

IBM Content Manager CommonStore for SAP



IBM Content Manager CommonStore for SAP Client Installation and User's Guide

Version 7 Release 1

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Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page vii.

First Edition (December 2000)

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About this book

Audience

This book describes the installation, customization, and usage of the IBM Content Manager CommonStore Client component in an SAP R/3 environment. It hence addresses *Client end users*.

This manual is therefore divided into the following three parts:

“Part 1. CMCS — Overview” on page 1

This part provides a general introduction to CMCS.

“Part 2. CMCS Client Installation” on page 13

Describes the CMCS Client Installation.

“Part 3. Client Customizing guide” on page 27

Describes how to customize...

“Part 4. SAP Customizing guide” on page 55

Explains how to use the CMCS Client for archiving and retrieving electronic documents.

Release information

The customizing information presented in this book refers to SAP Releases 3.0, 3.1, 4.0, 4.5, 4.6, MySap.com and all subsequent releases.

Names

Since SAP Release 3.1, the names of some program components and products have changed. In such cases, this has been noted at the first appearance of each such name.

Throughout this book, the brand name “IBM Content Manager” (formerly: “VisualInfo”) is abbreviated as “Content Manager,” while the brand names “IBM Content Manager OnDemand” and “IBM Content Manager CommonStore” are abbreviated as “CMOD” and “CMCS,” respectively.

Highlighting conventions

Throughout this book, *italics* are used for

- book titles,
- emphasis, and
- options / variables / parameters / keywords.

Boldface is used for

- check box labels,
- choices in menus,
- column headings,
- commands and subcommands,
- entry fields,
- field names in windows,
- index classes
- menu-bar choices,
- menu names,
- radio button names,
- spin button names,
- statements, and
- tables.

Monospace is used for

- coding examples,
- entered data,
- file names,
- transaction codes (T-codes),
- group and user IDs,
- message text, and
- path names.

Underlined bold indicates

- default values.

Further information and suggestions

Additional information about CMCS for SAP is available on the Web page:
<http://www.ibm.com/software/data/commonstore/>

You can send comments about the software by e-mail to
cstore@de.ibm.com

Be sure to state the Version and Release of CMCS you are using.

To comment on this book, fill out the form at the back and return it by mail, by fax, or by giving it to an IBM representative.

Part 1. CMCS — Overview

Chapter 1.1 What is CMCS for SAP

CommonStore and the SAP R/3 Archiving Interfaces

Starting with Release 2.2 of the R/3 system, SAP clearly recognized the requirement of enhancing R/3 through a robust archiving concept. Step by step, mechanisms evolved for offloading the operational R/3 database and processing business documents that reside in an external archiving system. With Release 3.0, all key applications and modules offered mature archiving functionality that was shipped as part of the standard R/3 package. These new features leveraged the power of tools like the *SAP Business Workflow*, *Document Management System*, *SAPoffice*, *SAPconnect* or *Archive Development Kit*.

While the enhanced application logic for handling external documents is fully integrated with R/3, SAP decided to leave the "core" archiving functionality to established business partners as part of their *Complementary Software Program*. The *SAP Business Framework* provides the interfaces necessary to integrate these external functions with R/3 and thus create the complete software architecture that fits the customer's business processes while protecting software and hardware investments. With mySAP.com, SAP established a new *Software Partner Program* that, like its predecessor, is committed to provide third-party vendors with integration consulting and standard, release-stable interfaces to connect their external products to R/3. As the primary interface for integrating storage and content management systems, *BC-AL* (SAP ArchiveLink) has been introduced with Release 2.2 and enhanced in Releases 3.0, 3.1, and 4.5 of the R/3 system. Additionally, *BC-HCS* (SAP HTTP Content Server Interface) has been defined in R/3 Release 4.5 as a subset of BC-AL that focuses on content rather than storage management. SAP offers its software partners certification for each of these interface releases.

Only a solution that builds on BC-AL or BC-HCS leverages the archiving potential of the enabled R/3 modules. **IBM Content Manager CommonStore for SAP** (hereinafter referred to simply as CommonStore) is such a solution. While SAP uses the term *optical archive* to refer to a system that complies with the BC-AL specifications, this expression is misleading in that conformance with BC-AL is independent of hardware components used by the archive supplier (for example, optical storage media or scanners). In later R/3 Releases, the more general wording *external archiving system* or *external archive* appears in SAP publications. This term will be used throughout this document when referring to products based on BC-AL.

BC-HCS is a general, cross-application interface that connects the enabled R/3 business applications to a *content server* and allows them to process documents

in logical *content repositories*. This content server can be a database, a file server, an R/3 system, or an external archive like CommonStore. To elucidate the relevance of BC-HCS in the R/3 archiving context, only the last constellation will be considered in this section.

The BC-HCS interface is completely based on the industry-standard *HTTP* (Hypertext Transfer Protocol); servers and documents are addressed and parameters and functions are transmitted between CommonStore and the R/3 application server using *URLs* (Universal Resource Locators). While both concepts are typically used to access objects on the World Wide Web, CommonStore primarily focuses on BC-HCS to exchange content within a corporate intranet.

CommonStore integrates with BC-HCS to perform functions like:

- storing, updating or appending documents in a content repository
- retrieving entire documents or document segments from a content repository
- obtaining information about documents and their components
- searching documents for text patterns (without retrieving them)
- performing attribute-based searches (on print lists, especially journals)
- deleting documents

To inhibit unauthorized access to archived documents, CommonStore applies security measures to prevent the forgery or manipulation of URLs and eavesdropping on contents. These measures include the use of a PKCS#7 digital signature and public key procedure according to the Digital Signature Standard. The degree of protection and rights of access to a document can be specified when a document is stored by R/3.

As the name implies, a content server in the BC-HCS scenario exclusively acts as a web server that is contacted by R/3 to perform various functions. Unlike the R/3 system which acts as a web client, a content server like CommonStore is unable to instigate communication between the two components.

In order to support archiving functions and scenarios that cannot be covered by the client/server perspective BC-HCS is based on, CommonStore supports the additional protocols covered by BC-AL. In their entirety, the supported BC-AL 4.5 functions (which have not been changed with R/3 Release 4.6 or mySAP.com) comprise:

BC-HCS (as described above)

A *BAPI* (Business Application Programming Interface) for barcode-based archiving scenarios.

OLE (Object Linking and Embedding) functionality for storing inbound documents or PC files and starting external viewing applications (for example, archive clients) on 32-bit Windows frontends.

When used with R/3 Releases prior to 4.5 (the first R/3 Release to support BC-HCS), CommonStore realizes the operations now covered by BC-HCS through RFCs (Remote Function Calls), a communication protocol defined by SAP. In Releases 4.5 and 4.6, HTTP messages replace the corresponding RFCs.

All BC-AL operations are based on the notion that the SAP database represents a master index catalog of all documents, including those whose content resides in the external archive. According to the approach, BC-AL passes no document-related information to the external archiving system. Instead, a symbolic *UUID* (Universal Unique Identifier) is created for each document and applied to identify it throughout its life cycle. BC-AL itself maintains a table that maps each business document (for example, credit memo or customer invoice) to its corresponding UUID. For many SAP users however, it is a requirement to access archived documents independently of R/3 or mySAP.com (that is, without using SAPGUI or the mySAP.com Workplace). For this case, to support searching the external archive for business information like customer number or fiscal year, CommonStore provides proprietary function modules that transfer these respective document attributes from R/3 to the archive database.

Chapter 1.2 Scenarios and Features

As there are diverse applications for archiving and content management in the SAP R/3 and mySAP.com environments, integrating CommonStore into the SAP landscape can bring multiple benefits. In the following sections, the most important aspects will be discussed, distinguishing *data archiving* (driven by system administration) and *document archiving* (driven by business process optimization).

Data Archiving

When an R/3 system goes into production, its database usually has a size that allows efficient storage of data on local hard disks of the database server. While new data is entered and generated during production, the database size increases continually. This approximately linear database growth depends on the intensity of system usage and may easily reach rates of 30 to 50 percent per annum.

This rapid evolution has several inadvertent side effects:

Since the physical tables are usually stored on hard disks directly attached to the database server, **an increase in hard disk requirements** is unavoidable.

Due to an **increase in administration effort** for the database, maintenance windows (for example, for system backup) claim unacceptable amounts of time.

The increased number of rows per database table delays basic operations (for example, searching tables). The accumulation of these delays leads to a perceptible **degradation of response times** when accessing the database.

As practical experience has shown, the database growth noticeably affects the system performance and administration effort within one to two years of usage.

SAP recommends archiving application data to reduce database growth and counteract its consequences: "Nearly all customers will thus (have to) archive data which is no longer needed for on-line operation." (translation from the official SAP document *BC – Archivieren und Löschen von Anwendungsdaten* as of R/3 Release 3.1). This process removes mass data from the system which is

not actively used. CommonStore can be employed to perform the task of archiving inactive data concurrently with normal system operation.

Especially for SAP customers within the European Economic and Currency Union, the launch of the new Euro currency raises additional issues related to the R/3 database size. Though SAP itself provides the functionality relevant for the LCC (local currency changeover), this operation still requires system downtime for the conversion of currency-related database fields. This downtime is approximately proportional to the respective table sizes. SAP advises: "Data archiving offers a way to consistently reduce database tables, therefore you should seriously consider whether to implement it in the period before local currency changeover." (extract from the white paper *SAP Data Archiving and the Euro*, Version 3.0). Using CommonStore to remove inactive currency data from the operational database minimizes the total conversion downtime and the runtime of a database restore in case the LCC should fail.

Application data archived through CommonStore:

Can be **stored on external media** independently of R/3 (for example, optical media or magnetic tape).

Will be **compressed by up to a factor of 5** during archival.

is accessible by R/3 at any time and can even be **analyzed in the external archive**.

Is **not affected by hardware or release changes** of the R/3 system.

Document Archiving

For legal and/or internal policy reasons, companies are required to keep records for a certain period of time

Conventionally filing these documents on paper or in microfiche archives results in:

Extensive cost for **duplicating or filming** the documents to be stored.

Expenditures for the **physical storage** of paper or microfiche media.

Inefficient **retrieval** of stored documents.

However, most business processes supported by R/3 allow processing documents electronically (as opposed to a paper-based process).

The benefits of this approach include :

The ability to use **cost-efficient storage media** for the document repository.

Direct access by all authorized users without the delay caused by conventional archive inquiries.

Parallel access by several users at the same time.

The option of leveraging *SAP Business Workflow* to **improve** existing **work routines**.

Increased customer satisfaction through optimized processes.

CommonStore is capable of handling different kinds of electronically represented documents.

The following groups of document types should be differentiated:

Inbound documents (for example, supplier invoices) that reach the enterprise via mail or telefax and are stored as raster images. For this document type, the advantages of using CommonStore come to light most apparently.

Outbound documents, which are normally printed and sent to their respective recipient. CommonStore not only provides for fast retrieval in case of internal or external audits, but also for quick referral on inquiries by customers or suppliers.

Reports and print lists (for example, journals), which are generated by R/3 and would normally be printed. The use of CommonStore typically makes a physical print-out obsolete. The electronic journal (as opposed to its paper equivalent) is easily searchable and can even contain *hyperlinks* to other documents (as an example, a specific entry in a document journal might refer to a scanned original document). Furthermore, the archived lists can be used as input to other applications like data mining systems.

Desktop files created by PC applications (for example office, or CAD applications) can be stored by CommonStore and accessed by R/3 via *SAP office* or *DMS*.

In addition to these "basic" document types handled by CommonStore, a typical requirement for an archiving system is to store documents from external applications and make them available to R/3 users. This particularly includes *COLD* (computer output on laser disc) that was generated outside of R/3.

Chapter 1.3 Content Overview

The IBM Content Manager Commonstore for SAP Client Installation and User's Guide book is designed for providing information to administrators as well as to the users of the CMCS Clients. Therefore the book is divided into several parts covering each role of involved into the CommonStore usage.

The first part is dedicated to get the CMCS Clients installed and running on the client machines. A subsequent second part introduces the client administrator into the customizing of the CMCS Clients for getting them integrated with the CMCS Server.

The SAP Customizing guide gives a step by step task list for setting up each of the supported SAP scenarios the CMCS Clients are involved in. Following the references will give you more detailed information of the corresponding customizing step.

The User's guide is dedicated for users running the SAP scenarios via the CMCS Clients. For each scenario the user has to perform several steps listed in the appropriate sub chapters.

For more detailed information on the CMCS Client support and information on respectively terms see the appendixes of this book.

Part 2. CMCS Client Installation

Chapter 2.1 Prerequisites

SAP R/3 and archive system installations are in use in companies ranging from global trusts with very high document volumes to midsized companies with a few hundred invoices per day. This bandwidth is responsible for the large variations in customer demands regarding performance, availability, and the scalability of the corresponding systems. CMCS takes this factor into account by supporting a wide variety of hardware platforms from which customers are free to choose on the basis of the demands of the application scenario at hand. While CMCS itself runs on AIX, Windows NT, Digital UNIX, HP-UX, OS/400, and — upon request other platforms, the main archiving load can be distributed among every system supported by Tivoli Storage Manager, CMOD, or Content Manager, ranging from an OS/2-based PC to an S/390 mainframe computer. Through the flexible hardware support offered by Tivoli Storage Manager, CMCS also allows the storage of SAP R/3 documents on quite arbitrary storage media, including hard disks, tape drives, optical media, or corresponding library systems.

2.1.1 Prerequisites for using the CMCS Archiving Client

- Intel Pentium 166 MHz compatible machine with 32MB RAM.
- Windows NT SP 5, Windows 98, Windows ME, or Windows 2000 SP 1.
- Microsoft Internet Explorer 4 or higher.
- Microsoft Internet Explorer Plug-Ins for different document types.
- CMCS Server 1.6.x or higher.

