BLUE PENCIL

Making the Web Work for You

By Heather A. Lazzaro

Web-based projects may be some of your most challenging, as well as rewarding, assignments. More so than with paper manuals or traditional help files, these projects require a unique understanding of the overall "user experience."

The Internet has added a new dimension to technical communication because it has transformed our users. Whether your audience consists of home consumers or software engineers, the Internet has changed everyone's expectations about software applications and user assistance. More than ever before, users expect products to be easy to use. They don't have the patience to plod through a 50-page manual to learn how to send e-mail. The universality and ease of accessing the Internet has caused users to have these same ease-of-use demands for all Web-based information.

If you're writing content for the Web and thinking only about the writing, then you're only doing half of your job. You must consider the best way to present your content on the user's screen, considering the **context** within which he or she will access that information. In other words, you have to think about the psychological experience the user has when accessing and using your information. Technical writers have always been concerned with page layout and design principles. Now, the Web just forces writers to take these skills to a new level.

The first step you should take when creating Web-based documentation (or any type of technical writing) is to consider the user's main goal. When a user accesses your documentation, that person's goal is almost always the same: to be able to complete the tasks necessary to do his or her job. That

person uses your documentation as a means of accomplishing this goal so that he or she can go home at the end of the day.

You must always keep this goal in mind when designing Web pages because it expands the realm of tasks for which technical communicators are responsible. Now you not only have to think about the accuracy and grammatical elements of the text, you must also consider how users access your information, navigate within it, and exit it.

The transition between your documentation and the interface from which it is accessed should be as transparent and as pleasant as possible. In a way, you now wear the hat of Psychologist and Magician in addition to all of your other technical writing roles.

Java and You: Components and Distributed Applications

By Nancy Ott
Part 2 of a 2-part series (Part 1 appeared in the February issue)

The first article in this series went over some of the basics of the Java programming language. This month's article discusses Java components and how they can be used to build distributed applications.

Components: More than just mere objects

One of the fastest-growing areas where the

Java programming language is being used is in component-based applications. *Components* are objects with additional capabilities that enable them to function in large-scale information systems. Components can perform many tasks that ordinary objects can't, such as:

• Provide locations for objects in a network and establish their system identities

• Create and destroy objects

Contents

STC's Pittsburgh Chapter Continues to Support PRSEF with Sponsor Award

By Jennifer S. Bonelli

Chair, H.S. Writing Competition

Friday, March 23, 2001, marked the 62nd year for the Pittsburgh Regional Science and Engineering Fair, an open competition of student research projects in the fields of science, mathematics, and engineering.

This Fair is the third oldest science fair in the United States under the affiliation of Science Service, Inc., and has been a Pittsburgh tradition since 1940. This year, 620 sixth through twelfth grade students from 74 schools participated, representing 23 counties in western Pennsylvania and 3 counties in West Virginia. The Fair was sponsored by Carnegie Science Center, in association with various foundations, universities, colleges, industries, corporations, and professional societies throughout the region.

Months before the Fair, students began developing their research projects using the scientific method. Senior Division students in grades 9-12 chose from research categories such as Behavioral and Social Sciences; Biology; Chemistry; Physics; Computer Science and Math; Earth, Space, and Environment; Engineering and Robotics; and Medicine, Health, and Microbiology. Intermediate Division students in grades 7 and 8 could also choose Consumer Science as a category, while Junior Division students in grade 6 could select from Physical Science, Life Science, and Consumer Science.

At the Science Fair, students displayed presentation boards that detailed their research. Then, they interviewed with both category and sponsor judges who assessed each student's scientific and technical skills. Once the interviews were complete, the category judges selected first, second, and third place medal winners in each Division category, while sponsor judges from various professional organizations and corporations selected winners that best represent their specific fields of interest.

STC's Pittsburgh Chapter continued its long-time dedication to encouraging interest in science and technology by once again sponsoring a Senior Division award for Excellence in Technical Writing.

This year's STC award winner was Paul Puskavich, who was selected for a project entitled, "Polypleura: Projective Duals of Polyominoes." Paul's project, which was entered in the Senior Division Computer Science and Math category, studied polyominoes, or sets of connected squares, and their projective duals, or polypleura. His research discussed how the creation of the dual impacted the relationship between polyominoes and polypleura, and showed that the number of incomplete projective duals of a polyomino whose complete projective dual, when taken as a graph, is a tree, equals zero. He also applied this theory to other polyominoes, as well as to the types of figures that could be created from 16 tetrapleura.

