A Book Proposal for

Getting Started with QuickTime: A Practical Guide to Developing Applications

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The purpose of this proposal is to present the background and concepts *Getting Started with QuickTime*. It establishes the author's credentials for writing this book, and provides samples from the book itself. The proposal contains the following sections:

• About This Book

This section presents a brief overview of the book and the reasons for writing it. It describes the need in the marketplace for a book like *Getting Started with QuickTime* and how this book fulfills those needs.

About the Author

This section gives a brief biography of myself. It describes my professional experience in the field of technical communication, hypermedia, and computer-based presentation.

• A Chapter-by-Chapter Outline of the Book

This section provides a brief synopsis of each of the chapters that comprise *Getting Started with QuickTime*. It presents the main ideas for each chapter and section.

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This section of the proposal provides a brief overview of the book, presents the reasons why I wrote it, describes the need in the marketplace for this book, and tells why *Getting Started with QuickTime* is different from other books currently on the shelves.

What This Book is About

Getting Started with QuickTime is a practical guide to developing QuickTime applications. It reviews much of the theory that has been written about hypertext and multimedia, then takes the reader through the process of building seven specific QuickTime applications.

The book begins with an overview of the theories and concepts behind QuickTime and multimedia. Following this is a discussion some of the general issues regarding the development of QuickTime applications. This discussion includes such issues as the cost, advantages, and disadvantages of using QuickTime, and selecting the appropriate development tool for QuickTime applications.

The last part of the book contains six areas in which QuickTime is most likely to be used. Each chapter looks at a "real world" application of QuickTime in that area, then takes the reader through the process of developing a similar application from inception to delivery. Through this process, we also introduce additional tools and concepts (such as CD-ROM) that can have specific uses for delivering QuickTime applications.

Why This Book Was Written

During my work and research in hypertext and multimedia, I discovered that the bulk of published work available on the subject is mostly theoretical. Most of the more useful articles and texts primarily serve to tout a specific development tool or methodology. As software developers are now discovering, not all development tools or methodologies work for all companies or all applications. The goal of *Getting Started with QuickTime* is to present general guidelines for developing QuickTime applications and allow the reader to adapt those procedures to ones more appropriate to his development environment.

In the past two years, my colleagues and I have made several presentations on many aspects of online documentation. During every one of our presentations, we were always asked the question, "But how do I get started?". *Getting Started with QuickTime* is the answer to that question. It is designed to help the reader

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learn how to use QuickTime to its fullest, and with precisely the application he is seeking to create.

Why This Book is Needed

Apple has released QuickTimeTM, an addition to their current system software that allows users to add multimedia to almost any application. Every user with a Macintosh using QuickTime can receive documents and applications with embedded multimedia. The *QuickTime Starter Kit* is now available, placing basic QuickTime application development skills into the hands of any Macintosh users who wants it. The opportunity is there for QuickTime to be to the Macintosh in the 90's what HyperCard was in the 80's.

What Makes This Book Different

This book is intended to be a "cookbook" for building QuickTime applications. In addition to the theory, it discusses the steps required to develop specific QuickTime applications, such as marketing presentations or user guides. It also offers guidelines outlining specific design issues and provides criteria for readers to use when selecting their QuickTime development tools.

The approach is practical, not theoretical. The goal is to provide the user who has purchased (or is about to purchase) a multimedia system with ideas and techniques for effectively using that technology. The guidelines are not product-specific, which means that they will apply regardless of which development tools readers choose in order to create their own QuickTime applications.

The Publishing Details of this Book

Getting Started with QuickTime can be completed in approximately six months. It will contain about 350 pages. Black-and-white diagrams and charts will be used in the first two parts of the book as needed to illustrate a concept or issue. The artwork in the third part of the book will consist mostly of screen captures of the QuickTime applications under discussion. There are currently no plans to include photographs in this book.

Written permission must be obtained from the necessary organizations to use screen captures from their products and applications in this book. I have chosen several alternate screens for each application in the case where permission is not granted. Generally, most companies are more than willing to grant this kind of permission as it provides them with free exposure of their products and services.

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The author of this book possesses a varied scope of experience and background in technical communications in general, and hypertext and multimedia specifically.

