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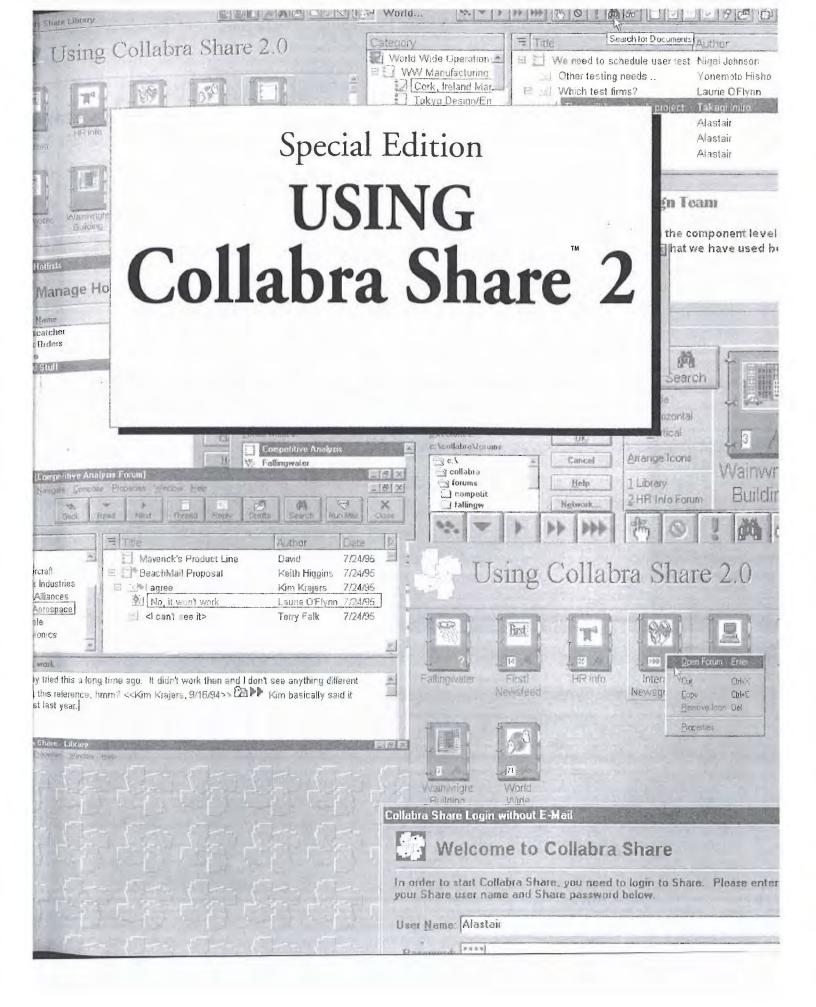
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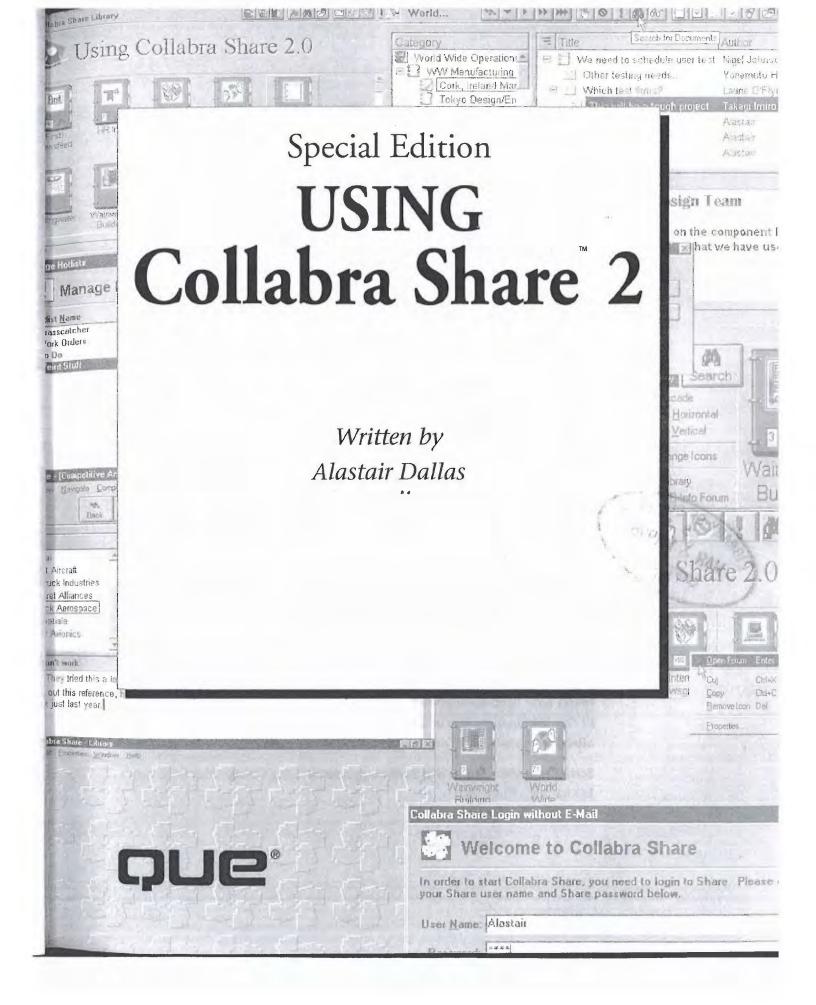
Alastair Dallas A cofounder of Collabra Software, Inc. and a key software architect of Collabra Share 2

HARE<sup>2</sup>

OLLABRA

Facebook's Exhibit No. 1003 - Page 2





## Special Edition Using Collabra Share 2

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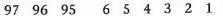
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# Dedication

To my wife Peggy and to Jonathan, Kelley, and Ann-Marie: thanks for letting Daddy overbook his time...again.

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## Foreword

One of the most compelling visions for the turn of the century is collaboration through workgroup communities. The much advertised information superhighway is the backbone connecting us in ever emerging group topologies. However, the intelligence of the workgroup community is not only in connectivity and enabling base technologies. It is in systems that model, organize, and enable collaborative computing—perhaps in ways never before imagined. It was a relatively long and arduous road but perhaps we have finally reached the point where we can take on the most challenging aspects of computing: facilitating human-human interaction, truly automating information processing work, and freeing the collective human creativity; in short, concentrating more on the user "group" and less on the base technology.

By and large over the past five decades, the focus of the computing industry has been on base hardware and software technologies—as well as solutions applying these ever-evolving disciplines. It is only recently that a first generation of products loosely labeled as groupware have started to provide solutions that address the vast area of computer-human as well as human-human interaction through interconnected electronic media. Groupware, therefore, is a technology that addresses human collaboration through digitized media to bring about substantial improvement and transformations in organizations. Transformations in the way we work, the way we organize large amounts of information, and the way we communicate and form virtual communities.

Groupware has often been considered synonymous with computer-supported cooperative work (CSCW). CSCW is an interdisciplinary area that concentrates on computer-assisted activities pursued by collaborating individuals. CSCW involves not only computer science but other disciplines as well, such as sociology, psychology, and organization theory. CSCW continues to be a very active area of research. The goal is to understand human-human interaction and find out how computer technology should evolve to enhance collaboration, communication, and work processing. Some of the CSCW research ideas from the mid-eighties have started to appear in groupware products.

We can think of groupware as the ultimate system that integrates and uses most of the leading software technologies, hardware technologies, and CSCW models to enable collaborative work. It seems like almost every major technological advance in the past decade has paved the way for groupware. There are many types of products that could be characterized as groupware. In fact, groupware can be characterized as any system (the *ware*) that helps the users (the *group*) work collaboratively or enhance their collaborative efforts in achieving common goals.

## **Taxonomies of Groupware**

There are many taxonomies of groupware. As the industry matures, there will be additional attempts to categorize groupware products. Sometimes there are even contradictions between alternative definitions and taxonomies of groupware. All these are healthy signs of a vibrant and emerging domain. We have seen this before with other emerging technologies, and we will see it again.

There are three main interrelated categories of groupware applications. The first category deals with form- and document-based collaboration. It includes e-mail, form-flow, discussion threads, and low-end workflow. The second category deals with high-volume as well as high-value-based communication. It includes more traditional technologies such as document management, document imaging, transaction-based systems, as well as production workflow. The third category deals with groupware applications that enhance the organizational communication. Products dealing with electronic meetings, videoconferencing, group authoring, and organizational memory are in this category.

Another popular framework for explaining different types of groupware systems is to place them in the framework of Place and Time interactions. Therefore some groupware systems are synchronous and co-incident, others are synchronous and displaced, asynchronous groupware can also be co-incident, or asynchronous-displaced. Modern communications technologies have placed a premium on the second category: same-time/different-places. For most business purposes with time-critical needs the least important would be the third category: same-place/different times. Given the evolution of automated business processing, asynchronous groupware—either in different places or the same virtual place—will continue to be the most important category for the foreseeable future. Collabra Share falls into this category.

### **This Book**

Founded by engineers who had worked on one of the most popular e-mail products (cc:Mail), Collabra embarked upon solving some of the more challenging problems in collaborative computing. The central abstraction in Collabra Share is forums—a model that allows empowered workers to organize and categorize documents and discussion threads with great ease. Forums contribute to the creation of organizations, discussions, and work communities over local as well as wide area networks. Collabra Share 2.0 integrates with a number of popular internetworking backbones—the Internet, Lotus Notes, as well as popular e-mail transport protocols. It is a system that is very much in the vein of value-added, group-enabled products—utilizing and extending base technologies. It can be categorized as primarily a document and form-based communication system. It can also be categorized as a product that enhances the organizational memory and communication.

This introductory book on Collabra Share 2.0 is a significant contribution to the groupware literature. The book covers thoroughly all the important features as well as operational details of Collabra Share 2.0. It also relates and explains the contribution of Collabra Share 2.0 to the overall organizational problems in an enterprise. It provides very useful directions to the Collabra Share users—both in terms of processing the collaborative model as well as directions for more detailed performance and administrative issues. The author, Alastair Dallas, was one of the original founders and designers of Collabra Share. He was also a key member of the cc:Mail team. He presents this book with an immense background and understanding of the product. He also presents it as the first power user of the product. Above all, the book captures not only the author's technical and methodical expertise, but also his convictions and imagination. This book will be beneficial as a companion document to those who have embarked on groupware solutions using Collabra Share 2.0. It will also benefit IS managers and decision makers who are investigating various alternative groupware products, models,

and solutions. Alastair Dallas has successfully captured the very essence of Collabra Share and presented it in an enjoyable yet concise style. Enjoy it.

#### Setrag Khoshafian

Dr. Khoshafian is the coauthor of Introduction to Groupware, Workflow, and Workgroup Computing. "Dr. Setrag Khoshafian is a recognized expert in databases and groupware. He is the author and coauthor of a number of technical papers and other books, including Object-Oriented Databases. "(New York: John Wiley & Sons, 1995) 0-471-002946-7. Currently, Dr. Khoshafian is affiliated with Technology Deployment International.

## Introduction

Collabra Share 2.0 is an example of a new kind of software that improves the productivity of teams by encouraging collaboration. Collaborative tools like Share, sometimes called *groupware*, extend the productivity enhancement of personal computers to the entire workgroup.

In his book *The Seven Habits of Highly Effective People*, Stephen Covey points out that we are born dependent upon our parents but that, once we achieve independence as an adult, we begin to interact in highly interdependent ways with others. Dependence leads to independence which, in turn, leads to interdependence.

This concept can be extended to describe the adoption of computers in the workplace. At first, workers were dependent upon central mainframe computers and rigid corporate hierarchies for essential information. Ten years ago, personal computers began giving knowledge workers the freedom to manipulate their own information. When personal computers are interconnected in a network, organizations benefit from the synergy. Obviously, myriad communication channels create a web of information sources and users.

Communication alone, however, doesn't improve corporate memory. Organizations learn by experience just as people do, and often at great expense. If this accrued knowledge can be captured, the learning curve can be minimized and corporate behavior can become more consistent and predictable.

Collabra Share is a collaboration support tool that facilitates group communication as well as organizational learning. It provides a virtual meeting place an electronic *forum* for group discussions and information storage. In this way, Share captures communications and preserves corporate knowledge so that they can be easily retrieved. Share supports broadcast dissemination, topical discussions, or even virtual electronic meetings. Documents are automatically categorized and every word is indexed for quick retrieval. Unlike most electronic mail systems, replies to documents are associated and indented appropriately for easy viewing of an entire thread of discussion. Collabra is dedicated to the widest possible participation within an organization. Share is affordable enough to put on every desktop, and Collabra offers extensions that enable access to forums using electronic mail, Internet newsgroups, or Lotus Notes. Share will quickly prove itself vital to your organization's operations; it is the telephone of the new age of business practices because it connects everyone in the organization. And, like the telephone, Share must be ubiquitous in order to demonstrate its full potential.

Share leverages your existing electronic mail system. Because it doesn't replace your messaging system, installation is simpler, and no retraining is required; Share can concentrate on adding value as a collaboration tool. In addition, Share can replicate forums between LANs using your existing electronic mail network.

Your team can be more productive by using Share's built-in tools, which help manage incoming messages. Finding the most important message in a chronically full electronic mail inbox is a major complaint of the '90s office worker. Share helps fight information overload by pre-categorizing messages and helping you find the most relevant documents. You can scan new messages quickly—automatically ignore new messages on topics you're not interested in, and search all documents for certain words.

In addition to capturing the group's discussions for the benefit of future team members and the organization as a whole, Share supports group decisionmaking and electronic meetings. Alternatives can be discussed in detail and decisions communicated in the same virtual place, where they can be easily referenced later. Not only does this eliminate otherwise wasteful meetings, it improves the group's decision-making process. Fewer meetings and asynchronous group participation increases personal productivity.

I was fortunate to have been involved in the design and creation of Collabra Share from its earliest beginnings. As Collabra Software's first employee, I witnessed the formation of a talented and creative team and watched Collabra Share emerge from their efforts. I have used Collabra Share to enhance my productivity for as long as anyone else on the planet.

### Who Should Use This Book?

Special Edition Using Collabra Share 2 is written for leaders and managers who will make Share useful for their workgroups and organizations. Information Systems (IS) professionals will find information about Share's infrastructure requirements, and end users will gain insight into taking full advantage of

Share's features, but this book is really aimed at those who will establish forums, moderate contributions, and champion the deployment of groupware.

This book assumes that you have a general familiarity with Windows and personal productivity applications, such as word processors and spreadsheets. If you already have Share, you'll learn how to optimize your use of it. If you are just considering groupware, the information presented here will help you to determine if Share suits your needs, and how to convince your organization of the benefits of collaborative computing.

Special Edition Using Collabra Share 2 will help you plan your deployment of groupware, optimize your day-to-day use of Share's features, and extend Share to electronic mail, other LAN sites, Internet newsgroups, and Lotus Notes users. You will be able to optimize your configuration, train your team, and make use of Share's administration tools.

### **How This Book Is Organized**

*Special Edition Using Collabra Share 2* is designed to complement the printed and on-line documentation that comes with the software. A book can't compare to context-sensitive online help when you have a particular question, for example. On the other hand, if a single explanation isn't clear to you, having two viewpoints available often enhances understanding. Chapters generally start with a list of what you'll learn in them. The material in each chapter proceeds from the general to the specific, including references to other chapters for more information. Each chapter ends with a From Here... section, referring to chapters that expand on what you've learned. This book presents all aspects of Share and Collabra extensions in one volume, offering you the big picture and the detail in one place. *Special Edition Using Collabra Share 2* is divided into four parts.

#### **Part I: Overview**

Part I, "Overview," introduces you to groupware and Share's unique way of facilitating and capturing team communications. Chapter 1, "Making Your Team More Productive," presents an overview of the type of problems Share was designed to solve and the ways your organization can use Share. Chapter 2, "Planning a Company-wide Configuration," presents Share's components and explains how they fit into your LAN and WAN. Chapter 3, "Setting Up Collabra Share," describes the installation process, and Chapter 4, "What's New in Version 2.0" is intended to help users of Share 1.0.

#### **Part II: Working with Share**

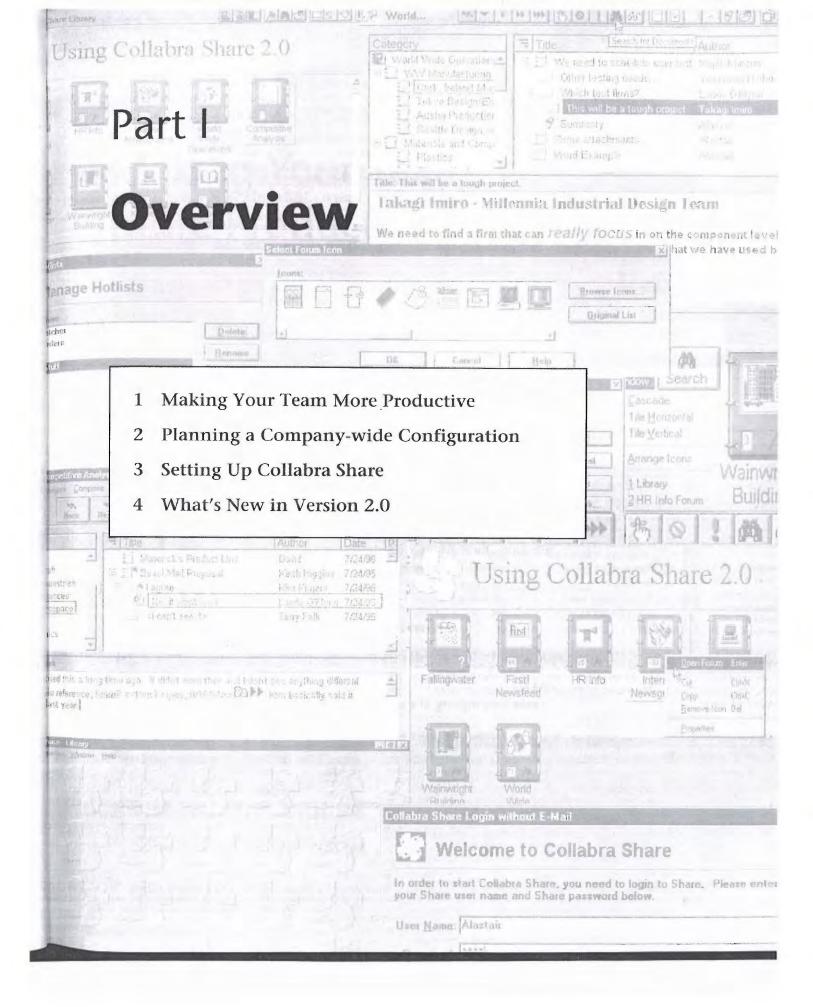
Part II, "Working with Share," offers a hands-on guide to the features of the Share application itself, starting with an explanation of how Share cooperates with the Windows operating system and with other applications in Chapter 5, "Looking at the Collabra Share Desktop." Chapter 6, "Managing Forums with the Library," describes the Library, which is where you select forums. Chapter 7, "Finding and Reading Documents," demonstrates how to open forums and get information quickly. You learn how to create your own documents in Chapter 8, "Contributing to Forums," and how to make your own forums in Chapter 9, "Creating Forums." The duties of a forum Moderator and the controls available are explained in Chapter 10, "Moderating Forums."

#### Part III: Extending Share

Part III shows you how to extend Share using Collabra extensions called *agents* and the Collabra Agent Manager application. Chapter 11, "Extending Your Reach," offers an overview of why you might need agents and how to make sure that everyone in your organization can participate in your forums. You learn how to access the Share Client/Server Edition from home or on the road in Chapter 12, "Connecting Remotely." Chapter 13, "Managing Agents," describes the Agent Manager. Subsequent chapters detail the four agents currently available from Collabra. Chapter 14, "Using the Mail Agent," explains how to offer forum access to electronic mail users, such as the people on your company's legacy mainframe. Chapter 15, "Replicating Forums," describes both the Replication Agent and *policy-based replication*. Chapter 16 describes "Linking with Internet Newsgroups," and the automatic interchange of documents between forums and Lotus Notes databases is the subject of Chapter 17, "Synchronizing with Lotus Notes."

#### Part IV: Managing Share

Part IV explains the administration of the Collabra system. Chapter 18, "Fine-tuning Workstation Options," revisits the choices made when Share is installed and shows you how to optimize your environment. Chapter 19, "Managing the Registry," explains the use of the Share's central, replicated Registry to specify policies and maintain a directory of users, forums, and sites. Lastly, Chapter 20, "Using Administration Tools," describes the administration tools built into Share.



# <u>Chapter 1</u> Making Your Team More Productive

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Collabra Share 2.0 is computer software that makes a team more productive by coordinating and organizing the information shared by the individuals on the team. A team might consist of two or three people or it might include your entire organization, depending on the projects you tackle and the tasks you perform. Overview

In this chapter, you learn about *groupware*, *knowledge workers*, and your *corporate knowledgebase*. Groupware, like Collabra Share, lets knowledge workers communicate and archive information. A corporate knowledgebase is a repository of ideas, expertise, and experience. Groupware is all about the storage, retrieval, and dissemination of information.

In this chapter, you learn about

- Assessing information flow in an organization
- Groupware issues, including information overload and administration costs

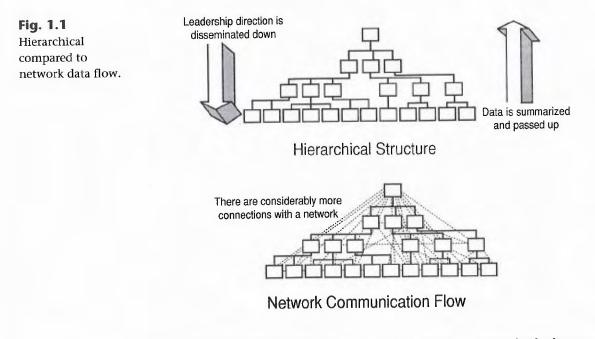
- Collabra Share in overview, and its solutions to groupware issues
- Gauging corporate culture and its affect on groupware success
- Deploying Share in your organization and measuring its impact
- Managing a pilot program

## Improving Information Flow and Availability

Better flow and wider availability of information will help your organization to be more effective. Before you see how Collabra Share improves the situation, corporate information needs to be examined in general.

As the next century rapidly approaches, business practices are changing with respect to both the flow and availability of information. A hundred years ago, the summarization and dissemination of information occupied the time of many of a company's employees. Data was summarized and passed up the organizational hierarchy, while leadership direction was disseminated down.

These days, a rigidly hierarchical organization can't compete against an enterprise with more dynamic information flow. The very existence of computers in a company implies a more efficient information network (see Fig. 1.1), which offers both shorter and multiple paths to vital data. A spreadsheet application program, for example, can summarize and explain raw numbers all by itself. The president can "drill down" to the actual figures, or can spot trends by looking at a graph—*and so can anyone else in the organization*. Communication from the lowest ranks to the president no longer requires a pyramid of intermediaries; companies everywhere are "rightsizing" to take advantage of that fact.



Along with this paradigm shift comes new management methods that stress flexibility and *empowerment*. Empowerment simply means giving everyone at

all levels of an organization more freedom to act and greater access to the organization's information.

#### **Defining Knowledge Workers**

Information flow is the primary function of an increasing number of employees in the workplace. But rather than simply moving data up or down the hierarchy, these *knowledge workers* add value to data by abstracting it or by synthesizing new data.

Analysts, researchers, and accountants, for example, create information that summarizes or abbreviates raw data. Editors, designers, scientists and others combine information into new forms. New job categories appear daily that describe employees who process and improve information.

One reason for the rise in the number of knowledge workers is that our computer networks are delivering access to more and more data. Businesses need knowledge workers to make sure they don't miss anything that's available to the competition. And computers are still no substitute for human intelligence. There's no algorithm with which to program the computer to compare or relate, say, the appeal of a particular pop music star and sales of a soft drink. Human judgment becomes an increasingly valuable commodity in the business of the future.

#### Understanding Teams and Workgroups

Knowledge workers seldom work alone. If the team is not actively collaborating on a project, for example, they are working on similar tasks that benefit from knowledge sharing. Collabra Share is the next step toward intelligent tools for those who work with information, because it combines a database with a communication tool.

When people collaborate, they share ideas, critique plans, and refine group goals. The scope of the project and the role of each individual is often left up to the team to determine. Teams grow over time and it is helpful for newcomers to have access to the project's earliest discussions.

#### Note

In business competition, a seemingly small factor like being able to bring new people up to speed quickly can be decisive. I've had the wonderful experience of having a new employee, who has been asked to work on a particular feature, proceed to tell me what I said about this feature over a year ago. This happens because Share is used in-house at Collabra and my thoughts were captured for posterity. When individuals work autonomously, they still benefit from communication with others engaged in the same occupation. Claims adjusters, for example, don't typically collaborate, but they can help each other by sharing ideas and experiences.

### **Defining a Corporate Knowledgebase**

Business organizations want to make sure that lessons learned, sometimes at great expense, are not forgotten. The story is told of Thomas J. Watson, who was expected to fire an employee who had cost his company millions of dollars. "Fire him?" Watson supposedly said. "Why? I've just paid for his education."

Collabra Share makes corporate learning automatic because it captures and categorizes business information and builds a database of corporate knowledge—a knowledgebase—that can be easily searched or referenced in the future.

Some projects take so long that they are not completed by the individuals who started them. A corporate knowledgebase allows the originators of a project to communicate with those who must finish it.

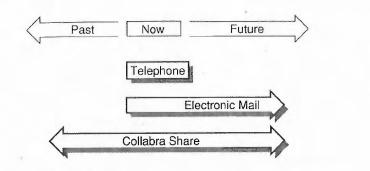
#### **Using Group Productivity Software**

There is a straight line between personal productivity software, electronic mail, which connects you to your colleagues, and *groupware*, which is group productivity software. Collabra Share makes a group of workers more productive by removing the barriers of space and time, by creating a common forum for information exchange, and by providing tools for dealing effectively with a large amount of heterogeneous data. Both the telephone and electronic mail make long-distance collaboration possible, just as groupware like Collabra Share does. That is, the team doesn't necessarily have to work sideby-side.

Figure 1.2 illustrates that Share is an improvement over both the telephone and electronic mail in the dimension of time, however. Ignoring voice mail, the telephone only facilitates communication when two or more people are available "now." Electronic (and voice) mail shifts time, but only into the future. As both a communications tool *and* a database, Collabra Share captures today's conversation for the benefit of future team members, and thus shifts time both forward and backward.

Another benefit of groupware is that it provides a common frame of reference, a place to store tidbits of knowledge that can be easily found in the future. Collabra Share helps you organize your information repositories as well as your discussion databases.

Facebook's Exhibit No. 1003 - Page 38



**Fig. 1.2** Unlike the telephone or mail, Share can communicate with people who have not yet joined the team.

By establishing places for shared data, and common forums for discussions, Share helps the process of gathering and refining data and reaching consensus. With some discipline, Share can be used for *workflow*, the tracking of procedural steps.

Studies have shown that when a team communicates, a principle called WYSIWIS (pronounced *whizzy-whiz*, stands for "What You See Is What I See") is very important. A familiar business metaphor, "making sure we're on the same page," makes the same point. If the team uses different tools, collaboration will suffer. Share has a built-in editor that supports fonts, colors and embedded graphics and other objects so that Share itself is the only application that needs to be common to everyone on the team.

One of Collabra Share's strengths is its ability to manage a large amount of heterogeneous data. Share addresses the issue of personal *information overload* by hiding data and by focusing attention on the most relevant information to you.

## **Fighting Information Overload**

If you connect everyone in the organization and give them tools to make it easy to share data, soon there will be a lot to share. You've probably experienced this effect with your electronic mail system. You can return from a business trip with hundreds of messages waiting in your inbox. Because the messages are uncategorized, you have to scan each title, and multiple channels of communication, such as mail *and* a groupware application, only compounds the problem.

Any groupware system that is actively used quickly generates more new messages than there is time to read. Internet newsgroups, with potentially hundreds of thousands of contributors, represent an inexhaustible supply of new postings; the World Wide Web is experiencing such explosive growth that the knowledgebase seems infinite.

Facebook's Exhibit No. 1003 - Page 39

You need to focus on only the most relevant data at a given time. There are at least three different definitions of what is most important:

- If you are trying to stay current, the most recently submitted information might be of greatest interest.
- If you are waiting for a particular event, you want to concentrate on changes to a small portion of the knowledgebase.
- If you are actively looking for data, you look for information that answers your query.

Without tools like Collabra Share, the growing mountain of data is overwhelming. Gleaning information from such a voluminous source is like drinking from a firehose. Collabra calls this *information overload*, and Share includes many features designed to combat the problem. For more information on dealing with information overload, see Chapter 7, "Finding and Reading Documents."

