

IBM ImagePlus
Workfolder Application Facility for AS/400



Planning and Installation Guide

Version 4 Release 1

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Workfolder Application Facility for AS/400



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Version 4 Release 1

Note!

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

First Edition (September 1997)

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About This Book

This book provides site planning and installation personnel with information on preparing for and installing IBM ImagePlus VisualInfo for AS/400 (VisualInfo for AS/400) and its IBM ImagePlus Workfolder Application Facility for AS/400 (Workfolder Application Facility) feature. It contains an overview of hardware and software components for the product and contains specific information for installing this version or migrating a previous version.

Who Should Use This Book

Use this book if you are responsible for planning, installing, or configuring Workfolder Application Facility system for your enterprise.

If you are a *systems analyst* or *systems planner* who plans to install Workfolder Application Facility, this book helps you understand how the product fits into your operation, evaluate your workload, estimate the system you need, and design the interfaces to your current business applications.

If you are an *administrator* or a *supervisor* responsible for document processing, this book helps you understand how to analyze your current working environment, as well as develop the organization of document movement and processing workflow used with an image processing application.

If you are an *applications programmer* who plans to install and customize Workfolder Application Facility on your system, this book explains the scope of the work, tells where you can get additional information, and describes the capabilities of the components. Information on customizing helps you understand how to tailor the components to best fit your application requirements.

Skills You Need

Before beginning installation, you should be trained to install and operate Workfolder Application Facility. See your IBM representative for a list of Workfolder Application Facility training classes.

You should also have experience in installing and operating the Application System/400 (AS/400) system, IBM Token-Ring Network, and IBM 3995 Optical Library Dataserver. If you plan to install the VisualInfo for AS/400 client, you should also know how to install software on Windows platforms.

To design and install a custom system, you need to be familiar with the following:

- System Network Architecture (SNA) advanced program-to-program communication (APPC) or Advanced Peer-to-Peer Networking (APPN)
- System operation and network administration

See “Where to Find More Information” on page vi for books containing additional installation and configuration instructions for VisuallInfo for AS/400, and see “Bibliography” on page 128 for books on installing related products.

How to Use This Book

If you are installing Workfolder Application Facility for the first time, you should read this book in its entirety.

If you are migrating a previous version of Workfolder Application Facility to VisuallInfo for AS/400 or considering using both VisuallInfo for AS/400 and Workfolder Application Facility together, see Chapter 1, “Introducing Workfolder Application Facility” on page 2. Review this book for migration instructions, the *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide* for instructions for installing VisuallInfo for AS/400, and *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for important coexistence considerations and limitations.

This book is also available in softcopy format. See “Where to Find More Information” for details.

Where to Find More Information

The following IBM documents contain information that you might find helpful when using VisuallInfo for AS/400.

For a list of other related publications, see “Bibliography” on page 128. Request copies of IBM publications from your IBM representative or from the IBM branch office serving your area.

IBM ImagePlus VisuallInfo for AS/400

When you order VisuallInfo for AS/400, you receive the following printed publications as part of the VisuallInfo for AS/400 license.

- *IBM ImagePlus VisuallInfo: Client for Windows User's Guide*, SC31-9052
- *IBM ImagePlus VisuallInfo for AS/400: Licensing Information*, GC34-4589
- *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide*, GC34-4585
- *IBM ImagePlus VisuallInfo for AS/400: System Administration Guide*, GC34-4583

The remaining books are shipped in softcopy format only.

- *IBM ImagePlus VisuallInfo: Messages and Codes*, SC31-9065
- *IBM ImagePlus VisuallInfo for AS/400: Application Programming Guide and Reference*, SC34-4586

IBM ImagePlus Workfolder Application Facility for AS/400

When you order the Workfolder Application Facility feature of VisuallInfo for AS/400, you also receive the following printed publications.

- *IBM ImagePlus Workfolder Application Facility for AS/400: Planning and Installation Guide*, GC34-4624
- *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*, GC34-4625

The remaining books are shipped in softcopy format only.

- *IBM ImagePlus Workfolder Application Facility for AS/400: Designing a Work Process*, SC34-4588
- *IBM ImagePlus Workfolder Application Facility for AS/400: Programming Interfaces Guide*, SC34-4590
- *IBM ImagePlus Workfolder Application Facility for AS/400: User's Guide*, SC34-4584
- *IBM ImagePlus Workfolder Application Facility for AS/400: User's Guide for the Work Management Builder*, SC34-4587

About the Softcopy Document Library

In addition to the printed books you receive as part of the VisualInfo for AS/400 product, the entire document library is available in softcopy. Shipped on a separate document tape or CD-ROM, the library includes books for the Workfolder Application Facility feature. You can also purchase printed copies of any book in the library.

The library is available in the following formats:

- Portable document format (PDF)
- Hypertext markup language (HTML)

Before you can view or print PDF and HTML documents, follow the installation instructions in either the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* or *IBM ImagePlus Workfolder Application Facility for AS/400: Planning and Installation Guide*.

PDF Files

Using PDF files, you can easily view documents online, as well as select one or more pages that you want to print.

To view PDF documents, you must have a Web browser and the Adobe Acrobat Reader. If you do not already have this tool, you can obtain it free by following the instructions for download from the Adobe home page:

<http://www.adobe.com/prodindex/acrobat/readstep.html>

A variety of national language readers are also available.

Using the Adobe Acrobat Reader, you can do the following:

- View documents that resemble printed pages.
- Easily navigate through PDF books as you would a hardcopy document.
- Use the text search capability by selecting **Find** from the **Tools** pull-down menu.
- Easily print a single page, a range of pages, or an entire document.
- Customize page size, graphics, fonts, and font sizes.

To view or print books from PDF files using the Adobe Acrobat Reader, follow these steps.

1. Start the Adobe Acrobat Reader.
2. Select **Open** from the **File** pull-down menu.
3. Select the location where you installed the document library.
4. Select the book you want to view.

HTML Files

Using HTML files, you can use a Web browser of your choice to view and print HTML books. These resemble printed books yet provide convenient HTML links to help you navigate through the information.

To view or print books from HTML files, follow these steps.

1. Start your Web browser.
2. Select the **Open** or **Open file** choice (usually from the **File** pull-down menu).
3. Select the location where you installed the document library.
4. Select the book you want to view.

BookManager Files

BookManager files for the VisualInfo for AS/400 document library will be available in the first half of 1998 on CD-ROM as part of the AS/400 softcopy collection kit. To view or print books using BookManager, refer to the books that accompany your softcopy collection kit.

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Chapter 1. Introducing Workfolder Application Facility

IBM ImagePlus Workfolder Application Facility for AS/400 (Workfolder Application Facility) is a feature of IBM ImagePlus VisualInfo for AS/400 (VisualInfo for AS/400) product that combines hardware and software products designed to capture, store, retrieve, and change the way you view images. The components of VisualInfo for AS/400 work together with Workfolder Application Facility to provide a complete solution to your image processing needs.

Workfolder Application Facility offers your enterprise a way of managing one of your most valuable assets, information. Workfolder Application Facility also provides a means to manage workflow, and it can have a positive impact on many of your most important business processes.

Planning Your Workfolder Application Facility Solution

To effectively plan for your image solution, you need to analyze your current information management requirements. After gathering data about the current system and outlining requirements for your solution, you can design an imaging implementation that meets your enterprise's specific needs.

Considerations in the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* for planning your environment along with the information in "Coexistence Between VisualInfo for AS/400 and Workfolder Application Facility" on page 23 can help you design and implement the best imaging solution for your enterprise.

Processing Documents with Workfolder Application Facility

Workfolder Application Facility uses image technology to store information. This means that there are more ways to input data and display it. For instance, paper documents can be scanned, stored, accessed at a later time, and then displayed on a display monitor in a form that looks like the original.

Using Workfolder Application Facility, documents are scanned or information is imported as soon as it reaches your enterprise. The information is then indexed and stored in Workfolder Application Facility for immediate or future processing. If a paper copy is required, Workfolder Application Facility retrieves the file and prints a copy. It can send and receive faxes. You can import documents into Workfolder Application Facility from a variety of non-ImagePlus formats such as word processors, text editors or your line of business applications.

Workfolder Application Facility lets you make many selections for case processing. The case processing option makes document management easy by enabling you to organize the flow of work through the system.

Workfolder Application Facility lets you work with documents in electronic file cabinets for which you are authorized. The search capability lets you locate and retrieve documents easily.

Administering Workfolder Application Facility

Workfolder Application Facility helps your enterprise manage workflow and staff. You can perform the following tasks:

- Define user classes
- Define users, their responsibilities and security
- Update file accessibility and program security
- Define work classes
- Define available work queues
- Reassign queued case work to another user
- Identify types of documents
- Identify and change the person working on a case
- View and print case statistics and activity log
- Define workbaskets
- Define action lists
- Define work processes
- Define routes
- Define collection points
- Set decision points
- Control input processing and process initiation
- Define workbasket types
- Control workbasket management and reporting fields
- Define workbasket default action lists

Controlling Access to Workfolder Application Facility

Using Workfolder Application Facility, system administrators can control access on a daily or long-term basis. System administrators control access by performing the following tasks:

- Update the database
- Redefine the types of work handled
- Define user profile options
- Reassign documents to other queues
- Add or remove cases from queues
- Add or remove documents from a file cabinet
- Change the priority of a case
- Change a case identifier
- Change a file cabinet profile

System administrators are able to maintain accuracy by determining the user working a case, or reassigning a person working on a particular case. And they can view and print case statistics, as well as information reports that offer valuable data on the progress of case processing.

Managing Documents

Managing documents with Workfolder Application Facility lets your enterprise obtain information about the way documents are stored on the system. The following functions are available:

- View statistics regarding the number and size of documents
- List names and descriptions of files
- View a list of available optical volumes

You can store documents permanently in an optical library to provide quick access, as compared to tape or traditional methods, such as paper, microfilm, or microfiche. Using Workfolder Application Facility, you can perform the following functions:

- Store an image document initially on magnetic disk
- Archive a copy on optical disk
- Remove a case for archiving

Providing Application Security

The security functions of Workfolder Application Facility provide application safeguards for access and usage by letting your enterprise grant user authority to various groups of personnel. The following functions are available:

- Define which document types or file cabinets a user can view or maintain
- Add or delete users from the system
- Define functional capability of each user

Controlling Output Processing

Workfolder Application Facility provides a way for you to adapt output, such as printing of forms, to your individual needs. You can control output processing by performing the following functions:

- Produce preprinted forms
- Enter individual user data
- Create new forms
- Merge application data with forms

Backup and Recovery

When planning your backup and recovery strategy, you need to consider the following parts, which are integral to your Workfolder Application Facility system:

- Documents
- Workfolder Application Facility files that manage document processing
- Any custom objects you support

As you plan your recovery strategy, consider that backups of these objects must remain synchronized to ensure that you can successfully recover your system in the event of failure. For detailed information on AS/400 backup and recovery, refer to the *IBM AS/400 Programming: Backup and Recovery Guide*.

Chapter 2. Overview of Components

Workfolder Application Facility is designed to support the image processing needs of small or mid-sized enterprises or departments of large enterprises that use the AS/400 system, and IBM Operating System/2 (OS/2), IBM disk operating system (DOS) for Windows, or Windows NT. This complete image system takes advantage of the powerful, easy-to-use IBM AS/400 system hardware and software products. The components of Workfolder Application Facility can vary according to the document handling needs and volume of the particular application and environment.

Table 1 describes the main components of Workfolder Application Facility.

Component	Description
AS/400 system	<ul style="list-style-type: none">AS/400 system hardware and system softwareIBM Token-Ring NetworkVisualInfo for AS/400Workfolder Application Facility, including application programming interfaces (APIs)
ImagePlus workstation	<ul style="list-style-type: none">Workstation hardwareImagePlus Workstation Program: for NT, OS/2, or DOS for WindowsIBM ImagePlus Intelligent Forms Facility/2 (optional)IBM ImagePlus Intelligent Forms Assist/2 (optional)
Optical storage subsystem (optional)	<ul style="list-style-type: none">Optical storage system libraries and disk drivesOptical storage support software
Facsimile Support/400 (optional)	<ul style="list-style-type: none">Facsimile Support/400 controller and adapterIBM Facsimile Support/400
See "Bibliography" on page 128 for additional information or installation instructions for ImagePlus Workstation Program, ImagePlus Intelligent Forms, and Facsimile Support for AS/400 products. Refer to the <i>IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide</i> for information and installation instructions for optical storage equipment.	

AS/400 System

The AS/400 system consists of hardware and application software.

VisualInfo for AS/400

VisualInfo for AS/400 performs the library and storage management functions that the Workfolder Application Facility uses. You must have installed VisualInfo for AS/400 to install and use Workfolder Application Facility. Refer to the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* for details about the VisualInfo for AS/400 product.

Workfolder Application Facility

Workfolder Application Facility provides image processing capabilities. When you use it with ImagePlus Workstation Program, Workfolder Application Facility provides a computer-automated document processing system that can replace many manual paperwork processes.

Workfolder Application Facility helps you process documents several ways—using cases, file cabinets, and work packages.

Cases

Cases group documents together into a Workfolder Application Facility folder. A case consists of one or more documents associated with an identifier. With case processing, you store documents in cases that can be assigned to user-defined work queues for processing. A case can be assigned to a user by case ID, and all related documents are available when the user opens the case. The case processing capability provides increased control and management of electronic files and processes that previously required manual attention.

File cabinets

File cabinet processing groups documents together into a central storage area. Related documents are stored in electronic file cabinets, where they can be easily located and retrieved. Users can search for documents by document type, by date, or by up to eight keywords assigned to the document.

File cabinet functions include an advanced search capability that allows users to specify complex searches, using relational and logical operators. In addition, users can control how search results are displayed and can save file cabinet queries for later use.

Work packages

Work management routes work packages automatically along a predefined route, stopping at decision and collection points to receive required documents for final decisions. Action lists are available at the workbasket to define the tasks that an operator is authorized to perform. Action lists describe predefined function keys, user-defined function keys and the options that are available to the operator.

The work management function has such capabilities as ad hoc pending and routing. Ad hoc pending enables the user to create a pend request for a work package in a workbasket that will prevent the work package from continuing through a process until specified pend conditions are satisfied. The ability to release a pending work package is also provided. In addition, ad hoc routing allows the user to create a work package and put it directly into a workbasket, routing it from workbasket to workbasket, without a predefined process.

Work management also provides the ability to close a work package, reject a document for reindexing from a work package, and reverse the order of the contents of a folder work package.

Documents can be filed for later retrieval, and documents, forms and pertinent information can be collected into a work package and delivered to a processing point. Incoming mail can be matched with work packages being processed and work can be held until all users complete their individual tasks.

Work management eliminates much of the manual work required to process individual documents or groups of documents. Several processes can be combined along parallel routes, reducing the waiting time for one task to be completed before another one takes place.

Work management automates processes that case and file cabinet processing performs with more manual intervention. Enterprises can gradually migrate from present case and file cabinet processing to work management to further automate the present workflow. Workfolder Application Facility lets you set up the work process through the use of a series of panels. Work Management Builder lets you build work processes by using icons and graphical steps to define the work management.

The input processing function of Workfolder Application Facility lets you scan, import documents into your system, and index and store them until you need them again. You can insert new documents into an existing open case or file cabinet or create a new case or file cabinet. You can also import documents into the system from Facsimile Support/400.

Workfolder Application Facility is menu-driven and can communicate with an IBM host processor, if one is installed, while scanning documents or working with cases or file cabinets. You can request data from an application on a System/370, a System/390, or an AS/400 host processor. Workfolder Application Facility provides a number of case processing options. You can perform the following functions:

- View case documentation
- Select the type of case to be processed
- Display a list of documents
- Select a particular document to be displayed
- Request the next case to be processed
- Pend a case
- Reactivate a case
- Reassign a case
- Close a case
- Send or receive a fax
- Import documents
- Overlay forms with data

The administrative and management functions of Workfolder Application Facility permit user access authorization. These functions let management personnel maintain system control files.

The output processing functions let you print hardcopy at the production levels you choose. You can generate reports on case status and user productivity. This level of control provides a means of tracking workflow and gives you an audit trail, making you better able to maintain accountability.

The storage management function moves documents from a direct access storage device (DASD) to optical storage. You can use cross-system interchange to send a case or document and its indexing information to another AS/400. Cross-system

exchange can be performed while you are viewing or working on a case, or working with a file cabinet.

Optical storage functions include distributed storage using AS/400 object servers, ad hoc support for LAN-attached optical, and the ability to logically group documents on optical platters, providing greater user flexibility in managing optical storage.

Workfolder Application Facility APIs

Workfolder Application Facility application programming interfaces (APIs) include a set of programs that can be called from COBOL, Report Program Generator/400 (RPG/400), and other AS/400 languages that support program calls with parameter passing. They provide the capability to integrate the Workfolder Application Facility functions into your line-of-business applications.

APIs are divided into groups, providing the following functions:

Workstation interface commands

Scanning, displaying, and printing documents

Storage management interface commands

Storage management, such as placing a document in optical storage, retrieving a document from optical storage, and deleting a document from a direct access storage device (DASD)

Case interface commands

Case management, such as creating a case and adding a document to a case

Import and export interface commands

Data import and export to create and transfer documents within and between systems running on Workfolder Application Facility or other AS/400 applications

Printer interface commands

Print on printers attached to workstations or to the host processor

Archive and restore interface commands

Archive portions of Workfolder Application Facility control files onto auxiliary storage media, thus freeing DASD space on the AS/400 system

File cabinet processing interface commands

Work with file cabinets and the documents in them

Work management interface commands

Move documents along a route to collection and decision points, and workbaskets, including process commands, queue and query commands, and workbasket and work package commands

System service interface commands

Start and stop Workfolder Application Facility service processes

Additional interface commands

Locate all documents within a specified case, create a document record, and return information about a document

For more information about the APIs, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: Programming Interfaces Guide*.

Work Management Builder

Work Management Builder lets the system administrator or business process owner define and update the action lists, workbaskets, and work processes of an enterprise. You can use the graphical user interface (GUI) Work Management Builder instead of Workfolder Application Facility character-based panels to create a work process and integrate it into the flow of work.

Defining work processes graphically lets the user enter work process information by using nodes and connectors representing work centers, decision points, and collection points on a single window.

With the Work Management Builder verify function, users can verify completeness of the defined work process. The completed work process is transmitted to the host system, where it is integrated into the flow of work.

Host-Attached Printers

You can print documents on a printer attached directly to the AS/400 processor. You can select on-demand printing, batch printing, or you can use the host print API to print documents on a host-attached printer. Documents must be stored either on DASD or optical storage to be printed. Offline documents must be transferred to DASD before printing.

The following host-attached page printers support image printing by Workfolder Application Facility:

- The IBM 3816 Pageprinter does not support Group 4 compression.
- The IBM 3825 Pageprinter features two input paper sources. This printer requires feature code 4200.

When using the IBM Pageprinter as a host printer for the Workfolder Application Facility, you must set the page defaults to specific values. To adjust the settings, refer to the *IBM 3825 Pageprinter Operator's Guide*. The front width and length and the back width and length values must be set to 20 for the Workfolder Application Facility to properly print documents.

- The IBM 3916 Pageprinter replaces the 4028 but supports duplex printing.
- The IBM 3930 Pageprinter replaces the 3816 and supports duplex printing, DBCS, and extended SBCS.
- The IBM 3935 Pageprinter replaces the 3820 and supports duplex printing, DBCS, and extended SBCS.
- The IBM 3827 Pageprinter features two input paper sources. It requires feature code 4200.
- The IBM 3835 Pageprinter features a wide range of paper sizes and weights. It requires feature code 4200.

- The IBM 4028 LaserPrinter features versatile paper handling options.

Printing from the host processor does not support color or gray-scale documents.

Part 2. Planning and Preparation

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Chapter 3. Planning for Workfolder Application Facility

This section provides you with the information that is necessary to plan the installation and customization of Workfolder Application Facility.

To help you as you plan, refer to the books in “Bibliography” on page 128 on the following topics and work closely with personnel trained in communications when planning for and installing Workfolder Application Facility.

- Communications
- Backup and recovery
- Security
- Optical subsystems

Planning Issues

Installing Workfolder Application Facility requires extensive planning to assess the following:

- Integration with business operations
- Impact on current document handling practices
- Resource requirements

Planning for Workfolder Application Facility requires that you consider the following planning issues:

- Planning for the Token-Ring Network requires you to determine network communication parameters. These parameters include controller names and addresses.
- Planning for the AS/400 system requires consideration of system topics and limitations. System topics include Client Access/400 configuration, backup and recovery strategy, security, DASD limitations, and user profile issues.
- Planning for optical includes determining how your image workstations will access optical, as well as planning for the IBM 3995 Optical Dataserver.

Getting Started

Many installation and customization tasks require information generated from the planning tasks described in this section. Complete and careful planning greatly simplifies the installation process and ensures that your enterprise has a Workfolder Application Facility system that satisfies your current needs and your future growth requirements.

Managing the Planning Process

The planning process consists of several types of tasks. These include:

- Managing your project

- Identifying project personnel
- Developing a project schedule
- Analyzing current paper processing in your enterprise
 - Analyzing the current workflow in your enterprise
 - Analyzing the current workload in your enterprise
- Developing your enterprise's Workfolder Application Facility
 - Developing image processing estimates
 - Deciding on the devices and software needed for your Workfolder Application Facility system
 - Creating implementation plans
 - Creating system and administrative plans

These tasks are ongoing throughout the project. The planning process is iterative. As the planning cycle progresses, you might have to return to earlier planning tasks to obtain more information.

Defining Your Planning Goal

The planning goal outlined in this section is to define and develop planning tasks that help your enterprise successfully implement an appropriately designed Workfolder Application Facility system. These planning tasks, described as follows, will describe your decision-making process and provide Workfolder Application Facility installers with the necessary information for setting up and running your Workfolder Application Facility system.

- **Workload and workflow analysis that describes your enterprise's current system of paper documents.**

To install and use Workfolder Application Facility, your enterprise must clearly understand how it currently handles its paper flow. After you have analyzed your paper processing, you should be able to identify where paper documents originate, where they are routed, how they are processed, and how they are stored. You should also be able to identify duplicate or unnecessary document handling and bottlenecks in your paper flow. This task provides an opportunity to optimize your workflow for image processing.

- **An image processing model that describes the components of Workfolder Application Facility and the rules your enterprise will use to implement them.**

Workfolder Application Facility components must be configured so that they work effectively with each other and with your current business applications. The different system and Workfolder Application Facility components require specific component information for application and system programmers so that they can install, customize, and test your enterprise's Workfolder Application Facility.

- **Requirements analysis that describes how your Workfolder Application Facility system will be set up to handle the receiving, processing, storing, and deletion of documents.**

You must carefully consider and define any coexistence with VisualInfo for AS/400 so that you can effectively manage your imaging environment.

After your enterprise has prepared workload and workflow analysis and an image processing model, you should design an optimal document processing flow for your enterprise and develop image processing goals. Your enterprise's image processing goals should state what kinds of document processing are necessary for your enterprise. Image processing goals should specify the number of documents to be processed within selected time periods (daily, weekly, annually, for example). The goals should also state the number of documents that must be processed during peak operating periods such as fiscal year-end closing, payroll cycles, or billing cycles.

Processing goals consider the volume of documents, the kinds of document processing needed for your enterprise, and the necessary system capacity to handle peak loads. The requirements analysis presents your enterprise's image processing goals and specifies what kind of a Workfolder Application Facility system your enterprise needs to satisfy its document handling needs.

- **An order list for hardware and software that lists all the components you must order.**

Clearly stated image processing goals help you develop an appropriate Workfolder Application Facility solution. You should design a solution that has the necessary hardware, software, capacity, and speed to accommodate your enterprise's needs.

To accomplish this, you must do the following:

- Assess your current computer system's resources that would support an Workfolder Application Facility system
- Decide which Workfolder Application Facility components are appropriate for your enterprise
- Determine the types and numbers of workstations necessary for your enterprise

The result of this assessment is an order list of hardware and software tailored for your enterprise's Workfolder Application Facility solution. See "Hardware and Software Prerequisites" on page 58.

- **A set of floor plans and cabling plans that show the installers how the components of your Workfolder Application Facility system will be arranged.**

The floor plans and cabling plans will help you to make sure that all the physical requirements for installing hardware have been met. These requirements include cabling lengths and connections, environmental, electrical, and signal interference requirements, and space and weight requirements for the various pieces of hardware included in your Workfolder Application Facility system.

- **An implementation plan for system installation that describes your strategy for making the transition from your paper system to your Workfolder Application Facility system.**

The implementation plan includes contingency, installation, test, and administrative plans for Workfolder Application Facility. The implementation plan states which

enterprise units will be used as a pilot conversion to Workfolder Application Facility. The plan also summarizes how enterprise conversion will occur after the successful conversion of the pilot units.

- **System operations documentation that describes the training and documentation you will provide to your users.**

Your enterprise must prepare the documentation that will be necessary for training your enterprise's personnel and for operating and maintaining Workfolder Application Facility. Because your Workfolder Application Facility solution is tailored to the specific requirements of your enterprise, you must have documentation that reflects the practices of your enterprise.

Planning for the IBM Token-Ring Network

Workfolder Application Facility uses the IBM Token-Ring Network to communicate between the hardware components of the system. When planning for the AS/400 system installation, you must obtain information that allows you to configure communications between the Token-Ring Network and the other hardware components. This information is divided into the following categories:

- Line information
- Controller information
- Device information

The most important information you need are the addresses and names of the devices on the Token-Ring Network. You should work with a person trained in communications to determine these addresses. For information on how to use these charts and on other Token-Ring Network planning issues, refer to your AS/400 communications books.

The AS/400 operating system provides an auto-configuration function to simplify the definition of the workstations, controllers and devices. To use this function, specify `AUTOCTRL=*YES` in the Token-Ring line definition.

Planning for the AS/400 System

The AS/400 system is the host unit for Workfolder Application Facility. There are many planning issues involved in setting up the AS/400 system to work in an ImagePlus environment. The following issues must be addressed:

- Configuring Client Access/400
- Choosing methods of backup and recovery
- Setting security and object authority

Configuring Client Access/400

Client Access/400 is used to communicate between the AS/400 system, optical storage, and the ImagePlus workstation. Preparing for Client Access/400 installation and configuration is one of the most important Workfolder Application Facility planning steps. Refer to your AS/400 communications and Client Access/400 books for assistance.

Backup and Recovery

When planning your backup and recovery strategy, you need to consider the following parts, which are integral to your Workfolder Application Facility system:

- Documents
- Workfolder Application Facility files that manage document processing
- Any custom objects you support

As you plan your recovery strategy, consider that backups of these objects must remain synchronized to ensure that you can successfully recover your system in the event of failure. For detailed information on AS/400 backup and recovery, refer to the *IBM AS/400 Programming: Backup and Recovery Guide*.

Security and Object Authority

As system administrator, you are responsible for controlling user access and authority associated with Workfolder Application Facility. You can choose how restrictive to make your system.

Workfolder Application Facility provides customers with these basic types of security checking:

Functional Authority

Verification of a user's authority to perform a function, allowing authorized access to specific functions that a user needs to perform.

Item Security

Verification of a user's authority to access items of a particular index class or items within a specific workbasket.

Planning for the 3995 Optical Library Dataserver

The IBM 3995 Optical Library Dataserver products are a family of optical storage products. Each optical library contains drives that use 5.25-inch optical disk cartridges and a carriage-and-picker assembly that moves the optical disks between an input/output station, the drives, and cartridge slots.

When planning for installation of the 3995 Dataserver in an ImagePlus system, perform the following tasks:

Select a planning team

To ensure an efficient optical library installation and to be able to start using your optical library as soon as possible after installation, select a planning team and define their tasks. The planning team should consist of the following:

Planning coordinator Responsible for ensuring that all planning and ordering activities proceed smoothly and on schedule. This person works closely with the IBM marketing representative.

Physical planner Responsible for determining the location of the optical library. This person ensures that the correct environmental, electrical, and space requirements are met. This person should work closely with the IBM physical planning representative.

System and application programmers Installs and tests the licensed programs when they arrive. The system programmer also works with the storage administrator to define an installation's storage management policy.

Application programmers create and modify specific application programs as needed. They should work closely with the IBM system engineer.

Storage administrator Defines a storage management policy and plans for data migration.

Optical library operator Responsible for the daily operation of the library.

Prepare the physical layout

Consider the following items to help you prepare a physical layout plan for the optical library:

- Environmental requirements
- Electrical requirements
- Attachment requirements
- Space requirements
- Location considerations

Refer to your IBM 3995 Optical Library Dataserver books for more information about planning for physical installation your optical library.

Plan the configuration

The 3995 Dataserver optical libraries are defined to the system by using the AS/400 Optical Library Support/400 Configuration Utilities. Refer to your IBM 3995 Optical Library Dataserver books to find out how to use these utilities to define configuration information and options for the optical library and the optical disk drives, as well as how to properly configure your libraries.

