IBM Content Manager CommonStore for SAP

IBM Content Manager CommonStore for SAP on AS/400 Server Installation and User's Guide

Version 7 Release 1

SC33-7054-00

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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)

This edition applies to IBM Content Manager CommonStore Version for SAP Version 7 Release 1 (product number: 5724–A53), available as a service offering, and to all subsequent releases and modifications until otherwise indicated in new editions. Make sure you are using the correct documentation level for the level of the product.

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About this book

This book describes installation considerations for the CommonStore Server component.

Note:
The customizing information presented in this book refers to SAP Releases 3.1/4.0. Please check the SAP documentation for details on customizing for SAP Release 4.5.

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 IBM Content Manager CommonStore 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 IBM Content Manager CommonStore 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.

Chapter 1. CommonStore — Overview

In this chapter, challenges in archiving large amounts of business data and documents in SAP R/3 Systems are first touched upon. SAP R/3's corresponding archiving support — including its *ArchiveLink* interface — is then presented and a matching IBM application — *IBM Content Manager CommonStore* — described in detail.

Archiving data in SAP R/3 Systems

There are numerous important reasons for adopting an R/3 archiving solution, chief among them the desire to more-efficiently archive *data* and *documents*.

When an SAP R/3 System goes into production, its database is initially small, permitting the efficient storage of data on the database server's local hard disks. As time goes on, however, the database grows in size (by as much as 30-50% per annum), boosting the hard disk capacity requirements, increasing the effort necessary to maintain and back up the database, and significantly degrading database access response times.

SAP therefore recommends that application data not in active use be archived. In SAP R/3 3.0 or later releases, the task of archiving inactive data can be performed concurrently with normal system operation and does not require prior database backing-up.

Inactive application data archived in this manner can be stored on external media independently of R/3 (e.g. on optical media, magnetic tape, etc.). It is compressed by up to a factor of five during the archiving process. Afterwards, it can nevertheless be accessed by R/3 at any time and can even be analyzed in the external archive. And finally, the archived data is not affected by hardware or release changes in the SAP R/3 System.

Most business processes supported by R/3 allow documents to be processed electronically (which is far more efficient than handling paper documents). Such electronic documents can be stored at lower cost, more-quickly accessed by authorized users, and also accessed simultaneously by different users. Additionally, the electronic archiving of business documents helps leverage the power of such tools as *SAP Business Workflow*, *Document Management System*, *SAPoffice*, *SAPconnect*, or *Archive Development Kit*. Existent work routines are thus improved and business processes further optimized.

The following different types of documents are suitable for electronic archiving:

- inbound documents (e.g. supplier invoices and other business correspondence, faxes, and even voice mail), corresponding to the SAP R/3 document class FAX (with the extension `.tif`);
- outbound documents normally printed and sent to their respective recipients, corresponding to the SAP R/3 document classes OTF (extension `.otf`) or PDF (extension `.pdf`);
- reports and print lists generated by R/3 and normally printed, corresponding to the SAP R/3 document class ALF;
- reorganization files (SAP R/3 document class REO), i.e. desktop files created by an individual PC application (e.g. work processing, graphics, etc.) corresponding to the SAP R/3 document class TXT (extension `.txt`).

In addition, an archive should also be able to handle documents/data from external applications, which must be referenced through R/3 or archived for auditing purposes. For example, this can be useful for *COLD* (Computer Output on Laser Disk) data not produced by R/3.

The SAP R/3 archiving concept

Since its first appearance, SAP R/3 has evolved into a central business application for many of its customers. As more and more of their business processes are integrated with R/3, SAP has been offering additional advanced functionality to meet new requirements. Since release 3.0, SAP has extended support for archiving as part of the standard R/3 package. While the functionality needed to communicate with archives is fully integrated with R/3 (in modules like FI [Finance], MM [Material Management], SD [Sales & Distribution], CO [Controlling], OC [SAPoffice], and others), the external archives (i.e. data storage or document management systems) themselves are in the customer's realm of responsibility. The *SAP Business Framework* provides the interfaces necessary to integrate these external functions with R/3 and thus create the complete software architecture fitting the customer's business processes.

One of these interfaces is *ArchiveLink*, which allows external archives to be coupled with R/3. ArchiveLink is a standardized universal communication interface between the SAP R/3 System and external components (e.g. VisualInfo). Except during scanning, ArchiveLink enables the user to archive directly from different modules of the SAP R/3 System.

The IBM R/3 data management solution IBM Content Manager CommonStore

Corresponding to the importance of SAP R/3 for your enterprise's business processes, the management of your R/3 data requires special attention and highly professional management tools.

IBM Content Manager CommonStore (hereinafter referred to simply as 'CommonStore') is a solution developed at IBM by the Enterprise Solution Development (ESD) group for R/3 data management.

CommonStore is an intelligent interface program that connects the SAP R/3 ArchiveLink interface to VisualInfo.

Strengths of the CommonStore solution

CommonStore is certified for SAP ArchiveLink specifications Releases 3.0 and 3.1.

The successful deployment of an archiving solution is dependent upon the extent to which it can meet four basic criteria: *automation*, *flexibility*, *integration*, and *performance*.

Automation
How much administrative effort does the solution require and how reproducible are these processes?

Flexibility
How easily can the archive solution adapt to dynamic changes in the SAP R/3 environment?

Integration
How efficiently are deployed resources utilized?

Performance
How productively can users work with an archive?

The CommonStore solution satisfies these four criteria in the following ways:

Automation

The amount of effort necessary to administer the archived data and documents is an important factor. VisualInfo in combination with CommonStore provides the professional and production-oriented management of data and documents once they've been placed in archive storage.

Predefined rules reflecting storage-cost and access-time considerations allow the movement of data and documents automatically across different storage media within specified storage hierarchies. For example: Incoming supplier invoices archived by CommonStore can be initially stored on magnetic disk to allow for fast retrieval. Later, the documents can be migrated to magnetic tape or optical disk, thus providing cost-effective long-term storage.

Flexibility

Depending upon the types of documents (incoming supplier invoices, outgoing bills, mail to customers, etc.) to be archived, a company's archive must satisfy widely differing requirements, e.g. in terms of capture, generating index information, displaying retrieved documents, and so on.

CommonStore with VisualInfo excels in capturing images, e.g. inbound R/3 documents. VisualInfo has a sophisticated folder structure to group documents (or better: references to group documents) in a work process-related context. With VisualInfo, documents can be distributed into workbaskets. VisualInfo uses its own storage management to manage archive storage (jukeboxes, tape libraries, etc.). For large enterprises with many locations, VisualInfo's concept of distributed object servers makes it possible to keep the bulk of the archive data decentralized in order to reduce network traffic and access time, while the index information is stored centrally. CommonStore with VisualInfo can handle all R/3 document types, and also provides non-R/3 users with access to archived documents via search, retrieve, and view capabilities.

Integration

In accordance with the ArchiveLink interface definition, IBM Content Manager CommonStore is fully integrated with SAP R/3. This allows SAP users to seamlessly work with the archive through SAP's graphical user interface (SAP GUI). An additional CommonStore web client allows the archive to be accessed through the Internet via the SAP Internet Transaction Server (SAP R/3 3.1).

Many SAP customers plan for a step-by-step implementation of R/3 by modeling part after part of the company's business processes through the SAP R/3 System. Demands on the archive system for SAP R/3 increase at the same pace at which the functionality of R/3 itself is exploited, e.g. by archiving additional document types or larger data volumes. IBM Content Manager CommonStore matches these customer requirements with an evolutionary, non-disruptive growth concept that protects hardware and software investments to the greatest possible extent.

Performance — User response time and throughput

One of IBM Content Manager CommonStore's key design criteria has been system performance in real production environments, i.e. **user response time** when many archive requests are processed in parallel. IBM Content Manager CommonStore minimizes the response time by keeping frequently-used data or documents in caches on the basis of a two-fold concept:

Caching at the front-end

When documents are retrieved at a user's workstation, they are stored on a local storage medium. If the same document is retrieved again, it is not necessary to re-transfer it from the archive. Instead, all

subsequent requests are handled by the local cache. This minimizes both the load on the archive and network and the end-user's perceived response time. IBM Content Manager CommonStore not only caches complete documents, but also dynamic information, e.g. appended notes. The size of the cache can be individually configured based on the individual workstation's specific characteristics in order to optimally utilize existing resources without having an impact upon other applications.

Caching at the archive server
Frequently-used documents are buffered on the archive server's magnetic disk. Migration threshold and cache expiration can be defined differently for different document types. Cache sizes can be individually configured and adjusted while the archive is operating.

Partial retrieval is especially advantageous when only small parts of large documents are retrieved (as in single-object access). Only the requested blocks of data are read from archive storage and transferred to the user.

Another issue is *throughput*. The load profile of productive R/3 Systems dictates that a large number of archiving and retrieval requests be dealt with simultaneously. The underlying principle of the IBM Content Manager CommonStore architecture is the concept of parallelism, which means that all major system components scale up or down, depending upon the given workload, thus avoiding bottlenecks and maximizing data throughput.

An arbitrary number of parallel archive connections can thus be configured to ensure that archiving and retrieval processes don't lock each other out.

IBM Content Manager CommonStore can also dynamically activate a number of parallel communication processes with the R/3 gateway or user workstations. Thus, both synchronous and asynchronous requests and responses can flow freely between SAP R/3 and IBM Content Manager CommonStore via the ArchiveLink interface.

IBM Content Manager CommonStore archiving strategies

Inbound documents can be scanned locally using the Kofax Ascent Capture Release Module and will be placed in CommonStore queues. During scanning, description files will be generated in order to assign the documents to a certain CommonStore queue.

As an alternative to local scanning, you can use your preferred scanning program to scan inbound documents into a defined VisualInfo workbasket.

With IBM Content Manager CommonStore, you can employ three different strategies for archiving inbound documents:

Early archiving
In this case, the inbound documents are archived before the business objects are created in the SAP R/3 System. The inbound documents will be classified by document type and are archived right from the start, i.e. in the mailroom. This way, the advantages of SAP Workflow can be used.

Simultaneous archiving
The business object is created in parallel with the archiving of the inbound documents.

Late archiving
The business objects are created before archiving the inbound documents. The data is entered into the business object from the paper form of the inbound documents, which will then be archived in a central archiving location. Afterwards. the archived document will be connected to the corresponding SAP business object.

IBM Content Manager CommonStore architecture

As illustrated in Figure 1 on page 7, IBM Content Manager CommonStore consists of the following two components:

1. The ***CommonStore Server*** is the most important component of CommonStore. It consists of several different components (e.g. the dispatcher and various types of agents) and handles the whole archiving functionality.
2. The ***CommonStore Client***, which in turn consists of the CommonStore Archiving Client, the CommonStore Viewing Client, and the CommonStore Dynamic Link Library (DLL). See also *IBM Content Manager CommonStore Client Installation and User's Guide* for more-detailed information.

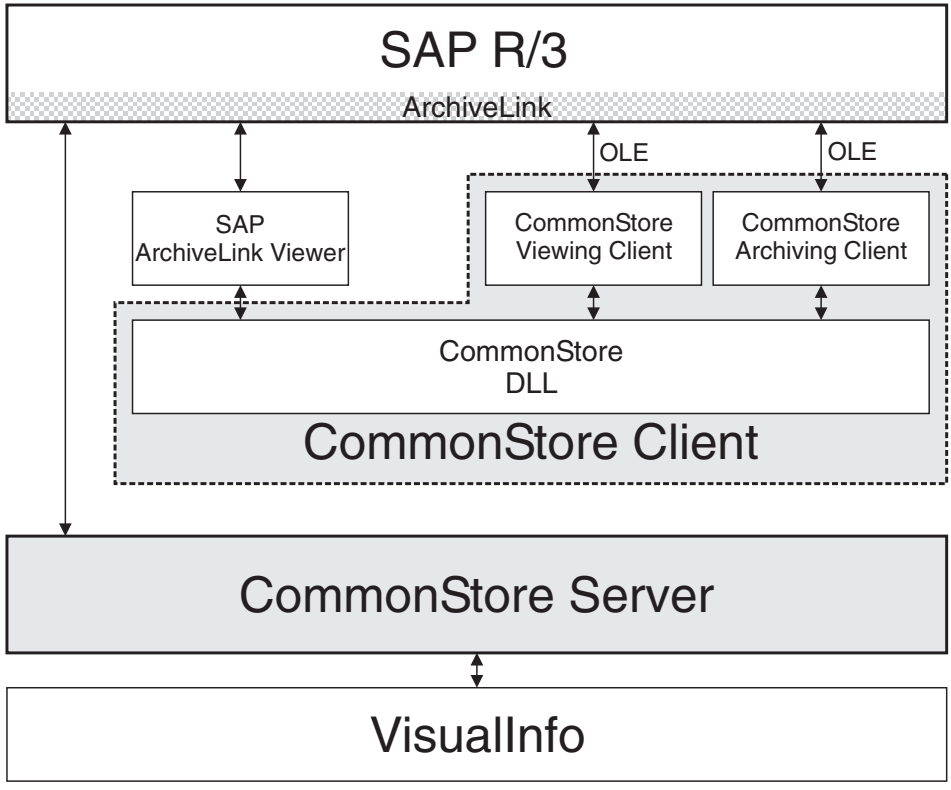

Figure 1. Interfaces of IBM Content Manager CommonStore with SAP R/3

Chapter 2. 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. IBM Content Manager CommonStore 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 IBM Content Manager CommonStore 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 VisualInfo, ranging from an OS/2-based PC to an S/390 mainframe computer.

Note:
The customizing information presented in this book refers to SAP Releases 3.1/4.0. Please check the SAP documentation for details on customizing for SAP Release 4.5.

Prerequisites for installation on AS/400

Note:
Before proceeding, please first read the file `Readme.1st` located in the root directory of the installation CD-ROM to receive the latest updates.

General prerequisites for installation on AS/400

You must prepare the environment before you can begin installing CommonStore.

You must therefore ensure that the appropriate software is already installed:

- installed, tested, and operational SAP R/3 System, release 3.0d or higher
- OS/400 V4R3M0 or higher on the CommonStore Server
- CommonStore needs access to the `LIBRFC` service program (`*SRVPGM`). The current version of CommonStore is bound to the `LIBRFC` residing in the library `R331HRFC`. If a newer `LIBRFC` service program shell be bound to CommonStore, refer to “Updating the CommonStore Server” on page 22.

Note:
SAP R/3 refers to the Gateway via T-code SM59.

Additional prerequisites for installation on AS/400

Prerequisites for installation with VisualInfo/400

- Installed, tested, and operationally complete IBM VisualInfo (VI) System V4R1 or V4R3.
- Configured VisualInfo with defined index classes, workbaskets, and VI users — which should be used for archiving (see "Chapter 4. Base setup" on page 29).

Chapter 3. Installing the CommonStore Server package

With CommonStore, the archiving of all R/3 document types is supported. In order to archive application data (document class: REO) and — provided the SAP GUI is used for displaying — to archive and view print lists (document class: ALF), it is sufficient to install the CommonStore Server package.

Otherwise, in order to archive the following document types, you will have to also install the CommonStore Client package:

- print lists (document class: ALF)
- outbound documents (document classes: OTF or PDF)
- inbound documents (document class: FAX)

Using the CommonStore Client, you can also view the archived documents of the document format ALF and FAX.

Note:
To transfer the archived data from or to the R/3 System, you will need an exchange path. Depending on where your exchange path is located, you will need NFS mounts. This path may be located on any server in your R/3 environment, provided both the R/3 System and the CommonStore Server have READ and WRITE access to this path. Please make sure that the exchange paths are dimensioned large enough (in accordance with the volume of the data to be archived) if they physically reside on a platform other than OS/400. If the exchange path is on the AS/400, the ASP with the exchange path should have enough capacity to hold the data to be archived.

Note:
Before installing the software, please make sure you are using the current version of the CommonStore packages. You will find the latest information about the current version on our home page `http://www.ibm.com/software/data/commonstore/`.

Note:
To be able to use the software downloaded from the Web, you will need a decryption key. To get a license key and/or the decryption key, please contact our hotline **(+49)-7031-16-1919** or write an e-mail to

`cstore@de.ibm.com`

The license key for testing purposes enables you to use the CommonStore software for 90 days.

CommonStore on AS/400

This chapter describes the steps to be performed to install the CommonStore Server package on AS/400. In order to perform a base setup for archiving with the CommonStore Server, please see "Chapter 4. Base setup" on page 29.

Note:
See "Running multiple instances of CommonStore" on page 26 for more information on how to install multiple instances of the CommonStore Server on the same machine.

Installation steps — Overview

Note:
If not stated differently, the user `QSECOFR` is required for installation.

Note:
Before proceeding, please first read the file `Readme.1st` located in the root directory of the installation CD-ROM to receive the latest updates.

Install the CommonStore Server code from CD-ROM using either one of the following two alternative methods (described in "Installing the CommonStore Server code using the standard AS/400 command LODRUN" and "Installing the CommonStore Server code manually" on page 16, respectively).

Installing the CommonStore Server code using the standard AS/400 command LODRUN

This section describes how to install the CommonStore Server code using the standard AS/400 command **LODRUN**. The installation routine procedure

performs the steps described below. Steps 1 - 6 must be performed on the machine on which the CommonStore Server will run. If the installation fails at any point, the reason has to be checked in the job log. If the reason is able to be recovered, the **LODRUN** command can be restarted after clearing the failing reason and after deleting already-installed portions. The missing steps (beginning with the failing one) can also be performed manually by using the manually installation description in "Installing the CommonStore Server code manually" on page 16.

1. Sign on the system with the user QSECOFR.

   Note:
   The user is checked in the installation procedure. At delivery time, all objects are owned by QSECOFR!

2. Enter the command **LODRUN** as follows:

   ```
   LODRUN DEV(*OPT) DIR('/OS400')
   ```

   Instead of *OPT, you also can use the name of your CD-ROM device containing the CommonStore Server CD-ROM.

3. In the presented panel, enter 1 in the option field in order to install a new CommonStore Server Code. The code is installed in library named CS400.

```
S44G8648                                                          01.10.99
 QSECOFR                                                         08:17:21
 INTRO                LODRUN-Panel for CommonStore/400


                   IBM CommonStore/400 for VisualInfo/400
                               Version 7.1


                      Interface to SAP R/3 ArchiveLink
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            Select an option:

              1. Install/Overwrite CommonStore/400 with ContentManager/400 V4R1.
              2. Install/Overwrite CommonStore/400 with ContentManager/400 V4R3.
              3. Update an existing CommonStore/400-System.

              Option:  1



 F3=End  F12=Cancel  F21=CommandLine
```

Figure 2. The INTRO panel

4. In the next panel (when installing the CommonStore Server code from CD-ROM, the INSTALLCD panel), enter the correct name of the source

path in which the installation files reside. If not stated differently in any hints or READMEs, the default path, /OS400, has to be used.

.

```
S44G8648                                                          13.10.99
QSECOFR                                                           14:22:01
INSTALLCD          Installation panel CommonStore/400

                    IBM CommonStore/400 for VisualInfo/400
                                Version 7.1

                       Interface to SAP R/3 ArchiveLink
     (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                   Enter the sourcepath of the installation files:
                   (please enter the path name with a leading slash [/])

                   /OS400


F3=End  F12=Cancel  F21=CommandLine
```

Figure 3. The INSTALLCD panel

Note:
If a library named CS400 already exists, a warning will be shown. If confirming the request, the library will be cleared and the new objects will be installed.