2.1.2 Prerequisites for using the CMCS Viewing Client

- Intel Pentium 166 MHz compatible machine with 32 MB RAM.
- Windows NT SP 5, Windows 95/98, Windows ME, or Windows 2000 SP 1.
- For Browser-Viewing :
 - Microsoft Internet Explorer 4 or higher, Netscape Communicator 4 or higher.
 - Browser Plug-Ins for different document types.
- CMCS Server 1.6 or higher.

Chapter 2.2 Installing the CMCS Client packages

The CMCS Client consists of two components:

- The CMCS *Archiving Client* is used **only** for archiving incoming documents.
- The CMCS *Viewing Client* is used **only** for viewing documents.

Both CMCS clients require a running CMCS Server for processing the archiving, retrieving, and viewing requests.

2.2.1 The CMCS Archiving Client

The CMCS Archiving Client is used for the entire communication between the SAP GUI with the archiving system on 32-bit Windows systems. It is needed only for archiving incoming documents.

With the CMCS Archiving Client, scanned documents are archived in combination with SAP R/3. The CMCS Archiving Client supports early (via OLE or RFC call), simultaneous, and late archiving (via barcode, or via OLE).

The CMCS Archiving Client can handle documents :

- from the file system (DirQueue),
- from the Kofax Ascent Capture Release Module (FileQueue) and
- from the corresponding VisualInfo workbaskets (VIQueue).

The GUI of the CMCS Archiving Client is illustrated in Figure 1 on page 18

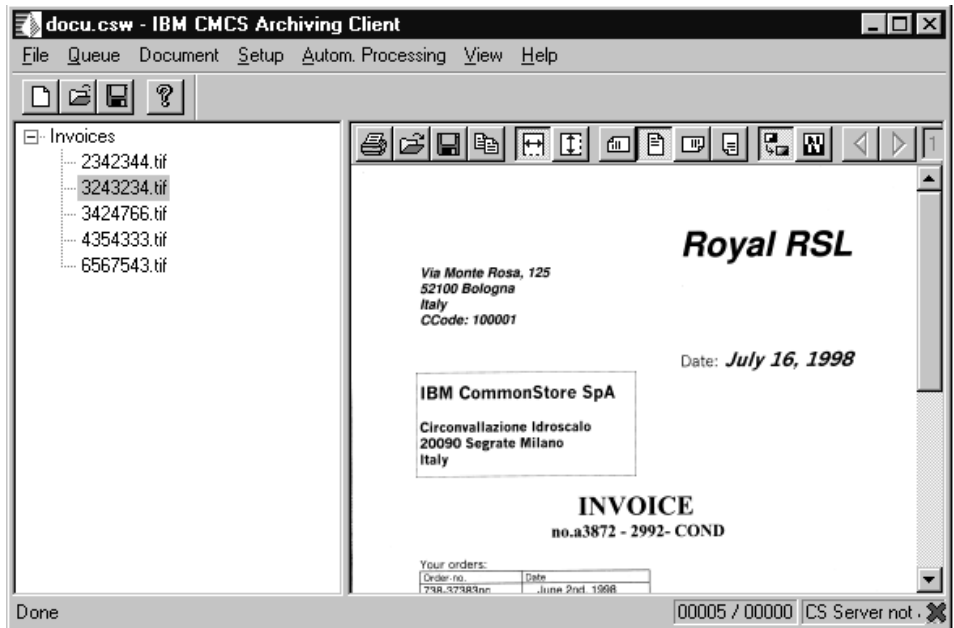


Figure 1. CMCS Archiving Client's GUI

In the left frame of the application window, you can see the queues, which correspond to the SAP R/3 input area for early, late, and simultaneous archiving. In the right frame, you can see the documents contained in a queue, the corresponding recognized barcode, and the date on which the documents have been scanned. When selecting a document in the left frame it is displayed in the right frame.

The CMCS Archiving Client can archive documents (using the CMCS Server) into all three of the supported archiving systems:

- Tivoli Storage Manager
- VisualInfo
- OnDemand

CMCS supports three document archiving scenarios supplied by SAP:

1. **Early Archiving:** This scenario is used if incoming documents are scanned as soon as they arrive in the companies mailing department. The documents are archived from a scan workstation, running CMCS Archiving Client on, into an archive system. Continuously a workitem in the SAP workflow created. Later on a clerk has to enter the booking.
2. **Late Archiving:** Using this scenario, incoming documents routed in paper format through the company. A clerk enters the booking and applies a barcode on the paper and sends the paper document to the archiving

department where the documents are scanned, the barcode is recognized by the scanning software. Via the CMCS Archiving Client the documents are archived and the barcode is sent to R/3 which links the document to the booking.

3. **Simultaneous Archiving:** This archiving scenario works as follows. Incoming documents become archived when the booking is created. Therefore the clerk doing the booking, works with a split screen. On the one side there is the SAP GUI (enter the booking) and on the other side the CMCS Archiving Client (select the corresponding document). After the clerk entered the booking the document is archived and linked automatically.

2.2.1.1 Installing the Package

Load the CMCS product CD into the CD drive and start the installation program `setup.exe` located in the directory `CSCClient`.

Run through the installation procedure, choose the installation path and language you want to install.

In the installation directory, the following files will be allocated:

- The CMCS Archiving Client's executable, `CSCClient.exe`.
- The CMCS modules `DirQueue.csm`, `FileQueue.csm`, and `VIQueue.csm`. These modules will be saved in a subdirectory named `Module` created during the installation procedure.
- Sample documents in TIFF format (SAP R/3 document class FAX) located in subdirectories `queues\dir` (destined for `DirQueue`) and `queues\file` (destined for `FileQueue`).

Note:

All the settings configured during the setup of the CMCS Archiving Client will be written to the Windows registry and the `CSCClient.INI` file.

2.2.2 The CMCS Viewing Client

The CMCS Viewing Client is used for viewing SAP R/3 documents with a customized external viewer (e.g. a Web browser or the Wang Image Viewer) by means of *Object Linking and Embedding* (OLE).

The CMCS Viewing Client handles the communication:

- with R/3 via OLE
- with the CMCS Server via sockets

As shown in Figure 2, the CMCS Viewing Client makes it possible to use external viewers (Alternative 2) other than the standard ArchiveLink Viewer (Alternative 1) provided by the SAP R/3 System.

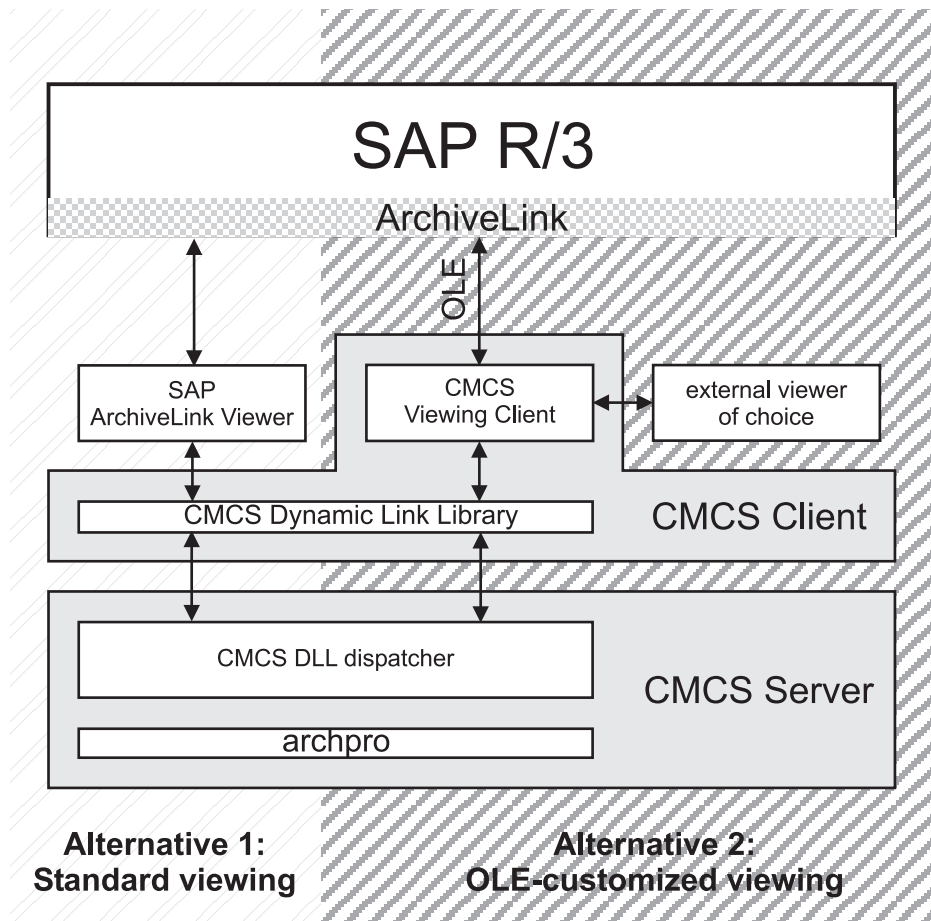


Figure 2. Standard versus OLE-customized viewing

2.2.2.1 Installing the package

Load the CMCS product CD into the CD drive. Start the installation program setup.exe located in the directory CSVview.

Run through the installation procedure, choose the installation path and the language you want to install.

In the installation directory, the CMCS Viewing Client executable CSVview.exe will be saved.

When starting the CMCS Viewing Client manually for the first time, entries will be made to the Windows registry in order to make it possible for SAP R/3 to detect the CMCS Viewing Client.

Note:

All the settings configured during the setup of the CMCS Viewing Client will be written to the CMCS Client configuration profile (default name: `CSCClient.ini`) situated in the Windows directory.

Chapter 2.3 Upgrade

Upgrading from CMCS 1.x or 2.1.x to 7.1.x is performed separately for the CMCS Archiving Client and the CMCS Viewing Client. This is described in the subsequent sections.

2.3.1 Upgrading from 1.x to 7.1.x

Upgrading from CM CommonStore 1.x to 7.1.x is performed separately for the CMCS Archiving Client and the CMCS Viewing Client. This is described in the subsequent sections.

Upgrading the CMCS Archiving Client

To upgrade the CMCS Archiving Client from 1.x to 7.1.x, proceed as follows:

1. Install the CMCS Archiving Client. See also “2.2.1.1 Installing the Package” on page 19.
2. Set up the CMCS Archiving Client. When starting up the CommonStore Archiving Client for the first time, a panel pops up in which settings according to your environment and your preferences can be entered. See also “3.1.2 Setting up the CMCS Archiving Client” on page 29. An initial setup is mandatory, but can also be changed at any later point in time via the CMCS Archiving Client menu selection **Setup->Run Setup** or **ALT+F8**.
3. Create queues in the CMCS Archiving Client. See also “3.1.3 Creating Queues” on page 33.
4. Save your CMCS Archiving Client working environment. See also 83.
5. Make sure that the value for the keyword *ARCHWINS* in the CMCS Server configuration profile (default name: *archint.ini*) is *greater than zero!*
6. Register the CMCS Archiving Client application in SAP R/3 (see also “4.6.2 Registering an OLE application in SAP” on page 68).
7. Load the TypeLib information for the CMCS Archiving Client (see also “4.6.3 Loading the TypeLib information” on page 68).
8. Create an ArchiveLink application (see also “4.6.4 Creating an ArchiveLink application” on page 69).
9. Customize the ArchiveLink application for archiving via the CMCS Archiving Client (see also “4.6.5 Customizing the ArchiveLink application for the CMCS Archiving Client” on page 69).
10. Open the protocol which had been used up until now to archive with the CMCS Client 1.x.

11. Customize the ArchiveLink protocol for archiving via the CMCS Archiving Client (see also “4.6.10 Customizing the Archlink protocol for viewing documents” on page 73).

After having performed the steps described above, the entry in the protocol named **Display object** (first entry) must be made to point to the ArchiveLink application which had been used up until now to archive with the CMCS Client 1.x.

The entry for communication step **Archive from frontend** in the protocol must now be made to point to the newly-created ArchiveLink application. As a consequence, archiving calls will now be directed to the CMCS Archiving Client 7.1.x.

Upgrading the CMCS Viewing Client

The settings in SAP R/3 may remain as they had been customized for using the CMCS Client 1.x.

You might consider using Browser Viewing in order to have the option of viewing different types of document classes with the same viewer. You should therefore refer to “3.2.2 Setting Up the CMCS Viewing Client” on page 43 for more information.

2.3.2 Upgrading from 2.1.x to 7.1.x

Upgrading from CMCS 2.1.x to 7.1.x is performed separately for the CMCS Archiving Client and the CMCS Viewing Client. This is described in the subsequent sections.

Upgrading the CMCS Archiving Client

In order to upgrade the CMCS Archiving Client from 2.1.x to 7.1.x, proceed as follows :

1. Ensure that you saved your working environment, which can be done by the menu path **File** → **Save As...**
2. Install the CMCS Archiving Client 7.1.x. See also “2.2.1.1 Installing the Package” on page 19.
3. Run the CMCS Archiving Client 7.1.x. When starting up the CommonStore Archiving Client for the first time, a panel pops up in which settings according to your environment and your preferences can be entered. See Also “3.1.2 Setting up the CMCS Archiving Client” on page 29.

All other settings remain the same as in version 2.1.x and should have been done when the CMCS Archiving Client version 2.1.x was installed.

Upgrading the CMCS Viewing Client

In order to upgrade the CMCS Viewing Client from 2.1.x to 7.1.x proceed as follows :

1. Install the CMCS Viewing Client 7.1.x. See also “2.2.2.1 Installing the package” on page 20.
2. Run the CMCS Viewing Client 7.1.x. The CMCS Viewing Client setup dialog pops up, in order to enter the settings according to your environment and your preferences. For detailed information see “3.2.2 Setting Up the CMCS Viewing Client” on page 43.

All other settings remain the same as in version 2.1.x and should have been done when the CMCS Viewing Client version 2.1.x was installed.

