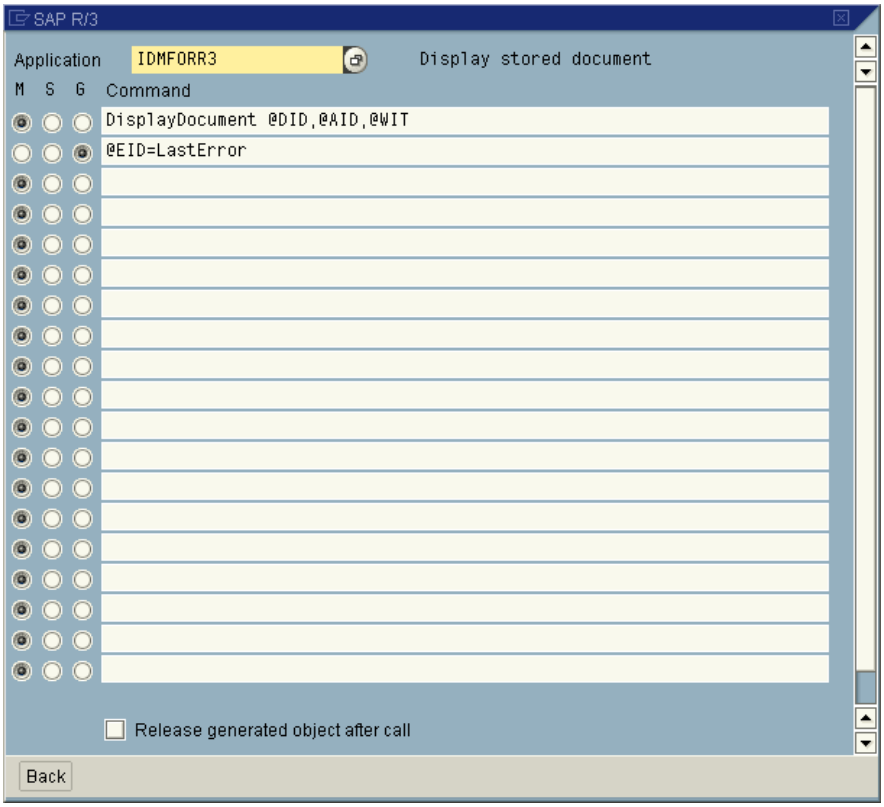
Transaction code “oaa4”.



1. Start transaction.
2. Click on the “Create” Button or “Application” → “Create” in the menu. In the small dialog window that appears, enter a unique application name. Since this is for defining the function calls for IDM Desktop for R/3, we recommend that you define the name as FNDSKTP50.
3. Click the “back” button. The new application, in this case FNDSKTP50, appears in the displayed list. Double-click on the new application for editing.



4. Modify each of the functions by double clicking on one of the OLE function line (for example, “Display stored document”). The following edit screen displays.



5. For each operation, the name of the OLE Application (i.e. IDMFORR3) in the Application field needs to be entered. Enter the Methods, Sets and Gets after that. Click on the radio button at the beginning of each line to select the type and enter the Command to be executed. The following table lists all required entries. After each operation, press “back”, then select the next operation to be defined. It is also good practice to press Save each time. After you entering the configuration tasks, the modified entries display as maintained in the OLE column.

Operation	Type	Command
Display object	M	DisplayDocument @DID,@AID,@WTI
	G	@EID=LastError
Retrieval for frontend	M	RestoreFile @DID,@DPA,@AID
	G	@EID=LastError
Display local file	M	DisplayFile @DPA
	G	@EID=LastError
Archive from front end	M	ScanArchive @DTY,@AID
	G	@DID=DocumentId
	G	@EID=LastError
Store file from frontend	M	ArchiveFile @DPA,@DTI,@AID
	G	@DID=DocumentId
Status Query	M	ShowStatus @AID,@DID
	G	@STA=DocStatus
	G	@ADA=DocDate
	G	@EID=LastError
Delete stored object	M	DeleteDoc @DID,@AID
	G	@EID=LastError

Note: The last two entries “Status Query” and “Delete stored object” do not appear in the SAP System 4.6B anymore as from this version on these items are using the server to server communication and not the OLE communication.

After you have entered the configuration tasks and click on the “safe” button, the modified entries display as maintained in the OLE column.

Tip: There must not be any spaces between the parameters in a method call or in an assignment. There is a space between a function name (e.g. “DisplayFile”) and the first parameter.

7.8 SAP Customizing for DMS Components

In case the new feature of Document Warehouse for SAP, the DMS components are used, additional SAP customizing needs to be done.

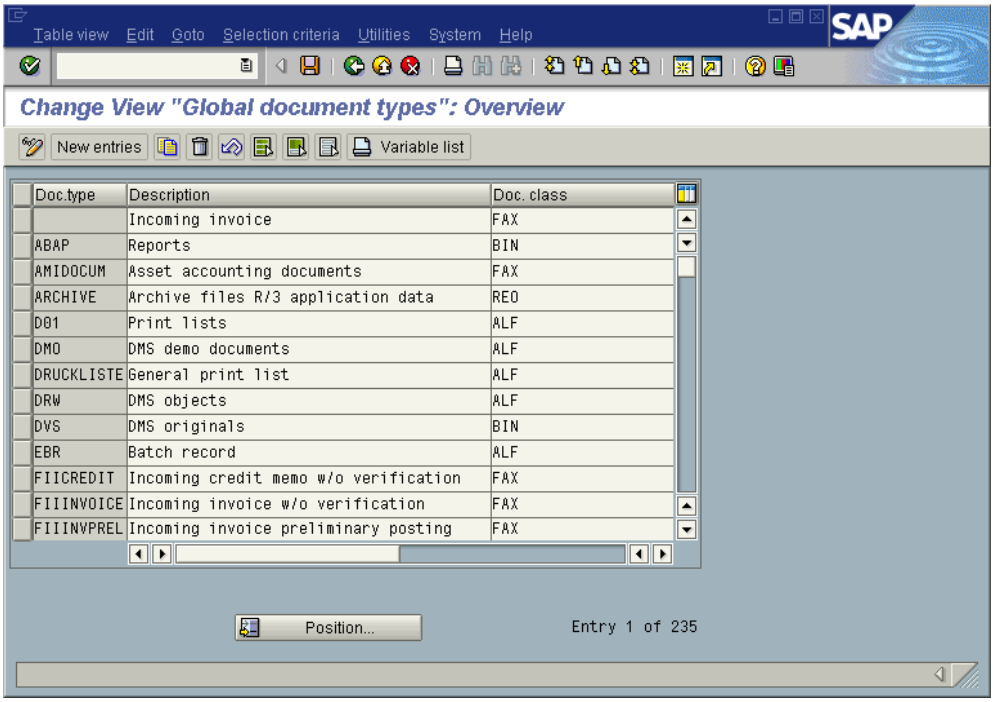
7.8.1 Creating a New Document Type for DMS

If the DMS components will be used, it is necessary to define a specific document type, which is used by DIR.

Menu : “Tools”→”Business Documents”

“Document types” → “global Document types”

or transaction “oac2“.



For a new document type:

1. Start transaction
2. Click on the “New Entries” Button or “Edit” → “New Entries” in the menu. In the small dialog window that appears, enter a unique Doc. Type name and an appropriate description. The Doc. Class needs to be “FAX”.
3. Click the ”Safe“ button. Depending on the SAP R/3 system administrative customization, change request information will have to be entered. Obtain the information from your SAP System Administration.

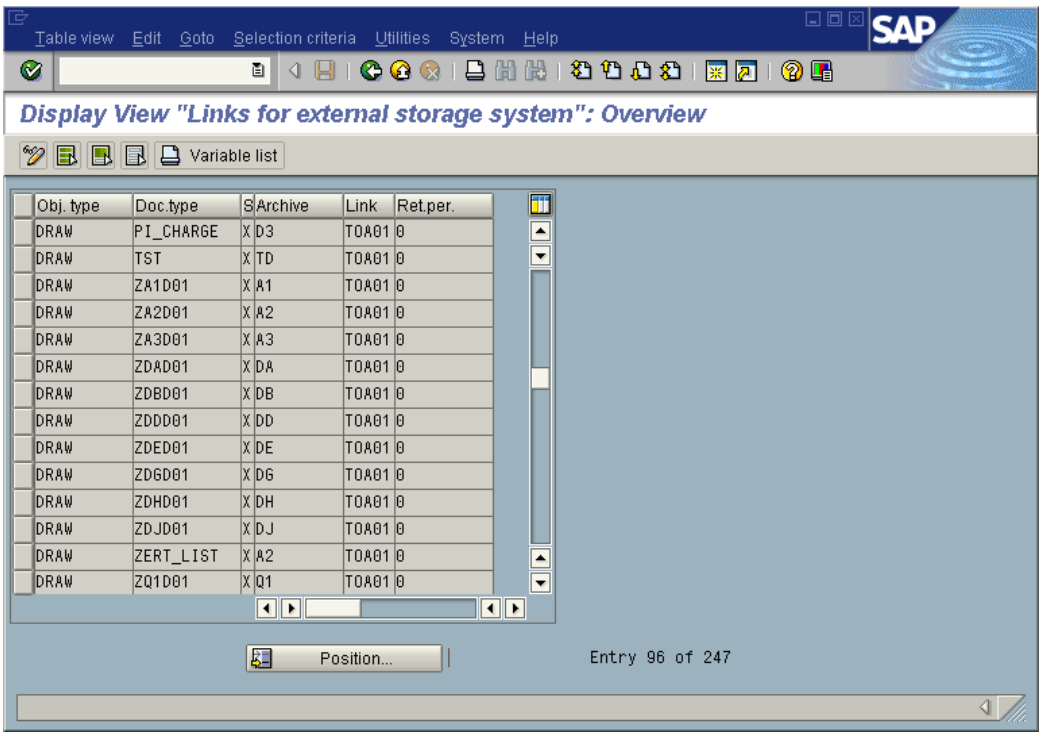
Caution: SAP requires new document type names to start with “Y” or with “Z”. Document types of this name space will not be overwritten or deleted when updating SAP system software.

For more information regarding SAP Document Types, refer to section “ArchiveLink Document Types” on page 75.

7.8.2 Linking the Document Type for DMS to an Archive

The newly created document type needs to be linked to the specific archive, which should be used for storing DIRs.

Menu: “Basic Settings”→”Links” (from “Business Document Administration”)
or transaction “oac3”.



For a new link:

1. Start the transaction.
2. Switch to “Change” mode via “Table view”→”Display ->Change” or click on the icon “Display ->Change”.
3. Click on the button “New entries” or choose “Edit→New entries” in the menu.
4. Enter the following values for the new link:

Setting	**Remark**
Obj. Type	The object type “DRAW” needs to be choosen.
Doc. Type	Choose the document type, which got created for using the DMS components in the last step.
S	SAP ArchiveLink Status, enter “X” to activate the entry
Archive	Select the appropriate archive.
Link	Select a link table. The reference from objects or business objects to stored documents is managed in Link Tables. The tables are predefined by SAP ArchiveLink.
Ret.per	Retention Period, number of month after which an entry for a stored document can be removed from a table link

5. Save your settings. Depending on the SAP R/3 system administrative customization, change request information will have to be entered. Obtain the information from your SAP System Administration.

8 Installation of Client Components

IDM Desktop for R/3 components complement the SAP ArchiveLink module in integrating the FileNET and SAP R/3 systems on the client workstation. IDM Desktop for R/3 components provide an interface through which ArchiveLink can access the FileNET Services and, if needed, the IDM Viewer Application or any other viewer.

A client environment where SAPGUI and IDM Desktop are installed locally is already known from release 4.0 of Document Warehouse for SAP. Communication between SAPGUI and the client components is via OLE.

With Document Warehouse for SAP release 5.0 it is now possible to work with two different client scenarios, whether in an IDM Desktop for R/3-based- or in a web-based-client environment.

1. The same IDM Desktop for R/3 client scenario as in release 4.0.
2. A web-based client where SAPGUI is installed locally, but IDM Desktop is not (referred to as “SAPGUI/IDMWS”). This scenario only supports displaying documents in a browser. From SAPGUI’s point of view, the archive client will not change, i.e. the same OLE interface is used for the IDM Deskop for R/3 based and the SAPGUI/IDMWS scenario.

The web-based client environment reduces the number and size of the FileNET components installed on the client machine, as it is not needed to install the IDM Desktop.

The sub-sequent sections explain how to install the IDM Desktop for R/3 and the SAPGUI/IDMWS scenario. It is also explained how to configure these client environments.