Plan for supplies and equipment

Following are the supplies and equipment you need for the successful operation of your optical disk library:

- Three months' supply of optical disk cartridges for storing information
- Labels for writing the volume ID that is assigned to the optical disk cartridge and for listing the contents of the cartridge
- Storage shelves for storing shelf-resident optical disk cartridges.

Plan for optical library operator training

Before the optical library is installed, you must train the optical library operator. Refer to your IBM 3995 Optical Library Dataserver books for a description of the AS/400 control language commands available to control the optical drives and libraries.

Chapter 4. Planning for Workfolder Application Facility

This section addresses many of the specific items that need to be addressed during planning for Workfolder Application Facility. You should use the books listed in this section for assistance as you plan.

This book describes several planning activities for the Workfolder Application Facility feature. If you plan to use only VisualInfo for AS/400, you need not consider many of the Workfolder Application Facility planning tasks in this section, Chapter 5, "Planning for Work Management" on page 25, or Chapter 6, "Planning for File Cabinets" on page 51.

Required Publications

The *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* is required to plan for the installation of Workfolder Application Facility. If you plan to use Workfolder Application Facility with VisualInfo for AS/400, refer to the *IBM ImagePlus VisualInfo for AS/400: System Administration Guide* for additional planning considerations.

Planning Issues

Planning for Workfolder Application Facility requires consideration of many issues. These issues include the following:

- Planning for the flow of work through Workfolder Application Facility requires you to define how your Workfolder Application Facility application will function. Topics include planning the application environment and profiles, setting up a test environment, considerations for using cross-system interchange, and application customization.
- Planning for compliance monitoring to help you determine the number of users to include on your license.
- Planning for coexistence between VisualInfo for AS/400 and Workfolder Application Facility. Refer to the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* for details about choosing an environment and coexistence considerations.

Planning for Workfolder Application Facility

To install Workfolder Application Facility, you must plan the flow of work for your system. The following is an example of some of the information you need to know:

- The number of people who are going to use the system
- The user IDs to be defined to Workfolder Application Facility
- The functions each user can perform:

- Input processors: scan only; index and reindex only; or scan, index, reindex and import
 - Work processors: access work queues; process file cabinets; select or delete cases; move or copy documents, or both
 - System administrators: set up the work environment, write management reports, monitor the system. For more detailed information about the roles these users perform, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*. You must plan in advance if you are going to use the workflow function.
- The queues—work in-baskets to be accessed by all defined users or only selected users—and queue classes to be defined to Workfolder Application Facility
 - The document types to be defined to Workfolder Application Facility: for scanning, indexing, and placing into a general mail queue, a specific work queue, or a user's queue
 - File cabinets
 - Security for documents and file cabinets

Planning Your Environment

You can install Workfolder Application Facility in several ways:

- A single AS/400 processor with one Workfolder Application Facility environment
- A single AS/400 processor with multiple Workfolder Application Facility environments
- Multiple AS/400 processors with one Workfolder Application Facility environment running on a primary (library server) and secondary (object server) processor. This environment supports one Workfolder Application Facility processor which is considered to be the primary processor. In addition, up to five secondary processors that contain Workfolder Application Facility image documents, and a subset of the Workfolder Application Facility programs and files can be supported.

Planning Your Profiles

You must customize Workfolder Application Facility for your environment by creating profiles that describe user parameters. Table 2 on page 20 summarizes the types of profiles you can define. This section discusses application and system profiles.

Table 2. Types of Profiles for Use with Workfolder Application Facility

Type of Profile	Name	Purpose
Application	User ID	Defines user information and level of function
	Language	Defines country-specific parameters for the Workfolder Application Facility, such as time and date formats
	Document Type	Defines Workfolder Application Facility document types
	File Cabinet	Lets the system administrator associate documents together in file cabinets and maintain file cabinets
	Storage Class	Defines the distribution of documents associated with an optical system ID that are stored on active optical systems
	Address ID	Contains names and addresses
	Fax Output Class	Lets the system administrator define output classes and constraints for fax transmissions in Workfolder Application Facility
	Fax Nickname	Lets the system administrator define fax nicknames, which contain routing information for fax transmissions
	Queue ID	Defines Workfolder Application Facility work queues
Work management	Action List	Lists the actions that can be taken against the contents of a workbasket
	Workbasket	Defines the grouping of available work and the rules associated with performing this work
	Process	Lets you add or update attributes that define processes in work management
System	DASD System ID	Defines the roles of one or more AS/400 processors
	AS/400 Object Directory	Identifies AS/400 object directory names used for image document storage
	Optical System ID	Defines the direct attached or LAN-attached optical system configurations that Workfolder Application Facility uses to store documents to optical
	Non-Optical Device	Secifies tape, cartridge, or diskette devices for offline document storage

Defining Security Levels

Based on security levels that you define within the VisualInfo for AS/400 environment, you can enable access to the following:

- VisualInfo for AS/400 itself
- Documents
- Functions

Access to VisualInfo for AS/400

When you install it, VisualInfo for AS/400 creates a default system administrator user ID and default group profile, both of which have *ALL authority to the objects in each VisualInfo for AS/400 library. The installation program installs all VisualInfo for AS/400 libraries with *PUBLIC *USE access and *PUBLIC *EXCLUDE on a subset of program objects in the program library. Objects with *PUBLIC *EXCLUDE are functions having commands that no one outside VisualInfo for AS/400 should execute.

You can assign each user working in the VisualInfo for AS/400 environment to the group profile. If you have your own security access procedure, be sure that your users have *ALL authority to VisualInfo for AS/400 objects. See Figure 17 on page 79 for more details about user IDs that the installation program creates.

Access to Documents

When you install VisualInfo for AS/400, the installation program creates a router user ID and associates it with the group profile. Users can sign on to the router with this user ID so that the same user ID owns all objects in the object directories. However, if you plan to maintain a large number of objects on DASD, you might want to consider using more than one router ID to avoid reaching AS/400 ownership limits.

When the system administrator creates an object directory for the primary processor (library server) using the Workfolder Application Facility object directory profile function, the group profile the system administrator specifies is made the owner of the object directory and is granted *ALL authority to it. If the system administrator defines an object directory profile for an existing object directory, the system administrator must use the document library object (DLO) authority command (ADDDLOAUT) to grant *ALL authority to the group profile. Refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for more information on creating and maintaining object directory profiles, and the *Application System/400 CL Reference* for more information on the ADDDLOAUT command.

See Figure 17 on page 79 for more information about the router ID that the installation program creates and to the *IBM ImagePlus VisualInfo for AS/400: System Administration Guide* for details on creating object directories.

Access to Functions

Each Workfolder Application Facility user must have a Workfolder Application Facility user profile. Each user profile defines the functions, queues, file cabinets, and document types a user is permitted to access. Refer to the *IBM ImagePlus Workfolder*

Application Facility for AS/400: System Administration Guide for details on creating user profiles and granting authorities.

Planning a Test Environment

Before beginning production with Workfolder Application Facility or any new application, it is recommended that you set up a test environment. This lets you become familiar with the functions of the application without jeopardizing the integrity of your production data. If you choose to use a test environment, back up your Workfolder Application Facility Version 4 Release 1 libraries after completing Chapter 7, “Installing and Customizing the Product” on page 56.

When your test is complete, you can delete the Workfolder Application Facility Version 4 Release 1 test environment libraries and image folders. You can then restore the backup of your Version 4 Release 1 libraries, create the image folders and customize your Version 4 Release 1 profiles again.

Planning for Cross-System Interchange

Workfolder Application Facility cross-system interchange uses the AS/400 send and receive network file processing facilities. When a transmitted document is received, an acknowledgment is sent by the receiving system to the originator of the transmission confirming the receipt. Both the sending and receiving AS/400 systems must have the users defined in the system directory to enable the transfer of images and the confirmation messages.

When a user on the sending system selects documents or cases to be sent to a receiving system, the user’s ID accompanies the information that is sent. To send an acknowledgment to the sender, the receiving system must have the sender’s user ID defined in the system directory as a remote user. If the user is not defined or is incorrectly defined on the receiving system, then the receiving system is unable to send an acknowledgment.

The following examples illustrate how the interchange functions:

- Document 1 sent by WORKER01 on System A to WORKER01 on System B is defined in the system directory of the sending system (System A) as a local user.
- Document 2 sent by WORKER02 on System B to WORKER02 on System A is defined in the system directory of the sending system (System B) as a local user. WORKER02 must also be defined in the system directory of the receiving system (System A) as a remote user.

For the preceding example, the system directory entries are illustrated in Table 3.

System A Directory	System B Directory
WORKER01 local user	WORKER01 remote user
WORKER02 remote user	WORKER02 local user

Planning for Customization

To make Workfolder Application Facility more meaningful to your users or to include additional functions, you might choose to customize existing Workfolder Application Facility menus or to add additional programs to the application. It is recommended that these modified menus or additional programs be placed in a library separate from Version 4 Release 1 application libraries. To access these modifications, the new library will be placed at the top of the user's library list. Keeping modifications separate from Version 4 Release 1 libraries also makes it easier to migrate to future versions of the Workfolder Application Facility.

Coexistence Between VisuallInfo for AS/400 and Workfolder Application Facility

IBM ImagePlus VisuallInfo for AS/400 (VisuallInfo for AS/400) and its ImagePlus Workfolder Application Facility for AS/400 (Workfolder Application Facility) feature provide different interfaces to the same document management system. If you plan to use both interfaces as a single image solution to access the same VisuallInfo for AS/400 system, you need to be aware of some of the considerations, conceptual differences, and limitations between the two interfaces before beginning to use them together. In addition to information in *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide*, you should review specific coexistence topics in the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*.

Planning for Compliance Monitoring

VisuallInfo for AS/400 implements a user-based pricing structure, where license entitlement is based on the number of concurrent users authorized to access the product. A *concurrent user* is defined as any user, program, or job accessing VisuallInfo for AS/400 or Workfolder Application Facility programs or databases. The following are examples:

- If a single job processes requests for multiple users, each user is considered to be a concurrent user.
- If a single user ID is logged on to multiple Workfolder Application Facility sessions, each session is considered to be a concurrent user.

VisuallInfo for AS/400 provides a facility for monitoring compliance with license entitlement, and compliance is enforced independently on each processor. When the user limit is reached, each additional Workfolder Application Facility user receives a full-screen warning message the first time they enter an image function through a menu. The system operator receives this same message. The message includes the maximum number of concurrent users to which you are entitled and the current number of concurrent users using the system. The compliance count is decreased when a user selects option 90 to log off the AS/400 or calls the LOGOFF API.

Planning for Language Differences

OS/400 Restriction for the Japanese Language

This restriction applies only to users who have host code page 930 (SBCS and DBCS Katakana) set for ImagePlus Workstation Program. A code page conflict exists when you have code page 930 set and try to process lowercase English characters. To properly process any combination of Katakana and English characters, do not use lowercase English characters. To process single-byte Katakana, change the enhanced terminal profile for your 5250 session to **ACS5GKJP**.

Chapter 5. Planning for Work Management

The work management functions of Workfolder Application Facility let you control the flow and performance of work in your business. When users work on documents in case and file cabinet processing, they must make decisions on what actions to perform on a document. Work management aids in this process by letting you determine in advance how you want the work to be performed.

This section provides the following:

- Introduction to work management, including associated terminology and planning considerations for work management
- In-depth description of the various work management components
- Sample processes with descriptions of work management profiles and process items required to define them

The Work Process

Most enterprises that handle documents perform some or all of the following tasks:

- File documents for later retrieval
- Collect documents, forms, and information from different sources, then deliver these documents somewhere to be processed
- Match incoming mail with documents currently being processed
- Hold work until another department or group is finished with its part of the work.

This flow of work is represented in Workfolder Application Facility system by a *work process*, which describes the actions that can be performed on a group of one or more documents and the route that this group takes through the work management process.

Planning for a Work Management System

Your implementation of work management functions reflects the way your business handles typical document processing situations. For example, if your business is a mortgage company, a loan officer might file a loan application until a certain document is received from the applicant. When a document arrives, the loan officer might be responsible for matching the document with the application, as well as for processing that document.

Before you begin to use the work management functions of the Workfolder Application Facility, you should determine the needs of your enterprise. A useful way to start your analysis is to answer some basic questions about your overall requirements for a work management system. Your answers to the following questions may help you then determine the specific work management components and functions you should implement.

- **How much of the information your company handles follows a definable, highly repetitive process?**

If you find that all or most of your document handling processes are regular, repeatable procedures, you may want to use defined work management processes to automate and control those procedures. Work will be routed automatically to each step in a process, with tasks in the process performed at a step.

However, if you have procedures that vary in their steps or the people who perform them, or if situations often occur that require you to define temporary procedures to handle exceptions, you may not want to completely automate your processes. Instead, you can route work to individuals or locations on an as-needed basis and hold work until certain criteria are met. In this scenario, employees might be responsible for making more decisions than employees who are working within a defined process.

- **Based on your business processes, how much flexibility do you need in a work management system?**

You may decide that the nature of your business requires both automated processes and the flexibility to route or hold work, as in the mortgage company example described earlier. A person gathering supporting documents for a loan application might always place the documents into the same location, but the person who approves the loan might need to send it back to several possible people for more information.

- **To what extent do you need to control access to documents, information, or processes?**

If your company routinely handles information that is sensitive or confidential, such as financial data or medical records, you should choose the work management functions that allow you to create and enforce security measures. For example, you could define part of a process to include only viewing or printing functions and prevent people working on the process from changing any information.

In addition to deciding your overall needs, as described in the previous paragraphs, you should also examine your specific needs for work management functions. To determine those requirements, analyze the information that you want to process, determine the actions that you want to perform, and decide how you want the information to flow through the work management process. Each of these tasks is discussed in the sections that follow.

What Information Must Be Processed

Consider the information that must be handled. What are the specific documents that must be processed? For example, a mortgage loan company receives large volumes of loan applications in the mail. During the approval process, the company receives follow-up documents, such as credit reports and appraisals.

Who can best handle each step of the process? A loan officer might verify that an application is complete before it is processed. You can group the loan applications in a *workbasket* that can be accessed by a number of loan officers.

A workbasket is a logical grouping of available *work packages* and the rules for accessing and processing those work packages. A work package can consist of one or more documents that can be moved from one location to another, for example, from one workbasket to another.

What Actions Must Be Taken

Consider what actions users must take against the contents of the workbasket. For example, a loan officer, who accepts the application or rejects it as incomplete, can select these actions from an *action list*. An action list defines the functions a user can perform on the work package or the documents within the work package.

An action list can describe:

- Predefined function keys
- User-defined function keys
- Selectable options that are available to the user

When a user works with a workbasket in Workfolder Application Facility, only those actions that you have previously defined for the workbasket are available. For example, if an application meets the initial credit requirements, a loan officer selects a preset function key from an action list to continue the application through the work process. If it does not meet requirements, the loan officer selects a different function key or option to hold the application at the workbasket until additional credit information is provided.

How Information Flows through the Process

Consider how you want information to flow through your process. For example, who needs to review the loan application? What supporting documents are needed to move on to the next step in the process? What criteria determine whether an application is accepted or rejected? This flow of information is defined and controlled by the *work process*. A work process consists of workbaskets, decision points, collection points, and the routes that guide the work throughout processing. Depending on the requirements of your business, you can define work processes to be as simple or as complex as you need.

Decision points determine routing within a work process based on a set of variables and their values associated with the work packages being routed. For example, a decision point can determine the next step of a work process based on the priority variable/value associated with a work package. If a work package has a high priority value, then it might be routed to a senior loan officer who handles all loan applications for more than \$500,000.

Collection points manage work packages that need to wait for additional documents, the completion of another action, the occurrence of business events, or a specific number of days. For example, one decision point might move a new mortgage loan application to a collection point to wait for credit reports and appraisals. You can assign time guidelines to the collection points to wait for documents and continue them along the route when they arrive, or signal that a document has not been received when the specified time limit is met.

Work packages within a process can continue along parallel routes to a collection point at one time. In this way, documents that arrive at different times do not affect other parts of the route.

When all collection point events are satisfied (for example, documents are received), the work package continues along the route to a final point for loan approval or rejection.

Routes specify the sequential steps of a work process that move work to workbaskets, collection points, or decision points. For example, when all the credit reports and appraisals are received at a collection point, a route would be started that would move the work package to a workbasket at which loan applications are reviewed for acceptance.

Processing Work Without Defined Processes

You may need to route work from one location to another without using a defined work management process. Processing documents without a process might be necessary if you have information or procedures that require more flexibility than automated processes typically allow. A work package handled in an ad hoc manner does not follow any routes or move to or from collection points and decision points.

For example, you might create work packages containing documents that require special handling, and then route the work packages to and from different locations. One of the locations could be a workbasket with an action list that consists of several display and printing options. When a work package moving through a process requires special printing or displaying capabilities, a user could reassign the work package directly to the workbasket designed to handle these exceptions. Once the work package has been processed, it can return to its original process.

Routing Work Packages Manually

In addition to reassigning work packages, flexibility can be built into your processes when documents are first added to the system. For example, work packages can be created when documents are scanned, and then directed to specific workbasket, without starting the work packages on processes. This feature may be useful in handling work packages that do not need the additional processing that might be performed during a defined process. For example, work packages could be placed directly into a workbasket at which they are simply indexed into file cabinets. Or, several workbaskets could be created and used to process these work packages individually. For example, work packages are created at Workbasket 1 and sent to Workbasket 2, where the document is indexed into a file cabinet. However, some work packages require comments to be added to them before the indexer can store the document in the file cabinet. The indexer can handle these work packages in an ad hoc manner by sending them to Workbasket 3, where they are evaluated, comments are then added, and the person adding comments sends the work packages back to Workbasket 2 for indexing.

Pending Work Packages

In an automated process, work packages can be held for more processing if the function is provided as part of the work process, such as the events associated with a collection point. However, a user can also hold a work package for additional processing, or *pend* it, until the criteria they specify, such as a date or the arrival of another document, are satisfied. Users can also manually release pended work packages without waiting for the specified conditions to occur. For example, your company may require that an applicant's credit report be on file before a loan is approved. The work package containing the application and supporting documents can be pended until the report is added to the package. However, if the necessary credit information is received by a fax or by a telephone call, the user can manually release the pend request for the work package.

How It Fits Together

After you analyze the information you want to process, determine the actions that you want to perform, and decide how you want the information to flow through the work management process, you are ready to set up the profiles and rules that represent your business process and control the way work management components work together.

Work Management Components

The following sections offer more detailed descriptions of the major work management components that were defined earlier.

The major work management components are work packages, workbaskets, and work processes. You can assemble related work together in work packages, organize the work packages into workbaskets, and define work processes to control the flow of work.

Work Packages

A work package is a document or group of related documents, such as a folder or case, on which users work. During input processing, documents are scanned into the system and assigned to one of the following types of work packages:

- An unindexed document work package, which contains a document that has not been indexed
- A document work package, which contains a file cabinet document
- A folder work package, which contains one or more documents
- A user-defined work package, which can contain non-Workfolder Application Facility objects.

Work packages can be routed on a defined process, or they can be placed directly into a specific workbasket.

Workbaskets

A workbasket is a logical grouping of available work and the rules associated with performing the work. A workbasket is similar to an in-basket because it contains work packages to be worked on by users. There are seven types of workbaskets:

01=Scan documents

Accepts documents to be scanned into the system and starts them on a work process, puts them directly into the workbasket specified by the user, or both. You cannot queue work to a workbasket of this type, because the queue at this workbasket consists of the documents waiting to be scanned.

02=Index into folders

Accepts documents to be entered into the system and indexes them into folders. It also allows a user to start the documents on a work process, put them directly into a workbasket, or both.

03=Index into file cabinets

Accepts documents to be entered into the system and indexes them into file cabinets. It also allows a user to start the documents on a work process, put them directly into a workbasket, or both.

04=Scan and index into folders

Accepts documents to be scanned into the system and indexes them into folders. It also allows a user to start the documents on a work process, put them directly into a workbasket, or both. You cannot queue work to a workbasket of this type, because the queue at this workbasket consists of the documents waiting to be scanned.

05=Scan and index into file cabinets

Accepts documents to be scanned into the system and indexes them into file cabinets. It also allows a user to start the documents on a work process, put them directly into a workbasket, or both. You cannot queue work to a workbasket of this type, because the queue at this workbasket consists of the documents waiting to be scanned.

06=Work with work packages

Displays a list of documents in the folder (case) or information related to a single document in a file cabinet. You can perform document-level, folder-level, and work package-level functions.

50-99=User defined

You can define the user interface and function of this workbasket type to suit your business. User-defined workbaskets can process any type of work packages desired.

Action Lists

Every workbasket, except the scan documents workbasket, has an associated action list. An action list consists of a set of functions and their definitions that can be performed at a workbasket. Action lists of type 1 (index) can be used for workbaskets where indexing is performed. Action lists of type 2 (work) can be used for workbaskets where you work with work packages. The action list defined with a workbasket can be overridden with another action list entered as the second parameter on a WORK command.

When you define action lists, you are customizing actions you want users to be able to take when they perform work on work packages at specific workbaskets. For example, in your loan application process you may send documents to a workbasket where an employee simply reviews the documentation for completeness. The action list for this workbasket could contain functions for printing documents or adding comments to the folder but not functions for modifying or deleting documents. Action lists not only allow a choice of functions, but allow you to assign those functions to any function key and label those function keys in any way. In our review workbasket example, the comments function may be set up to appear as **F4=List missing items**, to prompt the reviewer to add comments whenever there are items missing from the work package.

Work Processes

Work processes define how to route your work. A work process must contain at least one route and may contain collection points and decision points.

Routes

Routes control the flow of work by moving work packages between steps in the work process. Each workbasket, collection point, user exit, or decision point is considered a step in the work process. Workbaskets can also exist outside of work processes, however. Work packages can be routed in an ad hoc manner to any workbasket, inside or outside a process, to handle exceptions to your regular work processes.

Route commands and their parameters are used to control the movement of work packages and the processing actions that are performed on them. There are a number of commands that make up the routes that direct the work (folder or document) to a particular location or status. For example, a route command is used to move a work package to a workbasket or a collection point. Another route command is used to interface to line-of-business applications, while a different route command places a folder into a case processing queue. Step numbers that you specify determine the order in which the commands are processed.

Table 4 gives an overview of the route commands, listing parameters where applicable and brief descriptions. A complete description of these commands can be found in the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*.

Command	Parameter-1	Parameter-2	Description
CLOSE	None	None	Stops a route and closes a folder work package.
COLLECT	<i>Collection point name</i>	None	Moves the work package the current route is processing to a collection point. Since collection points always start new routes, the COLLECT command ends the current route.
COPY	<i>value</i>	<i>variable</i>	Copies a value into a work package instance variable.
DECIDE	<i>decision point name</i>	None	Moves the work package the current route is processing to a decision point. Since decision points always start new routes, the DECIDE command ends the current route.

Table 4 (Page 2 of 2). Route Commands

Command	Parameter-1	Parameter-2	Description
QUEUE	<i>queue name</i>	None	Queues a folder and puts it into a Workfolder Application Facility case processing queue.
START	<i>route name</i>	None	Starts another route that concurrently processes the same work package the current route is processing.
STOP	None	None	Stops the route, removes the work package from the work process, and retains the contents of the work package.
USEREXIT	<i>Program name</i> (optional)	None	Allows a route to call a line-of-business application program.
WORK	<i>workbasket name</i>	<i>action list name</i> (optional)	Moves the work package the current route is processing to a workbasket.

The route commands are described in more detail in the following sections.

CLOSE Command

The CLOSE command closes a case associated with a work package and assigns it a closed status. It ends the current route. If the work package is still active because it is being processed by another route or the case is associated with another work package, the CLOSE command is ignored.

Because the CLOSE command ends the route, it should be the last command in the route. The CLOSE command is only valid in routes that process folders, and may not be used for routes that process documents. If a work package that is not a folder is processed by a route that includes a CLOSE command, the CLOSE command is ignored and the current route is ended.

The format of the CLOSE command is as follows:

- CLOSE

COLLECT Command

The COLLECT command moves a work package from a route where it is being processed to a collection point. The COLLECT command ends the current route, because the collection point always starts a new route and assumes control of processing of the work package. Because the COLLECT command ends the route, it should be the last command in the route.

The format of the COLLECT command is as follows:

- COLLECT *cpname*

where:

cpname is the name of the collection point into which the work package is moved. The collection point name for *cpname* must be a collection point that exists in the same process. *cpname* is parameter-1.

COPY Command

The COPY command copies a value into a work package variable. This variable can be accessed later in the route, or it can be accessed by a user exit program. The COPY command can be used in routes that process documents or cases.

The format of the COPY command is as follows:

- COPY *value* to *variable_name*

where:

value is a 10 position alphanumeric value. *value* is parameter-1.

variable_name

is the name of the work package variable to which the value is to be copied. *variable_name* is parameter-2.

The following variables can be changed by the COPY command:

- *BUTTON
- *PRIORITY
- Any user-defined variables.

DECIDE Command

The DECIDE command moves a work package from a route where it is being processed to a decision point. The DECIDE command ends the current route, because the decision point always starts a new route and assumes control of processing of the work package. Because the DECIDE command ends the route, it should be the last command in the route.

The format of the DECIDE command is as follows:

- DECIDE *dpname*

where:

dpname is the name of the decision point into which the work package is moved.

The decision point name for *dpname* must be a decision point that exists in the same process. *dpname* is parameter-1.

QUEUE Command

The QUEUE command queues a folder and puts it into a case processing queue. The folder is then available to be worked on by a case processor. If a work package that is not a folder is processed by a route that includes a QUEUE command, the QUEUE command is ignored and the current route is ended.

Because the QUEUE command ends the route, it should be the last command in the route. The QUEUE command is only valid in routes that process folders. It cannot be

used for routes that process documents. A folder cannot be processed by both a work management queue and a case work queue simultaneously. If a work package is still active because it is being processed by another route or the folder is associated with another work package, the QUEUE command is ignored.

The format of the QUEUE command is as follows:

- QUEUE *queue_name*

where:

queue_name

is the name of a case processing queue. The queue name for *queue_name* must be a queue name that exists in the Workfolder Application Facility database. *queue_name* is parameter-1.

START Command

The START command starts another route that concurrently processes a work package being processed by the current route. This command lets more than one route process a work package at the same time, providing for the parallel processing needed to solve many business problems. The START command may be used in routes that work on documents or folders.

The format of the start command is as follows:

- START *rtname*

where:

rtname

is the name of the route that is being started. The route name for *rtname* must be a route that exists in the same process. *rtname* is parameter-1.

STOP Command

The STOP command stops the current route. If the work package is not still active in any other routes, then the STOP command also stops the work process. A work package can be active in multiple routes within a work process which starts parallel routes. The work package is removed from the work process. The contents of the work package are retained in either a file cabinet or unqueued case (wherever the documents were indexed). Because the STOP command ends the route, it should be the last command in the route.

The STOP command stops the route and returns the work package to the document library. If the work package is still active because it is being processed by another route, the STOP command stops only the current route.

- STOP

USEREXIT Command

The USEREXIT command lets a route call a line-of-business application. This allows values from the route to be passed to the application. In addition, control values from the line-of-business application can be passed back to the route. The exact control

block passed to the user program is defined in the *IBM ImagePlus Workfolder Application Facility for AS/400: Programming Interfaces Guide*. The user exit can set the variables *BUTTON and *PRIORITY as well as any user-defined variables.

There are two USEREXIT command formats. The first USEREXIT command format is as follows:

- USEREXIT

where the default user exit name is EKDWMUE01.

The second USEREXIT command format is as follows:

- USEREXIT *program name*

where:

program name

is the name of the user program to be called. The program name must reside in the library list. *program name* is parameter-1.

WORK Command

The WORK command moves the work package that the current route is processing to a workbasket.

The format of the WORK command is as follows:

- WORK *wbname* {*action list name*}

where:

wbname is the name of the workbasket to which the work package is moved.
wbname is parameter-1.

action list name

is the name of the defined set of options and function keys the user may access when processing the work package. *action list name* is optional and is parameter-2. If specified, it overrides the action list defined for the workbasket for those work packages moved to the workbasket through the command set in this way.

Collection Points

Collection points manage work packages that need to wait for certain events to occur before they can continue processing. A collection point can hold a work package while it waits for one or more documents to be scanned in, routes to be completed, or external line-of-business events to be accomplished. A collection point can also handle exception conditions and events. You create a collection point by setting up event types, event lists, and control parameters. The event type indicates whether the work package is waiting for a document to arrive, a route to be completed, or a line-of-business event to occur. The event list specifies the events that must occur before a work package will start the next route. Within a single event list, all events must occur before the list is satisfied (a logical AND condition). If more than one event

list is specified, the work package waits for one or the other list to be satisfied (a logical OR condition). Control parameters specify the number of days the collection point waits to be released even if none of the event lists are satisfied.