Part 3. Client Customizing guide

Chapter 3.1 CMCS Archiving Client

3.1.1 Getting started

The following steps need to be performed before you can start archiving with the CMCS Archiving Client:

1. Install the CMCS Archiving Client. See also “2.2.1.1 Installing the Package” on page 19.
2. Perform the CMCS Archiving Client setup. When starting up the CMCS Archiving Client for the first time, you will be guided through a number of setup panels in which you can enter settings according to your environment and your preferences. See also “3.1.2 Setting up the CMCS Archiving Client”. An initial setup is mandatory, but you can change the setup at any later point in time via the CMCS Archiving Client menu selection **Setup->Run Setup** or **Alt+F8**.
3. Create queues in the CMCS Archiving Client. See also “3.1.3 Creating Queues” on page 33.
4. Save your CMCS Archiving Client working environment. See also 83.
5. Make sure that the value for the keyword *ARCHWINS* in the CMCS Server configuration profile (default name: *archint.ini*) is *greater than zero*!
6. For archiving via OLE, run through the SAP customizing procedures needed for Early archiving via OLE explained in “Chapter 4.1 Early Archiving via OLE” on page 57.

3.1.2 Setting up the CMCS Archiving Client

When running the CMCS Archiving Client for the first time you will be notified and the setup dialog is started automatically.

The setup panel can be started either by menu path **Setup->Run Setup** or alternatively by **Alt+F8**. Within the appearing panel (figure 3) you need to make different settings explained in detail below. By clicking the **OK** button a validity check on the settings is performed and they will be saved if correctly. The **Cancel** button leaves all settings unchanged and the panel is closed.

Note

The setup panel performs a connection check to the specified CMCS Server in order to refresh the connection state icon in the setup panel and the status bar.

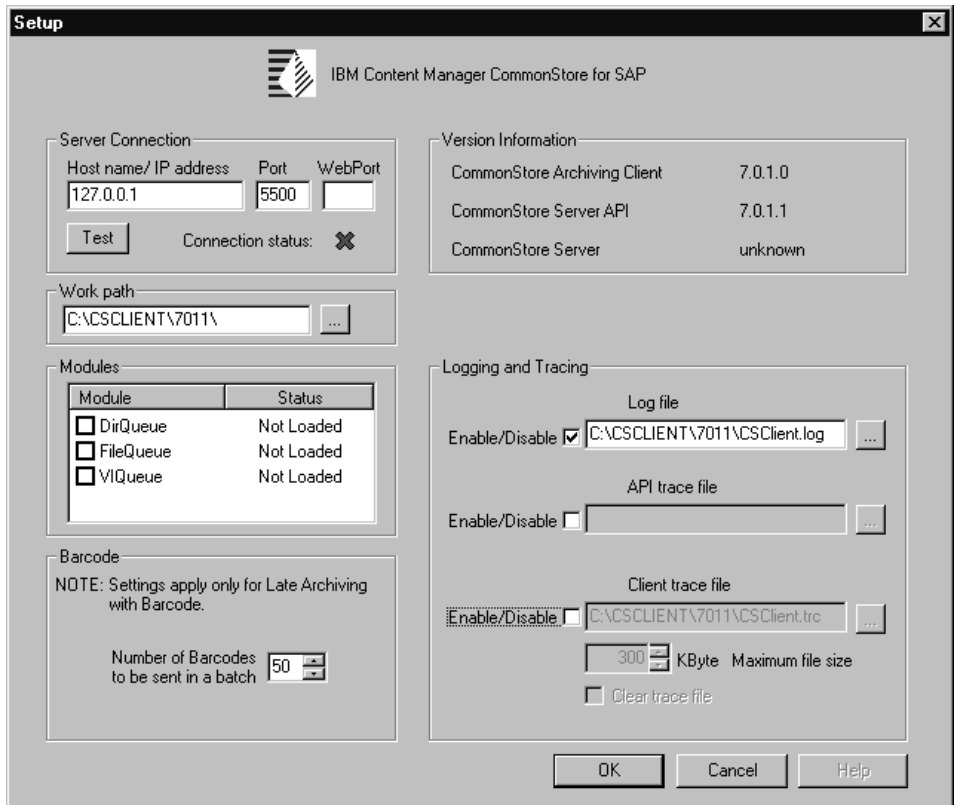


Figure 3. CMCS Archiving Client Setup Dialog



Server Connection

This group holds all connection related settings.

- Host name/IP address** Name or IP address of the machine which the CMCS Server is running on. Default value is 127.0.0.1.
- Port** Port number specified in the CMCS Server configuration file (default name: archint.ini) under the keyword *ARCHWIN_PORT*. Default value is 5500.
- Webport** Port number specified in the CMCS Server configuration file (default name: archint.ini) under the keyword *WEBPORT*

Note:

The **WebPort** field will be filled automatically if you are connecting to a version 7 CMCS Server after clicking either the **Test** or **OK** button and a connection could be established. If you are using version 2.1.x or lower of the CMCS Server you have to fill in the correct **WebPort** manually.

Test The Test button can be used for checking the connection between the CMCS Archiving Client and the CMCS Server. If a connection could be established you can see a green circle  right beside the button and in the status bar otherwise a red cross  will display that no connection could be established.

Work Path

The Work path is set to the installation directory by default but can be changed if necessary. The CMCS Archiving Client uses this directory for processing various tasks. Temporary files will be allocated in this directory. Enter the directory name either manually or use the directory browser button.

Modules

Depending on which scanning application is being used to scan-in the paper documents, the electronic information concerning these documents will be allocated in different ways. The CMCS Archiving Client supports the following three types of scanning applications:

1. Scanning applications which merely create the electronic documents in a specified directory. The **DirQueue** module is used for this scenario.
2. Scanning applications which create a description file in addition to the electronic documents. For each scanned document, an entry is added to the description file. Depending on the configuration of the scanning application, you can also perform Optical Character Recognition (OCR). The recognized information will then be saved in the description file as part of the entry for the scanned document. An entry created in, for example, the Kofax Accent Capture description file has the following appearance:

```
"Barcodes", "1289003", "d:\csclient\queues\invoices\doc1.tif"
```

3. where 1289003 is the recognized barcode and "d:\csclient\queues\invoices\doc1.tif" is the full qualified file name of the electronic document created by Kofax Accent Capture. The **FileQueue** module is used for the scenario you are having a description file in the format shown above even if you do not use Kofax Accent Capture.
4. Scanning applications which scan documents directly into a IBM Content Manager workbasket. Use the **VIQueue** module for this scenario.

These modules reside in the subdirectory module of the installation directory. They are listed in the **Modules** listbox where the module name and status are shown. When you are starting the CMCS Archiving Client for the first time, all modules will have the status *Not Loaded*.

Depending on which scanning scenario you are using check the check box in front of the according module(s) and the module status should turn from *Not Loaded* into *Loaded*. Multiple modules may be selected.

Note

If the modules located in the subdirectory module have not the same version as the CMCS Archiving Client, the module status is *Wrong Version*. This may occur if you have not installed the CMCS Archiving Client in the right way.

Barcode

During late archiving, documents will be archived via the CMCS Archiving Client. For each document, this is basically a two-step action. The electronic document will be archived first. The barcode together with the archive document ID will then be sent to the SAP System if archiving was successful.

For mass archiving, you can optimize performance by specifying the number of barcodes which are to be transferred together in one batch to the SAP System, thus eliminating the need for establishing separate links for each single document. This bundling effect will be achieved by entering a value greater than 1 for the number of barcodes. The maximum number of barcodes to be sent in one batch is 50.

Version information

This group displays the versions of the CMCS Archiving Client, the CMCS Server API (CSClient.dll) and the CMCS Server if a connection is established.

Logging and Tracing

The CMCS Archiving Client provides logging and tracing facilities. If logging is enabled, the CMCS Archiving client writes a protocol with performed actions into a log file. In case of any errors additional information will be written. For more detailed information e.g. in the case of an error, the tracing facility has to be enabled which writes detailed information into a trace file. Due to inherent performance burden, it is recommended that the tracing facility is enabled only if errors occurring. In error cases the CMCS Server API tracing facility can be enabled in order to get more detailed information about the communication steps between the CMCS Archiving Client and the CMCS Server.

In front of the text field for each file name there is a check box for enabling or disabling the according facility. If a facility is disabled all the regarding fields are grayed.

Log File	Enter a full qualified name (incl. full path) for the log file e.g.:C:\CSCClient\CSCClient.log or use the file browser right beside the text field
API trace file	Enter a full qualified file name (incl. full path) for the API
Client trace file	Enter a full qualified file name (incl. full path) for the trace file e.g.: C:\CSCClient\CSCClient.trc or use the file browser right beside of the text field.
Maximum file size	Enter a maximum size in kilobytes which you allow the trace file to occupy on the disk. If the specified size is exceeded, the trace file will be truncated.
Clear trace file	Enable this check box only if you want to clear the trace file each time the CMCS Archiving Client is started. It is recommended that the trace file is not cleared (unchecked). This is because if ever highly intermittent errors occur, as much data as possible about all preceding actions is needed to be able to analyze the cause.

If all settings have been customized commit them by clicking the **OK** button or press the **ENTER** key. The entries you made will be verified and a connection check to the CMCS Server is performed, if the connection parameter were changed. If the verification was ok, the dialog will be closed, otherwise you will get an error message. The changes you have done can be discarded by clicking the **Cancel** button or pressing the **ESC** key.

3.1.3 Creating Queues

In order to separate the different types of documents, you must create a queue for each document type. For example, if you intend to work with invoices, you should create a queue named Invoices which you will use for archiving scanned invoices, or if you intend to work with orders, create a queue named Orders which you will use for archiving scanned orders. Choose the CMCS Archiving Client menu path **Queue->New Queue** or use the **Cntrl+1** short key in order to run through the following panels:

1. The **Queue** panel.
2. Depending on the queue type selected in the **Queue** panel the **Directory Queue**, **File Queue** or **Content Manager Queue** panel, in which module dependent settings have to be made appears
3. The **Finish** panel.

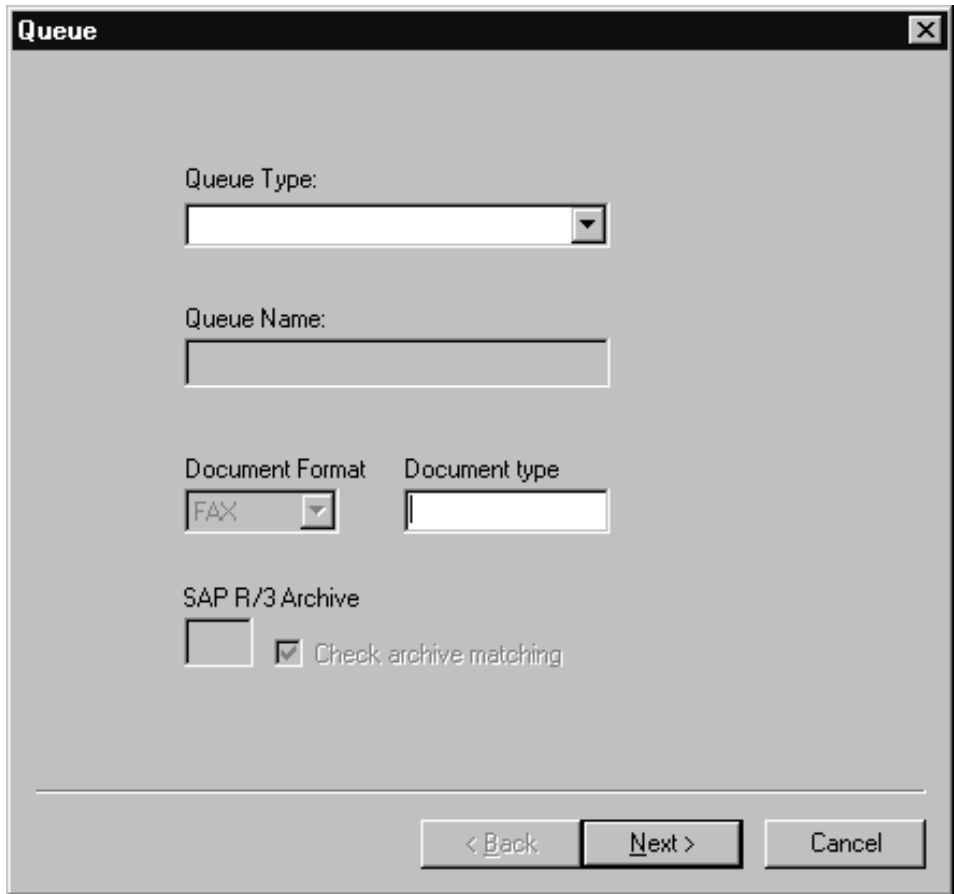


Figure 4. The Queue panel

In this panel, you will specify the settings for the queue, as follows:

- Queue Type** Choose the module corresponding to your type of scanning application (see also “Modules” on page 31). In the drop-down list, you can choose only from a list of modules which have already been loaded. Modules can be loaded in the setup dialog (see “3.1.2 Setting up the CMCS Archiving Client” on page 29).
- Queue Name** Enter a name that reveals the purpose of this queue, such as Invoices, if this queue will be used to archive incoming invoices. This field needs not to be entered if you have chosen the queue type **Content Manager Queue**.

Document Format

Due to the fact that, in earlier releases, SAP supported only a restricted number of document formats, CMCS offers the possibility of extending the list of formats which can be displayed — provided OLE and Browser Viewing are used for displaying the document. This can be done as follows:

1. In SAP customize OLE for FAX document class for both
 - Archiving (see Perform Archiving Early Archiving with OLE)
 - Viewing (see Viewing documents via OLE)
2. In the CMCS Archiving Client, you must choose the format of the of the documents in that queue when setting up a queue, e.g. GIF for documents in gif format.

Note

Select the appropriate radio button for the document class in the SAP customizing, e.g. **FAX** if you want to customize viewing documents archived in TIFF format or **PDF** if you want to customize viewing documents archived in PDF format.

Note

Not all document formats are supported by all versions of the CMCS Server. The CMCS Archiving Client will therefore display a list of document formats corresponding to the supported formats of the CMCS Server version to which it is connected.