# Enhancing Your Network with Electronic Mail

Electronic mail is a step toward groupware; it's a communications infrastructure that includes some database capabilities. Electronic mail is not considered groupware, particularly because it fails to combat information overload.

Chances are your company has already made a significant investment in computers, networks and electronic mail. No software seems intriguing enough to compel replacing a system that works. Collabra Share was designed to leverage your network and not replace your electronic mail or any other component.

#### A Brief History of Networks and Mail

In the beginning, there were personal productivity applications: word processors, spreadsheets, then graphics and page layout software. They were designed to be used on your personal computer by you...personally. If you wanted to share data with a colleague, you used "sneakernet"—that is, you walked a floppy disk over to your colleague's desk.

In the personal computer market, networks became important shortly after the introduction of the laser printer. Few could afford to put a laser printer on every desk, and therefore Local Area Networks (LANs) became popular. A LAN allowed the team to share a single printer using wiring systems like Ethernet. Once a company had a LAN, electronic mail was next. At the end of the 80s and in the early 90s, everyone started installing mail on the networks they had purchased to share the printer. Suddenly, electronic mail was everywhere.

Almost 50 million people use electronic mail in the workplace today; easily ten times more than just a few years ago. LANs themselves have been networked, using gateways and routers, into Wide Area Networks (WANs), and even multinational corporations have built systems such that their employees can exchange mail worldwide. How could a business that wanted to stay competitive not break down any and all technological barriers to this communication?

In just the last few years, these corporate mail infrastructures have been increasingly connected to legacy mainframe mail, like PROFS, and to the worldwide Internet. I can send a message to "Fred," and my mail system knows I mean the only Fred at Collabra. Or, I can send a message to "nprice@mcp.que.com" and the network in my company and the facilities of the Internet host and intermediate Internet sites, ensure that the mail gets through.

Collabra Share is built to use your mail system, be it Microsoft Mail, cc:Mail or many others. Mail is often a more reliable and consistent transport mechanism than ad hoc connections, simply because the mail infrastructure receives more attention and investment now that businesses depend upon it.

#### Limitations of Mail for Group Communication

There are several problems with relying on mail for communication within a group:

- *No information overload help.* Electronic mail itself cannot handle the overwhelming information flow that was discussed at the beginning of this section, for one thing.
- Mail supports one-to-one or one-to-many, not many-to-many. Groupware supports many-to-many communication, while electronic mail is only designed for a one-to-one or one-to-many model. One-to-many means that you can broadcast a message to everyone in the company, but you may waste someone's time if they are not affected by your message. If someone sent a meaningless broadcast every day, eventually no one would pay attention.

- Previous discussions don't help new employees. Another problem with mail is that a new employee's inbox is initially empty. The mail discussions that occurred before their arrival might help them up the learning curve, but the new team member has no access to them. You need a forum for many-to-many discussions in which everyone participates.
- Discussions aren't threaded; replies look like new topics. Following a conversation thread is too difficult with mail, because the inbox is a simple list of all messages. You need to keep track of which messages are replies to other messages manually.
- No categorization of new postings. In addition, mail has no categories folders are for filing a message after it has been read; they don't cut down on the number of messages in your inbox. If mail *did* have categories, it would need a way to show which categories contained something new.
- Simple text isn't rich enough. Mail is text, usually, with a way to attach files. Group communications often require more than text to make a point and extracting a file and running a separate application is far too cumbersome.

## **Cost of Ownership**

Some groupware carries a higher "cost of ownership" than others. Cost of ownership means the total cost to the company over the life of the software, typically 2 to 3 years.

Although Collabra Share has hidden costs like any other groupware, its overall cost of ownership is comparatively quite low. This is an important consideration in the decision to deploy Share, and you should enumerate the disk space, training and other costs and perhaps compare them to estimates for other groupware packages.

Training, installation and configuration time must typically be multiplied by the number of users. Any savings here is highly leveraged. Collabra Share's user interface is intuitive and it requires very little instruction. Installation and configuration are likewise reasonably simple.

#### **Server Disk Space**

Sharing data implies that you need space on a shared disk (probably on your server) for this data. A central repository can often save disk space by eliminating redundant copies, but a high overhead (the ratio of disk space used to actual content) can wipe out the savings. Share's disk format is reasonably efficient, approximately 1.5 times the size of the data stored, including full-text indexes.

#### Note

Collabra Share uses about 2K for each message, on average, for messages under a hundred words or so. Larger messages, especially those containing graphics and multimedia objects, need 150 to 200 percent of the size of the message for indexes and overhead. Average message size varies depending on the use of the forum; discussion forums have many small messages, while document repository forums tend to contain very large documents.

#### **Decreasing Network Traffic**

You might think that increased network traffic is inevitable as users read and write data from and to the shared disk. However, Share can actually *absorb* mail traffic within your organization. Instead of company-wide broadcasts with huge To: lists, a single posting in a Share forum can accomplish communication with present and future employees as well.

Share is available in two versions: the original Workgroup Edition, which uses a file-sharing approach, and the Client/Server Edition, in which workstation clients interact with a Windows NT-hosted server. The Client/Server Edition optimizes network traffic and can represent a considerable improvement over a file-sharing system.

#### **Assessing Server Requirements**

Share's requirements for workstation and server hardware are quite modest, similar to a productivity application such as a spreadsheet or word processor.

The Workgroup Edition requires Windows 3.1 or greater, an 80386 CPU, 4MB of memory and a DOS file compatible network, such as Windows for Workgroups, Windows 95, or Novell NetWare. Except for the network, which is obviously a necessity for groupware, the other requirements are a practical minimum for running the Windows operating environment at all. Some groupware requires a server, which can mean additional hardware and software purchases. A server is optional with Collabra Share. The Client/ Server Edition requires a 90 MHz Pentium with a minimum of 32MB of memory running Windows NT 3.5 or greater.

Collabra Share has another advantage over other groupware applications in the "required hardware" department, as well: it can use mail to connect team members who aren't running Windows or can't connect to the local area network.

#### **Maintaining Groupware**

Share requires very little administrator attention, compared with other groupware application programs. The Share Administrator can grant users the right to create forums, change forum policy and handle membership issues without system administrator involvement. The Client/Server Edition needs somewhat more attention, but no more than any other server process.

Both editions manage forum databases, which do not require periodic maintenance such as a "reclaim" operation to recover space left by deleted documents. Some backup software requires that all users be logged out of Share, but backups can be scheduled for slack times.

Share includes a feature called *policy-based administration*, which allows you to establish limits on forum size, contribution size, and the length of time individual discussion threads will be maintained. Once you set these policies, there is no need for periodic cleanup.

#### License Management

Another ongoing cost of ownership of some groupware is the need to synchronize member lists and user licenses. Because Share has access to your electronic mail directory, an Administrator's role is to unregister users who leave the group. This frees up available license count. New users can optionally register themselves. Other groupware systems require more effort to keep separate user directories synchronized.

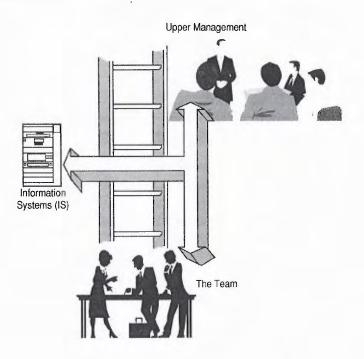
#### **Running Agents on Workstations**

The final hidden cost of groupware is computers that must be dedicated to running post office or gateway software. Because Share leverages your mail infrastructure, it uses your existing post office and routers.

You use the Collabra Agent Manager to schedule replication and synchronization with electronic mail, Lotus Notes or Internet newsgroups. Agents usually run on a file server, but they don't require a dedicated machine. For more information, see Chapter 2, "Planning a Company-wide Configuration."

## Persuading Others through Return on Investment

In most companies, there are three groups that must agree about the need for groupware like Share. As shown in Figure 1.3, these constituencies are: upper management, the Information Systems (IS) department, and the team itself. You'll need to use your persuasion skills up, down and sideways—everyone from upper management down to the individual contributors and laterally to IS, the managers of your firm's infrastructure. Once you implement groupware, the enthusiasm of the team will be a primary gauge of the experiment's success.



**Fig. 1.3** Groupware means persuading up, down and sideways.

Top management is often the most enthusiastic about groupware's demonstrable savings and other benefits. Teams appreciate the help fighting information overload, and fewer meetings. The reduced mail traffic and Share's self-administration features appeal to the IS department.

Upper management must be persuaded to reengineer fundamental business processes, your team must see the value of sharing their knowledge and the network administrator or IS department must not raise insurmountable technical objections. Of these three, by far the most important is the attitude of the team. If the team buys in, groupware will be successful. Overview

Your groupware proposal should include

- A sound business plan showing how an investment in groupware will pay for itself, or at least yield benefits, over time.
- The impact on the company's existing infrastructure and an IS department-approved implementation plan.
- A few early adopters on your team who will help ensure measurable success during the critical first pilot program.

Your groupware business plan needs to balance your company's investment in Collabra Share against tangible, measurable benefits.

#### **Eliminating Unnecessary Meetings**

An unexpected benefit of Share is a dramatic reduction in the number of unproductive meetings. Share can be used to disseminate meeting agendas and to educate everyone on the issues. Opinions can be expressed and countered before the meeting. If the group reaches consensus beforehand, whole meetings can be eliminated in favor of more productive work.

The number of man-hours used in unnecessary meetings shouldn't be too hard to quantify. Compare this with groupware's time-shifted approach to meetings. An agenda, a list of questions or a proposal is posted in a forum and everyone on the team responds when it is convenient for them. Can your company save travel costs by connecting geographically separate offices with groupware?

When you eliminate meetings using Share, you are contributing to the corporate knowledgebase, creating automatic "minutes" that help new employees understand the corporate or project history, which can be useful for analyzing past practice and lessons learned.

#### **Providing the Latest Information**

Using Share to disseminate or broadcast the latest information means that mistakes made due to stale data can be eliminated. For example, perhaps an out-of-town consultant had to spend a night at a hotel because he didn't realize that the meeting had been postponed until the next day, or hundreds of copies of the wrong original were made before an error was discovered.

Share lets you communicate documents without printing them. Electronic documents are always up-to-date. If a document is distributed on paper, it will be printed, photocopied, collated, stapled, faxed, handed out, marked up, and ultimately recycled. Could Share replace your company's newsletter? Show your management a tangible reduction in these paper costs, if possible.

Share improves the quality of your documents as it reduces paper costs. Unlike paper and electronic mail, Share supports rich text and complex multimedia documents. Using the Object Linking and Embedding (OLE) standard, Share documents are containers for charts, photographs, drawings and even audio and video clips created by other applications. These embedded objects can be viewed in Share without launching a second application.

#### **Harnessing Your Most Valuable Asset**

Potentially the strongest return on a groupware investment—the ability to enhance every employee's knowledge and create synergies that could not exist any other way—is by far the most difficult to pin a number on.

Groupware like Share facilitates cross-utilization of talent throughout the company. Try to find examples of people helping another department and show how it would have been easier with Share.

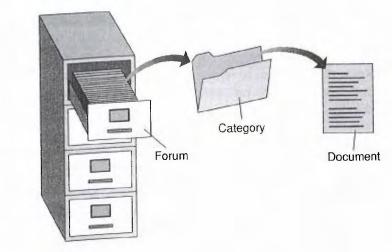
Your groupware investment should be designed to pay for itself in two to three years at most, because software technology moves quickly. Consider both the purchase price and the hidden costs—the "total cost of owner-ship"—to balance the expense and benefits of groupware.

## Collabra Share's Role in Your Organization

Collabra Share is a groupware application, which facilitates communication and captures group discussions. It doesn't replace your electronic mail infrastructure, but it isn't a parallel system that doubles your administrative overhead, either; Share ties into your mail system. Share synchronizes its users with your mail directory, for example, to avoid redundant administration.

The Share application is something like a mail program, because it presents documents written by people from across the enterprise, but it's more like a database. To understand the database aspect, perhaps a metaphor is apt. Share creates an electronic form of a business tool—the file cabinet—just as the spreadsheet application computerizes ledgers and charts. Share provides a central electronic file cabinet for your organization, something like Figure 1.4. This conjures a mental image of everyone sitting at their desks using a computer to pull open drawers, flip through folders, and electronically pull out one page after another.

Share manages *forums* on different subjects, analogous to the drawers of the file cabinet, and one or more *documents* are found in folders called *categories*. But Share does more than electrify a file cabinet.



#### **Organizing Information in Forums**

A *forum* is a place to find information, analogous to one drawer of a file cabinet. Forums contain many things, including specifications, correspondence, numbers, drawings, pictures, and even sound and video. While information in a forum is organized into *categories*, the purpose of a forum is to contain information on a single subject. For example, a forum called Corporate Info might comprise categories for each department and some departments might have subcategories. Or a forum might be an electronic newspaper with categories for Business, Sports, and People.

#### Note

At Collabra, there is a single forum called Share Project that contains plans for Version 2.0 of Share, code-named Everest. In fact, it includes data from the last half of the 1.0 project as well. There are categories for Engineering, Marketing, Quality Assurance and various subcategories under these. Having the 1.0 data close at hand as Version 2.0 was developed was very convenient.

Forums can be both a document repository (a file cabinet) and a more dynamic message board. However, these metaphors seem to conflict. For example, while it is natural to hold a discussion in a public "forum," that's not where a company keeps its vital papers. Both aspects are important, and since it is useful to treat old conversations as corporate data, the file cabinet metaphor applies to discussions as well, eventually.

You place the forums in which you are interested in your personal *Library*. A glance at the Library tells you which of your forums contains more information. For more information about using and customizing your Library, see Chapter 6, "Managing Forums with the Library."

and the second s

**Fig. 1.4** A file cabinet is one metaphor for Collabra Share. There are many kinds of forums, and several are illustrated in Figure 1.5. The First! Newsfeed forum is like an electronic newspaper. The Human Resources Information forum is a corporate repository. The Internet Newsgroups forum is a digest of current postings on the Internet. The World Wide Operations forum is a place where categorized discussions occur. And the Competitive Analysis Forum is shared between the Marketing and Sales departments.

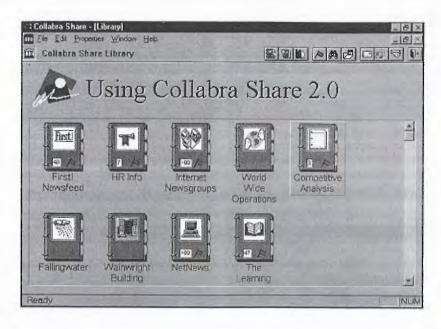


Fig. 1.5 The Library organizes the forums that may interest you.

You've probably already thought of many forums that would help you do your work, but there are a few typical forum types, as listed in Table 1.1.

Type of Forum	Contains	
Document Repository	Forms, policy documents	
Project	Specifications, schedule, feature discussions	
Roundtable	Management issues, suggestion box	
Help Desk	Answers to common problems	
Nater Cooler	Classified ads, jokes, chit-chat	
lews	Newsletter, press releases	
Competitive Information	Public information, negative testimonials	

(continues)

Overview

Table 1.1 Continu	led	
Type of Forum	Contains	
Tiger Team	Cross-department task force	
Newsfeed	Service-based or Internet newsgroups	

Your company may want only a few different forums or it might need dozens. The way you divide your information into forums is based on differences and similarities. If two subjects have the same audience and share other forum attributes, you might organize them as categories in the same forum. On the other hand, if one subject is public and the other restricted data, you need two different forums.

For example, one of the policies you specify when you create a forum is whether new members of the forum can contribute postings to it. A repository forum, like HR Info, would probably not allow new postings, while a project forum would. The different policies dictate that you create two separate forums.

If security is important, you'll want to restrict access to the forum to only certain individuals. This will certainly vary from forum to forum. To keep things simple, there are only three kinds of membership in a forum: *Reader, Contributor,* and *Moderator*. There can be many Moderators in a forum, and in some cases it makes sense to make every member a Moderator. Readers cannot contribute new documents; Contributors cannot create new categories, nor can they delete documents contributed by another; and Moderators have unrestricted access to the forum.

A document repository forum will probably have mostly Reader members, while a project forum might be mostly Contributors. In a casual water cooler forum, you might grant Moderator privileges to all members to encourage everyone to clean up and reorganize the information as they see fit. Forum membership is either open or closed. A Moderator must approve each new member in a closed enrollment forum.

Share uses policy-based administration to automatically handle chores that would otherwise require a human administrator, such as periodically deleting the oldest documents so that the size of a forum on disk stays reasonable. With Share, you "set it and forget it." You can specify the following:

- What privileges (Reader, Contributor, or Moderator) to grant to new members
- Open enrollment of new members

Overview

- A forum size limit
- The maximum size for a single contribution
- How long individual discussion threads will be maintained
- Whether to encrypt document contents
- Whether to automatically index all words in documents

Forum policy options are discussed in more detail in Chapter 10, "Moderating Forums."

A forum's connection to the world beyond is another reason to create separate forums. Using the Agent Manager, as described in Chapter 11, "Extending Your Reach," you can send new documents contributed to a forum to mail users, Notes databases, Internet newsgroups, or vice versa. You can replicate a forum to other sites, as well. This naturally guides your design of how many forums to employ—if one set of data is synchronized with a Notes database and another is not, you'll want two separate forums.

For example, say that the SkyRunner project forum is proving very effective for the Fort Worth-based team that's using it. One aspect of the project, the landing gear, will be developed in concert with a small firm in Sunnyvale. You'll want to replicate a landing gear forum between Sunnyvale and Fort Worth, so that everyone sees the same information, but you won't want to share all the details of the project with the outside firm. One forum replicates, the other doesn't, and there may be other policy differences, as well.

#### Communicating with Threaded Discussions

Collabra Share fights information overload by organizing data hierarchically. You can view a top-level document, for instance, before deciding whether to view any of its replies.

If you use electronic mail to communicate with the members of your workgroup, you'll love *threaded discussions*. What the inbox shown in Figure 1.6 has in common with your mail inbox is that the messages are stacked like cordwood. There are so many messages that there's no way to group them so that it's obvious to what ongoing conversation a particular message refers.

Computers help when they enable us to improve the proximity of information, for example, to see the replies to a topic next to the topic rather than scattered throughout the inbox. Information systems, in general, can be judged on a scale of how easily they put two disparate elements of data sideby-side.

Compose Reply Reply	Forward Move 1	Delete Residu Bell Share Share	Received
HR Info Inbox Sentmail Wastebasket	<ul> <li>■ Torry Falk</li> <li>         M Keith Higgins     </li> <li>M David</li> <li>M Laurie O'Flynn</li> <li>M Kim Krajers</li> <li>M Kim Krajers</li> <li>M Kim Krajers</li> <li>M Laurie O'Flynn</li> <li>M Laurie O'Flynn</li> <li>M Laurie O'Flynn</li> <li>M Keith Higgins</li> <li>         M Keith Higgins     </li> </ul>	Idea: Internet in hospital waiting r Idea: Internet in hospital waiting r "BeachMail" Proposal Re: Your reply to my message of Lunch? RE: "BeachMail" Proposal Proposal: Internet Chewing Gum George Hawkins RE: "BeachMail" Proposal Re: "BeachMail" Proposal Re: Are you free for lunch? RE: George Hawkins RE: Proposal; Internet Chewing	7/24/95 6:18AM

A typical new arrival in your inbox is a response to someone else's mail, identified by a "Re:" before the original title. If someone replies to this message, it might be titled "Re: Re:". And between these messages, obscuring the connection, are dozens of other messages concerning totally different topics. Most people wouldn't tolerate this kind of haphazard clutter, but there's not much choice with electronic mail.

Collabra Share's solution is a threaded discussion, illustrated in Figure 1.7. Topic documents introducing new subjects are set at the left margin and have white page icons. Replies to a topic or another reply are indented under the document they are responding to and have a yellow reply icon.

#### Note

You can hide, or collapse, any level of the reply tree, using the same mechanism you use in the Explorer or the File Manager to expand or collapse folders. Share's features for navigating threaded discussions are discussed further in Chapter 7, "Finding and Reading Documents."

Another difference between Share and electronic mail is that the message content can be much richer in Share, including different fonts, colors, formatting, graphics and other embedded object types. Figure 1.8 illustrates the difference between a text message in mail and the same message in Share.

#### Fig. 1.6

It's difficult to scan your inbox and quickly categorize the messages.

Overview

R Collabra Share (Competitive Analysis Forum)	Window Help			<b>Fig. 1.7</b> Share makes threaded discus-
Pilot Aircraft Aircrack Industries Mayerick Aerospace Aerospatiele Cooper Avionics	averick's Product Line eachMail Proposal agree No, it won't work <  can't see it>	David Keith Higgins Kim Krajers Laurie O'Flynn	Date D 7/24/95 7/24/95 7/24/95 7/24/95 7/24/95	sions simple. —Topic document —Reply to reply
Title: No, it won't work         Keith, KimThey tried this a long time ago.         now. Check out this reference, hmm? < <kir< td="">         wouldn't work just last year.]         30         25         Rendy</kir<>				

Replies to original topic

Another way Share helps organize threaded conversations is to use categories within a forum. Categories represent an improvement over electronic mail folders because while all new mail messages must come to your inbox, new postings in Share are automatically categorized by their Contributor.

You've probably realized by now that Share is basically hierarchical; that is, it's a container inside a box inside a carton.

- A *document* contains words, file attachments, pictures (perhaps) and maybe a chart or a video.
- A *thread* contains a topic document and zero or more reply documents.
- A *category* comprises a number of threads.
- A *forum* is a collection of one or more categories. (There's always at least one category named for the forum.)
- The *Library* is your personal collection of forums.

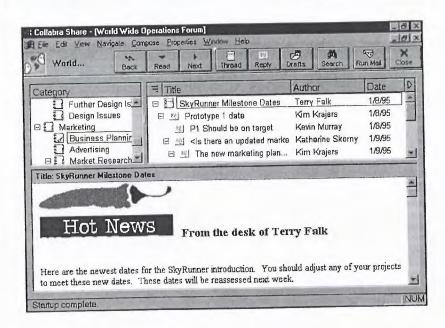
Share can print or delete an entire discussion thread at once, and its ability to summarize a thread is fairly amazing. If you're used to sending a lot of electronic mail back and forth to get something worked out and then writing up the results in yet another mail message, you'll appreciate the <u>Compose</u>, <u>Summarize Thread command</u>, which captures an entire discussion in a single document without your intervention. For more information about this command, see Chapter 8, "Contributing to Forums."

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AA Certification

Fig. 1.8 Which message gets your attention?

- Mail - [SkyRunner Milesto	ne Dates]					
Ele Ede View Mail W	ndow Help	17-21	1.179.5			_ <u>_</u> X
dep 1		1. Veloba	E. A.		Share	
Send Check Nam	es Altach	Options	Addres		111	
Ch. Durney Ter						-
Io: SkyRunner Tee	fn					
<u>C</u> c:						
Subject: SkyRunner Mile	stone Dates					A STATE OF THE STA
Here are the newest dates	for the SkyRunner intr	oduction. assessed	You should t next week.	adjust a	ny of your p	rojects
Here are the newest dates to meet these new dates. T Item	for the SkyRunner intra hese dates will be re- Date	oduction. assessed	You should t next week.	adjust a	ny ofyour p	rojects
Here are the newest dates to meet these new dates. T Item Final Specification	for the SkyRunner intr hese dates will be re Date 1/1/95	oduction. assessed	You should a next week.	adjust a.	ny of your p	rojects
Here are the newest dates to meet these new dates. T ltem Final Specification Prototype 1 Complete Retrofit testing Complete	for the SkyRunner intra hese dates will be re Date 1/1/95 2/15/95 -3/1/95	oduction. Assessed	You should a next week.	adjust a	ny of your p	rojects
From the desk of Terry Fal Here are the newest dates to meet these new dates. T Item Final Specification Prototype 1 Complete Retrofit testing Complete Prototype 2 Complete Field Trial 1	for the SkyRunner intr hese dates will be re Date 1/1/95 2/15/95	oduction. assessed	You should a next week.	adjust a	ny of your p	rojects



### **Finding Particular Documents**

6/1/95

Another way that Share fights information overload is to help you focus on only the most relevant documents. The documents you want might be

- Any unread documents
- Documents containing words you specify
- Documents you have added to your hotlist

6:39AM

3 messages: 13 unread

Your mail inbox may be cluttered, as discussed, but at least it's easy to see the newest mail—it's at the top or bottom of the inbox. Because Share may have new postings in any category or buried deep in any discussion thread, it uses visual clues and a host of navigation commands to help you zoom in on "what's new" in your forum.

Imagine that someone replied to your reply in a particular thread somewhere in the forum since the last time you opened the forum. In the Library, you see a *red flag* on the forum, indicating that there is at least one new document. You can also choose to have Share tell you how many new postings there are—in this case, one. When you open the forum, you see that a category has a red flag on its icon, and so does one of the categories indented under the first category (see Fig. 1.9). Because the first category contains the indented category, the first gets a red flag, too.

When you click on the indented category, the thread's topic document has a red flag, and so does your reply. The red flags lead you directly to the new document, which has a *sparkle* on its icon and has a different color title to indicate that you haven't read it yet. Once you view the document, the shine is off the apple, so to speak—the sparkle disappears, the title changes to black and the hierarchy of red flags vanish.

Category contains subcategory Thread contains new reply

Collabra Share - [World Wide Operation's Forum] - 8 × R Ele Edit View Navigate Caraptere Properties Window Help \_ | 8 | × World... Category Author D Date 🗏 🔛 Budget Issues -Ξ Here's a reply by me \* Alastair 7/1/95 Rome Business Development Ex David 5/27/95 Product Design Regional Manager - North Wr David 5/27/95 SkyRunner □ 📑 European Trial Schedules Laurie O'Flynn 1/4/95 Project M4 E Work At Home Program David 5/27/95 E Further Design Is 遊 Excellent Ideal 7/24/95 Alastai Design Issues E 1 Marketing -Government Sales Executive David 5/27/95 + Title: Excellent Ideal David's got the absolute right approach on this, in my opinion. What we 4 need around here is more creative thinking and a lot more flexibility. That's how we'll get this project off the ground! Rendy NUN

**Fig. 1.9** Share helps you find the new, unread documents in your forum.

Reply has a new reply

Subcategory contains new documents

This reply is new

Overview

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In addition to merely visual clues, Share has commands that take you to the next unread document. For expediency, you can mark the rest of a thread or the rest of a category as if you read them. You can also mark a document read for now, but make it appear new the next time you open the forum. These commands, and some others, are called the InfoNavigator, and are described in complete detail in Chapter 7, "Finding and Reading Documents."

Share includes commands for finding documents based on particular words they contain. For example, Share can show you only documents that contain the word "arbitrageur." If more than one document includes your words, you can sort them by how many times the word appears and you can narrow your search criteria. Share's facilities for full-text search are quite powerful, because Share embeds the award-winning Verity text retrieval engine.

If these mechanisms for zeroing in on just the documents you need to see are not enough, Share has one more trick up its sleeve. Hotlists enable you to name a collection of documents that you specify. For example, you can create a hotlist and call it "To Do." As you scan your unread documents each morning, you can add documents containing action items to your To Do list. You can sort new documents by choosing which of your hotlists, if any, to add them to.

Hotlists are a powerful feature of Share 2.0. A single hotlist can reference documents from multiple forums, and you can view the documents, opening their forums if necessary, as you browse your hotlist. Your hotlists are a way of remembering and navigating to a collection of documents that are most relevant to you for a particular purpose.

## **Gauging Corporate Culture**

The success of your team's use of groupware depends in large measure on your organization's "corporate culture," the unspoken rules, taboos and reward systems that make a company function. Groupware reflects how a team communicates and how the group values its information.

Using groupware to improve the company's knowledge must become a valued and rewarded practice within your organization for it to happen on a regular basis. Withholding information from the team should come to be seen as anti-social (or anti-team) behavior. If you are championing groupware as a solution for your company, you need to be sensitive to the culture and values of the group.

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#### **Involving Everyone**

A key success factor for groupware is that everyone has equal access to it. Sensitive data can be protected, of course, but many discussions will benefit from the potential involvement by people from diverse areas of the company. Marketing can speak up when Engineering proposes a new product, and Engineering can comment on Marketing's new brochures. Just like mail, it is important that everyone you might want to reach is on-line. If you can't be sure if your message can be seen in one medium, you will have to send it every way you can.

Most companies these days have equipped their employees with electronic mail. A phone with voice mail and a computer with electronic mail is standard business equipment in the 90s. But while most companies have cleared the obstacles and made it possible for every employee to send every other employee electronic mail, that is not to say everyone is on the same wide or local area network.