5. In the RQSGRPPRF panel, enter the name of the VisualInfo group profile. By default, this is QVIGROUP.

```
S44G8648                                                            13.10.99
QSECOFR                                                           08:20:02
RQSGRPPRF          Post Installation steps CommonStore/400

                    IBM CommonStore/400 for VisualInfo/400
                                Version 7.1

                       Interface to SAP R/3 ArchiveLink
     (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                   Please enter the name of the group profile
                   for VisualInfo/400

                   QVIGROUP


F3=End  F12=Cancel  F21=CommandLine
```

Figure 4. The RQSGRPPRF panel

6. In the RQSUSRPRF panel, enter the name of the CommonStore user profile to be created. The default is CSTORE.

```
S44G8648                                                          01.10.99
 QSECOFR                                                          08:20:02
 RQSUSRPRF          Post Installation steps CommonStore/400


                     IBM CommonStore/400 for VisualInfo/400
                                 Version 7.1


                        Interface to SAP R/3 ArchiveLink
      (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                  Please enter the name of the user profile
                  for CommonStore/400

                  CSTORE




 F3=End  F12=Cancel  F21=CommandLine
```

Figure 5. The RQSUSRPRF panel

7. If the library R331HRFC does not exist, the RQSLIBRFC panel will be shown:

```
S44G8648                                                            01.10.99
 QSECOFR                                                           08:17:21
 RQSLIBRFC          Post Installation steps CommonStore/400


                     IBM CommonStore/400 for VisualInfo/400
                                 Version 7.1


                        Interface to SAP R/3 ArchiveLink
      (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                  Please enter the name of the library which
                  contains the service program LIBRFC

                  R331HRFC




 F3=End  F12=Cancel  F21=CommandLine
```

Figure 6. The RQSLIBRFC panel

In this case, please refer also to "Updating the CommonStore Server" on page 22 . Please enter the name of the library containing the service program LIBRFC. This can be checked by entering

```
WRKOBJ OBJ(*ALLUSR/LIBRFC) TYPE(*SRVPGM)
```

With the information provided in steps 5, 6, and 7 on page 15, steps 7 ff. described in "Installing the CommonStore Server code manually" are processed automatically.

8. Refer to "Post-installation steps" on page 18.

Installing the CommonStore Server code manually

This section describes how to install the CommonStore Server code manually (a process usually performed using the **LODRUN** routines, see also "Installing the CommonStore Server code using the standard AS/400 command LODRUN" on page 12).

1. Sign on the system with the user QSECOFR.

> **Note:**
> If the installation is not performed with QSECOFR, authority problems can occur.

2. If it does not already exist, create the library named CS400 by entering

```
CRTLIB LIB(CS400) AUT(*ALL) Text('<optional text>')
```

3. Restore the objects from the CD-ROM using

```
RSTOBJ OBJ(*ALL) SAVLIB(CS20430P) DEV(<Devd>)
       OBJTYPE(*PGM) MBROPT(*ALL)
       ALWOBJDIF(*ALL) RSTLIB(CS400)
       OPTFILE('/OS400/CS400')
```

where <Devd> is the name of your CD-ROM device.

4. Depending on the ContentManager Version restore the applicaple agent:
   a. For ContentManager 4.1

```
RSTOBJ OBJ(*ALL) SAVLIB(CS20430P) DEV(<Devd>)
OBJTYPE(*PGM) MBROPT(*ALL)
ALWOBJDIF(*ALL)  RSTLIB(CS400)
OPTFILE('/OS400/CM41/VIAGNT41')
```

   b. For ContentManager 4.3:

```
RSTOBJ OBJ(*ALL) SAVLIB(CS2043043P) DEV(<Devd>)
OBJTYPE(*PGM) MBROPT(*ALL)
ALWOBJDIF(*ALL)  RSTLIB(CS400)
OPTFILE('/OS400/CM43/VIAGNT43')
```

5. Restore the IFS-objects performing following steps:
   a. Use the command **MKDIR** to create the following IFS-directories:

```
'/CommonStore400'
'/CommonStore400/Java'
'/CommonStore400/Java/Idp'
```

b. Use the command **RST** to restore the objects:

```
RST DEV(('/qsys.lib/<Devd>.devd'))
    OBJ(('/C*')) OPTFILE('/OS400/CS400IFS')
    ALWOBJDIF(*ALL)
```

6. Create a data area in the library (with the same name as the library itself) pointing to the IFS-directory containing the standard CommonStore ini file by entering

```
CRTDTAARA DTAARA(CS400/CS400)
 TYPE(*CHAR)
 LEN(2000)
 VALUE('/CommonStore400/')
```

7. If it does not already exist, create a user profile for the use of CommonStore using:

```
CRTUSRPRF USRPRF(<CSTORE>)PASSWORD (*USRPRF)
     USRCLS(*SECADM) JOBD(CS400/<Cs400jobd>)
     GRPPRF(<Qvigroup>) OWNER(*GRPPRF)
     HOMEDIR('/CommonStore400') AUT(*ALL)
```

where <Cstore> is the name of the CommonStore user profile, <Cs400jobd> is the name of the standard job description of <Cstore> (see also step 3 of "Post-installation steps" on page 18), and <Qvigroup> is VisualInfo's group profile.

8. Change the ownership of the IFS-Objects in /CommonStore400 (including /CommonStore400) using the following commands:

```
CHGOWN     OBJ('/CommonStore400') NEWOWN(<Qvigroup>)
CHGOWN     OBJ('/CommonStore400/Java') NEWOWN(Qvigroup>)
CHGOWN     OBJ('/CommonStore400/Java/Idp') NEWOWN(<Qvigroup>)
CHGOWN     OBJ('/CommonStore400/Archint.Ini') NEWOWN(<Qvigroup>)
CHGOWN     OBJ('/CommonStore400/Archint.Ini.Visual') NEWOWN(<Qvigroup>)
CHGOWN     OBJ('/CommonStore400/Java/Idp/ArchWeb.jar') NEWOWN(<Qvigroup>)
```

where <Qvigroup> is VisualInfo's group profile.

9. Change the authority for the IFS-objects using the following commands:

```
CHGAUT     OBJ('/CommonStore400') USER(*PUBLIC) DTAAUT(*RWX) OBJAUT(*ALL)
CHGAUT     OBJ('/CommonStore400/Java') USER(*PUBLIC) DTAAUT(*RWX) OBJAUT(*ALL)
CHGAUT     OBJ('/CommonStore400/Java/Idp') USER(*PUBLIC) DTAAUT(*RWX) OBJAUT(*ALL)
CHGAUT     OBJ('/CommonStore400/Archint.Ini') USER(*PUBLIC)
           DTAAUT(*RWX) OBJAUT(*ALL)
CHGAUT     OBJ('/CommonStore400/Archint.Ini.Visual') USER(*PUBLIC)
           DTAAUT(*RWX) OBJAUT(*ALL)
CHGAUT     OBJ('/CommonStore400/Java/Idp/ArchWeb.jar') USER(*PUBLIC)
           DTAAUT(*RWX) OBJAUT(*ALL)
```

10. Grant the object authority for the group profile on objects used by CommonStore Server using the following commands:

```
GRTOBJAUT     OBJ(<Librfclib>) OBJTYPE(*LIB) USER(<Qvigroup>) AUT(*ALL)
GRTOBJAUT     OBJ(<Librfclib>/*ALL) OBJTYPE(*ALL) -USER(<Qvigroup>) AUT(*ALL)
GRTOBJAUT     OBJ(CS400) OBJTYPE(*LIB) USER(<Qvigroup>) AUT(*ALL)
GRTOBJAUT     OBJ(CS400/*ALL) OBJTYPE(*ALL) USER(<Qvigroup>) AUT(*ALL)
```

where <Librfclib> is the name of library containing the service program LIBRFC and <Qvigroup> is the name of VisualInfo's group profile.

11. Create a symbolic link to the QDLS:

```
ADDLNK     OBJ('/QDLS') NEWLNK('/CommonStore400/QDLS')
```

Post-installation steps

In order to have a proper and prepared environment, a number of objects should be created; further, it is recommended that certain other objects be created or maintained. This section describes how to do this.

To run a CommonStore Server system, it is recommended that a special environment be set up for it, including user profiles, job descriptions and job specifications, an out queue, a subsystem description, and the objects for the subsystem description.

At the very least, the following should be created:

- a user profile;
- a directory entry for the user;
- a job description.

The following steps describe how to do this:

1. Creating a user profile: See step 7 on page 17 of "Installing the CommonStore Server code manually" on page 16.
2. If a directory entry for the user does not already exist, add one in the system directory using the command

```
ADDDIRE USRID(<Cstore> <Systemname>)
     USRD('CommonStore Server administrator and user')
     USER(<Cstore>) NETUSRID('<Cstore> <Systemname>')
```

   where <Cstore> is the user name created during installation or the user name intended for use as the CommonStore user and <Systemname> is the local system name of the CommonStore installation. This can be checked by entering

```
DSPNETA
```

3. Create a job description including all needed libraries in the initial library list and including the job queue to be used when submitting jobs to the system. You can obtain the library names of the VisualInfo/400 system from the data area EKDLIBLDTA in the file library of VisualInfo/400 (usually, this library is EKDLIBFIL). This can be checked by entering

```
DSPDTAARA DTAARA(EKDLIBFIL/EKDLIBLDTA)
```

This yields the following results:

```
                          Display Dataarea
                                                              System:   S44G8648
Dataarea  . . . . . . . :   EKDLIBLDTA
  Library . . . . . . . :     EKDLIBFIL
Type  . . . . . . . . . :   *CHAR
Length. . . . . . . . . :   150
Text  . . . . . . . . . :   INSTALLED LIBRARY NAMES DATA AREA

          Value
Offset     *...+....1....+....2....+....3....+....4....+....5
    0     'EKDLIBFIL EKDLIBLIB EKDLIBTXT EKDAPI    EKDEXIT   '
   50     'EKDGPL    EKDIAM292929291JRNLIB    RCVLIB    EKDGR'
  100     'OUP  EKDJOBD   EKDOUTQ   QVIGROUP  QVIJOBD        '
```

Table 1. Legend for the 'Display Dataarea' panel

Byte position	Library function
001 - 010	file library
011 - 020	program library
021 - 030	panel library
031 - 040	API library
041 - 050	library with user exits
051 - 060	library for general purposes

It is recommended that these libraries, together with some additional libraries, be included in the initial library list of the job description when using the creation command; in doing so, the following sequence should be adhered to:

For ContentManager V4R1:

```
CRTJOBD JOBD(CS400/CS400JOBD)
        JOBQ(*LIBL/<Jobqueue>)
        OUTQ(*USRPRF)
        INLLIBL(QTEMP
                QGPL
                CS400
                Ekd411lib
                Ekdexit
                Ekdlib
                Ekdapi
                Ekdlibfil
                Ekdgpl
                <Librfclib>
                )
```

For ContentManager V4R3:

```
CRTJOBD JOBD(CS400/CS400JOBD)
JOBQ(*LIBL/<Jobqueues>)
OUTQ(*USRPRF)
INLLIBL(QTEMP
CS400
QUSRVI
QVI
QGPL
<Librfclib>
)
```

where <Jobqueue> is the job queue to be used when submitting jobs, <Ekd411lib> is the library with fixes for VisualInfo/400, and <Librfclib> is the name of the library containing the service program LIBRFC.

4. Check the service table entry (similar to file \etc\services on other platforms). The installation procedure of the SAP components sets the required entries automatically on the machine where they are installed. If the CommonStore Server is to run on a different machine, you will need to add the following entries in the service table:

   ```
   sapdp00 3200/tcp
   sapgw00 3300/tcp
   ```

   If you use an instance other than 00, please adjust the numbers accordingly, e.g.:

   ```
   sapdp07 3207/tcp
   sapgw07 3307/tcp
   ```

   Use the command **WRKSRVTBLE** to check the service table entries. To add the entries, use the following commands in couple:

   ```
   ADDSRVTBLE SERVICE('sapdpxx')
              PORT(32xx)
              PROTOCOL('tcp')
   ```

   and

   ```
   ADDSRVTBLE SERVICE('sapgwxx')
              PORT(33xx)
              PROTOCOL('tcp')
   ```

   where xx is the instance number of the SAP System.

5. Create the exchange directory for the R/3 data to be archived. This directory will preferably be located on the machine on which the CommonStore Server is running, as all R/3 application servers need access to this directory.

Note:
The R/3 System and the CommonStore user will need READ and WRITE permission to this directory.

6. Export this directory to all SAP R/3 application servers. Please refer to the manual *OS/400 Network File System Support* (for OS/400 V4R2M0 SC41-5714) or contact your IBM SE or a business partner of IBM.
7. Mount this remote directory on all R/3 application server machines. Choose the following sequence of menus when using `SMIT`:
   a. **System Storage Management (Physical and Logical Storage)**
   b. **File Systems**
   c. **Mount a FileSystem**

It is recommended that the CommonStore Server be run by submitting it to the system as AJE (auto started job) when starting an appropriate subsystem. Several configuration steps are to be taken if not-yet existent structures are to be used to do this:

- creating a subsystem description with concluded class description for the storage maintenance and adjusting of job priorities
- creating a job queue to release the submitted jobs to the system
- creating a job description for the ″autostart job entry″ with the command string to run

In the following, only the creation of an ″autostart job entry″ to run the CommonStore Server is described. For creating your own subsystem, refer to *AS/400e series: Work Management* (for OS/400 V4R2M0: SC41-5306-01)

1. Create a job description for the autostart job. Use the following command:
2. For ContentManager V4R1:

```
CRTJOBD JOBD(CS400/CS400STR)
        JOBQ(*LIBL/<Jobqueue>)
        OUTQ(*USRPRF)
        USER(<Cstore>)
        RQSDTA('call archpro')
        INLLIBL(QTEMP
        QGPL
        CS400
                Ekd411lib
                Ekdexit
                Ekdlib
                Ekdapi
                Ekdlibfil
                Ekdgpl>
                Librfclib
```

3. For ContentManager V4R3:

```
CRTJOBD JOBD(CS400/CS400STR)
JOBQ(*LIBL/<Jobqueues>)
OUTQ(*USRPRF)
USER(<Cstore>)
RQSDTA('call archpro')
INLLIBL(QTEMP
CS400
QUSRVI
QVI
QGPL
<Librfclib>
)
```

4. where <Jobqueue> is the job queue to be used when submitting jobs, <Ekd411lib> is the library with fixes for VisualInfo/400, and <Librfclib> is the name of the library containing the service program LIBRFC.
5. Add the job description to a subsystem as "autostart job entry" by entering the following:

```
ADDAJE SBSD(<Libnam>/<Sbsd>)
       JOB(ARCHPRO)
       JOBD(CS400/CS400STR)
```

   Where <Libnam>/<Sbsd> is the qualified name of the subsystem description. The next time the subsystem is started, the job ARCHPRO and client jobs (agents) of ARCHPRO will be active.

Updating the CommonStore Server

There are different reasons to update the installed code:

1. new version
2. fixes/PTFs
3. linkage of the programs with newer service program levels of LIBRFC (SAP R/3) or QVIAPI (IBM VisualInfo/400)

You will need a new code for the first two reasons. You have to use the latest delivered and installed CD-ROM-Version for the third reason. The actual delivered code is compiled with the following service program levels:

Table 2. Service program levels for delivered code

Name	Date / time	Export signature
LIBRFC	20.08.97/04:33:29	57FED6BC90F95E45408E586209B607D5
QVIAPI V4R1	22.09.99/13:39:18	ECC9F78669FF1F6FD7BA446B4C534A7C
QVIAPI V4R3		068884186DBF000414514460610CAE07

Check the service program levels on the system by entering the following:

```
DSPSRVPGM SRVPGM(<Librfclib>/LIBRFC)
DSPSRVPGM SRVPGM(Ekd411lib or QVI/QVIAPI)
```

where is the library containing your service program LIBRFC and Ekd411lib or QVI is the VisualInfo library with the latest fixes containing your service program QVIAPI.

You have to stop the CommonStore Server using the program ARCHSTOP. Use the following OS/400 command:

```
CALL PGM(ARCHSTOP) PARM(<optional parameters>)
```

Be sure that all archpro instances have ended before proceeding with the next step.

Note:
Before proceeding, please first read the file Readme.1st located in the root directory of the installation CD-ROM to receive the latest updates.

The update procedure is done just like installation. Update the CommonStore Server code from CD-ROM as follows:

1. To install the CommonStore Server code, the standard AS/400 command **LODRUN** is used. If the update fails at any point, the reason has to be checked in the job log. If the reason is able to be recovered, **LODRUN** should be restarted after clearing the failing reason.
   a. Sign on the system with the user QSECOFR

      Note:
      The user is checked in the update procedure. At delivery time, all objects are owned by QSECOFR!

   b. Enter the command **LODRUN** as shown below:

      ```
      LODRUN DEV(*OPT) DIR('/OS400')
      ```

      Instead of *OPT, you also can use the name of your CD-ROM device containing the CommonStore Server CD-ROM.
   c. In the presented panel, enter 2 in the option field in order to update the CommonStore Server Code.

```
S44G8648                                                          01.10.99
 QSECOFR                                                         08:17:21
 INTRO                LODRUN-Panel for CommonStore/400


                   IBM CommonStore/400 for VisualInfo/400
                               Version 7.1


                      Interface to SAP R/3 ArchiveLink
     (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

             Select an option:

               1. Install/Overwrite CommonStore/400 with ContentManager/400 V4R1
               2. Install/Overwrite CommonStore/400 with ContentManager/400 V4R3
               3. Update an existing CommonStore/400-System.

               Option:  3



 F3=End  F12=Cancel  F21=CommandLine
```

Figure 7. The INTRO panel

d. In the next panel (UPDATE), enter the appropriate option:

```
S44G8648                                                          01.10.99
 QSECOFR                                                         08:30:23
 UPDATE               UPDATE-Panel for CommonStore/400


                   IBM CommonStore/400 for VisualInfo/400
                               Version 7.1


                      Interface to SAP R/3 ArchiveLink
     (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

             Select an option:

               1. Link CommonStore/400-Programs with newer LIBRFC
               2. Link CommonStore/400-Programs with newer QVIAPI
               3. Other update option
               Option:  3



 F3=End  F12=Cancel  F21=CommandLine
```

Figure 8. The UPDATE panel

- In the case of option 1, the following panel will be presented. Enter the name of the library containing your service program LIBRFC:

```
S44G8648                                                        01.10.99
 QSECOFR                                                       08:30:25
 UPDLIBRFC              UPDATE steps CommonStore/400


                    IBM CommonStore/400 for VisualInfo/400
                                Version 7.1


                       Interface to SAP R/3 ArchiveLink
      (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                 Please enter the name of the library which
                 contains the service program LIBRFC

                 R340BRFC




 F3=End  F12=Cancel  F21=CommandLine
```

Figure 9. The UPDLIBRFC panel (option 1)

- In the case of option 2, the following panel will be presented. Enter the name of the library containing your service program QVIAPI

```
S44G8648                                                        01.10.99
 QSECOFR                                                       08:30:30
 UPDQVIAPI              UPDATE steps CommonStore/400


                    IBM CommonStore/400 for VisualInfo/400
                                Version 7.1


                       Interface to SAP R/3 ArchiveLink
      (c) Copyright IBM Corporation, 1997, 1998, 1999 All Rights Reserved.

                 Please enter the name of the library which
                 contains the service program QVIAPI

                 EKD411LIB




 F3=End  F12=Cancel  F21=CommandLine
```

Figure 10. The UPDQVIAPI panel (option 2)

- In the case of option 3, the user-defined program CS400UPD2 starts immediately. This is a user exit where the user can execute self-written programs.

Note:
Please make sure that all the installed components are of the same version; otherwise, the executables might not be able to communicate with each other.

Running multiple instances of CommonStore

To serve multiple SAP R/3 Systems using a single archive server, it is necessary to activate more than one instance of CommonStore, i.e. several independent sets of CommonStore processes, at the same time on the same machine. In this scenario, each CommonStore instance connects to one R/3 System (SAPSID). This instance of CommonStore can then process incoming requests and thus acts as an archive for that specific system. While the same set of executables and the same administrative user account can be employed for all instances of CommonStore, it is necessary to maintain distinct configuration profiles, one for each instance. This section provides some guidelines for installing CommonStore in this fashion.

To separate the CommonStore configuration profiles, it is necessary that each profile be assigned a unique name and/or that the profiles be placed in distinct directories in the file system. Additionally, the profiles must mutually differ in

1. all parameters (excepting *TEMPPATH*) referring to dynamic files, i.e.
   - *TRACEFILE* (if *TRACE* is not switched to **OFF**);
   - *CONFIG_FILE*;
   - *LOGPATH* (if *LOG* is not switched to **OFF**);
   - *WAITQ_FILE*, *ACTIVEQ_FILE*, and *SENDQ_FILE*.
2. the DESTINATION section, which defines parameters controlling the connection to SAP R/3, and
3. the TCP/IP ports used for communication to remote CommonStore modules, i.e.
   - *ARCHWIN_PORT* (if the *ARCHWINS* parameter is present and set to a non-zero value) and
   - *WEBPORT* (if the *WEBDPS* parameter is present and set to a non-zero value).