Decision Points

Decision points let you make routing choices for the work performed by users. These choices can be based on line-of-business data, work management data, the function key pressed by the user, and so on. For each decision point, you define at least one alternative and an exception route. When a work package enters a decision point, work management checks the alternatives for a match. The alternatives defined in a decision point are checked sequentially and the first match found is processed. If there is a match, work management sends the work package to the route you specified in the matching alternative. If there is no match, work management sends the work package to the exception route you specified.

A match occurs when a work package entering a decision point meets the conditions (the variable and its value) you define for an alternative. The variable can be one of three types:

- ***PRIORITY.** This lets you determine what happens in the work process based on the priority value of a work package being routed through the process.
- ***BUTTON.** This lets you determine what happens when a user presses a given function key (or button) at a workbasket before sending the work package to the decision point (using the DECIDE command). The value for *BUTTON can be a number from 2 through 22, for the valid function keys. For example, if you specify a variable of *BUTTON with a value of 3, when the user presses F3 at the workbasket and sends the work package to the decision point, the conditions for this alternative are met and the work package is sent to the route you specified in the alternative.
- **User-defined.** This lets you determine what happens in the work process based on the value of a user-defined variable associated with a work package being routed through the process.

Work Management Sample Processes

The following section contains four sample processes which will assist you in identifying the work management components that need to be created given a specific business process. The examples are general in nature and demonstrate how to create a serial process, a parallel process, a process containing decision points and a process containing collection points. Color is used in some of the diagrams to differentiate between the routes. You can use these as a basis for constructing more complex processes.

These sample processes are also created automatically during the installation of the Workfolder Application Facility.

Work Management Serial Process

Figure 1 shows a simple business process where a work package is processed sequentially and routed from one workbasket to the next until the end of the process is reached.

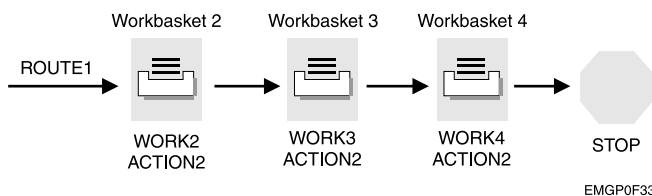


Figure 1. Example 1–Serial Process

Creating this serial process requires the following:

Workbasket profile definitions

This example reflects three workbaskets. These workbaskets could be a combination of index, work with work packages, or user-defined workbaskets. Although they may be a part of your overall business process, the scan or scan and index workbaskets are not be a part of a process definition. That is to say, scan or scan and index workbaskets should not be referenced on a WORK command of a route definition within a process. Although not shown in Figure 1, there may be another input processing workbasket defined for scanning documents and initiating them on this work process.

It is possible to have index, work with work package, or user-defined workbaskets anywhere within a process. Once a folder work package is indexed, it can't be processed at another indexing workbasket. You can, however, forward a document work package to multiple indexing workbaskets, where file cabinet keyword values can be added or modified.

After this process is started, the work package is sent to workbasket WORK2. This work package remains at workbasket WORK2 until the user has completed processing this work and has pressed the Continue function key. The work package is then forwarded to WORK3. When processing of the work package is completed at WORK3, it is forwarded to WORK4.

Action list definitions

The type of action or work to be performed at each of the workbaskets determines how many action list definitions are required. For example, if the work to be performed at all three workbaskets is the same, you can define and use a single action list, as shown in Figure 1. If the initial workbasket is an index workbasket and the others are work with work package type work baskets, you are required to define at least two action lists. All three workbaskets can have a different action list. If you are performing a variety of actions, you need a separate action list for each different type of action with in a workbasket.

Process profile definition

Since there is no branching or parallel processing, this process consists of a single route definition. Additionally, there is no need to define decision or collection points.

The route contains three WORK commands followed by a single STOP command. Although the WORK and STOP commands are a minimum requirement for this process definition, you can use other route commands as well. For example, you can use the USEREXIT command anywhere along the route to invoke a line-of-business application. A START command is not required to begin the route. Defined with each process is a starting route which is implicitly started when the process is begun. Again, since there is only one route, ROUTE1 would be the starting route.

Table 5 summarizes the work management objects required to create this serial process. Associated with each work management profile or process item there is a 1- to 10-character name. The names in the table correspond to those in the diagram in Table 5.

Profile	Name	Description
Workbasket	WORK2	This is the initial workbasket on route ROUTE1 of process PROCESS1. When the user has completed processing a work package at this workbasket, the work package is sent to workbasket WORK3.
Workbasket	WORK3	This is the second workbasket on route ROUTE1 of process PROCESS1. When the user has completed processing a work package at this workbasket, the work package is sent to workbasket WORK4.
Workbasket	WORK4	This is the third workbasket on route ROUTE1 of process PROCESS1. When the user has completed processing a work package at this workbasket, the STOP command of ROUTE1 is executed. The route ends and the work package is removed from the work process.
Action List	ACTION2	This is the action list for workbaskets WORK2, WORK3 and WORK4. The action list defines the actions that a user may perform at these workbaskets.
Process	PROCESS1	This is the process profile which defines a serial process. That is, this process does not contain any branching or parallel processing. This process contains a single route, ROUTE1.
Route	ROUTE1	This is the route definition which determines how work moves through this process. Table 6 lists the route commands and their parameters used in the serial process.

Step	Command	Parameter-1	Parameter-2
10	WORK	WORK2	ACTION2
20	WORK	WORK3	ACTION2
30	WORK	WORK4	ACTION2

Table 6 (Page 2 of 2). Example 1—Route Commands for ROUTE1			
Step	Command	Parameter-1	Parameter-2
40	STOP		

Work Management Parallel Process

Figure 2 shows a parallel process where a work package is processed simultaneously at different workbaskets. If your business process does not require that work be processed sequentially, then you may be able to take advantage of the efficiencies associated with a parallel process.

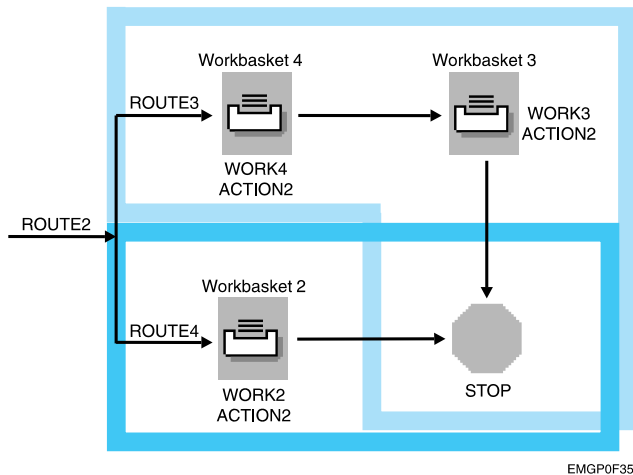


Figure 2. Example 2—Parallel Process

Creating this parallel process requires the following:

Workbasket profile definitions

This example contains three workbaskets. These could be a combination of index, work with work packages, or user-defined workbaskets.

Action list definitions

The type of action or work performed at each of the workbaskets determines how many action list definitions are required. This example contains one action list. Workbaskets WORK2, WORK3 and WORK4 are defined to use action list ACTION2.

Process profile definition

This profile definition allows a work package to be processed simultaneously at different workbaskets. In this example, from ROUTE2 the work package is immediately sent along ROUTE3 to workbasket WORK4 and ROUTE4 to workbasket WORK2 to be processed at the same time. To allow this parallel processing, three routes are defined within this process. ROUTE2 is the initial route which is started when PROCESS2 is begun. Routes ROUTE3 and ROUTE4 are the parallel routes. This parallel routing example could have been defined with just two routes. That is, the work package could have been started on a separate route while continuing it

along ROUTE2 at the same time. So, in this example, this process could have been defined without ROUTE3 or ROUTE4.

Table 7 summarizes the work management objects required to create this parallel process. Associated with each work management profile or process item there is a 1- to 10-character name. The names in the table correspond to those in the diagram in Table 7.

Profile	Name	Description
Workbasket	WORK2	This is the initial and only workbasket on route ROUTE4 of process PROCESS2. When ROUTE4 is started from ROUTE2 the work package is sent to workbasket WORK2. When the user has completed processing a work package at this workbasket, the STOP command of ROUTE4 is executed. The route ends, and if the work package is not still active on ROUTE3, the work package is removed from the work process.
Workbasket	WORK3	This is the second workbasket on route ROUTE3 of process PROCESS2. When the user has completed processing a work package at this workbasket, the STOP command of ROUTE3 is executed. The route ends, and if the work package is not still active on ROUTE4, the work package is removed from the work process.
Workbasket	WORK4	This is the initial workbasket on route ROUTE3 of process PROCESS2. When ROUTE3 is started from ROUTE2, the work package is sent to workbasket WORK4. When the user has completed processing a work package at this workbasket, the work package is sent to workbasket WORK3.
Action List	ACTION2	This is the action list for workbaskets WORK2, WORK3 and WORK4. The action list defines the actions that a user may perform at these workbaskets.
Process	PROCESS2	This is the process profile which defines a parallel process. In this example, this process contains three route definitions. Again, decision point and collection point process items are not required for this process.
Route	ROUTE2	This is the initial route of process PROCESS2. When process PROCESS2 is begun, the work package is started on ROUTE2 and the two START commands defined with this route are executed. This results in the work package being started on ROUTE3 and ROUTE4 at the same time. After the START commands are executed, the STOP command is executed ending ROUTE2. Table 8 on page 41 lists the route commands and their parameters. This route contains two START commands and a STOP command. Again, this parallel process could have been defined with ROUTE2 containing a WORK command followed by a START followed by another WORK command.

<i>Table 7 (Page 2 of 2). Example 2–Work Management Objects</i>		
Profile	Name	Description
Route	ROUTE3	This route is started from route ROUTE2. A work package will move through this route and ROUTE4 simultaneously. Table 9 on page 41 lists the route commands and their parameters.
Route	ROUTE4	This route is started from route ROUTE2. A work package will move through this route and ROUTE3 simultaneously. Table 10 on page 41 lists the route commands and their parameters.

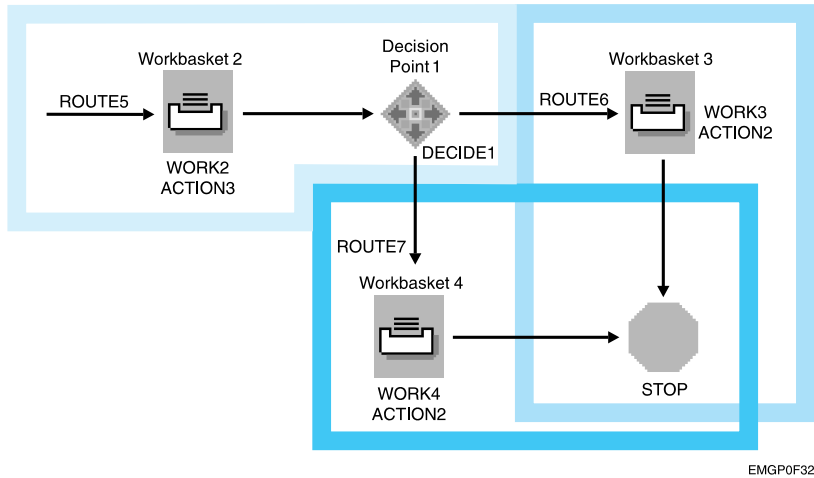
<i>Table 8. Route Commands for ROUTE2</i>			
Step	Command	Parameter-1	Parameter-2
10	START	ROUTE3	
20	START	ROUTE4	
30	STOP		

<i>Table 9. Route Commands for ROUTE3</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK4	ACTION2
20	WORK	WORK3	ACTION2
30	STOP		

<i>Table 10. Route Commands for ROUTE4</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK2	ACTION2
20	STOP		

Work Management Decision Process

Figure 3 on page 42 shows a process which contains a decision point. Using a decision point as shown in this example, you can make choices on how work is routed. These choices can be based on line-of-business data, work management data or a function key pressed by a user.



EMGP0F32

Figure 3. Example 3—Decision Process

Creating this decision process requires the following:

Workbasket profile definitions

This example contains three workbaskets. These could be a combination of index, work with work packages, or user-defined workbaskets.

Action list definitions

The type of action or work performed at each of the workbaskets determines how many action list definitions are required. This example contains two action lists. Workbaskets WORK3 and WORK4 are defined to use action list ACTION2. Action list ACTION3 is specified as the second parameter of a WORK command to override the default action list, ACTION2, defined with workbasket WORK2.

Process profile definition

This profile definition allows the processing of a work package to be continued along one route or another based on the evaluation of a decision point. For this decision point, we have to define at least one alternative and an exception route. Suppose we want subsequent processing of the work package to be based on which function key the user pressed at workbasket WORK2 before continuing the work package to the decision point. We could define our decision point such that for one of the alternatives we specify a variable of *BUTTON with a value of 8 and ROUTE6 for the route. A second alternative could be defined with a variable of *BUTTON, a value of 9 and ROUTE7 for the route. Given this definition, if the user presses F8 at workbasket WORK2 to continue the work package, the work package will be continued on route ROUTE6. If the user presses F9, the work package will be continued along route ROUTE7. If the user presses neither F8 nor F9, the work package continues along which ever route is defined as the exception route.

Table 11 on page 43 summarizes the work management objects required to create this decision process. Associated with each work management profile or process item there is a 1- to 10-character name. The names in the table correspond to those in the diagram in Table 11 on page 43.

<i>Table 11 (Page 1 of 2). Example 3—Work Management Objects</i>		
Profile	Name	Description
Workbasket	WORK2	This is the first workbasket on route ROUTE5 of process PROCESS3. When the user has completed processing a work package at this workbasket, the work package is sent to the decision point DECIDE1.
Workbasket	WORK3	This is the initial and only workbasket on route ROUTE6 of process PROCESS3. When the user has completed processing a work package at this workbasket, the STOP command of ROUTE6 is executed. The route ends and the work package is removed from the work process.
Workbasket	WORK4	This is the initial and only workbasket on route ROUTE7 of process PROCESS3. When the user has completed processing a work package at this workbasket, the STOP command of ROUTE7 is executed. The route ends and the work package is removed from the work process.
Action List	ACTION2	This is the action list for workbaskets WORK3 and WORK4. The action list defines the actions that a user may perform at these workbaskets.
Action List	ACTION3	This is the action list for workbasket WORK2. The action list defines the actions that a user may perform at this workbasket.
Process	PROCESS3	This is the process profile which defines a process which contains a decision point. This process definition must include at least three route definitions and a decision point definition.
Route	ROUTE5	This is the initial route of process PROCESS3. When process PROCESS3 is begun, the work package is started on ROUTE5. Table 12 on page 44 lists the route commands and their parameters. The STOP command shown in this route table is optional. This route contains a WORK command followed by a DECIDE command. The DECIDE command ends this route and starts the work package on either ROUTE6 or ROUTE7. Table 12 on page 44 lists the route commands and their parameters.
Route	ROUTE6	This route or ROUTE7 is started based on the evaluation of decision point DECIDE1. One of these routes must be the exception route, while the other route is defined with a decision point alternative. Table 13 on page 44 lists the route commands and their parameters.

Table 11 (Page 2 of 2). Example 3—Work Management Objects

Profile	Name	Description
Route	ROUTE7	This route or ROUTE6 is started based on the evaluation of decision point DECIDE1. One of these routes must be the exception route, while the other route is defined with a decision point alternative. Table 14 on page 44 lists the route commands and their parameters.
Decision Point	DECIDE1	When processing of the work package at workbasket WORK2 is complete, this decision point is evaluated. Based on the evaluation of this decision point, the work package is started along ROUTE6 or ROUTE7 for processing.

Table 12. Route Commands for ROUTE5

Step	Command	Parameter-1	Parameter-2
10	WORK	WORK2	ACTION3
20	DECIDE	DECIDE1	
30	STOP		

Table 13. Route Commands for ROUTE6

Step	Command	Parameter-1	Parameter-2
10	WORK	WORK3	ACTION2
20	STOP		

Table 14. Route Commands for ROUTE7

Step	Command	Parameter-1	Parameter-2
10	WORK	WORK4	ACTION2
20	STOP		

Enabling a Sample Process

To enable sample processes that include decision points, specifically PROCESS3 and PROCESS4, you can take two different approaches after installation. You can change a user exit program or you can change an action list.

Changing a User Exit Program: For action lists ACTION3 and ACTION4, function keys F8 and F9 are defined as user-defined functions. To enable the sample processes, follow these steps:

1. Rename the object in EKDLIB called EKDWB06F03 (for example, SAVWB06F03).
2. Rename the source member in EKDEXIT, called EXTWB06F03, to EKDWB06F03.
3. Edit the member.

4. Change the statement in the program that moves a 0 (zero) to the program return code so that a value of 1 is moved to the program return code.
5. Recompile the member (be sure that the object is included in the run-time library list).

The change of return codes means that when you press F8 or F9, the following occurs:

- The user exit program is called.
- You return to the Workfolder Application Facility system and the continue function is processed. This moves the current work package from the current workbasket to the next step in the current process.

The key that was pressed is recorded as the *BUTTON value for that work package and is checked by the decision point run-time code.

Changing an Action List: For action lists ACTION3 and ACTION4, function keys F8 and F9 are defined as user-defined functions.

1. Change these keys to the continue function code (0102) using the Change option in the Action List Profile panels.

This change means that when you press F8 or F9, the current work package is moved from the current workbasket to the next step in the current process.

The key that was pressed is recorded as the *BUTTON value for that work package and is checked by the decision point run-time code.

Work Management Collection Process

Figure 4 on page 46 shows a process which contains a collection point. Collection points can be used to hold a work package until certain events occur.

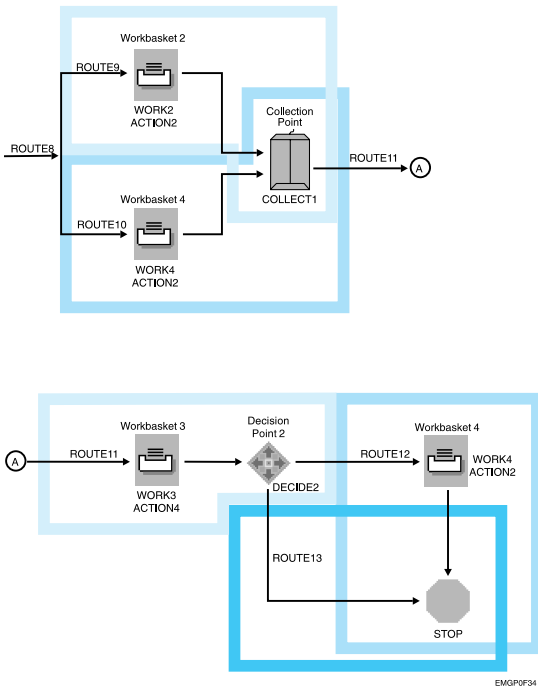


Figure 4. Example 4—Collection Process

Creating this collection process requires the following:

Workbasket profile definitions

This example contains three workbaskets. These could be a combination of index, work with work packages, or user-defined workbaskets. Notice that workbasket WORK4 is used along two separate routes of the process.

Action list definitions

The type of action or work performed at each of the workbaskets determines how many action list definitions are required. This example contains two action lists. Workbaskets WORK2 and WORK4 are defined to use action list ACTION2. Action list ACTION4 is specified as the second parameter of a WORK command to override the default action list defined with workbasket WORK3.

Process profile definition

This profile definition allows the processing of a work package to be suspended until some set of events have occurred. In this sample, instances of a work package are sent to collection point COLLECT1 where they remain until specified events are satisfied. The set of events is defined in an event list for this collection point. An event list contains one or more events, all of which must be satisfied for a work package to be released from the collection point. An event list must contain an exception event. Suppose that in our sample we do not want a work package to continue on the process until processing of the work package at workbasket WORK2 on ROUTE9 is complete. We define an event list for collection point COLLECT1

which contains an event with an event type of route (02), a match criterion of ROUTE9 and a continuation route of ROUTE11. Given this definition, if a user at workbasket WORK4 completes processing of a work package first, the work package will not continue normal processing until an instance of the work package is received from ROUTE9. Because a collection point ends a route, a process which contains a collection point has at least two route definitions.

Table 15 summarizes the work management objects required to create this collection process. Associated with each work management profile or process item there is a 1- to 10-character name. The names in the table correspond to those in the diagram in Table 15.

<i>Table 15 (Page 1 of 3). Example 4—Work Management Objects</i>		
Profile	Name	Description
Workbasket	WORK2	This is the initial and only workbasket on route ROUTE9 of process PROCESS4. When ROUTE9 is started from ROUTE8 the work package is sent to workbasket WORK2. When the user has completed processing a work package at this workbasket, the COLLECT command of ROUTE9 is executed.
Workbasket	WORK3	This is the initial and only workbasket on route ROUTE11 of process PROCESS4. When ROUTE11 is started from collection point COLLECT1, the work package is sent to workbasket WORK3. When the user has completed processing a work package at this workbasket, the DECIDE command of ROUTE11 is evaluated.
Workbasket	WORK4	This is the initial and only workbasket on routes ROUTE10 and ROUTE12 of process PROCESS4. When ROUTE10 is started from ROUTE8 the work package is sent to workbasket WORK4. When the user has completed processing a work package at this workbasket, the COLLECT command of ROUTE9 is executed. When the user has completed processing a work package at WORK4 on ROUTE12, the STOP command of ROUTE12 is executed. The route ends and the work package is removed from the work process.
Action List	ACTION2	This is the action list for workbaskets WORK2 and WORK4. The action list defines the actions that a user may perform at these workbaskets.
Action List	ACTION4	This is the action list for workbasket WORK3. The action list defines the actions that a user may perform at this workbasket.
Process	PROCESS4	This is a process profile which defines a process which contains a collection point. This process definition also includes a decision point definition and six route definitions.

Table 15 (Page 2 of 3). Example 4—Work Management Objects

Profile	Name	Description
Route	ROUTE8	<p>This is the initial route of process PROCESS4. When process PROCESS4 is begun, the work package is started on ROUTE8.</p> <p>Table 16 on page 49 lists the route commands and their parameters. This route contains two START commands and a STOP command. The two START commands result in the work package being processed in parallel along routes ROUTE9 and ROUTE10.</p>
Route	ROUTE9	<p>This route is started from route ROUTE8. A work package will move through this route and ROUTE10 simultaneously.</p> <p>Table 17 on page 49 lists the route commands and their parameters. The STOP command shown in this route table is optional. This route contains a WORK command followed by a COLLECT command. After performing the COLLECT command, this route ends.</p>
Route	ROUTE10	<p>This route is started from route ROUTE8. A work package will move through this route and ROUTE9 simultaneously.</p> <p>Table 18 on page 49 lists the route commands and their parameters. The STOP command shown in this route table is optional. This route contains a WORK command followed by a COLLECT command. After performing the COLLECT command, this route ends.</p>
Route	ROUTE11	<p>Assuming ROUTE11 is the route specified with a collection point event list defined for collection point COLLECT1, this route is started when all the events of the event list are satisfied.</p> <p>Table 19 on page 49 lists the route commands and their parameters.</p>
Route	ROUTE12	<p>This route or ROUTE13 is started based on the evaluation of decision point DECIDE2. One of these routes must be the exception route, while the other route is defined with a decision point alternative.</p> <p>Table 20 on page 50 lists the route commands and their parameters.</p>
Route	ROUTE13	<p>This route or ROUTE12 is started based on the evaluation of decision point DECIDE2. One of these routes must be the exception route, while the other route is defined with a decision point alternative.</p> <p>Table 21 on page 50 lists the route commands and their parameters. Notice that this route contains only a STOP command.</p>

<i>Table 15 (Page 3 of 3). Example 4—Work Management Objects</i>		
Profile	Name	Description
Collection Point	COLLECT1	Given our process definition, instances of a work package are sent along routes ROUTE9 and ROUTE10 to collection point COLLECT1. The work package is released from the collection point and started on ROUTE11 when the events of an event list defined with the collection point are satisfied. If the events of the event list are not satisfied within the defined time limits of the collection point, the work package is sent to the exception route.
Decision Point	DECIDE2	When processing of the work package at workbasket WORK3 is complete, this decision point is evaluated. Based on the evaluation of this decision point, the work package is started along ROUTE12 or ROUTE13 for processing.

<i>Table 16. Route Commands for ROUTE8</i>			
Step	Command	Parameter-1	Parameter-2
10	START	ROUTE9	
20	START	ROUTE10	
30	STOP		

<i>Table 17. Route Commands for ROUTE9</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK2	ACTION2
20	COLLECT	COLLECT1	
30	STOP		

<i>Table 18. Route Commands for ROUTE10</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK4	ACTION2
20	COLLECT	COLLECT1	
30	STOP		

<i>Table 19. Route Commands for ROUTE11</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK3	ACTION4
20	DECIDE	DECIDE2	
30	STOP		

<i>Table 20. Route Commands for ROUTE12</i>			
Step	Command	Parameter-1	Parameter-2
10	WORK	WORK4	ACTION2
20	STOP		

<i>Table 21. Route Commands for ROUTE13</i>			
Step	Command	Parameter-1	Parameter-2
10	STOP		

Chapter 6. Planning for File Cabinets

This section provides information on planning for the advanced file cabinet search functions available in Workfolder Application Facility.

If you plan to use Workfolder Application Facility file cabinets for the first time or add new file cabinets to your imaging system, you should consider the following issues, which will help you make as much use of the functions in file cabinet processing as possible without sacrificing performance or efficiency. Consider the tasks users perform on a regular basis and the information your line-of-business applications provide.

- **Which of your file cabinet documents will need to be retrieved often?**

Of the documents that you intend to store in file cabinets, you should determine which kinds of documents are most likely to be retrieved often, such as a standard claim form or an account statement. The search performance for the file cabinets that contain those documents should be as optimal as possible.

You will also need to be sure that the panels for these file cabinets do not slow your users' productivity. When you create file cabinet profiles, you define the description, length, and type of each keyword. Those parameters partially determine how the fields on indexing and search panels appear, as well as how the search results appear.

- **Of the frequently needed documents, what information about the documents is already known before your users must search for it?**

Documents that need to be accessed frequently should be placed in file cabinets that have been organized using the known information, for example, a customer's address or account number. (The known information may be available to the user from a database or a line-of-business application.) For example, file cabinets can be created to correspond to the known information rather than using file cabinets that contain information that spans multiple "categories," such as several states or many billing codes.

Within the file cabinet, the next most likely to be known information should be a keyword that is specified first in the profile, because a file cabinet is usually searched in the order in which the keywords are listed in the file cabinet's profile. You can always override keyword order with the advanced search function, however.

- **What information about the document should be displayed as search results to allow quick identification?**

It is important to remember that the results of a file cabinet search probably are not as specific as a document name or title. Search results are essentially a list of the values that matched the search criteria the user specified. Therefore you should define keywords in the file cabinet profile by considering how their values will appear on the search results panels. For example, the keyword that most identifies a particular document should have its values displayed first, so that the user can distinguish it from the list of other documents that matched the search criteria. You

should also define the keyword lengths and types so that you can include as many keyword values as possible in your search results while maintaining readability.

Naming Considerations for File Cabinets

When you define a file cabinet to Workfolder Application Facility, Workfolder Application Facility creates a display file with the same name. Therefore, you should choose a file cabinet name that is a unique object name in the Workfolder Application Facility execution environment. For example, if you place your custom exit library at the top of the library list and that library contains a physical file called CLIENT, you cannot create a file cabinet called CLIENT.

Performance Considerations When Defining File Cabinets

Users must search to retrieve file cabinet documents for processing. Therefore, to ensure sufficient performance you should consider several factors when defining and searching file cabinets. These factors are:

- The use of basic versus advanced search
- The number of documents to be placed in a file cabinet
- The order of the keywords defined for a file cabinet
- The use of wildcard search criteria
- The use of a date range as search criteria

Each of these factors is discussed in this section. For more information about defining file cabinet profiles, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*.

While the advanced search functions offer more flexibility in specifying search criteria, weigh their use against their possible impact to performance.

Use of Basic Versus Advanced Search Functions

Although the advanced search function provides more flexibility for most queries, there will be slowed performance when using this method of retrieving file cabinet documents. In most cases the basic search function will retrieve requested documents faster than using the advanced search function. Use the advanced search if you need the capabilities offered by this method of searching file cabinets. For example, you might need to locate a document in a file cabinet that contains documents that were indexed using identical values, or you might need to customize how search results are displayed. Otherwise, you may want to use the basic search functions most of the time. Most of the factors described in this section should still be considered when trying to optimize search performance, even if you use only the basic search functions.

Number of Documents in a File Cabinet

Generally, a search will be faster if there are fewer items to search through in a file cabinet. One way to limit the number of items would be to store them across multiple file cabinets. For example, you might need to store documents associated with all employees of a particular state. You could define a file cabinet called Maryland with keywords of Last Name, First Name, Social Security Number, and City. However, if the

employee's city is always known before a search is performed, you could define file cabinets at the city level and create a file cabinet for each city. Searching through the city file cabinet would be more efficient than searching through a file cabinet for the entire state.