One of Collabra Share's unique features is its ability to use electronic mail to connect everyone to a forum. "Everyone participates" has been a catch phrase during the development of Share, meaning that no one who the enterprise values enough to connect with mail should be left out of a Share forum. As explained in Chapter 14, "Using the Mail Agent," a salesperson on the road can send mail to a forum requesting a search for a particular document and receive the document in reply. Likewise, mainframe users can receive and reply to all new topics and post new topics as well using electronic mail in a Share forum instead of connecting to the LAN.

If your company uses Lotus Notes, you don't have to replace it to use Share. In fact, Share can be used on workstations that otherwise couldn't justify the cost of Notes. So, everyone, even Notes users, can participate in Share's forums (and Notes users can read documents posted in Share). The Agent for Lotus Notes, described in Chapter 17, "Synchronizing with Lotus Notes," synchronizes data between a Share forum and a Notes database.

#### **Extending toward the Virtual Corporation**

Once a company uses groupware in-house it makes sense to extend it to other companies, suppliers, or customers that the firm regularly communicates with. Electronic ties that bind companies are part of the new way of doing business—the so-called *virtual corporation*, as defined in the book, *The Virtual Corporation: Structuring and Revitalizing the Corporation for the 21st Century* by William Davidow and Michael Malone.

Collabra Share is designed to make this as easy as using groupware in-house. Using replication, described in Chapter 15, "Replicating Forums," you can share forums with other companies. If your firm's significant other is not using Share, you can still communicate in forums using electronic mail, as explained in Chapter 14, "Using the Mail Agent."

## **Managing a Pilot Program**

A pilot program is a way of trying out groupware on a subset of the company in order to gauge its efficacy for the company as a whole and also to make visible any installation or maintenance issues that will make the full roll-out go more smoothly. A pilot is a necessary evil, however, because it delays the full deployment and, therefore, the full benefit of groupware. A single department or project team just doesn't get the benefit of cross-company synergy.

Pilot programs are determined by the following key success factors:

- Identifying a groupware champion.
- Choosing individuals for your pilot project who are already groupware supporters and who will be influential within the company.
- Choosing an attainable goal for the pilot within the pilot timeframe.

#### **Championing the Future**

The future needs a spokesperson. Technology needs a human face. You might decide to fill this role, or perhaps you know someone else who will propose a solution like Collabra Share, develop a plan and administrate a pilot program to demonstrate quantifiable results. If you're trying to persuade your company to use groupware, and you're reading this book, perhaps you're the champion.

The notion of a product champion, someone who takes the success of a new idea personally, is often cited in business books like *In Search of Excellence* by Tom Peters as the prime means by which anything is accomplished. The existence of an enthusiastic leader can determine the outcome of a Collabra Share pilot program.

Part of your role will be to constantly exhort the team to use Share instead of electronic mail. When someone sends mail to the entire group, immediately respond:

George—I copied your mail to the Questions category of the XYZ forum. Please use Share for this sort of message.

It is very important that discussions occur in Share, not in mail. If pilot participants are not sure where to look for information, the productivity increases of Share won't be fully realized.

#### **Finding the Right Team**

Remember that a pilot program is not a scientific experiment. Don't feel that you must include skeptics in order to make it a valid test. You want to find people who are already sharing their knowledge with others in the company. Stack the deck with good communicators who understand the value of groupware.

The IS department's representative is part of the pilot team, as well. Be sure to involve IS in planning the pilot and in estimating costs for full roll-out. You'll find that IS is particularly helpful with quantifiable values such as the number of users in the company, current network and mail usage statistics and so on. IS will often have tools to help you evaluate the pilot program.

#### **Identifying Your Pilot Project**

Finding the right project is trickier. You need something to measure, because a pilot shouldn't end with the conclusion, "We installed it and used it for six weeks and nothing bad happened." Work backward from your final pilot project report. You want to write something like this:

Collabra Share was used on the XYZ project, which is comparable to the ABC project. The XYZ team used Share to manage specifications and discuss aspects of the projects, resulting in fewer defect reports and only a single engineering change request. While the ABC project is not yet complete, its 42 change requests suggest that the wider team had too little involvement in the early stages of the project.

When the pilot project is complete, the groupware pilot is done. A deadline is important to a successful pilot, so choose a project that works for your timeframe. Six weeks is reasonable if projects typically take two or three weeks at your firm. A pilot should not drag on for more than, a business quarter without good reason.

If your company is not project-oriented, you'll need to test groupware on some function, such as help desk or policy document repository. In this case, be sure to document and quantify the existing methods before you test groupware in the role. Don't hesitate to measure aspects that groupware obviously performs better than what the company does today. If policy documents are currently printed, measure lifecycle paper costs. If the help desk is not automated, measure average response time. Your mission, as groupware champion, is to work with the pilot team to ensure the success of the pilot project. Don't be rigid or unbending, but recognize that dogged persistence is often what's required to change the status quo.

## From Here...

In this chapter, you learned how to make your team more productive by using groupware like Collabra Share to increase information flow and availability within your organization. Terms like groupware, knowledge workers, and corporate knowledgebase were defined.

Collabra Share was introduced and important groupware issues like information overload solutions were explained as well as leveraging your existing network and mail infrastructure. You also learned how to persuade others to use groupware and how to manage a successful pilot program.

The next chapter will discuss "Planning a Company-wide Configuration," but if you're ready for more information about specific features, refer to the following chapters:

- For more information about installing Share, see Chapter 3, "Setting Up Collabra Share."
- For a description of Share's InfoNavigator and other features that combat information overload, read Chapter 7, "Finding and Reading Documents."
- For more information on establishing forums and their policies, see Chapter 9, "Creating Forums."
- For an overview of Collabra's automatic agents, refer to Chapter 11, "Extending Your Reach."

## Chapter 2

# Planning a Company-wide Configuration

Most companies or organizations or departments—let's call them *enterprises* have more than one LAN. Many enterprises are spread across several physical sites. One of Share's storied strengths is its ability to scale up from a single LAN to a complicated wide area network (WAN). It is becoming common for backbones to link LANs within an office complex. While offices in different cities can be linked by dedicated data lines, electronic mail is an effective alternative; Share leverages that electronic mail infrastructure.

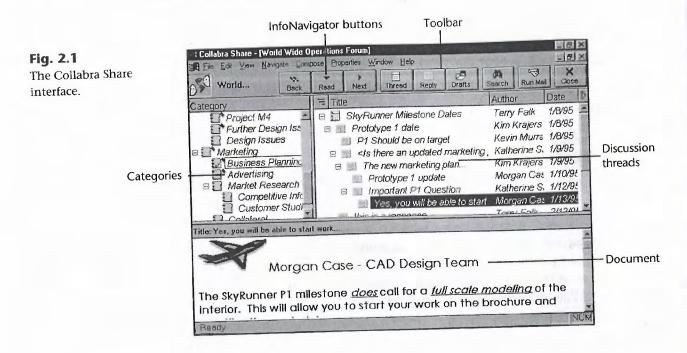
If your company is small enough that a single LAN accommodates your needs, you'll find that Collabra Share is very simple to administer. The Share application allows your network of users to hold electronic meetings and access stored documents themselves. Policy-based administration and self-joining membership mean that you probably won't need a system administrator at all.

In this chapter, enterprise-wide deployment issues of Collabra Share are discussed, including:

- Defining sites, the nodes of a Collabra Share network and packages that act as seeds for subsequent sites
- Enterprise-wide policy choices, including policy-based replication
- Share's user and membership model

## Share Components

The Share application interface, shown in Figure 2.1. This is the only portion of the system that most of its users see. The Share user interface is the subject of Part II, "Working with Share."



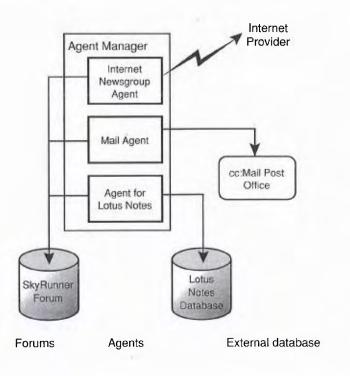
Databases in Share are called *forums*. Rather than a traditional relational database, Share's database component manages a heterogeneous collection of documents. The Share interface exposes the facilities of the underlying Database Engine, enabling you to browse efficiently through mountains of data.

The Agent Manager is a program that sets up and schedules agents to run against specified forums at specified times. All access to individual agents is performed through the Agent Manager, which is described in Chapter 13, "Managing Agents." A connection between an agent and a forum is called a *task*, and the Agent Manager is an interface through which you create and delete tasks. Tasks can also be automatically created and set up if you take advantage of the *policy-based replication* feature.

Agents are an optional component of a Share installation. An agent is a program that runs periodically and uses the Database Engine to access forums. There are four agents available with Version 2.0 as separate products:

- Mail Agent
- Replication Agent
- Internet Newsgroup Agent
- Agent for Lotus Notes

All, but the Replication Agent, communicate between a forum and another, external data repository, as shown in Figure 2.2. As new contributions are made to a forum, the agent reads and sends them to the external database, which might be a mail post office, a Notes database, or an Internet newsgroup. Likewise, as new documents are added to the external database, the agent contributes them to the forum.



**Fig. 2.2** Agents communicate between forums and other databases.

Agents translate the format of documents as necessary, and occasionally something is lost in the translation. For example, many mail programs don't support the rich text (fonts, styles and colors) that Share messages can contain, so the Mail Agent converts the document to ordinary text. 1

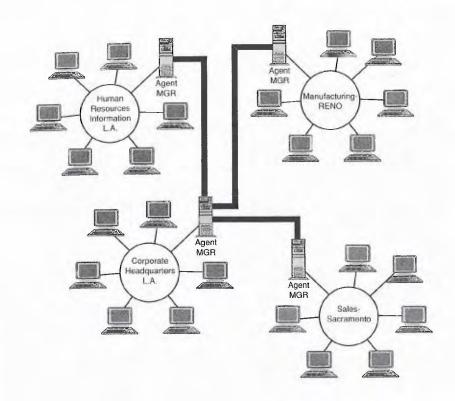
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- The Mail Agent gives a forum a mail identity. "Worldwide Operations Forum" can be an entry in your mail address book. The Mail Agent connects those electronic mail users who can't use the Share interface. It can be configured to provide the two-way text equivalent of using Share on the LAN, or, for economy, it can be scaled back to one-way transmission or to send forum document titles only. These features are described in more detail in Chapter 14, "Using the Mail Agent."
- The Replication Agent is slightly different from the others. Its mission is to synchronize two copies, or *replicas*, of the same forum across an electronic mail connection, usually to another LAN. The Replication Agent uses electronic mail to talk to another Replication Agent at the other end of the connection. Between the two of them, they make sure that a new contribution made to one replica appears in the other and that a document deleted from one is deleted from both. It's a trickier task than it might first appear, and it is explained in more detail in Chapter 15, "Replicating Forums."
- The Internet Newsgroup Agent sends selected Internet messages to a forum and optionally sends replies posted to the forum back out to the network. Accessing newsgroups from Share is described in Chapter 16, "Linking with Internet Newsgroups."
- The Agent for Lotus Notes performs a similar exchange with Lotus Notes databases and is the subject of Chapter 17, "Synchronizing with Lotus Notes."

## Understanding Share at the Enterprise Level

Scaling Collabra Share to fit a potentially far-flung enterprise is essentially a matter of linking several LAN installations. This decentralized approach is simpler to establish and maintain, and the entire system doesn't go down if a single link fails.

Although you can link sites together in arbitrary ways, Collabra recommends a hub-and-spoke topology, as shown in Figure 2.3.



**Fig. 2.3** Collabra Share takes a decentralized approach to your enterprise.

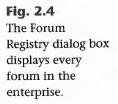
Overview

The basic design approach taken is that each site has a copy of everything that the other sites have and software runs periodically to synchronize the copies. Without copies at each site, each request for a document would have to travel between LANs. Because Collabra uses the electronic mail infrastructure for this communication, asking for and receiving information could take hours. Instead, maintaining a full copy only delays synchronization, which is hardly noticeable. If a new document is contributed at another site, you might not need to see it at your site for some time.

The Replication Agent is a Collabra extension that synchronizes multiple sites. This is an add-on to the basic package, sold on a per-server basis. The Replication Agent makes a forum appear to exist at several sites. The Human Resources Information forum, for example, isn't just at the Corporate Headquarters site in Los Angeles; it appears at the Manufacturing-Reno and Sales-Sacramento sites as well. Each copy of the forum, or *replica*, is a peer to the others; there is no master/slave relationship. In a mostly read-only forum like Human Resources Information, it is true that most new documents will be contributed at the Corporate Headquarters site in Los Angeles, but nothing about Share's enterprise architecture dictates that. The Collabra Share *Registry* is a special forum that contains information about every site, forum, and user in the enterprise. It also contains licensing information and the enterprise policy choices you make. It is very important that an enterprise have only one, central Registry, to ensure that company-wide policies are carried out.

But how can Share have a single, central Registry when its architecture is decentralized? The fact that the Registry is just another forum is a clue. Because it is a forum, the Replication Agent can synchronize copies of the Registry on every site in the enterprise. This allows for decentralized administration of the enterprise, and for disconnected operation of an individual LAN, if necessary.

Enterprise policy choices and every registered user and forum appear at each site. Figure 2.4 illustrates the Forum Registry dialog box. All the forums shown are local to this site, but remote forums are displayed as well.



prums;	A COLORING
jm 15b	- Close
NetNews	
OEM Projects	Remove
Programmer's Paradise	
Sales & Marketing	Help
Sales Feedback and Beta Test	100000000000000000000000000000000000000
Sales Group	Contraction of the second
Sales Q&A	
Share Project	feet Rent La Section
Share UI Internals	
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NWCORP1\SYS\USERS\ADALLAS\	
Collabra Share Registry	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
ProgNew	And the Party of the local division of the l

You will probably want to designate one or more Administrators for your Collabra Share network. The Administrator, along with an individual at each site, sets up the network and establishes the initial policies. The possible enterprise policy choices will be discussed shortly, but one that has particular relevance at this point is the Administrator access privilege. You can configure your enterprise so that all forums created will recognize and allow the Administrator to perform various maintenance tasks. The Administrator will not necessarily have access to the forum's contents, but you can limit the forum Moderator's ability to lock out the Administrator.

You need to be thinking about how much control you, as Administrator, want to keep (and, therefore, how much time you're willing to spend administrating) and how much you can cede to your decentralized users.

## **Defining the Sites at Your Enterprise**

Share is designed to encourage widespread use within an enterprise with little or no planning. You can extend Share fairly infinitely by chaining Replication Agents together, using electronic mail, in any pattern that seems to suit.

The day may come, however, when you want a more careful plan for your Share network. The more circumspect Administrator might want to create a plan before installing Share.

The first step toward such a plan is determining the "sites" in your existing network. Your Share network will likely follow your electronic mail network's post offices and mail gateways, but it need not. Be sure to document your decisions to make maintenance and later modification easier. It is helpful to record what choices were possible and why one was chosen over the others. This documentation can later be copied into a forum.

#### **Understanding Design Factors**

As you read this chapter, you might be asking yourself what a *site* actually is. A simple answer is that a site is a LAN. In many cases, this will be true. However, there are cases where a single LAN should be divided into more than one site, and, likewise, a site may span LANs.

A site is always limited to one Agent Manager. If you need more than one Agent Manager, you need multiple sites. So, if you have Microsoft Mail and cc:Mail on the same LAN and you're planning to use the Mail Agent, you'll need two different Mail Agents. Because the Agent Manager "knows" only one mail system, you'll need two Agent Managers (running on different computers) and therefore, this LAN will have two sites.

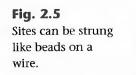
Facebook's Exhibit No. 1003 - Page 67

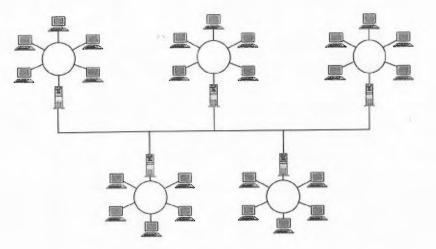
If you have too many agent tasks for one Agent Manager and you need a second or third to handle the traffic, you need to set up multiple sites on this LAN. Look at how your electronic mail post offices have been configured to understand why. Your Share network may simply parallel your mail—one site per post office.

On the other hand, if your inter-LAN connections are so high-speed (such as with the newest ATM technology) that remote LAN file access is possible with reasonable performance, you may want to avoid installing the Replication Agent and, therefore, skip having two Agent Managers and treat the WAN as a single site.

### Hub-and-Spoke Topology

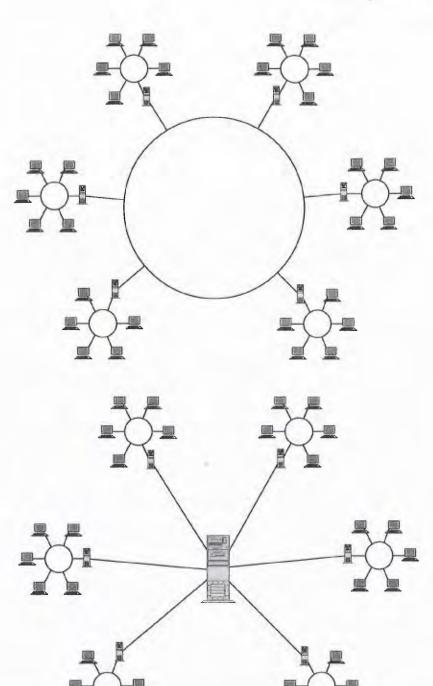
*Topology* refers to the shape your network diagram assumes. Your sites might be strung together as a chain (see Fig. 2.5).





You might connect the ends and have a loop, which is called *ring topology* (see Fig. 2.6).

As mentioned earlier, Collabra recommends a star, or *hub-and-spoke topology*, as shown in Figure 2.7. The advantages of the hub-and-spoke layout are that no site is more than two Replication Agent "hops" from any other (so changes propagate quickly) and errors are isolated and relatively easy to diagnose. If a single spoke has a problem, there is only one connection to examine. If every spoke has difficulty, you would attend to the hub.



**Fig. 2.6** Connect the ends and you have a loop, which you treat as multiple chains.

1

**Fig. 2.7** Collabra recommends a hub-and-spoke arrangement.



Give your sites meaningful names, usually including the physical location. Although you many have a single site per location today, plan for the future. Your site names should follow a convention, such as "Mfg-Chicago" or "Denver-Homer" (where Homer is the name of the server). This will encourage future Administrators to name new sites meaningfully.

It is important that you maintain control of your Share network's topology. Don't let it be ad hoc. Document your arrangement and the reasoning behind it, because it will almost certainly be revisited as your company grows.

#### **Setting Up the Hub Site**

Your next step is to set up your hub. If your layout is not a hub-and-spoke arrangement, you need to choose one site as your basis, because the Collabra tools, and policy-based replication in particular, strongly presumes the existence of a "hub site."

You install Share on the hub site's LAN as described in Chapter 3, "Setting Up Collabra Share." Next, install the Replication Agent and Agent Manager on that site. Refer to Chapter 15, "Replicating Forums," and Chapter 13, "Managing Agents."

At this point, your hub site has a mostly empty Registry. Your enterprise policy choices (described in more detail in the section titled "Initial Enterprise Policies") and the users and forums you register will give it content. Use the mail directory to invite your users, or allow users to install themselves. Create your initial forums and they will be added to the Registry automatically.

#### **Creating New Sites**

Now you're ready to set up the spokes. At the hub, choose <u>File</u>, <u>A</u>dmin, Create <u>N</u>ew Site to give each site a new name (see Fig. 2.8). You can identify each site's Replication Agent electronic mailbox at this time, but it is not required yet.

Your Registry now contains the users and forums you have registered at the hub as well as your policy choices and the sites you have created. The next step is to get this information to the remote sites so that replication of the Registry can begin.

New Site Name: Corp	-HQ		1000	
The e-mail settings belo them here or you may lo Collabra Share at the n	ave them blank	here and allo		
Full Mail <u>A</u> ddress:				Pick
Mailbox Name (Login):				
Mailbox Password:		_		

**Fig. 2.8** Create new sites from any existing site.

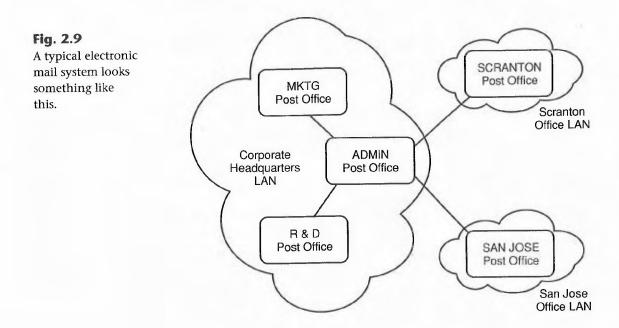
Choosing the <u>File</u>, <u>A</u>dmin, Create Registry <u>P</u>ackage command converts the Registry forum into a single compressed .PKG file that can be sent to the spoke sites. You can use sneaker net, ftp, or some other means, but you'll need an electronic mail link to your remote sites before Share can connect with them. You might as well check the connection now rather than sending the package some other way.

Setting up a secondary site is the same as the original install, except that the secondary site's Registry is created using the .PKG package file from the hub. Once a secondary site is established, you initiate replication with the hub. Now your changes to the Registry, as well as to your forums, will be synchronized.

That describes the basic process of defining the sites at your enterprise. The amount of planning, investigation and design required to define your sites corresponds to the complexity of your enterprise's existing electronic mail network. There is probably an upper limit in the neighborhood of 30 to 50 sites per hub. Planning for organizations with dozens of sites will naturally involve more complexity.

Electronic mail consists of shared data files, often called the *post office*. When you open your mail program, it presents an interface through which you can see the data addressed to you in the post office. The post office contains everyone's mail, so what you see in your inbox is a carefully filtered view of the post office.

When electronic mail is used on a complex WAN, there can be many post office data repositories. Typically, there is at least one post office per LAN, but often there are more, as shown in Figure 2.9. Programs provided by the mail vendor automatically route mail between post offices, just like the nonelectronic postal system, until it reaches its destination. The system is called store-and-forward because mail is stored at each post office until it is forwarded in batches to the next post office down the line.



Why such detail about electronic mail? Because Collabra Share uses your existing mail system to facilitate sharing data in forums around your enterprise. All the work your network administrators or IS department have done to make it possible for you to send mail to anyone in your company, enables team communications. Share uses the electronic mail infrastructure that you already have to make virtual WAN connections between LANs.

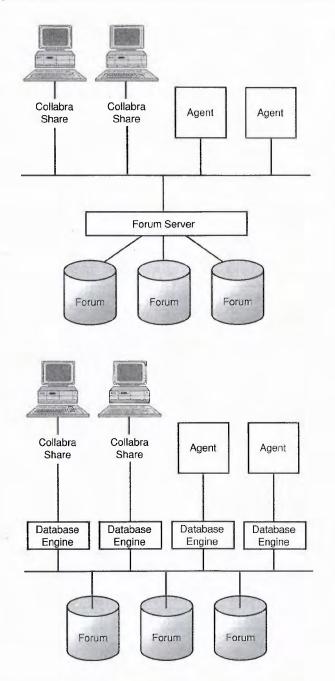
## **Leveraging Your Existing Network**

Collabra Share uses your existing computers, network and electronic mail to provide its groupware services. It leverages your investment in what has become a vital business infrastructure: the network.

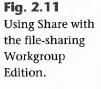
44

## Share on a LAN

All the components of Share are useful on a LAN. Every workstation needs the interface component, naturally. You can choose, however, whether to share a central database server, as shown in Figure 2.10 using the *Client/Server Edition*, or whether to locate a database engine on every workstation, as shown in Figure 2.11, which is called the *file-sharing Workgroup Edition*.



**Fig. 2.10** Using Share with the Client/Server Edition.





The Client/Server Edition is a new option that requires a server running Windows NT. The primary advantage of client/server is a general reduction in network traffic and the improved scalability that accompanies it.

The shared file version does not place too severe a demand on your network bandwidth and it is simpler to set up and administer than the Client/Server Edition.

Agents can be used in a LAN configuration, including, perhaps surprisingly, the Replication Agent. Typically, the Replication Agent is used between LANs, but it can be useful on a single LAN to create an archive copy of a forum that can then be backed up off-line.

## **File-Sharing Workgroup Edition**

One salient feature of a shared file architecture is that all users need to be granted full privileges to read, write, modify, create and delete data files in the shared data directory. In most network operating systems, such as Novell NetWare, these rights are granted by the network administrator to named users, so setting up Share requires granting these rights to every team member who will be using Share.

Because Share's database component manages the interaction with the data files, this typically poses no problem. Likewise, electronic mail systems typically require that all users have full privileges to the post office directory. However, this relaxation of network control means that certain protections against malicious or accidental damage to the shared data cannot be assumed.

## **Client/Server Edition**

Client/Server centralizes all access to the forum database to a single process running on the Windows NT server. The Share Server process, rather than end users, owns full network privileges to modify the data files. Users may not even be granted the right to see the forum files without using Share.

In addition to security benefits, the Client/Server approach minimizes the data sent "over the wire" from the computer where the forum resides to your computer. When the database engine accesses a forum, it typically reads more than necessary in order to find the information you have requested. When you post a document, the database engine updates various indexes as well as simply writing the document contents. With a shared file architecture, all reading and writing to and from the forum must be transmitted over the network wire, but with Client/Server, only the information requested or the

actual document contents need to be transmitted. The other reading and writing is handled by the server on its local hard disk, which is much more efficient than using the network.

Another advantage to the Client/Server architecture is the ability of the server to handle remote dial-in users efficiently. This aspect is discussed in the upcoming section, "Using Remote Access."

#### **Running Agents**

Agents do not need to run on dedicated computers, but that's how they are typically set up. The Agent Manager runs continuously, perhaps minimized to an icon on the desktop. Each task, each line on the Agent Manager's task list, links a forum and one of the four available agents. At the appointed time, the Agent Manager invokes the Mail Agent, the Internet Newsgroup Agent, the Agent for Lotus Notes or the Replication Agent. The Agent Manager can run on your workstation if you prefer, but the four agents tend to require the computer's full attention when they run. You can easily set agents to run in the middle of the night, but you'll have to shut down Share and reconfigure for the Agent Manager before you go home.

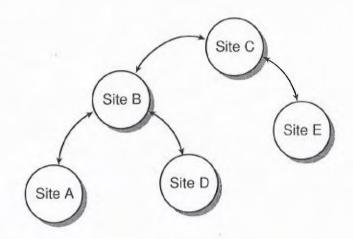
Try to locate your forums, agents and external databases on the same file server to minimize the volume of data that must travel on the network. However, sometimes forums must be on one server and the external database, which the agent communicates with (a mail post office, TCP/IP Internet connection, or a Notes database) on another, so agent network traffic can't always be avoided.

## Share on a WAN

If your company has a WAN, it almost certainly has one or more individuals who set up and maintain it. There are countless configurations; many ways to accomplish interconnections between LANs, mainframes and commercial communication networks. The goal, however, is almost always the same: to connect everyone in the company with access to electronic mail to everyone else with mail. The system typically grows constantly, because more and more employees are brought into the electronic mail network.

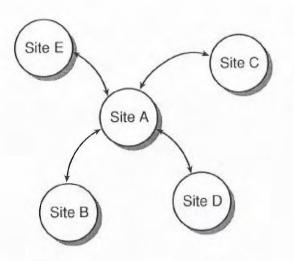
Collabra Share is ready to make use of this growing intra-company communications infrastructure to support a team's (and a company's) knowledgebase. Forums are typically limited to one LAN, but Share can use electronic mail to create WANs spanning LANs that perhaps have no direct file sharing. That is, two LANs connected only by electronic mail can appear—to Share users—as if both LANs were part of the same larger network. Share offers two key technologies to widen your LAN and ensure that everyone in your enterprise can participate in group discussions. First, Share forums can be replicated between LANs using only electronic mail. Second, electronic mail users can participate in forums directly. The two are described as follows:

The Replication Agent synchronizes two replicas of the same forum on different LANs, possibly linked only by electronic mail. With a Replication Agent at each site, enough replicas of the same forum can be created to make sure that everyone in your enterprise has access to the same knowledge and discussions. You can use the Replication Agent to connect your replicas with no particular topology (see Fig. 2.12), but Collabra recommends a star, or hub-and-spoke topology, as shown in Figure 2.13. For information on how to set up a hub-and-spoke topology, see the section earlier in this chapter, "Defining the Sites at Your Enterprise."



Electronic mail can be described as a store-and-forward system: the post office stores messages and forwards them to other post offices as necessary. Collabra invented store-and-forward replication, which uses electronic mail inboxes to advise each replica forum of changes made in other forums. Synchronizing forums across your enterprise is explained in more detail in Chapter 15, "Replicating Forums."