8.1 Requirements for IDM Desktop for R/3

Minimum hardware requirements are as follows:

- 266 Mhz Pentium II PC
- 128 MB RAM
- 10 MB hard disk space for installation

Operating system:

- Windows 95, Windows 98, Windows NT Workstation 4.0 with Service Pack 4, 5, or 6a or Windows 2000
- TCP/IP networking protocol

File systems:

- FAT and NTFS for Windows NT

Other software:

- Panagon IDM Desktop 3.0 or higher
- SAPGUI 4.x

Note: For accessing the FileNET Services, Panagon IDM Desktop needs to be installed prior to the IDM Desktop for R/3 installation. If Panagon IDM Desktop is not installed, the installation program for IDM Desktop for R/3 will abort with an appropriate message.

8.2 Configuration of IDM Desktop

IDM Desktop for R/3 uses IDM Desktop to access IS and CS libraries. Typically, there is very little to configure for Document Warehouse for SAP. However, observe the following:

- Configure all FileNET IDM Libraries, that which will be accessed via the SAPGUI and IDM Desktop for R/3 via “Start” → “Programs” → “FileNET Panagon IDM” → “Configure”. Only those libraries configured with IDM Desktop will be available in the Views of IDM Desktop for R/3.
- If large documents (e.g. printlists, etc.) are displayed, the cache size needs to be adjusted in the “Additional Preferences” of IDM Configure.

8.3 IDM Desktop for R/3 Installation

8.3.1 Installation process

The installation program for IDM Desktop for R/3 is a GUI-based application that copies the program files to the target machine, registers the programs, and creates appropriate entries in the Windows “Start” menu.

IDM Desktop for R/3 can be installed in two ways:

- If the Microsoft Windows Installer is present on the machine, invoke the “FileNET Panagon Desktop for R3.msi” installation script by double-clicking it or by choosing “Install” from the file’s context menu.

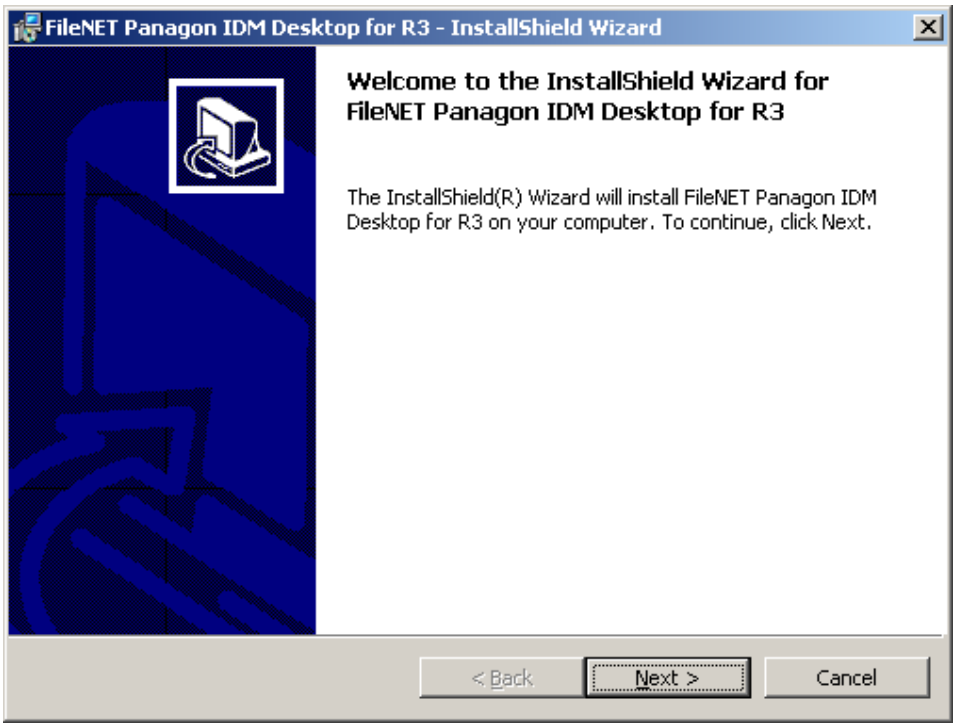
  or

- Execute “Setup.exe”.

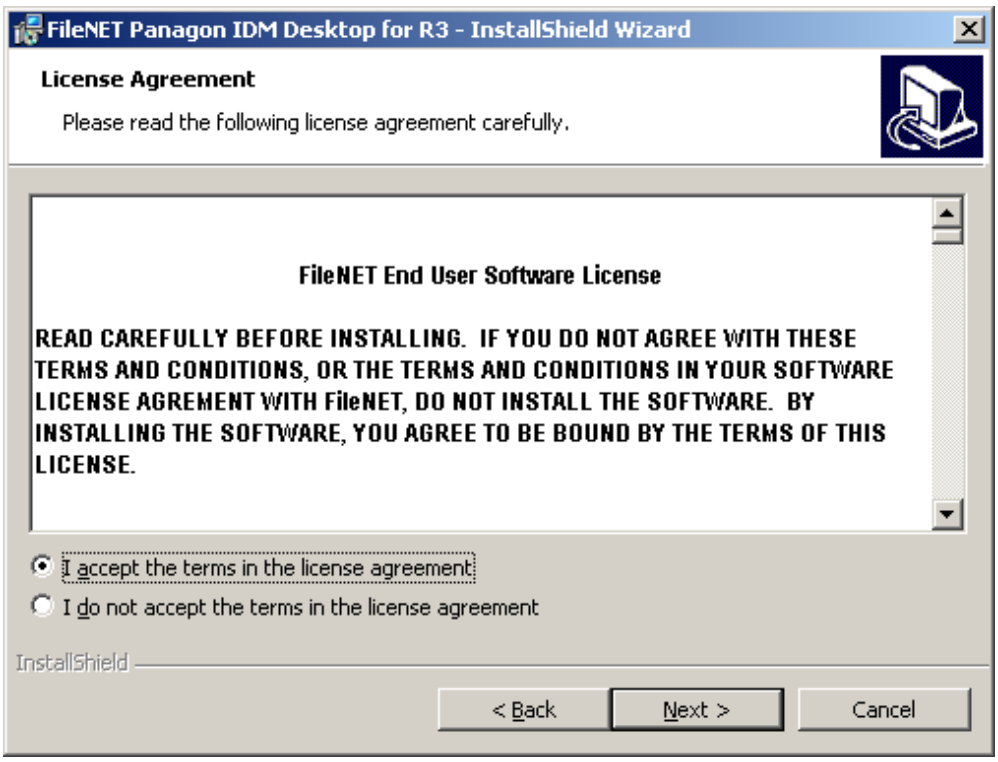
The GUI-based installation of IDM Desktop for R/3 performs the following steps:

1. The installation determines whether the Microsoft Windows Installer is already present on the target machine. If it is not present, the installation installs Windows Installer first. After a machine reboot, the installation continues with installing IDM Desktop for R/3.

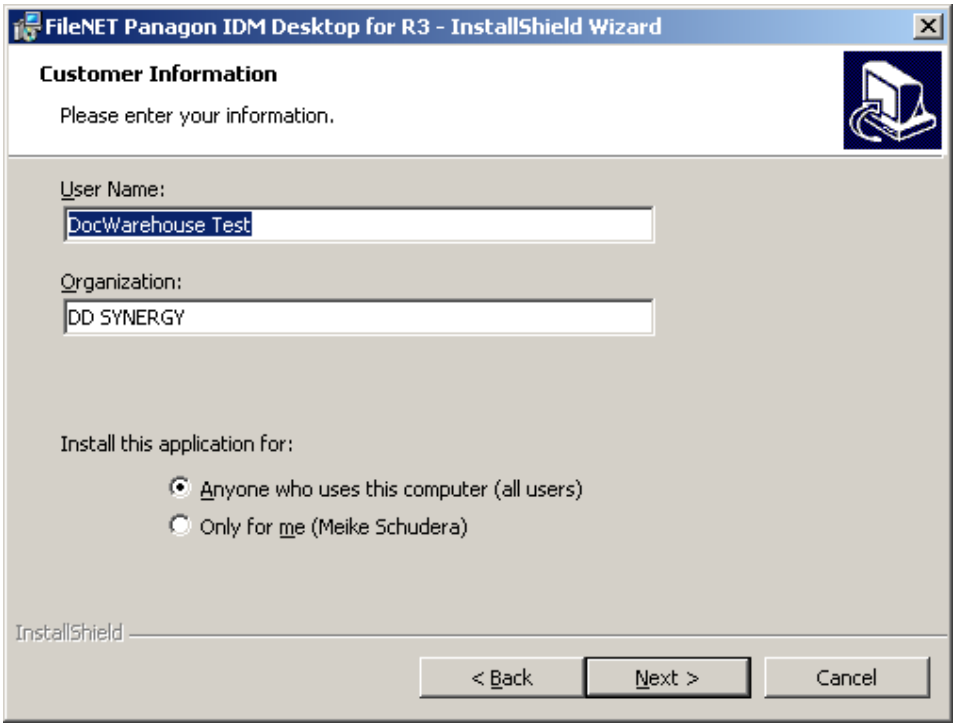
2. Welcome screen.



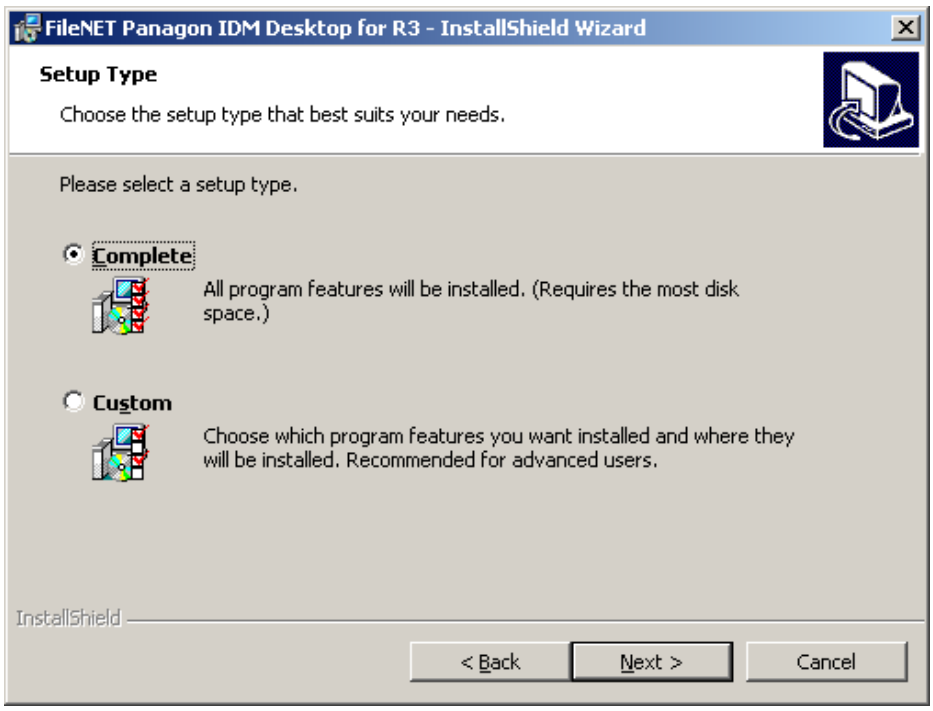
3. Legal License Agreement screen. The agreement must be accepted in order to continue with installation. If you want to consult the Legal License Agreement after installation, refer to Appendix B - FileNET End User Software License” on page 111.



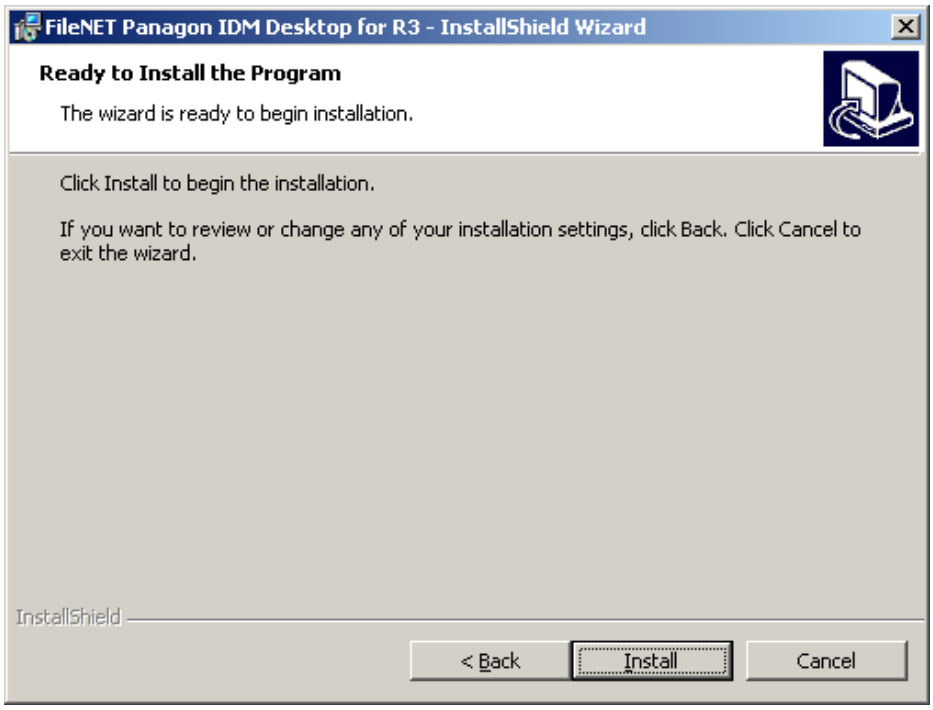
4. Customer Information. Verify that the entries are correct.