A related consideration is that a maximum of 1024 documents can be returned from a given search. While the file cabinet may contain more than 1024 documents, the keywords associated with the documents in the file cabinet should be sufficiently unique to allow the user to specify search criteria that limit the number of documents returned from a search.

Keyword Order

When performing a basic search, the first keyword value specified in the search criteria could have a significant effect on search performance. The range of documents to be searched is limited to those that satisfy the first keyword value the user specifies. If there are many documents with keyword values that match the first value specified, it may take longer to search for and retrieve documents. Again, suppose you need to maintain documents for state employees. You could define a file cabinet called Maryland with the following keyword definitions:

```
Key 1 : CITY
Key 2 : LAST NAME
Key 3 : FIRST NAME
Key 4 : SS #
```

Suppose a user searches the file cabinet, specifying the following criteria:

```
Key 1 : BALTIMORE
Key 2 : DOE
Key 3 :
Key 4 :
```

In this example, a list of documents for Baltimore city employees with the last name of Doe is retrieved. To obtain this list, the system searches the file cabinet for all records of employees working in Baltimore first. Then, the records belonging to employees with the last name of Doe are retrieved. However, if you know that there are many more employees in Baltimore than there are employees in the state named Doe, then this is not the most efficient way to define the keywords for this file cabinet. It is more efficient to use the most restrictive keyword first.

The following example could improve search performance:

```
Key 1 : LAST NAME
Key 2 : FIRST NAME
Key 3 : SS #
Key 4 : CITY
```

As another example, if the social security number is known and always specified as search criteria, the search time could be significantly improved with the following keyword definitions:

Key 1 : SS #
Key 2 : LAST NAME
Key 3 : FIRST NAME
Key 4 : CITY

Since the social security number is unique, the number of items searched is very restricted.

Note: If you are using the advanced search function, keyword order is not a factor in performance.

Wildcard Search Criteria

If you use an asterisk as a wildcard within the keyword value or as a value itself, the response time of the search will be slower. The wildcard character expands your search by offering more possibility for matches, therefore more documents must be searched.

The basic search function provides one wildcard character, the asterisk (*). The advanced search function provides two wildcard characters: * and underscore (_). Using any wildcard character impacts performance.

Searching with *Date and Ranges of Dates

As part of the advanced search function, you can use a date or a range of dates as part of your search criteria, offering a type of search criterion that may be useful. For example, the *DATE attribute, which represents the date a document was input into the image system, might be the criterion that could help you identify documents indexed with identical values.

However, your use of dates and date ranges can impact performance. Search performance may be slowed if you use a date range as your only criteria. For example:

```
Accident Date BE '920101' AND '920117'
```

Your use of *DATE as a keyword can also impact performance. Performance will be slower if you use *DATE and a value as your only criteria. Search performance will be best if you use *DATE as part of a query that uses an AND operator. For example:

AND/OR	Keyword	Operand	Value
	Last Name	EQ	SMITH
AND	*DATE	EQ	930505

While a search with *DATE as the only criterion is supported, response time may be slower than using the input date with other criteria, such as in the previous example. The actual search performance depends on the number of items in the file cabinet.

Note: Using the *DATE keyword with the logical operator OR is not supported.

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Chapter 7. Installing and Customizing the Product

This section explains what you need to do before beginning installation, details the hardware and software requirements, and provides step-by-step instructions for installing and customizing VisuallInfo for AS/400, its Workfolder Application Facility feature, or both.

Before You Begin

Review this chapter before you begin. At this point in the installation process, you should have completed the following tasks:

- Install at least the required version of the AS/400 operating system and have applied the latest PTFs, as described in “Hardware and Software Prerequisites” on page 58.
- Determine whether you need to install additional object server (secondary) processors. The product can run on one or more AS/400 processors.
- Read and understand the coexistence information in the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* if you plan to use both VisuallInfo for AS/400 and the Workfolder Application Facility feature together.
- Read Appendix A, “Configuring a Stand-Alone Object Server” on page 120 if you plan to run the product on a secondary processor.
- Determine which one of the following environments you plan to install. (Refer to the *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide* for details about each environment.) Your choice determines which book you should use for installation, as shown in Table 22 on page 57. The installation and migration instructions in this book contain additional steps that are unique for Workfolder Application Facility.

Table 22. Which Book to Use to Install Your Environment

Environment You Want to Use	Conditions	Instructions
Only VisuallInfo for AS/400	You do not already have a previous version of Workfolder Application Facility installed and do not plan to install this version of it.	This is considered a new installation. Use the <i>IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide</i> .
	You already have a previous version of Workfolder Application Facility installed but do not plan to install this version of it.	You are <i>migrating</i> to VisuallInfo for AS/400. Refer to the <i>IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide</i> before proceeding and then follow the migration instructions in the <i>IBM ImagePlus Workfolder Application Facility for AS/400: Planning and Installation Guide</i> .
Workfolder Application Facility, or combined environment	You do not already have a previous version of Workfolder Application Facility installed but plan to install and use this version of it.	Refer to the <i>IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide</i> before proceeding and then follow the installation instructions in the <i>IBM ImagePlus Workfolder Application Facility for AS/400: Planning and Installation Guide</i> .
	You already have a previous version of Workfolder Application Facility installed and plan to use this version of it.	You must first <i>migrate</i> to VisuallInfo for AS/400 and then install the new version of Workfolder Application Facility. Refer to the <i>IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide</i> before proceeding and then follow the migration instructions in the <i>IBM ImagePlus Workfolder Application Facility for AS/400: Planning and Installation Guide</i> .

If this will be a new installation and you want to install only VisuallInfo for AS/400, use the instructions in the *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide* instead. Otherwise, you should use this book.

Installation Media

Be sure you have all the needed installation tapes. Table 23 on page 58 shows which tapes you need based on what you plan to install. Tapes are listed in the order in which they are processed during installation.

If you ordered VisuallInfo for AS/400 on CD-ROM, you receive two CD-ROMs: one with the product software and another with the product document library. Although the instructions in this section are based on tape installation, CD-ROM installation varies only slightly. For example, the installation program does not prompt you to load or

unload tapes, and what you see in some panels might be different. Be sure to follow these instructions closely for some media-specific differences.

In addition, when you order the Workfolder Application Facility feature, you also receive a diskette for installing Work Management Builder.

<i>Table 23. List and Order of Installation Tapes</i>	
To install this environment	You need these tapes
Only VisuallInfo for AS/400 on a library server (primary processor)	<ul style="list-style-type: none"> • IAMTAP • PRM124 • PRIMP1 • DOCTAP
Only VisuallInfo for AS/400 on a object server (secondary processor)	<ul style="list-style-type: none"> • IAMTAP • SEC124 • SECDP1
VisuallInfo for AS/400 and the Workfolder Application Facility feature	<ul style="list-style-type: none"> • IAMTAP • PRM124 • PRIMP1 • FCP124 • FCPMP1 • DOCTAP
Workfolder Application Facility feature on a primary processor	<ul style="list-style-type: none"> • IAMTAP • FCP124 • FCPMP1
Only the Workfolder Application Facility feature on a secondary processor	<ul style="list-style-type: none"> • IAMTAP • FCS124 • SECFCD

- IAMTAP** Starts the installation program
- PRM124** MRI (machine-readable information) tape for VisuallInfo for AS/400
- SEC124** MRI tape for VisuallInfo for AS/400 secondary processor
- PRIMP1** Program (PGM) tape for VisuallInfo for AS/400 server primary application
- SECDP1** Program tape for VisuallInfo for AS/400 server secondary application
- FCP124** MRI tape for the Workfolder Application Facility feature
- FCS124** MRI tape for the Workfolder Application Facility feature secondary processor
- FCPMP1** Program tape for the Workfolder Application Facility feature
- SECFCD** Program tape for the Workfolder Application Facility server secondary application
- DOCTAP** Document tape that contains the entire softcopy product document library

Hardware and Software Prerequisites

The information in this section describes the required and optional hardware and software you need to install and run VisuallInfo for AS/400 and the Workfolder Application Facility feature.

VisualInfo for AS/400 Client

<i>Table 24. Client Hardware Requirements</i>		
Hardware	Minimum	Recommended
CPU	80486DX 20MHz	Pentium 60MHz
RAM	16MB	32MB
Disk space	160MB	512MB
LAN adapter	Yes	Yes
Display adapter	Yes	Yes
Mouse	Yes	Yes

<i>Table 25. Client Hardware Peripherals</i>	
Peripherals	Minimum
Graphic displays	<ul style="list-style-type: none"> Windows-supported displays (SVGA, VGA) Cornerstone ImageAccel or ImageAccel2
Printers	Windows-supported APA printers
Scanners	Scanners that VisualInfo for AS/400 supports

<i>Table 26. Software Prerequisites</i>	
Software	Minimum
Operating system	Windows NT V4.0 or Windows 95
Communications	<ul style="list-style-type: none"> APPC implementing CPI-C Level 1.2 AS/400 network drive support <p>Client Access/400 can provide these communication requirements.</p>
Client	VisualInfo for AS/400 Client for Windows

VisualInfo for AS/400 Server

<i>Table 27. Server Hardware Requirements</i>	
Hardware	Minimum
CPU	AS/400 9402-200
Processor	2090

<i>Table 28. Server Software Prerequisites</i>	
Software	Minimum
Operating system	OS/400 V3R1 or higher and Client Access/400
Optical (optional)	<ul style="list-style-type: none"> Direct-attached 3995: IBM Optical Library Dataserver Support/400 for OS/400 V3R6 or lower LAN-attached 3995: None

Workfolder Application Facility (Optional Feature)

<i>Table 29. Workfolder Application Facility Additional Server Software</i>	
Services	Software
Facsimile support (optional)	IBM Facsimile Support for AS/400

<i>Table 30. Workfolder Application Facility Client Software Prerequisites</i>	
Software	Minimum
Operating system	One of the following: <ul style="list-style-type: none"> Windows NT V4.0 OS/2 V2.1 or higher DOS for Windows V1.1
Communications	<ul style="list-style-type: none"> APPC implementing CPI-C Level 1.2 AS/400 network drive support Client Access/400 can provide these communication requirements.
Client	One of the following: <ul style="list-style-type: none"> ImagePlus Workstation Program for Windows NT 2.2 ImagePlus Workstation Program for OS/2 V2.1 ImagePlus Workstation Program/DOS for Windows V1.1

Work Management Builder (Optional)

Work Management Builder is shipped as a part of the Workfolder Application Facility feature.

<i>Table 31. Hardware Requirements for Work Management Builder</i>	
Hardware	Minimum
CPU	80486DX 10MHz
RAM	12MB
Disk space	160MB
Network adapter	Token-ring
Display adapter	VGA
Diskette drive	1.44MB (3.5-inch)
Mouse	Yes

<i>Table 32. Software Prerequisites for Work Management Builder</i>	
Software	Versions
Operating system	OS/2 V2.1 or higher

Installing the Product

Be sure you have first read the information in this book and the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* before starting installation.

The balance of this section describes new installations of VisualInfo for AS/400 and the Workfolder Application Facility feature. If Workfolder Application Facility is already installed and you are migrating to this release, follow the instructions in Chapter 8, "Migrating a Previous Version" on page 98.

Multiple Environment Considerations

Multiple environments refers to multiple Workfolder Application Facility copies at the same release level on the same AS/400 processor. It does not refer to multiple operating systems. The following steps for loading Workfolder Application Facility should be run once for each Workfolder Application Facility environment you plan to install. Each time you follow these steps, you can specify a different set of library names. By doing this, the user can operate multiple environments of Workfolder Application Facility on a single AS/400 processor, if sufficient storage exists.

The Workfolder Application Facility file library must be unique to each Workfolder Application Facility environment. Although you need not duplicate Workfolder Application Facility panel, exit, GPL, API and program libraries, different Workfolder Application Facility environments can share them. When installing additional environments, specify the name for the Workfolder Application Facility file, GPL, API and program libraries. The installation program checks to see if these exist. If not, it restores them from tape. If they do exist, it checks their release level. If the level is not current, installation stops. If it is current, installation proceeds but does not copy the libraries again.

The EKDFORMS folder that Workfolder Application Facility uses is common to all environments of the Workfolder Application Facility on any one processor. The QDOC library holds this folder, which only needs to be created once. Therefore, forms are intermixed even though data files and documents are separate.

You should establish a unique panel library in the multiple environment, only if you use the file cabinet processing function.

If you are installing multiple environments of Workfolder Application Facility on a single AS/400 processor, you must follow these steps:

- Define a unique optical path and volume, folder, or subdirectory for each environment.
- Define a unique image folder that each environment will use to store documents.

Limitations

Table 33 on page 62 summarizes the limitations and restrictions that exist when you run multiple Workfolder Application Facility environments on the same AS/400 processor.

File cabinets	Multiple environments should not use file cabinets to share the panel library because display files that one environment creates could be overlaid if the second environment uses the same file cabinet name.
Fax export	The transmission status queue on the Fax Configuration panel (EKD96901) should be unique across all Workfolder Application Facility environments on the same AS/400 processor. If not, fax transmission completes successfully, but there will be permanent entries for each faxed document on the Work with Outbound Faxes panel (EKD96101).

- Fax import

You can have one fax import process active per Workfolder Application Facility environment, as long as you have defined a unique fax receipt queue for each fax workstation. To run fax import concurrently for each Workfolder Application Facility environment, you must have a separate fax workstation for each Workfolder Application Facility environment. For more information, refer to the *Facsimile Support/400: User's Guide and Reference*.

- Cross-system import: Only one cross-system import process can be run per AS/400 processor.
- Cross-system export: Only one cross-system export process can be run per AS/400 processor.

To prevent procedural errors when you are using cross-system import and export among multiple environments, do the following:

1. Stop cross-system export on the originating AS/400 processor and verify the source and destination locations.
2. Stop cross-system import on the destination AS/400, if active. Be sure that all previous cross-system import documents have been received for this machine. Then start cross-system import.
3. Start cross-system export on the originating AS/400 processor.

Starting Installation

1. Sign on to the AS/400 system as QSECOFR. You see the AS/400 main menu. If the AS/400 is being used for other applications during installation, you might also receive messages from these applications.
2. Set QALWOBJRST to ALWPGMADP. You must restore this to its original value after installation, so be sure to record that value now on your installation log sheet.
3. Load the media (tape, cartridge, or CD-ROM) that contains the software.

If you have tape, mount the VisualInfo for AS/400 installation tape, IAMTAP, on the AS/400 system and follow standard loading procedures presented in the *AS/400 System Operations: Operator's Guide*.

4. Based on your media, type the following on an AS/400 command line and press Enter.

Tape: LODRUN

CD-ROM: LODRUN OPT01 DIR(/)

If your tape device is not the default (TAP01), type LODRUN *tape device* (where *tape device* is the name of your tape device) and press Enter.

The installation program restores the required objects in the designated language, and you see the Display Program Messages panel shown in Figure 5.

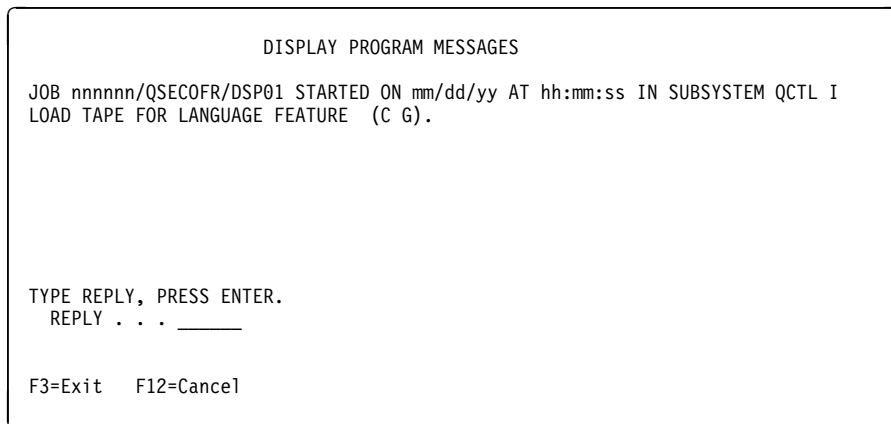


Figure 5. Display Program Messages panel

5. When prompted, load the appropriate MRI tape for your language feature and for what you plan to install:
 - If you are installing VisualInfo for AS/400 alone or with the Workfolder Application Facility feature on a primary processor, the MRI tape for the primary processor is PRM1xx, where xx is the last 2 digits of your language feature code. For the secondary processor, the MRI tape is SEC1xx.
 - If you are installing only the Workfolder Application Facility feature on a primary processor, the MRI tape for the primary processor is FCP1xx. For a secondary processor, the MRI tape is FCS1xx.
6. Type **G** and press Enter to continue installation. You see the IBM logo panel shown in Figure 6 on page 64.

Install VisualInfo for AS/400

To install the needed components for the VisualInfo for AS/400 server application

Install VisualInfo for AS/400 and WAF feature

To install the needed components for the VisualInfo for AS/400 server application and the Workfolder Application Facility feature

Migrate the existing system

To migrate an existing system to the VisualInfo for AS/400 server application

Migrate the existing system and install WAF feature

To migrate an existing system to the VisualInfo for AS/400 server application and install the Workfolder Application Facility feature

Install WAF feature

To install the Workfolder Application Facility feature over VisualInfo for AS/400, which requires that you first install VisualInfo for AS/400

Your selection determines which panel you see next.

This book does not cover option 1. For that option, as described in Table 22 on page 57, refer to the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide*. This section covers only new installations (options 2 and 5). For migration options, see Chapter 8, "Migrating a Previous Version" on page 98

- If you select option 2 or 5 to install on a primary processor, you see the Installation Parameter Panel for Primary Machine shown in Figure 8.

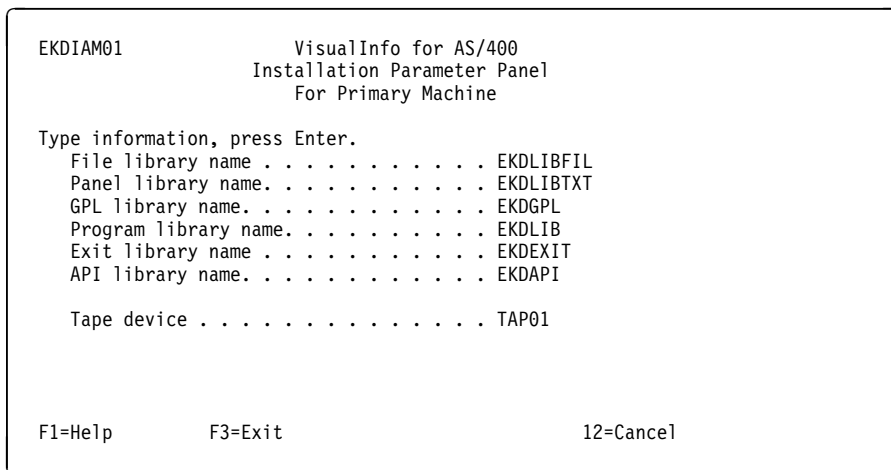


Figure 8. Installation Parameter Panel for Primary Machine

- If you select option 2 or 5 to install on a secondary processor, you see the Installation Parameter Panel for Secondary Machine shown in Figure 9 on page 66.

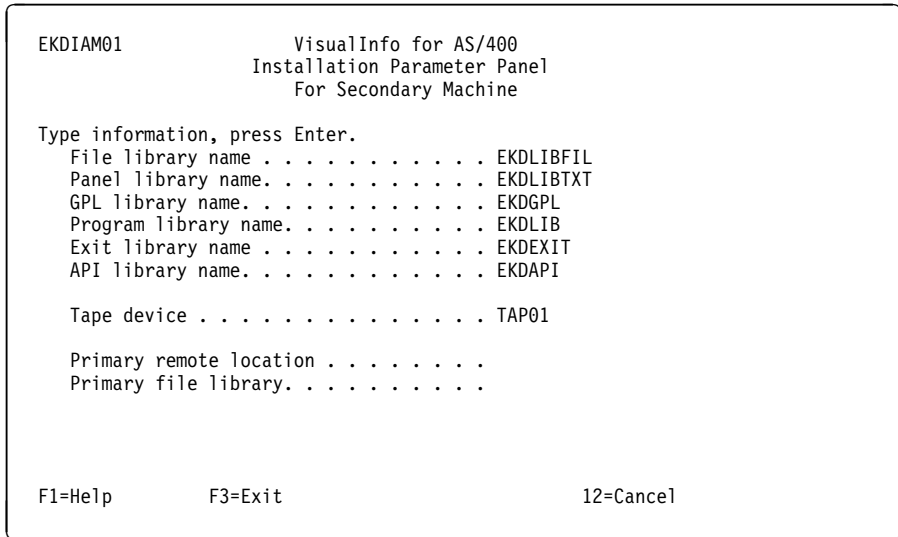


Figure 9. Installation Parameter Panel for Secondary Machine

9. Verify the File library name. If you receive an error, type the 1- to 10-character name of the file library in the **File library** field. The suggested name is EKDLIBFIL. This library contains the objects and source code for files used in VisualInfo for AS/400 and Workfolder Application Facility. This parameter is required.
10. Verify the Panel library name. If you receive an error, enter the 1- to 10-character name of the panel library in the **Panel library** field. The suggested name is EKDLIBTXT. This library contains the objects and source code for the panels, help panels, and menus used in VisualInfo for AS/400 and Workfolder Application Facility.
11. Verify the GPL library name. If you receive an error, type the 1- to 10-character name of the GPL library in the **GPL library** field. The suggested name is EKDGPL. This library contains the general purpose libraries for VisualInfo for AS/400 and Workfolder Application Facility. This parameter is required.
12. Verify the Program library name. If you receive an error, enter the 1- to 10-character name of the program library in the **Program library** field. The suggested name is EKDLIB. This library contains the program objects for VisualInfo for AS/400 and Workfolder Application Facility. This parameter is required when you are installing this feature.
13. Verify the Exit library name. If you receive an error, enter the 1- to 10-character name of the exit library in the **Exit library** field. The suggested name is EKDEXIT. This library contains the objects and source code for Workfolder Application Facility user exits and application programming interfaces (APIs) sample programs. This parameter is optional. However, you must install this library to use the user exits. You can restore this library later with the AS/400 RSTLIB (Restore Library) command.

14. Verify the API library name. If you receive an error, enter the 1- to 10-character name of the API library in the **API library** field. The suggested name is EKDAPI. This library contains the API modules for Workfolder Application Facility. This parameter is required when you are installing the Workfolder Application Facility feature.
15. If you have tape, the Device parameter defaults to TAP01. Verify that the device name is correct. If not, in the **Tape device** field, enter the 1- to 10-character name of the tape device where the VisualInfo for AS/400 tape is loaded. If you are installing a primary processor, proceed to 18.
16. If you are installing on a secondary processor, type the 1- to 10-character **Primary remote location** field on the Installation Parameter Panel for Secondary Machine. You must use the name that is defined to the token-ring network for the primary AS/400 system. The correct entry is required because the entry cannot be verified if the primary system is not actively attached to the secondary machine. To determine the primary remote location name, follow these steps:
 - a. Sign on to your primary AS/400 processor.
 - b. Type DSPNETA on the AS/400 command line and press Enter. The **Current System Name** field contains the primary remote location name.
 - c. Log off the primary AS/400 processor and continue with the secondary installation.
17. If you are installing on a secondary processor, type the 1- to 10-character **Primary file library** field on the Installation Parameter Panel for Secondary Machine. This is the product file library on the primary machine. Be sure this value is correct, or full validation might not be possible. This field is required.
18. For future reference, you should record each library you selected on your installation log sheet.
19. Press Enter to start installation.

If you are installing on a secondary processor and the installation program cannot connect to the primary processor, you receive a warning message that the entries cannot be verified before installation continues.

You see the System Prefix Selection Panel shown in Figure 10 on page 68 if the QVIADMIN, EKDADMIN, or both user IDs already exist on your AS/400 system.

```

EKDIA00          VisualInfo for AS/400
                  System Prefix Selection Panel

Default system prefix already used.

Enter new VI/400 system prefix. . . . . QVI
Enter new WAF system prefix . . . . . EKD

F1=Help          F3=Exit          F5=Refresh          F12=Cancel

```

Figure 10. System Prefix Selection Panel

When you see this panel, enter the new system prefix you want to use. This 1- to 3-character prefix must be unique: It cannot be any prefix you created previously on the system.

Installation has begun when you see the Informational Message Panel shown in Figure 11. Additional messages appear occasionally to indicate how installation is progressing.

```

EKDIA02          VisualInfo for AS/400
                  Informational Message Panel

                  Installation is now in progress.

Message
Number  Situation description
EKD-8368 Processing library xxxxxxxxxx

```

Figure 11. Information Message Panel

If you have tape, when the MRI tape has completed, the installation program prompts you to insert the program (PGM) tape, as shown in Figure 12 on page 69.

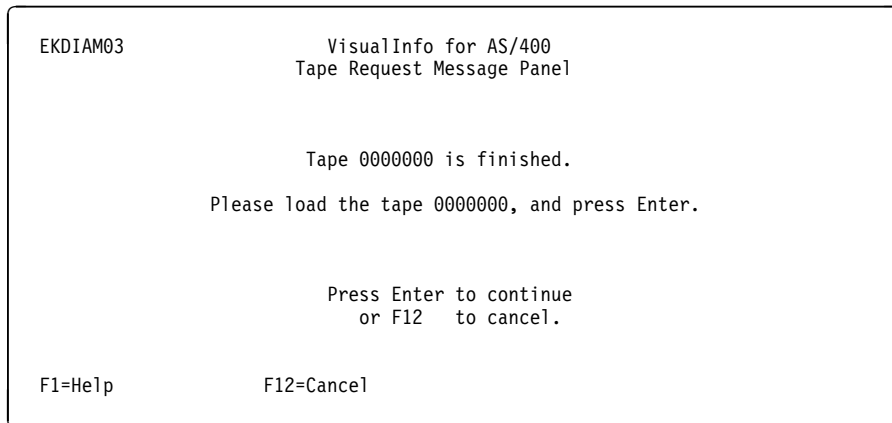


Figure 12. Tape Request Message Panel

This panel appears each time a new tape is needed to continue installation. When you see it, follow these steps:

1. Unload the current tape from the tape drive.
2. Load the next tape into the tape drive. You must load tapes in the order specified in Table 23 on page 58.

When installation has completed successfully, you see the Compliance Monitor Configuration panel shown in Figure 13.

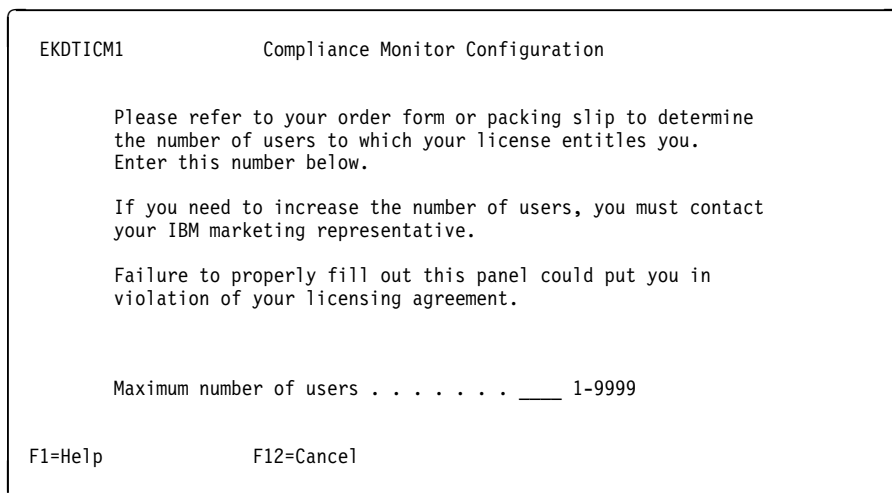


Figure 13. Compliance Monitor Configuration Panel

When you see this panel, enter the maximum number of concurrent users allowed on your VisualInfo for AS/400 by your license agreement and press Enter. You see the Successful Completion Panel shown in Figure 14 on page 70.

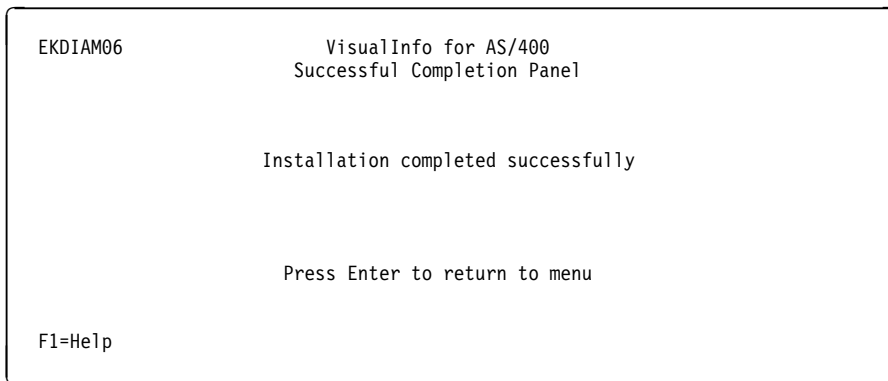


Figure 14. Successful Completion Panel (EKDIAM06)

When you see this panel, unload the tape from the tape drive.