Normally, all profiles will employ identical values of *BINPATH* to make use of the same set of binaries. Other sections of the profile may or may not correspond.

Depending on the operating system of the CommonStore Server, there are different ways of running the installed CommonStore instances. All CommonStore command invocations should include the *-i* parameter to specify the profile to be used (refer to "Chapter 5. Working with the CommonStore Server" on page 35).

Chapter 4. Base setup

This section provides an overview of the basic steps to be performed in order to get the connection running between the R/3 System and the CommonStore Server.

For information on the archiving of application data (reorganization) for the FI_BANKS archiving object, see "Chapter 12. Archiving application data (reorganization)" on page 77.

You will need to also install the CommonStore Client package to archive the following other document types:

- print lists (document format: ALF)
- outbound documents (document formats: OTF or PDF)
- inbound documents (document format: FAX)

R/3 Base setup for archiving

Step 1:

Create a SAP R/3 CPIC user for the RFC communication.

Please see "Creating an SAP R/3 CPIC user" on page 79.

Step 2:

Create an RFC Destination.

Please see "Creating an RFC destination" on page 80.

Step 3:

Set the Gateway Options.

Please see "Setting the gateway options" on page 81.

Step 4:

Check the Logical System.

If there is already one set up, please avoid making changes to these settings insofar this might have far-reaching consequences. If there is no logical system setup in your R/3 System for the client you are using, you may set it up as described in "Checking the logical system" on page 82 and "Checking the link of the R/3 client to a logical system" on page 83.

Creating an archive in the archiving system

1. Create a VisualInfo user (see "Creating a VisualInfo user" on page 94).
2. Create a VisualInfo index class (see "Creating a VisualInfo index class" on page 94).
3. Create a VisualInfo workbasket (see "Creating a VisualInfo workbasket" on page 95).

CommonStore profile setup

The installation includes a sample profile `archint.ini.visual` (for VisualInfo).

> **Note:**
> Used path names in the profile are written in the ftp-like syntax of the AS/400! E.g.: libraries are written like `/QSYS.LIB/CS400.LIB`, DB2/400-files would be accessed using `/QSYS.LIB/<Library>.LIB/<Filename>.<Member>`.

The CommonStore Server reads the profile before it executes.

Any change in this profile requires that the CommonStore Server be restarted to effect the changes.

The following rules apply to the profile's syntax:
- Every line is analyzed separately.
- Keywords can start in any column of the line.
- There must not be any strings — except for blanks — before keywords.
- If a keyword is encountered several times, the last one is used.
- Scanning of the file continues until the keyword *END* is encountered or the end of file is reached.
- Do not use a keyword as the value of a keyword. For example, do not use `SERVER VI`.

For the basic setup, the following steps will need to be performed:

1. Copy the CommonStore Server sample profile to a file named `archint.ini`.
2. Adjust the paths specified in the profile to correspond to your environment, e.g. *BINPATH*, *LOGPATH*, *TEMPPATH*.
3. Set the keywords *BASEPATH* and the *ARCHPATH* to the exchange path as created in "CommonStore on AS/400" on page 12.
4. Enter the settings according to your R/3 System:

   DESTINATION
   `<SID>`

PROGID
See “Creating an RFC destination” on page 80.

GWHOST
host name or IP address of the gateway you want to use.

GWSERV
service or port number of the gateway you want to use.

LU host name or IP address of the application server.

TP service or port number of the message dispatcher of your application server.

LOGICAL_SYSTEM
A logical system linked to the R/3 client specified below. See also “Checking the logical system” on page 82.

CLIENT
name of the R/3 client; see also “Checking the logical system” on page 82.

USER name of the CPIC user; see also “Creating an SAP R/3 CPIC user” on page 79.

5. Enter the settings for an archive created in your archiving system. At this point, it will be enough if the `DEFAULT` archive and a test archive are customized in the CommonStore Server profile. For each logical archive in the `archint.ini`, the following settings (depending upon your archiving environment) are necessary:

   For VisualInfo:

   - `STORAGETYPE VI`
   - `LIBSERVER`
   - `INDEX_CLASS_SCAN` (not for the `DEFAULT` archive)
   - `INDEX_CLASS`
   - `WB_SCAN` (not for the `DEFAULT` archive)
   - `WB_ERROR` (not for the `DEFAULT` archive)
   - `VIUSER`
   - `LOGICAL_SYSTEM` (not for the `DEFAULT` archive)

6. Set the number of agents to be used for each archiving system. The agent of the archiving system you are using should be set at least to 1. E.g. if you are using VisualInfo, set *VIAGENTS* to 1.
7. Set the value of *ARCHWINS* to `0` if the CommonStore client will not be used.
8. Set the CCSIDs (Coded Character Set Identifiers) of the different systems. The AS/400 is an EBCDIC (Extended Binary Coded Decimal Interchange) system, and in some cases, the OS/400 automatically provides

EBCDIC-to-ASCII conversion. On the other hand, binary data is not converted. Hence, it would never be possible to interpret the requests from Windows clients. Or, when archiving data, the requests might be automatically converted to EBCDIC, while origin data would be converted and it would not be possible to reproduce the data for SAP. To avoid these conflicts, the CommonStore Server uses controlled character conversion.

SAP_CCSID
describes the data format of outgoing print lists

ARCHIV_CCSID
is the codepage of the archive system and `archpro`.

WIN_CCSID
is the codepage of windows clients with CStore (819).

For example:

```
SAP_CCSID          819
ARCHIV_CCSID       273
WIN_CCSID          819
```

License and passwords

When you start the CommonStore Server for the first time, you will be prompted for the license key and passwords.

Please start the CommonStore Server from the installation library (`CS400`) in the sequence listed below:

1. Sign on the AS/400 with the user created during the installation or use an alternative to access the CommonStore Server functions. Please be sure that you have the correct library list (see initial library list examples in "Post-installation steps" on page 18).
2. **CALL ARCHPRO PARM('-f' 'license')**

   The CommonStore Server will prompt you for a 9-character license key. Each time you want to change the license key, please enter this command.

   Important:
   Don't enter a blank between the '`-`' and the '`f`'!

3. **CALL ARCHPRO PARM('-f' 'serverpasswd')**

   You will be prompted for the passwords for each defined `ARCHIVE` which was found in the CommonStore Server profile file named `archint.ini`.

Note:
Each time you want to change the VisualInfo password, please enter this command.

4. **CALL ARCHPRO PARM('-f' 'r3passwd')**

   At least one password for the R/3 log-in procedure is needed (only for asynchronous calls), but you can enter a password for each logical R/3 System (corresponds to an R/3 client).

Note:
Each time you want to change the R/3 password, please enter this command.

Getting started

1. Start the CommonStore Server by issuing the command

   ```
   CALL ARCHPRO
   ```

   or

   ```
   CALL ARCHPRO parm('-i' '<ini file>')
   ```

   Please modify your library list to match the requirements for CommonStore AS/400 in order to run (see the definition of the job description before).

   ```
   SBMJOB CMD(CALL PGM(ARCHPRO))
    JOBD(*USRPRF)
    JOBQ(<Jobq>)
    INLLIBL(*CURRENT)
    LOG(4 00 *NOLIST)
    LOGCLPGM(*NO)
   ```

   Please see "Starting the CommonStore Server" on page 35.

2. Test the TCP/IP connection (for further information, please see "Testing the TCP/IP connection" on page 81).

Chapter 5. Working with the CommonStore Server

Starting the CommonStore Server

The CommonStore Server consists of several components. They are all controlled by the main component, archpro. In order to start the entire CommonStore Server, it is sufficient to simply start archpro. archpro then reads the CommonStore ini file (either archint.ini in the current directory or the specified ini file) and automatically starts all configured components (so-called child processes).

The syntax for starting archpro directly from the command line is as follows:

```
CALL PGM(ARCHPRO) [ PARM( ['-i' '<ini file>']]
```

Note:
It is recommended that the steps described in "Installing the CommonStore Server code using the standard AS/400 command LODRUN" on page 12 be followed. Do not invoke the program archpro in an operative environment unless you have a reason to do so. The interactive invocation of this program will occupy the session and lock the given archpro port number in ARCHINT.INI.

You can activate the CommonStore Server simply with **CALL ARCHPRO** if one of the following two conditions is true:

- The home directory of the issuing user is the same directory in the IFS of the AS/400 containing the standard ARCHINT.INI
- or there is a data area in the CommonStore library with the same name as the library pointing to the directory in the IFS of the AS/400 containing the standard ARCHINT.INI.

Otherwise, it is necessary to specify the full file name of the CommonStore ini file. This is done using the option *-i* <ini file>.

EXAMPLES:

- CALL ARCHPRO
- CALL ARCHPRO PARM('-i' '/CommonStore400/ARCHINT.INI2')

You can get online help for using the command syntax of **archpro** by entering the command **CALL ARCHPRO PARM('-h')**.

When starting the CommonStore Server, the connections to all configured archive servers are verified. When an archive server is not available, CommonStore issues an error message describing the problem and then stops immediately. It is possible to disable this immediate shutdown by setting *CHECK_ARCHIVE_SERVER* to **OFF** in the CommonStore ini file. In this case, if an archive server is not available when starting up CommonStore, only a warning is issued. It is clear that CommonStore cannot perform a successful operation on an archive which is not available. For this reason, disabling the initial check of the archives makes sense only if you are sure that the archives will be available before it comes time to actually access them.

As soon as CommonStore is running, the main component (`archpro`) checks the other child processes every few seconds. If `archpro` detects that some process is no longer active, this component will be automatically restarted. When restarting, the archives are not checked for availability.

Stopping the CommonStore Server

The CommonStore Server is stopped using the `archstop` program. This program opens a connection to the main component (`archpro`) and sends it a shutdown command. Whenever `archpro` receives the shutdown command, it shuts down all child processes and stops itself. All stop messages issued by the CommonStore Server will now also appear in the C/400 runtime console when called interactively.

The syntax for this command is as follows:

```
CALL ARCHSTOP [ PARM( ['-p' '<port>'] ['-i' '<ini file>'] ['now'] ) ]
```

The parameter *<port>* is the fixed port number specified in `archint.ini` under the keyword *ARCHWIN_PORT*. Alternately, you could also specify the corresponding CommonStore ini file. In this case, the port is obtained directly from there. Without the keyword *NOW*, the CommonStore Server stops only after it has finished all currently active jobs. In order to stop the CommonStore Server immediately, the keyword *NOW* must be used.

EXAMPLES:

```
CALL ARCHSTOP
CALL ARCHSTOP PARM('-p' '5510')
CALL ARCHSTOP PARM('-p' '5510' 'now')
CALL ARCHSTOP PARM('-i' '/CommonStore400/ARCHINT.INI2')
```

Again, you can obtain online help by entering the command

```
CALL ARCHSTOP PARM('-h')
```

Chapter 6. Installed CommonStore Server files

Executable files

The install package of the CommonStore Server contains the following objects which will be installed in library `CS400` and the directory `/CommmonStore400` in the IFS of the AS/400.

Objects in library CS400

`archdp` This is a CommonStore dispatcher program which communicates with SAP R/3. The CommonStore Server starts as many dispatchers as are defined in the CommonStore profile under the keyword *DISPATCHERS*.

`archpro`
This is a continuously-running CommonStore main program which controls all the other CommonStore components.

`archagentv`
This is the CommonStore VisualInfo agent program which runs at the request of the CommonStore Server. It is responsible for archiving/retrieving the data and contains the VisualInfo API client functionality. The CommonStore Server starts as many parallel VisualInfo agents as are defined in the CommonStore profile under the keyword *VIAGENTS*

`archwin`
This is the CommonStore program which communicates with the CommonStore Windows DLL. The CommonStore Windows DLL is needed to support the SAP ArchiveLink Viewer and the CommonStore Client program).

> **Note:**
> This program is needed only if the CommonStore DLL or the CommonStore Client are in use.

`archbc` This program is needed as a trigger for the `archagentv` to scan the VisualInfo workbaskets for documents with barcode and to send them to SAP R/3. It should be covered in a CL program with a DLYJOB statement and should start with the CommonStore Server.

> **Note:**
> This program is needed only for the scenario of late archiving with barcode for VisualInfo.

archstop
This program stops the complete CommonStore via a regular shutdown.

Executables in IFS

archweb.jar
This is a Java archive in which the class files required for CommonStore WEB Access are located. The CommonStore Server starts one Java runtime process with as many WEB dispatcher threads as are defined in the CommonStore profile under the keyword *WEBDPS*.

> **Note:**
> This program is needed only if CommonStore is used with the WEB Access.

Other Objects in library CS400

CS400 (type: *DTAARA)
This data area contains only the full path name to the CommonStore directory in the IFS of the AS/400. When the CommonStore Server starts, it first checks whether an optional ini file was requested for the job. If not, this data area is examined to find the path to the CommonStore profile `archint.ini`. The syntax for the path name is as follows:

```
/<path name>/
```

If no data area exists, the home directory of the running user profile is used.

> **Note:**
> It is very important that the full path name begin and end with a slash!

Files in the IFS of the AS/400

The standard path name for CommonStore files in the IFS of the AS/400 is as follows:

/CommonStore400

Sample ini files

archint.ini.visual
Sample profile when using VisualInfo. See “Sample profile for CommonStore/VisualInfo on AS/400” on page 127.

Configuration files

archint.ini
This is the CommonStore Server profile (also referred to as the ini file). It contains all necessary information for the CommonStore Server and its connections to SAP R/3 and to the archiving systems. It has to be configured when the CommonStore Server is set up, see “Chapter 4. Base setup” on page 29.

> **Note:**
> The CommonStore Server needs only this file for customization (no sideinfo, no RFCDES, no environment variables).

archint.cfg
This is the CommonStore Server configuration file. It contains internal CommonStore information such as the VisualInfo password or the R/3 password in encrypted form. It is written automatically by CommonStore.

Trace files

archint.startup_trace
This file contains only error information on starting and stopping the CommonStore Server.

archint.trace
This file is written by the CommonStore Server if specified in `archint.ini`. The name is also configurable in `archint.ini`. It contains all CommonStore Server trace information (including information about starting, stopping, file names, and errors). It is recommended that the trace be used only if errors occur.

> **Note:**
> All trace files are configurable in the `archint.ini` file.

dev_rfc
This file is written by SAP if specified in the archint.ini file in the **TRACE** statement. dev_rfc contains RFC trace information. It is strongly recommended that this trace be used only when setting up the CommonStore Server for the first time.

Log files

The log file contains the names of all files which are archived and retrieved. Errors will be recorded as well. A new file is created for each day. Log file names have the following form: aiYYYYMMDD.log

EXAMPLES:
- ai19980101.log
- ai19980102.log
- ai19980103.log

Note:
Log files are written automatically if specified in archint.ini.

Queue files

q_wait This file contains all asynchronous orders which are currently being processed by archpro. After restarting the CommonStore Server, these orders are set up again. This file is called q_wait (Wait-Queue) because it contains all orders waiting to be processed by a CommonStore agent.

q_active
This file contains all asynchronous orders which are currently being processed by an agent. After restarting the CommonStore Server, these orders are set up again. This file is called q_active (Active-Queue) because it contains all orders which are actually processed by a CommonStore agent.

q_send This file contains all asynchronous orders which are processed by archpro and which are waiting for final R/3 approval. After restarting the CommonStore Server, these orders are set up again. This file is called q_send (Send-Queue) because it contains all orders waiting for a confirmation to SAP R/3. All orders which cannot be processed are held in this queue and reprocessed after issuing another successful order or restarting the CommonStore Server. If reprocessing should not take place, the file can be deleted manually. Keep in mind that this queue holds the orders which are already archived in VisualInfo.

Note:
All queue files are written only if specified in `archint.ini`. They are written automatically by CommonStore.

Note:
Each restart of the CommonStore Server issues all orders which are saved in these queues. If an order exists which cannot be processed (e.g. because this order's connection parameters are invalid), the queue file can be *deleted*, whereupon the CommonStore Server must be restarted.

Chapter 7. Late and early archiving with barcode for documents using archbc

CommonStore provides two ways of sending documents with barcode to R/3.

- Either you can use the CommonStore Client (as described in the Client Documentation), or
- you can use the server program `archbc` (in the case of large numbers of documents).

The scenario for `archbc` is that all documents are first scanned, after which the barcode on each document is recognized. After this, the document is put into a dedicated (incoming) index class and added to a VisualInfo workbasket for further processing. For each item, the barcode is stored in the **SapBarCodeId** attribute field. When `archbc` is started, the workbasket is scanned and all documents will be sent to R/3.

During this process, the items are re-indexed into their destination index classes and removed from the workbasket. In the event of a failure, the following happens:

1. CommonStore can't connect to R/3. In this case, the items will be placed back to the incoming index class and incoming workbasket.
2. CommonStore gets an Error from R/3. In this case, the items will stay in a second workbasket for further manual processing. Further, the error has to be found before the documents can be placed again in the incoming workbasket. The processing of all other documents is not effected.

To initiate archiving with barcode, enter `CALL ARCHBC PARM('-p' '<port>' '-a' '<archive-id>')`.

This command starts the VisualInfo workbasket scanning (workbasket **WB_SCAN** on index class **INDEX_CLASS_SCAN**) for documents with barcodes. This is done for the logical archive whose ID is `<archiv_id>`. This command can be started interactively, or start with the CommonStore Server covered in a loop in a CL program with a DLYJOB statement.

As soon as the workbasket is empty, all of the documents have been archived, and their ID has been sent to R/3, the program will finish automatically.

Usage

`CALL ARCHBC PARM('-p' '<port>' '-a' '<archive-id>')`
Starts the move operation.

CALL ARCHBC PARM('-p' '<port>' '-a' '<archive-id>' 'abort')
Stops the move operation.

Options

-p **<port>**
Fixed port used by `archpro` (as defined in `archint.ini`).

-a **<archive-id>**
Archive ID containing the scan and final index classes.

abort Tells CommonStore Server to abort the operation.

Note:
Only port numbers above 5000 are accepted.

Hint:
In order to abort an `archbc` run, it is recommended that you open a new session to the AS/400 and send the abort command from there.

Chapter 8. Internet access

By means of the CommonStore WEB Access, archived documents can be accessed from the Intranet or the Internet using a standard web browser. The CommonStore WEB Access enables you to view archived data without using a SAP GUI and without customizing a special viewer program. Rather, all you have to do is start your web browser, search the archived documents, and display them in the browser window. CommonStore WEB access makes it possible to view archived documents related to inbound documents (TIFF files), outbound documents (OTF or PDF files), and archived print lists (ALF files). CommonStore WEB access cannot display reorganization data or local front end files.

Prerequisites for CommonStore WEB Access

To enable the CommonStore WEB Access, the SAP Internet Transaction Server (ITS) is required. In turn, the SAP ITS needs a web server to run. At present, the SAP ITS runs only on Windows NT 4.0 platforms. The CGI scripts to access the ITS from the web server are also Windows programs. That means that a Windows machine is required on which ITS and a web server are installed. The SAP Internet Transaction Server requires a SAP R/3 release of at least 3.1G and not greater than release 4.0B. For SAP R/3 release 4.5, the Internet interface is integrated in the R/3 System. Thus, enhanced Internet access will be provided at release time. CommonStore WEB Access is a Java-based component of the CommonStore Server. The WEB Access component requires a Java runtime environment 1.1 or higher or the Java development kit 1.1 or higher to run. To view print lists using the ArchiveLink viewer, the version of the viewer must be greater or equal to 3.1H.

Installing CommonStore WEB Access

CommonStore WEB Access consists of several parts which are all required for a correct functionality. The first thing is to install the WEB Access ABAP/4 code in the R/3 System. The second step is to install the Internet Transaction Server from SAP and a web server which works together with the ITS.

The ABAP/4 program required for CommonStore WEB Access is installed using the SAP R/3 transport system.

A detailed description of the steps which must be taken in order to put CommonStore WEB Access into the R/3 System can be found in the `INSTALL.TXT` file provided with the CommonStore WEB Access files.

Installing the SAP Internet Transaction Server files for CommonStore

The installation of SAP's Internet Transaction Server (SAP ITS) can be divided into three parts:

1. The installation of a web server.
2. The installation of the SAP ITS.
3. The installation of ITS-related CommonStore files.

> **Note**
> All of these parts are required to run CommonStore WEB Access correctly.