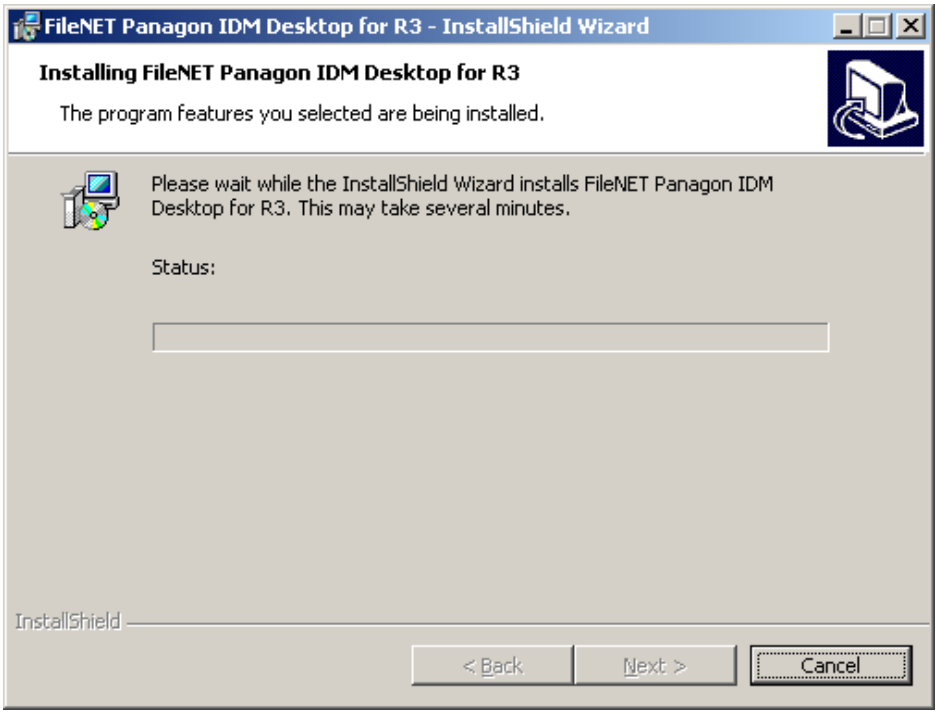
5. Setup Type. Select “Complete” in order to install all features (cDesktop, iViews, DMSLink).



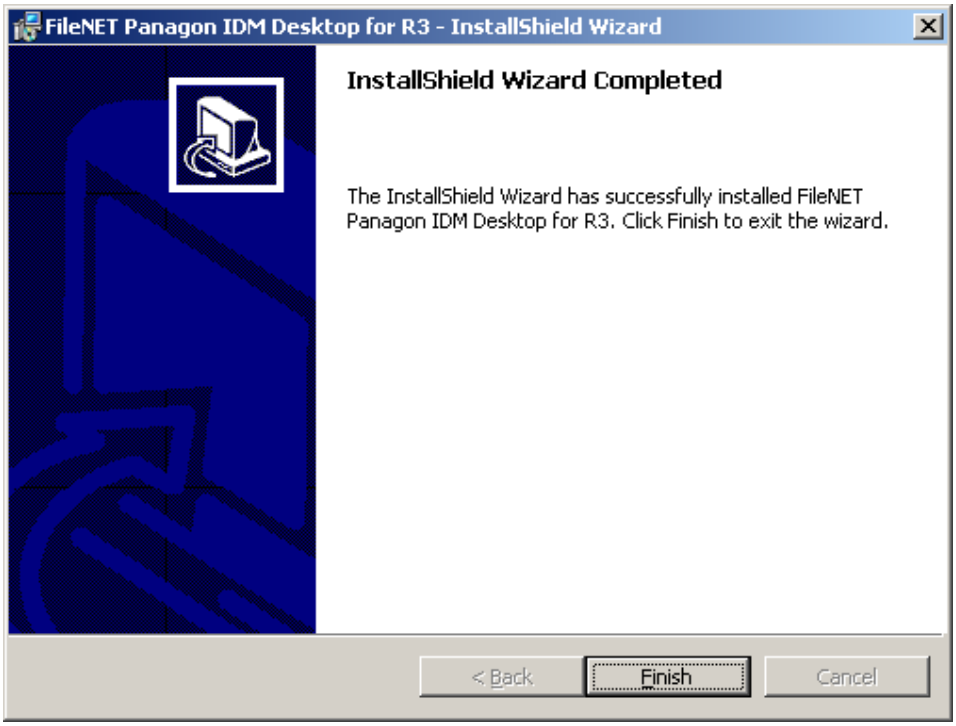
6. Summary screen. Click “Install” on this screen to install the program files.



7. Status screen. The program gives information about the progress of the installation.



8. Installation Completed screen. This screen provides information on whether the installation performed with or without errors. To invoke the readme file after a successful installation, check the check box at the bottom of the screen.



Each screen allows you to cancel the installation, which would leave the system as it was before the installation program had been invoked, except for the Windows Installer if it was not previously present.

9. After exiting the Installation wizard the system indicates that a reboot of the client needs to be done.

Note: After the installation has been successfully completed, the configuration program must be used to create the necessary settings for the IDM Desktop for R/3 components.

8.3.2 Files Installed

The ReadMe file contained in the installation package lists the files that are being copied during the installation process. After the installation has been completed, the ReadMe file is available in the application directory of IDM Desktop for R/3.

8.3.3 Silent Installation

A silent installation requires no user input; all dialogs and messages are suppressed. Quiet install is supported for new installations only. The command line requires different parameters to run the installation silently, depending if the Microsoft Windows Installer is already installed on the client or not:

- If the Microsoft Windows Installer is present on the machine, use following command line to run the "FileNET Panagon Desktop for R3.msi" setup silently.

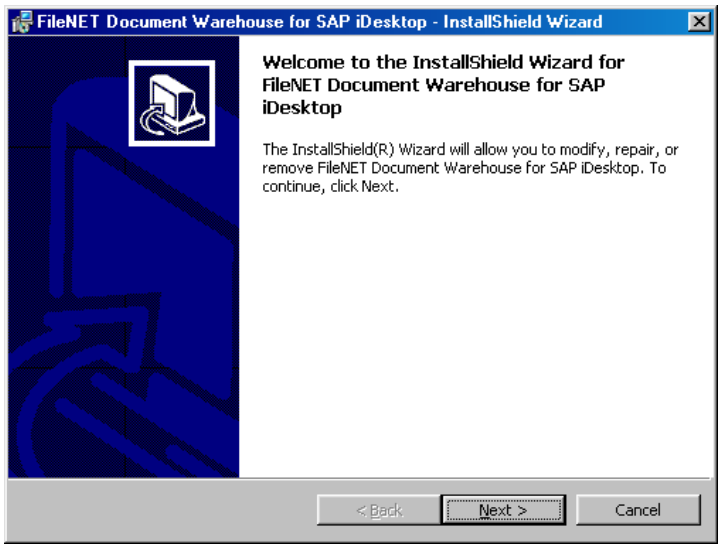
  ```
  <path> setup.exe /s /v/qn
  ```

- If just the "Setup.exe"-file should be run silently, the appropriate command line is as followed:

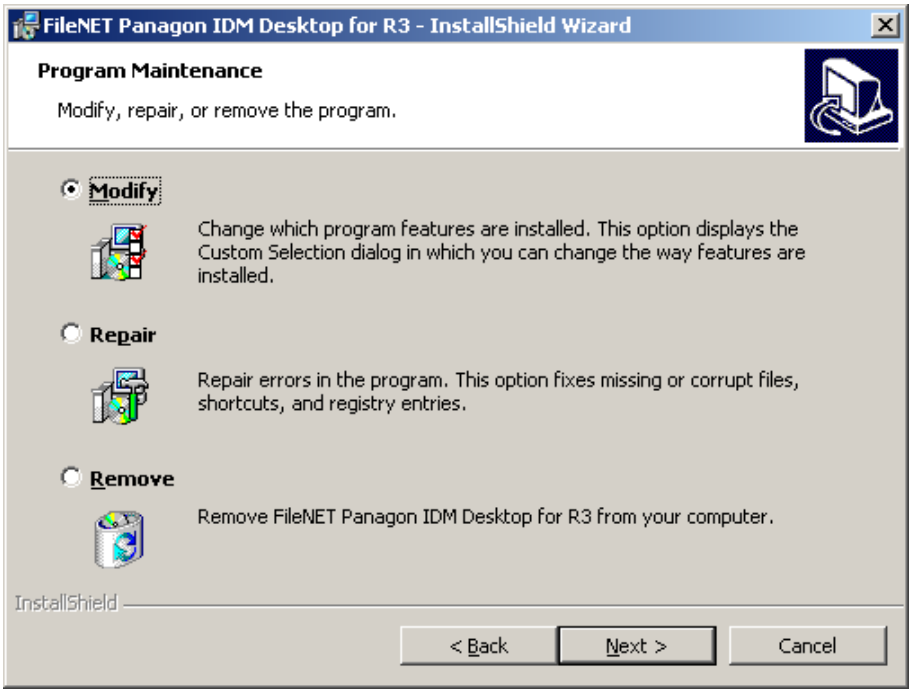
  ```
  <path> setup.exe /s
  ```

8.4 Reinstallation and Uninstallation

If some files of the product need to be re-installed for any reason invoke the "FileNET Document Warehouse for SAP iDesktop.msi" installation, invoke "Setup.exe", or use the "Add/Remove Software" program of the Windows Control Panel, by choosing "FileNET Document Warehouse for SAP iDesktop". The following dialog will be displayed:



Click on the "Next >" button.



Choose one of the following options:

- Modify: Allows you to delete or install selected components.
- Repair: Re-installs the product by re-copying the program files. For this option, the original CD has to be in the original drive.
- Remove: Uninstalls the product by deregistering and deleting the program files and removing the product's entries from the Windows "Start" menu and from the Windows Registry.

8.5 Upgrading from IDM Desktop for R/3 Releases 2.2, 4.0 or 4.01

The IDM Desktop for R/3 does not perform automated upgrades from previous releases. If any former releases of IDM Desktop for R/3 are installed on the client, remove these releases by using the "Add/Remove Software" program of the Windows Control Panel. After the uninstallation of IDM Desktop for R/3 2.2 or 4.0(1) follow the installation instructions of IDM Desktop for R/3 5.0 release. For more information refer to section "Installation process" on page 85.

8.6 Requirements for SAPGUI/IDMWS Environment

Minimum hardware requirements are as follows:

- 266 Mhz Pentium II PC
- 64 MB RAM
- 10 MB hard disk space for installation

Operating system:

- Windows 95, Windows 98, Windows NT Workstation 4.0 with Service Pack 4, 5, or 6a or Windows 2000
- TCP/IP networking protocol

File systems:

- FAT and NTFS for Windows NT

Other software:

- SAPGUI 3.1 or 4.x
- Microsoft Internet Explorer 5.0 or higher

8.7 Prerequisites for SAPGUI/IDMWS

Before downloading and installing the IDM Desktop for R/3 software via the local browser, check the following perequisites:

- The machine must meet the hardware and software requirements as outlined in section “Requirements for SAPGUI/IDMWS Environment” on page 90.
- Be logged on as a user with Windows NT/2000 Administrator rights on the machine.
- The viewer.exe of IDM Web Services must have been downloaded via the local browser and installed. Check if an access to the IDM Services libraries via the local browser is possible, by using the URL “<servername>\idmws”.

8.8 SAPGUI/IDMWS Installation

In order to use the client in a web-based environment, following steps need to be done:

1. Open a local Internet browser and use the URL “<servername>\idmws\dwdownload.asp”.
2. Follow the given instruction and download the client componts.
3. Run “setup.exe” from the directory where the downloaded client components are stored. Refer to section “Installation process” on page 85.

Note: After the installation has been successfully completed, the configuration program must be used to create the necessary settings for the SAPGUI/IDMWS components. Refer to section “Configuration for SAPGUI/IDMWS” on page 105 for more information.