Paul is a senior at Fox Chapel Area High School, where he completed his research under the direction of teacher, Gregory Schubert. Paul received a medal and a certificate from the Pittsburgh Chapter honoring his achievement. Mr. Schubert also received a sponsoring teacher award.

In addition to STC's Excellence in Technical Writing award, Paul also won first place overall in the Senior Division Computer Science and Math category, as well as the Marconi Merit Scholarship. As a Division winner, Paul will receive an all-expense-paid trip to compete in the International Science and Engineering Fair, held in San Jose, California in May.

The Pittsburgh Regional Science and Engineering Fair competition concluded with a week-long Sci-Tech Festival, sponsored by The Frick Educational Fund of the Buhl Foundation. Public Festival events were held at the Carnegie Science Center and various other downtown locations from March 24 - 31. ✎

Java and You: Components and Distributed Applications

(Continued from page 1)

• Store the state of objects in a resource manager such as a database

• Handle the activation (loading into memory) and passivation (releasing from memory) of objects

• Provide transaction support for objects and coordinate transactions with their underlying data stores

• Search for objects and remotely access their methods

• Notify objects that events have occurred

These capabilities enable components to be used in *distributed applications* — that is, applications that are hosted on more than one computer in a network. Component-based systems offer the promise of reusability where individual components can be used again and again without needing to be reworked.

JavaBeans components: Visual programming

JavaBeans is Sun's basic Java component architecture. A *bean* is a reusable software component written to the JavaBeans specification. It implements an additional set of interfaces from an ordinary Java object:

• **Introspection** — Allows a visual programming tool to analyze how a bean works, allowing developers to connect beans.

• **Customization** — Enables developers to customize the appearance and behavior of a bean, using a property sheet provided by a visual programming tool.

· **Events** — Enables beans to communicate by using a notification mechanism.

· **Properties** — Describes the bean's attributes and broadcasts a notification when an attribute changes.

· **Serialization** — Allows developers to customize beans and package them into a Java Archive (JAR) file for distribution.

Software developers use visual programming tools to combine beans into applica-

tions. For example, beans are often used for commonly-used graphical user interface elements such as menus, scroll bars, and so forth. A programmer can create a user interface by dragging the appropriate beans to the place where the interface element is to be located. Beans can also be used to perform other commonly-repeated tasks in an application, such as handling interactions between different parts of the application.

Enterprise JavaBeans components: Distributed applications

Distributed applications require components that support distributed processing, remote procedure calls, integrated security, transactions, concurrency, and dynamic querying capabilities. The *Enterprise JavaBeans* (EJB) architecture is Sun's component architecture for building distributed, component-based business applications in the Java programming language. Enterprise JavaBeans components, or *enterprise beans*, are designed to be installed on a server and accessed remotely from a client. They are platform independent and can be deployed in any runtime environment that supports the EJB specification.

Two types of enterprise beans are used in applications:

• *Session beans* represent tasks and operations. They typically are used to implement an application's business logic ¾ that is, the computations, data manipulations, and other operations by which the application performs its tasks.

• *Entity beans* represent data stored in a database or some other form of permanent storage. They handle data retrieval and storage for an application.

The clients of an EJB application usually interact with session beans to execute processing requests. As part of these requests, session beans can invoke entity beans to access the data needed for an application (such as information stored in rows in a relational database).

An EJB programmer doesn't have to worry about coding memory management, database access, and other system-level operations. These things are handled by the EJB runtime environment. Enterprise beans are deployed into a *container* that provides essential runtime services like transactional support, security support, and memory management. A container is part of an *application server* that provides an environment that enables enterprise beans and other types of Java components to run as part of a distributed application. A *deployment descriptor* is used to specify how an enterprise bean is managed by its container. Deployment descriptors are set when the application is assembled (or *deployed*) from its component enterprise beans.

Java software development tools can be used to write enterprise beans and design EJB applications. They generate the code that is standard to all enterprise beans, allowing the developer to concentrate on implementing the business methods associated with the application.