When the libraries have been installed, the **EKD-8303 System restored.**

Now initializing system message appears on the Informational Message Panel. The installation program begins creating the following sets of default user profiles—one for VisualInfo for AS/400 and the second for Workfolder Application Facility—and assigns authorities to them.

- System administrator (*xxxADMIN*)
- Client Access/400 router user ID (*xxxROUTE*), which both VisualInfo for AS/400 and Workfolder Application Facility share
- Group (*xxxGROUP*)
- Output queue (*xxxOUTQ*)
- Job description (*xxxJOB*)

In these profile names, *xxx* represents a 3-character system prefix. The first prefix is QVI in VisualInfo for AS/400 and EKD in Workfolder Application Facility. Other than these, the prefix you assigned is used.

The password for the default system administrator profiles are *NONE. QSECOFR must assign a password before the system administrator can sign on. Authority for the default system administrator and group profile is set to *ALL for all product objects and libraries.

If you plan to use the VisualInfo for AS/400 client, follow the installation instructions in the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide*.

Correcting Installation Errors

During the installation process, the installation program checks for certain conditions in the libraries that have been specified for installation. If it encounters an error that requires that the installation process be cancelled, the Problem Determination Panel shown in Figure 15 is displayed. You can display additional Help information by pressing F1.

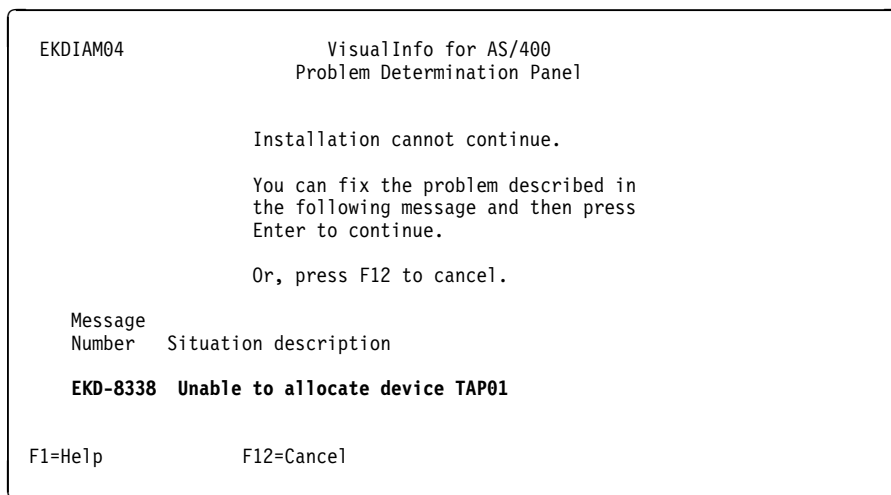


Figure 15. Problem Determination Panel (EKDIAM04)

When you see this panel, you can display the job log by pressing first F1 and then F10. Correct the problem and press Enter to continue installation. If you cannot correct the problem or decide not to continue installation, press F12 to cancel installation. You see the Cancellation Confirm Panel shown in Figure 16 on page 72 any time you cancel installation.

```
EKDIAM05                VisualInfo for AS/400
                        Cancellation Confirm Panel

Select one of the following:

    1. Return to installation
    2. Cancel and save completed libraries
    3. Cancel and do not save libraries
    4. Cancel and save all libraries

Selection
====>1

F1=Help
```

Figure 16. Cancellation Confirm Panel (EKDIAM05)

Selection options are arranged in order, from the one with the least possible consequences to the one with the most, with the following results:

Return to installation

You return to the panel prior to when you pressed F12.

Cancel and save completed libraries

The installation program deletes the library that was in error. All other libraries remain and are unchanged, and installation ends. You can open the job log to determine which libraries were restored.

Cancel and do not save libraries

The installation program deletes all new library names, if found, that you entered on the Installation Parameter Panel (EKDIAM01). Shared libraries remain and are unchanged. It also deletes the default profiles, and installation ends.

Cancel and save all libraries

Installation ends immediately, and all libraries remain and are unchanged. You might need to manually delete any libraries found to be in error.

Restarting Installation

Once installation has completed, here is how you can access the installation menu again.

1. Be sure that the library `EKDIAMcode`—where `code` is the language feature code you installed—is in your library list by following these steps:
 - a. Type **DSPLIBL** on an AS/400 command line and press Enter. You see the Display Library List panel. If library `EKDIAMcode` is in your library list, press F3 to exit and proceed to 2 on page 73. If not, press F3 to exit and continue.
 - b. Type **ADDLIBLE EKDIAMcode** and press Enter.

2. On the AS/400 command line, type GO EKDIAM.

Completing Installation

Once you perform the following activities, installation is complete:

- Start journaling
- Assign and update authorities
- Configure background processing
- Start and use the product
- Create profiles
- Restore the softcopy product document library

When you complete these steps, be sure to reset QALWOBJRST on your AS/400 system to the value you had originally set it to before beginning installation.

The remainder of this section contains important information about post-installation steps for Workfolder Application Facility. VisuallInfo for AS/400 also requires post-installation steps. Refer to the *IBM ImagePlus VisuallInfo for AS/400: Planning and Installation Guide* for details and also for instructions on installing the VisuallInfo for AS/400 client.

Starting Journaling (optional)

Before starting journal management, be sure that the program, file, and panel libraries are in your library list.

In the event of a disk failure, journaling provides added protection for the Workfolder Application Facility database files. It does not protect document images. Document images will need to be recovered from other backup media, if checksum or mirroring are not used.

Workfolder Application Facility journal management retrieves all file names from the file library to begin journaling. The following default libraries, journal, and journal receiver names are used:

Journal library	JRNLIB
Receiver library	RCVLIB
Journal	EKDJRN
Receiver	EKDJRNR

You cannot modify journal and receiver names. Library names are stored in the EKDMMSG2 file. The journal library name is stored in message text 23 and the receiver library name in message text 24. You can change library names by issuing a WRKMSGD command for message file EKDMMSG2. If multiple Workfolder Application Facility environments exist on your AS/400, you must change at least one message file or all files for each environment are journaled to the same journal.

Before issuing the EKDJRSTR or WRKMSGD commands, make sure the correct file library is in your library list.

If you plan to use Workfolder Application Facility journal management, type EKDJRSTR on the AS/400 command line and press Enter.

The EKDJRSTR program allows entry of an Auxiliary Storage Pool (ASP) in which journals and receivers are placed. While the use of a user defined ASP is not required, it is recommended from a recoverability and performance standpoint to place the journals and receivers in a user ASP. Refer to the *AS/400 Programming: Backup and Recovery Guide* for instructions on how to create a user ASP.

Assigning Authorities

Assigning authorities involves an AS/400 GRTOBJAUT (Grant Object Authority) command. For every library installed, type the following commands for each user profile or group profile not previously defined in Workfolder Application Facility, where **library** is the name of the library installed and **profile** is the name of the group profile or user profile.

```
GRTOBJAUT OBJ(library/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QSYS/library) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QGPL/EKD*) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
```

Updating Authority Information

The UPDLIST command saves group authority information. Run this command every time you add or delete files during backup. To update authority information, follow these steps.

1. Be sure the EKDLIBFIL and EKDLIB libraries are in your library list.
 - a. Type DSPLIBL on an AS/400 command line and press Enter. The Display Library List panel is displayed. If libraries EKDLIBFIL and EKDLIB are in your library list, press F3 to exit and proceed to 2. If libraries EKDLIBFIL or EKDLIB is not in your library list, press F3 to exit and continue.
 - b. Type **ADDLIBLE** *libname*—where *libname* is either EKDLIBFIL or EKDLIB— and press Enter.
2. On an AS/400 command line, type `updlist` and press Enter.

This information is required to restore the correct file authority during backup and recovery processing. Type this command while you are signed on as QSECOFR. You must also run the UPDLIST command every time you want to grant object authority to another user or group profile. Remember to backup your files after you run the UPDLIST command.

Configuring Background Processing

Workfolder Application Facility uses the job queue QBATCH in subsystem QBATCH to submit all requests to be run in batch mode. Some of these requests require more than one job to be executed concurrently.

To run these processes successfully, the maximum number of jobs in subsystem QBATCH must be greater than 1 and the number of active jobs in job queue QBATCH must also be greater than 1.

As a general recommendation for setting the maximum jobs in the subsystem and the job queue, use the following formula: $n = \text{number of system service processes to be used,} + \text{the number of interactive retrieve jobs to be run,} + 2$. For example, if optical distribution, optical store, and delete processes are to be used, and one interactive retrieve from LAN-attached 3995 is required, the n value is 6 (4 processes + 2).

To verify the subsystem QBATCH, type `DSPSBSD *LIBL/QBATCH` on an AS/400 command line, and press Enter. Select option 1 and press Enter. Verify that the **Maximum jobs in subsystem** field contains a value greater than 1 or *NOMAX.

If the maximum jobs in the QBATCH subsystem is not greater than one or equal to *NOMAX, update the value by typing `CHGSBSD *LIBL/QBATCH MAXJOBS(n)` on an AS/400 command line and press Enter, where n is the maximum number of jobs in the subsystem.

To verify the QBATCH job queue, select option 6 on the Display Subsystem Description panel and press Enter. Verify that there is a queue entry QBATCH with a Max active value of greater than 1 or *NOMAX.

To update the job queue QBATCH, type `CHGJOBQE SBSD(*LIBL/QBATCH) JOBQ(*LIBL/QBATCH) MAXACT(n)` on the AS/400 command line and press Enter, where n is the number of jobs that can run concurrently in the job queue.

Starting and Using the Product

Before you can use Workfolder Application Facility, you must create Workfolder Application Facility profiles.

To free up storage space, you can delete the Workfolder Application Facility installation library EKDGPL using the AS/400 delete library command, `DLTLIB`. If you plan to use the default user profiles that the installation program created, do not delete the EKDGPL library.

To begin working with VisualInfo for AS/400, Workfolder Application Facility, or both, follow these steps:

1. From the Installation and Migration menu, select 90 to sign off and press Enter. VisualInfo for AS/400 prints the job log to a spool file for history tracking. This might take awhile to print based on the AS/400 processor and size of the job log. To bypass this function type `SIGNOFF` from the AS/400 command line.
2. Sign on to the AS/400 system as the system administrator that was created during installation.
3. Create the application profiles, as described in "Creating Profiles" on page 76.

Creating Profiles

To use Workfolder Application Facility, VisualInfo for AS/400, or both, you must create and customize system and application profiles for your environment. If you also plan to use Work Management Builder, you must also customize work management profiles. For instructions on creating these profiles and the order in which you should create them, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* and *IBM ImagePlus VisualInfo for AS/400: System Administration Guide*. Be sure to create profiles in the order listed.

System Profiles

Following are the system profiles.

DASD System ID

Defines all of the AS/400 systems available to Workfolder Application Facility. This is a required profile.

Object directories

Defines the AS/400 object directories that are available to Workfolder Application Facility for storing image documents. It is recommended that you use a minimum of ten shared directories for image document storage. This is a required profile.

Optical system ID

Defines the optical systems available to Workfolder Application Facility for storage and retrieval of documents.

Non-optical device

Defines the non-optical devices available to Workfolder Application Facility for offline storage of documents.

Application Profiles

The application profiles are:

User ID

Defines the user and specifies their capabilities. Each Workfolder Application Facility user must have a user ID profile in the system.

Language

Defines the country-specific parameters to the Workfolder Application Facility Version 3 Release 1. These parameters include date and time formats and currency specification. Each Workfolder Application Facility user must have a language profile defined.

Document type

Defines the characteristics of the documents to be used by the Workfolder Application Facility. Each document to be used with the Workfolder Application Facility requires a document type profile.

Queue ID

defines the work queues that are available to the Workfolder Application Facility. Queue IDs are required only if you will be routing folders or cases.

Address ID

Defines common names and addresses to be identified by the Workfolder Application Facility. This profile is optional.

Facsimile output class

Defines the default transmission constraints that apply to documents that will be faxed out.

Facsimile nickname

Defines the nickname and transmission parameters for a facsimile destination.

File cabinet

Defines the file cabinet and the associated search keywords.

Storage Class

Lets you add or update a storage class name, which, when associated with an optical system ID defines the distribution of documents to be stored on active optical systems.

Work Management Profiles

Following are the work management profiles:

Action list

Defines the actions a user can make on a work package

Workbasket

Defines how work packages are selected by the user

Process

Defines the routes a work package will follow during a defined business process

Within the Process profile, the following are created:

- A **collection point** defines the events a work package waits for, the match criteria, the maximum waiting period, and the exception route for a work package if the match criteria are not met within the defined waiting period.
- A **decision point** defines which route a work package will take based on the defined variables.
- A **route** defines the set of workbaskets, collection points, and decision points that a work package will travel.

Restoring the Softcopy Product Document Library

Shipped on a separate document tape or CD-ROM with the product, the entire product library is available in softcopy format. So that you and your users can access and use the books in the library, follow these steps. You must first manually restore the library from the shipped media.

1. Sign on to the AS/400 system.
2. Load the media (tape, cartridge, or CD-ROM) that contains the product library. If you have tape, mount the VisualInfo for AS/400 document tape, DOCTAP, on the AS/400 system and follow standard loading procedures presented in the *AS/400 System Operations: Operator's Guide*.

3. Use the RSTDLO command to manually restore the product document library from the VIBOOKS folder.
4. From each client workstation, assign a drive that corresponds to the VIBOOKS folder on the AS/400 that contains the product document library.

Once you have done this, you can access any book in the VisualInfo for AS/400 library. See “Where to Find More Information” on page vi for specific instructions for viewing or printing any book in the product library.

Customizing on a Library Server

Customization steps in this section apply only to a library server (primary processor). For information on configuring a stand-alone object server (secondary processor), refer to the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* for instructions.

If the user will work specifically with Workfolder Application Facility, be sure to change the user ID to the group profile and job description created during installation. Set the initial menu to one of the following:

- System Administrator: EKD000
- Input Processor: EKD100
- Work Processor: EKD200

Set the initial program to EKDLOGNP.

You must have libraries QGPL and QTEMP in your user library list and QSYS2 in the system library list. Use CHGJOB to add these libraries to the initial library list.

If you do not plan to customize Workfolder Application Facility at this point, proceed to “Creating User Profiles” on page 86.

Getting Started

If you are beginning customization directly after completing installation, the Customization Procedures menu is already displayed.

If you are not beginning customization directly from completion of the installation process, follow these steps.

1. Sign off the AS/400 system.
2. Sign on to the AS/400 system as QSECOFR. Follow these steps to be sure that the file and GPL libraries are in your library list.
 - a. Type DSPLIBL on an AS/400 command line and press Enter. The Display Library List panel is displayed. If file and GPL libraries are in your library list, press F3 to exit and proceed to 3 on page 79. If the file or GPL library is not in your library list, press F3 to exit and continue.
 - b. Type **ADDLIBLE** *library name*—where *library name* is the name of the file or GPL library—and press Enter.

3. On an AS/400 command line, type `G0 INSTALL`. The Customization Procedures menu shown in Figure 17 on page 79 is displayed.

```
INSTALL                                Customization Procedures
Select one of the following:
    1. Create print folders
    2. Create a job description
    3. Create an output queue
    4. Create a group profile
    -OR-
    5. Create all three
    6. Create user profiles
    90. Sign off
Selection or command
===> _____
F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel
F13=User support  F16=System main menu
```

Figure 17. Customization Procedures Menu

Before continuing to “Creating Print Folders,” follow these steps to be sure that libraries QSYS2 and QGPL are in your library list.

- a. Type **DSPLIBL** on an AS/400 command line and press Enter. The Display Library List panel is displayed. If libraries QSYS2 and QGPL are in your library list, press F3 to exit and proceed to “Completing Installation” on page 73. If these libraries are not in your library list, press F3 to exit and continue.
- b. Type `ADDLIBL QSYS2` and press Enter.
- c. Type `ADDLIBL QGPL` and press Enter.

You can create additional user profiles, job descriptions, and output queues using the procedures described below. The folder EKDFORMS is automatically built during installation activities, so you do not need to build it using the menu options described.

You can select option 2, 3, or 4 to create a job description, an output queue, and a group profile separately, or you can create all three at once using option 5.

Creating Print Folders

Type 1 on the Selection or command line of the Customization Procedures menu and press Enter to automatically create the folder EKDFORMS. If folder EKDFORMS already exists, a message is displayed.

Creating a Job Description

The installation program created a Workfolder Application Facility default job description (EKDJOB or xxxJOB, where xxx is the prefix you used for your additional environment) for you. You might want to create additional job descriptions using the following steps. To create a job description, an output queue, and a group profile at the same time, proceed to “Creating a Job Description, Output Queue, and Group Profile” on page 83.

1. Type 2 on the Selection or command line of the Customization Procedures menu to create a job description and press Enter. This displays the Create a Job Description panel shown in Figure 18.

```
CRTNEW01          Create a Job Description
Type information, press Enter.
Job description . . . . . _____
Description . . . . . _____
Installation library. . . . . XXXXXXXXXX
Panel library . . . . . XXXXXXXXXX
File library . . . . . XXXXXXXXXX
Program library . . . . . XXXXXXXXXX
API library . . . . . XXXXXXXXXX
F3=Exit F12=Cancel
```

Figure 18. Create a Job Description Panel

2. Type the 1- to 10-character alphanumeric name of the job description you are creating in the **Job description** field. This parameter is required. Record this parameter on your installation log sheet.
3. Type the explanation of the job description. Type a 1- to 40-character description of the job description, including information unique to the job in the **Description** field. This parameter is optional.
4. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
5. You can change the name of the panel library if necessary. Type the 1- to 10-character name of the panel library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
6. You can change the name of the file library if necessary. Type the 1- to 10-character name of the file library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. You can change the name of the program library if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.

Creating a Group Profile

The installation process created a Workfolder Application Facility default group profile (EKDGROUP or xxxGROUP, where xxx is the prefix you used for your additional environment). You might want to create additional group profiles using the following steps. To create a job description, an output queue, and a group profile at the same time, proceed to “Creating a Job Description, Output Queue, and Group Profile” on page 83.

1. Type 4 on the Selection or command line of the Customization Procedures menu to create a group profile.
2. Press Enter. This displays the Create a Group Profile panel shown in Figure 20.

```
CRTNEW03                Create a Group Profile

Type information, press Enter.

Group profile . . . . . _____
Description . . . . . _____

Job description . . . . . _____
Output queue . . . . . _____

Installation library. . . . . XXXXXXXXXX
Panel library . . . . . XXXXXXXXXX
File library . . . . . XXXXXXXXXX
Program library . . . . . XXXXXXXXXX
API library . . . . . XXXXXXXXXX

F3=Exit F12=Cancel
```

Figure 20. Create a Group Profile Panel

3. Type the 1- to 10-character alphanumeric name of the group profile you are creating in the **Group profile** field. This parameter is required. Record this parameter on your installation log sheet.
4. Type a 1- to 40-character description of the group profile, including information unique to the group profile, in the **Description** field. Record this parameter on your installation log sheet. This parameter is optional.
5. Type the 1- to 10-character alphanumeric name of the job description in the **Job description** field. This is the job description you previously created on the Create a Job Description panel and recorded on your installation log sheet. This parameter is required.
6. Type the 1- to 10-character alphanumeric name of the output queue on the **Output queue** field. This is the output queue you previously created on the Create a Output Queue panel and recorded on your installation log sheet. This parameter is required.

7. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
8. You can change the name of the panel library if necessary. Type the 1- to 10-character name of the panel library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
9. You can change the name of the file library if necessary. Type the 1- to 10-character name of the file library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
10. You can change the name of the program library if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
11. You can change the name of the API library if necessary. Type the 1- to 10-character name of the API library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet. This parameter is required.
12. Press Enter.

Creating a Job Description, Output Queue, and Group Profile

You might want to create additional profiles using the following steps. If you have created a job description, output queue and group profile one at a time, proceed to “Specifying Profile Information” on page 85.

1. Type **5** on the Selection or command line of the Customization Procedures menu to Create a Job Description, Output Queue and Group Profile.
2. Press Enter. This displays the Create All Three panel shown in Figure 21 on page 84.

```

CRTNEWAL                                Create All Three

Type information, press Enter.

Job description . . . . . _____
Description . . . . . _____

Output queue . . . . . _____
Description . . . . . _____

Group profile . . . . . _____
Description . . . . . _____

Installation library. . . . . XXXXXXXXXX
Panel library . . . . . XXXXXXXXXX
File library . . . . . XXXXXXXXXX
Program library . . . . . XXXXXXXXXX
API library . . . . . XXXXXXXXXX

F3=Exit F12=Cancel

```

Figure 21. Create All Three Panel

3. Type the 1- to 10-character alphanumeric name of the job description you are creating in the **Job description** field. This parameter is required. Record this parameter on your installation log sheet.
4. Type a 1- to 40-character description of the job, including information unique to the job, in the **Description** field. This parameter is optional.
5. Type the 1- to 10-character alphanumeric name of the output queue you are creating in the **Output queue** field. This parameter is required. Record this parameter on your installation log sheet.
6. Type a 1- to 40-character description of the output queue, including information unique to the output queue, in the **Description** field. This parameter is optional.
7. Type the 1- to 10-character alphanumeric name of the group profile you are creating in the **Group profile** field. This parameter is required. Record this parameter on your installation log sheet.
8. Type a 1- to 40-character description of the group profile, including information unique to the group profile, in the **Description** field. This parameter is optional.
9. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
10. You can change the name of the panel library if necessary. Type the 1- to 10-character name of the panel library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.

6. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library that you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. Press Enter.

Creating User Profiles

The procedures in “Creating a System Administrator” through “Creating an Input and Work Processor” on page 91 create user profiles on the AS/400 system. Each Workfolder Application Facility user must have an AS/400 user ID that is defined to Workfolder Application Facility. Before creating the profiles, make a list of all user IDs and Workfolder Application Facility functions assigned to them. You must create user profiles before you can customize Workfolder Application Facility or system profiles. Refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for more information about the User ID Profile panel (EKD33501).

The installation process created a Workfolder Application Facility default user profile (EKDADMIN) for the system administrator and for the Workfolder Application Facility to Workfolder Application Facility interchange function.

The panel shown in Figure 23 lets you create the Workfolder Application Facility user profiles.

```
CRTPRF                                Create User Profiles

Select one of the following:

  1. Create a system administrator
  2. Create an input processor
  3. Create a work processor
  4. Create an input/work processor

Selection or command
====> _____

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel
F13=User support  F16=System main menu
```

Figure 23. Create User Profiles Panel

Creating a System Administrator

The key person in the Workfolder Application Facility environment, the system administrator can perform the following tasks:

- Start and stop the AS/400 system
- Set up the high-speed scanning workstation
- Set up the fax capabilities
- Establish and maintain access authorization for users
- Set up and tailor Workfolder Application Facility through the use of profiles
- Customize Workfolder Application Facility
- Reassign queued case work
- Create and print reports
- Print operational reports
- Handle the printers
- Create output forms
- Start and stop background processes
- Perform backup and recovery processing
- Set up the OCR scanning workstation
- Perform backup and recovery functions

The installation program created a default system administrator for you. To create another Workfolder Application Facility system administrator, follow these steps.

1. Type **1** on the Selection or command line of the Create User Profiles menu.
2. Press Enter. This displays the Create a System Administrator panel shown in Figure 24.

```

CRTSYSAD                      Create a System Administrator

Job description . . . . . : xxxxxxxxxx
Output queue . . . . . : xxxxxxxxxx
Group profile . . . . . : xxxxxxxxxx

Type information, press Enter.

User ID . . . . . _____
Description . . . . . _____

Installation library . . . . . xxxxxxxxxx
Program library . . . . . xxxxxxxxxx

F3=Exit F12=Cancel

```

Figure 24. Create a System Administrator Panel

3. Type the 1- to 8-character alphanumeric user ID of the system administrator you are creating in the **User ID** field. Record this value on your installation log sheet for future reference. This parameter is required.
4. Type a 1- to 40-character description of the user, including information unique to that user, in the **Description** field. This parameter is optional.

5. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded your installation log sheet.
6. You can change the name of the program library, if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. Press Enter.

Creating an Input Processor

Input processors create a case, add documents to cases or file cabinets, and categorize documentation. Here are the main elements of input processing.

Scan/capture documents

You can add documents to Workfolder Application Facility using ImagePlus Workstation Program.

Index documents

You can specify an ID for a newly or previously scanned or imported document, add a document to a case and a file cabinet, create a new case, or match a document with an existing pended case.

Reindex documents

You can review documents that have been rejected during indexing or that have been indexed incorrectly to determine whether they can be reindexed into the system.

Create empty case

You can create new cases without requiring the input of documents.

Import documents

You can create an image document from an electronic data source and add it to a case or file cabinet.

Work with inbound faxes

You can view, split, or delete newly arrived fax transmissions.

Confirm and repair documents

You can confirm and repair documents after the OCR scan process is complete.

Work with workbaskets

You can access workbaskets.

To create an input (scanning, reindexing, indexing, importing) processor:

1. Type **2** on the Selection or command line of the Create User Profiles menu.
2. Press Enter. This displays the Create an Input Processor panel shown in Figure 25 on page 89.

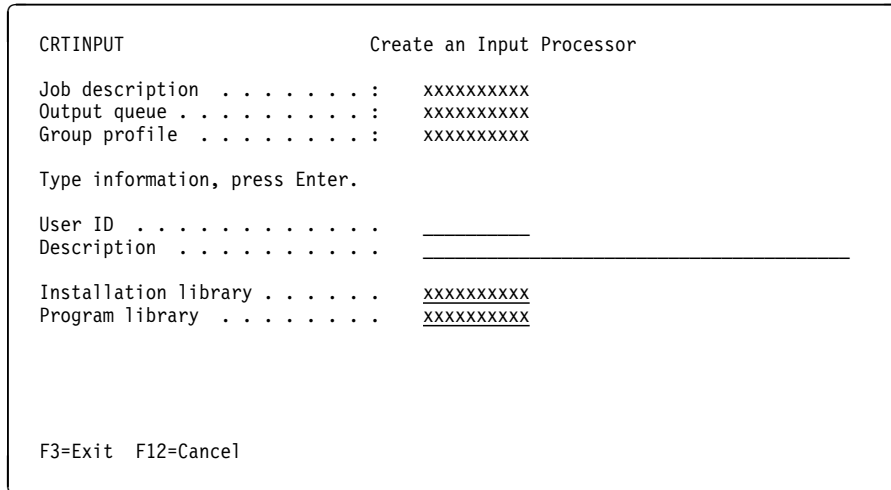


Figure 25. Create an Input Processor Panel

3. Type the 1- to 8-character alphanumeric user ID of the input processor you are creating in the **User ID** field. Record this value on your installation log sheet. for future reference. This parameter is required.
4. Type a 1- to 40-character description of the user, including information unique to that user, in the **Description** field. This parameter is optional.
5. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on your installation log sheet.
6. You can change the name of the program library if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. Press Enter.

Creating a Work Processor

Work processors access documents stored in cases, file cabinets, and work packages. Cases can be accessed from queues, and work packages can be accessed from workbaskets.

Regardless of the access method, functions available for working with documents are similar. A work processor can display images, edit images, print, fax, and export documents, reassign work to other work processors, and review other work. In addition, work processors can move or copy documents in and out of cases, file cabinets, and work packages, among other things.

Here are the options a work processor can perform from the document processing menu.

Work any case

Access and work with any case in the system.

Work queued case

Access and work with a case through the queue to which it is assigned.

Review any case

Review any case in the system.

Change the on-demand print options

Specify the print queue to which on-demand print requests are assigned.

Search file cabinets

Work with documents in a file cabinet.

Search file cabinet (advanced)

Access and work with a document through the file cabinet to which it is assigned.
The two menu options provide different search capabilities.

Work with outbound faxes

Access fax requests that have not yet been processed.

Work with workbaskets

Access and work a work package through the workbasket to which it is assigned.

Search for work packages

Access and work with any work package in the system by specifying search criteria.

To create a work processor, follow these steps:

1. Type **3** on the Selection or command line of the Create User Profiles menu.
2. Press Enter. This displays the Create a Work Processor panel shown in Figure 26.