When archiving a document, the CMCS Server will receive information on the document's real format (e.g. GIF) and will save this information.

3. If Browser Viewing is used by the CMCS Viewing Client, the CMCS Server will check for the saved format information when receiving a call for displaying an archived document, and will send format information to the Web browser, which in turn will launch the proper plug-in for that document format.

Note

The plug-in must be installed and registered with the browser on the viewing workstation.

The CMCS Server will send format information to the Web browser by setting the MIME type. With the CMCS Server package, a file named `csmimes.properties` is installed. This file contains the 1-to-1 mapping of the document format to the corresponding MIME types.

Excerpt from the CMCS Server file `csmimes.properties` :

```
FAX=image/tiff
PDF=application/pdf
```

If these MIME types do not correspond to your environment, please edit the entries appropriately.

- | | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Document type | The CMCS Archiving Client is able to perform Early Archiving without OLE and not triggered from SAP GUI as in older releases. Therefore you have to specify the SAP WFL document type that should be used for Early Archiving. When archiving incoming invoices you may specify e.g. FIINVOICE. |
| SAP R/3 Archive | Enter the name which is customized in R/3 (transaction code OAC3) for the SAP document class that is to be handled by this CMCS Archiving Client queue. |
| Check matching | If this check box is enabled, the system always checks during archiving via Object Linking and Embedding (OLE) to determine whether the SAP-entered SAP R/3 archive ID specified in the setting above corresponds to the archive ID received with the OLE call. It is recommended that this checking facility be enabled. |

Module dependent settings

Depending on the module which you selected under Queue Type in the Queue panel, one of the following three panels for entering module-dependent settings will appear.

The "Directory Queue" panel

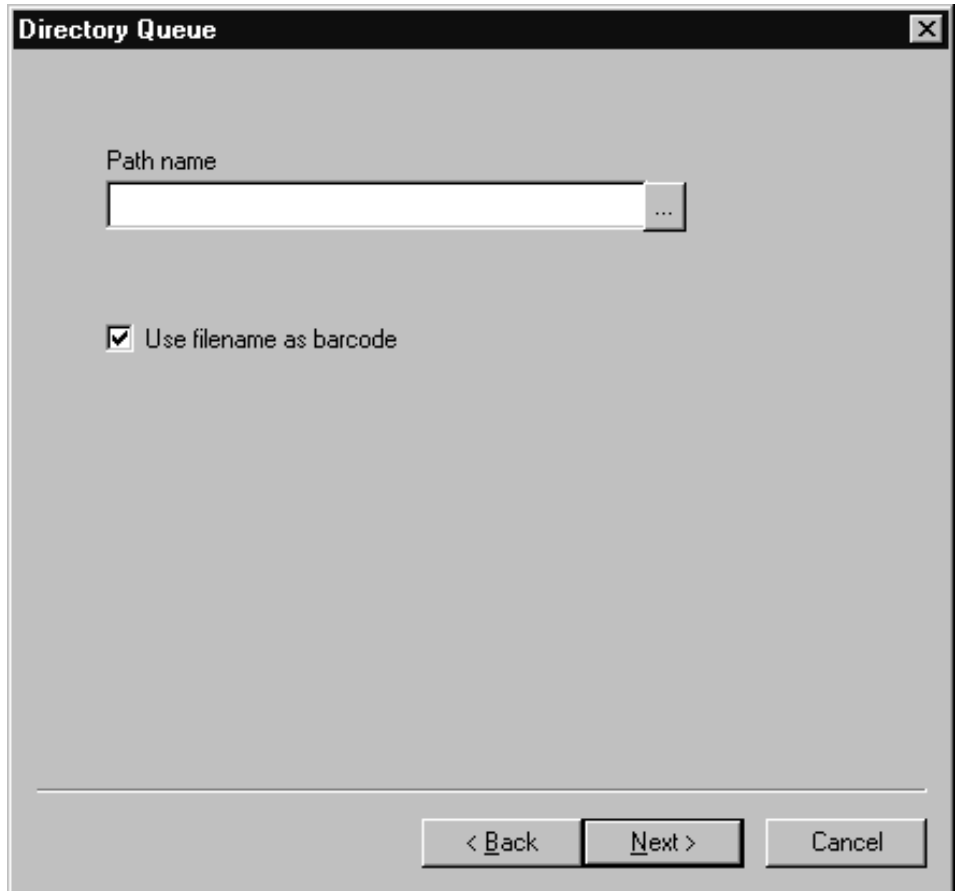
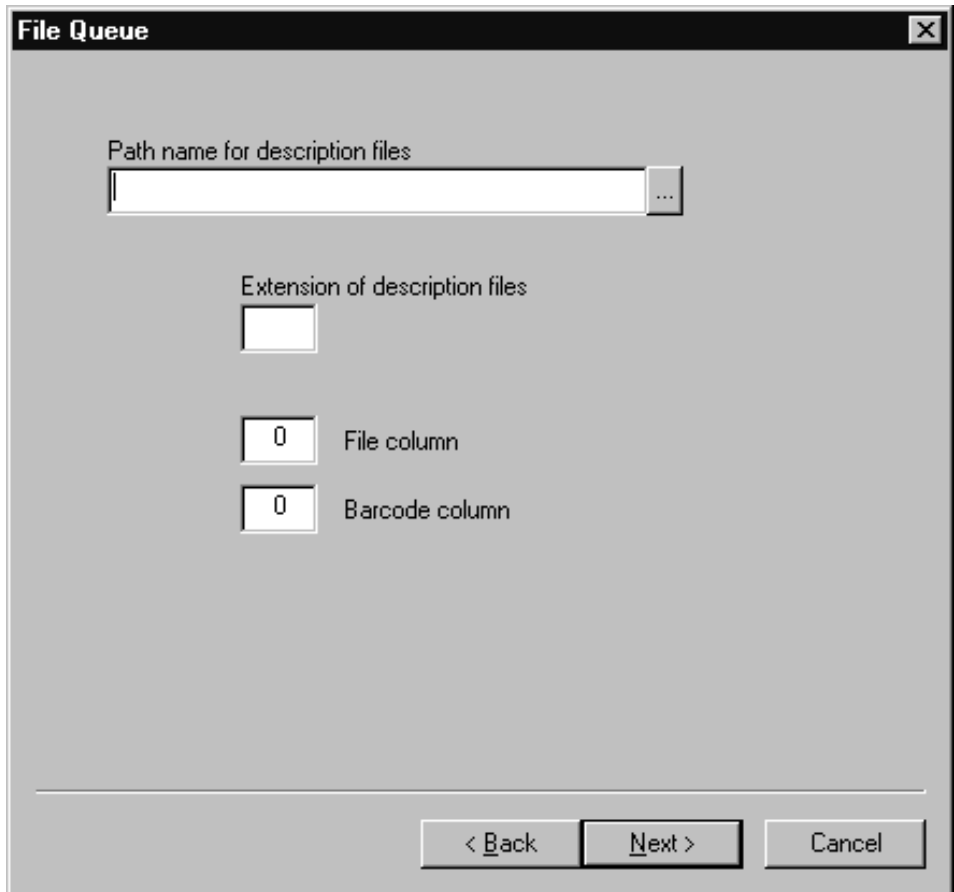


Figure 5. The Directory Queue panel

Enter the following settings:

- | | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Path Name | Path where the CMCS Archiving Client expects the electronic documents to be created by the scanning application. For example, if the scanning application is set up to create electronic documents representing invoices in the directory <code>c:\csclient\Invoices</code> , then enter exactly this path. You can browse through the file system using directory browser button. |
| Use file name as barcode | If this check box is enabled, the file's name is used as the barcode. If it is disabled, there is no information about the barcode. |

The "File Queue" panel



The screenshot shows a dialog box titled "File Queue" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- A text input field labeled "Path name for description files" with a directory browser button (three dots) on the right.
- A text input field labeled "Extension of description files".
- A numeric input field containing "0" labeled "File column".
- A numeric input field containing "0" labeled "Barcode column".
- At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

Figure 6. The File Queue panel

Enter the following settings:

Path name for the description files

Path where the CMCS Archiving Client expects the scanning application to create the description files for the documents handled by this queue. E.g. if the scanning application is set up to create the description files for scanned invoices in the directory `c:\csclient\Invoices`, then you have to enter this path. You can browse through the file system using the directory browser button.

Extension of description files

Enter the name of the extension of the description files. Thus, if the description file is named e.g. `batch1.txt`, enter `txt` in this field.

File column

Enter the number of the column which holds the file name in the description file.

Barcode column

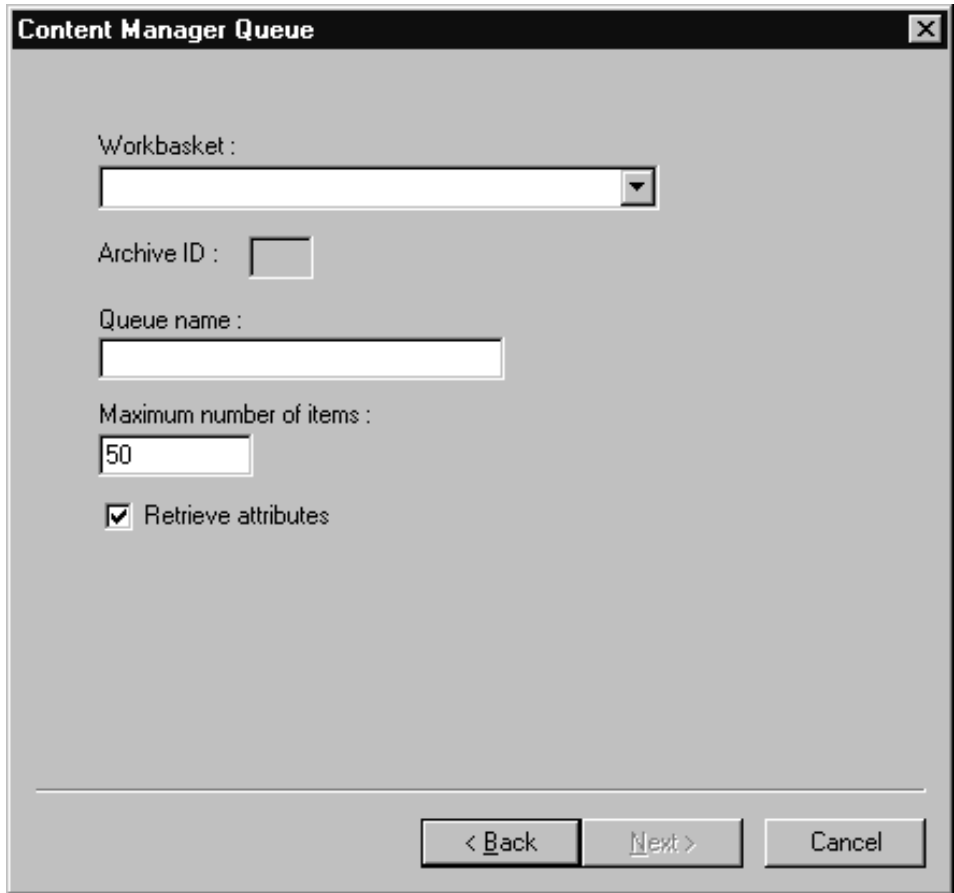
Enter the number of the column which holds the barcode in the description file. Enter 0 if the barcode information is to be ignored. For example, if an entry in the description file has the following appearance:

"Barcodes"1289003"d\csclient\queues
\invoices\doc1.tif" then it is obvious that (counting from left to right) the word 'Barcodes' is in column 1, the current bar code value is in column 2, and the fully qualified name (path + file name) of the file is in column 3. Therefore, set the following values:

File column 3

Barcode column 2

The "Content Manager Queue" panel



The screenshot shows a dialog box titled "Content Manager Queue". It features a "Workbasket" dropdown menu, an "Archive ID" text field, a "Queue name" text field, and a "Maximum number of items" text field with the value "50". A checkbox labeled "Retrieve attributes" is checked. At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

Figure 7. The Content Manager Queue panel

When using the Content Manager module (VIQueue), only documents from Content Manager workbaskets configured in the CMCS server configuration profile can be processed.

Enter the following settings:

Workbasket

The Workbasket box lists all Content Manager workbaskets, available by the contacted CMCS server. If there are no scan workbaskets customized in the CMCS server, a message is displayed. You have to change the CMCS server settings (default name: archint.ini).

Queue name	The name of the queue is received from the CMCS server automatically when choosing a workbasket from the list. The queue name can be changed manually if necessary. Changing the name does not affect the settings in the CMCS server.
Maximum number of items	The maximum number of document items retrieved by one call, when importing documents from a Content Manager queue.
Receive Attributes	Check this check box in order to retrieve additional information (barcode and scan date) of the documents when importing them. Due to this is an performance relevant action, you are given the option of declining this offer if you do not need this information. This might be the case e.g. when archiving via OLE or Early Archiving w/o OLE.

The Finish Panel

Press the **Finish** button in order to make the newly allocated queue available in the CMCS Archiving Client. If you decide to not create the queue during the previous steps, click the **Cancel** button and everything is discarded and the wizard will be closed.

3.1.4 Distributing the CMCS Archiving Client to other PCs

If you do not want to run through the CMCS Archiving Client installation and setup procedure for each PC on which it is to be installed, the following steps must be performed:

1. Perform the primary installation as described in "2.2.1.1 Installing the Package" on page 19
2. Run through the setup and enter your settings as described in "3.1.2 Setting up the CMCS Archiving Client" on page 29
3. Choose the menu path **Setup->Save settings to file** in order to save the settings you have done to the file `CSArch.ini`.
4. Copy the CMCS Archiving Client installation directory to the other PCs.
5. Copy the CMCS API-DLL (i.e. `CSCClient.dll`), which is located in the windows system directory, to the other PCs.
6. Copy the previous created file `CSArch.ini` into the installation directory on the other PCs.
7. Run the CMCS Archiving Client on the other PCs for taking the settings from the `CSArch.ini` into the Windows registry.