Building distributed applications from components

Java components are uniquely suited for developing distributed, multi-tiered applications such as those that are delivered over the World Wide Web or a corporate intranet. In a *multi-tiered application*, the application's business logic is separated from its user interface and data storage. The application's components can be hosted on a single computer or several computers in a network. Hosting an application on multiple networked computers can improve its reliability and performance.

The figure on this page shows how components and related Java technologies (such as HTML pages, JavaServer Pages (JSP pages), applets, and servlets) can be used to create applications that are delivered over the Web.

· A Java-enabled Web browser acts as the user interface. It hosts the client to the

People News

NEW MEMBERS:

David Caruso

Pamelo Ford

Katherine Kowall

James McCarty

Linda Oberst

Shirley Price

Jennifer Rullo

James Washington

Janey Wyrick

CHAPTER MEMBERSHIP:
181

TOTAL STC MEMBERSHIP:

19,207

Java and You: Components and Distributed Applications

(Continued from page 3)

distributed application, which can be a static HTML page, an applet, or some other type of Java application. Users submit requests to the application through the client.

• The client sends user requests to the Web server, typically using the HTTP or HTTPS protocol.

• Servlets can run in a Java-enabled Web server or an application server. They control the application's work flow. Servlets

A multi-tiered, component-based approach to application development has several benefits:

• It can enable rapid application development because teams can work in parallel on the different parts of the application.

• Good component design fosters reuse in other applications.

• Software developers do not need to deal with system-level services because they
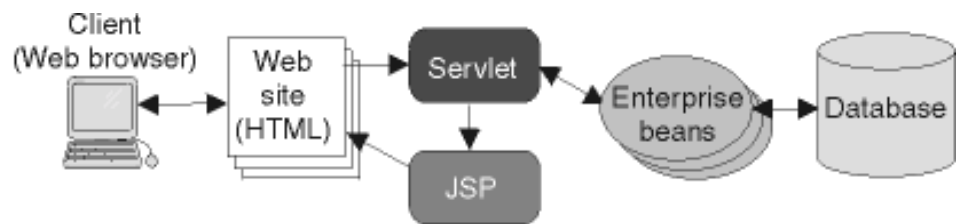

Illustration: How components and related Java technologies can be used to create applications

receive and process client requests, directing them to other parts of the application as appropriate.

• Enterprise beans typically implement the application's business logic. They are deployed onto an application server and can be reused by other applications. They can run on any platform where an application server is supported.

• A database stores the information associated with the application.

• JSP pages embed Java servlet code (or other Java code) directly into an HTML page, which is then used to access servlets, Java beans, enterprise beans, and other Java-based Web applications. They are often used to dynamically generate HTML code to display the results of a client request.

are all managed by the application server and container.

• Applications can be scaled up to handle increased client requests by adding more servers.

• Using the Java programming language leads to portability and platform independence. The Java component architectures are based on industry standards and are rapidly being adopted by many organizations.

• Companies are not necessarily locked into a relationship with a specific vendor. Several different vendors provide the software

Java and You: Components and Distributed Applications

(Continued from page 4)

infrastructure (the Web servers, application servers, database servers, communication infrastructure, and so forth) used to host these types of distributed applications.

However, Java component-based architectures are not without their problems. Performance is an issue for virtually all Java applications, and component-based applications have extra overhead from the application servers needed to run them. The promise of "write once, run anywhere" has never been entirely achieved for complex Java applications. Bad application design can hinder reuse of components and limit productivity. And while the Java components themselves are portable to software from different vendors, other parts of the application may not be.

Still, for many organizations, the lure of portable, reusable software is enough to overcome its drawbacks. Java component-based architectures offer a way to design, develop, and deploy distributed applications that are easily integrated with Web sites and can run under many different platforms.

Nancy Ott is a technical writer with the IBM Pittsburgh Lab. She can be reached via email at nott@transarc.com.

Newsletter Award!

The Pittsburgh Chapter earned an award of Excellence in the 2000-2001 STC Newsletter Competition for its outstanding newsletter, *Blue Pencil.*

Nancy Ott was editor during this time.

32 chapters and special interest groups (SIGs) entered this year's competition. A team of 4 judges - 1 statistical judge and 3 qualitative judges - evaluated newsletters in each category.

All award-winning newsletters will be on display during STC's 48th Annual Conference, May 13-16, 2001, in Chicago, Illinois.

Information received from:
Tom Barnett
Manager 2000-2001 STC Newsletter Competition

STC National Conference expected to be a hit

Haven't yet registered for STC's Annual Conference in Chicago, Illinois - May 13-16, 2001?