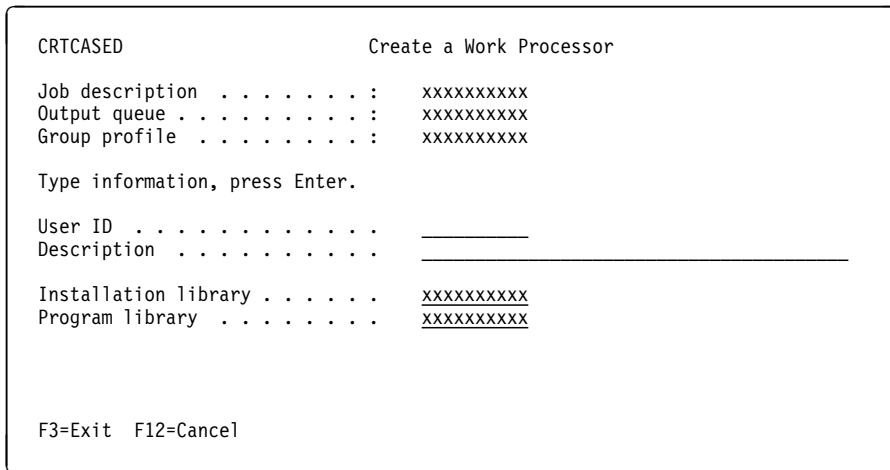


Figure 26. Create a Work Processor Panel

3. Type the 1- to 8-character alphanumeric user ID of the work processor that you are creating in the **User ID** field. Record this value on your installation log sheet. for future reference. This parameter is required.
4. Type a 1- to 40-character description of the user, including information unique to that user, in the **Description** field. This parameter is optional.
5. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
6. You can change the name of the program library if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. Press Enter.

Creating an Input and Work Processor

To add a user who is both an input processor and a work processor, follow these steps:

1. Type **4** on the Selection or command line of the Create User Profiles menu.
2. Press Enter. This displays the Create an Input/Work Processor panel shown in Figure 27.

```

CRTBOTHD                Create an Input/Work Processor
Job description . . . . . : xxxxxxxxxx
Output queue . . . . . : xxxxxxxxxx
Group profile . . . . . : xxxxxxxxxx

Type information, press Enter.

User ID . . . . . : _____
Description . . . . . : _____

Installation library . . . . . : xxxxxxxxxx
Program library . . . . . : xxxxxxxxxx

F3=Exit F12=Cancel

```

Figure 27. Create an Input/Work Processor Panel

3. Type the 1- to 8-character alphanumeric user ID of the input/work processor you are creating in the **User ID** field. This parameter is required.
4. Type a 1- to 40-character description of the user, including information unique to that user, in the **Description** field. This parameter is optional.

5. You can change the name of the installation (GPL) library if necessary. Type the 1- to 10-character name of the installation library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
6. You can change the name of the program library if necessary. Type the 1- to 10-character name of the program library you previously specified on the Installation Parameter Panel and recorded on your installation log sheet.
7. Press Enter. When the Create User Profiles panel is displayed, press F3 to return to the Customization Procedures menu.

You have now completed the Workfolder Application Facility base installation and initial customization. However, before you can use Workfolder Application Facility, you must define application and system profiles. Proceed to “Creating or Changing the Workstation Control Table.”

Creating More Profiles Later

To return later to these menus to create more users, job descriptions, or output queues, be sure that the GPL and file libraries are in your library list and then type `G0 INSTALL` on an AS/400 command line.

If you plan to use a test environment, back up your libraries now. For information on a test environment refer to “Planning a Test Environment” on page 22.

Creating or Changing the Workstation Control Table

In Workfolder Application Facility you can create or change the workstation control table (WCT) in several ways. The WCT defines each ImagePlus workstation in your configuration to the AS/400 processor. If you have not already installed your workstations, continue with the installation process and return here once you have defined the workstations.

As you add workstations to your configuration, create a record for each one using the WCT. The record identifies the type of ImagePlus workstation software installed, and whether the workstation supports optical character recognition (OCR). It also specifies the method used to display documents stored to LAN-attached optical.

Before updating the WCT, make sure that the QSYS2 library and the following libraries are in your library list:

- Program library (EKDLIB)
- File library (EKDLIBFIL)
- Panel library (EKDLIBTXT)

Follow these steps to check this.

1. Type **DSPLIBL** on any AS/400 command line and press Enter. The Display Library List panel is displayed. If file and GPL libraries are in your library list, press F3 to exit and proceed to 3 on page 79. If the file or DPL library is not in your library list, press F3 to exit and continue.

2. Type **ADDLIBLE** *library name* and press Enter, where *library name* is the name of the file or GPL library.

You must create a WCT record for a workstation to let the user of that workstation display or print documents stored on LAN-attached optical directly from the optical system. If the workstation is not defined in the WCT table, documents residing on LAN-attached optical are copied to DASD before being displayed to the user.

You must identify each image-capable workstation in the WCT file so it can be processed accurately. You must do this for each ImagePlus Workstation Program workstation running any valid operating system listed in "Hardware and Software Prerequisites" on page 58. By default, Workfolder Application Facility treats any workstation not already defined in the WCT file as a nonimage terminal.

You can create or change a record in the WCT, using any of the following methods. Depending on the number of controllers defined on the AS/400, it might be faster to specify the workstation ID you want to create or change rather than specify *ALL, to select from the list of defined controllers.

- To create or change a record for the ImagePlus workstation you are logged on to, select option 9 on the Workfolder Application Facility Administrative Processing menu. The panel shown in Figure 28 on page 94 is displayed with the ID of the workstation you are currently using.
- To create a record for a workstation other than the one you are currently using, type `EKDUPDWCT XXXXXXXXXX` on an AS/400 command line and press Enter, where `XXXXXXXXXX` represents the ID of the workstation you want to create or change. The panel shown in Figure 28 on page 94 is displayed with the ID of the workstation you just typed.
- To select from a list of workstation sessions defined to the AS/400, type `EKDUPDWCT *ALL` on an AS/400 command line and press Enter. The Select Device panel is displayed. After you select a workstation and press Enter, the panel shown in Figure 28 on page 94 is displayed with the ID of the workstation you selected.

The status is **CREATE** if there is no record for this workstation in the WCT and **CHANGE** if this workstation is already defined.

```

EKDUPDWCT          Workstation Control Table

Status . . . . . : CREATE
Workstation ID . . . . . : XXXXXXXX

Type information, press Enter.

Remote network ID . . . . . *LOC *LOC, *NETATR, Name
LU name . . . . . XXXXXXXX
Workstation type . . . . . I 1=WIN32 2=OS/2
                          3=Windows 3.1 4=Non-image
Content class support . . . . . Y Y=Yes, N=No
9402/5363 retrieval method . . . . . I 1=Copy to DASD
                                          2=Process from optical
LAN requestor installed . . . . . N Y=Yes, N=No
IWPM transaction program name
  HOST
IPFA installed . . . . . N Y=Yes, N=No
IPFA transaction program name
  IPFA

F1=Help          F3=Exit          F12=Cancel

```

Figure 28. Workstation Control Table (EKDUPDWCT)

PANEL DEFINITIONS

Status

Indicates whether the panel action is CREATE for a new record or CHANGE for an existing record.

Workstation ID

The workstation ID for which you want to create or change a record.

Remote network ID

Type the 8-character alphanumeric remote network ID that is used to communicate with a remote location. You can specify the remote network ID for the APPC communications device, or one of the following:

- *LOC** To indicate that any remote network ID can be used. If the remote location is associated with several remote network IDs, the system selects the remote network ID automatically. *LOC is the default.
- *NETATR** To indicate that the remote network ID specified in the network attributes is to be used.

LU name

Type the 8-character alphanumeric name of the remote control point in the controller description for the workstation. This name is the same as the remote location name in the device description associated with the controller description. The LU name must be unique for your token-ring network. You can display this name using either the WRKCTLD command with a controller description ID or the WRKDEVD command with a device description. If the status is CREATE, this field contains the LU name that is specified in the controller description.

Workstation type

Type the number that represents the type of ImagePlus workstation you are defining:

- 1** ImagePlus Workstation Program for Windows NT
- 2** ImagePlus Workstation Program for OS/2
- 3** ImagePlus Workstation Program/DOS for Windows
- 4** Nonimage (ImagePlus Workstation Program is not installed). If you specify **4**, this workstation cannot communicate with ImagePlus Workstation Program. Specify **4** if you are defining the system console.

Content class support

Enter **Y** or **N** to indicate whether the workstation supports content class. The OS/2 and NT versions support content class, but ImagePlus Workstation Program/DOS for Windows does not. If you select **Y**, the content class value is always used. If you select **N**, the content class value is not used.

9402/5363 retrieval method

Type **1** to specify that documents stored only on LAN-attached 9402/5363 are copied to DASD and displayed or printed from DASD. Type **2** to specify that documents can be displayed and printed directly from LAN-attached optical.

LAN requestor installed

Type **Y** to specify that the LAN requestor is installed on the workstation you are defining. The LAN requestor allows users at this workstation to display documents directly from LAN-attached 3995 optical. Note that LAN server must be installed on the PS/2 controller for the optical system, and the user ID profile must indicate that the user can display documents directly from optical.

Type **N** to specify that the LAN requestor is not installed on the workstation you are defining. Documents that reside on LAN-attached 3995 are copied to DASD before they are displayed to the user.

IWPM transaction program name

Type up to a 64-character alphanumeric name for the ImagePlus Workstation Program transaction program. This name must match the transaction program name defined in Client Access/400 for ImagePlus Workstation Program. The default value is HOST.

IPFA installed

Type **Y** to specify that Intelligent Forms Assist/2 is installed on the workstation you are defining. Otherwise, type **N**. This field is required only if you are defining an OS/2 workstation.

IPFA transaction program name

Type up to a 64-character alphanumeric name for the ImagePlus Intelligent Forms Assist/2 transaction program. This name must match the transaction program name defined in PCOMM. The default value is IPFA.

FUNCTION KEY DEFINITIONS

- F16** Displays the Confirm Delete Workstation Control Table panel. This function key is displayed only if the status is CHANGE.

Enter Creates or changes the workstation control table record for the workstation ID displayed on the panel, and returns to the previous screen or menu.

For more information on the Workstation Control Table, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide*.

Deleting a Record in the Workstation Control Table

Follow these steps to delete a workstation ID from the WCT table:

1. Display the workstation ID you want to delete using one of the methods presented under Figure 28 on page 94. The panel shown in Figure 28 on page 94 is displayed with a status of CHANGE.
2. Press F16. A confirmation panel is displayed with the workstation ID you requested to delete.
3. Press Enter to delete the WCT record.

Additional Post-Installation Considerations

The following installation items are options for Workfolder Application Facility.

- Use the product without optical storage
- Exit library considerations
- Customizing for facsimile

Using the Product Without Optical Storage

Support for non-optical storage is restricted to a single-system environment.

To define a system using non-optical storage devices, do the following:

1. Specify the device configurations for non-optical storage. To change the default configuration used for non-optical storage, select option 16 on the Select Profile menu (EKD330).
2. When defining the DASD system ID profile (option 13 on the Select Profile menu), type **Y** in the **Non-optical storage** field, and press Enter.
3. When defining the document types to be used with the Workfolder Application Facility Version 3 Release 1, type **Y** in the **Allow store on non-optical** field, and press Enter. This lets you store a second copy of the documents with this document type on nonoptical storage in addition to DASD storage.

Exit Library Considerations

If you created your own user exits, refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: Programming Interfaces* for important information.

Several control language programs contain source statements which must be modified by single-byte character set users before compiling the source code. The following control language programs are affected. The source can be found in source file QCLSRC in the exit library. Programs affected include:

- EXIT01021P
- EXIT01023
- EXIT0191
- All programs in the exit library with a prefix of PST.

Make the following changes before compiling or customizing any of these programs:

- Remove any reference to the keyword IGCDTA. For example, in program EXIT01021P, statements 15.12 and 15.13 contain the following information:

```
QSYS/OVRDSPF FILE(EXIT01021D) TOFILE(*LIBL/EXIT01021D) + IGCDTA(*NO)
```

Remove the IGCDTA(*NO) portion of the command at statement 15.12 and 5.13 so that it reads:

```
QSYS/OVRDSPF FILE(EXIT01021D) TOFILE(*LIBL/EXIT01021D)
```

Customizing for Facsimile

If you plan to install Facsimile Support for AS/400, you must create a default document type to be assigned to all fax transmissions and a default user ID to be associated with all fax transmissions. For more information on Facsimile Support for AS/400, refer to your Facsimile Support for AS/400 documentation.

Work Management Builder and Workfolder Application Facility Interface Library

A library was created for the interface between Work Management Builder and Workfolder Application Facility. The EKDMWLIB library contains a interface program that is called when a Work Management Builder user signs on to Workfolder Application Facility. This library must exist before you can use Work Management Builder.

Workstation Data Area

Workfolder Application Facility programs reference this data area, which is named after the workstation ID and resides in the library QTEMP. The data area is referenced for each active workstation.

Attention: If you are using a data area in QTEMP named after the workstation ID, unpredictable results can occur because Workfolder Application Facility tries to reference the data area.

ImagePlus Workstation Program

Refer to ImagePlus Workstation Program installation guide for your workstation operating system for instructions on installing the client software.

Chapter 8. Migrating a Previous Version

This section describes the steps for migrating from a previous version of Workfolder Application Facility on a primary or secondary AS/400 processor to VisuallInfo for AS/400. If a previous version is not yet installed, follow the steps in Chapter 7, "Installing and Customizing the Product" on page 56.

Before You Begin

Before beginning migration, read the tasks in this section before proceeding starting migration. Mark these tasks on your installation log sheet as you complete them.

You should also understand the coexistence information in the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* if you plan to use both VisuallInfo for AS/400 and the Workfolder Application Facility feature together. Read "Multiple Environment Considerations" on page 61 if you plan to run the product in multiple environments.

Completion of the following items are critical to successful migration.

- For the previous version, if all background processes are not stopped or if all users are not signed off before you attempt migration, unpredictable results might occur.
- You must stop the journaling process if your enterprise uses it with your current version of Workfolder Application Facility.
- All Client Access/400 sessions started with user IDs from previous versions of Workfolder Application Facility must be stopped.
- All jobs using previous versions of Workfolder Application Facility libraries must be stopped.
- Migration completes more rapidly if most of your documents are stored on optical instead of DASD.
- To save objects in any of your libraries from a previous version of Workfolder Application Facility, move those objects out of the libraries before starting migration. You can restore them after migration is completed. You should not allow migration to proceed unattended.
- If you want to convert Workfolder Application Facility from one language feature code to another during migration, make sure that the MRI tape you use for migration is for the target language you want, not the current language. You cannot convert from a double-byte language to a single-byte language.
- If you modified the file EKD6001 to customize your backup and recovery strategy, save EKD6001 before you begin migration. Migration replaces this file so that new VisuallInfo for AS/400 Version 4 Release 1 files are included in it. After migration, all backup and recovery flags have the default flags set. You can customize this using the EKD6001 DFU program. Refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for more information.

Other Important Information

- **Definition of Migration:** You are migrating from a previous version of a Workfolder Application Facility environment to a VisuallInfo for AS/400 environment. If your enterprise requires a Workfolder Application Facility environment, you must install Workfolder Application Facility once migration to VisuallInfo for AS/400 is complete. Option 3 on the Installation and Migration menu migrates your previous version of Workfolder Application Facility to a VisuallInfo for AS/400 environment. Option 4 not only migrates your previous version of Workfolder Application Facility to a VisuallInfo for AS/400 environment but also installs this version of the Workfolder Application Facility feature.
- **Coexistence between VisuallInfo for AS/400 and Workfolder Application Facility:** If you are migrating from a previous version of Workfolder Application Facility and are interested in using the VisuallInfo for AS/400 interface, refer to *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for important guidance information and coexistence information between the two.
- **Year 2000 changes to user exits and APIs:** Workfolder Application Facility user exits and application programming interfaces (APIs) have been enhanced to support Year 2000 capability. Therefore, you must modify any existing custom code that currently uses these interfaces before you attempt to use Workfolder Application Facility Version 4 Release 1. Refer to the *IBM ImagePlus Workfolder Application Facility for AS/400: Programming Interfaces Guide* for specific information to help you with the modifications you will need to make.

Prerequisites

Before migrating previous versions of Workfolder Application Facility, be sure the following prerequisites have been satisfied.

1. The security officer user ID, QSECOFR, must perform migration.
2. Your OS/400 operating system must be at least at the version specified in "Hardware and Software Prerequisites" on page 58.
3. To install a double-byte Workfolder Application Facility Version 4 Release 1, a double-byte operating system (OS/400) is required. When the migration program begins, it checks the system and driver tapes for single- or double-byte capability. If it finds a conflict, you see a message and migration is cancelled.
4. You must have sufficient DASD available for the migration program. To provide data integrity during migration file changes, extra DASD must be accessible. The migration process checks the current system size, the percentage of DASD in use, and the size of major files from previous versions of Workfolder Application Facility. The migration process then determines if it can copy the files to preserve data in the old format and keep DASD use under 90 percent. If the calculated amount of DASD utilization exceed that percent, you see a message with the calculated percent of DASD used. At that point you must then determine whether you want to continue with migration. If the calculated percentage of DASD utilization is acceptable to you, you can continue. If not, cancel migration, free up some DASD space, and start migration again.

The extra DASD used during migration is temporary.

Migrating on a Primary or Secondary AS/400 Processor

Migration procedures on a primary (library server) or secondary (object server) AS/400 processor include the following:

- Backing up libraries from a previous version of Workfolder Application Facility.
- Restoring the previous release installation/migration library.
- Migrating the previous version libraries.
- Completing post-migration steps.

The type of processor being migrated is established automatically from the machine-type indicator in the Installation and Migration Library.

Migrating from a Single-Processor to a Multiprocessor Environment

Migrating from a single-processor to a multiprocessor environment involves installing the secondary processor. You should migrate the primary processor before installing the secondary processor.

Secondary AS/400 Processor Considerations

Before migrating a previous version of Workfolder Application Facility on a secondary AS/400 processor, be sure the following prerequisites have been satisfied:

1. On the primary AS/400 processor, you must make sure the secondary AS/400 processor is authorized to the previous version Workfolder Application Facility file library on the primary processor for DDM file manipulations. Assigning authorities involves using an AS/400 GRTOBJAUT (Grant Object Authority) command. To grant authorization to the file library, log on the primary AS/400 processor as the security officer and enter the following commands on an AS/400 command line:

```
GRTOBJAUT OBJ(library/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QSYS/library) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
```

library

Name of the previous Workfolder Application Facility version file library for the primary AS/400 (for example, EKDLIBFIL).

profile

If you have a default user defined in the communications (QCMN) subsystem, use the name of that default user. Otherwise, if no default user is defined, use QUSER.

2. The system date on the primary and secondary AS/400 processors must be the same.
3. The secondary AS/400 processor is set up on the IBM Token-Ring Network and can communicate with the primary AS/400 processor and any other secondary AS/400 processors.

If your AS/400 processors are running at security level 20 or above, the device description for the primary and secondary processors must have the SECURELOC parameter set to *YES. This parameter is not applicable if the device also specifies APPN(*YES). In this case, you must create a remote configuration list on each system, and specify that the Remote Loc parameter is set to *YES. These

parameters are used to secure the communications between AS/400 processors. Refer to the *IBM AS/400 Communications: User's Guide* for more information about setting up communications between AS/400 processors and creating remote configuration lists.

For a remote configuration list to take effect, all devices for the particular remote location must be varied off. To make sure that all devices are varied off, enter `WRKCFGSTS *DEV *LOC RMTLOCNAME(remote location)` on an AS/400 command line, where *remote location* is the name of the remote location that you want to define as a secure location.

4. The Token-Ring local area network (LAN) addresses for secondary AS/400 processors are set for all ImagePlus workstations.

The CONFIG.PCS file located in your Client Access/400 directory must contain one of the following lines for each AS/400 processor:

```
TRLI <system name>, <token-ring address>
-or-
ADRS <system name>, <AS/400 name>
```

5. Client Access/400 is installed on all AS/400 processors (primary and secondary) and on all ImagePlus workstations.
6. Client Access/400 has been updated with the addresses of all AS/400 processors, primary and secondary.
7. Each AS/400 processor is assigned as a system shared folder in Client Access/400.
8. If a library named EKDTEMP already exists on the system, you must either rename or delete it.

Migrating Libraries for a Previous Version

Migrating Workfolder Application Facility libraries differs depending on the library type and whether migration is on a primary or secondary processor. All libraries migrated from a previous version of Workfolder Application Facility to VisualInfo for AS/400 Version 4 Release 1 are migrated object by object.

The following steps explain how each library is migrated on a primary or secondary processor.

Starting Migration From a Previous Version

Be sure you have first read the information in this section before starting installation. You must follow the steps in this section to migrate Workfolder Application Facility on the primary AS/400 system.

Signing On to the System

1. Sign on to the AS/400 system as QSECOFR. You see the AS/400 main menu.
2. Type `CHGMSGQ QSYSOPR *BREAK` and press Enter. This automatically displays any system operator messages to the system operator.

3. Set QALWOBJRST to ALWPGMADP. You must restore this to its original value after migration, so be sure to record that value now on your migration log sheet.

If the AS/400 is being used for other applications during migration, you might also receive messages from these applications.

End Journaling

Because the migration program changes several files, you must stop journaling if your enterprise used it with the previous version of Workfolder Application Facility before you began migration. (If your enterprise does not use journaling, you can skip this step.)

Before issuing the EKDJRNSTP command, be sure that the API program and file libraries are in your library list. You must remove the libraries from the library list once journaling stops. Your library names might be different depending on your naming conventions.

To stop journaling, type the following commands, pressing Enter after each one.

```
ADDLIBLE EKDLIB
ADDLIBLE EKDLIBFIL
ADDLIBLE EKDAPI
EKDJRNSTP
RMVLIBLE EKDLIB
RMVLIBLE EKDLIBFIL
RMVLIBLE EKDAPI
```

Backing Up Previous Version Libraries

Before starting migration, back up the existing version libraries. This is a precaution so that if tape media errors or other errors occur, you can return the previous version until the appropriate corrective service is applied.

To create backups, use either the AS/400 command SAVLIB (Save Library) or the Save menu. You should have several tapes or backup media available to save all previous version libraries.

Saving Libraries with the SAVLIB Command

If you use the AS/400 SAVLIB command, save the following libraries. These library names might be different depending on your naming convention.

- EKDGPL
- EKDLIB
- EKDLIBTXT
- EKDLIBFIL
- EKDAPI
- EKDEXIT

Saving Libraries from the Save Menu

Follow these steps to save libraries from the Save menu:

1. Insert the first tape for saving the libraries.

2. Type GO SAVE on a command line and press Enter. The Save menu shown in Figure 29 on page 103 appears.

```
SAVE                                Save                                System: <AS400 system ID>
Select one of the following:
    1. Files
    2. Libraries
    3. Documents and folders
    4. Programs
    5. Other objects
    6. Changed objects only
    7. Licensed programs
    8. Security data
    9. Storage
   10. Configuration

                                                                 More...
Selection or command
====>
F3=Exit F4=Prompt F9=Retrieve F12=Cancel F13=Information assistant
F16=AS/400 main menu
```

Figure 29. Save Menu

3. Type **2** on the Selection or command line of the Save menu to select option 2, **Libraries**, to save the previous version libraries. Press Enter, and the Save Library panel shown in Figure 30 on page 104 appears.

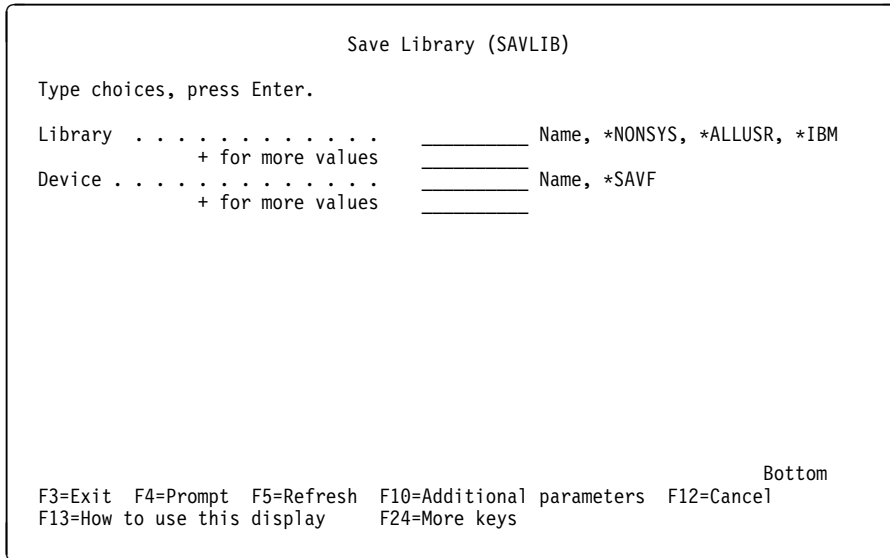


Figure 30. Save Library

4. Type **EKDGPL** in the **Library** field. The name of the library can vary, based on your environment.
5. Type a 1- to 10-character device name in the **Device** field—for example, TAP01.
6. Press F24 to display more keys.
7. Press F9 to display all parameters. This displays the Save Library panel shown in Figure 31 on page 105. This panel specifies saving only one library, EKDGPL. You must specify the remaining previous version libraries you want to save.

9. Type the names of your Workfolder Application Facility libraries—for example: EKDLIB, EKDLIBTXT, EKDLIBFIL, APILIB, EKDEXIT, EKDGPL in the six **Library** fields. Press Enter.
10. Type ***UNLOAD** to replace ***REWIND** in the **End of tape option** field.
11. Press Enter to start saving the specified libraries.

Migrating a Previous Version of the Product

You should also be sure that no Workfolder Application Facility libraries exist in the QSECOFR library list. Type **EDTLIBL** on an AS/400 command line, and the current library list is displayed. You can now remove any Workfolder Application Facility libraries from the QSECOFR library list.

1. Load the media—tape, cartridge, or CD-ROM—that contains the software.
If you have tape, mount the VisualInfo for AS/400 installation tape, IAMTAP, on the AS/400 system and follow standard loading procedures presented in the *AS/400 System Operations: Operator's Guide*.
2. Based on your media, type the following on an AS/400 command line and press Enter.

Tape: LODRUN

CD-ROM: LODRUN OPT01 DIR(/)

If your tape device is not the default (TAP01), type LODRUN *tape device* (where *tape device* is the name of your tape device) and press Enter.

Once you exit migration, you can access the migration menu again using these steps.

- a. Follow these steps to be sure that the library EKDIAM*code* (where *code* is the language feature code you installed) is in your library list:
 - 1) Type **DSPLIBL** on an AS/400 command line and press Enter. You see the Display Library List panel. If library EKDIAM*code* is in your library list, press F3 to exit and proceed to 2b. If library EKDIAM*code* is not in your library list, press F3 to exit and continue.
 - 2) Type ADDLIBLE EKDIAM*code* and press Enter.
- b. On the AS/400 command line, type G0 EKDIAM and press Enter. The migration program restores the required objects in the designated language.
3. Press Enter again. You see the Display Program Messages panel shown in Figure 5 on page 63 appears.
4. If you have tape, load the appropriate MRI tape when prompted for your language feature and for what you plan to install. See Table 23 on page 58.
5. Type **G** and press Enter to continue installation. You see the IBM logo panel shown in Figure 6 on page 64.
6. Press Enter. You see the VisualInfo for AS/400 Installation and Migration menu shown in Figure 7 on page 64.

7. If you want to migrate from a previous version of Workfolder Application Facility to VisualInfo for AS/400 alone, type **3** to select option 3, **Migrate existing system**, and press Enter.

If you want to migrate your system to VisualInfo for AS/400 and install the components needed to use the Workfolder Application Facility feature, type **4** to select option 4, **Migrate existing system and install WAF feature**, and press Enter.

Your selection determines which panel you see next.

- If you select option 3 to migrate on a primary processor, you see the Migration Parameter Panel for Primary Machine.
- If you select option 4 to migrate on a primary processor, you see the Migration Parameter Panel for Primary Machine shown in Figure 8 on page 65.
- If you select option 3 to migrate on a secondary processor, you see the Migration Parameter Panel for Secondary Machine.
- If you select option 4 to migrate on a secondary processor, you see the Migration Parameter Panel for Secondary Machine.

The default values for the library names are displayed. If the file, panel, program, or API libraries exist on your system, they must be migrated to perform Workfolder Application Facility functions.

8. Verify the File library name. If you receive an error, type the 1- to 10-character name of the file library in the **File library** field. The suggested name is EKDLIBFIL. This library contains the objects and source code for files used in a previous version of Workfolder Application Facility. It must be migrated before you can use the product. This parameter is required on at least one migration run and only if the panel library is being migrated.
9. Verify the Panel library name. If you receive an error, enter the 1- to 10-character name of the panel library in the **Panel library** field. The suggested name is EKDLIBTXT. This library contains the objects and source code for the panels, help panels, and menus used in a previous version of Workfolder Application Facility. This parameter is required only if the file library is specified to be migrated. You must save panels that have been customized before you restore the library. You can then apply these changes at the end of the migration.
10. Verify the GPL library name. If you receive an error, type the 1- to 10-character name of the GPL library in the **GPL library** field. The suggested name is EKDGPL. This library contains the general purpose libraries for Workfolder Application Facility. This parameter is not required.
11. Verify the Program library name. If you receive an error, enter the 1- to 10-character name of the program library in the **Program library** field. The suggested name is EKDLIB. This library contains the program objects for a previous version of Workfolder Application Facility. This parameter is not required.