**Fig. 2.12** Replicating forums in a haphazard way.



**Fig. 2.13** Replication forums with a hub-andspoke topology.

## **Weighing Your Mail Investment**

Forums can only exist on LANs, but your enterprise may include a wider audience than just LAN users. Mainframe mail users can be linked to mail users on a LAN, for example, but because Collabra Share doesn't run on mainframes, forums can't be hosted there, either. The situation is similar with Apple Macintosh networks connected to LANs, except that Collabra Share for the Macintosh is due shortly.

As covered in Chapter 1, the maxim "everyone participates" is vital to the success of groupware in an organization. Everyone who is connected by mail can connect to a forum using the Mail Agent. This means everyone: PROFS users, cc:Mail/Mobile users, Macintosh users. If you can send mail to members of a LAN post office, you can communicate with a Share forum on that LAN. As described in Chapter 14, "Using the Mail Agent," you can set up one-way, two-way or on-demand receipt of documents posted to the forum.

Of course, the quality is not as high. Most mail systems support only text, so graphics and multimedia content typically must be viewed in Collabra Share. This is mitigated by the fact that Share can render the text of an embedded object, such as an Excel spreadsheet, for the benefit of mail participants. Text-only can be more than adequate for a mail-oriented network. It's quite easy to imagine a configuration in which a forum and the Mail Agent were hosted on a one-node LAN connected to a heterogeneous WAN.

## **Using Remote Access**

You've seen how Share connects everyone on a LAN and how the Replication Agent can connect everyone across several LANs. With the maxim, "everyone participates," however, Collabra needed to provide tools to make sure that non-LAN users could connect with forums remotely. Share provides three remote access mechanisms:

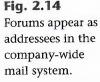
- E-mail connectivity
- Remote e-mail
- Dial-in connection to the Share Server

Electronic mail is one form of remote access to a forum, but remote procedure call (RPC) access to the forum database server is another way to stay connected.

So-called "legacy" systems are routinely linked with LANs these days. Large mini- and mainframe installations with software such as IBM's PROFS (Professional Office System), or Digital Equipment Corporation's All-in-One, can be grafted into a mail network and Collabra Share forums such as "Human Resources" or "Newswire" become visible to legacy systems as if the forums were mail users on the LAN, as shown in Figure 2.14.

Directory: Postoffice List Administrator Agent Manager Alasteir David	
Keith Higgins Kim Kuajars Laurie O'Flynn Mail Agent Share Competitive Share HR Info Share The Learning Forum Share World Wride Operations	
Terry Falk	N

Telecommuters and traveling users of laptop computers are becoming more commonplace. There are two kinds of "dial-in" access to forums: remote mail, such as cc:Mail/Remote, or remote access to the Share Server itself. Remote mail access to a forum has already been described.



You can dial-in to your LAN and communicate directly with the Collabra Share Server using remote procedure calls (RPC). Share supports the following remote access products:

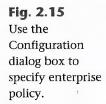
- Microsoft Remote Access Service (RAS)
- ShivaRemote
- Novell NetWare Connect

Linkage products such as RAS allow you to connect with your LAN, and thereby with the Client/Server Edition of Share, and transmit data over a slow 14.4 or 28.8 kilobaud connection. (Even 28.8 is extremely sluggish compared with typical network transmission rates.) Issues surrounding the use of a remote connection to the Client/Server Edition are explained in Chapter 12, "Connecting Remotely."

## **Initial Enterprise Policies**

Certain policies affect the entire enterprise. You can make these choices from any workstation configured for administration using the <u>File</u>, <u>Admin</u>, <u>Configuration command</u>, as shown in Figure 2.15.

terprise Settings Site Settings New User Defaults	
Administrator Policy on Forums	OK
C No Administrator	
C Administrator Not Locked	Cancel
Administrator Always Locked	Help
Creating New Users	
C Require Administrative Privileges	
Allow End-Users to Create/Install Themselves	
Users Who Can Log in Without E-Mail	the start
O No Users	
C Users with Individual Permission Set	
All Users	



These policies, as a group, determine whether control will be held tightly by those with the Administrator password, or whether local site managers and Moderators will be allowed to participate in the administration tasks.

You specify the Administrator's access rights, who may add new users, and whether users must be authenticated by the electronic mail system.

## **Establishing Central Control**

If you want central control, you'll want the Administrator to automatically be a member of all forums in the enterprise. Because some forums will contain sensitive data, the Administrator can't view forum content without specifying the forum password.

You may choose not to add Administrators to all new forums. However, to add the administrator later, choose the Add Administrator command from the Membership tab of the Forums dialog box. (You can display this dialog box by choosing File, Admin, Forums.) The default policy is that all new forums will have an Administrator member and that the member will be locked so that forum Moderators cannot delete or change its privileges.

As a compromise, you can automatically install Administrator members in new forums but leave them unlocked. In this way, the Moderator may choose to remove or change the Administrator's permissions on a forum-by-forum basis.

## Allowing User Control

Will your Administrator control the list of users in the Registry? If so, you'll be involved whenever anyone joins the enterprise and wants to use Share. Because the electronic mail system authenticates users, and your company probably maintains central control over the users in the post office, choose the default policy of allowing new users to create or install themselves.

Allowing users to install themselves will cut down on the bureaucracy and your administration costs. However, an environment of trust is very important to a groupware application. Each user should have a single, unambiguous identity in Share. It is very important that everyone is who they appear to be. And with licenses sold per-member, you want to avoid a proliferation of members for the same user.

## Logging-in without Electronic Mail

Collabra Share uses the electronic mail system to authenticate users. If the mail system allows you, by virtue of your name and password, to access a particular inbox, that's good enough for Share. The first time you use Share 2.0, your electronic mail identity is used to add a user record to the Registry. You can customize your user profile by adding additional information such as your address and phone number for the benefit of others, and you can give your user record a password known only to you.

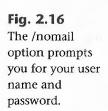
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Ordinarily, your user password is not required to access Share because the electronic mail system authenticates you with your mail password. The command line you use to run Share can be augmented:

## C:\COLLABRA\BIN\WINSHAR0 /nomail

The /nomail option skips the electronic mail authentication and prompts you for your user name and password instead, as shown in Figure 2.16. This mode only works if your user record is already in the Registry and you (or your Adminstrator) have chosen a personal Share password.

w	elcome to Collabra Share
n order to s your Share i	tart Collabra Share, you need to login to Share. Please ente user name and Share password below.
User <u>N</u> ame:	Alastair
Password:	***
	and the second se



Overview

Allowing your users to log in without mail authentication is not recommended, because Share 2.0 was designed to be integrated with mail. However, some non-mail users will need access to Share. These users must be manually added to the Registry (see Chapter 20, "Using Administration Tools" for more information).

You can choose, as a matter of enterprise policy, whether new users can log in without mail authentication. You can also specify that individual users can be granted this permission, or you can lock out the /nomail option.

## **Creating Forums**

It can be useful to limit the number of users who can create forums. Confusion results if company-wide forums like Company Info and Human Resources don't have crisp definitions. Where should an employee policy be announced? Where should a suggestion be posted? In addition, new forums can chew up disk space.

However, the default is that all Share users are empowered to create forums as they see fit. Share is all about decentralized responsibility. In practice, real users don't clutter the disk with needless forums unless something else is wrong. Occasionally, a new forum will be created that its users eventually realize belongs as a category in another forum instead. Drag-and-drop category and document copying makes correcting the situation very simple. The creator of a forum always has the ability to delete it.



If you disable the forum creation privilege for new users by default, you can grant this privilege for individual users with the <u>Permis-</u> sions button of the <u>File, Admin, Users</u> command.

## **Using Administration Tools**

The <u>Admin command only appears on the File menu if AllowAdmin=1 appears</u> in a user's WINSHARE.INI file. Granting access to Admin tools merely sets this flag. The real access control is the Administrator password.

Because you won't give most users the Administrator password, you might want to disable use of Admin tools by default. This simplifies a user's menu choices. If you find yourself working at someone else's workstation and you need Admin access, simply modify their WINSHARE.INI file temporarily:

[Share] AllowAdmin=1

## **Replication Agent Defaults**

Your end users, by default, can initiate replication of their forums. You'll find that few abuse this privilege. However, by clicking the <u>Permissions button of</u> the Users dialog box, Share allows you to revoke the privilege in general and enable it for specific users only.

Remember that although Share supports centralized administration, it was designed for decentralized control, as well, as a way of reducing obstacles to communication and the overhead and cost of administration. If you have users who feel comfortable enough to initiate replication, you can delegate administrative responsibility to the people who are most affected and therefore the most motivated to succeed.

Centralized administration depends upon the replication of the Registry to every site in the enterprise. Once the Replication Agent is keeping all Registry replicas synchronized, policy changes you make at one site will propagate to the others.

Chapter 15, "Replicating Forums," defines policy-based replication, which involves setting default replication policies in the Registry that are promulgated to every site. You can override the enterprise defaults at the site and forum level, but in this section the global choices shown in Figure 2.17 will be discussed.

#### **New Replicas**

The Permit Newly Created Forums to Be <u>Replicated</u> by Default check box allows you to specify whether replication is automatically enabled or whether you, as the Administrator, must enable it one forum at a time. Uncheck this box if you want to centralize control of replication.

terprise Defa	ults Site Defaults Fo	rum Defaulta   Offer Local Forums	Get Remote Forums
Permit No	ewly Created Forums to	Be Replicated by Default	DK
X Moderator Must Approve New Replicas:			Cancel
Of <u>Closed Enrollment Forums</u>		Cancar	
C Alway		Freedord Freedor	Help
Defaults for	Replication on Newly	CIERCE LOINES	
	Hub Site	Schedule	
	Polícies	Notification	



Overview

The <u>M</u>oderator Must Approve New Replicas check box is a separate choice. When this box is checked, the Replication Agent requests membership in the forum that is about to be replicated and a Moderator must grant the request before replication can begin.

You can choose the <u>Moderator Must Approve New Replicas option in all</u> forums or only in closed enrollment forums. The Version 1.0 Replication Agent required Moderator approval in all forums, including open enrollment forums. In Version 2.0, you can allow Moderators to implicitly approve replication by making a new forum open enrollment.

## Notification

Clicking the <u>Notification</u> button brings up the Adminstrator Notification dialog box shown in Figure 2.18, which allows you to specify a mail address for the Administrator and to request a regular status report and, separately, to request a log file when certain incidents occur.

Ministrator Notification	
	OK
X Mail Status Report Every 1 Days	Cancel
🕅 Mail Noteworthy Incident Logs	Help
Administrator Mail Address(cs)	
ms:software/corp/adallas	A CONTRACTOR OF THE OWNER



#### Scheduling

Scheduling the Replication Agent involves an understanding of how electronic mail traffic is routed within your enterprise. You want the agent to finish processing forum changes before the mail gateway runs and then you want the agent to run again to handle new incoming messages.

You click the <u>Schedule</u> button in the Replication dialog box to bring up the Schedule Task dialog box shown in Figure 2.19. In this dialog box, you can specify an enterprise-wide replication schedule that you can override for a particular forum or an individual site.

		OK
C Schedule the Agent Continua	10	Cance
C Schedule the Agent at Interv		Help
Schedule the Agent <u>D</u> aily at	6:30AM E 6:45AM 7:00AM 7:15AM 7:30AM	
	7:45AM 8:08AM 8:15AM	

**Fig. 2.19** The Replication Agent's default schedule is set once for the enterprise.

#### **Restart Policy**

Another enterprise-wide setting directs the Agent Manager to automatically restart the Replication Agent under some circumstances if it should halt. Your choices are

- Never restart automatically
- Restart after a session fatal error
- Restart when the task has a stop sign
- Restart after any error

Choosing automatic restart is a way of centralizing control, because your individual site managers aren't necessarily involved when an incident occurs. Logs are mailed to you and replication continues, all with very little impact on other sites.

Click the <u>Policies</u> button in the Replication dialog box to access the dialog box shown in Figure 2.20.

Agent Manager Scan Frequ	reuch	OK
X Scan for Replicator-R	slated Changes Every 60 Minutes	Cance
Restart Policy for Replicat	or Tasks	Help
	O After a Session Eatal Error	
X Hestart a Replicator T	ask: O When Task Has Stop Sign	

**Fig. 2.20** The Replication Agent's restart policy and scan frequency are set in the Policies dialog box.

Overview

## **Mail Size Limit**

Click the Hub Site button on the Replication dialog box to select which site is the hub, but also to specify a limit to the size of an individual mail message sent between Replication Agents. Your limit will depend on the capabilities of your mail system and the amount of traffic your replicated forums receive. This limit does not restrict the size of documents that can be replicated, but instead affects how many mail messages will be required to send large documents.

# From Here...

In this chapter, you learned how to prepare to deploy Collabra Share throughout your enterprise, possibly on more than one LAN. You saw how the Share components fit into your LAN and how Collabra extensions connect your LAN to others and create virtual WANs using electronic mail. The enterprise-wide policies that the Replication Agent promulgates for you were covered as well as the policies that determine the balance between central and decentralized control of Share operations.

You should now have a excellent understanding of what services Share offers, why groupware will be useful to your organization and how Share is designed to work with your existing network systems to accomplish its mission.

■ For more information on setting up hub and secondary sites, see Chapter 3, "Setting Up Collabra Share."

- To learn about the Replication Agent, see Chapter 15, "Replicating Forums."
- To learn how to register users, sites and forums, see Chapter 19, "Managing the Registry."
- For more information on the File, Admin menu, see Chapter 20, "Using Administration Tools."

L

# <u>Chapter 3</u> Setting Up Collabra Share

Like other productivity applications, Share includes a Setup program that guides you, step-by-step, through the installation process. If your company has a single Local Area Network (LAN) running an operating system such as Novell NetWare or Microsoft Windows for Workgroups, you will find that installing Collabra Share is a breeze—Collabra's Setup program is simple and easy to use. Because Share is integrated with your enterprise's electronic mail infrastructure, you'll need to understand something of how mail has been set up in your company. Naturally, if the existing network is complex, setting up Share will be more challenging.

In this chapter, you learn how to

- Assess your existing network
- Deploy Share
- Install the Collabra Share server and make it operational
- Use the Replication Agent
- Set up Share and the Agent Manager on secondary sites
- Configure an individual user's workstation

In this chapter, the section called "Establishing a Collabra Share Server" only applies to cases where the Client/Server Edition is a viable option for your network, and the later sections on installing the Replication Agent and secondary sites are only needed by those who *have* secondary sites. The next

section, "Planning to Deploy Collabra Share," helps determine how complicated your network is. If you do not have a server, Wide Area Network (WAN), or a need for the Replication Agent, you will only have to read "Installing Collabra Share on Your Network" and "Getting Ready to Use Share."

# **Planning to Deploy Collabra Share**

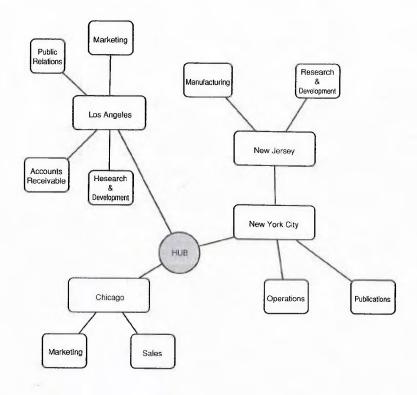
You will probably pattern your use of Collabra Share after your company's mail installation. If you have a single local area network and a single mail post office, your installation of Share will be quite easy because you'll have fewer choices to make. Chances are you will decide to install Share on the same network file server as your post office and you will not need to consider the Replication Agent initially. For an overview of how the Replication Agent fits in to your Wide Area Network (WAN), see Chapter 2, "Planning a Company-wide Configuration."

If you have a more complex system, such as the mail network illustrated in Figure 3.1, you'll need to understand the connections between post offices and how mail is routed. Other information, such as the speed of the various links and the scheduling of mail gateways, will affect your installation of Share as well. But the more complex your network, the more likely that you'll have the following resources to help you understand its configuration:

- Your network administrator
- A network configuration document
- A wall chart of the network
- Network management or analysis software

The next two sections deal with more complex networks. If you determine that yours is a simple LAN, you're ready to begin "Sharing Programs on the Network," which is the subject of a later section in this chapter.

As you recall from Chapter 2, Collabra offers two editions of Share: filesharing and Client/Server. You must determine now whether or not the Client/Server Edition makes sense for your network because the first step in the installation process is setting up the Share Server. Server or not, you must consider your WAN next, because you'll need to plan your use of the Replication Agent, Collabra's solution for synchronizing data between two or more local area networks. Deploying the Replication Agent requires some planning.



**Fig. 3.1** Interconnected post offices: if your mail network looks like this, you probably have help available.

Overview

## Using Share's Client/Server Edition

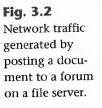
Take a moment to answer "true" or "false" to the following statements:

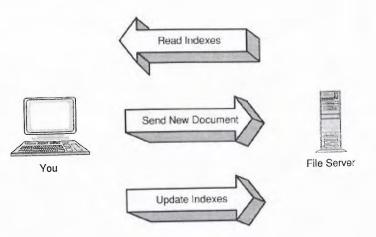
- Performance is important to me.
- Network traffic must be kept to a minimum.
- I expect to have remote users with slow dial-in connections.
- Granting everyone full access to shared data files makes me nervous.
- The reliability of Windows NT and its administration policy controls help me sleep better, knowing that my data is secure.
- I already have a high-performance computer running Windows NT 3.5 or greater on my network.

If you answered "true" to most of these statements, you need to consider the Collabra Share Client/Server Edition. Just as Windows NT is more sophisticated, and therefore requires more attention than a comparatively simple Windows 3.1 or Windows 95 installation, the Client/Server Edition requires more administration, as well. There are several benefits, however, including scalability, reduced network traffic, and the ability to dial-in remotely.

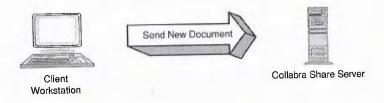
## **Network Traffic**

The primary benefit of a client/server architecture is that it sends the minimum amount of data over the network. When you post a document in the file-sharing version, Share reads various indexes to locate the document in the forum. Then it writes the document and updates the indexes. These actions generate network traffic, as shown in Figure 3.2.





The Client/Server Edition only generates the traffic shown in Figure 3.3 because the Collabra Share server reads indexes and updates the forum without involving the Client on the user's workstation.



The client/server version sends less information across the network because the Collabra Share server performs the index update without communicating with the client workstation. While the file-sharing version must read and write files over the network connection, the Client/Server Edition uses *Remote Procedure Calls* (RPC), which are higher-level commands, so that reading and writing occurs at the server and only the results are transmitted across the network.

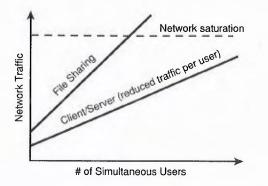
The savings for some operations are particularly striking. For example, indexing the text of an entire forum is an infrequent operation that takes several

#### Fig. 3.3

Network traffic generated by posting a document with the Collabra Share server. minutes using file-sharing because Share must read the contents of every document in the forum over the network. Then it sends back every word, across the wire, to be added to the index. The Client/Server Edition, in contrast, accomplishes the same task when the Client on the workstation sends a single RPC command over the network to rebuild the index. The Share Server responds to the RPC command by indexing the forum without further network traffic.

## Scalability

In addition to performing operations faster, the client/server architecture, in theory, allows more users to share the network at once. Experts say that client/server is more *scalable*, because the upper limit on the number of simultaneous users is a function of both the number of users and their network traffic. Reducing traffic, therefore, implies many more users, as shown in Figure 3.4.



**Fig. 3.4** Scalability, as measured in users and their network traffic.

Overview

## File-Sharing Performance

The performance of the Client/Server Edition isn't always significantly superior to file-sharing because most networks in use today have capacity to spare. Routine operations (such as reading what's new in a forum) require about the same amount of network traffic using either the Client/Server Edition or filesharing Workgroup Edition.

When you click on a document title, the contents of the document are sent over the network by both the file-sharing and Client/Server Edition of Share. The data crosses the network in a fraction of a second. In the meantime, the network can handle dozens of transmissions from other users.

Automatic agents read and write documents continuously. While agents have a bigger impact than users on network traffic (because users pause to think occasionally), they do not benefit from RPC as much, because agents still have to transmit the entire contents of the documents over the wire.

Your LAN can probably accommodate the installation of the Collabra Share file-sharing edition without noticable network performance degradation. Other considerations beyond merely performance or network traffic volume, such as scalability and security, might lead you to consider the Client/Server Edition instead.

#### **Remote Dial-In**

If your network was ten times slower, however, you would choose the Client/Server Edition without hesitation because it guarantees the minimum amount of network traffic, and the impact of that traffic would now be ten times greater. This is precisely the case when users dial in to your network using a modem. Even the fastest PC modems transmit at only 28 or 56 kbps (thousands of bits per second), and this is woefully slow compared to the most sluggish network.

There are products that enable you to connect to your LAN over a modem, but Share is simply too slow in file-sharing mode to consider using them. The best solution for remote users is to provide a modem connection (using ShivaRemote, Microsoft RAS, or Novell Connect) to the Collabra Share Client/Server Edition. The alternative, if a Windows NT server is not available, for example, is to leverage your user's remote mail connection (such as cc:Mail/Remote) and use the Mail Agent to enable the user to access forums using electronic mail.

#### Security

Another consideration in deciding between client/server and file-sharing is how much you trust your users. Network operating systems enable administrators to grant or revoke privileges to specific users at a volume and directory level. As the administrator, you can allow your users to create files in one directory, write to existing files only in another, or only read files in a different directory. A manager may be allowed to delete files in a directory in which other users lack this privilege. Administrators do not usually decide that all users can have all privileges for a particular directory.

However, file-sharing requires that all Collabra Share users have full privileges in the directory where their forums are stored. Every user must be able to create and delete files, as well as read and write files. Share has its own privilege levels, and you can make any user a Reader, a Contributor, or a Moderator. Readers, for instance, cannot post or delete documents, but they must still have full privileges as far as the network operating system is concerned. A Reader—that is, a user whom you may not trust to post documents in a forum—can accidentally erase all or part of the forum using the File Manager or even DOS. It is understandable that this "wide-open" security model is a concern for network administrators. For more information on Share's membership privileges, see Chapter 10, "Moderating Forums."

Two facts help mitigate this situation. First, many applications, such as cc:Mail and Microsoft Mail, use file-sharing and have this same problem. It is like living with the knowledge that some nations have hydrogen bombs; you become used to it. Second, only forum directories need to be wide open, so only forum data is at risk. Regular backups reduce this exposure even further.

If, however, opening up forum directories to be accessed by everyone still bothers you, the Client/Server Edition is available, which protects your rights to assign privileges absolutely. The server process itself still needs full privileges, but you maintain complete control. End users must respect Share's privilege system because the network administrator can (and probably will) prevent users from even seeing the directory of forum data files using applications other than Share.

#### **Server Hardware**

Microsoft proposes that serious workgroup networks should be built around a Windows NT server. If you already have or are in the process of installing such a configuration, you would almost certainly choose Collabra's Client/ Server Edition, simply because it builds on your existing NT investment. You already know how to administer NT services, and you will get reduced network traffic and dial-in support almost for free.

Collabra recommends that your server be a 90 MHz Pentium or better with 64M of memory (32M minimum, 128M optimum) running Windows NT 3.5 or later.

## Designing for a Wide Area Network (WAN)

If your enterprise has more than one LAN or more than one mail post office, you must consider the WAN when you deploy Collabra Share. You need to synchronize two or more copies of each forum so that users at each site see the same information. When a user posts a new document to a forum, Share must send it to all replicas of that forum, wherever they are in your organization. This is the job of the Replication Agent.

Replication Agents at each site are added as users to the mail system. If Replication Agents at two sites can send mail to each other (using your existing mail system), they can support automatic synchronization across the WAN.

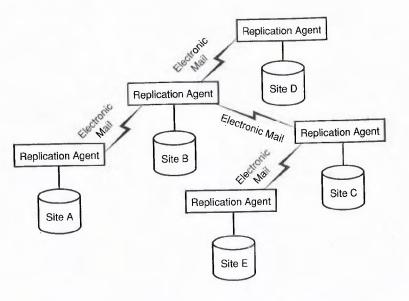
## 66 Chapter 3—Setting Up Collabra Share

### Tip

For more information about Replication Agent topologies, see Chapter 15, "Replicating Forums."

## Fig. 3.5

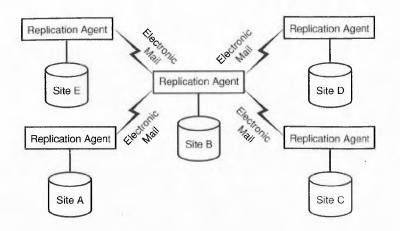
You can link Replication Agent sites as needed in a free-form topology. You need to understand how your WAN has been structured, and specifically how your mail post offices communicate in order to plan an effective network of Replication Agents. You can choose a *free-form topology* (see Fig. 3.5) or a *hub-and-spoke topology* (see Fig. 3.6). In a free-form topology, there are no rules about how sites are connected to one another. In a hub-and-spoke topology, however, only one site—the hub—has more than one connection.



Collabra recommends a hub-and-spoke arrangement because it offers the following advantages:

- It is simple and therefore easier to communicate to network administrators.
- It is easier to track down problems. If there is a problem, chances are it is at the hub.
- Changes are reflected at all sites sooner because no site is more than two "hops" away from any other.

The decision to use a hub-and-spoke model leads you to question which site will be the hub. Your choice is important because you may want to set up that site first. Consult all available sources, in particular your network administrator, and prepare a plan describing your deployment of Share's WAN components before proceeding.



**Fig. 3.6** A central Replication Agent communicates with all replicas in a hub-and-spoke topology.

## **Sharing Programs on the Network**

You can choose to have everyone use the same copy of Collabra Share on the network file server, or they can copy the executable files to their own work-station. You can easily change your mind later. If you expect your users to run the network copy, though, make sure that everyone has "execute" and "directory" privileges to access the files.

Upgrading the Collabra Share software is another consideration. If you keep the application executables in a central location, you will find it slightly easier to switch over to a new version. If your users run P:\COLLABRA\BIN\WINSHARE.EXE, for example, you can install a new version on P: and upgrade all your users at once.

On the other hand, it takes longer to start Share if the executable files have to be copied over the network. The benefit to installing Share on each user's workstation is that it starts up more quickly, but the drawback is that each user has to upgrade independently. You may decide to let each user choose for themselves.

You are now ready to install Collabra Share.

# **Establishing a Collabra Share Server**

If you are using the Client/Server Edition, your first step is to install the Share server on your Windows NT file server, which is described in this section. If you're installing the file-sharing Workgroup Edition instead, go to the section "Installing Collabra Share on Your Network." I

## Note

Although you can install the Share Server on a Windows NT 3.5 Workstation, Collabra recommends Windows NT 3.5 Server.

The Setup program starts by creating directories for the Forum Server, the Registry, and the Library. Although Setup suggests default names for these directories, you can place them wherever you want.

## Note

Several components of Collabra Share have names that can be confused with other, different components that are part of the operating system. For example, *Registry*, has meaning in Windows NT and Windows 95. Windows 3.1 has a registry, as well, but it is not well-known. The Collabra Share Registry is an enterprise configuration database, which is completely separate from the operating system's Registry.

Next, Setup copies FMSERVER.EXE and its attendant .DLL files to the Forum Server directory. Setup creates a TOPIC subdirectory and puts files related to the full-text index engine in that subdirectory. Setup loads the Registry directory, likewise, with a new, empty Collabra Share Registry.

And Setup creates a new WINSHARE.INI file in the Windows NT system directory containing:

binpath=C:\ForumSever\TOPIC

## **Creating a Forum Server Account**

You need to create a new NT user account specifically for the Forum Server with full privilegés in the ForumServer, Registry, and Library directories created in the previous section. Remember that although you must grant the server full privileges, you can choose to completely deny the server's users access to the forum databases for maximum network security.

You will need to log in to Windows NT as an administrator to create the new user account. The name is not important, but for simplicity's sake, call it **Forum Server**.

Complete the installation of the server by issuing the following command while in the Forum Server directory:

INSTSRV "Collabra Share Forum Service" C:\ForumServer\FMSERVER.EXE

## **Starting the Collabra Share Forum Service**

Once you have installed the Share server, you can start it up so that it will be running when you install the clients. To do this, open the Windows NT Control Panel and find the Services section. Select Collabra Share Forum Service from the list. For Startup Type, choose Automatic, and for Log On As, select the user account, which you called "Forum Server" (this was created in the previous section). Now click the Startup button to run the Server.

When you're ready, click Start. The status should change to Started.

When you have installed and started the Share Server process, you are ready to install Collabra Share on your network.