Installing a web server

The SAP ITS requires a web server to run. In principle, every CGI script-capable web server can be used, but SAP recommends that either the Netscape Enterprise Server or the Microsoft Internet Information Server be used as the web server. To install the web server, start the web server's installation program and follow the installation steps. Ensure that the web server program is installed correctly and is up and running.

Installing the SAP Internet Transaction Server

The Internet Transaction Server is provided by SAP. For detailed installation instructions, please refer to the *SAP@WEB Installation Guide*. After successful installation, try to start the ITS example WEX1 by specifying the URL (Uniform Resource Locator) `http://server:port/cgi-bin/wgate/wex1/!`, where `server` is the web server's host name or address and `port` is the web server's communication port (default is **80**). This will start a SAP ITS sample program. If everything works properly, the CommonStore related files for the SAP ITS can be installed.

EXAMPLE:

To test if SAP ITS works, enter the URL `http://csserver/cgi-bin/wgate/wex1/!`

> **Note:**
> Don't forget to install a web server on the Windows machine first and before installing the SAP ITS.

Installing the CommonStore-related files for SAP ITS

To enable the R/3 System to route its output through ITS to a web browser, several HTML (HyperText Markup Language) templates are required to

format the output like the users want it to see. The ITS has a special directory structure wherein the CommonStore parts for ITS must be located.

Copying the files: To guarantee the correct file security permissions, first log in as ITS administrator (`itsadmin`). After that, start the installation of the CommonStore files for ITS by starting the installation program `CS_ITS.EXE`. Specify the path to the SAP Internet Transaction Server installation. The directory is by default

```
<drive>:\Program Files\SAP\ITS\2.0\<virtual_ITS>
```

where `<virtual_ITS>` is the name of the virtual ITS as specified when setting up the ITS. Additionally, the path to the web server's document root must be specified. Several example files for CommonStore WEB Access will be now installed. They can be used to demonstrate the functionality of CommonStore WEB Access; these files should be modified to meet your own needs. The files that were installed reside in the following directories:

`<ITS_root>\services`
: The service file `ziwebacc` for CommonStore WEB Access.

`<ITS_root>\templates\ziwebacc`
: The HTML template and language resource files for CommonStore WEB Access.

`<WEBSERVER_root>\sap\its\mimes\ziwebacc`
: The image resources used by the HTML template files.

`<ITS_root>`
: The path of the virtual ITS, e.g. `c:\Program Files\SAP\ITS\2.0\T01`.

`<WEBSERVER_root>`
: The HTML document path of the web server.

Installing the Java runtime environment

The CommonStore Server with WEB Access requires a Java 1.1 environment to run.

Installing the Java runtime environment on AS/400

If the server operating system is OS/400 V4R3M0, the Java environment should be already installed. To check if the Java environment is installed, issue the command **RUNJVA CLASS(*VERSION)**. The command should echo something like the following:

```
Version JVM VxRxMx JDK 1.1.x.
```

where `x` is part of the version number. If you encounter any other messages unlike this message, the Java runtime environment has to be installed.

The following LPPs must be installed in order to run JAVA:

- AS/400 Toolbox for Java (5763JC1)
- AS/400 Developer Kit for Java (5769JV1)
- TCP/IP Connectivity Utilities for AS/400 (5769TC1)

To enhance the performance of the WEB dispatcher, enter the following command on the AS/400:

```
CRTJVAPGM CLSF('/CommonStore400/Java/Idp/archweb.jar')
OPTIMIZE(40)
```

Note:
For server operating systems less than OS/400 V4R2M0, no Java environment is supported.

Customizing the CommonStore WEB Access

To enable the CommonStore Server to communicate with SAP's Internet Transaction Server, special service files for ITS and HTML templates are required. In this section, the customizing of these files will be shown in samples. The files can be edited either with a text editor or using SAP's SAP@WEB Studio.

Customizing the ITS service files

Each web transaction must have a service file in the file system of the ITS host. The process by which an Internet Application Component is called is referred to as service. Outside of the R/3 System, transactions are identified by a service name and not by a T-code. The service description contains all the information which the ITS needs to call the R/3 transaction. All service files are installed on the ITS host in a specific directory. The directory is by default

```
<drive>:\Program Files\SAP\ITS\2.0\<virtual_ITS>services
```

where `<virtual_ITS>` is the name of the virtual ITS as specified while setting up the ITS. For detailed information please refer to the ITS Programming Guide in the SAP R/3 documentation. There is a global service file named `global.srvc`. All global setting are made in this file, i.e. all settings that are the same for all web transactions, e.g. the application server host, etc. Additionally, at least one service file is needed. This file describes the parameters for the CommonStore WEB Access web transaction. The more information provided in the service file, the less information the user has to enter. If all information is provided in the service file, the user will be logged on to the SAP R/3 System automatically.

Warning:
If all information is specified in the service files, a log-in without password prompt is possible!

Note:
To enable a secured log-in for each service file, no `~login` and no `~password` must be specified in the global service file `global.srvc`.

EXAMPLE:

Two service files can be provided, one for an English standard log-in and one for a German standard log-in. Assuming that all other settings are made in the global service file `global.srvc`, a service file for a standard log-in using the English language consists of three parameters:

- A CommonStore WEB Access sample service file (`ziwebacc_en.srvc`)
- A transaction that should be named `~transaction ZIWA`
- A URL to access the archive system `~urlArchive http://csserver:5501/`
- Language `~language EN`

The service is specified in the URL used to connect the SAP ITS.

EXAMPLE:

Assuming that the service is named `ZIWEBACC`, the file has to be named `ziwebacc.srvc`. The URL would then look like this: `http://csserver/cgi-bin/wgate/ziwebacc/!`

Customizing the ITS templates

The SAP ITS is the interface between the web server and the transaction in the R/3 System. It converts the screen data provided by the R/3 System into HTML format. The data in HTML format is transferred via the web server to the web browser where it is displayed. When data is transferred in the opposite direction, the field contents of HTML forms are converted to R/3 screen data. The HTML templates for the SAP ITS are needed to display the output from the R/3 transaction in the web browser. The ITS therefore creates HTML files using the ITS templates and sends these HTML pages to the web server which routes them to the web browser. To start a web transaction, a HTML start up page is recommended. On the start page, there should be URLs referring the web transaction using a special service. Additionally, optional parameters can be specified in this URL. Some help texts or viewer components could also be located on the start up page. The start up page

could also contain more than one URL to start the web transaction in different languages. The web transaction ZIWEBACC is designed for use in a HTML page using frames, but it can also be split in single pages without using frames. The templates are written in HTML with the extension HTML Business. All HTML templates are located in a specific directory on the ITS host. The directory is by default

```
<drive>:\Program Files\SAP\ITS\2.0\<virtual_ITS>\templates\<service name>
```

where \<virtual_ITS> is the name of the virtual ITS as specified while setting up the ITS and <service name> is the service's name. For a detailed description of HTML Business, please refer to the ITS Programming Guide in the R/3 documentation. The CommonStore HTML templates for SAP ITS are supposed to be samples. They should be adapted to the needs of the customer. In every transaction screen, there are a number of R/3 fields that can be used when writing HTML templates. The following paragraphs describe the fields and how they should be used. The listed HTML file names refer to the ABAP/4 program ZIWEBACC and its screens. For a description of the transaction screens, please refer to "Technical description for SAP administrators" on page 54.

File ziwebacc_3000.html
No R/3 fields are available.

File ziwebacc_3100.html
The function codes BKPF, EKKO, DRAW, and BLNR can be submitted to the R/3 System using the HTML Business function ~OkCode(). These function codes are used to display the related search panel.

File ziwebacc_3200.html
The R/3 fields **SEL_RESULT-ARCHIV_ID**, **SEL_RESULT-ARC_DOC_ID**, **SEL_RESULT-AR_DATE**, and **BELSHOWNR** are available to retrieve information from the R/3 transaction about the current document. **SEL_RESULT-ARCHIV_ID** is the ID of the logical archive of the document. **SEL_RESULT-ARC_DOC_ID** is the documents ID in the archive system. **SEL_RESULT-AR_DATE** is the date where the document has been archived, and **BELSHOWNR** is the R/3 reference number of the document. To send a retrieve request to the CommonStore WEB dispatcher, the URL must look like this:

```
http://<archive_host>:<port>/archive?get&archiveId=<archive_ID>&docId=<doc_ID>
```

The HTML Business function archiveURL() can be used to determine the path to the archive system. The R/3 field **SEL_RESULT-ARCHIV_ID** can be used to set<archive_ID>, the R/3 field **SEL_RESULT-ARC_DOC_ID** can be used to set <doc_ID>.

File ziwebacc_3300.html
The R/3 fields **DATRANGE-LOW** and **DATRANGE-HIGH** are available to retrieve and set information from the R/3 transaction.

DATRANGE-LOW is the low value of the date range that must be specified for searching. **DATRANGE-HIGH** is the high value of the date range. Setting these values influences the selection performed when sending the function code SRCH to the R/3 transaction. The function code SRCH can be sent using the HTML Business function ~OkCode().

File ziwebacc_3350.html

The R/3 field **BELSUCHNR** is available to set and retrieve the reference number in the R/3 transaction. **BELSUCHNR** is the reference number used to do the selection in the R/3 database. After this value has been set, it can be sent to the R/3 transaction using the HTML Business function ~OkCode() with the function code SRNR.

File ziwebacc_3400.html

The R/3 fields **SEL_RESULT-ARCHIV_ID**, **SEL_RESULT-ARC_DOC_ID**, **SEL_RESULT-AR_DATE**, and **SEL_RESULT-KURZTEXT** are available to retrieve information from the R/3 transaction about the current print list. **SEL_RESULT-ARCHIV_ID** is the ID of the document's logical archive. **SEL_RESULT-ARC_DOC_ID** is the document's ID in the archive system. **SEL_RESULT-AR_DATE** is the date where the document has been archived, and **SEL_RESULT-KURZTEXT** is a short information text provided by the user while archiving the print list. To send a retrieve request to the CommonStore WEB dispatcher, the URL must look like this:

```
http://<archive_host>:<port>/archive?get&archiveId=<archive_ID>&docId=<doc_ID>
```

The HTML Business function `archiveURL()` can be used to determine the path to the archive system. The R/3 field **SEL_RESULT-ARCHIV_ID** can be used to set `<archive_ID>`, while the R/3 field **SEL_RESULT-ARC_DOC_ID** can be used to set `<doc_ID>`.

File ziwebacc_4300.html

No R/3 fields are available.

Preparing the WEB browser and viewers

To display archived documents — which are in general TIFF bit maps for inbound documents, PDF or OTF files for outbound documents and ALF files for print lists — different viewers are necessary. Those viewers either exist as plug-in modules for web browsers or they are programs which can be executed by the web browser.

TIFF Viewer plug-in

To display TIFF files — which are in most cases scanned images for inbound documents — a TIFF viewer plug-in for the web browser is needed. A good TIFF viewer plug-in is VisionShape's TIFF Surfer plug-in. It can be obtained from VisionShape using the URL `http://www.visionshape.com`.

Adobe Acrobat Reader

Outbound documents can be archived either as OTF files or as PDF files. For OTF files, see "ArchiveLink Viewer". For PDF files, Acrobat's PDF Reader is the best choice to display PDF files. When Acrobat Reader is installed, it automatically installs also a web browser plug-in which embeds in the web browser when displaying PDF files. Acrobat Reader can be obtained from Adobe using the following URL: `http://www.adobe.com`.

ArchiveLink Viewer

To use the ArchiveLink Viewer to display ALF (print list) and OTF (outbound document) files a viewer version of at least 3.1H is required. From this version on, the Viewer can be executed by the web browser using the file name as an argument. To enable the ArchiveLink Viewer for a web browser, an entry in the mime type database must be made for OTF and ALF files. The easiest way to do this is to use the registry information file `SAPVIEWR.REG`. This file must be applied to every workstations Windows registry database. This can be done either by simply executing the file `SAPVIEWR.REG` or by importing the file `SAPVIEWR.REG` into the computer's registry database using the registry editor program `REGEDIT.EXE`:

1. Click on **Start**.
2. Select **Run...**.
3. Enter the program named `REGEDIT.EXE` in the **Run dialog** box and click on **OK**.
4. In the **Registry Editor**, open the **Registry** menu and select **Import Registry File...**.
5. Select the registry file named `SAPVIEWR.REG` and open it.

> **Note:**
> The easiest way to apply the registry information file `SAPVIEWR.REG` to the computer's registry database is by simply double clicking the file.

Using CommonStore WEB Access

CommonStore WEB Access simplifies the access to archived SAP R/3 documents by enabling a standard web browser to display documents directly from the archive without using a SAP front end. The following paragraphs refer to the installed CommonStore WEB Access sample HTML pages. All pages are located in the CommonStore directory, a sub directory of the web server's document root. On the start up HTML page `CommonStore.html`, the WEB Access can be started by selecting the CommonStore WEB Access link in either English or German. The next page will display a SAP R/3 log-in; an R/3 user and its related password must be entered here. By clicking the **Login** button, a connection to the R/3 System is established through the SAP

Internet Transaction Server. Next is a HTML page having frames, which requires the web browser top be enabled for frames. At the top of the page, one can choose between selecting and displaying accounting documents, purchase documents, print lists and the selection of known reference numbers, using the four buttons. When one button is pressed, a search panel is displayed. The search panel for accounting documents, purchase documents and print list provides the possibility to specify a date range, describing documents that were archived while this time. The dates have to be entered in the form of `DD.MM.YYYY`, where `DD` is the day of the month, `MM` is the month of the year, and `YYYY` is the four-digit year. Leaving the **from** field empty results in all archived documents till the date specified in the **to** field. The **to** date field cannot be empty. Clicking on the **Reset** button clears the date fields, clicking on the **Search** button starts the search function in the R/3 transaction which results in all archived documents for this date range and SAP object. For accounting and purchase documents the reference numbers and the archiving dates are displayed as the search results. A document can now be displayed by clicking on the hyperlink of the reference number. For print list a short information and the archiving dates are displayed as the search results. A print list can be displayed by selecting the hyperlink of the short information text or the **Folder** icon in front of the text. In the search panel for the selection of known reference numbers, a number can be entered. This number must be the complete reference number of the SAP business object. Wild cards can also be used. Valid wild cards are `*` (to replace one or more digits) and `?` (to replace exactly one digit). The reference number field cannot be empty. Clicking on the **Reset** button clears the reference number input field; clicking on the **Search** button submits the query to the R/3 transaction. The reference numbers and the archiving dates are displayed for the search results. The archived document can now be displayed by clicking on the hyperlink of the reference number. Print lists (ALF) can be displayed using the ArchiveLink viewer, outbound documents in OTF format also. Outbound documents in PDF format can be displayed using the Acrobat Reader and scanned originals for inbound documents can be displayed using a TIFF viewer plug in.

EXAMPLE:

Using wild cards, assume the three reference numbers: 10007401, 10000741, and 10017401. Typing in `*074*` will result in 10007401 and 10000741. Typing in `100?7401` will result in 10007401 and 10017401. To display the documents in a correct form, the viewer programs must have been customized (see “Preparing the WEB browser and viewers” on page 51).

Technical description for SAP administrators

The CommonStore WEB Access is designed as an R/3 Internet Application Component (IAC). Internet application components are complete solutions for connecting the R/3 System to the Internet. They enable R/3 business functions to be executed using the user interface of a web browser. The technological basis for IACs is the Internet Transaction Server (ITS). The ITS is the interface between an web server and the R/3 System. For detailed information on IACs and ITS please refer to the SAP@WEB manual in the SAP R/3 documentation. When running the CommonStore WEB Access ABAP/4 program `ZIWEBACC`, it takes a search value, entered by a user, in order to find archived documents. The search value entered can either be a date range, to find documents that were archived in a specific time interval, or a known reference number. When submitting the search parameters, a list of all archived documents matching the specifications is generated and displayed as HTML document in a web browser. The search results are linked to archived documents in the archive system. By clicking on a link, the original document is retrieved from the archive by the CommonStore Server and displayed in the web browser. The related ABAP/4 program can be started in the R/3 System using the transaction code `ZIWA`. It has a screen (screen 3000) containing three sub screens. The sub screens are filled with different R/3 contents depending on the user action. The first sub screen is always visible (screen 3100); it is used to select the type of archived documents to be displayed. Four buttons are therefore placed on the screen. Depending on which button is pressed, the second sub screen is filled with a screen containing fields in which search values can be entered. There is one screen (screen 3300) to enter date ranges used for archived accounting documents (the **BKPF** button), purchase documents (the **EKKO** button) and print lists (the **DRAW** button). A second screen (screen 3350), containing a field to enter a reference number as a search value, can be used for retrieving documents with known reference numbers (the **BELNR** button). Using the **Search** button, the values are submitted and the search results are displayed in either screen 3200 or screen 3400. The first one (screen 3200) is used to display search results in the form reference number - archiving date, the second one (screen 3400) is used to display search results for print lists in the form short information text - archiving date.

`ABAP/4 program name`	`ZIWEBACC`
`Development class`	`ZIWA`
`Transaction code in R/3 system`	`ZIWA`

Screens:

Screen 3000:

The main screen contains three sub screens. Its flow logic initializes the program. Depending on which button is pressed on screen 3100, different processing modules and functions are called. Furthermore, depending on the function code which screen 3100 returns, the second

sub screen is set using either screen 3200 or screen 3400. For the function code SRCH, returned by the **Search** button on screen 3300, a selection is processed using the parameters from screen 3300 and the function code from the button pressed in screen 3100 as selection criteria. That is a selection of documents which are in a certain date range (specified in screen 3300) and of a definite SAP object (set in screen 3100). For the function code SRNR, returned by the **Search** button on screen 3350, a selection is processed using the reference code entered in screen 3350 as selection criteria. The results are documents that match a particular reference number regardless of the SAP object. The selection performs on the database tables used for optical archiving (**TOA01**, **TOA02**, **TOA03**, and **TOADL**). Every document found in one of these tables, matching the selection criteria, will be put in an internal table. This internal table is read when displaying the results in screen 3200.

Screen 3100:

This screen has four buttons named **BKPF**, **EKKO**, **DRAW**, and **BELNR**. By pressing one of the four buttons, different function codes are set. These function codes are processed by the main screen 3000. The **BKPF** button generates the function code BKPF, the **EKKO** button generates the function code EKKO, **DRAW** generates the function code DRAW, and **BELNR** generates the function code BLNR. Depending on which function code is set, different search screens are displayed and the database selection searches different SAP objects.

Screen 3200:

The screen displays the results of the selection performed on the basis of the selection parameters entered in screen 3300. The results are displayed in a table; every row shows the reference number of the archived document, the archiving date, the logical archive, where the document is and the archive document ID. For every record found while the selection, a row is inserted in the table. Using the **first page** and **next page** buttons, the list of records can be scrolled.

Screen 3300:

Screen 3300 is an input mask for date ranges. It has a field for the start date with the internal name **DATARANGE-LOW** and a field for the end date of the range with the internal name **DATRANGE-HIGH**. Additionally, there is a button called **Search** on the screen. The button sends the function code SRCH and the flow logic of screen 3000 calls a function to start the selection using the selection parameters set in this screen, collecting all archived objects matching the search criteria in an internal table. The results are then displayed in screen 3200 if function codes BKPF, EKKO, or BLNR were set and in screen 3400 if function code DRAW was set before.

Screen 3350:

Screen 3350 is an input mask for reference numbers. It has one field to enter the reference number with the internal name `BELSUCHNR`. Additionally, there is a button called **Search** on the screen. The button sends the function code SRNR and the flow logic of screen 3000 calls a function to start the selection using the reference number set in this screen, collecting all archived objects matching the number in an internal table. The results are then displayed in screen 3200.

Screen 3400:

The screen displays the results of the selection performed on the basis of the selection parameters entered in screen 3350. The results are displayed in a table; every row shows a short information text of the archived document, the archiving date, the logical archive, where the document is, and the archive document ID. For every record found during selection, a row is inserted in the table. Using the **first page** and **next page** buttons, the list of records can be scrolled.

Screen 4300:

A blank screen used to reset the search screen mask of the second sub screen.

The program described above is called from a web browser through the SAP Internet Transaction Server using an ITS service file. Parameters in the service file specify the client, the user, the transaction, etc. that are used when calling the transaction in the R/3 System. The output of the R/3 transaction is then routed through the ITS to a web server. Before the ITS routes the output to the web server, it generates HTML files on the basis of special HTML template files. The web server sends the HTML pages to the requesting web browser, which then displays the result. When the transaction was called from the ITS and all data is collected and ready to display, the ITS sends a `next page` event as long as there is more data. If all records were displayed, a `first page` event is sent. These actions can take some time if a large number of records is collected during selection.