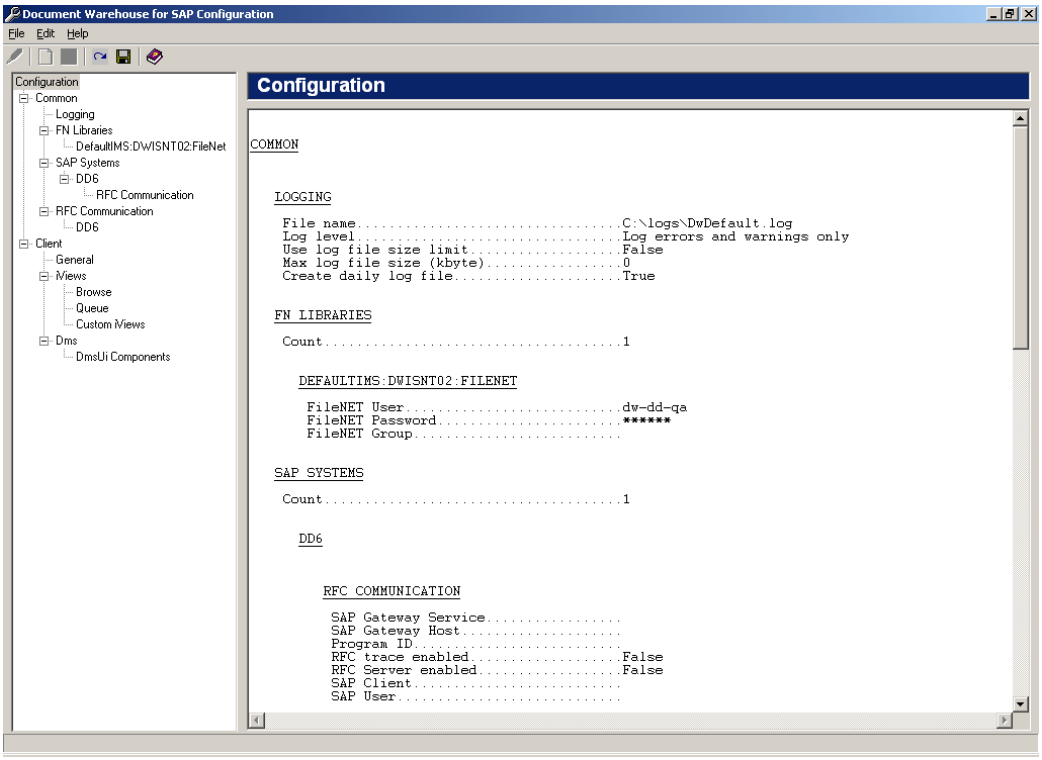
9 IDM Desktop for R/3 Configuration

With the installation of IDM Desktop for R/3 comes the new configuration program as it is used on the server with IDM Services for R/3 as well. The configuration program is started via the Microsoft Windows “Start” menu. Choose “Start” → “Programs” → “FileNET Panagon IDM Desktop for R/3” → “Configure IDM Desktop for R/3”.

Note: In order for IDM Desktop for R/3 to recognize an updated configuration, any existing OLE connection must be disconnected. Therefore close the IDM Desktop for R/3 window and any open SAPGUI windows as well before using the updated configuration.

9.1 The Configuration Program

The Configuration Program provides the means to configure the client components of IDM Desktop for R/3. It provides a menu bar, a tool bar, a tree of configuration categories, a status bar, and an area in which the actual preferences are set and modified. When started, the following user interface is displayed, where the Configuration Category is selected in the categories tree, and the preferences area shows a summary report of the current configuration. This configuration report can also be found in the file CfgReport.txt in the ‘IDMforR3’ directory.



- The menu bar provides the following menus and menu items.

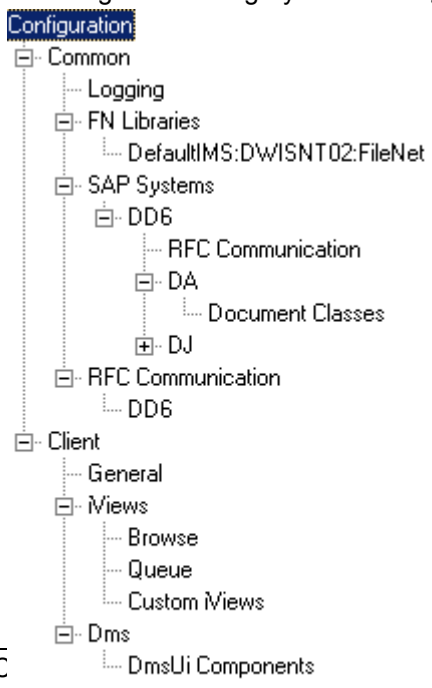
Menu	Menu Item	Description
File	Reload Configuration	Reloads the configuration from its storage location. All changes that have not been stored yet will be discarded.
	Save Configuration	Saves the current configuration permanently.
	Import	Imports a configuration from a *.dwc file. The current configuration will be overwritten.
	Export	Exports the current configuration and saves it in a *.dwc file.
	Exit	Closes the configuration program without saving. If any information was changed, a prompt will give a chance to save the changes.

Menu	Menu Item	Description
Edit	Rename	This item is available when a category has been selected that represents the name of an SAP system, an SAP archive, or a FileNET library. Choose this function to rename the category (and thereby the name under which the system is known to the Document Warehouse for SAP components).
	Add	This item is available when a category has been selected that contains a variable list of sub-categories. Currently, this applies to the SAP systems category, where you can add SAP systems, the FileNET Libraries category, where you can add FileNET libraries, and each SAP system category, where you can add SAP archives.
	Remove	Use the Remove option to remove those sub-categories that have been added using the Add function. First, select the sub-category to be removed, then execute this menu item.
Help	Contents	Displays this documentation: “Installation & Configuration Manual”.
	About	Displays the About box.

- The toolbar provides fast access to more frequently used features. All toolbar features are available via menu items as well. Please refer to the menu items’s descriptions for details.

Icon	Name	Description
	Rename	Renames a sub-category.
	Add	Adds a sub-category.
	Remove	Removes a sub-category.
	Reload	Reloads the configuration from its storage location.
	Save	Saves the configuration in its storage location.
	Help	Displays the online documentation.

- The categories tree provides a list of categories that need to be or can be configured. Selecting a category or a subcategory displays the related preferences in the preferences area to the right of the tree, where configuration information can be altered. The specific categories, preferences and configuration options are explained in subsequent sections of this documentation. When selecting certain categories, additional options are available, such as adding a sub-category or renaming a category. These are explained in detail in each category’s section.
- The status bar shows information about the program’s status, the success or failure of the last action, or other brief information. It is usually updated after an action has been performed.



Caution: All configuration information is currently stored in the Windows Registry. FileNET reserves the right to change the storage location without notice.

9.1.1 Configuration Overview

Invoke the configuration program via the Microsoft Windows “Start” menu. Choose “Start”→”Programs”→”FileNET iDesktop” → ”iDesktop Configuration Tool”.

The configuration program displays IDM Desktop for R/3-specific categories in the categories tree. (See screenshot on

the right). The following table gives a short description for each category.

Refer to subsequent sections for details on configuring the preferences of a certain category.

Category	Description
Configuration	The preferences area displays a summary report of the current configuration.
Common	No information in preferences area. Top-level branche for Logging, FileNET Libraries, SAP Systems and RFC Communication.
Logging	Configuration of logging-related preferences.
FileNET Libraries	Contains list of FileNET libraries as sub-categories.
<fnlibid>	Name (identifier) of a configured FileNET library, e.g. “DefaultIMS:deepthought:FileNet”.
SAP Systems	Definition of SAP Systems known to IDM Services for R/3.
<sapsystemname>	Name of a configured SAP system, e.g. “P20”. This name is arbitrary but it is recommended that it reflects the actual name of the SAP system it represents.
RFC Communication	RFC communication-related preferences specific to an SAP system.
RFC Communication	Configuration of preferences related to RFC communication.
<sapsystemname>	RFC communication related preferences specific to an SAP system.
Client	No information in preferences area. Top-level branche of General, ArchiveLink, Views, DMS.
General	Configuration of commonly used preferences.
Views	Configuration of display settings for Views.
Browse	Information about Panagon Browse for R/3.
Queue	Information about Panagon Queue for R/3.
Custom Views	Option to create new, individual Custom Views.
Dms	Configuration for DMS preferences.
DmsUi Components	Possibility to create new, individual DMS UI components.

Tip: The RFC Communication information is available through two sub-categories of the categories tree. For example, selecting the sub-category

Common / SAP Systems / <sapsystemname> / RFC communication

displays the same (identical!) information in the preferences area as

Common / RFC communication

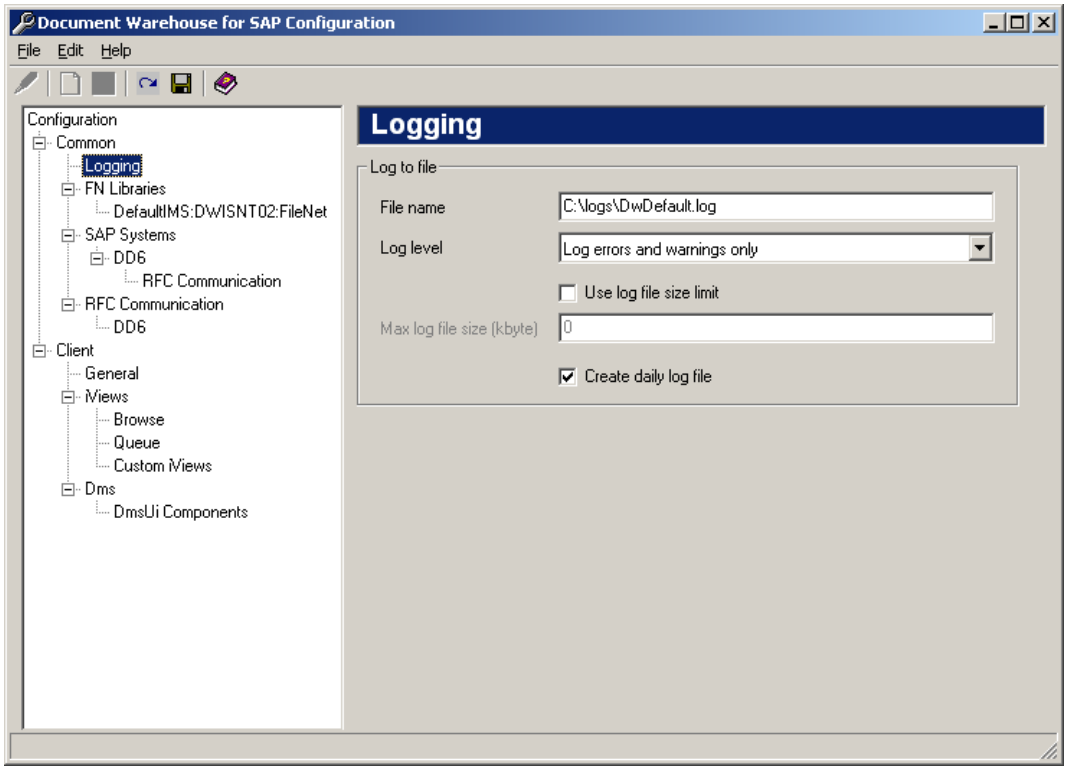
It is important to notice that the preferences altered under one of the two categories are instantly reflected under the other sub-category simply because it is one and the same information.

In the following, all IDM Desktop for R/3 categories and preferences are explained in detail. The categories are devided into two main categories: “Common” and “Client”.

9.1.2 IDM Desktop for R/3 Category ‘Logging’

Background: *All IDM Desktop for R/3 components log certain information. This information can be helpful in finding problems with the configuration or after an error has occured.*

The ‘Logging’ category contains preferences determining the amount and location of the logged information.

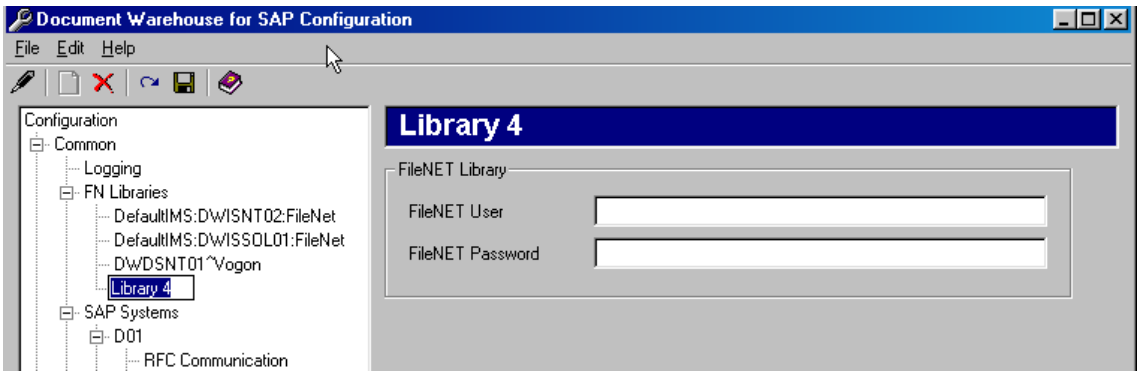


Preference	Description
File name	Enter a path and a file name for the file to be used for logging information.
Log level	Determines the amount of information logged. The following levels are available: • Log errors and warnings only. This should be the typical setting for the usual IDM Services for R/3 operation. • Log all information. Use this setting when you are experiencing problems. If you have to contact FileNET CSS with a problem, make sure that you have a logfile available at this level that shows operation when the problem occurs.
Use log file size limit	If checked, the logfile will never grow larger than the maximum logfile size. If additional information is to be logged, older log entries will be discarded.
Create daily log file	If checked, each day a new log file will be started. The files will be named <filename>.<yyyymmdd>.<extension>.