Steven Radecki

Steven Radecki currently works as a Technical Writer creating online help for Borland International in Scotts Valley, California. He has been in the Technical Communications field for almost five years. During that time he has also worked for PDR Information Services in Santa Clara, California, and for Kirk Paper Corporation in Los Angeles, California. He, along with colleagues, has presented several talks on hypertext and hypermedia at colleges, universities, corporations, user groups, and professional associations. While at PDR Information Services, he contributed to their report, *No Hype, Just Media: An Independent Evaluation of PC Hypermedia Software*.

Steven served as an assistant instructor at the 1990 International Technical Communications Conference post-conference session, "Making the Hypertext Decision." At the 1991 International Technical Communications Conference, he served on the panel, "The Twists and Turns of the Hypertext Learning Curve."

Steven is a member of the Society for Technical Communication, Writers Connection, and the Berkeley Macintosh User's Group. His most recent publications were two articles in the Fall 1992 issue of the *BMUG Newsletter*: "Practical Hypermedia: How Much of Multimedia is Just Hype?" and "OS/2 2.0: How Does It Stack Up Against the Macintosh OS?". He has had two professional papers published: "Developing Hypertext Documentation: One Writer's Experience" and "The CALS Initiative: A Writer's Eye View of the New Standards." In addition, he has had articles published in the STC Silicon Valley Chapter Newsletter, *The Connection*, and the employee newsletter for PDR Information Services, *Bit x Bit*.

Steven has a Bachelor of Science in Information and Computer Science from the University of California at Irvine, and an Associate in Science degree in Data Processing from Mount San Antonio College in Walnut, California. His background also includes film, creative writing, and speech communications.

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A Chapter-by-Chapter Outline of the Book

Getting Started with QuickTime is divided into two parts:

- Part One, "Understanding QuickTime," is a conceptual look at QuickTime, explaining the concepts behind the technology. It discusses some of the advantages and disadvantages of QuickTime applications, and provides the reader with a framework from which to answer the question: "Is QuickTime the right answer?" It also describes the process of learning QuickTime and developing QuickTime applications. This section discusses such issues as the appropriate subject matter and applications for QuickTime, and offers practical advice regarding the development of QuickTime applications.
- Part Two, "Using QuickTime in the Real World," takes the user beyond theory and into practical uses of QuickTime. Six application areas are discussed, taking the reader through the process of designing a QuickTime application in each of these areas. For each application, we examine a QuickTime application created for that purpose, then analyze how the application was designed, developed, and implemented.

In addition to the two main sections, the book also includes a bibliography and recommended reading list. The outline that follows describes the chapters that comprise the main sections of the book.

Part One: Understanding QuickTime

The goal of the first part of the book is to introduce the concepts behind QuickTime. It presents some of the advantages and disadvantages of using QuickTime, as well as a brief overview of some of the possible uses of QuickTime.

Chapter 1: Using QuickTime

The first chapter of the book presents the theoretical framework for QuickTime applications, discussing the terminology and concepts underlying hypertext and QuickTime applications. It discusses the components of a QuickTime application and some of the methods available for a user to interact with a QuickTime application.

Coming to Terms with QuickTime

The chapter begins with an overview of what is meant by the various terms used in QuickTime development. It explains the difference between QuickTime, QuickTime *applications*, and QuickTime *development tools*. This overview also covers general concepts such as image compression and audio sampling.

Using QuickTime Applications

This section describes some of ways that QuickTime can be used as part of documents created by other applications. For example, a word processing document that describes how a machine operates might have an embedded QuickTime application that visually demonstrates the features of the system.

The Bright Side of Going Online

This section presents some of the advantages to delivering information using QuickTime. It presents the issues of quicker and more complete retention of the material, the greater ease of updating the information presented, and multiple-audience delivery with QuickTime.

The Dark Side of the Screen

This section presents some of the disadvantages to using QuickTime to deliver information. It discusses the higher cost of QuickTime development over traditional printed documents, the initial increases in development time, and the disastrous results that can occur when QuickTime applications are poorly implemented.

Is QuickTime Right For You?