You must save programs that have been customized before you restore this library. You can then apply these changes at the end of the migration.

12. Verify the Exit library name. If you receive an error, enter the 1- to 10-character name of the exit library in the **Exit library** field. The suggested name is EKDEXIT. This library contains the objects and source code for user exits and application programming interfaces (APIs) sample programs for a previous version of Workfolder Application Facility. This parameter is not required. You must save programs that have been customized before you restore this library. You can then apply these changes at the end of the migration.
13. Verify the API library name. If you receive an error, enter the 1- to 10-character name of the API library in the **API library** field. The suggested name is EKDAPI. This library contains the API modules for a previous version of Workfolder Application Facility. If this library exists on your system, it must be migrated to perform functions from a previous version of Workfolder Application Facility. This parameter is not required.

If this library does not exist on your system, do not migrate it here. Instead, after the migration is completed, restore the API library from the Workfolder Application Facility tape media.
14. If you have tape, the Device parameter defaults to TAP01. Verify that the device name is correct. If not, in the **Tape device** field, enter the 1- to 10-character name of the tape device where the VisuallInfo for AS/400 tape is loaded. If you are migrating a primary processor, proceed to 17.
15. If you are installing on a secondary processor, type the 1- to 10-character **Primary remote location** field on the Migration Parameter Panel for Secondary Machine. You must use the name that is defined to the token-ring network for the primary AS/400 system. Use the name for this system that is defined in the TRLI or ADRS line in the CONFIG.PCS file located in your Client Access/400 directory. The correct entry is required because the entry cannot be verified if the primary system is not actively attached to the secondary machine. To determine the primary remote location name, follow these steps:
 - a. Sign on to your primary AS/400 processor.
 - b. Type DSPNETA on the AS/400 command line and press Enter. The **Current System Name** field contains the primary remote location name.
 - c. Log off the primary AS/400 processor and continue with the secondary installation.
16. If you are installing on a secondary processor, type the 1- to 10-character **Primary File library** field on the Migration Parameter Panel for Secondary Machine. This is the product file library on the primary machine. Be sure this value is correct, or full validation might not be possible. This field is required.
17. The migration produces a list of objects that have been changed. The output device and queue information is extracted from the job attributes and displayed here. You can alter the Out queue, Out device library, and Print device name if you want. The values you type are verified.
18. Press Enter to start migration.

Migration has begun when you see the Informational Message Panel shown in Figure 33 on page 109. Additional messages appear occasionally to indicate how migration is progressing.

```
EKDIAM02                VisualInfo for AS/400
                        Informational Message Panel

                        Migration is now in progress.

Message
Number  Situation description

EKD-8368  Processing library xxxxxxxxxx
```

Figure 33. Information Message Panel

Beginning Migration

During normal processing, you see the Informational Message Panel (EKDIAM02) shown in Figure 33 so you can see how migration is progressing. Whenever it starts or completes a critical step, the migration program displays different messages to provide you with status and any errors it encounters. No input is required or permitted on this panel.

If you selected option 3, **Migrate existing system**, or option 4, **Migrate existing system and install WAF feature**, the migration program completes the following processes:

- Migrates files that have format changes
- Replaces the program library, storing in it the objects needed to run VisualInfo for AS/400 functions
- Replaces the panel library, storing in it the objects needed to run VisualInfo for AS/400 system administration functions
- Deletes and re-creates DDM files (only on the secondary processor), and updates the file library with new and changed files
- Replaces the GPL library

If you selected option 4, the migration program also completes the following processes:

- Updates the program and panel libraries, adding the objects needed to execute Workfolder Application Facility functions.
- Replaces the exit and API libraries with new and changed modules.

Possible Error Conditions

After migration starts, the migration program checks for certain conditions in the libraries that have been specified for migration. If it encounters an error that forces it to cancel migration, you see the Problem Determination Panel shown in Figure 34.

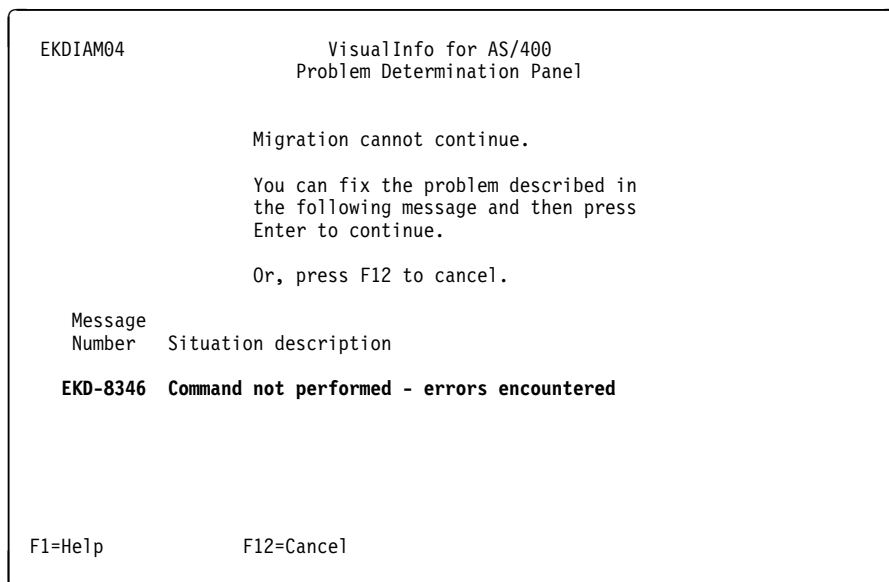


Figure 34. Problem Determination Panel

When you see this panel, press F1 and then F10 to display the job log. Correct the problem and press Enter to continue migration. If you cannot correct the problem or decide not to continue migration, press F12 to cancel migration. You see the Installation and Migration Menu shown in Figure 7 on page 64.

In cases when the migration program might consider a problem severe enough to stop completely, select option 1 on EKDIAM50 to back out. You can try migration again once the error is corrected.

Migration Does Not Complete Properly

If you selected option 3, **Migrate existing system**, or option 4, **Migrate existing system and install WAF feature**, from the Installation and Migration Menu after a previous migration did not complete properly, you see the Cancellation/System Failure Inquiry panel (EKDIAM50) shown in Figure 35 on page 111. Options on this panel affect only the failed library and any libraries not yet migrated. Libraries that were already migrated successfully are not affected.

```
EKDIAM50          VisualInfo for AS/400
                  Cancellation/System Failure Inquiry Panel

The migration cannot continue because a previous migration failed.

Select one of the following to continue:

1. Attempt recovery and continue
2. Cancel and exit migration
3. Cancel and delete migration objects.
4. Cancel and restore the failed library to original state.

Selection
===>

F1=Help
```

Figure 35. Cancellation/System Failure Inquiry Panel

Selection options are arranged in order, from the one with the least possible consequences to the one with the most, with the following results:

Attempt recovery and continue

Migration attempts to continue at the point where it stopped.

Cancel and exit migration

Migration has stopped. The migration program generates report EKDMIG800R, which lists the libraries and objects it changed.

Cancel and delete migration objects

Migration has stopped. Results from this option are unpredictable because the effects depend on which activities completed and which were in progress. Display the job log to determine what libraries and objects were migrated, and make the necessary manual repairs.

Cancel and restore the failed library to original state

Migration has stopped. The migration program attempted to but might not have succeeded in restoring the failed library to its original state, depending on what migration activities had completed. If file restoration fails, select option 2 or 3 above.

Migration Completes Properly

When migration completes successfully, you see the Compliance Monitor Configuration Panel shown in Figure 13 on page 69.

When you see this panel, type the maximum number of concurrent users allowed on your VisualInfo for AS/400 by your license agreement and press Enter. You see the Migration Completion Panel shown in Figure 36 on page 112.

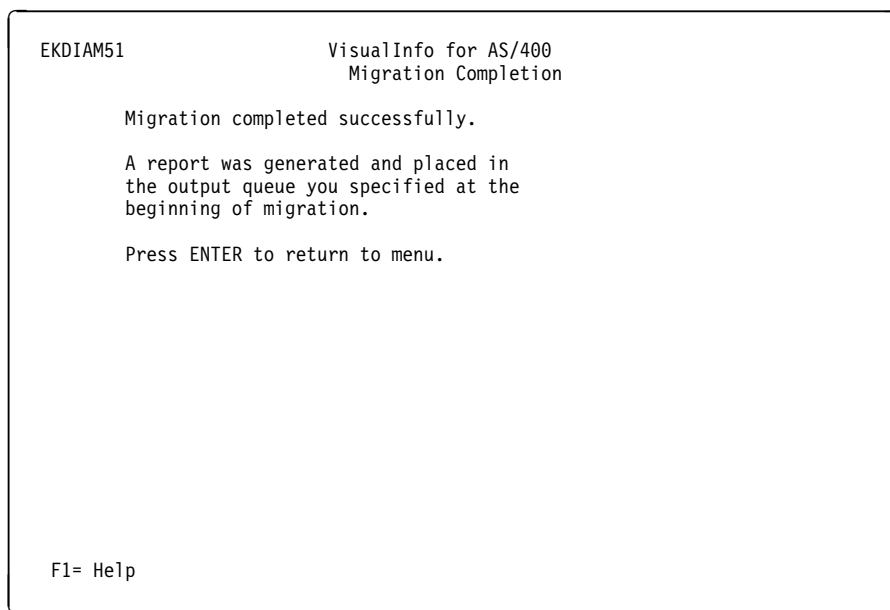


Figure 36. Migration Completion Panel

Press Enter to return to the Installation and Migration menu.

If you chose to migrate only a subset of libraries and only some of those libraries were migrated after migration completed, you see the Migration Completion Inquiry Panel shown in Figure 37 on page 113.


```
EKDIAM52                VisualInfo for AS/400
                        Migration Completion Inquiry

Migration of selected libraries
completed successfully.

Not all libraries were selected for
migration.

A report was generated and placed in
the output queue you specified at the
beginning of migration.

Select one of the following:

  1 - Migration is complete, perform clean up.
  2 - Migration is not complete, preserve
      migration utility.

Selection
===>_

F1= Help
```

Figure 37. Migration Completion Inquiry Panel

When you see this panel, type the option number you want on the selection line and press Enter to return to the Installation and Migration Menu.

Installing Multiple Environments

If you plan to install another Workfolder Application Facility environment, before you begin migration, make sure that you start the installation process using the LODRUN command. Using the LODRUN command guarantees that the latest level of installation programs are stored to DASD before the installation process begins.

Post-Migration Procedures

Depending on your installation, you might have to perform one or more of the following procedures once migration completes:

1. Recompile customized code.
2. Run the RBDLIBL utility.
3. Convert the language feature code.

Running the RBDLIBL Utility

The RBDLIBL command runs a repair utility to resynchronize the product library names after migration. Use this command when you are migrating multiple environments that share libraries.

To run the RBDLIBL repair utility, follow these steps:

1. Log on to the AS/400 system as QSECOFR.
2. Be sure that the library EKDIAM`code` (where `code` is your language feature code) is in your library list.
3. On the AS/400 command line, type RBDLIBL and press F4.
4. In the Rebuild Library List panel, type the names of the file, panel, exit, installation, API, and program libraries associated with your VisualInfo for AS/400 environment and press Enter.

You must include the name of a file library that already exists.

Converting the Language Feature Code on the Primary Processor

The following procedures describe the actions you must take to complete the conversion of VisualInfo for AS/400 from one language feature code to another. This conversion is required only on the primary processor and not on the secondary processor. The migration process converts most VisualInfo for AS/400 features. The procedures here complete the conversion of the files to the new language.

To modify VisualInfo for AS/400 files, perform the following steps:

1. Sign on to the primary AS/400 processor as QSECOFR.
2. Load VisualInfo for AS/400 MRI tape into your tape drive.
3. Type ADDLIBLE EKDIAMnnnn to add this library to the library list.
4. On the AS/400 command line, type `NLV2NLV DEV(tap01) FILLIB(file-lib) FEATURECDE(language-code)`, where `tap01` is your tape device, `file-lib` is the name of a previous version file library you migrated to VisualInfo for AS/400, and `language-code` is the four-digit code of the language you migrated to.

When you receive a message that migration completed normally, you must grant authority to the converted file library for every group profile defined in VisualInfo for AS/400. For each VisualInfo for AS/400 group profile, perform the following steps:

1. On the AS/400 command line, type `GRTOBJAUT OBJ(file-lib/*ALL) OBJTYPE(*ALL) USER(grpprf) AUT(*ALL)`, where `file-lib` is your VisualInfo for AS/400 file library and `grpprf` is the group profile name.
2. On the AS/400 command line, type `GRTOBJAUT OBJ(QSYS/file-lib) OBJTYPE(*LIB) USER(grpprf) AUT(*ALL)`, where `file-lib` is your VisualInfo for AS/400 file library and `grpprf` is the group profile name.
3. Update the language profiles for all your VisualInfo for AS/400 Version 4 Release 1 user IDs. Refer to the *IBM ImagePlus VisualInfo for AS/400: System Administration Guide* for information on how to update the language profiles.

Finishing Migration

After you have migrated every required library and completed the post-migration procedures, follow these steps:

1. Back up your VisualInfo for AS/400 system.
2. Assign the proper authorities to objects and libraries that have been migrated.
3. Create additional profiles, if necessary.
4. Start journaling (optional).
5. Update the appropriate files for the newly assigned authorities.

Assigning Authorities

Assigning authorities involves using an AS/400 GRTOBJAUT (Grant Object Authority) command. For every library migrated, type the following commands for each user profile or group profile previously defined in VisualInfo for AS/400 Version 4 Release 1:

```
GRTOBJAUT OBJ(library/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QSYS/library) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
```

For all objects with EKD as a prefix in QGPL, enter GRTOBJAUT OBJ(QGPL/EKD*) OBJTYPE(*ALL) USER(*profile*)—where *library* is the name of the library migrated and *profile* is the name of the group profile or user profile.

The remainder of this section contains important information about post-installation steps for Workfolder Application Facility. VisualInfo for AS/400 also requires post-installation steps. If you are planning to use VisualInfo for AS/400 alone or with Workfolder Application Facility, refer to the *IBM ImagePlus VisualInfo for AS/400: Planning and Installation Guide* for details and also for instructions on installing the VisualInfo for AS/400 client.

Additional Security Information

During migration, the migration program creates the QVIOWNER user ID, which owns some objects installed during migrations as well as some objects that might be created at product runtime, such as data queues, data areas, or files. If you have migrated to this version of the product, some of these runtime objects might already exist on your system. It is suggested that you change the access authority and ownership of these objects to provide better security for Workfolder Application Facility.

To specify QVIOWNER as the owner of these objects, at an AS/400 command line, type **CHGOBJOWN OBJ(*library/object*) OBJTYPE(*FILE) NEW OWN(QVIOWNER)**. Replace *library* with the name of your Workfolder Application Facility library (EKDLIBFIL), and replace *object* with the following filenames:

- EKD0310V1
- EKD0310V2
- EKD0310V3
- EKD0310S
- EKD0623S
- EKD03L0V
- EKD03L0FS

- EKD0623X
- EKD0623FS
- EKD03LX

For the same files, you should change the level of access that *PUBLIC has, using the following commands :

```
RVKOBJAUT OBJ(library/object) OBJTYPE(*FILE) USER(*PUBLIC) AUT(*ALL)
GRTOBJAUT OBJ(library/object) OBJTYPE(*FILE) USER(*PUBLIC) AUT(*USE)
```

Depending on the Workfolder Application Facility functions that you have run in the past, you might have none, some, or all of the above objects.

You should also run the following commands for the following data areas in the QGPL library, specifying OBJTYPE(*DTAARA):

```
EKDDL0SAV
EKD0972P
EKD2252P
EKD50BL4
```

You might have none, some, or all of the above data areas on your system.

Creating New Profiles

If any new user profiles, job descriptions, output queues, or folders and paths must be created, you can use the install menu. Be sure the installation library (EKDGPL) and file library are in your library list. You must migrate the installation library before performing this function.

Type **GO INSTALL** on any command line, and press Enter.

If the API library was not present for the previous version of Workfolder Application Facility, you must add this library to the library list of the job descriptions associated with the group profile or individual profiles already established. To change the library list of the job description, issue the AS/400 command WRKJOB (Work with Job Descriptions).

You might first want to display the job description to copy the library list associated with it. Add the API library to the bottom of that list.

Starting Journaling

If you used journaling with the previous version of Workfolder Application Facility, start journaling after performing the migration procedure. Before issuing the EKDJRSTR command, be sure that the program, file, and panel libraries are in your library list. Your library names might be different depending on your naming conventions.

To start journaling, type the following commands, pressing Enter after each one. For EKDJRSTR, xx is your auxiliary storage pool.

```
ADDLIBLE EKDLIB
ADDLIBLE EKDLIBFIL
ADDLIBLE EKDLIBTXT
EKDJRNSTR ASP(xx)
RMVLIBLE EKDLIB
RMVLIBLE EKDLIBFIL
RMVLIBLE EKDLIBTXT
```

Updating Files for New Authorities

After assigning authorities, the security officer (QSECOFR) can issue the Workfolder Application Facility UPDLIST command to update the appropriate files with new authorities. This command is available only in the Workfolder Application Facility environment. Before issuing the command, be sure that the program, file, API, and panel libraries are in the security officer's library list. Type **UPDLIST** on the Selection or command line and press Enter. The **UPDLIST** command will record in the file library the authorities assigned to each file in the EKD6002 file.

Use option 1 on the Backup/Recovery Processing menu (EKD600) to back up all files except the journal receiver, which is EKDJRNR.

Part 4. Appendixes

Appendix A. Configuring a Stand-Alone Object Server

At this point in the installation process, you should have completed the following tasks:

- Install the VisuallInfo for AS/400 library (primary) server.
- Install the VisuallInfo for AS/400 object (secondary) server.

If you have completed these tasks, you are ready to configure VisuallInfo for AS/400 as a stand-alone object server.

Before You Begin

If you already have user profiles on the AS/400 system, you do not have to create new user or group profiles. However, previously existing users must be authorized to access the panel, file, and program libraries (specified on the Primary Processor Installation panel), and these libraries must exist in the users' library lists. You can authorize access to libraries by using the GRTOBJAUT command from an AS/400 command line. Each user must be enrolled in the system directory using the ADDDIRE command.

If users do not have the appropriate authorities, change their user profiles using the CHGUSRPRF AS/400 command. See *IBM ImagePlus Workfolder Application Facility for AS/400: System Administration Guide* for details on user profiles. They should also have access to any object directories and subdirectories created. If they do not, use the appropriate AS/400 command to allow access to the restored and newly created directories and subdirectories.

Considerations for a Secondary AS/400 Processor

Before installing VisuallInfo for AS/400 on a secondary AS/400 processor, be sure the following prerequisites have been satisfied:

1. On the primary AS/400 processor, you must make sure the secondary AS/400 processor is authorized to the VisuallInfo for AS/400 file library on the primary processor for DDM file manipulations. Assigning authorities involves using an AS/400 GRTOBJAUT (Grant Object Authority) command. To grant authorization to the file library, log on the primary AS/400 processor as the security officer and enter the following commands on an AS/400 command line:

```
GRTOBJAUT OBJ(library/*ALL) OBJTYPE(*ALL) USER(profile) AUT(*ALL)
GRTOBJAUT OBJ(QSYS/library) OBJTYPE(*LIB) USER(profile) AUT(*ALL)
```

library

Name of the VisuallInfo for AS/400 file library for the primary AS/400 (for example, EKDLIBFIL).

profile

If you have a default user defined in the communications (QCMN) subsystem, use the name of that default user. Otherwise, if no default user is defined, use QUSER.

2. The system date on the primary and secondary AS/400 processors must be the same.
3. The secondary AS/400 processor is set up on the IBM Token-Ring Network and can communicate with the primary AS/400 processor and any other secondary AS/400 processors. If your AS/400 processors are running at security level 20 or above, the device description for the primary and secondary processors must have the SECURELOC parameter set to *YES. This parameter is not applicable if the device also specifies APPN(*YES). In this case, you must create a remote configuration list on each system, and specify that the Remote Loc parameter is set to *YES. These parameters are used to secure the communications between AS/400 processors. Refer to the *IBM AS/400 Communications: User's Guide* for more information about setting up communications between AS/400 processors and creating remote configuration lists.

For a remote configuration list to take effect, all devices for the particular remote location must be varied off. To make sure that all devices are varied off, enter `WRKCFGSTS *DEV *LOC RMTLOCNAME(remote location)` at an AS/400 command line, where *remote location* is the name of the remote location that you want to define as a secure location.

4. The Token-Ring local area network (LAN) addresses for secondary AS/400 processors are set for all VisualInfo for AS/400 client workstations.

The CONFIG.PCS file located in your Client Access/400 directory must contain one of the following lines for each AS/400 processor:

```
TRLI <system name>, <token-ring address>
```

```
ADRS <system name>, <AS/400 name>
```

5. Client Access/400 is installed on all AS/400 processors (primary and secondary) and on all ImagePlus workstations.
6. Client Access/400 has been updated with the addresses of all AS/400 processors, primary and secondary.
7. Each AS/400 processor is assigned as a system shared folder in Client Access/400.
8. If a library named EKDTEMP already exists on the system, you must either rename or delete it.

Appendix B. Double-Byte Character Set Considerations

This section discusses double-byte character set (DBCS) considerations for Workfolder Application Facility. It includes information about the following:

- Supported DBCS characters
- Data entry considerations
- Fonts and paper sizes
- Hardware requirements
- Software requirements

Note: You can use double-byte data only with ImagePlus Workstation Program for OS/2.

Character Sets

A character set is a collection of characters recognizable to a system. For example, mainframe computers and microcomputers use different character sets; different printers use different characters sets. Therefore, your computer must know what printer is attached so that the output sent to the printer will use the correct character set.

Characters in a set are defined by 1 or 2 bytes and are represented in tables by a code. A single-byte character set uses 1 byte to represent each of 256 characters. For example, this single-byte character set includes the numbers and the alphabet for English or Western European languages.

Languages that contain more than 256 characters require 2 bytes for each character. Languages such as Japanese, Chinese, and Korean are represented by a double-byte character set.

DBCS Characters

The DBCS on the AS/400 system consists of the following types of characters:

- Kanji (Japanese)
- Katakana (Japanese)
- Hiragana (Japanese)
- Hangeul (Korean)
- Jamo (Korean)
- Hanja (Korean)
- Traditional Chinese
- Simplified Chinese
- Roman alphabet (A through Z, a through z) and Arabic numerals (0 through 9)*
- Roman numerals (I through X)*
- Additional characters defined through the Character Generator Utility (CGU)

Characters marked with an asterisk (*) are supplied by IBM in the Japanese basic DBCS. Many frequently used Japanese Kanji characters are also included in this basic DBCS. Additional Japanese Kanji characters and user-defined characters not included

in the Japanese basic DBCS comprise the Japanese extended double-byte characters set and are called extension characters. Extension characters require additional processing to be displayed and printed, but basic characters do not.

Double-byte character sets differ from alphanumeric character sets in the following ways:

- The Japanese alphanumeric character set consists of Roman (A through Z, uppercase only) and Katakana alphabets and Arabic numerals (0 through 9).
- The Korean alphanumeric character set consists of uppercase and lowercase Roman (A through Z, a through z) and Korean Jamo alphabets and Arabic numerals (0 through 9).
- The traditional and simplified Chinese alphanumeric character sets consist of the upper and lowercase Roman alphabet and Arabic numerals. Alphanumeric characters are also included in the DBCS. However, when using DBCS versions of alphanumeric characters, the characters are considered DBCS.
- DBCS data, when displayed and printed, is usually twice as wide as alphanumeric data.
- DBCS characters each use 2 bytes of storage plus the shift-out (SO) and shift-in (SI) characters required at the beginning and end of a DBCS string. Alphanumeric characters use 1 byte.

Font and Paper Size Considerations

The font and paper size limitations are based on the following factors:

- The paper standards of the particular country
- The DBCS printers supported by ImagePlus Workstation Program for OS/2
- The types of host printers installed, and how they are configured

Hardware Requirements

When operating in a double-byte characters set environment, you must meet the following hardware requirements.

- To input double-byte character set languages, you must use a DBCS-enabled workstation with a minimum of 8 megabytes of memory and 60 megabytes of fixed disk space.
- You must also use a display monitor that is capable of displaying double-byte character set languages.
- To input and display single-byte character set (SBCS) languages, you can use a DBCS- or a SBCS-capable display workstation.
- To print DBCS data, you must use a DBCS-capable printer.

DBCS Considerations for Single-Byte Character Set Terminals

For some Workfolder Application Facility functions, you must sign on to the AS/400 with a profile that was not created with Workfolder Application Facility, for example, QSECOFR (security officer). When you sign on with these profiles using a single-byte character set terminal, ensure that the program library is in your library list. You can then call the following Workfolder Application Facility program by entering CALL PGM(EKDSTARTP) at an AS/400 command line.

Call the EKDSTARTP program once every time you sign on to the AS/400 system.

Software Requirements

When operating in a double-byte character set environment, your system must have the following software:

- The DBCS OS/400 feature must be on your AS/400 system.
- IBM ImagePlus Workstation Program for OS/2 requires one of the following programs to be installed on the workstation:
 - IBM OS/2 Extended Edition Version J1.23 or Version J1.3 (Japan only)
 - IBM OS/2 Extended Edition Version H1.23 or Version H1.3 (Korea only)
 - IBM OS/2 Extended Edition Version T1.23 or Version T1.3 (Taiwan only)
- Client Access/400 is required to support environments running Workfolder Application Facility.

Data Entry Considerations

Part of the IGC Japanese character feature is the ability to use Katakana (single-byte) characters. Alphanumeric characters and Katakana characters are one position each. DBCS characters are two positions each.

To enter the single-byte Katakana characters in Workfolder Application Facility, you must set the Terminal Profile with an Enhanced Keyboard Profile (ACS5GKJP).

A string of DBCS characters begins with a shift-out character of one position, followed by DBCS characters of two positions each, followed by a shift-in character of one position. This configuration means each DBCS character string is an even number of positions at least four positions long for a single DBCS character. Open fields allow you to mix alphanumeric and DBCS characters. DBCS characters must be within shift-out and shift-in characters.

You can type double-byte data in specific fields in Workfolder Application Facility application. Because a double-byte field cannot be distinguished from a single-byte field, the fields that have been enabled in Workfolder Application Facility are shown in the following lists. They are grouped into the following categories.

- Application and system profile fields
- Input and case processing fields
- Print processing fields

- User exit DBCS fields
- Fax function fields
- Work management fields

Application/System Profile Fields

- Address ID profile—All address fields
- User ID profile—Name and cover page information
- Address ID name
- Output class description
- Document description
- Queue description
- Language profile—Currency name
- Fax nickname—Name and address
- Output class—Description

Input and Case Processing Fields

- Case description
- Case comments
- Pend data (Data 1, 2, 3, 4 and 5)
- Identifier

Print Processing Field

- Forms description
- Host print queue description

User Exit DBCS Fields

- Case description
- Identifier
- First name
- Last name
- Address Line 1
- Address Line 2
- City
- State
- Zip code
- Keyword 1
- Keyword 2
- Keyword 3

Fax Function Fields

- Fax configuration—Cover page information
- Specify fax destination—Comment
- Update Fax destination details—Comment

Work Management Fields

- Work basket description

- Process description
- Action list description
- Work package description
- Collect point description
- Route description
- Decision point description
- Collect point–List description

Double-byte characters are physically larger than alphanumeric characters. Double-byte characters are twice as wide as alphanumeric characters. In Workfolder Application Facility, the EKDNL file contains the translated information. Translators translate the information only once in the fields in this file, rather than every occurrence of the field in Workfolder Application Facility. Some of the fields in this file are enabled for double-byte data. You must specify the data with the AS/400 Data File Utility (DFU). The EKDNL language file resides in the file library.

Double-byte enabled fields in the EKDNL file are as follows:

FIELD	LENGTH
Add	15
Update	15
More	15
Bottom	15
Scan reject	36
Delete reject	36
Index reject	36
Moved	13
Deleted	16
Reindexed	20
Sec101	68
Sec103	71
Sec105	71
Time12text	21
Time24text	21

Customizing Workfolder Application Facility Panels

The panel objects shipped with Workfolder Application Facility have been compiled with an option IGCDTA *YES. The help members are not compiled with this option, but the panel and print files are. This characteristic, IGCDTA *YES, along with the AS/400 keyword IGALTTYP (alternate data type) enable you to specify double-byte data.

Whenever any of these panels are modified, it is very important to retain the IGCALTTYP keywords.