9.1.3 Configuring FileNET Libraries

Background: *All FileNET libraries that are used by IDM Desktop for R/3 need to be defined in the IDM Desktop for R/3 configuration. Although different SAP systems may access the same library, only one set of credentials consisting of user name, password, and group name can be configured for each library.*

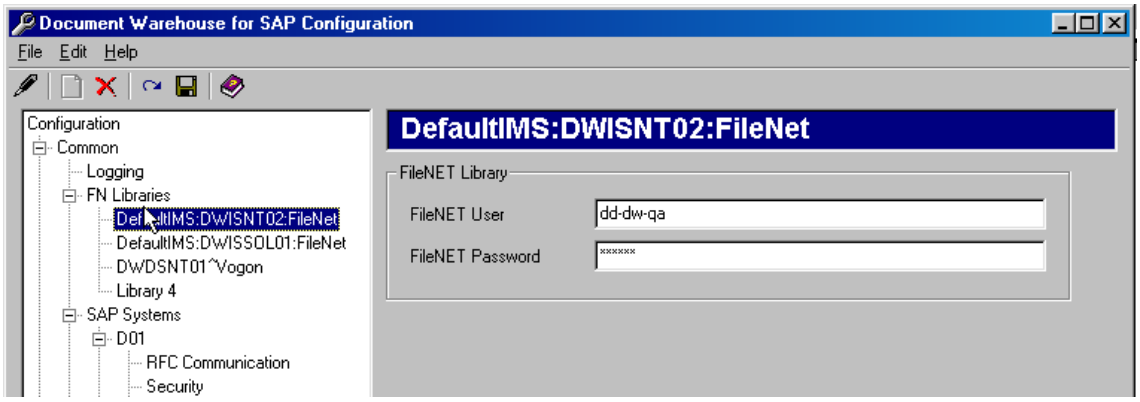
In order to add a new FileNET library, first select the FileNET Libraries category in the categories tree and add a new sub-category using the menu item “Edit”→”Add” or the appropriate toolbar icon. The new sub-category represents the FileNET library.



The library’s name is in edit mode. Enter the identifier of the FileNET library, for example “DefaultIMS:deepthought:FileNet” (for IDM Image Services libraries) or “marvin^restaurant” (for IDM Content Services libraries).

Tip: FileNET library sub-categories can be renamed or removed by similar means as described for adding. For more information, see section “The Co” on page 92.

Selecting a FileNET Library in the categories tree displays the FileNET Library preferences in the preferences area.



Preference	Description
User	Required. The logon user name.
Password	The logon password. Can be empty.

9.1.4 Configuring SAP Systems

Background: *An “SAP System” in the IDM Desktop for R/3 configuration context is a Document Warehouse for SAP-internal logical name for an SAP System. An SAP System consists of one or more database and application server machines. It identifies itself to Document Warehouse for SAP through various means depending on the type of communication used. Any number of archives can be defined for an SAP System.*

In order to add a new SAP system, first select the SAP Systems category in the categories tree and add a new sub-category using the menu item “Edit”→”Add” or the appropriate toolbar icon. The new sub-category represents the SAP system. The SAP system’s default sub-categorie is created automatically.

Tip: In previous Document Warehouse for SAP releases, the name had to be equivalent to the Logical System ID of the SAP R/3 system. With Document Warehouse for SAP release 5.0, you can now use descriptive names.

Tip: SAP system sub-categories can be renamed or removed by similar means as described for adding. For more information, see section “The Co” on page 92.

Currently, an SAP system does not provide any preferences except its name, thus, no preferences are displayed in the preferences area.

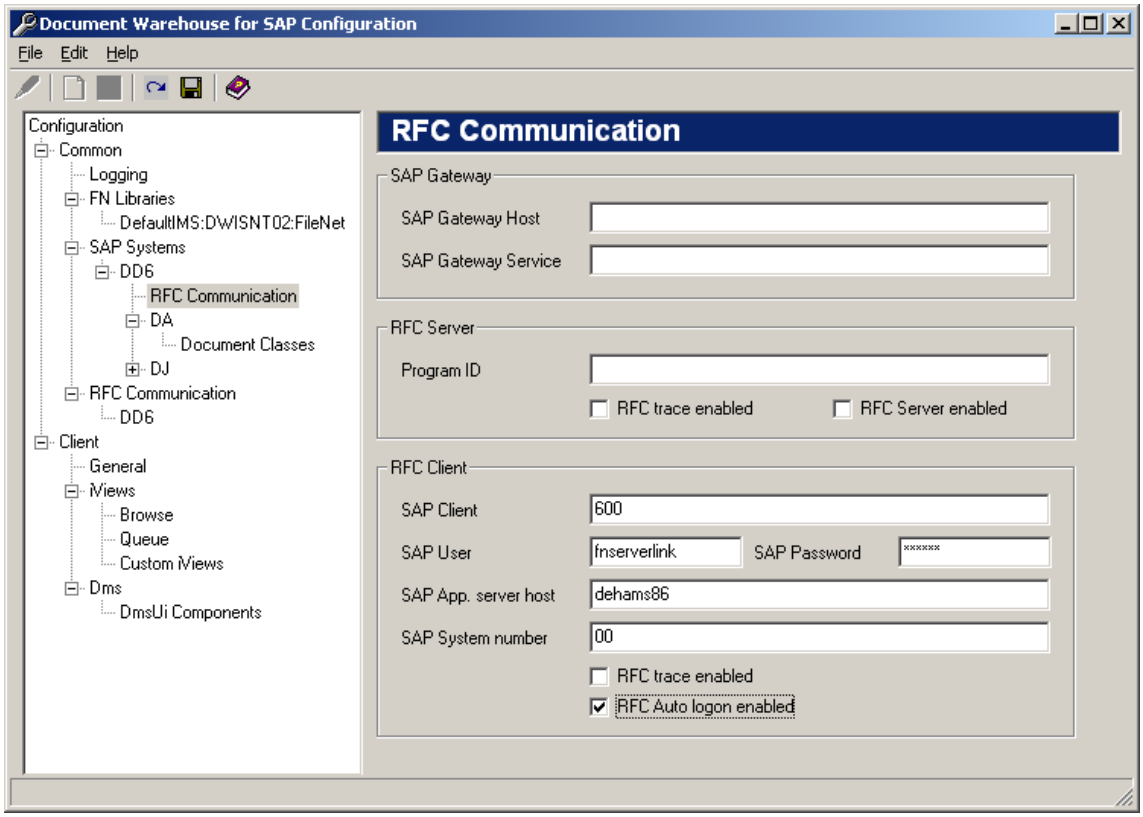
Each SAP system category has at least the “RFC Communication” sub-category. In addition, if SAP archives have been defined for the SAP system, each archive is represented as a distinct sub-category under the SAP system category. These sub-categories are described in subsequent sections.

9.1.5 Configuring RFC Communication

Background: *The SAP ArchiveLink Interface releases 3.0 and 3.1 use the SAP-proprietary Remote Function Call protocol to communicate with IDM Desktop for R/3. Technically, RFC Communication always has an RFC Client program that invokes a remote function implemented in an RFC Server program.*

With Document Warehouse for SAP release 5.0, RFC communication is always specific to an SAP system, i.e. for each SAP system that cDesktop communicates with there has to be one set of connection information. In order to configure the RFC communciation information for an SAP system, select the appropriate SAP system sub-category under the RFC Communication category. The following preferences are displayed in the preferences area.

Tip: Most of these values have to be provided by the SAP Administrator.



Preference	Description
SAP Gateway Host	Leave blank as it is not needed for the client configuration.
SAP Gateway Service	Leave blank as it is not needed for the client configuration.

Preference	Description
Program ID	Leave blank as it is not needed for the client configuration.
RFC Trace enabled	Do not check, as it is not needed for the client configuration.
RFC Server enabled	Do not check, as it is not needed for the client configuration.
SAP Client	Enter the logon client number.
SAP User	Enter the logon user name.
SAP Password	Enter the logon password.
SAP Application Server Host	Enter the machine name of the SAP application server to log on to.
SAP System Number	Enter the system number of the SAP system.
RFC Client Trace enabled	Enables logging RFC Client trace information to a file. The file can be found in the application's current directory and is usually named dev_rfc*.trc.
RFC Auto logon enabled	Enables the automatic logon of RFC to the SAP system. If not checked a logon window will pop up on each logon and a manual logon is requested.

9.1.6 Configuring SAP Archives

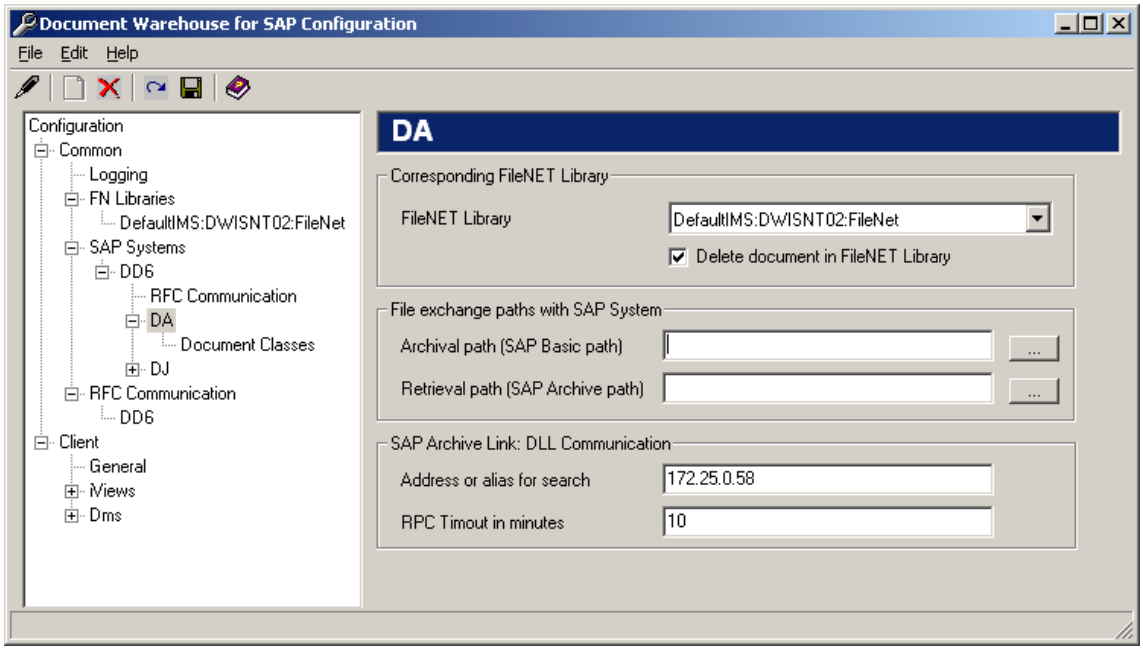
Background: *An "SAP Archive" corresponds to an archive defined in the SAP ArchiveLink customizing such as "A2" or "Z1". Other synonyms are "SAP Archive" and "Content Repository". Multiple SAP archives can point to the same FileNET library.*

In order to add a new SAP archive, first select the SAP system in the categories tree to assign the new SAP archive to and add a new sub-category using the menu item "Edit"→"Add" or the appropriate toolbar icon. The new sub-category represents the SAP archive. The SAP archive's default sub-categories are created automatically.

After adding an SAP archive, the SAP archive's name is in edit mode. Enter the two character name as defined in the SAP ArchiveLink customizing of archives.

Tip: SAP system sub-categories can be renamed or removed by similar means as described for adding. For more information, see section "The Co" on page 92.

Selecting an SAP archive in the categories tree displays the SAP archive preferences in the preferences area.