The final section in this chapter assists you in determining if QuickTime is appropriate for the information you are trying to deliver. It presents a list of questions for you to answer in terms of your own project and allows you to measure your responses against some general guidelines.

Finding a Use for QuickTime

This section puts all of this theory into practice. It presents an overview of six QuickTime applications:

- Business presentations
- User documentation and online help
- Training systems
- "In the field" uses
- General information
- Entertainment.

Each application is briefly discussed here, to give you a sense of what is possible when you use QuickTime. These six application areas are discussed in detail in Part Two, "Using QuickTime in the Real World".

Chapter 2: Starting Out with QuickTime

This chapter presents the basic issues involved in using QuickTime, whether you are converting the information from an existing document or creating a new application from scratch. The three most important areas to the QuickTime developer are presented:

- Costs (in terms of both time and dollars)
- Designing information for QuickTime applications
- Analyzing the target audiences.

The most important concept presented here is that information delivered through a QuickTime application must be estimated, developed, and analyzed in ways often radically different from those you might use for printed documentation.

Cost and Development Time

If you are used to working with printed documents, you are going to discover that using QuickTime applications to deliver information can be a costly move—at least at first.

There are two basic rules to QuickTime development:

- 1. You will throw the first attempt away.
- 2. It will cost two to three times more than printed documents.

The first rule tends to be true, regardless of the level of the developer's experience. But there is good news on the second rule—the cost curve smoothes out. Once the learning curve has been beaten, the third QuickTime effort tends to cost no more than its printed counterpart. At around the fifth effort, the cost for the QuickTime application often drops below the cost of the traditional printed manual.

Analyzing the Information

Before you get too enthralled in the universe of QuickTime, it is important that you take a hard look at the information you are trying to present. Some types of information make the transition better than others. The question to ask yourself is this: "Is this material appropriate for online delivery?".

Information that can be easily broken down into separate, independent chunks is ideal for QuickTime applications. Information that might come from a sales brochure or reference guide usually falls under this category. Topics that are not as easily divided or rely heavily on sequential presentation for effective understanding do not make good candidates for QuickTime applications. Detailed installation guides and complex technical documents typically go in this category.

Understanding Some of the Basic Design Issues

The most important rule when developing QuickTime applications is this: *The screen is not a page.* Developers used to designing information for the printed page need to unlearn many of the rules they have long held dear. Not only is the typography of online information different, but so is the manner in which the information is organized.

There are some basic design issues to keep in mind:

- Avoid serif fonts except at large point sizes. The serifs are difficult to see on the screen.
- Leave plenty of white space. The eye grows tired of a screen more quickly than it does a printed page. This especially true when using color.
- Limit your use of colors, and be consistent when you do use them. Just as you should limit the number of fonts on a printed page, obey the same rules in regards to color.
- Never use italics. Italicized text is very difficult to read on the screen.

These are the rules that can make or break a QuickTime application. These design issues are rarely recognized by the user at a conscious level, but they can still convey a message to the user — a message that you might not have intended.

Analyzing Your Audience

A good audience analysis is important to the success of printed documentation; it is even more critical to the success of QuickTime applications. In addition to setting the correct information level for the knowledge and experience of the user, there are additional limitations to consider:

- Delivering information through QuickTime applications requires the use
 of a Macintosh, so one of the base assumptions for a QuickTime developer
 is that the user has access to one. This has some additional ramifications in
 terms of design, possibly limiting the application's use of sound or color
 due to the constraints of the end user's system.
- Assumptions can (and cannot) be made regarding users' understanding of the Macintosh operating system, environment, and their general computer literacy.

Hardware Considerations

The judicious use of sound in a QuickTime application can greatly increase the effectiveness of the application. It's possible however, that some of your users will have older Macintosh models that do have built-in sound capabilities. You also need to have some sense of the graphics capabilities of your end user. It does you little good to deliver a gorgeous, 24-bit color presentation, if the majority of your audience has Macintosh Classics.

Chapter 3: Choosing a Product and Platform

Having analyzed the audience and developed a high-level design for the QuickTime application, it is time to choose the tools. Selecting the right QuickTime development tool can sometimes be one of the biggest tasks of the design phase. The selection criteria should be based not only on the system limitations of the end user, but also on the limitations of the developer.