Chapter 3.2 CMCS Viewing Client

Overview

Before the CMCS Viewing Client can be used there are several customizing steps which have to be performed after the installation. In “3.2.1 Getting started” you can find a listing of the steps that have to be performed in order to get the CMCS Viewing Client running for working with it. “3.2.2 Setting Up the CMCS Viewing Client” describes in detail how to set up the CMCS Viewing Client.

3.2.1 Getting started

The following steps need to be performed before you will be able to use the CMCS Viewing Client for viewing:

1. Install the CMCS Viewing Client. See “2.2.2.1 Installing the package” on page 20.
2. Perform the CMCS Viewing Client setup. See “3.2.2 Setting Up the CMCS Viewing Client”.
3. Make sure that the value for the keyword *ARCHWINS* in the CMCS Server profile (i.e. *archint.ini*) is *greater than zero!*
4. For viewing documents via OLE, run through the customization procedure explained in “Chapter 4.4 Viewing Documents via OLE” on page 63.

3.2.2 Setting Up the CMCS Viewing Client

Every time you run the CMCS Viewing Client, the setup dialog is launched automatically. If this is the first time you run the CMCS Viewing Client it is necessary to do some basic settings that might be changed later.

Note:

It is recommended that you use the path of the installation directory as the work path and as the location of all CMCS Viewing Client files (trace file, API-DLL trace file, log file) in order to have all of the files at the same location.



Within the appearing panel you need to make different settings explained in detail below. By clicking the **OK** button a validity check on the settings is performed and they will be saved if correctly. The **Cancel** button discards all changes and the panel is closed.

Note

When the setup panel is started it performs a connection check to the specified CMCS Server in order to refresh the connection state icon in the setup panel.

Server Connection

This group holds all connection related settings.

Host name/IP address	Name or IP address of the machine which the CMCS Server is running on. Default value is 127.0.0.1.
Port	Port number specified in the CMCS Server configuration file (default name: archint.ini) under the keyword <i>ARCHWIN_PORT</i> . Default value is 5500.
Test	The Test button can be used for checking the connection between the CMCS Archiving Client and the CMCS Server. If a connection could be established you can see a green circle  right beside the button and in the status bar otherwise a red cross  will display that no connection could be established.

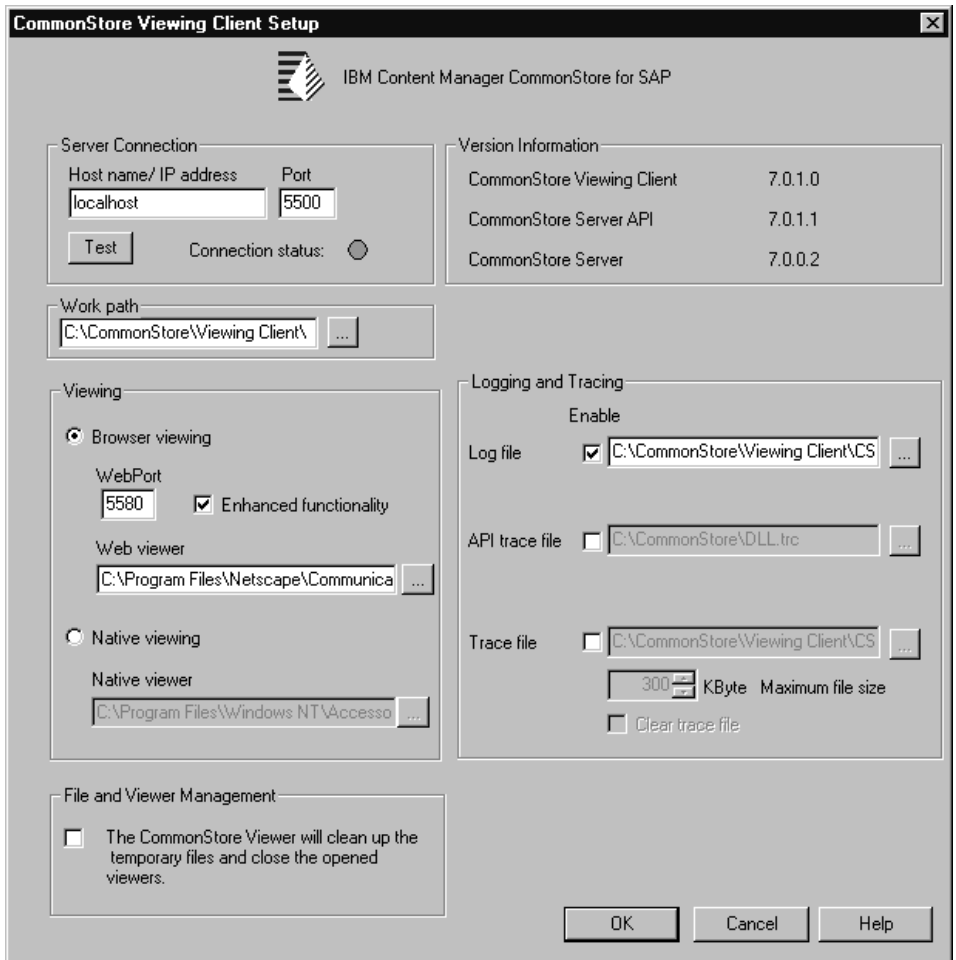


Figure 8. CMCS Viewing Client Setup

Work path

The Work path is set to the installation directory by default but can be changed if necessary. The CMCS Viewing Client uses this directory for processing various tasks. Temporary files will be allocated in this directory.

Enter the directory name either manually or use the directory browser button.

Viewing

Beginning with release 2.x of the CMCS Viewing Client, it is possible to choose between Browser Viewing or a non-Web viewer for displaying documents via OLE.

Browser viewing	Select this radio button if you want to use Browser viewing. This facility is enabled only if the CMCS Server is reachable.
WebPort	The WebPort is filled in automatically if you click the Test button and the CMCS Server can be reached assuming you are connecting to a version 7 CMCS Server. Otherwise you have to enter the WebPort manually.
Enhanced functionality	If this check box is disabled just the document will be displayed. Otherwise, when displaying the requested document, buttons will be supplied for extra features like the Process note and the Mailing applet
Web viewer	Enter the full qualified file name of the browser which should be used for viewing documents or browse the file system using the file browser button. By default the Netscape Communicator is used.
Native Viewing	Select this button if you want to use as native viewing application.
Native viewer	Enter the full qualified file name of the application which should be used for viewing documents or browse the file system using the file browser button. By default the Wang Image Viewer is used.

File and Viewer Management

In order to display the requested documents, the CMCS Viewing Client will allocate temporary files in the file system and will launch the viewer as configured.

Starting with SAP release 4.5, SAP has changed the strategy of sending close calls to viewers. The viewer and file management has therefore been extended to handle this new behavior. If the check box is enabled, the CMCS Viewing Client will react to all the closing calls received. Reacting to the closing calls refers to deleting temporary files from the file system and closing all the viewers launched by the CMCS Viewing Client. If the check box is disabled, the CMCS Viewing Client will keep the launched viewers opened and will not delete the temporary files.

In order to make displaying less error-prone for SAP users, it is possible to allow only one document to be displayed at a time. This prevents the SAP user from entering a wrong booking by looking at a wrong document. In

order to enable this single display mode, you will need to customize the SAP OLE function as specified in “4.6.12 Customizing the ArchiveLink application for closing a viewer window” on page 74

Version Information

This group displays the versions of the CMCS Viewing Client, the CMCS Server API (CSCClient.dll) and the CMCS Server if a connection is established.

Logging and Tracing

The CMCS Viewing Client provides logging and tracing facilities. If logging is enabled, the CMCS Viewing Client writes a protocol with performed actions into a log file. In case of any errors additional information will be written. For more detailed information e.g. in the case of an error, the tracing facility has to be enabled which writes detailed information into a trace file. Due to inherent performance burden, it is recommended that the tracing facility is enabled only if errors occurring. In error cases the CMCS Server API tracing facility can be enabled in order to get more detailed information about the communication steps between the CMCS Viewing Client and the CMCS Server.

In front of the text field for each file name there is a check box for enabling or disabling the according facility. If a facility is disabled all the regarding fields are grayed.

Log file	Enter a full qualified file name (incl. full path) for the log file e.g.: C:\CSCClient\CSVview.log or use the file browser right beside the text field.
API trace file	Enter a full qualified file name (incl. full path) for the API-DLL trace file e.g. C:\CSCClient\DLL.trc or use the file browser right beside of the text field.
Client trace file	Enter a full qualified file name (incl. full path) for the trace file e.g.: C:\CSCClient\CSVview.trc or use the file browser right beside of the text field.
Maximum file size	Enter a maximum size in kilobytes which you allow the trace file to occupy on the disk. If the specified size is exceeded, the trace file will be truncated. The maximum file size you may enter is 10240 kilobytes
Clear trace file	Enable this check box only if you want to clear the trace file each time the CMCS Viewing Client is started. It is recommended that the trace file is not cleared (unchecked). This is because if ever highly intermittent errors occur, as much data as possible about all preceding actions is needed to be able to analyze the cause.

If all settings have been customized commit them by clicking the **OK** button or the **ENTER** key. The entries you made will be verified and a connection

check to the CMCS Server is done, if the connection parameter where changed. If the verification was ok, the dialog will be closed and all the settings saved in the `CSCClient.ini` otherwise you will get a error message.

The changes you have performed can be discarded by clicking the **Cancel** button or the **ESC** key.

3.2.3 Distributing the CMCS Viewing Client to other PCs

If you don't want to run through the CMCS Viewing Client installation procedure for each PC on which it is to be installed, the following steps must be performed:

1. Perform the primary installation as described in "2.2.2.1 Installing the package" on page 20.
2. Run through the setup and enter your settings as described in "3.2.2 Setting Up the CMCS Viewing Client" on page 43.
3. Propagate (copy) the installation directory of the CMCS Viewing Client to the other PC.
4. Propagate the CMCS DLL (i.e. `CSCClient.dll`), which is located in the Windows directory, to the other PC.
5. Propagate the CMCS Client configuration profile to the other PC. This profile must be named `CSCClient.ini` and must reside in the Windows directory for it to be taken into account by the CMCS Viewing Client.
6. The CMCS Viewing Client must be started at least once on the other PC to register itself in the Windows registry.

Chapter 3.3 CMCS API-DLL

The CMCS API-DLL is an intermediate layer located between applications on end-user workstations and the CMCS Server. It is used by

- the CMCS Archiving Client,
- the CMCS Viewing Client and
- the SAP ArchiveLink Viewer.

All three applications use the CMCS API-DLL in order to contact the CMCS Server when archiving documents or requesting documents for viewing.

The CMCS API-DLL is part of the CMCS Viewing Client Package as well as of the CMCS Archiving Client package and is copied to the Windows system directory during the installation. The DLL needs the CMCS Client configuration profile (i.e. `CSCClient.ini`) in order to run, but only the settings of the keywords in section `[ARCHPRO_CONNECTIONPARAMETER]`. The parameters for establishing the connection to the CMCS Server are:

Server Name or TCP/IP address of the machine on which the CMCS Server is running.

Port Port number specified in the CMCS Server profile (i.e. `archint.ini`) under the keyword `ARCHWIN_PORT`.

The CMCS API-DLL supports a separate detailed tracing of all CMCS API-DLL function calls. DLL tracing should be activated only in case of error situations. API-DLL tracing is controlled by the following keywords:

DLLTracefile

Fully qualified file name (path + file name) of the API-DLL trace file, e.g.: `c:\CSCClient\CSD11.trc`.

DLLTracelevel

Enter 0 in order to disable API-DLL tracing or 1 in order to enable tracing.

DLLTraceMax

Specifies the maximal size of the API-DLL trace file in KB. The default value is 1024, meaning 1 MB.

3.3.1 Viewing documents with the SAP ArchiveLink Viewer

For the exclusive use of the ArchiveLink Viewer for displaying documents, no parameters in the CMCS Client configuration profile `CSCClient.ini` other than those specified above are required.

In order to enable viewing via the ArchiveLink Viewer, you must ensure that the *ArchiveLink functionality*, too, is installed on the workstation when installing the SAP GUI. For this reason, the clicker for ArchiveLink must be enabled in the SAP GUI installation procedure.

After finishing the installation of the SAP GUI, you must configure the installation by running the program `setup_al.exe`. You will be asked for an archive ID and the DLL of the archive vendor (i.e. `CSCClient.dll`). For releases 3.x of `setup_al.exe`, you must explicitly specify each archive ID contacted for viewing. Starting with release 4.0, you can keep default as the archive name in order to contact `CSCClient.dll` for all viewing calls.

`setup_al.exe` will configure two files: `archlink.ini` and `alviewer.ini`.

After the setup procedure, `archlink.ini` and `alviewer.ini` contain the entries specified in Figure 9 and Figure 10 on page 51.