Preference	Description

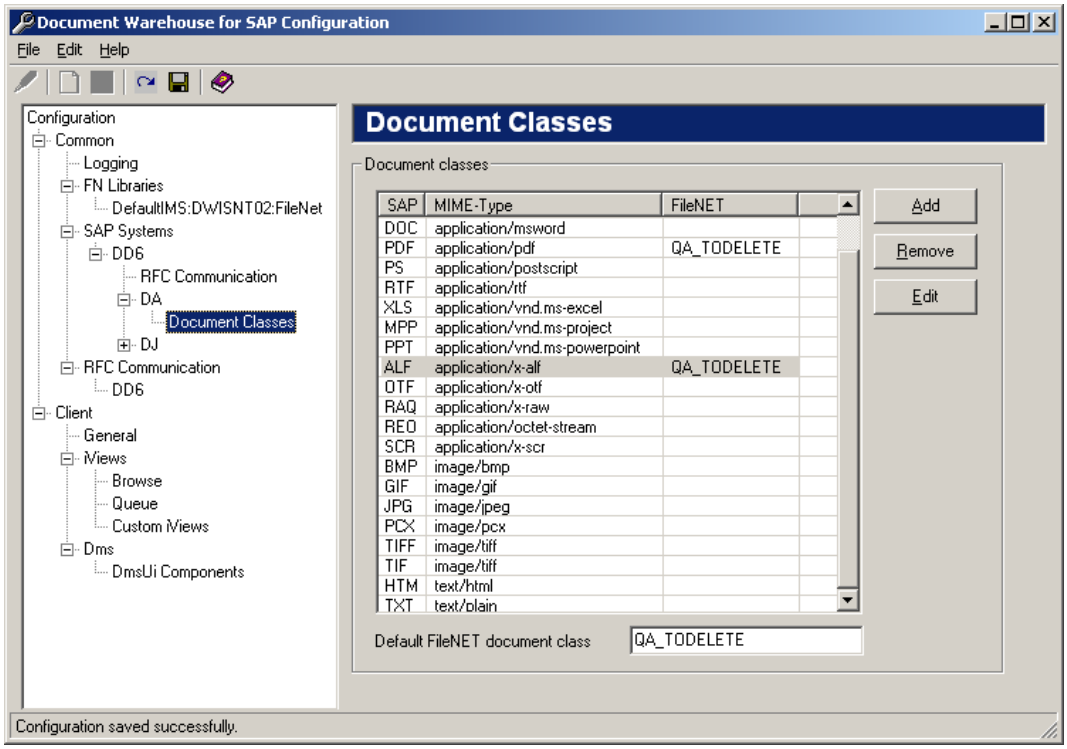
Preference	Description
FileNET Library	Select a defined FileNET library from the list. This entry creates a logical assignment from an SAP System + SAP archive to a FileNET Library.
Delete Document	Documents in IDM Image Services can either be deleted or their status can be set to “Closed” when SAP requests to delete a document.
Archival Path	Leave blank, as this does not need to be configured on client side.
Retrieval Path	Leave blank, as this does not need to be configured on client side.
Adress or alias for search	IP number or alias name for machine where search is running on.
RPC timeout in minutes	The timeout interval in minutes. The minimum is 10 minutes.

In addition, there is one sub-category to each SAP archive, which is described in the subsequent section.

9.1.7 Configuring Document Classes

***Background**: SAP uses SAP Technical Document Classes and MIME types to distinguish different classes of documents. This information is passed on with the archive request. It can be used by IDM Services for R/3 to determine which document class to use when storing the document in a FileNET library. The sub-category Document Classes containing the mapping of SAP technical document classes and MIME types to FileNET document classes for storage.*

In order to configure the FileNET Document Class used for an archive, select “Document Classes” in the tree control.



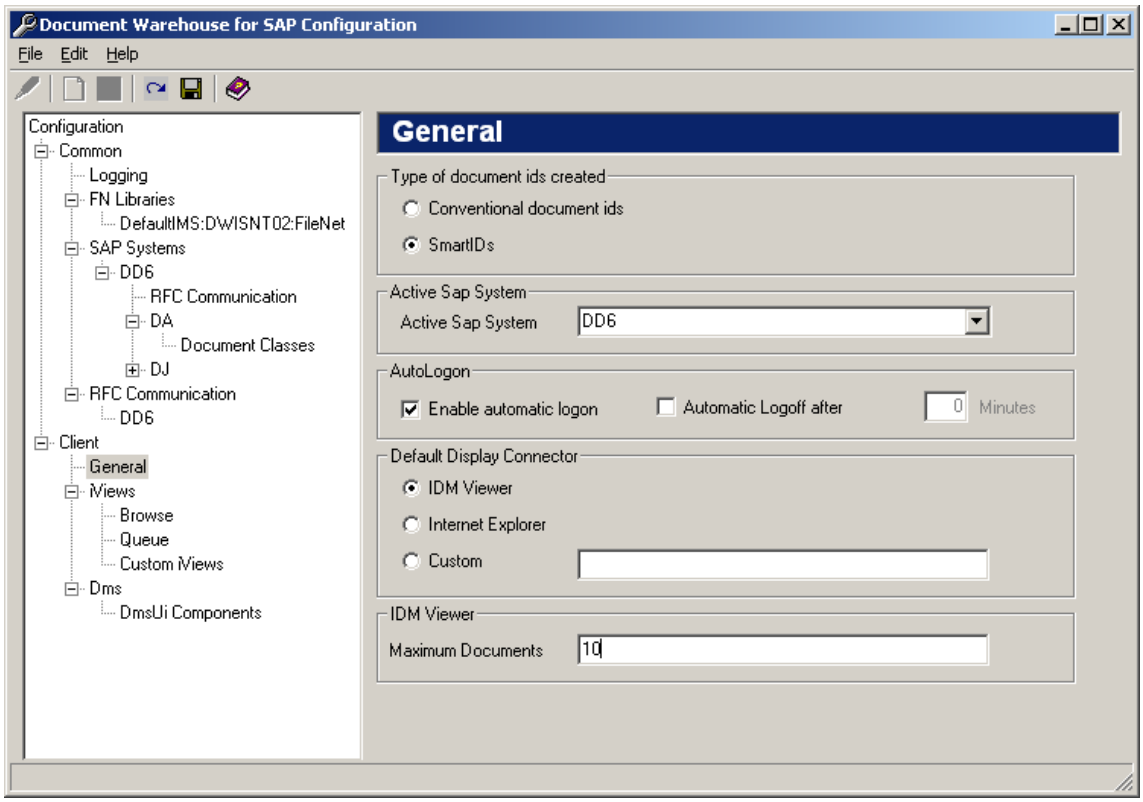
This table lists for each SAP Document Class or MIME type the corresponding FileNET Document Class to be used for archiving documents.

This table is also used to determine a value for the mandatory FileNET Index Field “SAPType” for HTTP requests, which contain MIME type not SAP type. If there is no predefined mapping from a MIME type to an SAP Type, the SAP Type “ZZZ” will be used. If SAP does not send a MIME type, a default MIME type of “application/octet-stream” is typically added by the web server. If this is not the case, cDesktop uses a default MIME type of “application/octet-stream”.

The Default FileNet document class will be used, if SAP sends an archive request for an SAP Document Class or MIME type that does not have configured FileNET Document Class or an unknown SAP Document Class or MIME type is encountered.

9.1.8 IDM Desktop for R/3 Category 'General'

The 'General' category contains preferences commonly used by more than one IDM Desktop for R/3 component.



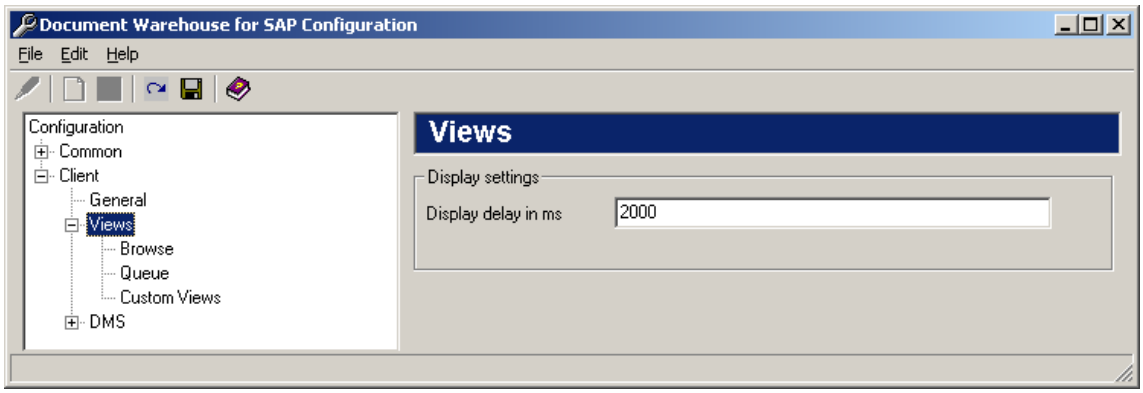
Preference	Description
Type of document ids created	Configuration regarding the type of document ids, which are stored in SAP when linking a FileNET document to a SAP transaction.
Conventional document ids	If this box is checked the document ids that are created do not contain any specific information for Document Warehouse for SAP. It is only possible to create links from IDM IS documents to SAP transactions.
SmartIDs	Check this option if IDM Desktop for R/3 should be enabled to create SmartIDs. Document IDs with Document Warehouse specific information will be created, allowing the system to link IDM IS and CS documents and also folders to SAP transactions. **Note**: If this box is unchecked IDM CS libraries will not be displayed. The user will also not be able to create a link to a folder.
Active SAP System	Select an active SAP system from the list.
AutoLogon	Configuration for the AutoLogon.
Enable automatic logon	Check this box to enable automatic logon. The system will use the logon information, entered in the FileNET libraries sub-categories.
Automatic logoff after x minutes	Check this box if automatic logoff should take place. Define after how many minutes this should happen.
Default Display Connector	Configuration for the default viewer

Preference	Description
IDM Viewer	Check this box if the IDM Viewer Application should be the default viewer for displaying documents. If this box is checked a second line with “maximum documents” comes up.
Maximum documents	Configure the number of open panes in the IDM Viewer Application in this line. If the user has reached this maximum number and issues another display request, the oldest document will be removed from the Viewer.
Internet Explorer	Check this box if the Internet Explorer should be the default viewer for displaying documents. If checked, a second line with “IDM WebServices URL” will appear .
IDM WebServices URL	Please enter the internet adress of the Web Services, e.g “ http://<servername>/idmws/ “.
Custom	Enter <libraryname.classname> of an individual custom viewer, which should be the default viewer for displaying documents.

Tip: For more information of creating a custom Display Connector, please refer to the „Programmer’s Handbook 5.0“

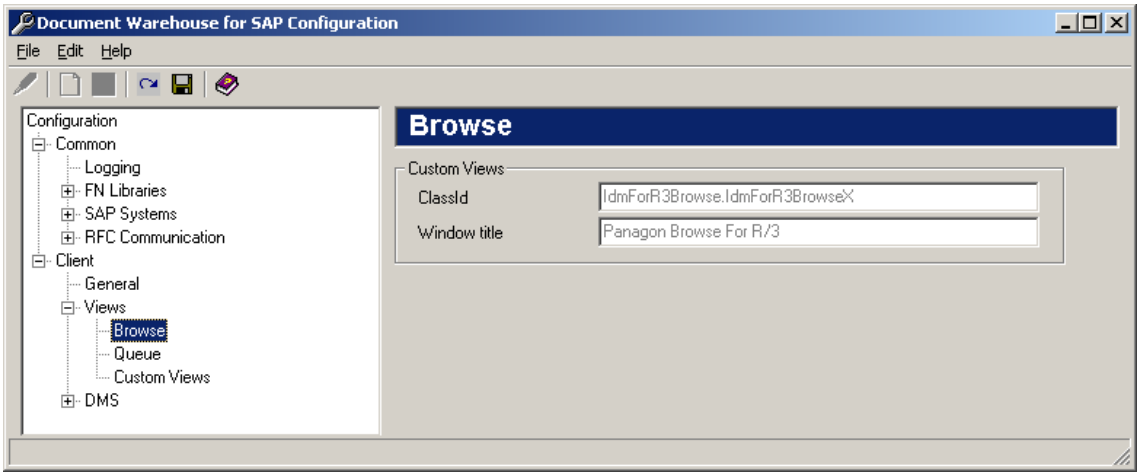
9.1.9 IDM Desktop for R/3 Category “Views”

***Background**: The visual component IDM Desktop for R/3 allows the user to determine a document or folder within an IDM library for processing it in an SAP R/3 transaction. There are several ways to determine such a document or folder, and IDM Desktop for R/3 is shipped with two default ways, the Panagon Browse for R/3 and the Panagon Queue for R/3. It is possible to develop other custom Views, for obtaining document and folders, which can be configured in this IDM Desktop for R/3 category.*



Preference	Description
Display delay in ms	For displaying documents in the viewer after the user has changed the selection there needs to be a period to elapse. Please enter the number of milli seconds for this period (default=2000).