Evaluating QuickTime Development Tools

Here is a list of questions you can ask when you evaluate QuickTime development tools:

• Can it import text from other applications? Does it have a built-in text editor, or does all text have to be created outside of the development environment? Can imported text be edited within the environment?

- Can the program import graphics from other applications? If so, what formats can it handle? Can both text and graphics be used on the same screen?
- What are the hardware and software requirements for both the development and delivery versions of the resulting QuickTime product?

After you select your development tool, re-evaluate the design of your application. Can your design be implemented with the tools you selected? You might find that you need to adjust the design of your application, or choose another development tool.

Chapter 4: Beating the Learning Curve

Learning how to use a QuickTime development system can be very different from learning almost any other application. Many of your problems will not result from the QuickTime development tool itself, but from the difficulties of taking your QuickTime application from design to finished product. The most important step in this stage is *planning*.

Planning Your Development

Study the design of your application and make certain that you know exactly where each piece of information fits in the application. One useful technique is to storyboard the application. Break the application down into small, related portions. Within each section, determine where the text and graphics will ultimately go. This will also assist you in discovering the underlying structure of the entire application.

If you are planning to use animation or video, consider how you are going to create these elements. Developing an animation or video segment can take nearly as much effort as the entire QuickTime application. Now is the time to scale back the design of your application (and your expectations) before you devote too much more time and effort on its development.

Learning the QuickTime Development Tool

Although this might sound basic, read the manual that comes with the QuickTime development system thoroughly. If the program comes with any tutorials or sample applications, look at them. In addition to providing you with a working knowledge of the product, it can demonstrate the features of the system, and might even spark a few ideas in your mind.

Play with the tool. Try to build something small just to acquaint yourself with the tool and its capabilities. It does not have to be anything fancy. Taking a recent memo and transforming it into a QuickTime application can provide you with plenty of room to explore the capabilities of the tool.

Chapter 5: First Steps Toward Building Your QuickTime Application

When you are comfortable with the basic workings of the QuickTime development tool you have chosen, it is time to start the real work. There are a variety of ways to begin, which one you choose depends greatly on the design and content of your QuickTime application.

For applications that are heavily text-based, begin by placing some of the key screens so that you can easily follow the progression of your application, and so you can see where additional items might need to be placed. Excellent candidates for this activity would be introductory or summary screens.

If your application makes wide use of video or animation, you can begin by placing still images where the video or animation sequences will go. This is useful when the video or animation will be created later, but still allows you to get the general "feel" of the application during its development.

Chapter 6: Using Sound, Color, and other Special Effects

After all of the text elements are placed and the text-only links are tested, it is time to add the other elements. This is one of the reasons why you should begin with the text elements—they are relatively easy to manipulate, and do not typically require additional hardware to support.

Using Color

Aside from the video hardware constraints, there are several guidelines for using color in your application. Certain colors—especially when used to highlight text—create a specific reaction in your audience. The colors you use can provide subtle, and often unexpected, visual cues for your audience. There is a reason you see so many computer-based presentations with blue backgrounds, and a sparse use of red text. The choice of color can be very important for another reason: color blindness. Color-blind users will miss important information if they cannot see the color on the screen.

You should try to determine if your QuickTime application will be viewed straight from the computer screen, or projected onto a larger screen. This is likely to be the case if you are developing a marketing application. Certain colors tend to get "washed out" when projected, often fading any text in that color to illegibility.

Using Sound

All of the Macintosh systems since the Macintosh SE have sound capabilities built into the hardware and supported by the system software. Sound, even more than color, can provide a emotional tone for your application through the use of music or appropriate sound cues. The use of sound and motion can carry a powerful impact. Used judiciously, sound effects can add a sense of realism to an otherwise staid presentation. Make sound a complement, not the cornerstone, to the application.

Included in this section is a discussion of sound editing tools such as *MacRecorder, SoundMaster,* and the use of prerecorded sound and music clips.

Using Animation and Video

These issues aside, animation and video can add real punch to your QuickTime application. With the release of QuickTime, they has become even easier and more cost-effective. Already, there are some easy-to-use tools that allow even novice users to produce creditable results. The biggest caveat is to make certain that your own hardware can handle the development of these components. Older, slower systems can make adding animation or video a tedious, if not unrealistic, process.