After the setup, please make sure that the sections displayed in **boldface** in Figure 9 and Figure 10 on page 51 fit your environment.

```
[ArchiveLink]
Archives=A1,AR,D1,CN,
Path=D:\programs\sapgui\archlink\
DisplayTypes=FAX,OTF,ALF
[Logging]
LogFile=ALINKLOG.TXT
MaxFileSize=100000
LogLevel=500
[Archive-A1]
ArchiveLinkDLL=CSCClient.dll
[Archive-AR]
ArchiveLinkDLL=CSCClient.dll
[Archive-D1]
ArchiveLinkDLL=CSCClient.dll
[Archive-CN]
ArchiveLinkDLL=CSCClient.dll
[Scan]
DdeService=viscan
DdeTopic=viscan
[FAX]
DdeService=SAPArchiveLink
DdeTopic=*
Path=ALVIEWER.EXE
[OTF]
DdeService=SAPArchiveLink
DdeTopic=*
Path=ALVIEWER.EXE
[ALF]
DdeService=SAPArchiveLink
DdeTopic=*
Path=ALVIEWER.EXE
```

Figure 9. Sample excerpt from `archlink.ini`

```

[ALViewer]
Path=D:\programs\sapgui\archlink
Archives=A1,AR,D1,CN,
x=451
y=73
dx=769
dy=537
[Logging]
LogFile=ALINKLOG.TXT
MaxFileSize=100000
LogLevel=500
[ImageDisplay]
MinResolution=60
BackgroundColor=192,192,192
ScaleAlwaysToWindow=0
ScaleToGrey=0
LeftMouseButton=1
[International]
D=DEU
E=ENG
X=DEU
[InitialLanguage]
LanguageMarker=D
[IXMemo]
BackgroundColor=255,255,64
Signature=\n © %D.%M.%Y, %h:%02m %[SAPUSER] \n
[Cache]
MaxFiles=50
[Archive-A1]
ArchiveLinkDLL=CSCLIENT.DLL
[Archive-CN]
ArchiveLinkDLL=CSCLIENT.DLL
[Archive-AR]
ArchiveLinkDLL=CSCLIENT.DLL
[Archive-D1]
ArchiveLinkDLL=CSCLIENT.DLL

```

Figure 10. Sample excerpt from *alviewer.ini*

For further information, please refer to the *SAP WF ArchiveLink* manual on the SAP Documentation Print Files CD-ROM and the description of the ALSETUP program on the SAP Presentation CD-ROM.

Note:

The features described in “3.3.2 Viewing documents from multiple SAP Systems” on page 52 and “3.3.3 Caching at the client side” on page 53 are *optional*. Don’t add the entries specified in these two sections if you don’t need the features, as this may have an impact on the performance.

3.3.2 Viewing documents from multiple SAP Systems

When using the settings in the CMCS Client configuration profile `CSCClient.ini` as specified above, only that instance of CMCS Server identified by the settings for 'Server' and 'Port' will be contacted. As a consequence, only the documents of that R/3 System can be displayed which is served by the specified CMCS Server.

In order to allow viewing of documents from multiple R/3 systems, the `CSCClient.dll` needs to connect to multiple CMCS Servers, since one CMCS Server connects to just one SAP system. This means that the API-DLL will contact in a round-robin procedure a specified set of CMCS Servers for handling a certain request. In general, the CMCS Server which could successfully handle a request becomes the so-called active CMCS Server. The next request is always send first to the active CMCS Server. If it is not possible to retrieve the requested document from the active CMCS Server instance, the next CMCS Server will be contacted until this request is handled successfully or all of the listed CMCS Servers have been contacted. The CMCS Server which handled the request successfully will again be set active and the next request will be sent to this CMCS Server instance. If the request finishes successfully, the document will be displayed. An error message will be sent to the SAP system only when all listed CMCS Servers have returned an error.

For all CMCS Servers which need to be contacted from the current workstation, please add entries to the CMCS Client configuration profile `CSCClient.ini` as shown below.

Server:

Name or IP address of the first instance of the CMCS Server

Port: Port of the first instance of the CMCS Server

Server_2:

Name or IP address of the second instance of the CMCS Server

Port_2:

Port of the second instance of the CMCS Server

... and so on.

`CSCClient.dll` will read the settings starting with the settings for 'Server' and 'Port', continuing with 'Server_2' and 'Port_2', and so on. The first entry will be used when the first call arrives.

Note:

The order in which these entries are specified is not important: E.g.: You can specify 'Server_2' and 'Port_2', 'Server' and 'Port', and then 'Server_3' and 'Port_3'.

Note:

The entries will be read until a gap is encountered. Thus, if you have specified 'Server' and 'Port', 'Server_2' and 'Port_2', and then 'Server_4' and 'Port_4', the API-DLL will take only the first two entries into account.

When multiple instances of the CMCS Server are customized in the CMCS Client configuration profile `CSClient.ini`, it is recommended that you deactivate the message box of the API-DLL which pops up in case of a connection error to a CMCS Server. This is achieved by setting the parameter `Interactive=0` (see example Figure 11 on page 54). The default is `Interactive=1`.

3.3.3 Caching at the client side

The CMCS API-DLL supports the caching of retrieved documents at the end-user workstation. When caching is enabled, complete documents and query information is stored in the local cache. Caching is enabled by the keyword `CachePath` specifying the directory for the cache (when left empty, caching is disabled). This directory must exist, or else caching is disabled. `CachePath` should specify a separate directory, since all files in the cache are deleted when the `CacheMax` limit is exceeded. `CacheMax` specifies the maximal size of the cache in KB. When the total size of all files in the cache exceeds this limit, all files are deleted before the next file is stored in the cache.

CachePath

Specifies the directory for the cache (must exist!)

CacheMax

Specifies the maximum size of the cache in KB. The default value is 10240, meaning 10 MB.

The following excerpt from the CMCS Client configuration profile `CSClient.ini` shows example settings for all API-DLL topics discussed in this chapter.

```
[ARCHPRO_CONNECTIONPARAMETER]
Server          =      w3362117
Port            =      5500
Server_2        =      w3362117
Port_2          =      5502
Server_3        =      archifix
Port_3          =      8017

D11Tracefile=E:\CSClient\d11.trc
D11TraceLevel=1
D11TraceMax=1024

Interactive=0

CachePath=E:\CSClient\cache
CacheMax=10240
```

Figure 11. Sample excerpt from the CMCS Client configuration profile CSClient.ini

Part 4. SAP Customizing guide

Chapter 4.1 Early Archiving via OLE

Early Archiving via OLE is an SAP archiving scenario for incoming documents including the SAP Business Workflow. In order to get this scenario working you need to proceed as follows:

1. Setup the SAP Workflow parameters and document types. See also “4.6.1 SAP Workflow” on page 67.
2. Register the CMCS Archiving Client application in the SAP system. See also “4.6.2 Registering an OLE application in SAP” on page 68.
3. In SAP release 3 you need to load the TypeLib information for the CMCS Archiving Client. See also “4.6.3 Loading the TypeLib information” on page 68.
4. Create an ArchiveLink application for the CMCS Archiving Client. See also “4.6.4 Creating an ArchiveLink application” on page 69.
5. Customize the ArchiveLink application for archiving via the CMCS Archiving Client. See also “4.6.5 Customizing the ArchiveLink application for the CMCS Archiving Client” on page 69.
6. Create an ArchiveLink protocol. See also “4.6.6 Creating an ArchiveLink protocol” on page 70.
7. Customize the ArchiveLink protocol for archiving via the CMCS Archiving Client. See also “4.6.8 Customizing the ArchiveLink protocol for archiving via the CMCS Archiving Client” on page 71.
8. Create an entry in the link table for the document type used for early archiving. See also “4.6.7 Creating an entry in the link table for the document type used for early archiving” on page 70.

Chapter 4.2 Early Archiving without OLE

Since SAP release 4.6C the SAP Business Workflow can be triggered via the ArchiveLink interface. Content Manager CommonStore supports this new archiving scenario for incoming documents beginning with version 7. In order to get this scenario working proceed as follows:

1. Setup the SAP Workflow parameters and document types. See also “4.6.1 SAP Workflow” on page 67.
2. Register the CMCS Archiving Client application in the SAP system. See also “4.6.2 Registering an OLE application in SAP” on page 68.
3. In SAP release 3 you need to load the TypeLib information for the CMCS Archiving Client. See also “4.6.3 Loading the TypeLib information” on page 68.
4. Create an entry in the link table for the document type used for early archiving. See also “4.6.7 Creating an entry in the link table for the document type used for early archiving” on page 70.

Chapter 4.3 Late Archiving with barcode

Late archiving with barcode is one of the most used scenarios for archiving incoming documents. At SAP side you have to do different settings before using it:

1. Customize barcode storing for the object type you want to use e.g. BKPF by using transaction **OAC5**. For detailed information on how setting up the object types see the SAP documentation.
2. The SAP barcode types need to be checked/customized for your purposes. Use transaction **OAD4** for checking the settings. For detailed information check the SAP documentation.
3. The SAP application you want to integrate must be enabled for late archiving with barcode.

Look up more detailed information on SAP customizing for late archiving with barcode in the SAP documentation.

Chapter 4.4 Viewing Documents via OLE

For viewing documents via OLE using the CMCS Viewing Client you have to do some SAP OLE customizing similar to the CMCS Archiving Client.

Proceed as follows:

1. Register the CMCS Viewing Client in SAP. See also “4.6.2 Registering an OLE application in SAP” on page 68.
2. In SAP release 3 you need to load the TypeLib information for the CMCS Viewing Client. See also “4.6.3 Loading the TypeLib information” on page 68.
3. Create an ArchiveLink application for the CMCS Viewing Client. See also “4.6.4 Creating an ArchiveLink application” on page 69.
4. Customize the ArchiveLink application for viewing via the CMCS Viewing Client. See also “4.6.9 Customizing the ArchiveLink application for viewing via the CMCS Viewing Client” on page 72.
5. Create an ArchiveLink protocol. See also “4.6.6 Creating an ArchiveLink protocol” on page 70.
6. Customize the ArchiveLink protocol for viewing via the CMCS Viewing Client. See also “4.6.10 Customizing the Archlink protocol for viewing documents” on page 73.

Chapter 4.5 Viewing Printlists via SAP ArchiveLink

For viewing print lists you may use the SAP GUI or the SAP ArchiveLink viewer. In order to get this working you need to proceed as follows:

1. Create an ArchiveLink protocol. See also “4.6.6 Creating an ArchiveLink protocol” on page 70
2. Customize the ArchiveLink protocol for viewing printlists either via SAP GUI or via the SAP ArchiveLink Viewer. See also “4.6.10 Customizing the Archlink protocol for viewing documents” on page 73
3. Enable extended ALF viewing for viewing printlists with hyperlinks. See also “4.6.11 Enabling extended ALF viewing” on page 74.

Chapter 4.6 Collection of SAP Customizing Steps

4.6.1 SAP Workflow

The SAP Business Workflow is part of SAP ArchiveLink within the BC module. In order to get the Workflow working you need to perform several SAP ArchiveLink customizing that can be done by the IMG.

Note

The IMG can be carried out by transaction code **SPRO** in all SAP releases up to 4.6.

The Workflow settings can be done within the IMG path **R3->Basis Components->Basis Services->SAP ArchiveLink**.

1. Customize the workflow basic settings. The implementation may differ between SAP releases. The workflow setup can be checked by transaction **SWU3**. Each check item has to be signed by a green hook, otherwise the settings have to be corrected. See SAP documentation for detailed information on this.
2. Customize the document types you want to use for your scenario. Document types are used for linking them with several document classes e.g. **FIINVOICE** to **FAX**, which is needed for controlling storing and display documents. Documents can be maintained in transaction **OAC2**.
3. Customize workflow document types in order to assign workflow tasks to the document types you are using. This can be done in transaction **SOA0**. Either the standard tasks or self created workflow templates can be used. The **FIINVOICE** document type, the following settings are default:

Process type	NCI_INPUT
Object type	BKPF
Object type	CREATE
Task	TS7869

For more detailed information see SAP documentation.

4. Create fast entries for the workflow document types. Use transaction **OAD5**. Depending on the SAP release level either a transaction opens or up from release 4.5 a wizard pops up.

Note

In higher SAP releases the "Fast entry" is called "presetting" but has the same meaning.

For more detailed information about setting up the SAP Business Workflow see the SAP documentation.

4.6.2 Registering an OLE application in SAP

To register an application in the SAP system, proceed as follows:

1. Use transaction code **SOLE** . A panel will appear.
2. Press the **Change** button.
3. Press the **New entries** button.
4. Enter the following settings:

CMCS Archiving Client

OLE application	CCLIENT.DOCUMENT
CLSID	{C8452EF3-19FE-11D1-A16E-0004AC62FCBA}
Type Info key	NO_TYPELIB

CMCS Viewing Client

OLE application	OLEDISPA.DOCUMENT
CLSID	{45526A21-AA41-11CF-B90A-0004ACED415F}
Type Info key	NO_TYPELIB

5. **Save** the settings. This information will enable the SAP GUI to detect the executable of the CMCS Archiving Client or the CMCS Viewing Client via the Windows registry.

4.6.3 Loading the TypeLib information

To load the TypeLib information for either the CMCS Archiving Client or the CMCS Viewing Client, proceed as follows:

1. Use transaction code **SOLI** . A panel will appear.
2. Highlight the application you have customized previously and press the **Load Type Info** button. This setting will be used for the communication between the SAP GUI and the CMCS Clients.

4.6.4 Creating an ArchiveLink application

If it is necessary to create an ArchiveLink application, proceed as follows:

1. Press the **New application** button. Enter a logical name for the application (e.g. CSARCH for the CMCS Archiving Client) and press the **Continue** button.
2. Click the **Save** button.

4.6.5 Customizing the ArchiveLink application for the CMCS Archiving Client

To customize the ArchiveLink application for archiving via the CMCS Archiving Client, proceed as follows:

1. Use transaction code **OAA4** . A panel will appear.
2. Double-click the ArchiveLink application you want to customize, e.g. CSARCH (for information on how to create a new ArchiveLink application see "4.6.4 Creating an ArchiveLink application"). A list of ArchiveLink functions will be displayed.
3. Highlight **Archive from frontend** (the fourth entry in the list!).
4. Depending on your SAP release click either the OLE button or double click the selected entry following a panel for setting up the OLE communication will appear.
5. Enter settings as shown below:

Note

It is mandatory that the entries be specified in the following order.

Application	CSCLIENT.DOCUMENT
Select radio button	Command
M	SetAID @AID
M	doQueueArchive =@DID
G	@EID =EID

Note

Make sure that the correct radio buttons are selected for the specified command. When the radio button **M** is selected, the setting specified in the **Command** column will be treated as a *method*. When the radio button **S** is selected, the setting in the **Command** column will be used in order to set an attribute in the CMCS Archiving Client. When the radio button **G** is selected, the setting in the **Command** column will be used in order to *get the value* of an attribute from the CMCS Archiving Client.