Chapter 9. Cold Import (DocUpload)

Functions

Using the CommonStore Cold Import Program, it is possible to import SAP-external documents into the SAP R/3 System and to archive them at the same time.

When doing this, documents referring to an SAP business object are allocated to the corresponding business object. They are then accessible via SAP ArchiveLink, i.e. they can be displayed both directly via the SAP applications and indirectly via the generic ArchiveLink search panel.

In the case of documents lacking a reference to an SAP business object, the CommonStore Cold Import Program inserts them into the system as SAP print lists. They can then be displayed both directly via the SAP application DVS (document administration system) and indirectly via the generic ArchiveLink search panel.

The data is stored by the CommonStore Server in the VisualInfo archive and the requisite linking information permitting direct access from SAP R/3 is generated in the corresponding SAP tables.

Prerequisites

Each document is available in the form of a file on a file system accessible to the CommonStore Client.

All documents must be archived insofar as CommonStore must generate an archive ID.

Documents with a reference to an SAP object must be provided with the corresponding object ID, either in the file name or in an external description file.

Highlights

The program features **User Exit**, a functional component permitting barcode values to be manipulated using the SAP R/3 data.

The program automatically generates hyperlinks in the corresponding protocol. Thus, while this import program's protocol is being archived, you can simultaneously access the imported documents via the hyperlink.

Sequence of events

1. Documents in the form of files (scanned e.g. with the Kofax Ascent Capture Release Module or Cornerstone Input Accel) are made available on a file system.
2. CommonStore Client reads the files and archives the documents via the CommonStore Server in the corresponding archive.
3. CommonStore Client transmits the information on the documents to SAP by means of a **Remote Function Call** (*INSERT_BARCODE_RFC*). The information is thus available in the temporary **Open Barcode** table in the SAP system. Following a successful report, the files in the file system are erased.
4. In the SAP system, the CommonStore Cold Import Program is first triggered. It then reads the entries in the **Open Barcode** table and, depending upon the stated business object (**DRAW** for print lists), links the documents with an existent SAP business object or places them in the SAP DVS. In this context, the transmitted barcode is interpreted either as a business object ID or as a print list description. If it proves impossible to directly interpret the barcode as an SAP business object ID, the **User Exit** function can be invoked to determine the corresponding SAP business object ID on the basis of the transmitted barcode. Upon request, the **User Exit** function simultaneously generates hyperlinks in the import protocol.

Example

In this example, SAP personnel data is to be linked with personnel documents — specifically, scanned resumés). The SAP business object is the personnel data file and the business object ID is the SAP personnel number. The resumés are of the TIFF type, and each resumé is available as an individual file. All of the documents receive the SAP personnel numbers as their file names.

The CommonStore Client loads the PDF documents, archives them via the CommonStore Server, and then transmits the documents to the SAP system's **Open Barcode** table. In doing so, not only the archive document IDs are sent, but the personnel numbers (in the form of barcode IDs), too.

The CommonStore Import Program reads the **Open Barcode** table, recognizes the personnel numbers, and links the personnel data file with the corresponding documents. After successfully linking them, the entry in the **Open Barcode** table is erased.

From now on, the documents are accessible via the SAP application HR.

Technical implementation of the CommonStore Cold Import Program

The ABAP Report ZCSI can be invoked together with the following parameters:

ARCHIV (TOA01–ARCHIV_ID)
Using this parameter, one can specify which values are to be read from the **Open Barcode** table. Further, the archive's ID (needed for the ArchiveLink) can likewise be ***set***.

SAP_OBJ (TOA01–SAP_OBJECT DEFAULT 'DRAW')
Using this parameter, one can specify the SAP business object to which the documents are to be linked. If you choose the value **DRAW** for this parameter, this indicates to the CommonStore Index Import Program that the documents have no reference to an SAP business object and are hence to be collected as SAP print lists with an automatic entry and sent to DVS.

SAP_OBJ (TOA01–SAP_OBJECT DEFAULT 'D01')
Using this parameter, one can define the kind of document upon which the SAP business object is dependent.

DOCTYPE (TOADV-DOC_TYPE DEFAULT 'alf')
Using this parameter, once can define the technical document type. In the case of print lists, the document class is automatically defined as ALF.

OBJECTID (DEFAULT 'C0000000')
Using this parameter, one can define the eight-digit starting number for the automatic generation of print list numbers. The value must have the following structure: **AIIIIIII**. The first digit is an alphabetic character, and the following seven digits are single-digit integers. The CommonStore Index Import Program checks the existence of the same ID (on the **TOADL** table) and automatically increments numerically. Thus, there is a maximum of 99,999,999 imported documents per leading alphabetic character. This parameter takes effect only when importing print lists.

INFO (DEFAULT 'IMP')
Any desired value (representing information) can be specified using this parameter. It is displayed in the SAP DVS and thus serves as index information. This parameter can be assigned a value each time that the CommonStore Cold Import Program runs.

Caution:
This value is part of the price discount in SAP DVS.

This parameter ***takes effect*** only when importing print lists.

PRINTER (DEFAULT 'LP01')
Any desired value (to identify the printer) can be specified using this parameter. It is displayed in the SAP DVS and thus serves as index information. This parameter can be assigned a value each time that the CommonStore Cold Import Program runs. This parameter takes effect only when importing print lists.

FORMULAR (DEFAULT 'CS_INDEX')
Any desired value (to identify the form) can be specified using this parameter. It is displayed in the SAP DVS and thus serves as index information. This parameter can be assigned a value each time that the CommonStore Cold Import Program runs. This parameter takes effect only when importing print lists.

DVS Checkbox (DEFAULT 'X')
Using this parameter, one can specify whether documents interpreted as being print lists are to be accessible not only via ArchiveLink, but also via SAP DVS.

Caution:
Importing into SAP DVS consumes considerable resources.

This parameter takes effect only when importing print lists.

Technical description of the report ZCSI (T-Code ZCSI)

The report ZCSI (T-Code `ZCSI`) employs the following functions:

ARCHIV_CONNECTION_INSERT
This SAP component is used to import documents capable of being allocated to an SAP business object. It generates the requisite entries (in the tables **TOA01–023** and **TOAHR**), thus enabling the imported documents to be accessed both directly from the SAP applications and indirectly via ArchiveLink.

ARCHIV_CHANGE_OBJECT
This SAP component is used to import documents not capable of being allocated to an SAP business object. It generates the requisite entries (in the table **TOADL**), thus enabling the imported documents to be accessed as print lists via ArchiveLink.

ARCHIV_INSERT_DVS
This SAP component is used to import documents not capable of being allocated to an SAP business object. It generates the requisite

entries (in the DVS tables), thus enabling the imported documents to be accessed as print lists via the SAP DVS.

BARCODE_INSERT_RFC

This SAP component is employed in order to report barcode entries back to the SAP system. It is documented in the corresponding SAP ArchiveLink handbooks.

Z_CSI_USER_EXIT

This CommonStore functional component is employed in order to implement a User Exit. It can be used whenever documents are to be allocated to SAP business objects whose object IDs cannot be inputted in the barcode field. It is invoked by the main program together with all parameters (including *Barcode*). On the basis of this information, it can then derive the SAP business object ID from the SAP system and return it to the main program. The determination of the SAP business object ID is customer-specific and/or application-specific and must be programmed separately.

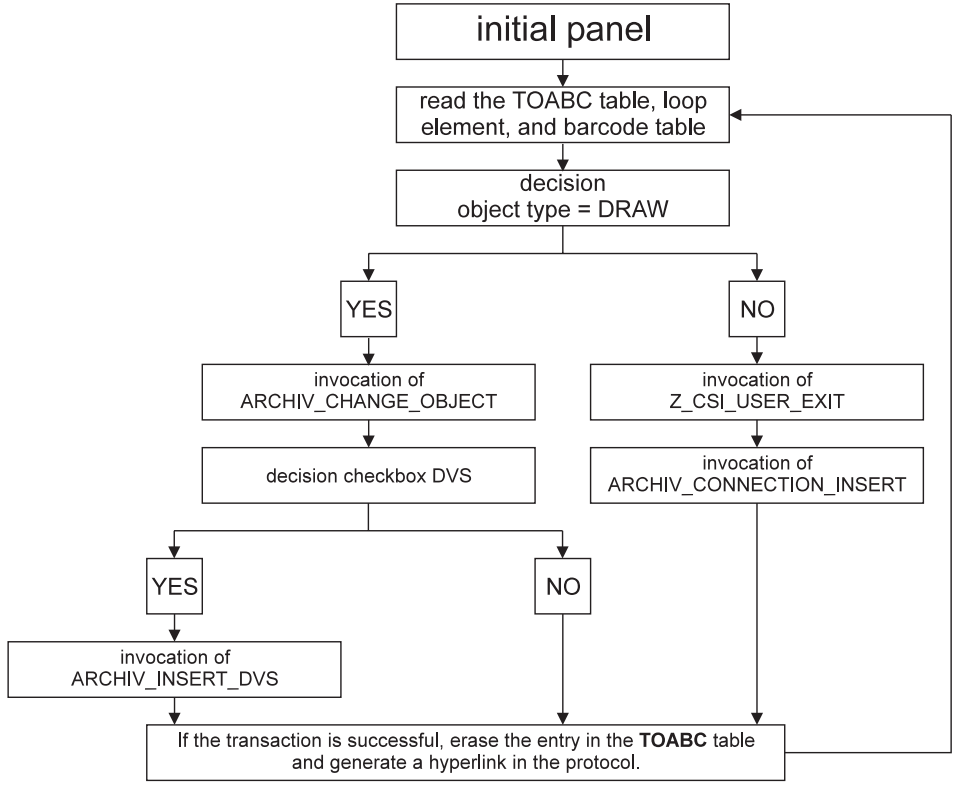


Figure 11. Simplified sequence for the report ZCSI

Remarks:

Transaction security is guaranteed by the following tests:

1. Generally speaking, if a transaction fails, further processing of that loop is terminated and the program proceeds to the next loop element.
2. If ARCHIV_CHANGE_OBJECT succeeds but ARCHIV_INSERT_DVS fails, the corresponding entry in the **TOADL** table is explicitly erased.
3. If the transaction is successful, each individual entry in the **TOABC** table is immediately erased within the loop.

Chapter 10. Troubleshooting

General

If you are experiencing problems with CommonStore, please contact our hotline at (+49)-7031-16-1919 or send an e-mail to

`cstore@de.ibm.com`

When doing so, please include the following information:

- description of the action you are trying to perform
- release number of the SAP system
- release number of CommonStore
- the CommonStore Server profile
- the CommonStore Server traces:
  - `archint.startup_trace`
  - `archint.trace`
  - `archservice.trace` (for CommonStore Server NT)

> **Note:**
> *TRACE* must be set to **ON** in the CommonStore profile.

- `dev_rfc`

> **Note:**
> *TRACE* must be set to **ON** or to **RFC** in the CommonStore profile.

- If available, job logs of the failing components.
- The last 50 records from file `EKD0080` in `<Ekdlibfil>` (the file library of VI).

CommonStore

Problem:

CommonStore does not start.

Solution:

CommonStore checks at startup whether all settings are correct and whether it was possible to establish a connection to R/3 and to the

archive servers. Further, all paths and file specified in the ini file named `archint.ini` must be accessible. Proceed as follows:

Step 1:

Make sure that the paths and files are accessible for the user. Do not use file names where directories are expected or vice versa. When there is no screen output of `archpro` available, enable the tracing (*TRACE* **ON**) and look for error messages in the trace files.

Step 2:

Determine which child process has problems with the connection. There should be a corresponding error message displayed by `archpro`. The same error message is also found in the trace file. If you cannot find out which component failed, check them separately. Enable only one dispatcher, and disable all agents or vice versa.

Problem:

How can I tell that the CommonStore child component is working (is ready)?

Solution:

The connection is working when `archpro` displays the following typical messages:

- `archpro` is informed that `xxx` has started (from dispatcher and agents).
- `archpro` is informed that `xxx` is ready to obtain order (only from agents).
- Dispatcher is ready and waiting for RFCs ... (only from dispatcher).

The message about `xxx`'s start is sent by the child process immediately after the start. It means that a connection between `archpro` and the child process has been established. The ready message is sent by the child after the corresponding check has been done. For the dispatchers, this means that the connection to R/3 has been established. For the agents, it means that they have performed a logon to the archive server and have verified all corresponding settings (user name, password, management class, index class, ...). When you see the ready message, you know that this component is working completely.

VisualInfo/400

If you encounter problems with CommonStore and VisualInfo, stop the CommonStore Server. If `archpro` has to be restarted as a batch job, provide (either in the submit job command or in the concluded job description) that all messages and CL commands have to be logged. Use the following command to submit the job to the appropriate subsystem:

```
SBMJOB CMD(CALL PGM(ARCHPRO))
 JOBD(*USRPRF)
 JOBQ(<Jobq>)
 INLLIBL(*CURRENT)
 LOG(4 00 *SECLVL)
 LOGCLPGM(*YES)
```

where <Jobq> is the job queue to be used when submitting jobs.

Consult the VisualInfo publication *Messages and Codes* (publication no. GC31-9065-03) for detailed error descriptions or refer to the *System Administration Guide* (publication no. SC34-4583-00) for collecting further trace information. When in doubt, double-check the VisualInfo key field, index class, and workflow definitions.

Chapter 11. Print lists

Overview of steps

1. Check the existence of the ArchiveLink queues
   - Use T-code T-code OAM1.
   - Check if there is a message MISSING next to the queues.
   - If yes, please see section "Creating ArchiveLink queues".
2. Customize the archive device. See section "Customizing an archiving device" on page 68.
3. Create an entry in the link table for archiving print lists. See section "Creating an entry in the link table for archiving print lists" on page 69.
4. Create an ArchiveLink batch job. See section "Creating an ArchiveLink batch job" on page 69.
5. Customize the protocol for viewing print lists. See section "Customizing the protocol for viewing print lists" on page 72.
6. Create a print list. See section "Creating a print list" on page 73.
7. View the print list. See section "Viewing a print list" on page 74.

Note:
In order to create print lists with hyperlinks, be aware of the following two actions:

- Choose via the menu **Program->Execute and print** (**Shift** + **F1**). When using the **Execute** button, no hyperlinks will be created!
- See also section "Enabling extended ALF viewing" on page 75 for customizing the settings.

Creating ArchiveLink queues

In R/3 release 3.1x:

Use T-Code OAM1.

Press the **Create queues** button.

In R/3 release 4.0x:

In the IMG (T-Code SPRO, **F5**), go to **Basis Components->Basis->SAP ArchiveLink->Basic Settings->Create Queues**.

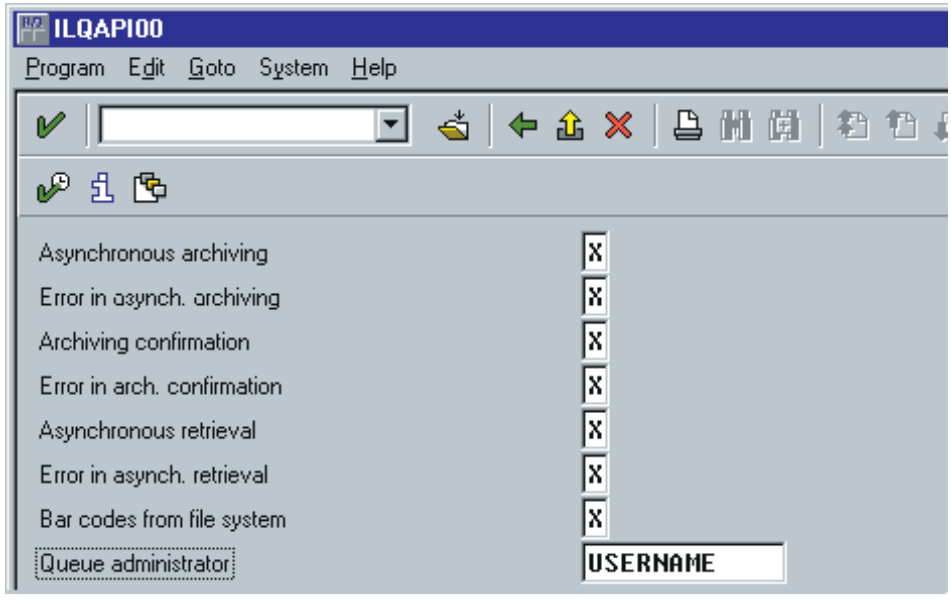


Figure 12. Settings in the IMG for creating ArchiveLink queues

The settings must be as shown in the above screenshot (where USERNAME can be any name you choose).

Press the **Execute** button.

Customizing an archiving device

Go to T-code SPAD.

Click the **Change** button.

Click the **Create** button.

Enter the following settings:

Device name	ARCH
Device type	ARCHLINK
Device class	A
Access method	I

Save the changes.

Creating an ArchiveLink batch job

Go to T-code SM36.

Enter the following settings:

Job name	ARCHIVELINK (for example)
Job class	C

Click on **Start date**.

A new panel will pop up in which you can set your time preferences.

Creating an entry in the link table for archiving print lists

Use T-Code OAC3.

The explanations below refer to customizing for the ALF document class.

Please check to see if there is already an entry in your link table with the following settings:

Obj.type	DRAW
Doc.type	DO1

If there is such an entry, you may update only the **Arch.ID** for this entry.

In order to create a new entry in the link table, please proceed as follows:

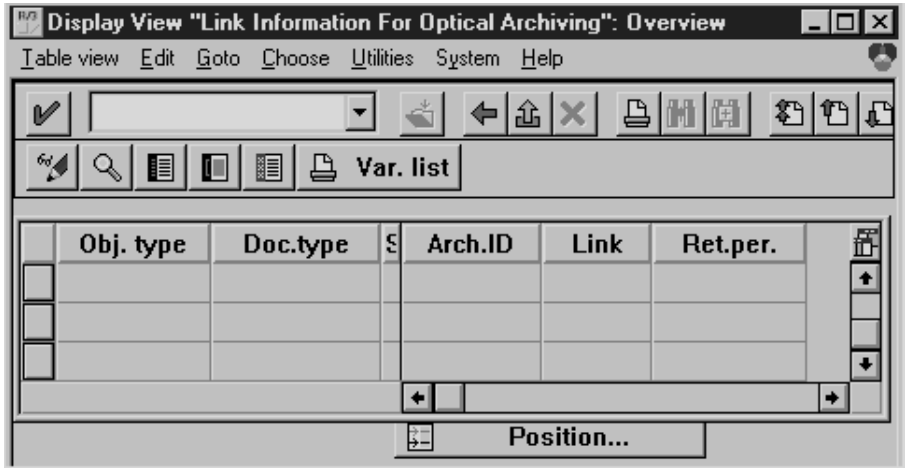


Figure 13. Creating a new entry in the link table

Press the **Change** button.

The panel changes.

Click on the **New Entries** button.

The panel changes.

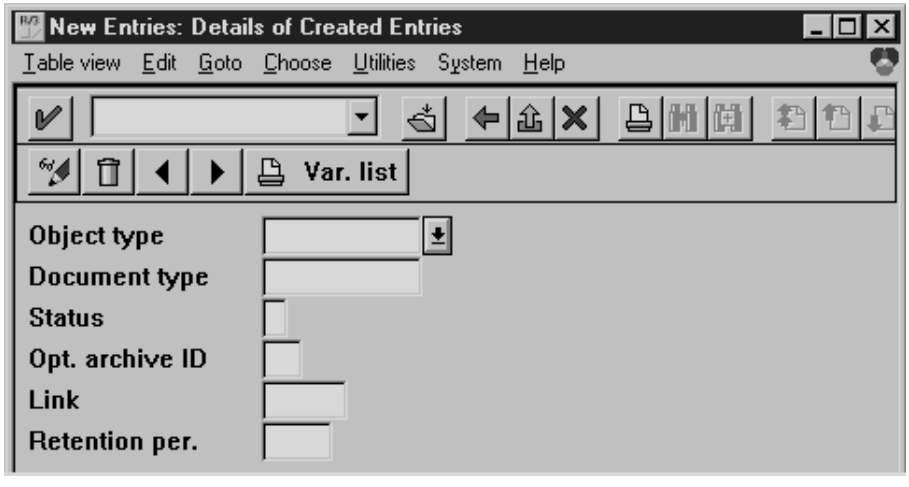


Figure 14. New entries: Details of created entries

Enter the following settings:

Object type	DRAW
Document type	D01
Status	X
Opt. archive ID	AI
Link	TOA01
Retention per.	(leave blank)

Press the **Save** icon.