You'll wish you had.

For the opening session, STC is bringing back Dewitt Jones, the most popular and creative opening speaker of any STC conference. Jones is a National Geographic photojournalist and a filmmaker who has been nominated for two academy awards. Don't miss the man praised by STC members as the most lively and popular opening session presenter of any STC conference.

Richard Lederer, author of more than 2,000 books and articles about language and humor, will be the closing speaker. His best-selling books include "Anguished English," "The Bride of Anguished English," and "The Write Way: A Guide to Real-Life Writing." His syndicated column, "Looking at Language," appears in newspapers and magazines throughout the United States.

Between the opening and closing speakers, the conference will offer hundreds of opportunities for learning and networking, including:

• More than 250 technical sessions

• More than 50 exhibitors

• An STC bookstore filled with dozens of titles of interest to technical communicators

• A Welcome Reception with food, entertainment, and a chance to meet your fellow professionals

• Vendor showcase sessions, manual evaluation workshops, usability demos, and late-breaking, bleeding-edge sessions

In addition, 17 post-conference workshops and tutorials will be offered on Thursday (the day after the conference).

So, what are you waiting for? Now is the time to register! See you in Chicago in a few short weeks!

Rooms are going fast. For details about conference lodging, see http://www.stc.org/48thConf/lodging.html. For general information about STC's 48th Annual Conference, visit http://www.stc.org/48thConf/index.html or call (703) 522-4114.

Editor's Note: Blue Pencil editor, Chris Downs, will be presenting at this year's conference.

Making the Web Work for You

(Continued from page 1)

Keep in mind that because of the popularity of the Web, when users need critical information, they won't accept the following sequence of tasks that online documentation has traditionally required of them:

1. Click a button to launch a Web-based help file in a new window.

2. Perform a search to locate the information.

3. Try to retain that data or print it.

4. Exit the Web-based help and apply the new information.

It's no longer enough to just turn your WinHelp files or paper manuals into a Web site. If you want users to benefit from your work, then you must make it easy and appealing for them to do so. Add instructions into the Web-based interface as much as possible.

This can be as simple as placing a sentence under a dialog box field or working with a programmer to create descriptive field labels. Adding help text to the interface and making the interface itself more intuitive prevents users from encountering problems and needing to seek help. These methods of embedding help in the interface also serve to disguise the documentation so that users don't realize that they are reading instructions, and they save users from having to leave the comfort of the interface.

Wizards and task automation are also great ways to assist your users. You don't have to be a programmer to design these tools. Sketch them out on paper, determine the flow of events, decide on any text and buttons that may be needed, and then go to a programmer with your ideas.

If you need to maintain your help files as an independent Web site, connect topics to the interface as much as possible by making individual fields or screens context-sensitive. This allows the user to access relevant help at the exact moment when it is needed. Try to match the design of your site with the overall design of the application to minimize the feeling of "leaving" the interface.

By accommodating users' motivations and goals in your Web-based work, you will have the satisfaction of knowing that more users than ever before are benefiting from your efforts. Regardless of whether your title is Technical Writer, Documentation Specialist, or Information Developer, everyone in the Communication field should consider it their job to not only write documentation, but to ensure a pleasant experience for the user.

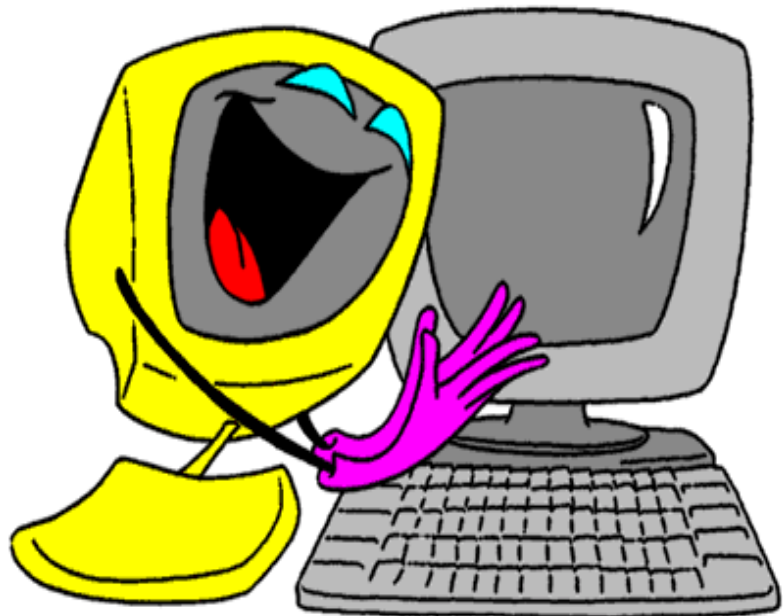*Heather A. Lazzaro is an Information Developer for Highmark Blue Cross Blue Shield.* ✎