4.6.6 Creating an ArchiveLink protocol

If it is necessary to create an ArchiveLink protocol, proceed as follows:

1. Use transaction code OAA3 .
2. Press the **New protocol** button. A panel will appear.
3. Enter the following settings:

Protocol	for example: CSPRT (logical name)
Version	Choose the highest version, depending upon the release of your R/3 System. Note: In general, you should use the version corresponding to your SAP system, e.g. for SAP release 3.1, use 0031 . Never use 0040 as this SAP protocol version has a bug.
Description	Enter information on this protocol.

4. Click the **Save** icon.

4.6.7 Creating an entry in the link table for the document type used for early archiving

Depending on the entries in the link table SAP allocates archives to documents. To create an entry in the link table for the document type used for early archiving, proceed as follows:

1. Use transaction code **OAC3** . A panel will appear.
2. Create an entry for the document type for which you want to perform early archiving. For example: For incoming invoices without verification, you need an entry with the following settings:

Obj.type	BKPF
Doc.type	FIINVOICE

Check to see whether there is already an entry in your link table with these settings. If there is such an entry, you may update only the **Arch.ID** for this entry. In order to create a new entry, proceed as follows:

- a. Press the **Change** button. The panel turns into change mode.
- b. Press the **New Entries** button.
- c. Enter the following settings into the appearing form:

Object type	Object type which the document type is from (e.g. BKPF)
Document type	Document type (e.g. FIINVOICE)
Status	X
Opt. archive ID	Archive ID of the archive the documents should be put in (e.g. A1)
Link	Table for storing link data of archived documents (e.g. TOA01)
Retention per.	(leave blank)

Note

In newer SAP releases the fields may have different names e.g. Opt.archive ID is called Content Server in release 4.6.

- d. Click the **Save** icon button.

Note

Please check the entry for the object type you have customized e.g. BKPF. (For detailed information see also "Checking the entry in the TOAOM table" in "IBM Content Manager CommonStore for SAP Server Installation and User's Guide")

4.6.8 Customizing the ArchiveLink protocol for archiving via the CMCS Archiving Client

To customize the ArchiveLink protocol for archiving via the CMCS Archiving Client, proceed as follows:

1. Use transaction code **OAA3** . A panel will appear.
2. Double-click the protocol to be customized, e.g. **CSPRT** (for information on how to create a new ArchiveLink protocol, see "4.6.6 Creating an ArchiveLink protocol" on page 70). A list of offered functions will be displayed.
3. Double-click **Archive from frontend** (*the fourth entry!*).
4. Select the radio button for the document class FAX.
5. Press the **Edit** button. A panel will appear:

6. Enter the following settings:

Comm. method	OPEN
Application	Enter the application you have customized previously e.g. CSARCH

7. Press the **Continue** button and the panel will disappear.

8. Use the **Save** icon in order to save the protocol settings.

Note

Only after setting **Comm. method** equal to OPEN will the edit box appear in which you can specify the application name.

4.6.9 Customizing the ArchiveLink application for viewing via the CMCS Viewing Client

To customize the ArchiveLink application for viewing via the CMCS Viewing Client, proceed as follows:

1. Use transaction code **OAA4** . A panel will appear.
2. Double-click the ArchiveLink application you want to customize, e.g. CSVIEW or CSARCH (for information on how to create a new ArchiveLink application see “4.6.4 Creating an ArchiveLink application” on page 69. A list of ArchiveLink functions will be displayed.
3. Highlight the **Display object** or (as the case may be) the **Display archived object** entry (the first entry in the list!).
4. Depending on your SAP release click either the **OLE** button or double-click the selected entry. A panel for setting up the OLE communication will appear.
5. Enter settings as shown below:

Note

It is mandatory that the entries be specified in the following order.

Application	OLEDISPA.DOCUMENT
Select radio button	Command
M	SetUID @UID (see Note below)
M	SetAID @AID
M	doView @DID

Note

The OLE method SetUID is necessary only if you want to save the user ID when processing notes via CMCS.

Note

Make sure that the correct radio buttons are selected for the specified command. When the radio button **M** is selected, the setting specified in the **Command column** will be treated as a *method*. When the radio button **S** is selected, the setting in the **Command column** will be used in order to *set an attribute* in the CMCS Archiving Client. When the radio button **G** is selected, the setting in the **Command column** will be used in order to *get the value* of an attribute from the CMCS Archiving Client.

4.6.10 Customizing the Archlink protocol for viewing documents

To customize the ArchiveLink protocol for viewing via the CMCS Viewing Client, proceed as follows:

1. Use transaction code **OAA3** . A panel will appear.
2. Double-click the protocol to be customized, e.g. **CSPRT** (for information on how to create a new ArchiveLink protocol, see “4.6.6 Creating an ArchiveLink protocol” on page 70. A list of offered functions will be displayed.
3. Depending on the SAP release click either the **Display object** or **Display archived object** entry (first entry in the list).
4. Select the document class you want to customize e.g. ALF for print lists, FAX for incoming documents.
5. Click the **Edit** button
6. Enter the following settings:

Comm. method Either OPEN (for FAX), R/3 (for ALF) or standard communication (for FAX and ALF)

Application Enter the application you have customized previously e.g. CSVIEW (only if Comm.method OPEN was selected)

Note

For viewing printlists within the SAP GUI choose communication method R/3. Starting with SAP release 4.5/4.6 print lists with hyperlinks can also be viewed in the SAP GUI. Selecting communication method Standard communication, the SAP ArchiveLink viewer will be used for viewing. The SAP ArchiveLink viewer is only delivered up to SAP release 4.5.

Note

For viewing documents (except print lists) via OLE you have to choose communication method OPEN.

4.6.11 Enabling extended ALF viewing

To enable extended ALF viewing proceed as follows:

1. Use transaction code **RZ10** and **RZ11**.
2. Choose the profile of the SAP R/3 System and add the parameter with the value as specified below:
`rspo/archive_format=2`

4.6.12 Customizing the ArchiveLink application for closing a viewer window

The ArchiveLink interface can call OLE functions in the ArchiveLink application for closing the viewer window when the transaction viewing was started from is left. This mechanism prevents wasting resources on the client workstation. If the CMCS Viewing Client gets a **doCloseWindow** call it closes the current viewing application instance. Follow the step below for setting up the OLE communication in the SAP system:

1. Use transaction code **OAA4**. A panel will appear.
2. Double-click the ArchiveLink application you customized for displaying a document, e.g. **CSVIEW**. A list of ArchiveLink functions will be displayed.
3. Highlight the function **Close window**.
4. Depending on your SAP release click either the **OLE** button or double click the selected entry. A panel for setting up the OLE communication will appear

5. Enter the following settings.

Application

OLEDISPA.DOCUMENT

Select radio button

Command

M

doCloseWindow

Part 5. User's guide

Chapter 5.1 Working with the CMCS Archiving Client

After having installed and configured the CMCS Archiving Client, created the CMCS queues, and saved the working environment to a CMCS Archiving Client file with the extension *.csw*, you can restore this session at any time simply by opening the file in the CMCS Archiving Client.

CMCS Archiving Client GUI

The CMCS Archiving Client's GUI provides the following operating facilities:

- The *menu line* (**File**, **Edit**, etc.). By clicking on one menu entry, the submenus of this entry will be displayed.
- The *toolbar* is a list of graphic symbols, each of which stands for a shortcut to a certain menu entry.
- *Context menus*, which will be displayed when clicking an item with the right mouse button.
- Two *frames* displaying the queues and documents which you are working on.

After having imported documents (see "Importing documents" on page 80) into the CMCS Archiving Client, the two frames of the GUI will be populated as shown in Figure 1 on page 18.

The *left frame* will be used mainly for displaying the structure of the CMCS queues. There are three level of detail:

- The topmost level is the *queue level*.
- The next-lower level is the *document level*.

You can make the next-lower level visible by clicking the + sign. This is referred to as *expansion*.

Several documents may be available in a queue. By expanding a queue entry, all the documents contained in that queue will be listed.

The *right frame* will be used mainly for selecting the documents to be archived or for displaying the contents of a document.

In the status line, information on the status of an action will be displayed. It is very useful in error situations. The middle box will display as first the number of documents currently in the active queue and as second the number

of selected documents of the active queue. The right box in the status line will display the connection status with the CMCS Server by text and icons see also Figure 1 on page 18.

You may switch between the left and the right frame by using the **TAB** key.

Importing documents

To fill the CMCS queue with previously-scanned documents, you first have to select the queue, you want to import, in the left panel. There are 3 ways to get the queue importing:

1. Select **Import** from the context menu appearing when clicking the right mouse button on the queue.
2. Select the menu path **Queue->Import** from the application menu.
3. Press the **Alt+F1** short key.

Due to the previously defined settings, when creating the CMCS queue, the CMCS Archiving Client finds the scanned documents in the specified location and imports them. The documents will be listed from top to bottom in lexicographical order. Each document is identified by name, barcode (if applicable) and creation date.

After having imported documents into a queue the list of documents can be expanded by clicking the plus sign left of the queue name.

You can observe the importing activity in the right frame, where an entry will be added for each imported document.

Stopping importing

An import process may be canceled by one of the following actions:

1. Double click the queue.
2. Select **Stop importing** from the context menu appearing when clicking the right mouse button on the queue.
3. Select the menu path **Queue->Stop importing** from the application menu
4. Press **Alt+F2** short key.

Viewing documents

A highlighted document in the right frame can be viewed by double-clicking this entry. You may also choose **View document** in the context menu or press the **Alt+V** short key.

Viewing documents is done by a Microsoft Internet Explorer ActiveX Control in order to display all document types in one viewer assuming you have

installed the correct plug-ins. If you have installed e.g. the Adobe Acrobat Reader, the corresponding Microsoft Internet Explorer plug-in is installed as well. For viewing TIFF documents you can use e.g. the AlternaTIFF plug-in.

Note

If you are using Microsoft Windows 2000, a Wang Image plug-in for viewing TIFF documents is part of the operating system.

Archiving documents

You may archive individual documents or an entire queue. In addition, you may archive documents automatically, that is, unattended at regular intervals.

You can observe the archiving activity in the right frame where the document stack diminishes with each successfully archived document.

Archiving documents manually

In the right frame, select the document to be archived by clicking it. A colored selection bar will give you visual proof of your selection. If you want to select more than one document, keep the **Shift** or **Ctrl** key pressed while clicking additional documents. Use **Ctrl+A** to select all documents in the selected queue. Depending on which archiving scenario you are using, choose either **Late archiving** or **Early archiving** in the context menu or from **Document** menu. From the sub menus select either **Archive selected item(s)** for archiving the selected items only or **Archive all items** for archiving all items in the queue.

Archiving all items of a queue

Depending on which archiving scenario you are using start archiving by one of the following actions.

Late archiving:

1. Choose **Late archiving** in the context menu of the left frame.
2. Choose the menu entry **Queue->Late archiving**.
3. Use short key **Alt+F6**.

Early Archiving

1. Choose **Early archiving** in the context menu of the left frame.
2. Choose the menu entry **Queue->Early archiving**
3. Use short key **Alt+F5**.

Note

Early Archiving is enabled only if the connected CMCS Server is version 7 or higher and the document type for the dedicated queue is customized (see also “3.1.3 Creating Queues” on page 33).

Stopping archiving

An archiving session may be canceled by clicking in the context menu **Stop archiving->Queue->Stop archiving** or alternatively by using short key **Alt+F7**.

Deleting documents

Deleting documents works only if neither importing nor archiving is in progress for the selected item.

Select the items to be deleted. Choose **Delete document** from the context menu or menu path **Document->Delete document**. Alternatively, hit the **Delete** key or use the short key **Alt+D**.

You will be asked whether the document is supposed to be deleted only from the CMCS Archiving Client’s GUI only or if the electronic document should be deleted from the file system, as well.

Note:

For security reasons, it is not possible to delete electronic documents residing in a Content Manager workbasket directly from the CMCS Archiving Client.

Resetting the error flag

If an error has occurred while archiving, an error flag for this queue will be set and you will be made aware of it by a warning when trying to start a new archiving process. If you decide to continue, the error flag will be reset based on the assumption that the problem may have been fixed in the meantime.

It is also possible to reset the error flag by highlighting a queue in the left frame and choosing **Reset error flag** from the context menu.

Panel functions

This section provides an overview of the actions which can be performed via the menu line.

Menu

The menu consists of key words, such as **File**, **Queue**, etc. explained below.

The "File" menu

The **File** menu allows you to handle files, that is, to open an existing file or to create a new one. A pop-up menu gives you the choice of: **New**, **Open**, **Save**, **Save as...**, and **Exit**. In the following explanations, the associated toolbar icon providing a shortcut to that entry is displayed.



Creates a new CMCS Archiving Client session.



Enables you to reopen a CMCS Archiving Client session by loading the corresponding CMCS file. A file selection box will be displayed where you can browse through your file system and select the CMCS file to be loaded. CMCS files have the extension `.csw`. After loading a CMCS file, the name of the opened file will appear in the titlebar.



Enables you to save the settings of the current CMCS Archiving Client session in a CMCS file. When saving a CMCS session for the first time, a file selection box will be displayed where you can browse through your file system and select the directory and file name to which the CMCS session should be saved. A CMCS file will then be created with the specified name. CMCS files have the extension `.csw`. After saving the current session, the name of the saved file will appear in the titlebar. If you subsequently choose to save the current session, no more file selection boxes will appear, but the changes will be recorded in the name displayed in the titlebar.

Save as...

Works similar to **Save** when saving a CMCS session for the first time. It also allows you to create a duplicate of the loaded CMCS file under a new name.

Exit Allows you to exit the application. If you performed changes during the current CMCS session and they have not been saved before, you will be prompted to save the changes.

The "Queue" menu

The **Queue** menu allows you to specify all actions you want to perform on the selected queue:

New queue ... (Ctrl+I)

Calls the panels needed for allocating a new CMCS queue.

Delete ... (Ctrl+D)

Removes the selected queue from your working environment.