# Installing Collabra Share on Your Network

Your next step is establishing Collabra Share in a central location on your network. After you know where you want to install it, you can run the simple Setup program. Setup asks you to make a few initial choices, and then prompts you to register users from your mail directory.

## **Deciding Where to Install**

A simple LAN consists of a number of workstations sharing a file server. More complicated LANs may have several file servers. You want to install Share where everyone can access it, most likely on the file server on which other shared applications, such as electronic mail, are already installed.

If you set up the Forum Server in the previous section, you will probably want to continue the installation on the same NT machine. If you are setting up the "hub" of a hub-and-spoke WAN configuration, you'll likely be installing on the file server that connects the hub with your secondary LANs.

## Note

Server, like Registry, is another word that has two confusing meanings. A LAN usually has one or more machines dedicated for use as file servers—everyone on the network shares the hard disk(s) in these computers. This is very different from a Windows NT server, which performs tasks on behalf of multiple clients.

I

## Running the Setup Program

After you have determined where the central Collabra Share files belong, you are ready to run the Network Setup program.

- 1. The first screen asks if this is the first installation in your company. If you are setting up a secondary site as described in the next section, choose Connect This Installation with Other Sites. Otherwise, if it is your first installation, select First Installation.
- **2.** Setup asks you to locate and name three directories or accept the default:

C:\COLLABRA\BIN

C:\COLLABRA\FORUMS

C:\COLLABRA\REGISTRY

Unless you specify otherwise, these directories are automatically created if they do not exist.

## Note

The Change All Directories Together check box is useful if you want to place all three directories in the same location. Uncheck the box to specify different directories for your bin (binary executables), forums, and registry.

**3.** If you don't want to install the sample forums, uncheck the Install Sample Forums box. The sample forums, particularly the Learning Forum, suggest ways that you might use Share. Many illustrations in Part II, "Working with Share," are based on the samples.

## **Making Initial Configuration Choices**

The Setup program next guides you through some initial configuration options having to do with permissions for new users and forums. Once you choose a forum usage style, Setup establishes default permissions for you. If you later change your mind, you can correct these settings individually, as described in Chapter 20, "Using Administration Tools."

The following configuration options in the Type of Installation dialog box in Setup determine where on the spectrum of control you prefer Collabra Share:

Centralized Control. Requires an administrator's involvement in many actions such as registering new users or granting specific users the right to create a new forum. Click the <u>Tight</u> Control button to let Setup choose options that maximize administrator control.

Decentralized Administration Model. End users are responsible for their own actions. Click the Lowest Administration button and Setup selects options that minimize the need for administrator involvement in the use of Share.

Custom Installation Type. To specify options yourself, click Customize.

On the Site and Administrator Settings dialog box, enter the name of the site you are setting up in the Site <u>N</u>ame field. Your company name is a good choice on a simple LAN, but if you are setting up secondary sites or you may in the future, remember that they each need a name that makes them distinguishable. A popular convention is to name sites with your company name followed by a location or function, such as "Millenia: Van Nuys" or "Millenia: Van Nuys R&D."

Next, enter and confirm a password. Protecting the administrator's password is very important for the security of your Collabra Share installation. You can change it later, but choosing no password or a simple one like *password* is a bad idea because the administrator often has access to everything in Collabra Share. For maximum security, follow the advice given by experts for passwords of any kind:

- Use at least six characters.
- Do not use a word that is in the dictionary; misspell the word if you like.
- Do not use a name that someone can guess, such as your spouse or children.
- If possible, include numbers or punctuation.

Collabra Share allows up to 20 characters for passwords, and they can be any typeable character, including space. Consider a compound password like "AGHAST:IMAGE" or "Funny/Clown." Don't waste your time with the Shift key, however—Share passwords are not case-sensitive (that is, "a3w3D3" is the same as "A3W3D3").

Finally, enter the number of users for which you are licensed in the License Qty field. Share will try to let you know if you accidentally find yourself with more users than licenses, but do not worry—no iron gate drops down, locking you out.

## **Registering Users**

Part of the Network Setup process that has been described includes installing a Workstation Setup program in the COLLABRA\BIN directory on the network file server. Your end users use this Workstation Setup to configure their computers to access the Share application and files that you have installed on the network.

As the network installation concludes, the Setup program asks if you would like to run Workstation Setup right away, to establish yourself in the Registry. It is a good idea to try the Workstation Setup yourself before answering your user's questions about it. It is also natural that the user who installs Share should be the first user in the Registry.

The Registry is Collabra's central database of users (among other things). If you clicked <u>Tight</u> Control, you'll need to register your users by selecting them from the electronic mail directory. On the other hand, if you clicked <u>L</u>owest Administration, your users will register themselves when they run the Workstation Setup.

To register a user as the Administrator, run the Workstation Setup yourself and start Share. Choose the <u>File</u>, <u>Admin</u>, <u>Users command and click the <u>Regis-</u> ter New button. Select the users you wish to register from the mail directory and click <u>OK</u>. For more information about registering users, see Chapter 19, "Managing the Registry."</u>

## **Creating Forums and Inviting Participation**

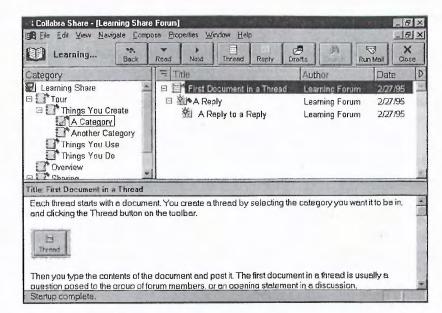
Now that the network installation is complete on at least one site, you can create a forum or two and encourage others in your company to try it out. You can send out mail telling everyone on which volume you installed Share and where to find the Workstation Setup program. For example, if your public server is typically mapped to drive S in your company, you would refer to:

S:\COLLABRA\BIN\SETUP.EXE

Before you announce that Share is available, however, you may want to set up your own workstation with the Share application and use the information in Part II, "Working with Share" (and particularly Chapter 9, "Creating Forums") to create a practice forum for your coworkers. The sample forums that come with Share are not good for practice because if everyone "scribbles" in them, they will not stay pristine.

The sample forum called "Learning Share," shown in Figure 3.7 is an excellent forum to direct your user's attention to, however. As users practice navigating around the forum, they will absorb a wealth of knowledge about using Collabra Share to improve the team's productivity. Categories in this forum include "Things You Create" and "Things You Use," and the practice documents explain various elements of Collabra Share.

The next section, "Setting Up Secondary Sites," is useful if you are using the Replication Agent. Otherwise, you are ready for the section, "Getting Ready to Use Share."



## **Fig. 3.7** The Learning Share forum helps your users learn to find and read

documents in

Share.

# **Setting Up Secondary Sites**

If you planned a WAN earlier in this chapter, you know you are not done yet. You will need to set up the Replication Agent on this site and then repeat the process on your secondary sites. The remaining steps are:

- Installing the Agent Manager and Replication Agent
- Sending your configuration information to each secondary site
- Performing the network install on each secondary site

If the Replication Agent is part of your initial installation, it should be set up now. Setting up any agent includes installing the Agent Manager application. After it's set up, use the Agent Manager to initialize the Replication Agent.

## Tip

For more information about the Agent Manager, see Chapter 13, "Managing Agents." The Replication Agent is described in Chapter 15, "Replicating Forums."

To install the Replication Agent:

- 1. Establish a mail account for the site. Make sure the account's name can't be confused with a real mail user.
- **2.** Run the Replication Agent Setup program, which installs the Agent Manager (AMGR.EXE) and the Replication Agent (REPLIAGT.EXE).
- **3.** Run the Agent Manager to set up its mail identity and launch the Replication Agent for the first time.
- **4.** Use the *policy-based replication* feature to establish general rules governing replication. Policy-based replication is controlled by choosing File, Admin.

Policy-based replication is described in detail in Chapter 15, "Replicating Forums."

## **Communicating Your Configuration to Another Site**

The Registry you created the first time you installed Collabra Share contains information about the configuration options that you chose as well as any members you initially registered. You need to convert the Registry to a file called a *package file* and mail it to each secondary site you intend to set up.

If you set up a "hub," you should send your original package to each outlying "spoke." If you instead designed a free-form topology of some kind, you should send the original package to each site connected to the original, install Share and the Replication Agent at those sites, and then send packages you create at those sites further down the chain of sites.

## **Installing on Another Site**

When you have the package at the secondary site, you should repeat the network installation described in the previous section "Installing Collabra Share on Your Network" at that site. This time you will tell Setup that it is not a first-time setup and that you want to connect this installation with others.

To install a secondary site, repeat the steps you performed on the hub:

1. Install Collabra Share using the package file. The Setup program will not ask again about options such as the administrator's password. The file synchronizes your entire enterprise.

Tip

As an alternative to Step 4, you can use the Agent Manager to establish and schedule replication tasks manually.

Overview

- **2.** Establish a mail account for this site.
- 3. Install the Agent Manager and the Replication Agent.
- **4.** Initialize the Replication Agent either manually, using the Agent Manager, or with policy-based replication (choose <u>File</u>, <u>A</u>dmin).

# **Getting Ready to Use Share**

Now that you have established Share on your central network volume (or Windows NT server, and/or multiple sites around your WAN), you are ready to tackle the workstation installation.

To set up a particular workstation, simply run the Workstation Setup program (COLLABRA\BIN\SETUP.EXE) left by the network install from the workstation you want to set up.

## **Choosing a Local Directory**

You must first decide whether to copy the Share files to your local hard disk or to run Share from executables on the network. If you have the space on your hard disk, copy the files. This makes upgrading to a new version of the software slightly more difficult, but you upgrade rarely and run the Share application every day. Having WINSHARE.EXE and its .DLLs on your local hard disk makes it load quickly.

If you choose to install locally, the Setup program asks you to specify a directory. Setup suggests C:\COLLABRA\BIN, but you can specify any directory you like. As before, if this directory does not exist, Setup creates it by default.

## **Modifying Your Configuration Files**

The Setup program may need to modify your CONFIG.SYS, AUTOEXEC.BAT, and WIN.INI files. The modifications are slight. Share uses several files per open forum, so it suggests FILES=100 in CONFIG.SYS. If the workstation is running Windows 3.1 (not Windows for Workgroups or Windows 95), Setup makes sure that the DOS SHARE program is installed in the AUTOEXEC.BAT script.

## Note

Here's another confusing overlap of names: SHARE.EXE is a DOS program that enables DOS to share files. WINSHARE.EXE is the Collabra Share application. It's bad enough that the names are so similar, now Share has to put a reference to the other SHARE in your AUTOEXEC.BAT file. If the DOS SHARE program was added to your AUTOEXEC.BAT, you will have to reboot your computer before you can run Collabra Share.

## Note

You want to reboot to make sure that your computer is happy running SHARE because SHARE is a terminate-and-stay-resident program (TSR) that runs in DOS before Windows is loaded. Because DOS programs share the low memory area and some TSRs conflict with others, you'll need to be alert to boot-time problems after you add the SHARE TSR. You may want to run the DOS MEMMAKER utility to optimize your new configuration.

Setup adds a [Collabra Mail] section to your WIN.INI file with the entry SendDocSys=MAPI or SendDocSys=VIM depending on which mail facility it detected (Microsoft's Mail Application Program Interface or Vendor Independent Messaging, supported by Lotus cc:Mail and Notes).

## **Organizing Your System Files**

Collabra Share supports a set of Windows extensions from Microsoft called *Object Linking and Embedding* (OLE). The Share Setup program checks to make sure that OLE Version 2.0 has been installed on this workstation and updates Windows if necessary.

Setup looks for the presence of various OLE2.DLL files in the \WINDOWS\SYSTEM directory, and if it finds them, it checks that they are the latest version. With your permission, Setup will install or upgrade these files because Collabra Share cannot run unless they are correct. Setup also checks for CTL3D.DLL, which is needed by the Agent Manager. The Confirm Settings dialog box in Setup describes any OLE2 or CTL3D modifications necessary, and you can choose to <u>C</u>ontinue, <u>G</u>o Back or E<u>x</u>it.

Then Setup creates a WINSHARE.INI file in your \WINDOWS directory. The initial entries in this file tell Share where to find its files, including the full-text index engine files in the TOPIC directory. For more information about the WINSHARE.INI file, see Chapter 18, "Fine-tuning Workstation Options."

# From Here...

In this chapter, you learned how to plan an enterprise-wide Collabra Share installation. You determined whether your situation requires the file-sharing Workgroup Edition or the Client/Server Edition of Share. I discussed using the Setup program to install Share on the first site and on secondary sites, and I described installing the Replication Agent to connect the sites. You have now successfully installed Collabra Share and you are ready to use it.

- For highlights on the new features of Collabra Share 2.0, see Chapter 4, "What's New in Version 2.0."
- To learn how to dial-in and connect to your server, or more about security issues, read Chapter 12, "Connecting Remotely."
- To fine-tune your workstation now that you have installed Collabra Share, refer to Chapter 18, "Fine-tuning Workstation Options."
- To learn more about how to configure all your company's workstations to be consistent, see Chapter 2, "Planning a Company-wide Configuration."

I

Overview

# Chapter 4 What's New in Version 2.0

This chapter is intended to explain what is new in Collabra Share Version 2.0 and to reference further detail elsewhere. If Version 2.0 is your introduction to Share, you should start by reading Part II, "Working with Collabra Share."

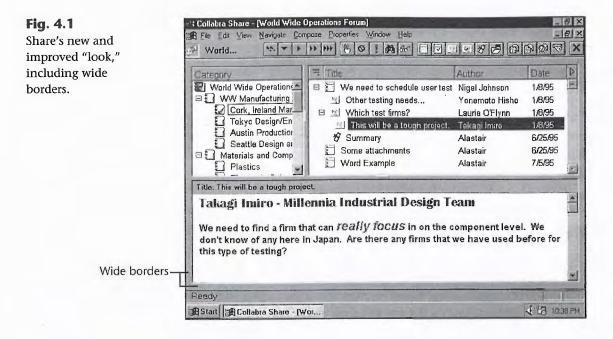
Collabra Share 1.0 established a groupware beachhead in July 1994. The original program had most of the basic features found in Version 2.0, including forums, categories, threads, and documents; but it lacked links, maildirectory integration, drafts, moderated forums, and a list of other improvements. Because Version 1.0 did not have a Client/Server Edition, it did not support efficient remote access. The Agent Manager had only two agents—Mail and Replication—to manage. A separate utility program, called WSADMIN.EXE, included most of the administration tools that are now built-in.

In this chapter, you learn about the many improvements in Version 2.0, including the following:

- Built-in administration tools and Library enhancements
- General forum improvements such as usage statistics and anonymous posting
- Navigation with the InfoNavigator
- Coverage of the new Smart Composition window, QuickLinks, and hotlists, which get you to the right document quickly
- Moderated forums in which new contributions are subject to approval
- A discussion of sorted QuickViews, improvements to printing, and QuickLaunch from mail
- Remote access to forums and policy-based replication

## **Share's User Interface**

Some cosmetic improvements were made to keep Share from looking like last year's application. The interface now has a chiseled, three-dimensional look (see Fig. 4.1) in more aspects of the product. The Library and Forum windows can have wide borders to make window panes easier to distinguish.

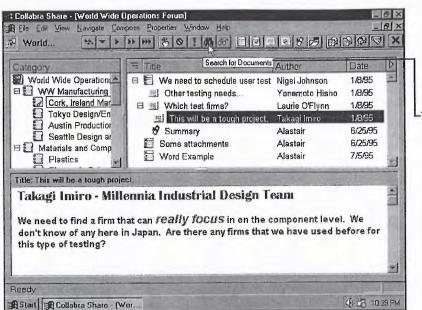


Share Version 2.0 uses property sheets like Windows 95 (see Fig. 4.2) to reduce visual clutter with tabs. Version 1.0 was organized the same way, but with pushbuttons instead of tabs.

entification Storage Policy Access Policy Membership List Statis	bes ]
Default Privileges for New Members	OK
O Members may gead this forum	
O Members may read and contribute to this forum	Cancel
Members may moderate, read and contribute to this forum	Help
Enrollment Policy	1
Moderator must enroll all members of this forum	
C Anyone can join this forum	
Change Forum Password	

Fig. 4.2 Share 2.0 uses tabbed dialog boxes, similar to Windows 95 property sheets.

Throughout Version 2.0, Share gives better and more timely feedback. For example, many time-consuming operations, such as copying a long thread, now support a Cancel button. In addition, when you place the mouse pointer over any of the buttons in the toolbar, a reminder of that button's function (and the keyboard equivalent) appears. This useful feature, found in newer Windows applications and illustrated in Figure 4.3, is called *ToolTips*.



**Fig. 4.3** ToolTips are useful for both novices and power users. Overview

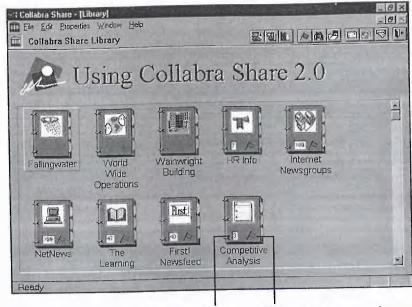
LToolTip

Share 2.0 actually has fewer utility programs to manage because Collabra has integrated the WSADMIN.EXE program into the Share application. Administration tools are now grouped in the <u>File</u>, <u>A</u>dmin submenu, which is hidden from users without administrator access. Admin commands are discussed further in Chapter 20, "Using Administration Tools."

# Library

The Library has changed subtly, as you can see from Figure 4.4. Forums that contain new documents are still marked with a red flag, but now there is an optional count of the number of unread documents. If you choose wide borders, you can customize the look of your library with a title and bitmap.

The new optional AutoUpdate feature scans your forums for new documents each time you start Share. You can select more than one forum at a time in the Library, which is particularly useful together with the new multiple forum search capability (see Fig. 4.5). When you search for text in multiple forums, Share 2.0 shows you the number of matches (or "hits") found in each forum.



**Fig. 4.4** Customize your Library with a title and a bitmap.

Number of new documents Red flag indicates new documents

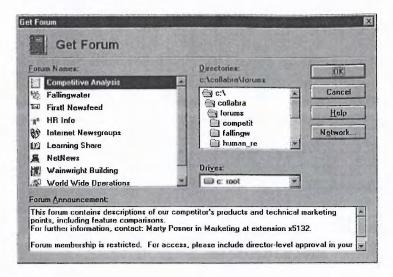
In Version 1.0, if you needed to find a document that mentioned a particular word, you might have to use the Search command in each of your forums. In Version 2.0 your task is simpler. Just select the forums in the Library, holding down the Shift key to extend the selection, and choose the <u>E</u>dit, <u>Search</u> Forums command.

arch	Results	CONTRACTOR OF THE OWNER O
For	um Name	= of Hit(*)
50	World Wide Operations	5 hits
1	HR Info	3 hits
69	Internet Newsgroups	25 hite
L.,	the second second second	and the second second

The Library's File, Get Forum command displays a new forum browser dialog box, which shows forums by full title and icon. As you can see in Figure 4.6, it is easier to read World Wide Operations in the Forum Names list box than



WORLD\_WI.FM, which is what you would see in an ordinary file browser, such as the Windows 95 Explorer or the File Manager.



**Fig. 4.6** The new Get Forum dialog box contains titles, icons, and forum announcement.

Overview

For more information about the Library's new features, see Chapter 6, "Managing Forums with the Library."

## **Forum Improvements**

Share Version 2.0 contains a few miscellaneous forum improvements, such as the ability to gather forum statistics, contribute documents anonymously, and age whole discussion threads.

#### **Forum Statistics**

Figure 4.7 illustrates the information found on the new Statistics page of the Forum Properties sheet, including the number of documents, categories, and total forum size. By clicking the Update Forum Statistics button, you can monitor traffic in the forum and watch the numbers change over time.

Forum statistics help you, the forum moderator, understand how your forums are being used and how much disk space to allocate to them. You can use this information to set forum policies such as size limits or automatic aging of old documents. For more information about using forum statistics, see Chapter 10, "Moderating Forums."

**Fig. 4.7** Overall forum information is presented on the Statistics page of the Forum Properties sheet.

dentification Storage Policy Acc	ess Policy   Membership List	Statistics
Number of Documents:	55	ΟΚ
Number of Categories:	5	Cancel
Number of Members:	25	Lancor
Number of Public Templates:	1	Help
Number of Personal Templates:	0	
Forum Size:	894 KBytes	
Creation Date of the Forum:	5/10/94 11:17PM	
Last Change to the Forum:	6/2/95 5:04PM	

## **Anonymous Contributions**

Research since the release of Version 1.0 suggests that anonymous postings can be useful in drawing out discussions of controversial topics. Version 2.0 enables you to optionally allow anonymous postings. Anonymous postings are secure, meaning that it is not possible to determine which member created them.

For example, the ideas in a Suggestion Box forum will likely be conservative if every idea has its author's name on it. Brainstorming, likewise, is straitened by the knowledge that a dumb idea will linger in the forum for everyone to see. Anonymous postings encourage even shy people to share their thoughts.

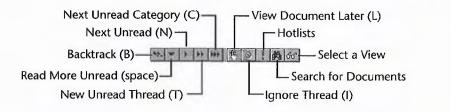
#### Thread Aging

While Version 1.0 had policy-based administration, with automatic aging of documents, Collabra improved this facility for Version 2.0. Now whole threads of discussion age as one. A new reply in the thread refreshes the topic so that Share won't automatically delete old documents to which someone has recently replied. Policy-based administration is described in Chapter 10, "Moderating Forums."

Forum moderators can set a storage policy that deletes inactive threads after a certain number of days, or they can limit the overall size of a forum. In the latter case, new contributions cause the oldest threads to be deleted to make room. These policies are particularly useful in conjunction with high-volume data sources like the Internet Newsgroup Agent.

# InfoNavigator

Version 2.0 reinforces Collabra's commitment to fighting information overload with a set of commands for "power-assisted navigation" through forums, called the *InfoNavigator* (see Fig. 4.8). These tools help you find the most relevant documents in a busy forum. Share keeps track of what you've read, what's new and what you've asked to ignore. A particularly clever touch added to this arsenal is the View Document Later button, which allows you to skip a document, but labels it unread the next time you open the forum.



**Fig. 4.8** The InfoNavigator helps you find the most relevant documents quickly.

You now have the ability to ignore categories and threads. The <u>Navigate</u>, <u>Ignore command hides the specified documents from the InfoNavigator only</u>, so while the documents are still accessible to you (for searching, for example), the Next Unread command will not land on a document in an ignored category. Ignored items are displayed with an international "not" symbol, as shown in Figure 4.9.

Category	≒ Title	Author	Date
Rome     Product Design     SkyRunner     SkyRunner     Syret M4     Further Design Is     Design Issues     Marketing     Business Plannir     Advertising     Market Research	<ul> <li>Meeting at World Corp.</li> <li>Any feedback on interior desi</li> <li>They liked the redesign</li> <li>Summary</li> <li>European Trial Schedules</li> <li>Government Sales Executive</li> <li>Support or electronics and min</li> <li>New thread illustrating unusua</li> </ul>	Keith Higgins Alastair Laurie O'Flynn David Tann r 800	1/3/95 1/4/95 1/4/95 7/1/95 1/4/95 5/27/95 1/10/95 7/1/95
Title: Support for electronics a	nd mni computers	Chine Section	
Hank Kelly - Senior	Fedhnician		

**Fig. 4.9** It is obvious which categories and threads you are ignoring.

Ignored categories Ign

Ignored document threads

Share 2.0 incorporates two key improvements in its full-text search facility:

- You can now specify that a search refers only to the title of a document or only to the author. If you have a Kevin Friend in your organization, searching for "friend" in Version 1.0 would find the documents you were looking for, as well as everything that Kevin had ever posted. In Version 2.0, you will not find Kevin Friend, the author, unless you want to.
- Because searching became more powerful, Collabra added the Search Assistant. A Search Assistant, shown in Figure 4.10, makes it easier to create search queries. It helps you specify a search for documents containing the word "friend," or documents written by Kevin Friend, or documents with "friend" in the title, or any combination.

Searching and the Search Assistant are described in more detail in Chapter 7, "Finding and Reading Documents."

A State of Concession, State o	Assistant ion for the World Wide Op	erations forum	
Where to search:	contains the word(s)	String(s) to search for: Friend	In Addition: Or the following is tru
Where to search: All Text	Contains the word(s)	String(s) to search for:	In Addition: No additional criteria

# **Smart Composition Window**

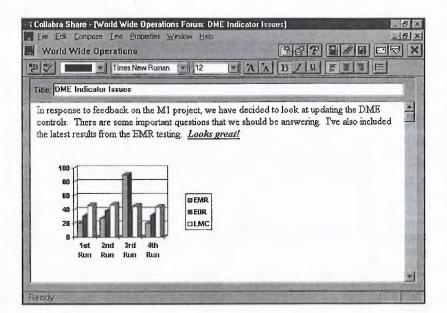
Share 2.0 includes several improvements in the area of creating new documents, such as a separate Composition window, editing documents that have already been posted, finding and replacing text within a document, formatting paragraphs with bullets and hanging indentation, spell check, and drafts.

#### Separate Composition Window

User testing revealed that composing a new document in the viewing pane of the Forum window was awkward because it meant that you were not free to read other documents in the forum as you were composing. Accordingly, in Version 2.0 you create a new document in a separate Composition window, as shown in Figure 4.11. A new menu command (<u>Compose, Go</u> to Forum Window) enables you to switch back to the Forum window where you can refer to other documents in the forum (and easily include hypertext

**Fig. 4.10** The Search Assistant helps you form complex search criteria. *QuickLinks* to them). The result is an overall improvement in the quality of document content.

For example, imagine that you notice similarities between a colleague's recent posting and another, older document in the same forum. To call the group's attention to this, you might create a new reply to the recent document with a title like "What's old is new again." You type in your observation that the recent document gives you déjà vu, then you switch back to the Forum window, select the original document and choose the <u>Edit</u>, <u>Copy</u> command. You switch back to the Composition window and choose the <u>Edit</u>, <u>Paste</u> command to embed a QuickLink to the original document in your new posting. This prevents you from having to quote extensively to make your point, because your readers are a mouse click away from the original themselves, thanks to your thoughtfulness in providing a QuickLink.



#### Fig. 4.11 The separate

Composition window allows you to refer to the forum while you create new documents. Overview

#### **Editing Posted Documents**

An occasional complaint about Version 1.0 was that there was no way to edit a document after you had posted it, except for creating a new document with the old document's contents. In Version 2.0, the original author of a document can now edit it in place.

This feature is particularly useful when you post an important document and notice an embarassing mistake soon afterwards. Chances are, most of your colleagues haven't seen your new document yet so you have time to fix the error. To fix the error, simply select the document and choose the <u>C</u>ompose, <u>E</u>dit Current Document command.

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#### Find and Replace in Documents

Version 2.0 now supports searching for text within a document, using the Edit, Find command as shown in Figure 4.12. This differs from the Search command, which locates whole documents that contain specified text. When you are creating or editing a document, you can also find and change text with the Edit, Replace command shown in Figure 4.13.

Fig. 4.12	Find	i i i i i i i i i i i i i i i i i i i
The Find dialog box lets you	Find what Friend	Direction Cancel
search for text within a docu- ment.	I Watch Muote More chia	О Цр 💽 Домп Некр
Fig. 4.13	Replace	X

Replace	
Find what: Friend	End Next
Replace with: Foe	Replace
	Replace Al
Match whole word only	Cancel
Match gase	Нер

#### **Bullets and Indentation**

Another new feature of Share's Composition window is the ability to format paragraphs with bullets, indents, and hanging indents, as illustrated in Figure 4.14.

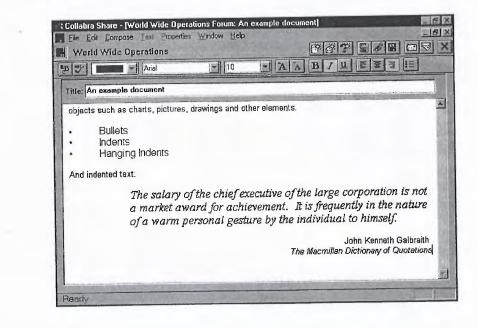


Fig. 4.14 Paragraphs can now be formatted with bullets, indents, and hanging indents.

The Replace dialog box is available when you are creating or editing documents.

#### **Spell Checker**

The new <u>E</u>dit, Chec<u>k</u> Spelling command—available when you create new documents—features a 94,000-word spell checker that supports custom dictionaries. Figure 4.15 illustrates a typing error in the phrase "Microsoft gang agley."