Note:
Please check the entry for the DRAW archiving object (see also "Checking the entry in the TOAOM table" on page 86).

Customizing the protocol for viewing print lists

Use T-code OAA3.

Double click on the entry of the protocol used in the archive definition for print lists (for information on how to create a new ArchiveLink protocol, see "Creating an ArchiveLink protocol").

Click on the **Display object** or (as the case may be) the **Display archived object** entry (the first entry in the list!).

Enable the **ALF** radio button.

Click on the **Edit** button.

Choose **Comm. method** = R/3 if you want to use the SAP GUI for viewing. In this case, no extra customizing step is necessary. This is the SAP-recommended way for the future. Starting with SAP Release 4.5/4.6, print lists with hyperlinks can also be viewed in the SAP GUI.

If you want to use the ArchiveLink Viewer, you need to install the CommonStore Viewing Client package (consisting of `csview.exe` and `CSClient.dll`). Please see the *IBM Content Manager CommonStore Client Installation and User's Guide* for more information on this topic.

Creating an ArchiveLink protocol

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

Use T-code OAA3.

Click the **New protocol** button.

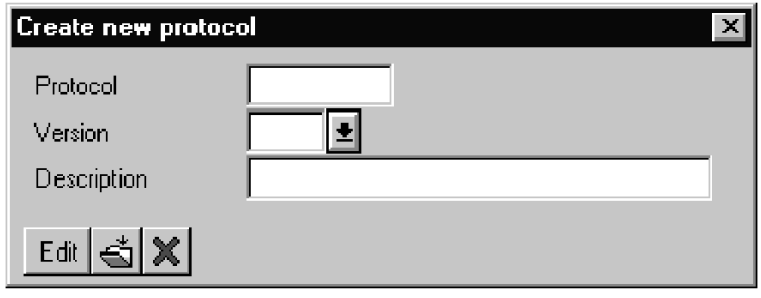


Figure 15. Creating a new protocol

Enter the following settings:

`Protocol`	`CSPRT` (logical name)
`Version`	Choose the highest version, depending upon the release of your R/3 System.
`Description`	Enter information on this protocol.

Click the **Save** icon.

Creating a print list

Use e.g. T-code `OAC2`.

A list of document types defined in the R/3 System will be displayed.

Click on the **Printer** icon or **Ctrl** + **P**.

Choose an existing printer.

Click on **Print Immed**.

Click **Delete after print**.

Choose archiving mode **Archive** or **Print and archive**, depending upon your preferences.

Click again the **Printer** icon or **Shift** + **F1**.

The following panel will be displayed.

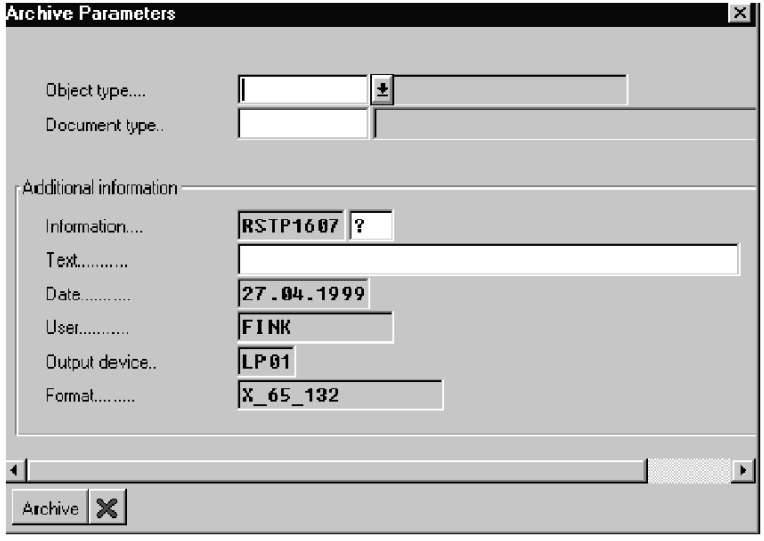


Figure 16. Archive parameters

Enter the following settings:

Object type	DRAW
Document type	D01
Information:	Enter a 3-character information.
Text:	Enter a description text.

Click on the **Archive** button.

A message will appear in the statusbar that a spool request has been created.

The print list will now be created. As soon as the ArchiveLink batch job runs, it will be archived.

Viewing a print list

Use T-code OADR.

Enter your selection criteria.

Click on the **Execute** button or **F8**.

A list of all the archived print lists will be displayed.

Highlight the print list to be viewed.

Click on the **Display from archive** button.

Depending upon the settings in the protocol, the print list will be viewed in the SAP GUI or using the ArchiveLink Viewer.

Enabling extended ALF viewing

Use T-codes `RZ10` and `RZ11`.

Choose the profile of the SAP system and add the parameter with the value as specified below:

```
rspo/archive_format=2
```

Chapter 12. Archiving application data (reorganization)

In order to enable the archiving of print lists, the following additional steps to the base setup (Steps 1 to 4: see “Chapter 4. Base setup” on page 29) will need to be performed in the R/3 System:

Step 5:

Create a logical archive.

Please see “Creating logical archives” on page 83.

Step 6:

Create an entry in the link table.

Please see “Creating entries in the link table” on page 84.

Step 7:

Create ArchiveLink queues.

Please see “Creating ArchiveLink queues” on page 67.

Step 8:

Customize the ArchiveLink path.

Please see “Customizing the ArchiveLink Path” on page 88.

Step 9:

Create test data for the archiving object `FI_BANKS`.

Please see “Creating test data for the FI_BANKS archiving object” on page 88.

Step 10:

Run an archiving session of application data of the archiving object `FI_BANKS`. Please see “Running an archiving session of the FI_BANKS archiving object” on page 89.

Step 11:

Retrieve archived application data from the archive to the file system.

Please see “Retrieving archived files of FI_BANKS to the file system” on page 91.

Step 12:

Reload archived data to the database.

Please see “Reloading archived files to the R/3 database” on page 91.

Note:
Please make sure that the data to be reloaded is available in the file system.

Chapter 13. SAP

Creating an SAP R/3 CPIC user

Use T-Code `SU01`.

Then enter the name of the CPIC user which you want to create.

Press the **Create** button.

The panel changes.

Enter the password.

Set the time frame for the validity of this user.

Set the **User type** to `CPIC`.

Set the **Authorization profiles** to **SAP_ALL** and **SAP_NEW**.

Click on the **Continue** icon.

Click on the **Save** icon.

Note:
In `archint.ini`, you will need to enter:

`USER`	name of the CPIC user

Creating an RFC destination

Use T-Code `SM59`.

Click on **TCP/IP connections**.

Click on the **Create** button.

The panel changes.

Enter settings:

`RFC destination`	`KD7.ARCHIFIX`
`Connection type`	`T`
`Description`	`CommonStore RFC Connection`

Press **ENTER**.

The panel changes.

Click for **Activation Type** on **REGISTRATION**.

The panel changes.

Enter a program ID (e.g. `KD7.ARCHIFIX`).

Note:
The following entry must be made in archint.ini:

PROGID	the name of the Program ID as customized above (e.g. KD7.ARCHIFIX)

Setting the gateway options

Use T-Code SM59.

Open **TCP/IP Connections**.

Double click on the RFC Destination you created before.

Choose the menu path: **Destination->Gateway-Options**

Enter the following settings:

Gateway host	same as for GWHOST in archint.ini
Gateway service	same as for GWSERV in archint.ini

Press the **OK** button.

Click on the **Save** icon.

Testing the TCP/IP connection

Use T-Code SM59.

Open T**CP/IP Connections**.

Double click on the RFC Destination you created before.

Press the **Test Connection** button.

Similar to the **ping** command on UNIX, R/3 will send five calls to CommonStore and will display connection information on the screen.

Checking the logical system

Use T-Code BD54.

> **Note:**
> Changes will be client-independent.

If there are already logical systems specified in the table, use one of them.

> **Note:**
> Please avoid making changes to the settings of an existing logical system as this might have far-reaching consequences.

If no logical system has been set up, create one as described below:

Press the **New Entries** button.

Enter the name of your new logical system and a description.

Click on the **Save** icon.

Check the link of the R/3 Client to the logical system (see "Checking the link of the R/3 client to a logical system" on page 83).

> **Note:**
> The following must be entered in archint.ini:
>
> | | |
> |---|---|
> | LOGICAL_SYSTEM | the name of the chosen logical system |
> | CLIENT | the name of the client connected to the logical system |

Checking the link of the R/3 client to a logical system

Use T-Code SCC4.

Please see also "Checking the logical system" on page 82.

Double click your client's entry.

The panel changes.

> **Note:**
> If the *LOGICAL_SYSTEM* is already specified, please avoid making any changes as this might have far-reaching consequences.

If no *LOGICAL_SYSTEM* has been specified, press the **Change** button.

> **Note:**
> Changes will be client-independent.

Enter the chosen logical system.

Click on the **Save** icon.

Creating logical archives

Use T-Code OAC0.

> **Note:**
> Changes will be client-independent.

Press the **Change** icon.

The panel changes.

Click on the **New Entries** button.

The panel changes.

Enter settings:

Opt. archive ID	AI
Description	CommonStore Archive
RPC host	(leave blank)
RPC service/RFC dest	KD7.ARCHIFIX (as customized in "Creating an RFC destination" on page 80)
Arch. protocol	ARCHPRT
Version no.	0031 (corresponding to your SAP release)
Connection name	(leave blank)
Basic path	/sap/trans/base/archint/
Arch. path	/sap/trans/base/archint/
SpoolPath	
RFC	YES (click)
RPC	NO (don't click)

Press the **Save** icon.

Note:
Please don't forget the slash at the end of the BASEPATH and the ARCHPATH entry.

Note:
The setting for the Basic path must correspond to the setting for the keyword *BASEPATH* in archint.ini. Further, the setting for Arch. path must correspond to the settings for the keyword *ARCHPATH* in archint.ini.

Creating entries in the link table

Use T-Code OAC3.

The explanations below refer to customizing for the REO document type.

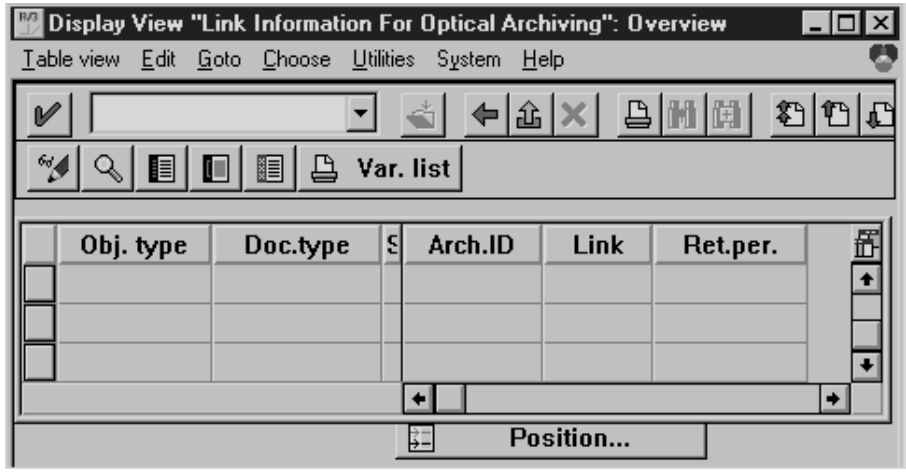
Please check if there is already an entry in your link table where

Obj.type = ARCHIVE

and

```
Doc.type = ARCHIVE
```

If there is such an entry, you may update only the `Arch.ID` for this entry. In order to create a new entry in the link table, please proceed as follows:

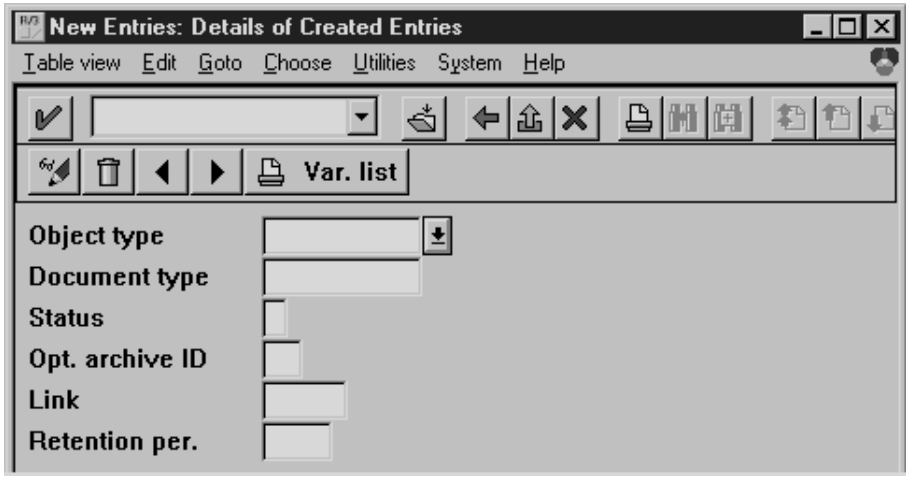


Press the **Change** button.

The panel changes.

Click on the **New Entries** button.

The panel changes.



Enter settings:

`Object type`	`ARCHIVE`
`Document type`	`ARCHIVE`
`Status`	`X`
`Opt. archive ID`	`AI`
`Link table`	`TOA01`
`Retention per.`	(leave blank)

Press the **Save** icon.

> **Note:**
> Please check the entry for the `ARCHIVE` archiving object (see also "Checking the entry in the TOAOM table").

Checking the entry in the TOAOM table

Use T-Code `SE16`.

Enter `TOAOM` as the table name.

Check the line where `SAP_OBJECT = ARCHIVE` and `AR_OBJECT = ARCHIVE`.

Note:
DOCUMENT_TYPE must be set to REO. If this entry is missing, CommonStore will not accept orders for archiving application data (reorganizing).

To create ArchiveLink queues, see "Creating ArchiveLink queues" on page 67.

Customizing the ArchiveLink Path

Use T-Code FILE.

The first magnifying glass (Logical file path definition) should be highlighted.

Mark **ARCHIVE_GLOBAL_PATH** in the **Select** window at the bottom of the page.

Press the second magnifying glass (**Assignment of physical paths to logical path**).

In the **Select** window, double click on the syntax group corresponding to the operating system on which the R/3 System is installed.

As the **Physical path**, specify the path customized as **Basic path** in "Creating logical archives" on page 83 (e.g. /sap/trans/base/archint/<FILENAME>, where /sap/trans/base/archint is the basic path specified when creating the logical archive).

Press the third magnifying glass.

In the **Select** window, double click on **ARCHIVE_DATA_FILE_WITH_ARCHIVELINK**.

Check if **Logical path** is set to **ARCHIVE_GLOBAL_PATH**.

Press the **Save** icon.

In the **Select** window, double click on **ARCHIVE_DATA_FILE**.

Check if **Logical path** is set to **ARCHIVE_GLOBAL_PATH**.

Press the **Save** icon.

Creating test data for the FI_BANKS archiving object

Use T-Code FI01.

Enter the following settings:

```
Bank country                    AD
Bank key                        1234567
```

Press ENTER.

The panel changes.

Enter the following settings:

```
Bank                              Archiving test
```

Click the **Save** icon.

Checking the customization settings for archiving

Use T-Code SARA.

Choose **FI_BANKS** as the object name.

Press the **Customizing** button.

Check if **Log.file name** is set to **ARCHIVE_DATA_FILE_WITH_ARCHIVELINK** or to **ARCHIVE_DATA_FILE**.

In the section **Connection to archiving system**, choose **ARCHIVE** as the document type and then enable **Start autom.**

In the section **Settings for delete program**, enable **Start autom.**

Check if **Test run variant** is set to a test variant (e.g. **SAP&TEST**).

Check if **Prod.run variant** is set to a productive variant (e.g. **SAP&PROD**).

Click on the **Save** icon.

Click on the **Back** icon.

Running an archiving session of the FI_BANKS archiving object

Use T-Code SARA.

Choose **FI_BANKS** as the **Object name**.

Press **ENTER**.

Check the customization settings (see "Checking the customization settings for archiving").

Press the **Archive** button.

Enter the name of a **Variant**.

- Press the **Maintain** button.
- Enter the following settings:

```
Bank country                    AD
Min. no. of days in the system  0
```

- Disable **Only with delete flag**.
- Disable **Test run**.
- Enable **Detail log**.
- Press the **Continue** button.
- Enter `CommonStore Test` as the description.
- Press the **Save** icon.
- Press the **Back** icon.

Click on the **Start date** button.

- Press the **Immediate** button.
- Click on the **Save** icon.

Press the **Spool params.** button.

- If no **Output device** is specified, leave it blank.
- Press the **Save** button.
- (If **Output device** was blank, a warning will appear.)
- Click on the **Continue** button.

Click on the **Create job** icon.

Go to **Job overview**.

- You can see the different jobs started for this archiving session.

  ```
  SUB   submit
  WRI   write
  DEL   delete
  ```

- After the `DEL` job has been finished and if the **Start autom.** check box is enabled (see also "Checking the customization settings for archiving" on page 89), a request will be sent automatically to CommonStore to archive the reorganization file generated from R/3.

Retrieving archived files of FI_BANKS to the file system

Use T-Code SARA.

Choose **FI_BANKS** as the object name.

Press **ENTER**.

Press the **Management** button.

A list of processed archiving sessions will be displayed. Mark the session you want to be retrieved.

Press the **Buffer** button.

The panel will display the files belonging to the marked archive run.

Press the **Retrieve files** button.

A call will be sent to CommonStore and the retrieved files will be allocated in the file system.

> **Note:**
> Please make sure that CommonStore has WRITE access to the exchange path.

Reloading archived files to the R/3 database

Use T-Code SARA.

Choose **FI_BANKS** as the object name.

Press **ENTER**.

Press the **Reload** button.

Enter the name of a variant.

- Press the **Maintain** button.
- Enter following settings:

  ```
  Bank country   AD
  ```
- Disable **Test run**.
- Enable **Detail log**.
- Press the **Continue** button.

- Enter `CommonStore Test` as the description.
- Click on the **Save** icon.
- Click on the **Back** icon.

Press the **Archive selection** button. A list of reloadable archive runs will be displayed.

- Mark the run to be reloaded.

> **Note:**
> The files must first be retrieved from the archiving system (see "Retrieving archived files of FI_BANKS to the file system" on page 91).

Press the **Start date** button.

- Press the **Immediate** button.
- Click on the **Save** icon.

Press the **Spool params** button. If no **Output device** is specified, leave it blank.

- Press the **Save** button. (If **Output device** was blank, a warning will appear. Click on the **Continue** button.)

Click on the **Create job** icon.

Go to **Job overview**.

- A reload (`REL`) job for this archiving session will be executed.

Chapter 14. VisualInfo/400

General information on VisualInfo

With IBM CommonStore for VisualInfo, IBM is providing SAP users with a multi-platform client/server solution for the capturing, archiving and administering of documents and data covering the entire spectrum of corporate operations. IBM VisualInfo is seamlessly integrated into the business processes of SAP R/3 (accounting, logistics and human resources). All archiving functions are directly available through pulldown menus of the R/3 user interface, thus allowing clerical workers to work in the accustomed SAP R/3 environment. But in contrast to conventional SAP archiving systems, IBM CommonStore for VisualInfo cannot be used only to manage SAP related data. VisualInfo is a multi-purpose document management system that supports all kinds of information regardless of type and origin. SAP related documents and documents created with other applications can even be stored in common folders in order to provide archive users with convenient access to important business data.

Central or Distributed Archives

VisualInfo supports the concept of distributed information management. Multiple object servers can be implemented within a common enterprise-wide archiving solution, allowing documents and data to be stored directly at the location of their users. This minimizes network utilization and facilitates fast access to all kinds of information. Users can access all distributed archives directly from their desktop workstation, regardless of server location and system platform.