Note: Display and print file members with the IGCALTTYP keywords can be compiled successfully only on AS/400 systems running a double-byte version of the OS/400 operating system.

The source files that contain the members from which all of the panels are built also have the characteristic IGCDDTA(*YES). This means that the members in that source file can be updated only from a device that supports double-byte data.

File Considerations

Workfolder Application Facility files are not double-byte enabled. This means that the data descriptions specifications for the logical and physical files do not contain the keyword IGCALTTYP and do not contain the data type O (open). Double-byte information cannot be entered in these fields through the AS/400 DFU.

To enter double-byte information in these files with the AS/400 DFU, do the following:

- Copy the member to another library.
- Change to the data type O.
- Compile the file.

After entering data in the file, copy this data to the original Workfolder Application Facility file.

Bibliography

The following is a bibliography of related IBM publications that you might find helpful while using this book. See "Where to Find More Information" on page vi for information about the VisualInfo for AS/400 product library.

You can request copies of IBM publications from your IBM representative or the IBM branch office serving your area.

IBM AS/400 Publications

Communications and Connectivity

- *IBM AS/400 Communications: Advanced Peer-to-Peer Configuration Guide*, GG24-4023
- *IBM AS/400 Communications: Advanced Peer-to-Peer Network User's Guide*, SC41-8188
- *IBM AS/400 Communications: Advanced Program-to-Program Communication Programmer's Guide*, SC41-8189
- *IBM AS/400 Communications: User's Guide and Reference*, SC09-1168
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- *Query/400: User's Guide*, SC41-3210

System Use

- *IBM AS/400 Getting Started on the AS/400 System*, SC41-3204
- *IBM AS/400 PC Support: Technical Reference*, SC41-8091
- *IBM AS/400 Q & A Database Coordinator's Guide*, SC41-8086
- *IBM AS/400 System Operation*, SC41-3203
- *IBM AS/400 System Operation for New Users*, SC41-3200
- *IBM AS/400 System Operations: Operator's Guide*, SC41-8082

- *IBM AS/400 System Startup and Problem Handling*, SC41-3206
- *OS/400 Infoseeker Getting Started*, SC41-3001
- *OS/400 Integrated File System Introduction*, SC41-3711

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- *IBM AS/400 Security—Basic*, SC41-3301
- *IBM AS/400 Security—Reference*, SC41-3302
- *OS/400 Backup and Recovery—Basic*, SC41-3304
- *OS/400 Backup and Recovery—Advanced*, SC41-3305

IBM Client Access

Windows

- *IBM Client Access/400 for Windows: Getting Started*, SC41-3530
- *IBM Client Access/400 for Windows: User's Guide*, SC41-3532

OS/2

- *Client Access/400 for OS/2 User's Guide*, SC41-3521
- *Client Access/400 for OS/2 Setup*, SC41-3520

IBM Data Stream and Object Architectures

- *Data Stream and Object Architectures: Image Object Content Architecture Reference*, SC31-6805
- *Data Stream and Object Architectures: Mixed Object Document Content Architecture Reference*, SC31-6802
- *Data Stream and Object Architectures: Presentation Text Object Content Architecture Reference*, SC31-6803

IBM Facsimile Support for OS/400

- *IBM Facsimile Support for OS/400: Installation Guide*, SC41-0570
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- *IBM ImagePlus Intelligent Forms Facility/2 Administrator's Guide for the ImagePlus/400 Environment*, SB35-0824
- *IBM ImagePlus Intelligent Forms Facility/2 Quick Reference for the ImagePlus/400 Environment*, SX76-0149

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- *IBM Personal Communications Version 4.1 for OS/2 Programmer's Guide*, SC31-8260

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- *IBM 3995 Optical Library Dataserver Products: Introduction and Planning Guide for C-Series Models*, GA32-0350
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- *IBM 3995 Optical Library Dataserver Products: Reference for C-Series Models*, GA32-0351
- *IBM 3995 Optical Library Dataserver Products: Safety*, GA32-0148

Glossary

This glossary defines terms and abbreviations used in this book and the product document library. Refer to the *IBM Dictionary of Computing*, ZC20-1699-09, for terms or abbreviations that do not appear here.

The following cross-references are used in this glossary:

- **Contrast with.** This refers to a term that has an opposed or substantively different meaning.
- **See.** This refers the reader to multiple-word terms in which this term appears.
- **See also.** This refers the reader to terms that have a related, but not synonymous, meaning.
- **Synonym for.** This indicates that the term has the same meaning as a preferred term, which is defined in the glossary.

A

access list. A list consisting of one or more individual user IDs or user groups and the *privilege set* associated with each user ID or user group. You use access lists to control user access to items in VisualInfo for AS/400. The items that can be associated with access lists are the data objects stored by users, *index classes* and subsets, *workbaskets*, and *workflows*.

action list. In Workfolder Application Facility work management, an approved list of the actions, defined by a supervisor, that a user can perform on work packages. An action list defines options, such as printing or displaying work packages, and the function keys that are available for use.

active case. A case that was entered and indexed, assigned to a queue, and has been previously pended, unqueued, assigned to a process, or assigned to a workbasket. A case with this status can be accessed through the Work any case, Work queued case, or Review any case menu options.

address ID profile. A control file used in Workfolder Application Facility that contains names and addresses.

ad hoc route. A route that is not part of a defined Workfolder Application Facility work management process. An *ad hoc route* is started when a user creates

a work package and assigns it directly to a workbasket. The user manually routes the work package from one workbasket to another by reassigning it.

administrator. The person responsible for system management, controls, and security, as well as case statistics. Synonymous with system administrator.

Advanced Peer-to-Peer Networking (APPN). Data communications support that routes data in a network between two or more APPC systems that are not directly attached.

advanced program-to-program communications (APPC). Data communications support that allows programs on an AS/400 system to communicate with programs on other systems having compatible communications support. This communications support is the AS/400 method of using the SNA LU session type 6.2 protocol.

annotation. An added descriptive comment or explanatory note.

APAR. Authorized Program Analysis Report.

API. Application programming interface.

application programmer. A programmer who designs programming systems and other applications for a user's system.

application program interface (API). The formally-defined programming language interface which is between an IBM system control program or a licensed program and the user of the program.

APPC. Advanced program-to-program communications.

APPN. Advanced Peer-to-Peer Networking.

application program interface (API). The formally-defined programming language interface which is between an IBM system control program or a licensed program and the user of the program.

archiving. The storage of backup files and any associated journals, usually for a given period of time.

AS/400. Application System/400.

AS/400 object directory profile. A control file used in Workfolder Application Facility to identify AS/400 object directories used for image document storage.

attribute. Used in VisualInfo for AS/400 APIs, a single value associated with an item (document or folder). Each index class can have up to eight attributes.

automatic importing. The process that operates in the background to complete the importing of documents when it is requested through the facsimile process or the "set up automatic import only" option.

automatic indexing. The indexing process that operates in the background to complete the indexing of documents introduced to the system through the scan and batch index function.

B

binary large object (BLOB). A large stream of binary data treated as a single object.

C

capture. In optical character recognition, to gather picture data from a field on an input document, using a special scan.

cartridge. (1) A storage device that consists of magnetic tape, on supply and takeup reels, in a protective housing. (2) For optical storage, a plastic case that contains and protects optical disks, permitting insertion into an optical drive. See also *optical disk* and *cartridge storage slots*.

cartridge storage slots. An area in an optical library where cartridges are stored.

case. A uniquely identifiable work item initiated by a user. Cases may be: Active (open and being worked), Pended (suspended awaiting further information), Closed (processing is complete), New, or Not Queued.

case file. A file that contains one entry for each case.

case history file. A file that contains the history of actions against each case.

case ID. A system-assigned identifier that is chronological, based on the time that indexing occurred. Every case has a unique case ID.

client application. An application written with the VisualInfo for AS/400 APIs to customize a user interface.

closed case. A case that was closed and cannot be reopened. A closed case is not assigned to a queue. A case with this status can be accessed through the Review any case menu option.

closing a case. Ending a case permanently. Documents in a closed case may be archived for future access.

collection. (1) In VisualInfo for AS/400, a group of objects with a similar set of storage management rules and contained within a *storage group*. Every object is stored in a collection. (2) In Workfolder Application Facility, it provides categories for entered documents and is used to match incoming documents with outstanding requests. Primarily used in case processing, collections can also be used when indexing documents into file cabinets.

collection point. In Workfolder Application Facility work management, the point where work packages wait for specific events to either occur or become synchronized before processing can continue. A collection point is part of a work process. For example, a collection point is where work packages that are part of the "open a new account" work process must wait until credit information is verified. See also *decision point*.

collection profile. A file that contains one entry for each type of document to be processed.

content class. A number that indicates the data format of an object, such as MO:DCA, TIFF, or ASCII.

control files. Files that govern the categories of work performed by an operator and the types of documents the system recognizes.

convenience workstation. A display workstation equipped with a printer and a scanner.

cross-system importing. The process that imports cases and documents to one Workfolder Application Facility system from another.

cross-system exporting. The process that exports cases and documents from one Workfolder Application Facility system to another.

current document. A document that is being processed.

customization. The process of designing a data processing installation or network to meet the requirements of particular users.

D

DASD. Direct access storage device.

DASD system ID profile. A file used to define the roles of AS/400 processors in the Workfolder Application Facility system.

DDM. Distributed data management.

DBCS. Double-byte character set.

decision point. In Workfolder Application Facility work management, the point where work packages continue on their current route or switch to an alternate route, depending on the specific information in each work package. Decision points are tables consisting of variable names, values, and routes. A decision point is part of a work process. For example, a decision point is where work packages that are part of the "open a new account" work process receive approval or not based on credit information.

See also *collection point*.

destager. A function of the object server that moves objects from the *staging area* to the first step in the object's *migration policy* or *management class*.

direct access storage device (DASD). A device in which access time is effectively independent of the location of the data.

distributed data management (DDM). A feature of the System Support Program that lets an application program work on files that reside in a remote system.

display workstation. An image processing workstation used primarily for displaying documents that have been previously scanned or imported into the AS/400 system.

document. (1) An item containing one or more base parts. See also *collection point*. (2) Information and the medium on which it is recorded that generally have permanence and that humans or machines can read. (3) A named, structural unit of text that can be stored, retrieved, and exchanged among systems and users as a separate unit. Also referred to as an *object*. A single document can contain many different types of base parts, including text, images, and objects such as spreadsheet files.

document content architecture (DCA). An architecture that guarantees information integrity for a document being interchanged in an office system network. DCA provides the rule for specifying form and meaning of a document. It defines revisable form text (changeable) and final form text (unchangeable).

document type. Provides categories for entered documents and are used to match incoming documents with outstanding requests. Primarily used in case processing, document types can also be used when indexing documents into file cabinets.

document type profile. A file that contains one entry for each type of document to be processed.

document working set. A set of document images selected from a menu that Workfolder Application Facility provides. This set of document images is sent to the ImagePlus workstation for display.

double-byte character set (DBCS). A set of characters in which each character occupies two bytes. Languages, such as Japanese, Chinese, and Korean, that contain more symbols than can be represented by 256 code points, require double-byte character sets. Entering, displaying, and printing DBCS characters requires special hardware and software support.

E

empty case. A case that has no documents.

export. In Workfolder Application Facility, a process used to write data from a document in a system folder to a file. Export and import processes can be used to transfer documents among Workfolder Application Facility systems.

F

facsimile configuration profile. A control file that lets the system administrator associate Facsimile Support for OS/400 with Workfolder Application Facility.

fax exporting. A process that operates in the background to send documents requested for fax transmission to a fax server.

fax importing. The importing process that operates in the background to forward fax documents received by the fax server.

FIFO (first in, first out). A queueing technique in which the next item to be retrieved is the item that has been in the queue for the longest time.

file cabinet. A component of Workfolder Application Facility that provides document storage and retrieval capabilities designed to help manage selected documents.

file cabinet code. Acts as the file cabinet name.

first in first out (FIFO). A queueing technique in which the next item to be retrieved is the item that has been in the queue for the longest time.

focus control. In Workfolder Application Facility, a feature that lets the system administrator decide whether Workfolder Application Facility and ImagePlus Workstation Program or the user controls the active window.

folder. (1) In VisuallInfo for AS/400, an object that can contain other folders or documents. (2) In Workfolder Application Facility, the area in the AS/400 system where images are stored after successful scanning or importing.

folder balancing. In the AS/400, the process by which documents are distributed evenly among the available folders in the system.

folder manager. In VisuallInfo systems other than VisuallInfo for AS/400, the term used to describe the data model and a subset of the APIs. In VisuallInfo for AS/400, this term refers to the entire set of VisuallInfo for AS/400 APIs.

folder name. A 1- to 12-character user-defined word that names a folder. One period (.) is allowed. If the folder name is more than 8 characters, the ninth character must be a period. This can be followed by a 1- to 3-character extension.

folder path. A folder name, followed by one or more additional folder names, where each preceding folder is found. Each folder in the path must be separated by a slash (/). A folder path can consist of 1 to 63 characters.

forms creation utility. A utility that allows the system administrator to capture a preprinted form as an image and to define the content and format of the form.

G

Group III. A compression algorithm that conforms to a standard promulgated by the International Telegraph and Telephone Consultative Committee (CCITT).

H

high-speed indexing. The indexing process that operates in the background to complete the indexing of documents that were input into the system using the high-speed scanning function.

high-speed scanner workstation. A display workstation equipped with a high-speed scanner.

HTML. Hypertext markup language.

I

image. (1) A single page of information; the result of scanning, or digitizing, a single sheet of paper. (2) An electronic representation of a picture produced by means of sensing light, sound, electron radiation, or other emanations from the picture or reflected by the picture. An image can also be generated directly by software without reference to an existing picture. See also *page image*.

image data. Rectangular arrays of raster information that define an image. Image data is often created originally by a scanning process.

image host. The system where scanned and imported documents are permanently stored. See also *optical library subsystem*.

Image Object Content Architecture (IOCA). A structured collection of constructs used to interchange and present images.

image spool file. A file that contains sorted, merged, and completed print records ready for print.

image workstation. A programmable workstation that can perform image functions.

import data file. An AS/400 database file that contains data for one or more documents. Using data in the file, Workfolder Application Facility creates documents that can be stored and indexed just like scanned documents.

importing. A process by which documents are input into AS/400 using files rather than the scanning process. Imported documents can be stored in Workfolder Application Facility on DASD and optical, and displayed and printed, in the same manner as scanned documents.

import page ID profile. A file that contains the form overlay and fields specified for each page ID defined for a document type whose data type is 01.

inbound. Pertaining to communication flowing in a direction towards the application program from external sources, such as a transmission from a terminal to the application program. Contrast with *outbound*.

index. To associate a document with a case or identifier.

index class. A category for storing and retrieving objects, consisting of a named set of attributes known as *key fields*. When you create an item in VisualInfo for AS/400, your application must assign an index class and supply the key field values required by that class. An index class identifies the automatic processing requirements and storage requirements for an object.

indexing. The three-step process consisting of viewing a document, specifying an identifier for the document, and before creating a new case, or matching the document with an existing case.

instance. In work management, an occurrence of a work package within a process. If the process consists of parallel routes, multiple instances of a work package exist.

IOCA. Image Object Content Architecture.

item. (1) Set of attributes and objects—one or more files containing image data, annotations, notes, or other content—that together represent a physical document, such as an insurance claim or a folder.

See also *document*. (2) The smallest unit of information that the library server administers. An item can be a folder, document, workbasket, or workflow. Referred to as an *object* outside of library server functions.

J

journal. A special-purpose file or data set that can be used to provide a record of operator and system actions used to recover data and to identify operator actions that resulted in a problem.

journaling. (1) The process of recording changes made in a physical file member in a journal. Journaling allows you to reconstruct a physical member by applying the changes in the journal to a saved version of the physical file member. (2) The process of recording information sequentially in a database.

K

key field. An attribute of an item that represents a type of information about that item. For example, a customer data item might have key fields for the customer's name and social security number.

keyword. A name or symbol that identifies a parameter.

keyword field. A field enabled for input that provides data for a single keyword that is defined for a file cabinet.

keyword value. The input specified in the field for each keyword.

L

LAN. Local area network.

language profile. A control file used in Workfolder Application Facility to define country-specific parameters, such as time and date formats.

last in first out (LIFO). A queueing technique in which the next item to be retrieved is the item most recently placed in the queue.

library server. The component of VisualInfo for AS/400 that contains index information for the items stored on one or more *object servers*.

LIFO (last in, first out). A queueing technique in which the next item to be retrieved is the item most recently placed in the queue.

local area network (LAN). A computer network located on a user's premises within a limited geographical area.

LU 6.2. In Systems Network Architecture (SNA), a type of session between two application programs in a distributed processing environment, using the SNA character string or a structured-field data stream; for example, an application program using CICS communication with an AS/400 application.

M

Machine-Generated Data Structure (MGDS). (1) An IBM structured data format protocol for passing OCR (Optical Character Recognition) data among various applications. When workstations use OCR facility to create coded data from scanned images, those coded data are formatted into MGDS and passed to other applications for further processing. (2) Data extracted from an image and put into generalized data stream (GDS) format.

magnetic storage. A storage device that uses the magnetic properties of certain materials.

magnetic tape. A tape with a magnetizable layer on which data can be stored.

magnetic tape device. A device for reading or writing data from or to magnetic tape.

masking. The action of obscuring part of the image of a document so that it is not visible to the viewer.

MGDS. Machine-Generated Data Structure.

Mixed Object: Document Content Architecture (MO:DCA). An IBM architecture developed to allow the interchange of object data among applications within the interchange environment and among environments.

Mixed Object: Document Content Architecture-Presentation (MO:DCA-P). A subset architecture of MO:DCA that is used as an envelope to contain documents that are sent to the ImagePlus workstation for displaying or printing.

MO:DCA. Mixed Object: Document Content Architecture.

MO:DCA-P. Mixed Object: Document Content Architecture-Presentation.

MRI. Machine-readable information.

N

national language support (NLS). The modification or conversion of a United States English product to conform to the requirements of another language or country. This can include enabling or retrofitting of a product and the translation of nomenclature, MRI, or product documents.

network. An arrangement of programs and devices connected for sending and receiving information.

network table file. A text file created during installation that contains the system-specific configuration information for each node for each VisualInfo for AS/400 server. Each server must have a network table file that identifies it. The name of the network table is always FRNOLNT.TBL.

new case. A case that was entered and indexed, assigned to a queue, and has not been previously pended, unqueued, assigned to a process, or assigned to a workbasket. A case with this status can be accessed through the Work any case, Work queued case, or Review any case menu options.

NLS. National language support.

not queued case. A case that was entered and indexed, and is not assigned to a queue. A case with this status can be accessed through the Work any case or Review any case menu options.

O

object. (1) An item upon which actions are performed. (2) A collection of data referred to by a single name. (3) The smallest unit within the system. For ImagePlus systems, this is typically a single-image document. (4) Any binary data entity stored on an object server. In the VisualInfo for AS/400 data model, *object* specifically refers to a document's contents or parts.

object authority. The right to use or control an object.

object directory. A control file used in Workfolder Application Facility to identify AS/400 object directories used for image document storage.

object server. The component of IBM ImagePlus VisualInfo for AS/400 that physically stores the objects or information that client applications store and access.

OCR. Optical character recognition.

operator. The person who handles daily system administrative tasks.

optical. Pertaining to optical storage.

optical cartridge. A storage device that consists of an optical disk in a protective housing. See also *cartridge*.

optical character recognition (OCR). Character recognition that uses optical means to identify graphic characters.

optical disk. A disk that contains digital data readable by optical techniques. Synonymous with digital optical disk.

optical drive. The mechanism used to seek, read, or write data on an optical disk. An optical drive may reside in an optical library or as a stand-alone unit.

optical drive profile. A control file used in Workfolder Application Facility to define the optical controller used for the optical storage of documents.

optical libraries. Software used to store image data on optical platters. Only direct-attached optical systems contain optical libraries.

optical library subsystem. The hardware and software that provides the long-term storage of the image data. See also *image host*.

Optical Storage Support. Software that supports communication between stand-alone optical disk drives, the optical library, and VisualInfo for AS/400 and Workfolder Application Facility. The software runs on the System/36 5363 unit serving as the optical controller.

optical system profile. A file used to define the optical controller used for the optical storage of documents.

optical systems. Hardware used to store image data on optical platters. Only direct-attach optical systems contain optical libraries.

optical volume. One side of a double-sided optical disk containing optically stored data.

OS/2. Operating System/2.

OS/400. Operating System/400.

outbound. Pertaining to a transmission from the application program to a device. Contrast with *inbound*.

output class. A unique name assigned to a specific time frame when faxes are eligible to be transmitted.

output profile. A file that defines the content of each output form.

override. A parameter or value that replaces a previous parameter or value.

P

page. A single physical medium; for example, an 8.5-inch by 11-inch piece of paper.

page image. The electronic representation of a single physical page. The bounds of a page image are determined by the electromechanical characteristics of the scanning equipment, along with the image capture application specifications in the receiving data processing system.

page scan. The electromechanical process of scanning a physical page (paper) to create a bit image of the page.

pan. Progressively translating an entire display image to give the visual impression of lateral movement of the image.

PDF. Portable document format.

pend. To suspend a case while awaiting additional information or action, such as a particular document type or date.

pending case. A case that was pending through casework, waiting for more information. A pending case is not assigned to a queue. A case with this status can be accessed through the Work any case or Review any case menu options.

pending. Awaiting further information or action on a case.

platter. See *optical disk*.

prefix. (1) A code dialed by a caller before being connected. (2) A code at the beginning of a message or record.

Presentation Text Object Content Architecture (PTOCA). An architecture developed to allow the interchange of presentation text data.

primary processor. In a group of processing units, the main processing unit and its internal storage through which all other units communicate.

printer workstation. A display workstation equipped with a printer.

priority. A rank assigned to a task that determines its precedence in receiving system resources.

privilege. An authorization for a user to either access or perform certain tasks on objects stored in VisuallInfo for AS/400. The system administrator assigns privileges.

privilege set. (1) In VisuallInfo for AS/400, collection of *privileges* for working with system components and functions. The system administrator assigns privilege sets to users (user IDs) and user groups. (2) In the work management system in Workfolder Application Facility, an approved list of the actions, defined by a supervisor, that a user can perform on work packages. An privilege set defines options, such as printing or displaying work packages, and the function keys that are available for use.

process item. Item used as a building block in a work process.

profile. A file that governs the categories of work performed and the types of users recognized by the system.

program temporary fix (PTF). A temporary solution or bypass of a problem diagnosed by IBM as resulting from a defect in a current unaltered release of the program.

PTF. Program temporary fix.

PTOCA. Presentation Text Object Content Architecture.

Q

queue. A line or list of items waiting to be processed; for example, cases to be worked or messages to be displayed.

queue ID profile. A file that contains one entry for each active case. Each case is indexed by queue ID, queue type, and creation date and time.

R

reindexing. The process of indexing documents that were previously indexed incorrectly. This process is the same as the indexing process.

render. To take data that is not typically image-oriented and depict or display it as an image. In VisuallInfo for AS/400, you can render word-processing documents as images for display purposes.

resolution. In computer graphics, a measure of the sharpness of the image, expressed as the number of lines and columns on the display screen or the number of pels per unit of area.

rotate. A function of the document display window and the scan document display window. The orientation depends on the option selected.

route. In work management, a set of steps that move work between workbaskets, collection points, and decision points.

S

SBCS. Single-byte character set.

scan overlap. The process by which a document is scanned while a previously scanned document is stored on DASD.

scanner. A device that examines a spatial pattern one part after another and generates analog or digital signals corresponding to the pattern. (I)

scanner workstation. A display workstation equipped with a scanner.

scanning. A physical process that enters documents into an ImagePlus workstation. After a document has been scanned, it can be stored permanently.

scanning and batch indexing. An efficient scanning and indexing option that overlaps the scanning of a document with the storing of another document, while an indexing process operates automatically in the background.

search criteria. In VisuallInfo for AS/400, the text string used to represent the logical search to be performed on the library server.

secondary processor. In a group of processing units, any processing unit other than the primary unit.

server. On a local area network, a data station that provides facilities to other data stations; for example, a file server, a print server, a mail server.

side by side. A function on the document display window that displays two pages of a multipage document next to each other.

single-byte character set (SBCS). A set of characters in which each character occupies one byte.

slot. (1) A position in a device used for removable storage media. (2) A space in an optical library where an optical cartridge is stored. See *optical cartridge*.

SMS. System-managed storage.

spool file. A file that holds output data waiting to be printed or input data waiting to be processed by a program. Workfolder Application Facility can convert a spool file to an import data file.

spool writer. The part of the System Support Program that prints output saved in the spool file.

staging. The process of moving a stored object from an offline or low-priority device back to an online or higher priority device, usually on demand of the system or on request of a user. When a user requests an object stored in permanent storage, a working copy is written to the *staging area*.

stand-alone. Pertaining to an operation that is independent of any other device, program, or system.

step number. In work management, the numbers that specify the order in which route commands are processed. Each step number must have an associated command telling the route what action to take.

storage. The action of placing data into a storage device.

storage class. A storage class, in combination with an optical system identifier, defines the set of optical volumes upon which documents can be stored. Documents with the same storage class and optical system ID are stored on the same optical volume.

storage method. In Workfolder Application Facility, a means of grouping documents together for storage to an optical disk. Workfolder Application Facility provides the

following storage methods: file cabinet, collection, prioritized, and system assigned (optical distribution).

storage system. A generic term for storage in VisuallInfo for AS/400.

subsystem. A secondary or subordinate system, or the programming support part of a system that is usually capable of operating independently of or asynchronously with a controlling system.

suspend a case. To end case processing temporarily.

system administrator. The person who manages the ImagePlus workstation, the Optical Library Subsystem, and the departmental processor. The system administrator helps with problem determination and resolution. Synonymous with *administrator*.

system ID profile. A control file used in Workfolder Application Facility to define the roles of AS/400 processors in the system.

system-managed storage (SMS). The VisuallInfo for AS/400 approach to storage management. The system determines object placement, and automatically manages object backup, movement, space, and security.

System Support Program (SSP). A group of IBM-licensed programs that manage the running of other programs and the operation of associated devices, such as the display station and printer. The SSP also contains utility programs that perform common tasks, such as copying information from diskette to disk.

T

tape. See *magnetic tape*.

tape cartridge. See *cartridge*.

U

user. (1) Anyone requiring the services of VisuallInfo for AS/400. This term generally refers to users of client applications rather than the developers of applications, who use the VisuallInfo for AS/400 APIs. (2) In Workfolder Application Facility, the individual who performs input and case processing.

user activity file. A file that contains one entry for each user. It contains item counts and productivity statistics.

user exit. (1) A point in an IBM-supplied program at which a user exit routine may be given control. (2) A programming service provided by an IBM software product that may be requested during the processing of an application program for the service of transferring control back to the application program upon the later occurrence of a user-specified event.

user exit routine. A routine written by a user to take control at a user exit of a program supplied by IBM.

user fields. Data fields defined within the user exit programs. The user exit programs process the data and values passed into these fields.

user ID profile. A file that contains one entry for each user. The entries contain information such as processing eligibility.

V

volume. A certain portion of data, together with its data carrier, that can be handled conveniently as a unit.

W

workbasket. In work management in Workfolder Application Facility for AS/400, a container that holds work packages. Workbaskets can be used as parts of process definitions or ad-hoc routes. In VisualInfo for AS/400, a logical location within the VisualInfo for AS/400 system to which work packages can be assigned to wait for further processing.

A workbasket definition includes the rules that govern the presentation, status, and security of its contents.

workbasket privilege set. A list that specifies which options and function keys operate on indexing and work with work package panels.

work management. A system that lets an enterprise define a work process and environment to automate workflow and control business processes.

work management case. A case that was entered and indexed, and has been assigned to either a process or a workbasket. A work management case is not assigned to a queue. A case with this status can be accessed through the Review any case, Work with workbaskets, or Search for work packages menu options.

work order. The sequence of work packages in a workbasket.

work package. The work that is routed from one location to another. A work package can consist of an unindexed document, a file cabinet document, a Workfolder Application Facility case, or a user-defined collection of objects. It can also be empty, such as when you first create it and before it contains any work items. Work packages can be routed automatically by defined processes, or users can manually route work packages in an ad-hoc manner to workbaskets they specify.

work process. In work management, the series of steps, events, and rules through which a work package flows. A work process is a combination of the route, collection point, and decision point through which a predefined type of work package must progress.

workflow. A sequence of *workbaskets* that a document or folder travels through while it is being processed.

working set. A set of pages residing in the workstation, which can constitute one or more documents.

workstation. A computer processor unit, image display unit, scanners, and printers with which the user performs input, indexing, and printing.

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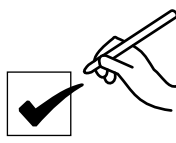
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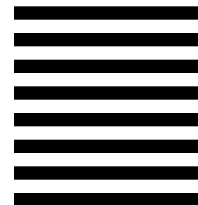
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