2	Aiia 🗾 14	AA	BTUEFI	
A poem				
onderful	, but/Microsoft gang a	gley		
	Spell Check: Word Not Fou	nd In Dictionary	X	
	Spell Check: Word Not Fou	nd In Dictionary		
	Spell Check: Word Not Fou Not Found: Microsoft Replace With: Microsoft		Suggestions Suggestions	
	Not Found: Microsoft Replace With: Microsoft Microsoft		Suggestions	
	Not Found: Microsoft Replace With: Microsoft		Suggestions Suggestions	

**Fig. 4.15** Collabra Share now includes a Spell Check.

Overview

#### Drafts

With Version 2.0 you can save a new document in draft form and return to it later before ultimately posting it to the forum. This is particularly useful for saving your work if a network error occurs. In Version 1.0, you had to copy the document manually into another application to save it.

To postpone contributing a document in progress, choose the <u>File</u>, <u>Save As</u> Draft command. If you abandon a document, Share now asks if you want to save it as a draft. Resuming work on a draft is as simple as returning to the document in the forum or selecting the draft from the list shown by choosing the <u>File</u>, <u>Open Draft command</u>. For more information about drafts, see Chapter 8, "Contributing to Forums."

# **Links to Documents**

Hypertext comes to Collabra Share as QuickLinks, which allow you to embed references to other forum documents in the documents you create.

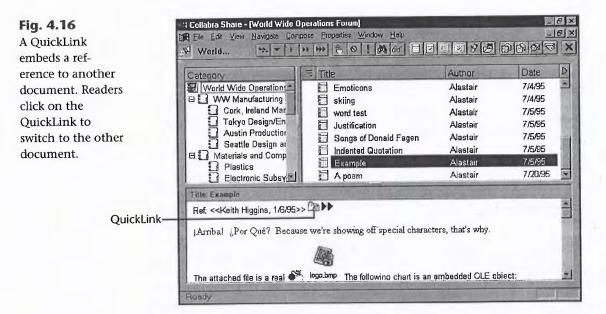
Note

Hypertext is a nonlinear approach to written material invented by Ted Nelson and popularized by computer encyclopedias and now by the World Wide Web.

Share 2.0 includes facilities for creating QuickLinks between documents, links embedded in mail messages, called Shortcuts, and summary documents that contain links to the documents they summarize.

#### QuickLinks

QuickLinks are buttons that transport your reader to another document, possibly in a different forum. If every document contains QuickLinks, a forum becomes a web of related information rather than a hierarchical list of documents. An embedded reference to another document appears in Figure 4.16.



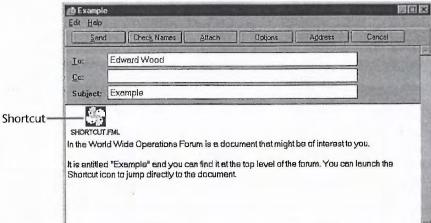
Share 2.0 extends the backtrack facility in Version 1.0 to include QuickLinks, so that if you follow a link to a document and follow a link that you find there, you can still backtrack to the point at which you started.

#### Shortcuts

Another application of links occurs when you send notification by e-mail in Version 2.0. An attachment, as shown in Figure 4.17, called a Shortcut, is

added to the mail message. When your recipient double-clicks the Shortcut, she is taken immediately to the document to which you referred her.

For example, suppose you know that your manager is too busy to read new documents coming into a forum fed by a data source such as First! by Individual. One day, you see a document that you know your manager will be interested in and it already has several replies with further information. So rather than sending her the article's text, you choose the <u>File</u>, <u>Send</u>, <u>Notification command so that your manager can read the document in its forum context. For more information about Shortcuts, see Chapter 7, "Finding and Reading Documents."</u>



**Fig. 4.17** A link to a forum document in a mail message is called a Shortcut. Overview

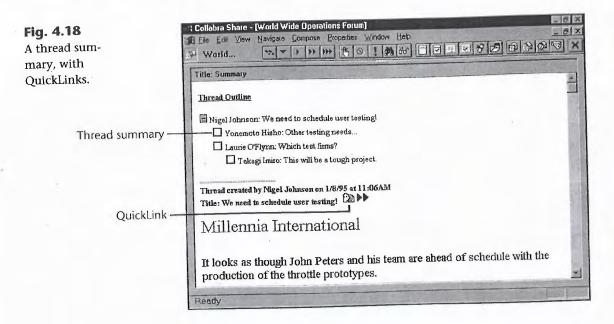
#### 1\_\_\_\_\_

**Thread Summary** 

Version 2.0 includes a facility for creating a new document that summarizes a complex thread. As shown in Figure 4.18, a thread summary includes three components:

- An outline view of the thread.
- QuickLinks to the original documents.
- Each contribution to the discussion (the original documents themselves).

For more information about embedding QuickLinks in your documents and about creating thread summaries, see Chapter 8, "Contributing to Forums."



# Hotlists

You have many ways to find documents in Version 2.0, including the InfoNavigator, QuickLinks, Mail Shortcuts, and just plain browsing the forum. After you have found just the document you want, however, you may want to refer to it again easily, and Version 2.0 has a facility for that, as well.

Version 2.0 enables you to create *hotlists* of documents that you specify. You can create custom hotlists, and you can manage the documents on the list. To add the current document to a hotlist, use the Edit, Add to Hotlist command. The Edit, Open Hotlist command lets you review and delete documents on the list. Choosing the Edit, Manage Hotlists command displays the dialog box shown in Figure 4.19, which allows you to create, delete, or rename hotlists as well as specify which hotlist is the default. Hotlists are described in more detail in Chapter 7, "Finding and Reading Documents."

Manage Hotlists
Hotlist Name Grasscatcher Work Orders / To Do Weind Stulf

#### Fig. 4.19

The Manage Hotlists dialog box includes create, delete and rename buttons.

Delete

Rename

<u>Create New</u> Default <u>Open</u> Close <u>Help</u>

# **Moderated Forums**

The rec.humor newsgroup on the Internet enjoys a huge volume of postings every day, and occasionally someone actually posts something humorous. The rec.humor.funny newsgroup, however, reads more like a book of jokes, because it is *moderated*. This means that proposed postings are read by a human editor and accepted or rejected.

Now, in Version 2.0, Share optionally offers this facility. Moderators can see new postings by choosing the <u>Moderate</u>, Pending Documents command to display the view shown in Figure 4.20. If the moderator accepts them, they become visible to the other users of the forum. Share sends rejected postings back to their authors along with the Moderator's comments. When a moderated forum is opened, Share notifies Moderators of pending new postings and informs the authors of rejected contributions that they should choose the <u>Moderate</u>, Returned Documents command.

#### Note

Share 2.0 offers the ability to moderate only anonymous postings. As mentioned earlier, the ability to post anonymously is very useful but can be abused. The moderated forum facility is likewise a good way to improve the quality of a forum's content, but it takes a Moderator's time. Allowing anyone to post anonymously, as long as someone reviews their document, is a happy medium that may have been overlooked by a feature-oriented rather than a user-oriented software company.

Collabra Share - (HR Info Forum Elie Edit View Navigala Com <sup>4</sup> View Pending Documer	pose Properties Moderate Vindow Hep	ී ම Context	Pane
ategory 2 HR Info 2 Uncategorized Mail	Title I have a solution! We need to schedule user testing! Collabra Share mail redirected Collabra Share mail address chang	Author David David David	Date & 5/27/95 5/27/95 5/27/95 5/27/95
to "MS:Windows/Admin/ShrH	ess for the World Wide Operations :	Corum has be	en changed

**Fig. 4.20** A Moderator chooses which new contributions are acceptable. For more information about moderating contributions, see Chapter 10, "Moderating Forums."

# QuickViews

A common expectation with Version 1.0 was that the list of documents—the Thread pane—could be rearranged as flexibly as in a typical database application. Few users complained that they needed to sort documents by date, for instance, but many assumed that they could if they wanted to.

As shown in Figure 4.21, Version 2.0 enables you to resize the columns and, by clicking the column title, sort the documents by title, author, date, or size. Click once in the title for descending, and click once again for ascending.

A much more powerful restructuring of how you view your documents is a feature called *Cross-category views*. Cross-category views are like the results of a search in Version 1.0. A list of documents is shown in the Thread pane, but each document may come from a different category. Clicking on a document highlights its category in the Category pane.

Cross-category views can show search results, as in Version 1.0, as well as other documents of interest, such as the most recent, for example, or the largest documents in the forum, as shown in Figure 4.22. You can choose the following Cross-category views:

- The newest documents
- The oldest documents
- The largest documents
- Documents created by a particular author
- New documents in threads in which you're participating

For more information about different ways to view the documents in a forum, see Chapter 7, "Finding and Reading Documents."

The ability to view new documents in threads in which you're participating the <u>V</u>iew, Documents to <u>Y</u>ou command—is another example of focusing on relevancy to avoid information overload. Collabra is pioneering innovations like this that will seem obvious when groupware is more commonplace.

Category	Title	Author &	Date
World Wide Operation  WW Manufacturing Cork, Ireland Mar Cork, Ireland Mar Austin Production Seattle Design ar Plastics Electronic Subsy Chip Integration	<ul> <li>Phase 3 might not be the start</li> <li>Open Enrollment Deadline</li> <li>Vacation Request Form</li> <li>Throttle Production Issues</li> <li>SkyRunner Cockpit Design Spec</li> <li>They actuary work better than the</li> <li>Similar issues in Ireland</li> <li>Which test firms?</li> <li>We need to schedule user testing!</li> </ul>	Beth Roberts David David John Peters Keith Higgins Keith Higgins Laurie OFlynn Laurie OFlynn	1/5/95 5/27/95 5/27/95 1/5/95 1/6/95 1/7/95 1/8/95 1/8/95
Title: They actually work better			110,03
Thic, they actually work better			

Click here to return to threaded view Click here to sort on Title

#### Fig. 4.21

Sort the thread pane by clicking on any column heading. In this figure, the documents are sorted by author.

Overview

Indicates current sort order

Category	Title	Author	Date	1
World Wide Operations	📃 Yes, you will be able to start wor	Morgan Case	1/13/95	
Marketing	1 Important P1 Question	Katherine Skorny	1/12/95	
Market Research	🖽 What is the announce date?	Nigel Johnson	1/11/95	
Competitive Inforr	🕮 I have some information on the N	Terry Falk	1/11/95	
	I need NavStar II information	Morgan Case	1/11/95	
	I This is a great ideal	Katherine Skorny	1/10/95	
	Meeting with agency?	Kevin Murray	1/10/95	1
	SkyRunner Key Selling Points	Tom Dungan	1/10/95	
	Ounding on DB. slong	Tam Dunnan	1 10 000	-1
Title: I need NavStar II informa	tion		E.	
X				

#### Fig. 4.22

Viewing the newest documents in a forum is a good way to catch up after all documents are marked as read.

#### Note

Collabra has improved printing in Version 2.0. In addition to printing a thread or a category, you can now print an entire forum, which begins with an outline view of the forum's categories. Printing documents is covered in Chapter 7, "Finding and Reading Documents."

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# **Mail Integration**

Collabra Share, as a communications product, has much in common with your electronic mail application. Version 2.0 includes several features that make it easy to switch between these two environments.

First, Share now employs your mail system's directory of users to authenticate forum members. This means that you may not need to log in to Share if you are already logged in to mail, and the need for creating .UID files for every-one in your organization is gone. Share's Registry of users is described in more detail in Chapter 19, "Managing the Registry."

If you are a Microsoft Mail user, setting up Share will install a QuickLaunch button in Mail's toolbar that will let you navigate to Share forums containing new documents. Another option, called *QuickFlag*, displays a red flag on the QuickLaunch button when any new postings are found.

A reciprocal set of buttons in Share, called *MailHooks* (see Fig. 4.23) can take you to your mail application. MailHooks include:

- Clicking the Run Mail button (File, Run Mail) takes you to mail.
- Clicking the Send Document button (File, Send, Current Document) automatically composes a mail message using the current document.
- Clicking the Send Notification button (<u>File</u>, <u>Send</u>, <u>Notification</u>) composes a message containing a Shortcut link to the current document.
- Clicking the <u>File</u>, <u>Send</u>, Note command lets you send a single mail message without launching your mail application.

For more information about sending documents and notifications by mail, see Chapter 7, "Finding and Reading Documents."

Mail Send Document Mail Notify Run Mail Reply Privately via E-mail

#### Fig. 4.23

Share 2.0 includes MailHooks to work more closely with your mail application.

The Reply Privately button, new for 2.0, uses Share's newfound knowledge of electronic mail addresses to send mail to the author of a particular posting. For a further description of the Reply and Reply Privately commands, see Chapter 8, "Contributing to Forums."

# **Client/Server Edition**

Share 1.0 used a file-sharing database. This model is still the default for the Workgroup Edition of Version 2.0, but Collabra also offers another choice—a client/server architecture called *Client/Server Edition*.

The new Client/Server Edition requires Windows NT because it exploits the latter's multithreaded, preemptive multitasking. The Client/Server Edition provides several benefits including:

- Reduced network traffic
- More users/scalability
- Better access controls

For more information about the Client/Server Edition see Chapter 2, "Planning a Company-wide Configuration," and Chapter 3, "Setting Up Collabra Share."

# **Remote Access**

The new Client/Server Edition is optimized for use on LANs that support dialin access by remote computers. Remote access allows telecommuters at home, or traveling laptop users, to stay in direct contact (not just mail contact) with their forums.

Remote access is supported by products from several vendors:

- Microsoft Remote Access Services (RAS)
- Novell NetWare Connect
- ShivaRemote

For more information, see Chapter 12, "Connecting Remotely."

# **Easier Enterprise-wide Replication**

Share 1.0 users wanted a more convenient way to synchronize forums across their enterprise's wide area network (WAN), so Version 2.0 supports "policy-based replication," which makes it easier to establish replication with remote sites from a central location.

The Replication Agent is now more tolerant of the limitations of older mail systems which means that you can now replicate using the world's largest WAN—the Internet. For more information about the Replication Agent, see Chapter 15, "Replicating Forums."

## **New Agents**

The familiar Agent Manager has two more agents to schedule in Version 2.0.

- The Internet Newsgroup Agent leverages your existing Internet access by linking your forums to the thousands of special interest newsgroups on the worldwide Internet. Now you can use the full-featured facilities of Collabra Share to browse through your favorite newsgroups. This agent is described in Chapter 16, "Linking with Internet Newsgroups."
- The Agent for Lotus Notes synchronizes forums with Notes databases of any kind (not just discussion databases). A few Notes users at your company can now, through Share, be linked with everyone else in the enterprise. Share users can capture Notes data in their forums and Notes users can manipulate forum contents in Notes databases. For more information, see Chapter 17, "Synchronizing with Lotus Notes."

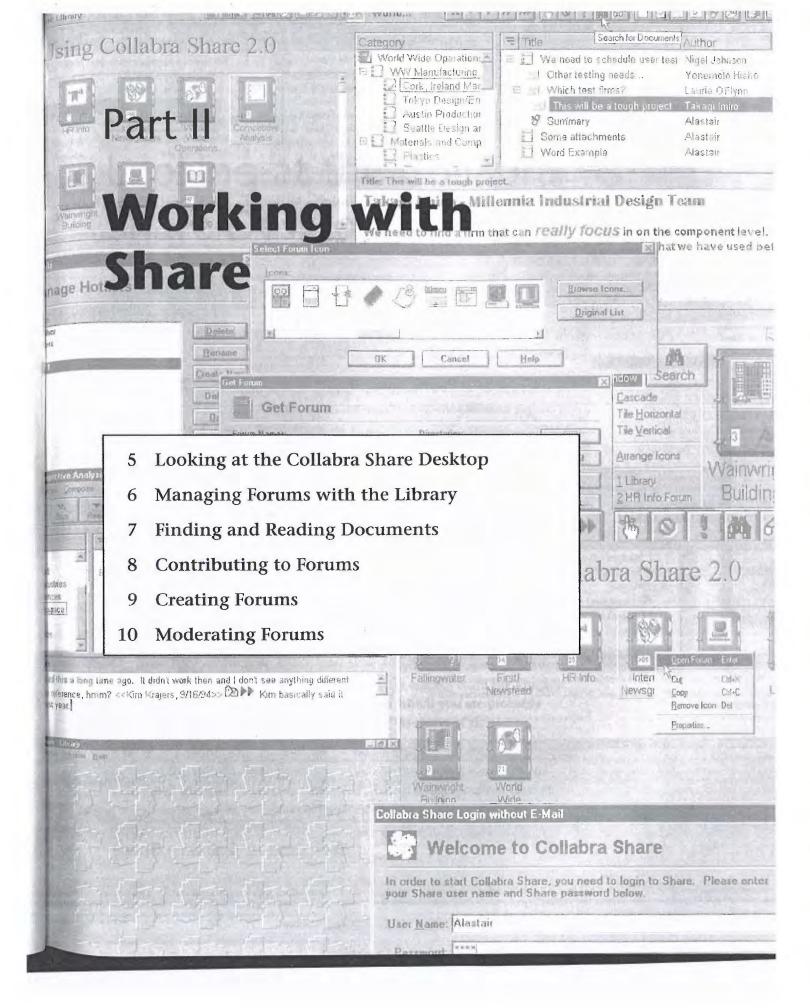
Collabra improved the Agent Manager itself for Version 2.0 with the addition of a Pause button and the ability to sort the list of agent tasks alphabetically or by forum. For more information about the Agent Manager, see Chapter 13, "Managing Agents."

# From Here...

In this chapter, the new Version 2.0 features were introduced for the benefit of those already familiar with Version 1.0. You got a quick look at the broad scope of the changes, including improvements to the Forum and Library windows, the InfoNavigator tools, QuickLinks, hotlists, QuickViews, the Client/Server Edition, policy-based replication and the two new Collabra Share Agents.

Each of these features is more properly discussed in the context of the overall Collabra Share product. Because there are new features in all aspects, Version 1.0 users may not be as familiar with Version 2.0 as they might think.

- To learn more about the Client/Server Edition, see Chapter 2, "Planning a Company-wide Configuration," and Chapter 3, "Setting Up Collabra Share."
- For more information about the InfoNavigator, the Composition window, QuickLinks, hotlists, QuickViews, printing and other Share improvements, read the chapters in Part II, "Working with Share," particularly Chapter 7, "Finding and Reading Documents."
- For more information about remote access, see Chapter 12, "Connecting Remotely."
- For a complete description of the integrated administration tools formerly in WSADMIN.EXE, and mail directory integration, read the chapters in Part IV, "Managing Share."



# Chapter 5

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# Looking at the Collabra Share Desktop

When you and your team use Collabra Share, much of the software remains hidden. Behind the Share application lies nearly invisible software connecting Share to your electronic mail, other applications, such as word processors, spreadsheets, and graphics programs, as well as Collabra's optional agent extensions.

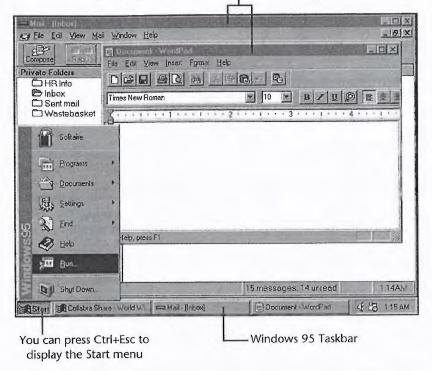
In this chapter, you learn about

- The overall environment in which you operate when you use Collabra Share. You need to be comfortable using Share with your other Windows applications, especially your electronic mail program, because Share will help you make the product of those other applications available to your team.
- The so-called desktop metaphor that modern software, such as Windows and Collabra Share, use to present your information and to offer tools and commands with which to manipulate it. You learn about the three kinds of windows that Collabra Share employs and the Multiple Document Interface (MDI) standard with which you are probably already familiar, whether you have heard its name or not.
- How Collabra Share works side by side with your existing mail program and the various mechanisms by which Share is integrated with the other applications you use every day. You also learn how to change preferences and customize your Collabra Share desktop.

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# Understanding Collabra's Desktop Metaphor

Collabra Share employs the same basic desktop model as Windows and many Windows applications. As you know, Windows presents a consistent view of your applications, such as your word processor or mail program, and enables you to switch between these applications, as shown in Figure 5.1. You can customize many aspects of Windows, and you can choose to have more than one application visible or to give one application the full screen. Collabra Share works the same way: it provides a customizable environment in which to manage your forums.



You can press Alt+Tab to switch between applications

# **Fig. 5.1** Windows presents

a view of several applications, such as Mail and Write, and lets you switch between them.

#### Note

If you are uncomfortable with the more advanced aspects of Windows, such as using several applications at once, read Que's *Using Windows 95* (0-7897-0092-1) because Share utilizes many Windows features.

Collabra Share functions as an extension of Windows rather than a replacement for your working environment. Share encourages multitasking between Share and other applications such as electronic mail. Share doesn't try to be an operating system.

You're probably quite familiar with Windows, but you may not understand the elegant simplicity of the desktop metaphor. Share, like Windows, employs overlapping windows, pull-down menus, icons, and text. In this model, commands, in the form of menu choices or pushbutton controls, act upon the currently selected icons and text. (The alternative is a command, like Delete, which asks, "Delete what?") Double-clicking the mouse can act to simultaneously select an object and issue a default command, such as Open. And you can select more than one object, in a variety of ways, for subsequent action. Figure 5.2 illustrates several objects selected at once.

olden	Contents of 'C'\MSOFFICE\WINWORD\LETTERS'
Mskids     Msmoney     Msmoney     Msmouse     Msoffce     Access     Cipart     Cipart     Excel     Wsbths     Powerpnt     Setup     Winword     Gidys     Didys     Projects     Poiset     Splus	Adpr01.dot Bolisik doc Cred01.dot Cred01.dot Cetmc01.dot Cstmc03.dot Cstmr03.dot Cstmr03.dot Cstmr03.dot Cstmr05.dot Cstmr05.dot Mitg02.dot Mitg02.dot Mitg02.dot Mitg02.dot Space13.dot

**Fig. 5.2** Select several files by pressing Ctrl as you click.

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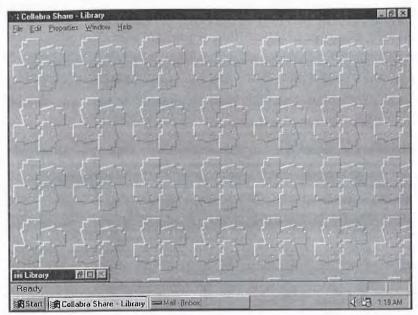
Working with Share

#### Note

The desktop metaphor was developed almost 20 years ago by researchers at Xerox Corporation's Palo Alto Research Center (PARC). Although the ideas have benefitted from steady, subtle refinement over the years, especially since their public debut in 1983 in the Apple Lisa, the essential object-verb concept has proven remarkably durable in an emerging technology that is otherwise constantly changing.

Facebook's Exhibit No. 1003 - Page 130

The Share desktop, shown in Figure 5.3, is a framework in which several specialized windows can exist. It features a gray background with a pattern of embossed Collabra logos. A status bar runs across the bottom of the frame window that displays the state of the Caps Lock and Num Lock keyboard settings as well as a description of either the current status (for example, "Ready") or the currently selected command.

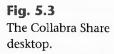


# Working with Different Windows

Collabra Share employs three kinds of windows: the Library window, Forum windows, and Composition windows, which are described in more detail shortly. Figure 5.4 shows a Forum window overlapping the Library window.

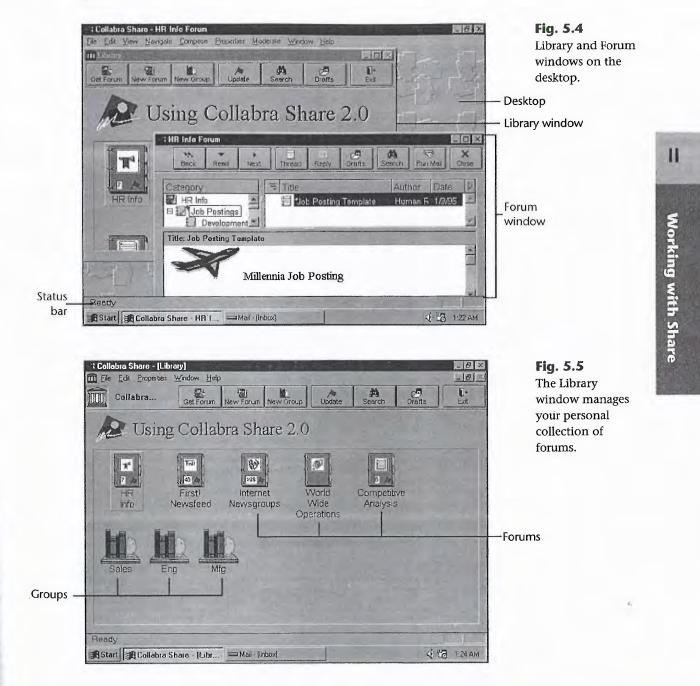
#### **The Library Window**

The Share desktop always includes a single Library window you can minimize or temporarily hide behind other windows. You choose what forums you want in your Library; each forum is represented by a graphical notebook. You can also put forums into Groups that you create and name. The Library window, shown in Figure 5.5, is described in more detail in the next chapter, "Managing Forums with the Library."

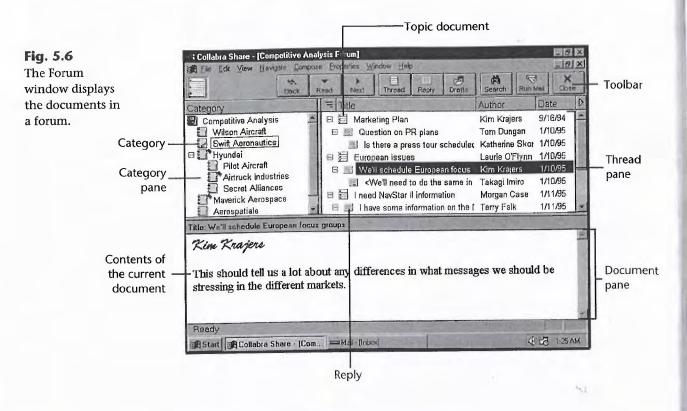


#### **Forum Window**

Share creates a Forum window for each forum you open. As you can see in Figure 5.6, a Forum window is complex, with three panes of information displaying the contents of a forum. Like the Library window, you can minimize Forum windows or hide them (one behind the other). You learn how to use Forum windows to find specific information in Chapter 7, "Finding and Reading Documents."

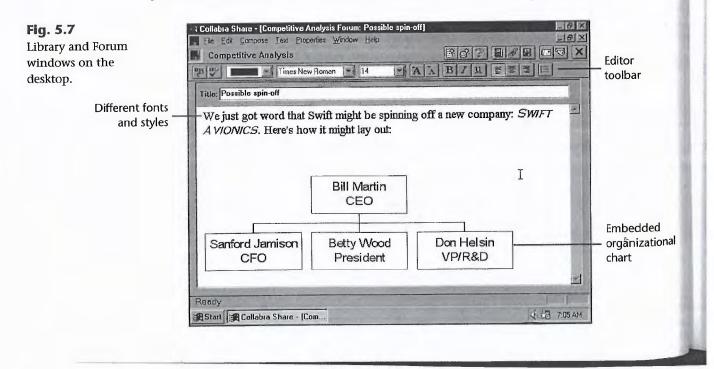


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#### **Composition Window**

You create new documents in a forum (or edit an existing document) using a Composition window. The Composition window, shown in Figure 5.7, is designed to help you focus on the document you are creating while enabling you to switch back to the Forum window or even the Library window.



For example, imagine you want to refer to another document in your new posting. From the Composition window, you can switch back to the Forum window to locate the document you want. If the document is in another forum, switch to the Library window to select the forum and use a different Forum window to find the particular document. After you find it, return to the Composition window and finish your posting. Creating new documents with the Composition window is covered in Chapter 8, "Contributing to Forums."

# Understanding the Multiple Document Interface

Managing the various kinds of windows on the Share desktop is made simpler because Collabra Share adheres to the *Multiple Document Interface (MDI)* standard. The Windows Program Manager and Microsoft Word for Windows are familiar examples of MDI applications.

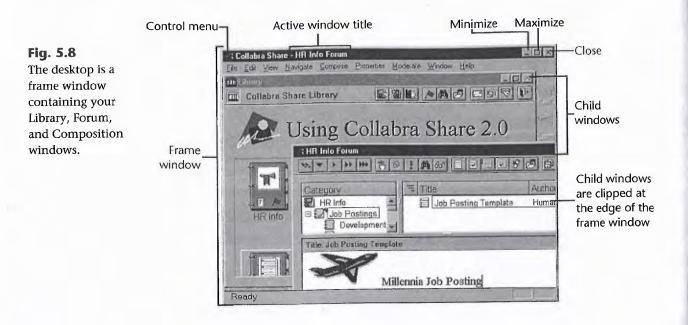
You already know all about MDI if you have used the Program Manager or many other Windows applications. Collabra Share was designed to leverage your knowledge to make using multiple windows as easy as possible. Without going into too much detail, this section covers the following MDI basics:

- Managing child windows with the frame window.
- Using Window menu commands.
- Understanding the menu bar and toolbars.