The solution for your environment

In order to meet individual customer requirements for the configuration of archive solutions, VisualInfo supports several different operating systems:

- Windows 3.1
- Windows 95
- Windows NT
- AIX
- OS/2
- MVS/ESA
- OS/400

IBM's well-known System Managed Storage technology (SMS) is another major advantage of VisualInfo. Based on a customizable setup, SMS automates the transmission of data from one archive to another and supports the time-controlled migration of documents between different storage media.

Usability

With the graphical user interface of VisualInfo, all important documents can be instantly searched and retrieved from the archiving system, whether they are scanned originals (such as letters or invoices), faxes, text files, spreadsheets, graphic files, or audio visual recordings. By using VisualInfo, all these types of information can be stored in collective files and dealt with conveniently. Recurrent jobs can be automated using the built-in workflow component.

Creating a VisualInfo user

In order to create a VisualInfo user, please refer to the manual *IBM ImagePlus VisualInfo for AS/400 – System Administration Guide* (Version 4 release 1, form no. SC34-4583-00).

Creating a VisualInfo index class

In order to create an index class, please refer to the manual *IBM ImagePlus VisualInfo for AS/400 – System Administration Guide* (Version 4 release 1, form no. SC34-4583-00).

Note:
The text field belonging to an index class *must* begin with the same name as the index class name (e.g. index class: `CSTOREN`, text: `CSTOREN, IDXclass new docs`).

Create at least two index classes and two corresponding workbaskets. The index classes should contain all required attributes:

Key field	Key field description	Character type	Length	Required: yes/no
TMESTAMP	Time Stamp	Time Stamp	26	yes
SAPDTI	SapDocType	alphanumeric	20	no
SAPBCI	SapBarCodeId	alphanumeric	32	no
SAPDID	SapDocId	alphanumeric	17	no
SAPFID	SapFormDocId	alphanumeric	40	no
SAPFAID	SapFormArchivId	alphanumeric	10	no
SAPCCSID	SapCCSID	alphanumeric	5	no
SAPLEN	SapDocLength	alphanumeric	40	no

Note:
The entries in the table are case sensititive. In cases of errors while archiving regarding not found/not defined key fields, check the key field descriptions first.

At least one of the fields defined for the index class has to be chosen as the key field to represent the object. In general, this should be **SAPDID**.

The attribute 'Time Stamp' should be used as predefined in any VisualInfo system. Do not create a new one.

Please bear in mind that an index class cannot be changed as long as it has documents in it.

Creating a VisualInfo workbasket

In order to create a VisualInfo work basket, please refer to the manual *IBM ImagePlus VisualInfo for AS/400 – System Administration Guide* (Version 4 release 1, form no. SC34-4583-00). Please bear in mind that the description of the workbasket must be the same as defined in the ini file.

Chapter 15. Special remarks

For users of SAP R/3 3.0D — 3.1I:

Please consider R/3 note number 0089324 to eliminate an error in the ADK (Archive Development Kit) and to improve the performance in the archiving process.

For users of SAP R/3 3.1G:

Please consider R/3 note 0119599 to eliminate an error in the ADK (Archive Development Kit) concerning the single access of archived application (reorganized) data.

For users of SAP R/3 4.0B:

Multiple connections to the R/3 gateway (profile parameter *DISPATCHERS*) are not possible with this release of the R/3 software and may lead to error messages from the CommonStore dispatcher and shutdown of the CommonStore Server. Please consider R/3 note number 0116377 and update the R/3 kernel to patchlevel 1.2.1.

Chapter 16. FAQ

Question: What happens if SAP changes the ArchiveLink interface (in a new R/3 version)?

Answer: Emphasize that IBM will always support the full ArchiveLink functionality of the actual SAP R/3 version. Though SAP guarantees that new releases of R/3 will provide backward compatibility to previous ArchiveLink versions, SAP will inform IBM (as the provider of a certified product) about any new feature that they are going to announce. IBM will then implement these new features a.s.a.p. and provide updates to the customers. It's then up to the customer whether he wants to install the update or not. Installing the update enables the customer to utilize the new ArchiveLink features. The solution will also work if the update will not be installed, but new functions won't be usable in this case.

Question: Is your solution certified by SAP AG?

Answer: Yes. IBM CommonStore was first certified as interface software for the SAP R/3 3.0 system in April, 1996. This certification test was carried out at the SAP headquarters in Walldorf, Germany using VisualInfo OS/2. In May of 1997, we re-certified the new AIX-based IBM CommonStore solution for R/3 3.1 thus having CommonStore certified for all relevant R/3 versions today. The certificates confirm the existence of product functionality in accordance with SAP's certification procedure. IBM will continue to (re)certify CommonStore (AIX, NT) for new R/3 versions as part of an ″enterprise certification agreement″ signed with SAP.

Question: Do we need separate archive client licenses besides the CommonStore Client-Licenses?

Answer: No, CommonStore provides the full functionality for retrieving and viewing of R/3 archived documents. You can use either the Archlink Viewing Client (delivered with SAPGUI), or other viewers you like. So if you always request the document through SAP, you don't need any additional Archive Client licenses. You will need these Clients only if you want to search for archived documents outside of SAP.

Question: If I have several CommonStore for different SAP-Systems, can I retrieve archived data from one Client workstation for all of them?

Answer: Yes, you can. If you do have distinct archive names over all your SAP systems you can customize the CommonStore Server for a Client-Access to all these archives, regardless on what SAP system you're logged in. So it will be completely transparent for the user.

Question: Can I run multiple CommonStore instances on one Server?

Answer: Yes, you can. CommonStore can be started in multiple instances on the same system. You only have to take care of distinct values of some ini parameters (e.g. *port* and *trace-/log-files* should be different). Thus, you must use distinct parameters for all used ini files. The executables can be unique and do not have to be copied.

Chapter 17. Contacts

Our hotline can be reached at (+49)-7031-16-1919. Or send an e-mail to
cstore@de.ibm.com

There you can also receive a license key and/or the decryption key.

More information on IBM contacts is available at
http://www.software.ibm.com/commonstore

For more information on IBM R/3 data management solutions, please see also the following Web page:
http://www.ibm.com/software/data/commonstore/

Chapter 18. SAP ArchiveLink

Customizing

Detailed instructions for the complete customizing of SAP ArchiveLink can be found in the documentation from SAP: ArchiveLink: User-Guide.

In general, customizing ArchiveLink includes the following:
- Creating R/3 Optical archive IDs
- Creating job queues for asynchronous processing
- Defining jobs for asynchronous processing
- Defining an archive printer
- Configuration of the RFC communication
- Defining technical document categories
- Defining document types
- Linking document types, technical document categories to Optical Archive ID
- Defining input area and document types for early archiving
- Defining the workflow component for early archiving
- Defining input area and document types for simultaneous archiving
- Defining input area and document types for late archiving

Note:
For base customizing, please refer to "Chapter 4. Base setup" on page 29.

Note:
Do not use `VI` as an R/3 archive ID. It is a reserved keyword for CommonStore.

General administration

The administration of the system includes the following:

Job-Control ArchiveLink
Processing of the SAP R/3 queues for asynchronous archiving, sending messages to VisualInfo, confirmations, barcode-connections.

Spool administration
Definition output devices, administration spool processes, controlling printing to archives.

Checking the log files for errors

Detailed instructions for the administration can be found in the SAP documentation (*ArchiveLink: User Guide*).

ArchiveLink Monitor

The ArchiveLink Monitor (R/3 T-code `OAM1`) facilitates the complete management of the SAP ArchiveLink interface (spools, queues, batch processes, etc.). From the ArchiveLink Monitor, you can reach all panels for complete R/3 ArchiveLink customization (except T-Code `SM59` for the TCP/IP connection). Detailed instructions for the Monitor can be found in the SAP documentation (*ArchiveLink: User Guide*).

Available SAP documentation

The following documentation is available on the SAP Documentation Print Files CD-ROM (available for SAP Release 3.1.G) or on the Online Help CD-ROM:

1. *WF SAP Archive Link*
2. *BC SAP Archive Link - Scenarios in Applications*
3. *BC Application Data Archiving and Reorganization* (needed only for reorganization data)

Appendix A. Keyword reference

General remarks

- Please do not use the name of keywords as values. It is especially important that you not use `VI` as an archive ID (keyword *ARCHIVE*).
- The character # is the comment symbol. When a line in the CommonStore ini file is started with #, this line is skipped completely.
- Used path names in the profile `archint.ini` are written in the IFS-convention syntax of the AS/400!

  EXAMPLE:For the library system, use:

  ```
  /QSYS.LIB/[Library].LIB/[Filename].[member]
  ```

  For the QDLS file system, use:

  ```
  /QDLS/[folder]/[dlo]
  ```

  For other file systems, use:

  ```
  /[directory]/.../[file]
  ```

The keywords *ARCHAGENTVI*, *DISPATCHER*, *ARCHWIN*, and *ARCHREG* are obsolete and are therefore no longer documented here. Nevertheless, CommonStore still accepts these keywords when found in the ini file, though a warning will be displayed. These obsolete keywords should be replaced by *BINPATH*(see page 108), which specifies the directory in which all CommonStore binaries reside.

ACTIVEQ_FILE *filename*

filename defines the complete path and file name of the activequeue file.

EXAMPLE:

```
ACTIVEQ_FILE   /CommonStore400/q_active
```

ARCHIVE *archive_ID*

archive_ID specifies the SAP R/3 logical archive ID (e.g. A1). The archive ID must be unique. It is used by CommonStore to identify the requested archive. All keywords required to access this archive are combined in the so-called **ARCHIVE** statement. The keyword *STORAGETYPE* must be specified as the second keyword. All following keywords depend on the storage type. Keywords belonging to different storage types must not be combined in a single **ARCHIVE** statement.

A default archive could be specified. All requests not matching any of the explicitly specified archive IDs are routed automatically to the default archive. Using a default archive could be very convenient. However, a default archive is potentially dangerous since documents intended for storage in a specific archive are saved in a completely different archive when an erroneous archive ID is used.

Examples are shown below. The archive **A3** is a little more complex than the others since it is used to support the scenario of late archiving with barcode for VisualInfo.

```
ARCHIVE  A2
  STORAGETYPE                   VI
  LIBSERVER                     LIBSERV2
  INDEX_CLASS                   SapA10
  VIUSER                        FRNUSER


ARCHIVE  A3
  STORAGETYPE                   VI
  LIBSERVER                     LIBSERV2
  INDEX_CLASS_SCAN              SapA11
  INDEX_CLASS                   SapScanA11
  WB_SCAN                       SapScanWB_A11
  WB_ERROR                      SapScanSaveWB_A11
  VIUSER                        FRNUSER
  LOGICAL_SYSTEM                T90CLNT090
```

Note:
You must not use `VI` as an archive ID. In general, keywords of the CommonStore ini file `archint.ini` must not be used as names.

Note:
Once set up, these settings should be saved and not changed; this is because any restore operations will depend upon them.

ARCHIV_CCSID

Is the codepage of the archive system and `archpro`.

EXAMPLE:

```
ARCHIV_CCSID   273
```

ARCHPATH *path*

Specifies the path under which objects to be retrieved are made available for the SAP applications. The CommonStore Server retrieves the files in this directory. It can be shared by all application servers and database servers via Network File System (NFS). The CommonStore Server must have access to this path as well.

If not specified, the default path is `/tmp`.

EXAMPLE:

```
ARCHPATH   /sap/trans/base/archint/
```

> **Note:**
> This must be the same path as provided in the SAP R/3 System (T-code `OAC0`). Check ownership and rights in the file system. If more than one SAP R/3 application server is running, this path must be shared via NFS by all application servers.

Only for archive data: The path which is used by the SAP ADK (T-code `SARA`) must be the same; this is because ADK, ArchiveLink, and the CommonStore Server share their data in this path. It can be customized in the ADK (**->Environment->Customizing**). Further changes can be done using the T-code `FILE`.

ARCHWINS *number*

Specifies the total number of parallel sessions (name: `archwin`) which the CommonStore Server establishes for the CommonStore/Client and the CommonStore DLL. If not specified, the default is **1**.

EXAMPLE:

```
ARCHWINS   3
```

> **Note:**
> If you do not use CommonStore/Client or the CommonStore DLL, `0` should be specified.

ARCHWIN_PORT *portnumber*

Specifies the TCP/IP registration port used by all CommonStore/Clients and all CommonStore DLLs for connecting to the CommonStore Server. This port must correspond to the settings in the CommonStore Client configuration file (name: `CSClient.ini`) on Windows PCs (NT and 9x). This fixed port is also used by `archstop` and `archbc`.

EXAMPLE:

```
ARCHWIN_PORT   5500
```

> **Note:**
> This is the fixed registration port of all Windows PCs. If more than one CommonStore Server is installed on a single machine, each instance requires a different *ARCHWIN_PORT*.

BASEPATH *path*

Specifies the path under which objects to be archived are made available by the SAP applications. Before issuing an order to the CommonStore Server, the files can be found in this directory. It can be shared by all application servers and database servers via NFS. The CommonStore Server must have access to this path as well. *ARCHPATH* and *BASEPATH* can specify the same physical path. If not specified, the default path is `/tmp`.

EXAMPLE:

```
BASEPATH   /sap/trans/base/archint/
```

> **Note:**
> This must be the same path as provided in the SAP R/3 System (T-code `OAC0`). Check ownership and rights in the file system.

Only for archive data: The path which is used by the SAP ADK (T-code `SARA`) must be the same; this is because ADK, ArchiveLink, and the CommonStore Server share their data in this path. It can be customized in the ADK (**->Environment->Customizing**). Further changes can be done using T-code `FILE`.

BINPATH *path*

Specifies the complete path to the following CommonStore binary files: `archpro`, `archagentv`, `archdp`, and `archwin`.

EXAMPLE:

```
BINPATH   /QSYS.LIB/CS400.LIB
```

> **Note:**
> The binaries `archpro`, `archagentv`, etc. *must not* be renamed. Further, it is expected that they reside in a *single* directory.

CHECK_ARCHIVE_SERVER *ON | OFF*

Specifies the reaction of CommonStore in case an archive is not available when starting up the CommonStore Server. When set to **ON**,

all archives for the configured agents must be available at startup; otherwise, CommonStore will refuse to start. When set to **OFF**, CommonStore prints a warning if an archive is not available; nevertheless, it will continue to start up. The default is **ON**.

CLIENT *ddd*

ddd is a three-digit number which specifies the client in the SAP R/3 System (T-code SCC4). This keyword is required if you specify any **LOGICAL_SYSTEM** section.

EXAMPLE:

```
CLIENT   800
```

> **Note:**
> This parameter refers to the corresponding **DESTINATION** statement.

CONFIG_FILE *filename*

Specifies the configuration file for the CommonStore Server to store all variable parameters such as passwords, user names, and current version number. *filename* specifies the full path and the name of the file. This keyword is required.

EXAMPLE:

```
CONFIG_FILE   /CommonStore400/archint.cfg
```

> **Note:**
> The configuration file is encrypted.

DESTINATION *destination_name*

Specifies the name for an SAP R/3 destination. You should use your SAP R/3 System's destination name. The **DESTINATION** statement unites all settings required to connect to R/3; see also the following example.

EXAMPLE:

```
DESTINATION                    KD7
  PROGID                       KD7.ARCHINT
  GWHOST                       /H/sapserver
  GWSERV                       sapgw00
  LU                           sapserver
  TP                           sapdp00
  LOGICAL_SYSTEM               T90CLNT090
    CLIENT                     800
    USER                       MUSTER
  LOGICAL_SYSTEM               T90CLNT091
    CLIENT                     801
    USER                       MUSTER1
```

In this example, KD7 is the R/3 System ID. Though you can specify only one **DESTINATION** statement, you can specify several logical systems (R/3 clients).

DISPATCHERS *number*

Specifies the total number of parallel dispatchers (name: archdp) to SAP R/3 the CommonStore Server establishes. The default is **1**.

EXAMPLE:

```
DISPATCHERS   3
```

> **Note:**
> If one dispatcher is blocked, the SAP Gateway will automatically take recourse to the next dispatcher.

DPACTIVATION *START | REGISTER*

Specifies how the dispatcher program should be activated. This setting refers to the setting in the SAP R/3 System (T-code SM59). If you register the dispatcher program at the SAP Gateway, you have to provide a program ID in the **PROGID** statement in the profile and in the SAP system as well (T-code SM59).

If not specified, the default is REGISTER.

> **Note:**
> It is strongly recommended that the register mode be used.

END Specifies the end of the parameter definitions. The CommonStore Server stops searching the ini file for keywords when *END* is encountered.

FORMAT *format*
Specifies the VisualInfo data format to be used for archived documents. Defaults to `TIFF6`.

EXAMPLE:

```
FORMAT   FORMAT SAPALF
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives.

GWHOST *hostname*
hostname specifies the host on which the SAP Gateway server runs. If not specified, the default host name is `localhost`.

EXAMPLE:

```
GWHOST   /H/sapj30
```

> **Note:**
> This parameter refers to the corresponding **DESTINATION** statement.

GWSERV *service*
Specifies the service the SAP Gateway server can be reached with. If not specified, the default service is `sapgw00`.

EXAMPLE:

```
GWSERV   sapgw00
```

> **Note:**
> This parameter refers to the corresponding **DESTINATION** statement.

HARDKILL *ON|OFF*
This parameter sets the hardkill-option for `archstop`. If `archstop` is unable to shutdown all CommonStore Server processes, this option should be checked.

> **Note:**
> It is strongly recommended that this parameter be used only if `archstop` is unable to shutdown all CommonStore Server processes.

INDEX_CLASS *index_class_name*

Specifies the VisualInfo index class the CommonStore Server uses to archive the folders that make up SAP R/3 content objects (for every object stored, CommonStore will create a folder in this index class which in turn contains VisualInfo documents representing the individual components of the content object). This index class must be defined on the corresponding VisualInfo library server.

EXAMPLE:

```
INDEX_CLASS   SapA11
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives.

INDEX_CLASS_SCAN *index_class _name*

This parameter describes the index class where the VisualInfo based scanning application has temporary stored the scanned documents. A corresponding index class must be specified in VisualInfo.

EXAMPLE:

```
INDEX_CLASS_SCAN   SapScanA11
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives. It is needed only if the scenario of late archiving with barcode for VisualInfo has to be supported.

LANGUAGE *name*

The language parameter specifies the language for the internal communication between the CommonStore Server and R/3. At the moment, it is not in use, but will be needed in the future.

LIBSERVER *server_name*

Specifies the name of the VisualInfo Library Server, to which a

connection with the subsequent definitions will be established. The FRNTABLE contains all necessary communication parameters for VisualInfo.

EXAMPLE:

```
LIBSERVER   LIBSRVESD
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives. It is needed only if the scenario of late archiving with barcode for VisualInfo has to be supported.

> **Note:**
> Check to see if you have a valid FRNTABLE.

LOG *ON|OFF*

If set to **ON**, a log file containing information about all archived and retrieved data for each day will be created.

The log files are generated in the following format:

```
aiyyyymmdd.log
```

where

- yyyy = the year,
- mm = the month, and
- dd = the day.

LOGICAL_SYSTEM *name*

name specifies the logical system name customized in the SAP R/3 System (T-code SCC4). The *LOGICAL_SYSTEM* appears in two places in the CommonStore ini file: in the **DESTINATION** statement and in the **ARCHIVE** statement.

The main location is the **DESTINATION** statement. There it unites the parameters *CLIENT* and *USER* necessary for the connection to R/3. Each client can have its own user for sending CFBC/CFBA messages to the R/3 System. CommonStore uses these settings when asynchronous R/3 orders are answered. In the following example, the **LOGICAL_SYSTEM** statement appears in the **DESTINATION** statement:

```
LOGICAL_SYSTEM                  T90CLNT090
  CLIENT                        800
  USER                          MUSTER
```

The *LOGICAL_SYSTEM* specified in the **ARCHIVE** statement is only a reference to the main location. When for a request only the archive ID is known, then CommonStore uses the *LOGICAL_SYSTEM* specified in the **ARCHIVE** statement to look up the connection parameters to R/3 from the corresponding *LOGICAL_SYSTEM* specification of the **DESTINATION** statement. These connection parameters are necessary for sending the answer to R/3. The *LOGICAL_SYSTEM* specification in the **ARCHIVE** statement is needed only in the scenario of late archiving with barcode for VisualInfo.

LOGPATH *path*

path defines the complete path of the log file. The log files' file names are generated automatically.