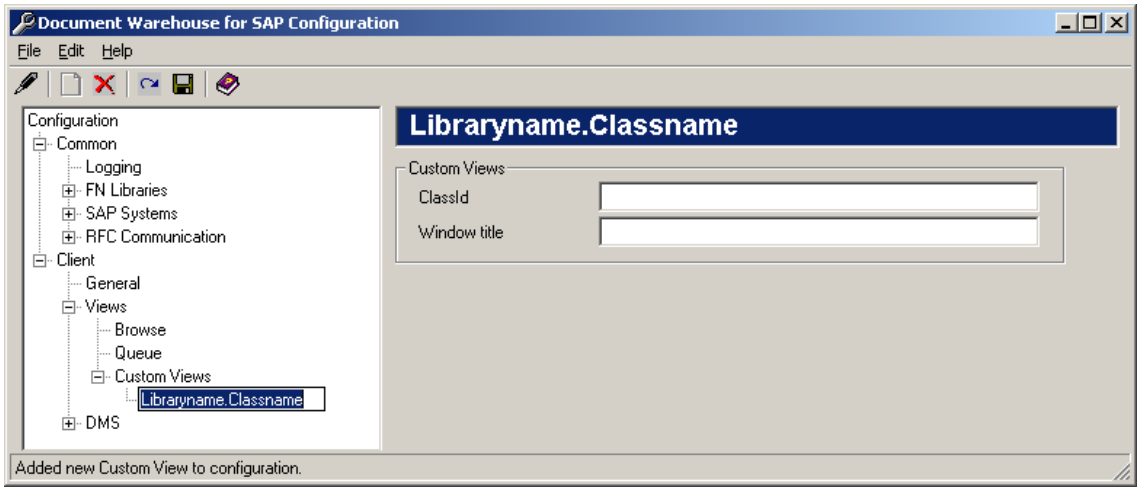
Note: The standard Views (Browse and Queue) are automatically configured during the installation process and cannot be changed.



Preference	Description
ClassID	This is the Component's program id in the form '<libraryname>.<classname>'.
Windows title	This title will be used for displaying purposes.

9.1.10 Defining a Custom View

In order to add a new Custom View, first select the sub category “Custom View” in the categories tree and add a new sub-category using the menu item “Edit”→”Add” or the appropriate toolbar icon. The new sub-category represents the individual Custom View and consist of ‘<libraryname>.<classname>’.



The choosen name in the categories tree must be the same as entered in the ClassID field, which appear in the preference area.

Preference	Description
ClassID	Enter the program id in form of '<libraryname>.<classname>'.
Windows title	Enter the title that should appear in the window’s title bar.

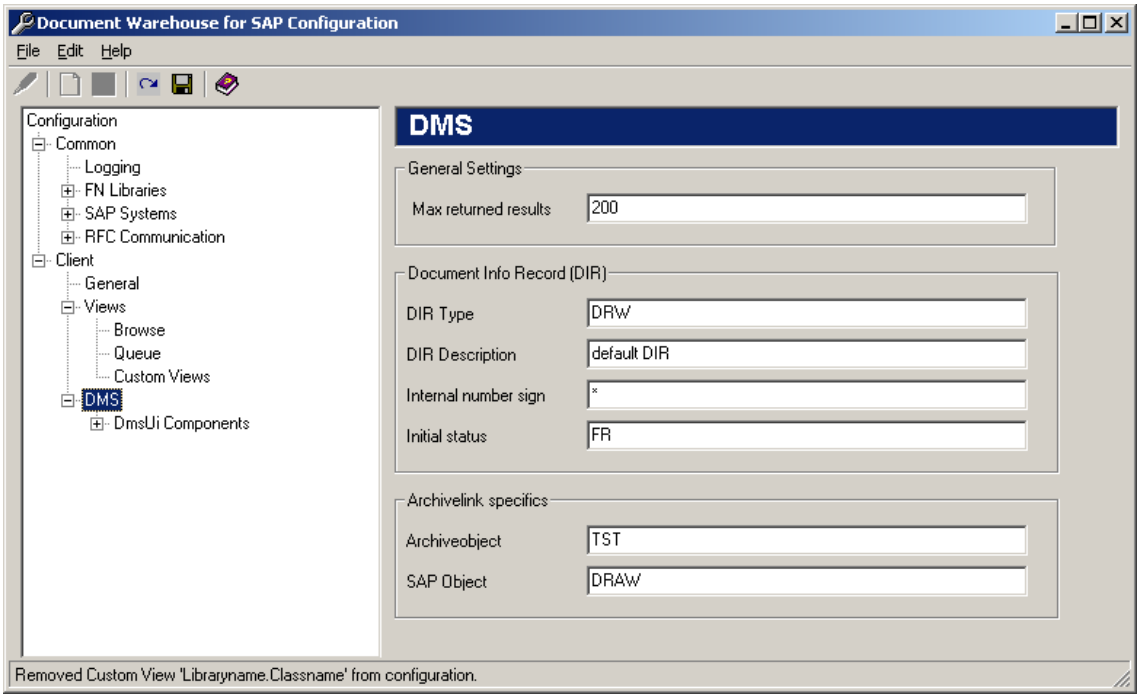
Note: Before you can use a configured custom View it must be registered as a Code Component (formerly known as OLE Automation Server).

For more information on creating custom Views, refer to the „Programmer’s Handbook 5.0“.

9.1.11 IDM Desktop for R/3 Category “DMS”

***Background**: Document Warehouse for SAP provides DMS functions for creating and modifying Document Info Records (DIRs) in the SAP R/3 system via the CAD interface or the DMS BAPI, as well as linking objects from FileNET repositories to SAP R/3 DIRs. For flexible use, these functions are encapsulated in two separate components (DMS Component and DMS UI Component). For using these two new components the Panagon Browse for R/3 has been enhanced with new DMS’ related functions. A new menu is available (“DMS”,) allowing the user to access these functions, which are based on functions of the above-mentioned DMS components.*

In the preference area of DMS following configuration needs to be done.

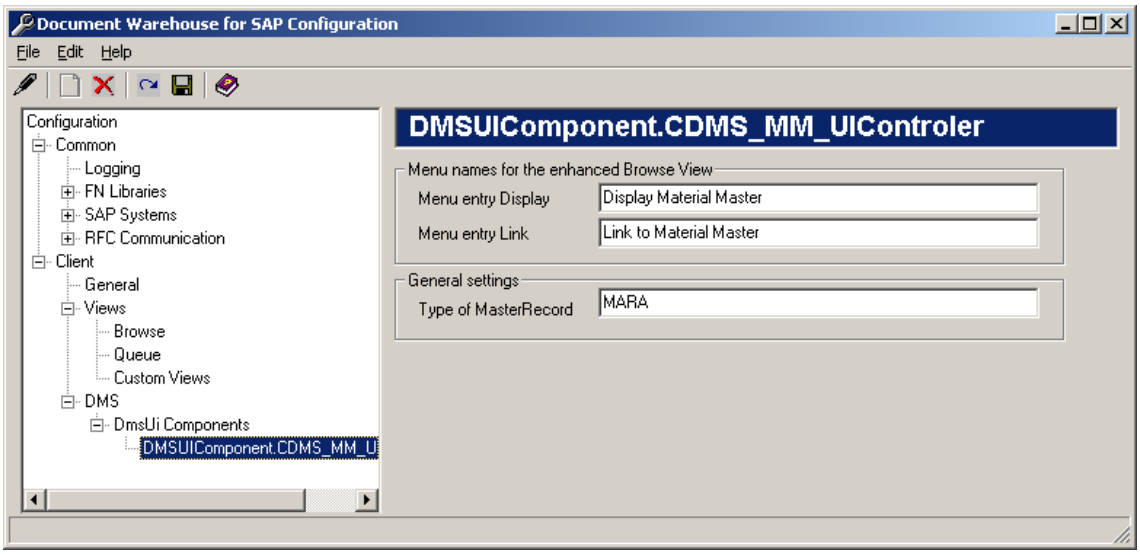


Preference	Description
Maximum returned results	This defines the maximum number of returned results, when issuing a search for SAP masterrecords.
DIR Type	Enter the name of the DMS Document Type (typical value “DRW” or “TST”). The document type defines the possible states a document can have and to what master records a document can be linked.
DIR Description	Description of the newly created DIR.
Internal number sign	This entry defines the numbering system of the DIR. The predefined DMS document type DRW (drawing) uses the “*” character for creating a new available id.
Initial status	The status a DIR is defined in the SAP status network assigned to the document type (see transaction “cv01”). “FR” (released) is the initial status for “DRW”.
Archive object	SAP document type, which got created in transaction “oac2”.
SAP Object	SAP Object type, needs to be “DRAW”.

9.1.12 DMS UI Components

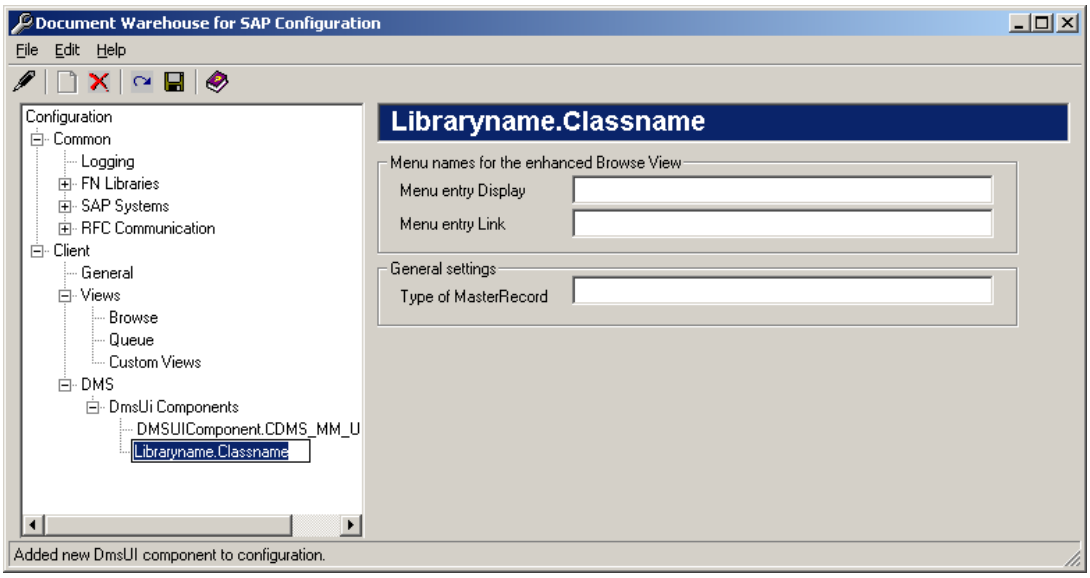
***Background**: The DMS UI Components offer functions for accessing information of SAP R/3 master records and functions for searching and selecting SAP R/3 master records. All of these functions have an interactive interface in form of user dialogs.*

With IDM Desktop for R/3, a predefined DMS UI Component is configured during the installation process. This DMS UI Component enables the user to use above mentioned functions with SAP material masters.



It is possible to create a custom DMS Ui Component, for example to use the same functions for other SAP master records, e.g. equip masters, etc.

In order to add a new DMS Ui Component, first select the sub category “DMS UiComponents” in the categories tree and add a new sub-category using the menu item “Edit”→”Add” or the appropriate toolbar icon. The new sub-category represents the individual DMS UiComponent and exists of ‘<libraryname>.<classname>’.



Preference	Description
Menu entry Display	Enter the description, that should appear in the menu “DMS”.
Menu entry Link	Enter the description, that should appear in the menu “DMS”.

Preference	Description
Type of MasterRecord	Enter the ID of the master record, that should be used, e.g. “EQUI” for Equipment Master. *Background: The master records in the SAP R/3 system are identified by an id and type id. The type id is a combination of four characters, and is a part of the record’s primary key.*

For more information regarding DMS functionality, refer to the following sections “SAP DMS Functionality” on page 107 and to the “Programmer’s Handbook 5.0”.

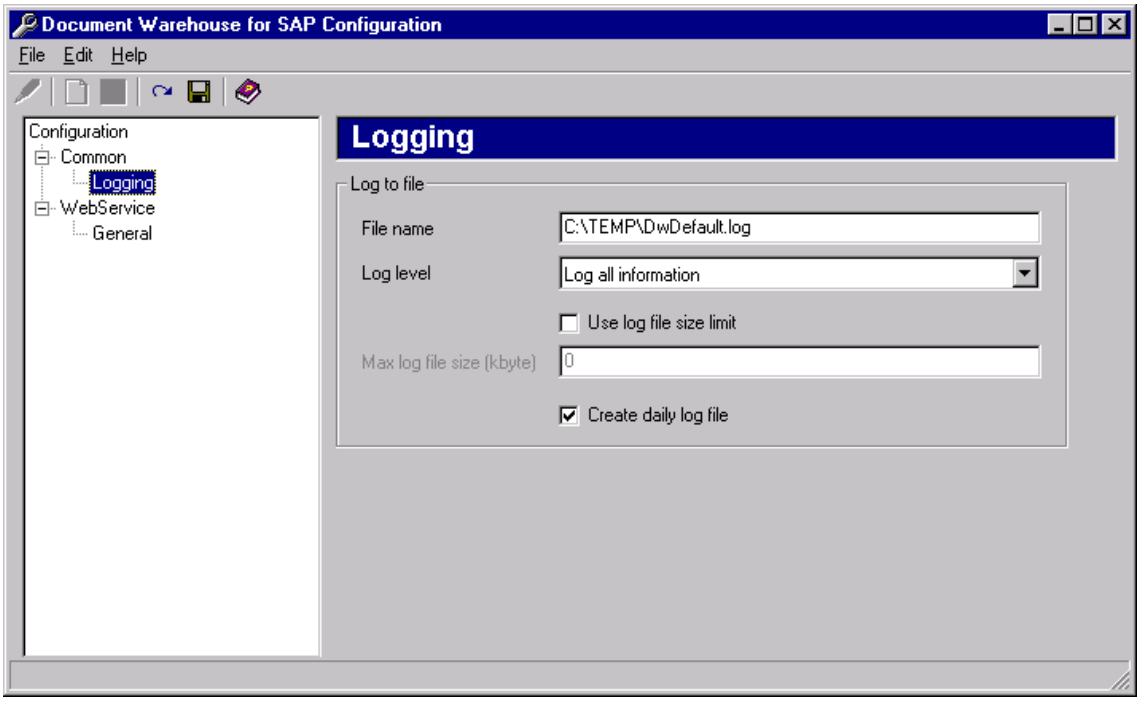
9.2 Configuration for SAPGUI/IDMWS Environment

The configuration program of the web-based client environment is based on the configuration program of the IDM Desktop for R/3. Refer to “Configuration Overview” on 93 for more information regarding the program itself. For a client using SAPGUI/IDMWS very little is to configure.