#### **Managing Child Windows**

The Library, Forum and Composition windows are considered *child windows* because they coexist within the Collabra Share desktop, which is called the *frame* window. The frame window helps you manage your child windows.

First, notice that you can move the Library and Forum windows all around, but never outside the frame window. If you drag a Forum window past the edge of the frame window, the part outside the frame disappears, as shown in Figure 5.8. Only one child window is active at a time, and this window's title is added to the frame window's title. 11



#### **Control Menu**

**Tip** Right-click in the title bar to display the Control menu. The icon to the left of the window title is a button that enables you to access the control menu, shown in Figure 5.9. Double-clicking this button on an open window is equivalent to choosing <u>C</u>lose (Ctrl+F4 to close a child window; Alt+F4 to close Share). You can switch between child windows using the Next command (Ctrl+F6).

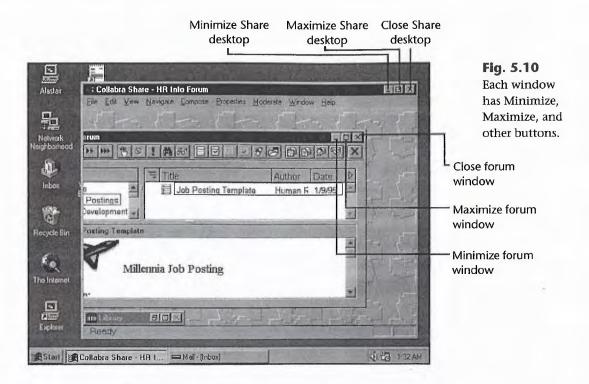
HR Info Forum	(* 8 ! <b>M</b> #* = <b>7 - 7 / 9 (</b> )	
Move Size Migimize Maximize	Construction of the second sec	Date D
Close Ctrl+F4	ant v	and the second se
X	,	
Decition.	Millennia Job Posting	-

#### Minimize, Maximize, Restore

To reduce the Library, Forum, and Composition windows so that they appear as title bars (or icons) on the desktop, choose the Minimize command from the control menu. To expand any one window to fill the entire desktop, hiding all other windows behind it, choose the Maximize command. The <u>Restore</u> command un-minimizes or un-maximizes a child window.

#### . . .

**Fig. 5.9** Each window has a control menu in the upper-left corner. Alternatively, each window has buttons in the upper-right corner (see Fig. 5.10) that minimize, maximize, and restore the window. The Restore button replaces either Minimize or Maximize, depending on the window state.



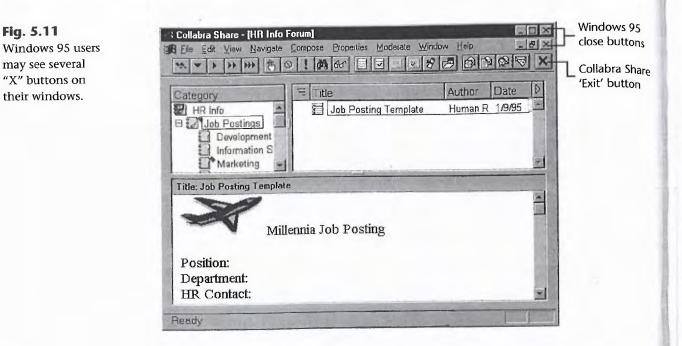
In Windows 95, every window has a Close button in the upper-right corner, as well. The following illustrates the effects of this button depending on the window you are working with:

Type of Window	Clicking the Close Command Will
Desktop	Exit Share: File, Exit (Alt+F4)
Library	(Close button is disabled)
Forum	Close forum: File, Close Forum (Ctrl+F4)
Composition Abandon new document (after confirmation): Esc, or File, Close Compose (Ctrl+F4)	

# If you use Windows 95 and choose the full toolbar (small icons with no text), the upper-right corner of your Forum and Composition windows will look as they do in Figure 5.11. In this case, both buttons marked with an "X" do the same thing.

#### Tip

Right-click in the title bar to display the Control menu. To maximize a window, doubleclick on its title bar. To restore a maximized window, double-click again. 11



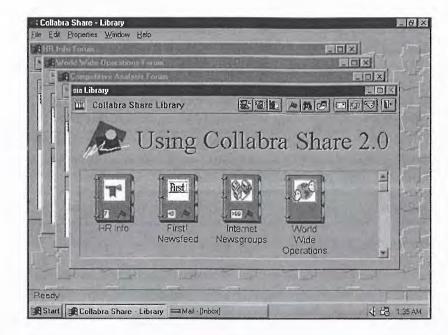
#### **Using Window Menu Commands**

One hallmark of an MDI application is the presence of a <u>W</u>indow menu, as shown in Figure 5.12. This menu lists all the open windows in the application. Any window you select from this list becomes the active window. The active window appears on top of the other windows, its title bar is highlighted, and its name is added to the frame window title bar.

Fig. 5.12 Use the commands on the <u>W</u>indow menu to manage windows on the desktop.



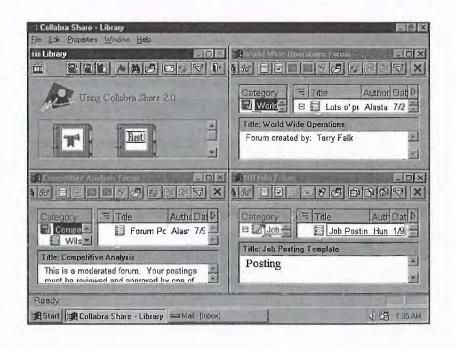
The <u>W</u>indow menu also includes commands for arranging child windows. The <u>W</u>indow, <u>C</u>ascade command configures the windows so that their title bars are stacked neatly for viewing (see Fig. 5.13). The <u>W</u>indow, Tile <u>H</u>orizontal and Tile <u>V</u>ertical commands place windows edge-to-edge so that a portion of each window is visible (see Fig. 5.14). Use the <u>W</u>indow, <u>A</u>rrange Icons command for arranging the icons on the desktop.



**Fig. 5.13** Choose <u>W</u>indow, <u>C</u>ascade to see all your window titles in a cascading format.

#### Note

The arrangement of windows on the desktop is a personal preference, but tiled windows aren't very practical in Collabra Share. The Forum window contains too much information, and it is helpful to see more than a few icons in the Library.



#### **Fig. 5.14** Choose <u>W</u>indow,

Tile <u>H</u>orizontal to place your windows so that the top of one just touches the bottom of another. Working with Share

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#### Understanding the Menu Bar and Toolbars

The Collabra Share desktop (the MDI frame window) has a menu bar and child windows do not. As you switch between Library, Forum, and Composition windows, the menu bar changes to reflect the commands available in different circumstances. The File, Edit, Window, and Help menus are always present, but the commands available when a Forum window is active, for example, are different from those available when the Library is the active window.

Each child window has its own optional toolbar, a row of buttons under the window title. (The Composition window has two toolbars, in fact.) You can choose between large buttons with text, small buttons with no text, or no toolbar at all.

To customize your toolbars, choose the <u>Properties</u>, <u>General command and</u> select the Toolbars tab of the dialog box. From here you can individually enable toolbars on the Library, Group, Forum, or Composition windows. (More about Group windows in the next chapter, "Managing Forums with the Library.") Your choice of large or small buttons affects all toolbars at once.

# Using Other Applications with Collabra Share

Collabra Share works cooperatively with other Windows applications in several ways. The most important is the interaction between Share and your electronic mail system. In addition to the familiar cut and paste clipboard, Share employs two advanced data-sharing techniques from Windows: Object Linking and Embedding (OLE) and drag-and-drop.

#### Mail System

As a group communication tool, Collabra Share is very concerned with electronic mail. Rather than replacing your mail application, Share leverages your investment; rather than encouraging you to do everything in Share, Share makes it easy to switch to mail and other applications.

#### Note

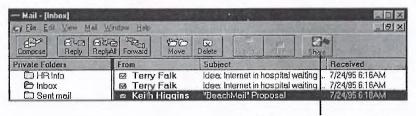
Share works alongside your existing mail system as long as it supports a standard interface such as MAPI (Mail Application Program Interface), VIM (Vendor Independent Messaging), or CMC (Common Mail Calls). Industry-leading mail packages, including Microsoft Mail, cc:Mail, Beyond Mail, and Novell Groupwise, support these standards.

Share cooperates with your mail application by enabling you to do the following:

- Switch to mail from Share using the File, Run Mail command.
- Switch to Share from mail (Microsoft Mail only).
- Use mail login and password for user authentication.
- Send mail from within Share using the <u>File</u>, <u>Send</u> sub-menu commands.
- Accept contributions and automatically send new postings by mail using the Collabra Share Mail Agent, described in Chapter 14, "Using the Mail Agent."
- Synchronize Share's user registry with your mail directory. This is explained further in Chapter 19, "Managing the Registry."

#### **Share and Microsoft Mail**

Collabra adds a button to the Microsoft Mail toolbar, as shown in Figure 5.15, which lets you know that there are new postings. Unlike a ringing telephone, when you see the red flag on the button, indicating that there are new documents, you can choose whether to interrupt your concentration.



Red flag indicates new postings in Share

Clicking the Share button in Microsoft Mail pulls down the menu shown in Figure 5.16. You can choose to Run Collabra Share (or switch to it if it is already running), or you can open a particular forum. The Update command checks for new postings, refreshes the red flag on the button, and puts a check mark next to forums containing new documents.

Share optionally checks for new postings periodically and updates the red flag on the Share button in Microsoft Mail. Share must be running on your system to perform this service. To specify automatic update, choose the <u>Properties, General command and select the Locations tab. Check the Have</u> QuickLaunch Look for New <u>Postings box and specify a time interval from 15</u> to 999 minutes.

**Fig. 5.15** Share adds a button to the Microsoft Mail toolbar. н

**Fig. 5.16** The Share button in Microsoft Mail is actually a menu.

Compose Reply Rep Private Folders HR Info D Inbox Sent mail Wastebasket		Coll     Fund Cotabra Share       Delete     Run Cotabra Share       Update     Update       Idea: In     Competitive Analysis       Heact     World Wide Operations       Re: Yo     Internet Newsgroups       Lunch?     HB Into       Re: "Bi     First Newsfeed       Proposi     The Learning Forum       George     NetNews       RE: "Bi     Wainwright Building       RE: "Bi     Falingwate       Re: "Bi     Falingwate	Received 7/24/95 6:16AM 7/24/95 6:16AM 7/24/95 6:16AM 7/24/95 6:19AM 7/24/95 6:20AM 7/24/95 6:20AM 7/24/95 6:22AM 7/24/95 6:23AM 7/24/95 6:26AM 7/24/95 6:26AM	List of — forums in your librar
	⊠ Keith Higgins ⊠ Keith Higgins ⊠ Keith Higgins ⊉ To: SkyRunner	RE: George Hawkins RE: George Hawkins RE: Proposal: Internet Chawing SkyRunner Milestone Dates	7/24/95 6:43AM	

#### **Exchanging Data between Mail and Share**

Windows makes it easy to run your mail application and Collabra Share at the same time and to exchange data between them. For example, when your team is new to Collabra Share, you may find that one or two people will still send messages in mail that would be more appropriate in a forum.

To capture a mail message in Share, simply:

- 1. View the mail, select the text, and choose <u>E</u>dit, <u>C</u>opy command (or press Ctrl+C).
- 2. Launch Share if it's not running, or switch to Share by clicking on its window or pressing Alt+Tab. Microsoft Mail users can choose the Run Mail command from the Share button menu.
- **3.** Open the appropriate forum and create a new document. (Creating documents is explained in detail in Chapter 8, "Contributing to Forums.")
- **4.** Give the new document a title (perhaps adding the author's name to explain that this message doesn't come from you).
- 5. Click in the document contents area and choose Edit, Paste (or press Ctrl+V) to insert the text of the mail message. The new document appears in the default font, so you may want to dress it up a bit—vary the font and color, for example.

6. Choose the <u>C</u>ompose, <u>P</u>ost command (or press Ctrl+S) to save the new document.

When you copy mail to a forum, the message (and any replies) become part of the team's knowledgebase.

#### **Sending Mail Regarding Forum Documents**

Share offers several shortcuts for sending electronic mail regarding documents in forums. Consider this hypothetical situation. Say you are browsing through new postings in the Newswire forum and come upon an article you think your manager, Amy, would like to see. Because you are fairly sure that she will not be reading this forum, do you

- a. Make a mental note to tell Amy the next time you see her.
- **b.** Type and print an interoffice memorandum.
- c. Use your mail application to send her a message.

The best use of your time is probably answer c, which is certainly the least error-prone response. Use Share's File, Run Mail command to switch to your mail application. You will say something like, "Amy—There's a document in the Newswire forum called 'Arms Sales to Turkey' that I thought you might be interested in." When Amy gets your message, assuming that she agrees, she will switch to Share, find that forum and use the Edit, Search Forum command to locate the document. If the forum is not in her library, or if you typed the title wrong, you may get an annoyed reply from her by mail instead of the "attaboy" that you deserve.

In this case, there are more than three options and option d is better. Use Share's File, Send, Notification command to send Amy mail, as shown in Figure 5.17, which not only tells her the forum and document title but sends along an icon that she can double-click to automatically launch Collabra Share, open the forum in question, and navigate directly to the particular document you think she will want to read. With two clicks of Amy's mouse, she will not only have the document in front of her, she will see related documents in context and any replies that others in the organization may have added.

Of course, if Amy has not yet installed Share, or if she has martyred herself by taking the only machine in the company that is too under-powered to run Windows, you will have to choose option *e*. In that case, you will use the File, Send, Current Document command to automatically mail Amy the entire text of the document you think she should read, including text in any attached or embedded objects in the document, as shown in Figure 5.18.

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**Fig. 5.17** The File, Send, Notification command suggests a visit to a forum.

Lo:	Amy	
<u>C</u> c: Subject:	NEW WP OFFICE VERSION ADDS CLIENTS	
24		
1.0		
HORTCUT		
the First	r.FML Il Newsfeed Forum is a document that might be of interest to you. d "NEW WP OFFICE VERSION ADDS CLIENTS" and you can find it in the	

#### Fig. 5.18

The File, Send, Current Document command mails the text of a forum document.

	/P OFFICE VERSION ADDS CLIENTS	- 6 ×
Eot Helo Serv	d Check Names Ansch Opijons Address Cancel	]
Lo: Co:	Amy	-
Subject:	NEW WP OFFICE VERSION ADDS CLIENTS	
SOURCE	F: NEW WP OFFICE VERSION ADDS CLIENTS CMP Publications via Firstl by INDIVIDUAL, Inc. June 13, 1994 [3]	
4.1, a new software, v	stems Today via Firstl : WordPerfect recently announced Symmetry version of its popular WordPerfect Office electronic messaging with support for additional clients and servers as well as ubility with Microsoft Mail environments.	
Interface,	y supports Simple MAPI, Microsoft's Mail Application Programming which will foster interoperability between WordPerfect and MAPI- applications.	
BStart	Collabra Share - (First 🖼 Mail-Inbox)	MA 04 1 64 1

#### **Object Linking and Embedding (OLE)**

Another powerful way that Collabra Share integrates with your existing Windows applications is through a mechanism called Object Linking and Embedding, or OLE (pronounced as if you are at a bullfight). Microsoft invented OLE to better integrate applications like Word and Excel, but OLE is a general-purpose mechanism open to all vendors. Share uses OLE 2.0 to support embedding objects of all kinds in your forum documents.

#### **Embedding Objects**

Share enables you to embed objects such as a chart from Excel in your forum documents. Applications from other vendors, such as Lotus 1-2-3, support

OLE, too, and Share works equally well with them. Microsoft Office includes a number of little applications (called *applets*), which can only be run from inside an OLE-aware application like Share. From the Composition window, choose Share's Edit, Insert New Object command to see a list of available applications and applets, such as Word Art, Graph, or Organization Chart, as shown in Figure 5.19.

	Object Type:	OK
Cipate Hew:	Bitmap Image Media Clip Microsoft ClipArt Gallery	Cancel
C Create from <u>File</u> :	Microsoft Excel 5.0 Chart Microsoft Excel 5.0 Worksheet	Help
	Microsoft Excel Chart Microsoft Excel Macrosheet Microsoft Excel Worksheet	Display As Ico
Result		
inserts docume	a new Microsoft Excel Worksheet object into your and	

**Fig. 5.19** Use the Insert New Object dialog box to view available sources of OLE embedded objects.

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Working with Share

#### **How to Insert Objects**

You use OLE in Share to transcend the built-in editor and add graphs, clip art, movies, sounds, tabular data, photographs, and drawings to your documents. Let's embed a small Excel spreadsheet in a new Share document:

- 1. Create a new thread or reply using the <u>C</u>ompose, Start <u>T</u>hread (Ctrl+N) or the <u>C</u>ompose, <u>Reply</u> (Ctrl+R) command.
- **2.** Give the new document a title and enter any explanatory text, such as "Here are the numbers we discussed."
- **3.** Choose the <u>E</u>dit, <u>Insert New Object command to bring up the dialog</u> box shown in Figure 5.19. Select Create <u>New</u>, uncheck <u>D</u>isplay As Icon, and choose Microsoft Excel Worksheet (or your OLE-aware spreadsheet application).
- **4.** Click OK to embed a portion of a spreadsheet in your document, as shown in Figure 5.20. Notice that Excel's menus and toolbar have temporarily replaced Share's. This is a feature of OLE 2.0 called *in-place activation*.
- **5.** Enter some data in the spreadsheet, such as the example shown in Figure 5.21. You can take advantage of all of the spreadsheet application's features, such as styled text, borders, and formatting.
- **6.** When you're ready to return to Share, simply click outside the spreadsheet or press Esc. You can continue adding text or other OLE objects to your document.

#### Tip

You can resize the spreadsheet to fit what you've entered by dragging the black handles on the border.

- If you need to continue editing the embedded object, double-click inside the object's border. Or, you can select the object and choose the <u>E</u>dit, Worksheet <u>O</u>bject, <u>O</u>pen command to actually launch Excel.
- 8. Save the document using the <u>Compose</u>, <u>Post</u> command (Ctrl+S).

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Here are som	ne numbers ba	acking up th C	ne proposa D	l: E	F	G		
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	A	-	8	1	C	1	D	E	1	+	G	-	2	
1		Jan		-	THE OWNER ADDRESS OF	Ma	ACCOUNTS -	Aoril	Ma					
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3	Costs	\$	80.00	S	80.00	\$	79.00	\$ 79.00	\$	78,00	anter	3		
4	Profit	5	5.00	5	12:00	5	20.00	\$ 23.00	\$	32.00				
5					_									- 10
6		1		_		1						-		
1									-			-13	3	
89				-		-			-			18		-
9						• ·····			1				3	
						•			1				3	

### **Fig. 5.20** Menus and toolbars switch to Excel when you embed a spreadsheet.

F	ig.	5.21

All of Excel's features are available when you are editing an embedded spreadsheet.

#### **OLE Compared to the Clipboard**

The difference between OLE and using the Copy and Paste commands is that Share remembers the OLE application. If you edit a document that has OLEembedded clip art, for example, you can simply double-click the object and find yourself in your clip art application, making it easy to choose a different picture. On the other hand, if you had used Copy and Paste, your only option would be to delete the clip art and Copy and Paste again.

Complicating this explanation only slightly is Share's <u>E</u>dit, Paste <u>Special</u> command, which allows you to copy an object, such as a graph, in Excel and paste it into a forum document without losing the connection to Excel. If you used the <u>E</u>dit, <u>Paste</u> command, you would have only a snapshot of the graph. Paste <u>Special</u> retains information that enables you to return to Excel later and modify the graph. Paste <u>Special</u> also enables you to embed whole files, such as an .XLS spreadsheet file.

### **Attaching Files**

When you choose the File, Attach File command, you are actually embedding the file as an OLE document. This is described in Chapter 8, "Contributing to Forums." That means that whenever anyone viewing the document doubleclicks the attachment icon, Share will try to launch the application that created it. Behind the scenes, Share uses OLE when you attach the file to index the text of the object for later searching.

For example, you are working on a one-page ad using Microsoft Word. Your ad uses some advanced Word features such as frames and two-column display. You are going to print 50,000 copies of the ad in full-color and everyone on your team will get one, so you don't need to put the ad in Share. However, you do want to capture feedback from the team as you are working on it, so you post a document asking for comments and explaining what you think the remaining weaknesses are. You attach the .DOC file and a Microsoft Word document icon appears with your text.

When the other members of your team read the document in Share, they read your request for comments and double-click the Word icon. Share automatically launches Word and the ad appears. Word renders the ad for your colleagues exactly as you see it in your copy of Word. (Remember WYSIWIS from Chapter 1? That is, *What You See Is What I See.*) Anyone on the team who does not have Word can save the attachment as a disk file instead; perhaps another application, such as Ami Pro, can read Word files. There are other technologies, as well, such as Acrobat from Adobe, which is designed to solve the problem of incompatible applications among team members. П

If you used Copy and Paste to capture the ad in Share, your team couldn't use the Edit, Search Forum command to find particular words in the text. If you embed a Word document, however, they can, because Share uses OLE to render the embedded document as simple text that can be indexed. The same is true for attachments: if the OLE server can render the text, Share will index it. So, Share will index an attached Excel spreadsheet because Excel can render text, but Share can't index a .BMP (bitmap) file because applications that handle bitmap files can't render text.

If your advertising agency faxes you ads, you can embed the fax bitmaps in Share documents, but you can't index them because bitmaps can't render text. One solution is to ask the agency to mail the copy text when they fax the ad. Then you can post the text and the ad in a single document, and the team is able to view the layout and search for words as well.

### Drag-and-Drop

The last method by which Collabra Share integrates with Windows and your other applications is called drag-and-drop. The Windows 95 Explorer offers a good example of this feature. You can use the mouse to drag selected files to the Recycle Bin as shown in Figure 5.22. In older versions of Windows, the File Manager supports drag-and-drop.



If you are not familiar with drag-and-drop you should be, because Windows 95 and other operating systems such as OS/2 Warp are making increasing use

Using dragand-drop in Windows 95.

Facebook's Exhibit No. 1003 - Page 147

of this technique. When you click an icon to make a selection, try moving the mouse with the button held down. If the icon or its outline follows the mouse, you are dragging. When you drag over other icons where dropping (letting go of the button) would be inappropriate, the mouse cursor will change to a "not here" indicator. Dropping on an appropriate target will often bring up a confirmation dialog box, containing the message Are you sure you want to copy the selected documents?.

You can use drag-and-drop within Collabra Share to rearrange the categorization of documents, as described in Chapter 10, "Moderating Forums." Share also supports dragging forums from the Explorer or File Manager and dropping them into the library.

To add a forum to your library, select the .FM file in the Explorer or File Manager and drag it with the mouse. Release the mouse button when the .FM file is over the Library window and Share adds the forum as if you had chosen it with the <u>File</u>, <u>Get</u> Forum command.

You can make this process even easier in Windows 95 by adding Share as a "Send to" target. To do that, follow these steps:

- 1. Select WINSHARE.EXE in the Explorer and choose File, Create Shortcut.
- 2. Drag the new shortcut to the \Windows\SendTo folder.
- 3. Rename the shortcut Collabra Share.

After performing these steps, selecting a file in the Explorer and choosing the <u>File</u>, <u>Send</u> To command includes Share as one of the destinations. If you select an .FM file and choose the <u>Send</u> To command, Share adds the file to your library.

You can embed files using drag-and-drop, too. When you drop a file on an open Composition window, Share embeds the contents of the file into the document you're creating. If the OLE server is not available or the file is not an OLE type, Share simply attachs the file.

# **Setting Workstation Preferences**

You use the <u>Properties</u>, <u>General command to change certain global prefer</u> ences within the Collabra Share desktop. Each workstation can have different settings; the team does not have to agree on everything.

The <u>Properties</u>, <u>General command brings up the General Properties sheet</u> shown in Figure 5.23. Notice the row of tabs across the top: Toolbars, Layout, П

Locations, and Miscellaneous. Selecting one of these tabs groups choices and makes it easier to find a particular setting.

Library Toolbar	Large Buttons with Text	OK
X Group Toolbar	X Show ToolTips	Cancel
X Forum Toolbar	🕅 <u>S</u> tatus Bar	Help
X Compose Toolbars		100000
	12	

**Fig. 5.23** Choose <u>Properties</u>, <u>General to</u> establish workstation preferences.

> You use the General Properties sheet to specify many workstation preferences, including aspects of the Library, Forum, and Composition windows. You can enable toolbars on each kind of window separately, show ToolTips, hide the status bar, choose wide window borders, and specify fonts used in various parts of Share.

Some settings are described in more detail in the next few chapters. In Chapter 6, "Managing Forums with the Library," for example, you learn how to customize your Library with a title and a custom bitmap. Chapter 7, "Finding and Reading Documents," explains how to specify the font used to display headings and what color indicates unread documents, and Chapter 8, "Contributing to Forums," describes how to set a default font in Share's built-in editor.

The Toolbars page enables you to show or hide toolbars in each kind of Collabra Share window. You can choose whether to show larger buttons with textual labels or smaller buttons with icons only. Share employs a useful Windows feature called *ToolTips*, which displays an explanation of a particular button whenever the mouse lingers over it. A small yellow box with the description appears just below the button at which the mouse is pointing. If you find this distracting, uncheck Show ToolTips to turn off this feature. You can likewise uncheck the <u>Status Bar</u> box to hide the status bar.

### Note

Although you can turn off the status bar and ToolTips, it is not recommended. When you get very comfortable using Share, you will discover a variety of shortcuts that enable you to avoid pulling down menus. When you *do* pull down a menu for a command that you only use rarely, the description on the status bar may be invaluable. Likewise, you will click frequently used toolbar buttons so quickly that ToolTips will not appear. When you need help with a rarely used command, you will not want to go back to the General Properties sheet.

Selecting the Layout page enables you to change the appearance of the Library window's borders and icons. You can even customize your library by giving it a title and a custom bitmap. The General Properties sheet also includes buttons for specifying the fonts used in the Library, Forum, and Composition windows.

Selecting the Locations page, shown in Figure 5.24, enables you to specify the default public directory for forums, your mail program, and how often to check for new postings. Every member of a particular team should specify the same public forum directory. Establishing a public forum directory is explained in Chapter 3, "Setting Up Collabra Share." The public forum directory should be a shared volume, probably on a file server, on which everyone in the team can be granted full privileges to read, write, create, and delete files.

oolbars   Layou	Locations Miscellaneous	1	
Public <u>F</u> orum C C:\COLLABRA			OK
Vail Executabl	and the second s	Browse	Cancel
C:\WINDOWS\MSMAIL.EXE		Biowsa	Help
Every 30	Launch Look for New <u>Postin</u> Minutei	g s	

**Fig. 5.24** The Locations tab of the General Properties sheet. П

You should already see your mail program, such as MSMAIL.EXE, displayed in the <u>Mail Executable text box because the Setup program establishes this</u> connection for you. Update this field if you change the mail program you are using, or to notify Share if you have moved your mail program. Unless you know what you're doing, however, do not modify this setting. Select the Have QuickLaunch Look for New Postings check box to enable polling for new postings in Share from within your mail program, and to configure how often to poll.

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### Tip

Chapter 7, "Finding and Reading Documents," describes how the Mail Executable property works with the File, Run Mail command. The Miscellaneous page groups several additional options that are discussed in later chapters. For example, setting the color of unread documents is described in Chapter 7, "Finding and Reading Documents." Chapter 8, "Contributing to Forums," explains the automatic spell check option on the Miscellaneous tab.

### From Here...

In this chapter, you learned how Share fits in with Windows and your other applications, including mail. You learned about the Multiple Document Interface (MDI). How to cut and paste data with the clipboard was described as well as how to use Object Linking and Embedding (OLE) to share data. Now you are ready to learn more about each of Share's windows, starting with the Library window, which helps you organize the forums in which you have an interest.

- For more information about the Forum window, see Chapter 7, "Finding and Reading Documents."
- The Composition window is described in Chapter 8, "Contributing to Forums."
- For more information about forum policies, see Chapter 10, "Moderating Forums."
- To understand directory synchronization with mail, see Chapter 19, "Managing the Registry."