The other major disadvantage of using either animation or video is that both require large amounts of storage space. If you plan to distribute your application on diskette, there will probably not be room for more than a few animation or video sequences, especially if you use high-resolution color.

Included in this section is a discussion of such animation development tools as *Director* and *Animation Works*, and video editing/capture tools as *VideoSpigot* and *Premiere*.

Making Your QuickTime Presentations Presentable

A variety of tools are now available that help you "fine tune" your QuickTime application for on-screen delivery. The most common method involves the use of *anti-aliasing*. Tools that perform this function have the effect of "smoothing out" the rough edges of the images in your QuickTime application.

Included in this section is a discussion of such image effects tools as *JAG* and *Smoothie*.

Putting the "Special" into Your Effects

You can now add special effects to your QuickTime applications that once were only available to major motion picture studios on systems costing hundreds of thousands of dollars. You can add dramatic cut and fade effects between scenes in your QuickTime application. For truly amazing effects, you can use tools that, for less than \$200, let you create the same transformations that you might have seen in *Terminator* 2.

Included in this section is a discussion of such image effects tools as *Morph*, *Photoshop*, and *Gallery Effects*. For text effects, tools such as *Tapestry* are discussed.

.c3.Chapter 7: Adding the Finishing Touches

Now that you have all of your components ready and assembled, it is time to add those finishing touches to your application. It is these efforts that give a professional look and feel of your QuickTime application.

Adding Front and Back Matter

Front and back matter serve as bookends to a document, providing supporting material at the start and end of a book. Depending on the type of application you are creating, the form of these parts will vary. For a user's guide, adding front matter might consist of creating a Table of Contents, title page, and any introductory materials (such as copyright notices) you might need. For a marketing presentation, it might consist of nothing more than a flashy title screen.

The back matter is handled in a similar way. A user's guide might have an index and perhaps a glossary. The marketing presentation might have a final screen with information about the product or company, providing a last bit of information that will remain in the user's mind. In some cases, there will be no back matter at all.

Reviewing and Editing the Work

The most difficult tasks in creating QuickTime applications, especially for applications that are heavily text-oriented, are the reviewing and editing cycles. Certainly, the text can be reviewed either online or as hard copy, but each of these methods has definite shortcomings. Reviewing the QuickTime application online preserves its flavor, but there is the chance that reviewers might miss portions of the presentation if they do view it from beginning to end.

Conversely, a hard copy reviewer ensures that all of the text gets reviewed, but it is very likely that the structure of the application will get lost. There is no easy and effective way to denote the linking structure on paper. This also holds true for links that are anchored from text and link to animation or sound elements.

The best solution is to conduct an online review and construct procedures that try to guarantee that all of the application is seen. Keep in mind, however, that most editors are not well versed in graphics. They might be able to readily able to inform you on incorrect subject-verb agreement or the improper use of a gerund, but they will most likely miss poor uses of color or an inappropriate use of video. For this reason, it is wise to hold a separate review for the graphic elements.

Make certain that just as your application is constructed by a team, it is reviewed and edited by a team. The review team should consist of members whose expertise match those of the design team, or as closely as possible. Allow ample time for the review—reviewing a QuickTime application is likely to be as different an experience for them as creating it was for you.

Usability Testing

Often, usability testing of the QuickTime application is performed during the review period. Although it can easily be made part of the review process, its importance is so great that it warrants separate discussion. Only through a reasonable usability test will you discover whether or not your QuickTime application fulfills its original goals. Also, it can tell you whether the user can use it at all.

You might have packed every bit of information available into your QuickTime application, but the information is of little use to users if they cannot find it. Also, the method by which the user navigates through the application should be intuitive and require as little explanation as possible. In some cases, you might have little, if any, control over the interface. In these instances, it does not hurt to provide the user with a brief explanation of the interface at the beginning of the application.

A good usability test will also determine whether all of the information is, in fact, accessible to the user. Important information might be buried so many levels deep that many users never find it. Or, it might not be obvious to all users that selecting an icon or portion of a graphic can take them to additional information. This is especially true for users who are accustomed to a mainframe environment or character-based interfaces.