Independent Consultants SIG to meet in May

The Pittsburgh STC Consultants and Independent Contractors Special Interest Group (CICS SIG) has resumed regular meetings. If you are currently a freelance writer, contractor, or independent consultant, or are considering the independent lifestyle, please come to network and share your experiences.

May's meeting will feature the discussion topic "Web resources for finding work."

The CICS SIG will meet at 6:00 p.m. on Thursday, May 17 at the Church Brew Works, 3525 Liberty Avenue, in Pittsburgh's Lawrenceville neighborhood. The meeting is open to STC members and potential members.

If you plan to attend, please RSVP to CICS SIG coordinator Alan Houser, arh@groupwellesley.com, 412-363-3481.

Leaving Your Comfort Zone

By J. Suzanna Laurent, Director-Sponsor, Region 5, and Senior Member, Oklahoma Chapter

This article is taken from the May/June 2001 issue of Tieline and originally appeared as Laurent's director-sponsor article in the February 2001 issue of chapter newsletters published throughout Region 5. It was reproduced in the Tieline with small changes.

All too often, I hear people make the comment, "I just can't get up in front of a group to speak; it bothers me too much!" Of course, the problem is more intense for some than for others, but unless we speak up, persuade and convince, and have a say in what goes on, we are not in control of our lives. That's an imposing thought, isn't it? Yet the fear of public speaking is still the number one phobia in America today.

I'd like to tell you about my friend Mary B. She joined another organization to which I belong, and she quickly accepted a committee management position. She took on one of the hardest committees, but that didn't bother her at all—it was the fear of giving a report at our meeting that almost made her quit. It took a lot of courage, but Mary worked hard and was determined to succeed. Since then she has led the chapter as president, served as president of a related citywide organization, and one night even performed as "Dolly Parton" in front of a large group of business-women. Because of her willingness to leave her comfort zone, she achieved more than she ever thought possible.

Public speaking is not as hard as you think. Remember that our attitudes, mannerisms, body language, and the voice that we use in private all go with us into public settings. In fact, except for the times you mutter to yourself, all speaking is public speaking. When you think of it in that context, we are all public speakers—it's just that some of us have learned how to speak more effectively than others. Because fear of speak-ing to an audience is such a widespread problem, I'd like to share some tips about how to reduce anxiety when faced with this task.

1. Be prepared. I've found that lack of preparation is a major cause of anxiety. Knowing exactly what you are going to say and how to say it will give you more confidence, which allows you to focus on the style of your presentation. You should have command of your material and your delivery, but don't be afraid to use your notes—I do it all the time!

2. Picture success. Imagine walking into a room, being introduced, delivering your presentation with enthusiasm, fielding questions with confidence, and leaving the room knowing you did a great job. Visualization is very powerful, and it will help you focus on what you need to do to be successful.

3. Rehearse. Practice your presentation, with an audience if possible, using any necessary props, and wearing the clothes you will wear when you go "live." If possible, have someone videotape your presentation. Watch the tape and incorporate any changes you think necessary before your final practice session. Rehearsal is the best possible preparation.

4. Relax. Focus on relaxing instead of thinking about how much you dread speaking. It's easy to relax once you've learned how to breathe correctly. When your muscles tighten and you feel nervous, you may not breathe deeply enough. So sit up straight—erect but relaxed—and inhale deeply at least three times. As you breathe, say to yourself "I am" when you inhale and "relaxed" when you exhale. Don't think of anything except "I am relaxed," and repeat this exercise several times.

5. Make eye contact. Eye contact helps you to connect with your audience. Don't focus on just one person: Move your eyes slowly around the room. You can relate better to your audience as individuals if you look into their eyes as you speak. This also helps you react to their interest in you.