# Chapter 6 Managing Forums with the Library

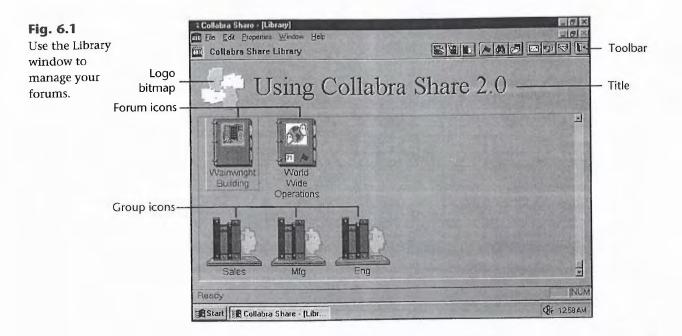
The Library window is a key component of Collabra Share. You must use the Library to switch between your forums; therefore, making the best use of the Library will improve your productivity every time you use Share.

In this chapter, I'll describe how to use the Library to manage your forums, and I'll explain its highly customizable features as well. The following issues are covered:

- Understanding the Library
- Adding icons that represent forums
- Using the forum icons
- Removing forums from your Library
- Working with groups
- Customizing the look of the Library
- Advanced features such as searching in many forums at once

### **Understanding the Library**

The Library is one of three kinds of windows in Share, as you'll remember from Chapter 5, "Looking at the Collabra Share Desktop." Unlike Forum and Composition windows, there is only one Library window in Share. A standard Library is shown in Figure 6.1. Certain elements of the window, such as group icons, won't be discussed until later. 11



The Library is the first window you see when you start Share (unless you last exited Share with a forum open or you are following a Shortcut that launches Share). You open, create, and erase forums from the Library.

The Library is a place for forums; they appear in the Library as three-ring books with colored, tabbed dividers and the forum's icon on the cover. (The books are not bound because forum contents are changeable. The dividers imply that forums are divided into categories.) The forum icon is the only way to open a forum for use. You cannot choose a forum that is not in the Library.

Everyone's Library is different. You use your Library as a collection of the forums that you find useful, and you employ the tools described in this chapter to organize and arrange the icons for these forums.

Forums are shared among the members of the group, but Libraries are not. For example, say that you add a forum called "Sales & Marketing," with an icon of a smiling customer on the book's cover, to your Library. This forum has the same name and icon when added to anyone else's Library in your enterprise. However, in your Library, it might be next to "Complaints" with an angry customer on the cover, while in someone else's Library, "Sales & Marketing" might be arranged alone on a line. The set of forums in your Library is unique to you. If you make a contribution to a forum, everyone shares the new document. If you modify a forum's name or icon, that change is reflected in everyone's Library as well. However, there is nothing else you can do to affect the appearance of any Library but your own. As you will learn, there are many ways to customize the appearance of your own Library.

Because the Library contains forums, it is the natural place to create new forums and erase existing ones. The Library is also something of a personal Share control panel because it indicates the presence of unread documents in the forums that you have chosen. The Library is an example of how Share helps conquer information overload: you probably don't have time to scan *all* the forums at your company, just those that are most important to what you're doing.

# **Using the Library Forums**

The Library window includes facilities that let you add icons representing forums, view certain forum properties, arrange the forum icons to your liking, and remove forum icons.

Add an icon to your Library for each forum in which you expect to participate. If you later find icons in your Library for forums that you never access, simply delete the icons. Meanwhile, keep your forum icons arranged for optimum utility.

To open a forum for use, simply double-click the forum's icon, or select the forum and either press Enter or choose the <u>File</u>, <u>Open Forum command</u>.

There are two ways to add a forum to your Library: you can get an existing forum, or you can create a new forum. When you create a new forum, an icon for it is automatically added to your Library.

### **Getting an Existing Forum**

When you want to include an existing forum in your Library, you choose the <u>F</u>ile, <u>G</u>et Forum command (Ctrl+G) to display the dialog box shown in Figure 6.2.

The <u>Get</u> Forum command initially looks for forums in the Public Forum Directory, which is set when you install Share and which you can change at any time. In general, it is good policy to have everyone in your group agree on the Public Forum Directory (the network folder where most forums will be created), but you can change it temporarily to suit your needs.



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**Fig. 6.2** Use the <u>File</u>, <u>Get</u> Forum command to select forums for your Library.

orum Names	10 C 10 C	Directories c:\collabra\forum:	014	OK
Fellingwater 태리 First Newsfeed	2	(] c1	-	Cancel
2 <sup>4</sup> HR Into		Collabra		Help
internet Newsgroups	110	🗋 fallingw	_	Network
NetNews	118	human_re	-	
Di The Learning Forum Wainwright Building	13			
World Wide Operations		Drives		
	1	foor : c	-	
orum Announcement				

To change your Public Forum Directory—but not anyone else's directory choose the <u>Properties</u>, <u>General command and select the Locations tab</u>. The sheet shown in Figure 6.3 appears, and you can either enter a new directory or use the <u>B</u>rowse button to select a directory by navigation.

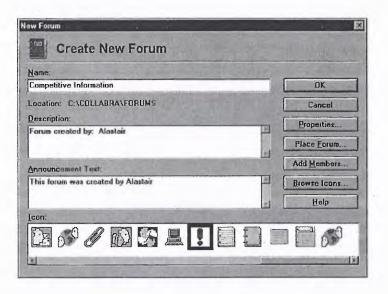
ublic Forum Ditectory:			ОК
:\COLLABRA\FORUMS	Contraction of the	Browse	Cancel
ail Executable:			
:\WINDOWS\MSMAIL.EXE	or the support of the second	Blowse	Help
Have QuickLaunch Look	for New Postings		
Every 30 Minutes			

All that the Public Forum Directory affects is where <u>Get</u> Forum looks first. You can navigate the Get Forum dialog box to other directories to find forums that are not in the public directory. If you find that you use a particular directory more than the public directory, you can change your Library's notion of the public directory to the directory that you use the most.

**Fig. 6.3** Change your Public Forum Directory as often as you like.

### **Creating a New Forum**

Another way to add an icon for a forum to your Library is to create a new forum. In that case, Share automatically adds the new forum to the Library. You create a new forum by choosing the <u>File</u>, <u>N</u>ew Forum command (Ctrl+N), which displays the dialog box shown in Figure 6.4.





**Fig. 6.4** Creating a new forum starts with this dialog box.

As soon as you enter a name for your new forum, you can click OK to accept default settings for your forum's options. One of the defaults is that your forum will be created in the Public Forum Directory, which was described in the previous section. You can change the location of your new forum with the Place Forum button, but it is easiest if everyone in your group agrees on a Public Forum Directory and expects new forums to show up there.

To learn more about the <u>N</u>ew Forum command, see Chapter 9, "Creating Forums."

### Note

If you and your group are all new to Share, you should consider establishing just one forum and letting everyone create categories, rather than forums, at first. You'll all get a feel for what forums you need, and you'll have fewer questions when you do finally create some forums.

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### **Viewing Forum Properties**

By adding only the forums that interest you to your Library, you eliminate clutter from your desktop. To focus your attention even more narrowly, Share visually indicates which forums contain documents that you haven't read. The forum shown in Figure 6.5 contains documents you have already seen.

**Fig. 6.5** This forum contains no unread documents.



A red flag, as shown in Figure 6.6, indicates that there are new documents—three in fact.

**Fig. 6.6** This forum contains three unread documents.



A yellow question mark, as shown in Figure 6.7, indicates that the forum is temporarily inaccessible.

**Fig. 6.7** This forum is not currently available.



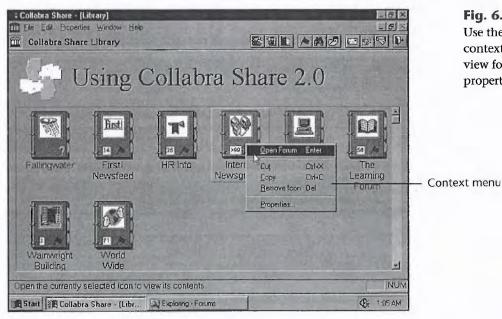
Share scans the forums to determine what's new and then updates the flags and counts its displays. After all, others in your workgroup could be contributing to your forums even as you read this. Forums in the Library and any open groups are scanned. *Closed groups*, which you'll learn about in the section "Using Groups," provide a means of excluding some forums from the scan.

By default, Share performs a scan whenever you start up, but you can disable this feature (on the Miscellaneous tab of the General Properties sheet). Next to the Look for Unread Documents in Forums at Startup check box is another check box: Look for New Postings. This check box allows you to specify an automatic retry interval ranging from every 15 minutes to every 16 hours.

By default, the <u>File</u>, <u>Update Library command performs a scan when Share starts up to notify you of any new forums. If you open a forum that the Library says contains one new document when it actually has three, you'll see all three. Closing a forum updates it in the Library. In brief, don't rely on the unread count in the Library unless you've just issued the <u>Update Library</u> command.</u>

The Library displays three properties of each forum: the forum's title, its icon, and the summary of unread documents. Forums have many more properties, which you can see by clicking on a forum icon to select it and then choosing the Properties, Forum (Alt+Enter) command.

Clicking with the right (or second) mouse button instead of the left, brings up a *context menu*, as shown in Figure 6.8.







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**Fig. 6.8** Use the Library context menu to view forum properties. You can click the right mouse button on a forum or on the Library background. The background has a slightly different context menu. You can also right-click groups (described in "Using Groups") for a third kind of context menu.

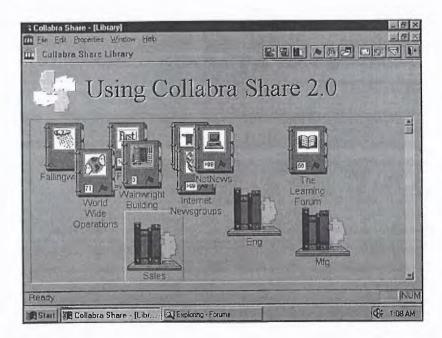
# **Managing Icon Position in a Library**

The arrangement of icons in your Library is up to you. Unlike shared forums, your Library is not public. You should organize your forum icons in a way that works for you.

For example, you might arrange active discussion forums across the top so that new postings catch your eye when you first load Share. Document repository forums, in which new postings are infrequent, might be tucked away in a group.

### **Dragging and Dropping Icons**

You can use the mouse to drag forum (and group) icons around the Library and leave them wherever you like. Figure 6.9 illustrates a somewhat jumbled Library.



**Fig. 6.9** Many avoid rigid organizations in favor of an ad hoc approach.

### **Arranging Icons**

To snap icons into neat rows and columns when you move them, choose the <u>W</u>indow, <u>Au</u>to Arrange Icons command. The <u>W</u>indow, <u>Arrange Icons command organizes the icons in Figure 6.9, for example, into the strict order shown in Figure 6.10.</u>

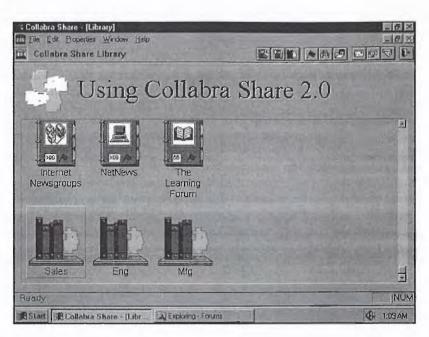


Fig. 6.10 The Window, Arrange Icons command straightens up your icons.

Working with Share

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You use this command one window at a time. That is, you must open each group window and arrange its icons separately.

The <u>W</u>indow, A<u>u</u>to Arrange Icons command toggles on and off when you select it. If it is on (the default), it automatically arranges your icons whenever one is moved. The effect of this command is to make it easy to drag icons around to control the order of forums in the Library rather than their precise placement.

Unlike the <u>Arrange</u> Icons command, <u>Au</u>to Arrange (if on) affects the icons in all groups as well as in the Library.

### **Removing an Icon from the Library**

To remove an icon, click to select it, and press the Del key (or choose the <u>File, Remove Icon command</u>). You'll see the warning dialog box shown in Figure 6.11.

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**Fig. 6.11** Confirm that you really want to remove a forum icon from your Library.

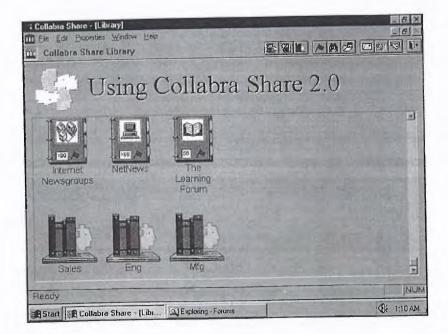
and Dire	Share	And Inc. of Concession, name	
2	Remove the ic	on for the Wainwrigh	Building forum
4			
		Yes	No

As you know, the contents of your Library are not public. This means that you can remove forum icons without anyone else taking notice. Putting forums back into your Library is so easy that removing an icon is no big deal.

You can select multiple forum icons by holding either the Shift or Ctrl key down as you click. You'll be asked to confirm each forum's removal individually.

# **Using Groups**

You can have an unlimited number of forums in your Library, but more than two dozen can be unwieldy. Groups let you focus on fewer forums at once while keeping the total number available. Figure 6.12 illustrates the use of groups to organize a Library.

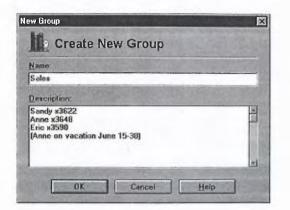


Groups have names and a textual description, either of which you can change at any time. Groups contain forum icons, but they do not contain other groups. Only your Library contains groups.

**Fig. 6.12** Sales, Eng, and Mfg are groups that contain forum icons.

### **Creating and Deleting a Group**

Use the <u>File</u>, New Group command to create a new group icon in the Library. Use the dialog box shown in Figure 6.13 to enter a name and a description. Group names can be 128 characters. Because your groups are not shared with others, you can use the description field for any purpose you like. In this example, phone extensions for key people associated with the forums in the group are being recorded.



**Fig. 6.13** Give your group a name and any description you wish.

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Deleting a group is as simple as deleting a forum icon. You select the group and press the Del key (or choose the <u>F</u>ile, <u>R</u>emove Group command). You are asked to confirm this action because you are deleting the icons contained in the group as well.

### **Moving Forum Icons in a Group**

There are three ways to place forum icons in a group:

- Drag a forum icon and drop it on the group.
- Create a forum in a group.
- Paste a forum icon that was previously cut or copied to the Clipboard.

You can't drag and drop a group because only the Library can contain groups. Duplicating forum icons is not possible within the Library or any one group, but you can have icons referring to the same forum in different groups.

### Note

Groups are something like alternate Libraries, so it's perfectly natural that they should contain overlapping sets of forum icons. You normally work with either the Library or a single group at a time.



### **Changing a Group's Properties**

You can change a group's name or description at any time by using the <u>Properties</u>, <u>Group command</u>. The dialog box shown in Figure 6.14 appears.

Fig. 6.14

Change a group's name or description with the <u>Properties, Group command.</u>

Mfg Group	107		
Name:			
Mfg	in the second	-	
Description:	2	Y	
Manufacturing			
ΟΚ	ancel	1	Help

The title of a group is a label that you apply to the forums you have placed in the group. The group's description property is available for any use you can think of. Remember, no one else sees your groups or their descriptions.

# **Customizing the Library**

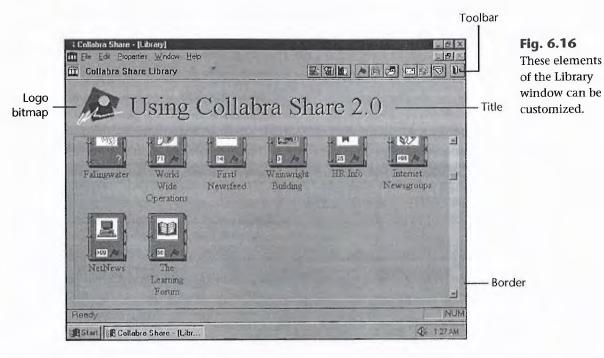
Because your Library is not shared with the others, you are encouraged to customize it to your liking. You have several options concerning the look of the Library window as well as the forum icons themselves. Figure 6.15 illustrates one of the possibilities.

Collabra Share - (Library)			
P	109		
1		A	
Fallingwater	World Wide	First! Newsfeed	
	Operations		
		100	
	4	4	
Wainwright	HR	Internet	
Building	Info	Newsgroups	
Ready	fim		INU

**Fig. 6.15** Let your Library reflect your personality. This user chose a Persian-style font in a large size, deleted the Library's border, toolbar, logo and title, and turned off the display of the number of unread documents.

### **Library Window**

Figure 6.16 illustrates the window elements that you can customize. You can choose a wide border that can be embellished with a Library title and a picture of your choice. In addition, you can display no toolbar or one of two toolbar sizes.



### **Setting Window Borders**

You can specify an optional border for the Library that makes it easier to distinguish from other Windows applications. Without the border, the Library looks like any other window in the system.

The border option is found on the Layout page of the sheet that appears when selecting the Properties, <u>General command</u> (see Fig. 6.17).

You must choose the wide border to enable the title and picture options described next.

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**Fig. 6.17** Customize your Library with the choices shown here.

bars L	ayout Locations	Miscellaneous	
onts	Library Font	Pane Headings Font	OK
	Editor Font	Pane List Font	Cancel
L.	Lucoriuse		Help
🕅 Librar	y Lille Bar 🛛 🛛	X <u>Number of Unread Docum</u> Use <u>S</u> mall Books in Library	
	itte Bar Text: Illabra Share 2.0		-

#### **Naming Your Library**

Share offers a rare "your name here" feature that allows you to customize your Library with your name, your company's name, or a personal motto.

You must have the <u>W</u>indow Borders box checked to enable a custom title; then, check the Library <u>Title</u> Bar box, and enter your title in the Library Title Bar Te<u>x</u>t field.

#### Note

Suggested mottoes include "Well begun is half done" (Poppins) or "Paradoxes are useful to attract attention to ideas" (Creighton). But, of course, you no doubt have your own.

#### Adding a Custom Logo

The Collabra four-head logo in the upper left of the Library can be replaced with any 16-color bitmap that does not exceed 200×200 pixels (or pels). Simply prepare the bitmap, as described below, and choose the Properties, <u>General command</u>, Layout tab, and locate your bitmap in the Library Title Bar <u>B</u>itmap field.

To create a suitable bitmap, use the Microsoft Paint application that comes with Windows, as follows:

1. Launch Paint (called Paintbrush in earlier versions of Windows).

**2.** Choose the Image, <u>Attribute command (Ctrl+E)</u>. The dialog box in Figure 6.18 appears.

ttributes	2
Width: 200 Height: 200	OK
Units	Cancel
C Inches C Cm C Pels	Default
Colors C Black and white C Colors	

**Fig. 6.18** Library logo bitmaps cannot be larger than 200×200 pels.

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Working with Share

- **3.** Set the <u>Width and Height to 200 each</u>, the Units to <u>Pels</u>, and choose Colors. Click OK.
- **4.** Use the <u>File</u>, Save <u>As</u> command and choose 16-Color Bitmap (\*.BMP) as the type. Name the new file.
- **5.** Now draw the bitmap in the square provided. You may want to fill the background with light gray to blend with the Library frame.

If you change the bitmap, you must set the Library Title Bar <u>B</u>itmap field to another .BMP file, click OK, and then choose your original bitmap for the modification to take effect.

### **Using the Toolbar**

Share offers two kinds of toolbars: large buttons with labels, and the advanced version, which features more, but smaller and unlabeled buttons. However, you can turn off the toolbar completely. Your options are shown on the Toolbars page of the General Properties sheet shown in Figure 6.19.

Check or uncheck the <u>L</u>ibrary Toolbar or <u>G</u>roup Toolbar boxes, and then check Large <u>B</u>uttons with Text if you don't want the advanced toolbar. You can switch from the default to the advanced toolbar and back anytime by simply double-clicking on the toolbar background.

### **Forum Icons**

Forum icons always look like three-ring books with divider tabs, though there are three ways to change the look of your Library. You can

- Alter the fonts of the forum names.
- Change the size of your icons.
- Specify unread documents.

### Tip

It's okay to choose the unlabeled toolbar as long as you turn on ToolTips. Point at a button without clicking, and ToolTips displays the command name. **Fig. 6.19** Make Library and group toolbar choices.

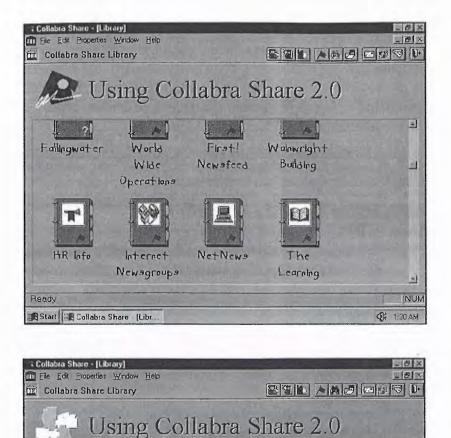
Library Toolbar	Large Buttons with Text	OK
Group Toolbar	Show LoolTips	Cancel
Eorum Toolbar	🔀 Status Bar	Help
Compose Toolbars	a line in the second	
	The State The second	

The most profound way to change the look of your Library is by choosing a different font for your forum names. The default, Arial 11 point, imitates the Windows 95 system font. For a more buttoned-down look, choose Times New Roman 12 point. You can select bold and italic styles and different sizes as well.

Choose the <u>Properties</u>, <u>General command and click the Library Font button</u> on the Layout page. Don't hesitate to try different sizes; the icon arrangement facility will automatically accommodate them. Figure 6.20 illustrates an unusual font choice.

Another way to change the look of your Library is to choose large or small icons (see Fig. 6.21). The three-ring books, which represent forums, come in two sizes. The forum icons are more readable in large size, but more forums are visible in a limited Library when the books are smaller. To use the small books, check the Use <u>S</u>mall Books in Library box on the Layout page of the General Properties sheet.

A third way to change the look of your Library is to specify whether unread documents are to be indicated on the book icons (see Fig. 6.21). It is useful just to know that a forum contains unread documents, but knowing exactly how many unread documents can be better. Check the <u>N</u>umber of Unread Documents box on the Layout page of the General Properties sheet to see the count. A hundred or more new documents is displayed as ">99."



>99 /

Internet

Newsgroups

1>991

NetNews

50

The

Learning

Forum

1

-

NUM

€ 1:04 AM

**Fig. 6.20** Using a third-party font called Kidstuff.

Fig. 6.21

documents displayed.

Large forum icons

with the number of unread

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# **Using Advanced Library Features**

25

HR Info

15 /

Firstl Newsfeed

71

World

Operations

Start Collabra Share - [Libr... 2] Exploring - Forums

Fallingwater

5

Ready

Wainwright

Building

The Library hides a few more tricks. For example, you can select more than one forum icon and then search for documents containing specific text in the selected forums.

Facebook's Exhibit No. 1003 - Page 168

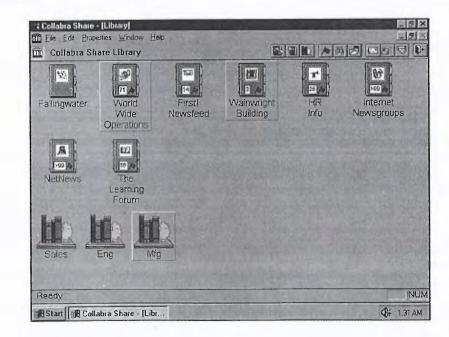
The Library is the lobby that leads to the forums. You know how to open forums, but there is also a way to jump into the middle of a forum and resume composing a new document. The Library allows you to reopen these so-called drafts in progress. And there are hooks to your mail system, which enable you to mail a forum Shortcut to other users, send mail, or switch to your mail application.

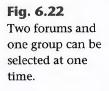
Finally, you learn how to permanently erase a forum---not just remove its icon from your Library.

### **Selecting More Than One Forum Icon**

You know that clicking a forum icon in the Library selects it and that the currently selected forum has a raised gray rectangle around it. You may also have noticed that the arrow keys on the keyboard can be used to move the selection around the Library as well.

If you press and hold either the Shift or the Ctrl keys as you click forums, you can select more than one at a time, as shown in Figure 6.22. Shift+click a selected forum, and it becomes unselected. The Shift and Ctrl keys combined with the arrow keys have a similar effect, but you're limited to adjacent forums.





You can select multiple forums and apply the following commands:

- <u>File, Remove Icon</u>
- 🔳 <u>E</u>dit, Cu<u>t</u>
- <u>E</u>dit, <u>C</u>opy
- Edit, Search Forums

The latter command is unusual because it's one of the few commands in Share that crosses forum boundaries.

If you select several forum icons and choose File, <u>Remove</u>, you are asked to confirm each one independently. If you cut or copy forum icons to the Clipboard, you can paste them into a group (or back into the Library) at some later time.

### Searching for Text in Forum Documents

I will describe searching for documents containing particular text in Chapter 7, "Finding and Reading Documents." However, this facility is also available from the Library.

The <u>E</u>dit, <u>Search</u> Forums command searches the currently selected forums for the text that you specify. (Specifying searches is described in Chapter 7.) If documents matching your specification are found, Share displays the results dialog box shown in Figure 6.23.

Forum Name	# of Hit[s
Would Wide Operations	48 hits
Firatl Newsfeed	G hits
π <sup>4</sup> HB Info	4 hits

**Fig. 6.23** The Library lets you search several forums at once.

Clicking the Show <u>Results</u> button opens the selected forum and displays the documents that matched your query. This represents an alternative to simply opening a forum.



П

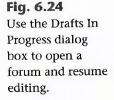
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### **Returning to a Document in Progress**

In Chapter 8, "Contributing to Forums," you'll learn that Share allows you to set aside work on a new document, save it in draft form, and resume work later. You can return to the location of the new document in a forum and continue working, or you can select from a list of saved drafts in the Library.



Choose the File, Open Draft command (Ctrl+O) to display the dialog box shown in Figure 6.24. From this dialog box, you can reopen a draft, or you can delete it. To resume editing, select a draft and click the Open button. The draft's forum is opened and positioned in the correct location, and the Composition window is reopened. This is another alternative to simply opening a forum and starting at the beginning.



Drafts In Progress	ogress	La
Wainwright Building Forum The Learning Forum Forum Wainwright Building Forum	n: Practice	

### **Using Mail from the Library**

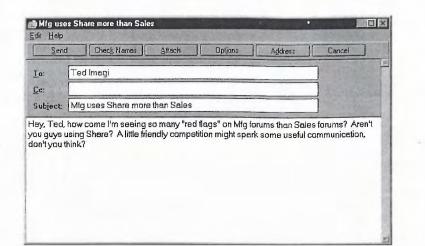
There are three mail commands available from the Library, two that invoke your mail system. These three mail commands only appear in the advanced, unlabeled toolbar.



To compose a mail message from Share, choose the <u>File</u>, <u>Send</u>, <u>Note</u> command. Your mail system's simple mail interface appears. The Microsoft Mail version is shown in Figure 6.25. From this dialog box, you can enter and address your note.



Instead of sending a note, you can switch to your mail application. The <u>File</u>, Run <u>Mail command</u> (Ctrl+M) launches your mail application while Share is still active.



### Fig. 6.25 Send a note by mail from the Library.

### **Mailing a Forum Link**

One reason to send a note by mail might be to bring a particular forum in your Library to another user's attention. Share is way ahead of you. Use the <u>File, Send, Forum Link command to send mail to another user that contains</u> a Shortcut to the currently selected forum.

When the recipient double-clicks on the Shortcut, it will launch Share if it is not already running and then open the forum that you wanted that user to see. You can also send a Shortcut that brings up a particular document within a forum—that command is also discussed in Chapter 7, "Finding and Reading Documents."

### **Erasing a Forum Permanently**

The final Library command that I'll discuss is the command that erases a forum and all of its contents. Obviously, this is not a command that you could perform from within an open forum.

Use the <u>File</u>, <u>Erase</u> Forum command to delete the forum. Don't confuse this with <u>File</u>, <u>Remove Icon</u>—which only affects your Library. The <u>Erase</u> Forum command expunges the entire forum from the disk. If any other user has the forum in use, you will not be able to erase it.

If the forum is not in use, you'll be asked to confirm your request by typing the word **YES** into the dialog box shown in Figure 6.26.



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Fig. 6.26	Confirm Erase Forum
Type <b>YES</b> if you really, truly want	Please confirm that you want to permanently crase the "Wainwright Building" forum and all of its files. This operation is not undoable.
to erase the specified forum.	Type "YES" here to confirm: YES
	OK Cancel Holp

# From Here...

Now that you understand the function of the Library as the gateway to your forums, you're ready for Chapter 7, "Finding and Reading Documents." To follow up on what you learned here, consider these chapters:

- If you're just starting with an empty Library, jump to Chapter 9, "Creating Forums."
- To modify forum properties, such as the forum title and icon that appear in the Library, go to Chapter 10, "Moderating Forums."
- To learn how to lock a forum so that you can erase it, see Chapter 20, "Using Administration Tools."