9.2.1 Configuration Category ‘Logging’

Background: *All client components log certain information. This information can be helpful in finding problems with the configuration or after an error has occured.*

The ‘Logging’ category contains preferences determining the amount and location of the logged information.

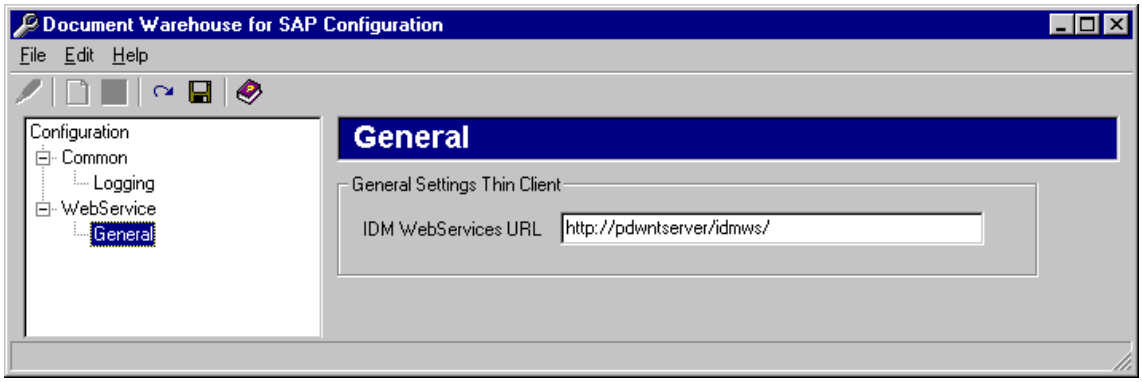


Preference	Description
File name	Enter a path and a file name for the file to be used for logging information.

Preference	Description
Log level	Determines the amount of information logged. The following levels are available: • Log errors and warnings only. This should be the typical setting for the usual IDM Services for R/3 operation. • Log all information. Use this setting when you are experiencing problems. If you have to contact FileNET CSS with a problem, make sure that you have a logfile available at this level that shows operation when the problem occurs.
Use log file size limit	If checked, the logfile will never grow larger than the maximum logfile size. If additional information is to be logged, older log entries will be discarded.
Create daily log file	If checked, each day a new log file will be started. The files will be named <filename>.<yyyymmdd>.<extension>.

9.2.2 Configuration Category ‘General’

Within the ‘General’ category the URL for the IDM Web Services gets defined.

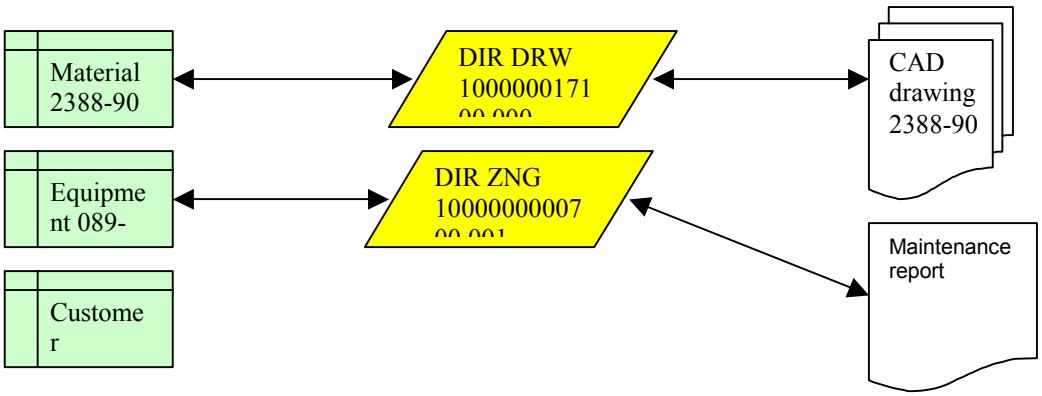


Preference	Description
IDM WebServices URL	Please enter the internet adress of the Web Services, e.g “ http://<servername>/idmws/ “.

10 SAP DMS Functionality

10.1 Functionality within the SAP R/3 System

Each SAP R/3 system comes with a built-in, yet simple, document management system. Although SAP R/3 offers no functionality for storing documents (e.g. PDF files, Word files, AutoCAD files), it offers the functionality to organize documents and connecting document files from external repositories to objects within SAP R/3. The base unit of the SAP R/3 document management system is the so-called document info record (DIR). As the name suggests, the DIR is a meta data record, which provides information about a document. A DIR can be connected to SAP R/3 master record (depending on the DIR type) and an external document file. The external document can be a file in a file system (e.g. on a local hard disk), a file available through FTP (in an FTP server known as the “vault”), or an object in an optical archive available via the ArchiveLink interface. Thus, the DIR acts as a connector between SAP R/3 master data and external document files (see figure below).



11 Attribute and Free Search with the SAP ArchiveLink Viewer

If the SAP system is customized in a way that stored printlists are accessed via RFC, it is possible to display a printlist within SAPGUI, but it is not possible to use attribute or free search. Therefore, it is still necessary to use the ArchiveLink Viewer and the Document Warehouse for SAP component "SAPSearch". Following sub-sections describe the steps for preparation and using attribute search with SAP ArchiveLink Viewer.

***Background**: The search component "SAPSearch" of release 4.0 is capable of performing attribute and free searches on print lists stored in an IDM Image Services Library. Search requests are issued from the SAP ArchiveLink Viewer to the client component's ArchiveLink DLL. The DLL passes search requests on to the Search Component on a server. Communication between the DLL and the Search Component is via ONCRPC.*

Beginning with ArchiveLink 4.5, attribute and free search requests are issued by an R/3 application server and sent directly to the Server Components via HTTP. The Search Component is used by the Server Components to perform a search. The RPC interface between the search component and the ArchiveLink DLL have not been changed.

Note: The search component cannot perform searches on documents in IDM Document Services Libraries.

11.1 SAP ArchiveLink Viewer

Make sure, that the SAP ArchiveLink Viewer is installed on the client. All SAP Presentation client software is provided on a CD-ROM for installation. The Windows version of SAPGUI is installed using a standard setup program (sapsetup.exe) that installs ArchiveLink as an optional component. If ArchiveLink is already installed, it resides in archlink-directory below the SAPGUI software. Otherwise, ArchiveLink can be installed by running the sapsetup.exe program. To check that all the ArchiveLink components are present, run alviewer.exe from the archlink subdirectory. If it is correctly installed, the viewer launches containing no document. Make sure to close the viewer after this test.

Note: If SAPGUI was installed to a network file server and then copied to the client workstation or is run over the network, the ArchiveLink software could have been overlooked during the original installation. In this case, consult the SAP system administrator for the correct method to have this component installed.

Tip: Since the SAP ArchiveLink Viewer will not be developed any further, SAPGUI version 4.5 is the last version which delivers the ArchiveLink Viewer. Nevertheless, it is recommended to use version 4.0 or lower, as during testing several problems with version 4.5 appeared.

11.2 SAP Customizing

Check transaction "oaa3" in order to customize the way printlists should be displayed by. For more information, please refer to section "SAP ArchiveLink Protocols" on page 65.

11.3 ALViewer Configuration

Use the setup_al.exe program, which resides in the archlink subdirectory of the SAPGUI software, to set up the SAP ArchiveLink software, as each archive must be registered to ArchiveLink.

Complete the following fields for each archive:

Archive ID: Two-character code identifying the archive system connected to the SAP R/3 system. This must match an Archive ID defined inside the SAP system.

Link DLL: Path and file name of the Archive DLL used by SAP ArchiveLink to access documents stored on the archive system. This must point to the ldmForR3.dll provided with FileNET Document Warhouse, which should be installed in the IDM Desktop for R/3 directory (default:C:\Program Files\FileNET\iDesktop\).

Note: The Link DLL entry field in the Setup program allows only entering a paths up to 52 characters in length. If it is necessary to enter a longer path change the values directly in the ALViewer.ini and ArchLink.ini files. They are located in the Win95 or WinNT directories.

```
[ALViewer]
```

```
Archives=DJ

Path=C:\Program Files\SAPpc\ARCHLINK

[Archive-DJ]

ArchiveLinkDLL=C:\program files\FileNet\iDesktop\IDMforR3.DLL
```

Please check also following entry in the ALViewer.ini and ArchLink.ini to see the location of the ALINKLOG.txt and the loglevel (6 is the highest loglevel):

```
[Logging]

LogFile=c:\logs\ALINKLOG.TXT

MaxFileSize=1000000

LogLevel=6
```

11.4 Installation of SAPSearch

If it is desired to use the SAP ArchiveLink Viewer for searching in print lists, the Search program (NT Service “SapSearch” or UNIX daemon “search”) of Document Warehouse for SAP 4.0 must be used and kept running. It is not possible to run “SAPSearch” on the Document Warehouse for SAP 5.0 server anymore. Therefore, it is recommended to install it on the IDM Image Services Server or any other stand-alone server.

Note: WAL 3.4.0 with SP1 (now referred to as “Image Services Toolkit”) must be installed on the machine as well.

The GUI-based installation of IDM Services SAPSearch performs the following steps:

1. Welcome Screen.
2. Legal License Agreement screen. The agreement must be accepted in order to continue with installation. Please refer to “Appendix B - FileNET End User Software License” on page 111 after installation, for consulting the Legal License Agreement.
3. Summary screen. Click “Install” on this screen to install the program files. The program will inform you about the progress of the installation.
7. Installation Completed screen. This screen provides information on whether the installation performed with or without errors. Click “finish” to close the Installation Wizard.

After the installation the services “Portmap Services” and “SAPSearch” are implemented in the Windows Services.

12 Appendix A – OSS Notes

As Document Warehouse for SAP is an interface between FileNET Libraries and an SAP system, certain issues can occur without finding the reason for it within Document Warehouse for R/3. During testing, certain issues with SAP R/3 have been observed. Consult the following SAP OSS notes for the required SAP coding corrections:

# 0193715	In 4.6B system, OLE calls do not work for an RFC archive. Error message: "The content repository is not configured completely."
# 0357207	In 4.6B to 4.6D systems, attribute search in printlists does not work. Error message: "No attribute information available." or an endless loop in SAPGUI occurs.
# 0368569	In 4.6A to 4.6C systems, in transaction FB03, existing document links are not available.
# 0144097	In 4.5B, Files which are stored by the application server via HTTP, are not accessible. The problem does not occur there if the document class FAX or ALF is used.
# 0164203	No specific SAP release, Problems with SAPHTTP Customer's help for how to use HTTP Tracefiles
# 0387010	In 4.6D system, SAPHTTP generates Dr. Watson errors. SAPHTTP is terminated and the following error message appears: Exception number: c0000005 (access violation)

Tip: While using the search mask of SAP Notes, enter search key words such as “SAPHTTP” or “ArchiveLink” for receiving a result with more helpful information regarding SAP and ArchiveLink.

13 Appendix B - FileNET End User Software License

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2. Clients are personal computers, minicomputers, mainframes, workstations and terminal devices that interact with Server Software.

3. Client Software is a copy of Software residing on a Client that interacts with Server Software.

B. End User agrees to license the Software as follows:

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2. For Server Software – one copy of Server Software for each base system. In addition Concurrent User Licenses in accordance with FileNET's then-current version of the Concurrent User Guidelines which consist of concurrent Dedicated User, Shared User, and e-Business User Licenses. These Concurrent User Guidelines measure persons and programmatic operations that interact with the Server Software directly or indirectly from a Client.

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