Let me encourage you to take advantage of STC to help you improve your speaking skills. Use our chapter meetings and conferences to give reports and presentations, and to practice, practice, practice. Remember, too, that Aristotle once said, "We are what we repeatedly do; excellence then is not an act, but a habit." ✏

STC Announces Election Results for 2001-2002

Reprinted from Tieline.

The Society for Technical Communication is pleased to announce the results of its election for 2001-2002.

President

Judith L. Glick-Smith, a senior member with the Lone Star chapter, assumes the office of president after a year of service as first vice president.

First Vice President

Edward J. See, a senior member with the New York Metro chapter, assumes the office of first vice president after a year of service as second vice president.

Second Vice President

Thea Teich, a senior member with the Southwestern Ohio chapter, has been elected second vice president.

Treasurer

Mary Jo Stark, a senior member with the Rocky Mountain chapter, has been elected treasurer.

Director-Sponsor, Region 4

Mike Bates, a senior member with the Northeast Ohio chapter, has been elected director-sponsor of Region 4.

Director-Sponsor, Region 6

Michele Davis Berkes, a senior member with the Wisconsin chapter, has been elected director-sponsor of Region 6.

Director-Sponsor, Region 8

Bonni Graham, a senior member with the San Diego chapter, has been elected director-sponsor of Region 8.

Nominating Committee

John V. Hedtke, an associate fellow with the Puget Sound chapter, has been elected to serve a two-year term on the nominating committee.

Nominating Committee

Deirdre A. Murr, an associate fellow with the San Fernando Valley chapter, has been elected to serve a two-year term on the nominating committee.

STC's 49th Annual Conference Call for Proposals

The call for proposals for STC's 49th Annual Conference was mailed as an insert with the April 2001 issue of Intercom. You can also access information and instructions for submitting proposals on the STC Web site. The deadline for the Society office to receive proposals is August 1, 2001.

The conference will be held May 5-8, 2002, in Nashville, Tennessee. The conference theme is "Leading the Technical Communication Revolution." For more information, please contact Buffy M. Bennett at buffy@stc.org.

June Party at the Foundry Ale Works!

8th Annual Spring Fling!

All the geeks in Pittsburgh can't be wrong. We're having our Eighth Annual Spring Fling at the Foundry Ale Works, which also hosts the infamous Pittsburgh Geek Night (www.pghgeeks.org).

Join us at the Foundry Ale Works in the Strip District to celebrate the end of another successful Pittsburgh STC chapter year. You won't get a better chance for networking and socializing with other technical communicators for the rest of the summer. This is your chance to quaff down some of Pittsburgh's finest ales and lagers while sharing stories of the year's triumphs and tragedies with the only other people who a.) understand what you're talking about, and b.) care about it as much as you do.

The first drink is on STC; cash bar thereafter. Hot munchies will take the edge off your appetite as the beer takes the edge off the stresses of the day while we watch the setting sun mellow the old industrial landscape along the river.

Enjoy the stimulating company of your friends and colleagues for the Spring Fling at the Foundry Ale Works in the Strip District. Free parking is available in the parking lot across the street if you're early. Otherwise, there is parking available on the nearby side streets. Directions are available at www.foundryaleworks.com

See you there!

WHEN: Thursday, May 31, 2001, 5:30-8:30pm.

WHERE: Foundry Ale works, in the Strip District, at 2816 Smallman St.

COST: FREE to STC members, students, and unemployed; $8 for all others.
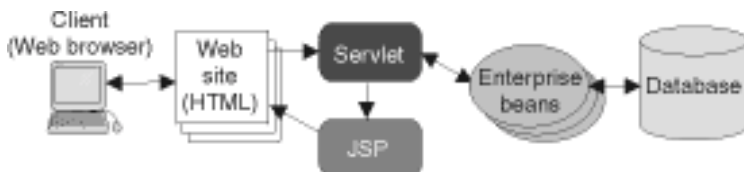
RSVP: To Darlene Mullenix, Meeting Coordinator, (412) 288-8676, or by emailing her at dmullenix@federatedinv.com.

Pay at the door or mail to:
Darlene Mullenix
c/o STC Pittsburgh
P.O. Box 133
Pittsburgh, PA 15230

STC society for technical communication

P.O. Box 133
Pittsburgh, PA 15230

May, 2001

Java and You