EXAMPLE:

```
LOGPATH   /CommonStore400/tmp
```

LU *hostname*

Specifies the host (Logical Unit) on which the application server runs. If not specified, the default host name is `localhost`.

Please enter the complete SAP router string, starting with `/H`. If TCP/IP firewalls are involved, the router string could be for example: `/H/tdben2/H/siccfw1.isicc.ibm.com/H/sapgate1/S/3297/H/hs8100`

EXAMPLE:

```
LU   /H/sapj30
```

Note:
This parameter refers to the corresponding **DESTINATION** statement.

MAXBCTRANSFER *number*

Specifies the number of entries which should be read in the VisualInfo workbasket per scan and sent to SAP R/3.

EXAMPLE:

```
MAXBCTRANSFER   100
```

Note:
An `archbc` job always tries to send *all* documents with barcode for R/3 which can be located in the specified workbasket. This parameter determines only the maximum number of barcodes (maximum `INSERT_BARCODE_RFC` to SAP R/3) per R/3 call. It is needed only if the scenario of late archiving with barcode for VisualInfo has to be supported.

PROGID *program_id*
Specifies the program ID under which the dispatcher program is registered at the SAP Gateway server. This parameter must be defined in the corresponding **DESTINATION** statement. It can be any name but it has to be the same name as specified in the SAP R/3 System (T-code `SM59`) under register mode.

EXAMPLE:

```
PROGID   anyname
```

Note:
This must be the same program ID as provided in the SAP R/3 System (T-code `SM59`) and can be tested in the same SAP panel. This parameter refers to the corresponding **DESTINATION** statement.

Note:
Please make sure that the register mode is clicked in SAP R/3.

REPORT *ON | OFF*
If set to **ON**, the CommonStore Server produces some additional information. The output is written to `stdout`, which is normally the console. If not specified, the default is **OFF**.

Note:
ON should be used for tracing purposes (e.g. setup of the CommonStore Server or in case of errors).

SAP_CCSID
Describes the data format of outgoing print lists.

EXAMPLE:

```
SAP_CCSID   819
```

SENDQ_FILE *filename*

filename defines the complete path and file name of the sendqueue file.

EXAMPLE:

```
SENDQ_FILE   /CommonStore400/q_send
```

SPLIT_CRIT *split_criteria*

Enables the VisualInfo agent to automatically create a new index class in which search index information is stored if *split_criteria* is valid. Splitting index classes into regular intervals is strongly recommended in cases of large amounts of search index information in order to prevent the database tables from growing too big. *split_criteria* consists of an R/3 database field name that must be available in the CommonStore export file generated by the CommonStore Index Transfer feature. In principle, every field found in the export file can be used to split the exported data into more than one index class. In the case of date, month, and year fields, the following special rules and constraints apply:

- `<field>[1A]`, where `<field>` must be a date or year field.
- `<field> [M01, ... ,M12]`, where `M01` to `M12` are the months of a year in any combination and `<field>` must be a date or month field.
- `<field> [M01, ... , M12,1A]`. This is the combination of the two aforementioned possibilities. `<field>` must be a date field in this case only.
- `<field> [1Q, ... ,4Q,1A]`. In this case, a quarterly split is performed. `<field>` must be a month field, and if `1A` is used, it must be a date field. This is the same as splitting at the months 01, 04, 07 and 10, with the difference that the index classes are named `_1Q` instead of `_04`.
- `<field> [1H,2H,1A]`. In this case, a semi-annual split is performed. `<field>` must be a month field, and if `1A` is used, it must be a date field. The splitting will be done at months `01` and `07`. The index classes are named `_1H` and `_2H` instead of `_01` and `_07`. `<field>` is the name of a field in an R/3 table that is exported and can be found in the export file, while `<class>` is the name of an index class in VisualInfo where the original archived documents can be found.

EXAMPLE:

```
SPLIT_CRIT   BLDAT[1A]
```

> **Note:**
> The keyword *SPLIT_CRIT* can be specified for every VisualInfo archive.

STARTUP_TRACEFILE *filename*

Specifies the full file name of the so-called startup trace file. When a non-empty file name is specified, all CommonStore executables record messages during the initial startup phase in this file. This trace file is very useful in case of initial communication problems among the server executables. For all other problems, it is typically of no help. The default is **no** startup trace file.

EXAMPLE:

```
STARTUP_TRACEFILE   /CommonStore400/archint.startup_trace
```

> **Note:**
> The startup trace file is re-written on each start of the CommonStore Server.

STORAGETYPE

Defines whether documents assigned to the specified logical archive are to be stored in VisualInfo.

EXAMPLE:

```
STORAGETYPE   VI
```

> **Note:**
> This parameter belongs to the **ARCHIVE** statement and is used for all archives. Any further archive parameters which you specify depend upon this setting.

TEMPPATH *path*

Specifies the directory in which the CommonStore Server writes temporary files needed for processing.

If this setting is missing in your profile, the environment variable `TMPDIR` will be checked. If this variable is not set either, the temporary files will be written to the system's temporary directory.

EXAMPLE:

```
TEMPPATH   /tmp
```

TRACE *ON|OFF*

If set to **ON**, the CommonStore Server writes trace information into the trace file. If set to **ON**, a second trace is written: `dev_rfc`. You can specify the directory of the RFC trace file by setting the environment variable `RFC_TRACE_DIR` for the desired directory. This trace is an SAP trace containing all RFC trace information.

If you specify the following parameters, you can force the CommonStore Server to write only specific trace information:

- *DISP* (for information on the CommonStore dispatcher program)
- *FILEIO* (for information on the input/output file activities)
- *ARCHPRO* (for information coming from the CommonStore `archpro` program)
- *AGENTS* (for information coming from the CommonStore VI agents)
- *DEBUG* (for debug information on the CommonStore Server)
- *REPORT* (for the information which is written to `stdout`)
- *RFC* (for switching on the `dev_rfc` trace)

The value **ON** includes all of these parameters except *DEBUG*.

EXAMPLES:

```
TRACE   ON
TRACE   ARCHPRO RFC DEBUG
```

Note:

This parameter should be used only for the purpose of detecting problems. If not specified, the default is **TRACE OFF**. Do not delete the trace file while the CommonStore Server is running as this will affect further writing to this file. Keep in mind that the RFC trace file and the CommonStore trace file could grow quite large in a very short time.

TRACEFILE *filename*

Specifies the trace file for the CommonStore Server, where all the trace information will be stored. *filename* specifies the full path and name of the file. This setting will be used only if tracing has been activated. If not specified, the default is `archint.trace`.

EXAMPLE:

```
TRACEFILE   /CommonStore400/archint.trace
```

Note:
It is not allowed to delete any trace file while the CommonStore Server is running. Rather, the CommonStore Server must first be stopped using the **archstop** command.

TRACEMAX *number*
Specifies the maximum size (in KB) of the CommonStore Server trace file.

EXAMPLE:

```
TRACEMAX   500
```

TRANSFORM *filter*
Specifies an optional command to be invoked before archiving document files, *filter* is an AS/400 program call which must accept two parameters '&IN' and '&OUT'. Commonstore detects those parameters and replaces &IN with the temporary filename which contains the SAP R/3 data and &OUT with a temporary filename which must be used by the called program for it's data output. If the program fails it will be interpreted as failure and will result in an archiving error being reported to R/3.

EXAMPLE:

```
TRANSFORM   CALL MY_MIXER PARM('&IN' '&OUT')
```

Note:
It is assumed that *filter* is re-entrant (i.e. that it can be invoked several times in parallel) to be able to handle parallel connections to the archive. If making the process re-entrant is not an option, the number of parallel connections to the archive (using the keywords *ADSMAGENTS*, *ODAGENTS*, or *VIAGENTS*, respectively) has to be set to 1, thus serializing all requests.

Note:
Where this is an issue, the CMCS administrator is responsible for establishing an overall archiving process which holds up against audits. CMCS itself performs checks on neither the command specified nor the data generated by this command.

TP *service*

Specifies the service the message dispatcher at the R/3 gateway can be reached with. If not specified, the default service is `sapdp00`. The last two digits are used for the SAP R/3 System ID.

EXAMPLE:

```
TP   sapdp00
```

> **Note:**
> This parameter refers to the corresponding **DESTINATION** statement.

USER *username*

Specifies the SAP R/3 user name. The password corresponding to the user name and destination will be stored in the configuration file.

EXAMPLE:

```
USER   MUSTER
```

> **Note:**
> This parameter refers to the corresponding **DESTINATION** statement.

WAITQ_FILE *filename*

filename defines the complete path and file name of the waitqueue file.

EXAMPLE:

```
WAITQ_FILE   /CommonStore400/q_wait
```

WB_ERROR *workbasket _name*

This parameter specifies the workbasket where documents which had errors while processing through the VisualInfo agent are saved. Usually, this workbasket should be empty. A corresponding workbasket must be specified in VisualInfo.

EXAMPLE:

```
WB_ERROR   SapScanSaveWB_A11
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives. It is needed only if the scenario of late archiving with barcode for VisualInfo has to be supported.

WB_SCAN *workbasket_name*

This parameter specifies the workbasket where the VisualInfo-based scanning application has temporarily stored the scanned documents. After processing these documents through the VisualInfo agent, the workbasket should be empty. A corresponding workbasket must be specified in VisualInfo.

EXAMPLE:

```
WB_SCAN   SapScanWB_A11
```

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives. It is needed only if the scenario of late archiving with barcode for VisualInfo has to be supported.

WIN_CCSID

Is the codepage of windows clients with CStore.

EXAMPLE:

```
WIN_CCSID   819
```

VERSION *version_no*

Defines the CommonStore Server Version. It is not used at the moment and is therefore not documented in the sample ini files.

EXAMPLE:

```
VERSION   1.4.6.1
```

VIAGENTS *number*

Specifies the total number of parallel VisualInfo client sessions (name: `archagentv`) the CommonStore Server establishes. If not specified, the default is **0**.

EXAMPLE:

```
VIAGENTS   3
```

VIUSER *username*

Specifies the VisualInfo user name for the VisualInfo log-in procedure.

> **Note:**
> This parameter refers to the corresponding **ARCHIVE** statement and is used only for VisualInfo archives.

WEBDPS *number*

Specifies the total number of parallel sessions for the CommonStore web access. If not specified, the default is **0**.

EXAMPLE:

```
WEBDPS   5
```

> **Note:**
> By default, **no** web access to the CommonStore archive is possible. To enable web access, the keyword *WEBDPS* must be specified.

WEBPORT *port*

Specifies the TCP/IP port number used to access the web dispatcher using a web browser. The port number must match the port number specified under the `~archive` setting in the web access service file for the SAP Internet Transaction Server (ITS). For information on customizing the ITS service file, see "Chapter 8. Internet access" on page 45.

EXAMPLE:

```
WEBPORT   5501
```

> **Note:**
> The Hypertext Transfer Protocol (HTTP) used for communication with the web dispatcher uses the TCP/IP port **80** by default. If no web server is running on the machine on which the CommonStore Server is running, the default TCP/IP port **80** can be used.

Appendix B. List of CommonStore commands

archpro

Usage

```
call archpro parm(['-i' '<ini file>'] ['-f' '<function>'] ['-h'])
```

Options

-i **<ini file>**
: full file name of CommonStore ini file

-f **license**
: enter CommonStore license (setup, only)

-f **r3passwd [<R/3 user> [<passwd>]]**
: enter R/3 password (setup, only)

-f **serverpasswd [<srv> [<node> [<passwd>]]]**
: enter VI password(s) (setup, only)

-h
: show this help

Remarks

Specify the ini file name when CommonStore is not installed in a single path.

It must be specified before any other option.

Examples

call archpro
: start the CommonStore Server

call archpro parm('-p' '/home/cs/archint.ini')
: start the CommonStore Server with specified ini file

call archpro parm('-i' '/home/cs/archint.ini')
: same as above

call archpro parm('-f' 'license')
: ask for CommonStore license (nine characters)

call archpro parm('-f' 'r3passwd')
: ask for all R/3 passwords

call archpro parm('-f' 'serverpasswd')
: ask for all VI passwords

archstop

Usage

```
call archstop parm('-p <port>' '-i <ini file>' 'now' '-h')
```

Options

-p **<port>**
specifies the fixed port used by archpro

-i **<ini file>**
specifies the full ini file name used by archpro

now stop immediately without waiting for completion of jobs

-h show this help

Remarks

The connection to archpro is established using the specified fixed port. This fixed port could also be read from the specified ini file. When neither -p <port> nor -i <ini file> is specified, the standard ini file is read.

Only port numbers above 5000 are accepted.

Examples

call archstop
stops archpro using the port from the standard ini file

call archstop parm('-p' '5510')
stops archpro on port 5510 after all jobs have been completed

call archstop parm('-p' '5510' 'now')
stops archpro on port 5510 immediately

call archstop parm('-i' '/CommonStore400/archint.ini')
stops archpro using port from this ini file

archbc

Usage

call archbc parm('-p <port>' '-a' '<archive-id>')
starts the ″move″ operation

call archbc parm('-p <port>' '-a' '<archive-id>' 'abort')
stops the ″move″ operation

call archbc parm('-h')
shows this help

Options

-p **<port>**
fixed port used by `archpro`

-a **<archive-id>**
archive ID containing the scan and final index classes

abort tells the CommonStore Server to abort the operation

Remarks

Only port numbers above 5000 are accepted.

Examples

call archbc parm('-p' '5500' '-a' 'A1')
starts the ″move″ operation on archive A1

call archbc parm('-p' '5500' '-a' 'A1' 'abort')
aborts the ″move″ operation on archive A1

Hint:
In order to abort an `archbc` run, it is recommended that you open another window and send the abort command from there. This allows you to continue receiving the `archbc` messages in the first window.

Appendix C. Sample profiles

In the following section, a sample profile for VisualInfo is presented.

Sample profile for CommonStore/VisualInfo on AS/400

```
############################################################
#
#    CommonStore Interface to SAP R/3 ArchiveLink
#
#     Copyright IBM Deutschland Entwicklung GmbH
#
#     Profile for the CommonStore Server Version 1.6.x
#
############################################################
#-------------------------------------------------------------------------#
# Path (directory) of the CommonStore binaries
#-------------------------------------------------------------------------#
BINPATH               /QSYS.LIB/CS400.LIB

#-------------------------------------------------------------------------#
# DPACTIVATION        REGISTER|START
# Activation of the CommonStore dispatcher program
#-------------------------------------------------------------------------#
DPACTIVATION          REGISTER

#-------------------------------------------------------------------------#
# REPORT              ON|OFF
# Switches reporting to STDOUT on or off
#-------------------------------------------------------------------------#
REPORT                OFF

#-------------------------------------------------------------------------#
# TRACE               DISP FILEIO ARCHPRO AGENTS DEBUG RFC ON OFF
# Switches trace levels
#
# Examples for usage:
# TRACE               ON
# TRACE               AGENTS RFC DEBUG
#-------------------------------------------------------------------------#
TRACE                 OFF

#-------------------------------------------------------------------------#
# Full file name of the trace file
#-------------------------------------------------------------------------#
TRACEFILE             /CommonStore400/archint.trace

#-------------------------------------------------------------------------#
# Size of the trace file in KB
#-------------------------------------------------------------------------#
```

```
TRACEMAX              500

#-------------------------------------------------------------------------#
# Path for temporary files
#-------------------------------------------------------------------------#
TEMPPATH              /tmp

#-------------------------------------------------------------------------#
# Full file name of the CommonStore configuration file
#-------------------------------------------------------------------------#
CONFIG_FILE           /CommonStore400/archint.cfg

#-------------------------------------------------------------------------#
# LOG                 ON|OFF
# Switches the writing of the log file on or off
#-------------------------------------------------------------------------#
LOG                   OFF

#-------------------------------------------------------------------------#
# Path of the log file
#-------------------------------------------------------------------------#
LOGPATH               /CommonStore400

#-------------------------------------------------------------------------#
# Path in which SAP R/3 is storing the data for CommonStore. It should
# be shared through all R/3 application servers via NFS mount.
#-------------------------------------------------------------------------#
BASEPATH              /sap/trans/base/archint

#-------------------------------------------------------------------------#
# Path in which CommonStore is storing the data for SAP R/3. It should
# be shared through all R/3 application servers via NFS mount.
#-------------------------------------------------------------------------#
ARCHPATH              /sap/trans/base/archint

#-------------------------------------------------------------------------#
# Full file name of the queue files
#-------------------------------------------------------------------------#
WAITQ_FILE            /CommonStore400/q_wait
ACTIVEQ_FILE          /CommonStore400/q_active
SENDQ_FILE            /CommonStore400/q_send

#-------------------------------------------------------------------------#
# HARDKILL            ON|OFF
# Hardkill option for archstop
#-------------------------------------------------------------------------#
HARDKILL              OFF

#-------------------------------------------------------------------------#
# Technical connection parameters for SAP R/3. Similar to the sideinfo
# file provided by the SAP.
# Multiple LOGICAL_SYSTEM sections can be specified.
#-------------------------------------------------------------------------#
DESTINATION           KD7
    PROGID            KD7.ARCHINT
```

```
    GWHOST            /H/sapserver
    GWSERV            sapgw00
    LU                sapserver
    TP                sapdp00
    LOGICAL_SYSTEM    T90CLNT090
        CLIENT                800
        USER                  MUSTER

#---------------------------------------------------------------------#
# Technical connection parameters when Visual Info is used as archive.
# The first entry could be ARCHIVE DEFAULT.
# Further entries with explictly defined archive ID are needed
# if different VisualInfo Servers and/or different index classes
# should be used for storing R/3 documents.
#---------------------------------------------------------------------#
ARCHIVE DEFAULT
    STORAGETYPE       VI
    LIBSERVER         LIBSERV1
    INDEX_CLASS       SapA09
    VIUSER            FRNUSER

ARCHIVE A1
    STORAGETYPE       VI
    LIBSERVER         LIBSERV2
    INDEX_CLASS       SapA10
    VIUSER            FRNUSER

ARCHIVE A2
    STORAGETYPE       VI
    LIBSERVER         LIBSERV2
    INDEX_CLASS_SCAN  SapA11
    INDEX_CLASS       SapScanA11
    WB_SCAN           SapScanWB_A11
    WB_ERROR          SapScanSaveWB_A11
    VIUSER            FRNUSER
    LOGICAL_SYSTEM    T90CLNT090

#---------------------------------------------------------------------#
# Specifies how many documents will be transferred at the same time
# from the workbasket to the R/3 System
#---------------------------------------------------------------------#
MAXBCTRANSFER         20

#---------------------------------------------------------------------#
# Number of parallel instances of the CommonStore child programs
#---------------------------------------------------------------------#
DISPATCHERS           2
VIAGENTS              3
ARCHWINS              3
WEBDPS                00

#---------------------------------------------------------------------#
# TCP/IP port numbers used by CommonStore.
# ARCHWIN_PORT is used by archstop, archbc, and the Windows DLL.
# WEBPORT is used by the web dispatcher for internet access.
```

```
#-------------------------------------------------------------------------#
ARCHWIN_PORT          5500
WEBPORT               5580

#-------------------------------------------------------------------------#
# CCSIDs of system components
# SAP_CCSID describes the data format of outgoing print lists. (819)
# ARCHIV_CCSID is the codepage of the archive system and archpro.
# WIN_CCSID is the codepage of windows workstations with CStore. (819)
#-------------------------------------------------------------------------#
SAP_CCSID             819
ARCHIV_CCSID          273
WIN_CCSID             819
#-------------------------------------------------------------------------#
# End of profile
#-------------------------------------------------------------------------#
END
```

List of Abbreviations

The abbreviations used in this document are listed below.

ADK	Archive Development Kit
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
CCSID	Coded Character Set Identifier
COLD	Computer Output on Laser Disk
crontab	Chronological Table
DBA	Database Administrator
DLL	Dynamic Link Library (files with the extension `.dll`)
DVS	Dokumenten-Verwaltungs-System (Document Administration System)
EBCDIC	Extended Binary Coded Decimal Interchange
GUI	Graphic User Interface
HTML	Hypertext Markup Language
IBM	International Business Machines Corporation
ITS	Internet Transaction Server
NFS	Network File System
NT	New Technology (Microsoft operating system Windows NT)
OCR	Optical Character Recognition
OLE	Object Linking and Embedding
OS/2	Operating System/2
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`)
TSM	Tivoli Storage Manager
UNIX	An operating system developed at Bell Laboratories
URL	Uniform Resource Locator

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