Properties (Ctrl+Shift+P)

Shows the property dialog for the selected queue.

Import (Alt+F1)

Starts an importation action for the highlighted queue. This menu entry is enabled only if the selected queue is not importing already.

Stop importing (Alt+F2)

Stops the importation action for the highlighted queue. This menu entry is enabled only if the selected queue is importing.

Early archiving to WFL (Alt+F5)

Starts an early archiving action for the highlighted queue. This item is enabled only, if the connected CMCS Server is version 7 or higher, the queue's document type is customized (see also "3.1.3 Creating Queues" on page 33) and the queue is not archiving already.

Late archiving (Alt+F6)

Starts an late archiving action for the highlighted queue. This item is enabled only, if the queue is not archiving already.

Stop archiving (Alt+F7)

Stops the archiving action of the highlighted queue. This menu entry is enabled only if there is an archiving action running for the queue.

The "Document" menu

The **Document** menu allows you to specify all actions you want to perform on the selected document(s) of the active queue.

Early archiving to WFL

The appended sub menus allow you to start an early archiving action for either the selected documents, choose **Archive selected item(s)**, or all documents of the queue, choose **Archive all items** or use short key **Alt+F5**. The sub menu items are enabled only, if the connected CMCS Server is version 7 or higher, the queue's document type is customized (see also "3.1.3 Creating Queues" on page 33) and the queue is not archiving already.

Late archiving

The appended sub menus allow you to start a late archiving action for either the selected documents, choose **Archive selected item(s)**, or all

documents of the queue, choose **Archive all items** or use short key **Alt+F6**. The sub menu items are enabled only if the queue is not archiving already.

Stop archiving (Alt+F7)

Stops the archiving action for the active queue. This menu entry is enabled only if there is an archiving action running for the queue.

Delete document (Alt+D)

Removes the selected documents from the queue. You will be prompted whether to remove the document files from the file system as well. Alternatively you can use the **Delete** key.

View document (Alt+V)

Views the selected document in the right frame.

The "Setup" menu

The **Setup** menu allows you to specify and change the essential settings for the CMCS Archiving Client.

Run setup (Alt+F8)

A dialog appears in which you can specify your settings for the CMCS Archiving Client as well as for the CMCS Server to be contacted, the trace file, log file, API-DLL trace file, the work path for the CMCS Archiving Client, and also the number of barcodes to be sent in a batch to R/3 when performing late archiving. In order to create queues you need to load module(s). For detailed information see "3.1.2 Setting up the CMCS Archiving Client" on page 29.

Save settings to file

This menu item is needed for propagating the CMCS Archiving Client to other workstations. See "3.1.4 Distributing the CMCS Archiving Client to other PCs" on page 41.

The "Automatic processing" menu

The **Automatic processing** menu allows you to specify at which intervals an automatic import with subsequent archiving should be performed for all allocated queues in the current session.

Enable (Alt+F9)

Allows you to specify the time interval between two executions of the automatic processing and you have to select whether to use the early archiving or the late archiving mode for all queues. Additionally you may select whether the automatic processing should be stopped if an error occurs.

Stop (Alt+F10)

Stops the automatic processing.

The "View" menu

The **View** menu lets you hide/view the tool bar and the status bar.

The "Help" menu

The **Help** menu lets you display an about message and version information.

Chapter 5.2 Perform Early Archiving without OLE

Early archiving without OLE is performed without SAP GUI. On the Client side you need entirely the CMCS Archiving Client. Before performing early archiving without OLE for the first time you need to check the following items:

1. Check the SAP customizing (see “Chapter 4.2 Early Archiving without OLE” on page 59).
2. The queue you want archive documents from needs to be customized for early archiving by entering the correct document type into the queue panel (see “3.1.3 Creating Queues” on page 33).
3. Check that the CMCS Client is connected to a CMCS Server version 7 or higher.

Follow the steps below for performing early archiving:

1. Import documents into the queue you want to archive from. See also “Importing documents” on page 80.
2. Select the documents you want to archive or the queue for archiving all documents of the queue.
3. Perform the early archiving action. See “Archiving documents” on page 81 for details.

Successfully archived documents will disappear from the CMCS Archiving Client otherwise an error message will pop up.

Note

The early archiving process can be started periodically for all queues of the running session by using the Automatic Processing feature of the CMCS Client. Please refer to “Chapter 5.5 Automatic processing” on page 93 for more detailed information on this.

Chapter 5.3 Perform Early Archiving with OLE

Early archiving without OLE requires and running SAP GUI. Additionally the CMCS Archiving Client is needed for OLE communication and performing archiving. Before using this scenario for the first time check the following items:

1. Check the SAP customizing (see “Chapter 4.1 Early Archiving via OLE” on page 57).
2. Ensure that the CMCS Archiving Client is connected to any CMCS Server.

Follow the steps below for performing early archiving:

1. For SAP releases up to 4.5 use the menu path **Office->Optical archiving->Early Archiving** from SAP release 4.6 use the path **Office->Business Documents->Documents->Move**.
2. Choose the SAP **fast entry** or **presetting** (in SAP release 4.6) which your document type belongs to and double click the entry. A new panel will appear.
3. Now SAP offers you two ways of archiving documents:
 - a. If you press **Continue** or the **green hook** (depending on the SAP release), one OLE call for early archiving will be sent to the CMCS Archiving Client, which archives either the first document of the active queue or the first selected document in the active queue.
 - b. If you press the **Mass archiving** button, subsequent OLE calls for early archiving will be sent to the CMCS Archiving Client until all the documents in the active queue have been archived.

For each archived document a work item will be created in the inbox of the organizational object customized for early archiving of this document type. An organizational object may be e.g. a user, a group of users or a job for which a group of users has been assigned.

Note

If you are using single document archiving you will get a “Scan queue empty” message from SAP if you try to archive a subsequent document. You need to click the **Continue** button again for archiving a further document.

Chapter 5.4 Perform Late Archiving with Barcode

Late archiving requires no SAP GUI on the Client side but before using this scenario for the first time check the following items:

1. Check the SAP customizing for late archiving with barcode (see also “Chapter 4.3 Late Archiving with barcode” on page 61).
2. Check the Archive setup in the CMCS Server profile (default archint.ini) for the archives you want to use. The LOGICAL_SYSTEM keyword within the ARCHIVE statement has to point to the correct logical SAP system for uploading the barcodes.
3. Ensure that the CMCS Archiving Client is connected to any CMCS Server.

For performing late archiving proceed as follows:

1. Import documents into the queue you want to archive from (see also “Importing documents” on page 80).
2. Select the documents you want to archive or the queue for archiving all documents of the queue.
3. Perform the late archiving action (see “Archiving documents” on page 81 for details).

Successfully archived documents will disappear from the CMCS Archiving Client otherwise an error message will pop up.

Note

The late archiving process can be started periodically for all queues of the running session by using the Automatic Processing feature of the CMCS Client. Please refer to “Chapter 5.5 Automatic processing” on page 93 for more detailed information on this.

Chapter 5.5 Automatic processing

In order to import and archive documents for all queues at regular intervals and unattended, select the menu entry **Autom. Processing->Enable**. In the appearing dialog you can choose the interval between two times of execution and the archiving method. Enter the following settings:

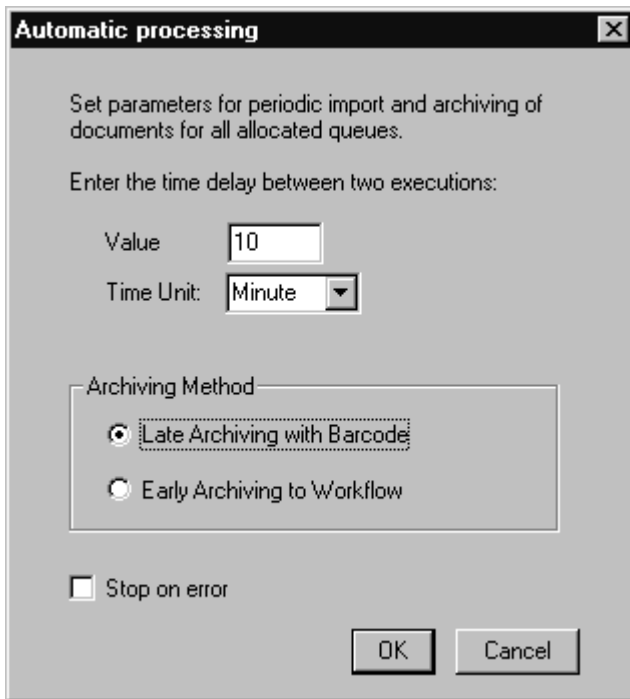


Figure 12. Automatic Processing

Value	Numeric value of the interval
Time Unit	Time unit (hours, minutes) of the interval.

Note

Thus, if you specify a **value** of 5 and a time unit of minute , new documents will be imported and subsequently archived very five minutes.

Archiving method Select the archiving method you want to be performed periodically on all queues of the running session. By default late archiving with barcode is used.

Note

Archiving method early archiving to WFL can be selected only if the connected CMCS Server is version 7 or higher and the document type is customized for all queues. See "2.2.2.1 Installing the package" on page 20 for detailed information on customizing the document type.

Stop on error Check this check box if a message should pop up if an error occurs while performing automatic processing. Leaving this check box unchecked will generate log file entries only if errors during automatic processing occur.

Start automatic processing by pressing the **OK** button. The **Cancel** button will discard automatic processing.

Immediately after starting automatic processing, for each queue in the current session import and archive actions will be started. These actions will be repeated after the specified time is up.

Chapter 5.6 Viewing documents via OLE

Content Manager CommonStore supports viewing archived documents via the OLE interface. In order to get this scenario working follow the steps below:

1. Check the SAP customizing for document viewing via OLE. See also "Chapter 4.4 Viewing Documents via OLE" on page 63.
2. Check the CMCS Viewing Client is installed and set up for either native viewing or browser viewing. See also "2.2.2.1 Installing the package" on page 20
3. View a document from the archive in which the transaction corresponding to your action is stored. E.g. for viewing documents assigned to a financial accounting document, use menu path **Environment->Object Links**. Select the **Archived documents** radio button in the **Choose Object Links** panel which is shown. A list of archived documents linked to this financial accounting document will be displayed. Double-click the archived document you wish to display. The CMCS Viewing Client, started by the SAP GUI via OLE, will launch the customized viewing application.

Note

If you are using browser viewing you may append notices to the documents by the process note applet or send the document to another clerk via the mailing applet.

5.6.1 Process note applet

When displaying an archived document, CMCS offers the possibility of adding notes, which will be archived too. Archiving notes makes it easier to share information on archived documents and on business processes connected to the archived documents. The look and feel when creating a note with CMCS is very similar to that of creating a note using the SAP ArchiveLink Viewer. New notes will be appended to the existing ones. The note's date and time of creation will be saved. If SAP is customized to also send user information to CMCS, this information will also be archived. Notes created using the ArchiveLink Viewer are compatible with notes created using CMCS.

Note

In order to be able to attach notes to a document, you need the CMCS Server release 2.x or higher.

5.6.2 Mailing applet

When using a browser for displaying a document, the browser facilities can be used for sending e-mails and attaching the archived document to this e-mail. But if a customer has the possibility of archiving notes to a document, he may also want to have the option of sending them by e-mail. Using the CMCS e-mailing feature makes it possible to send an archived document in addition to the archived notes for this document.

Note

In order to send as an e-mail the archived document plus the attached note via CMCS, you need the CMCS Server release 2.1.5.0 or higher.

It is important that you configure the keyword *MAILSERVER* in the CMCS Server profile (i.e. *archint.ini*), thus specifying the mailserver to be contacted for sending e-mails.

Chapter 5.7 Viewing printlists via SAP ArchiveLink

For viewing printlists via SAP ArchiveLink proceed as follows:

1. Check the SAP customizing for viewing printlists. See also “Chapter 4.5 Viewing Printlists via SAP ArchiveLink” on page 65.
2. Check the settings for the SAP ArchiveLink viewer. See also “3.3.1 Viewing documents with the SAP ArchiveLink Viewer” on page 49.
3. Use transaction code **OADR** for accessing printlists. A search panel appears.
4. Enter your selection criteria.
5. Press the **Execute** button to get a hitlist of all printlist matching your search criteria.
6. Highlight the printlist to be viewed.
7. Press the **Display from archive** button.

Depending upon the settings in the communication protocol (see “4.6.10 Customizing the Archlink protocol for viewing documents” on page 73) the printlist will be viewed in the SAP GUI or the SAP ArchiveLink viewer.

Part 6. Appendixes

List of Abbreviations

The abbreviations used in this document are listed below.

ADK	Archive Development Kit
ADSM	ADSTAR Distributed Storage Manager
AFP	Advanced Function Printing
AIX	Advanced Interactive Executive (IBM implementation of UNIX)
ALF	Advanced List Format
API	Application Program Interface
CCMS	Computer Center Managing System
COLD	Computer Output on Laser Disk
crontab	Chronological Table
DBA	Database Administrator
DLL	Dynamic Link Library (files with the extension .dll)
DMS	Document Management System (Document Administration System)
GUI	Graphic User Interface
IAC	Internet Application Component
IBM	International Business Machines Corporation
ITS	Internet Transaction Server
NT	New Technology (Microsoft operating system Windows NT)
OCR	Optical Character Recognition
OLE	Object Linking and Embedding
OS/390	Operating System/390
OTF	Output Text Format (files with the extension .otf)
PC	Personal Computer
PDF	Portable Document Format (files with the extension .pdf)
R/3	SAP R/3 system
S/390	System/390
SAP	Systems, Applications, Products in Data Processing (software vendor)
TCP/IP	Transmission Control Protocol/Internet Protocol
TIFF	Tag Image File Format (files with the extension .tif)
UNIX	An operating system developed at Bell Laboratories
URL	Uniform Resource Locator

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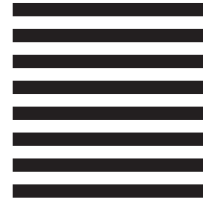
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