Chapter 8: Distributing Your QuickTime Application

Now that you have completed your QuickTime application, you need to distribute the application to your intended audience. How you do this will vary, depending on the application and user. A marketing presentation intended to run in a booth or as a formal presentation needs little more than to be installed on the hard drive of the system on which the presentation will be delivered.

To Disk, or not to Disk

If your QuickTime application is small enough, you can distribute it on a good, old-fashioned diskette. Be warned, however, that there are still a lot of Macintosh users who still use only a 800K diskette drive. With a run-time version of QuickTime now available for the Microsoft *Windows* environment, you might also have to consider distributing your QuickTime application on DOS-compatible diskettes as well.

Sending a diskette through the mail is a far more risky proposition than mailing a traditional printed brochure. You need to shield it properly and label the shipping package to prevent accidental exposure of the diskette or tape to magnetic fields.

Often, you find yourself discovering that QuickTime applications can easily exceed the capacity of a high-density diskette. In this case, it's time to investigate the possibilities of CD-ROM.

Using CD-ROM with QuickTime

Designing QuickTime applications for delivery on CD-ROM is not fundamentally different than for delivery on diskette or any other media. With the amount of space available on one CD-ROM, storage constraints can become a trivial issue. But with all of that information being made available, the method of delivery and access becomes much more important. The user interface and indexing must be very clear and thorough to prevent users from having to read hundreds of screens to locate the information they need.

Integrating Your QuickTime Application

In many cases, your QuickTime application will not be designed as a standalone presentation. It will be used in conjunction with another QuickTime-aware application, and delivered in a medium such as a word processing document or a spreadsheet. Make certain that your finished QuickTime application and the document work together as you intended.

Chapter 9: Converting to QuickTime

In many cases, especially if this is your first QuickTime application, you will not be creating an original application. You will be adapting material that exists in another form—such as a marketing brochure or reference guide—into a QuickTime application. Almost all of the guidelines presented so far apply when you are creating a QuickTime application from existing material, but there are some additional issues of which you need to be aware.

Converting from Printed Documents

Taking an existing printed document and converting it into a QuickTime application is an excellent way to begin your exploration of QuickTime. In addition to task of simply getting the information from printed to electronic form, there are some special considerations.

The existing text was probably not created with QuickTime delivery in mind. You need to determine where the text can be separated into manageable chunks that can exist in separate nodes. You might discover that some text needs to be rewritten to make it self-contained. You might also find that a lot more of the text needs to be deleted as extraneous or redundant. For example, sentences that create transitions between paragraphs are useless if the paragraphs exist in different nodes, although these transitions could be rewritten as a reference to the other paragraphs.

Converting Text and Graphics

One of the most common, and often most difficult tasks, when you create a QuickTime application is trying to integrate elements that were created on other types of computers and operating systems. Good conversion tools—one for converting text-based information, one for graphics—is one of the best investments you can make. Unfortunately, there are far fewer file format "standards" on other platforms than there are for the Macintosh. For example, if you know you want to transfer graphics on the Macintosh, the PICT format is almost always a safe bet. For textual information, MacWrite, Word's RTF format, or plain ASCII text are all good choices.

Part Two: Using QuickTime in the Real World

The last section in this book discusses how QuickTime can be—and has been—used in real-world applications. The chapters present possibilities and examples for using QuickTime for six specific applications:

- Business presentations
- User documentation and online help
- Training systems
- "In the field" uses
- General information
- Entertainment.

Following each description is a case study of how the application has been planned, designed, produced, and distributed. Along the way, similarities and differences with how QuickTime is used for other applications are pointed out.

It should be noted that the case studies used in the following chapters are drawn from real-world multimedia development efforts. The way they were developed was not necessarily the best way, and alternate suggestions are presented when appropriate.

Chapter 10: Using QuickTime for Business Presentations

QuickTime can be an excellent tool for companies who want something that is flashy and can reach a broad range of audiences. One presentation can be targeted to different audiences depending on how the nodes are linked. Because QuickTime applications can reach such a broad audience, you can create one marketing tool that can please everyone.

Creating a Business Presentation with QuickTime

QuickTime-based presentations give you the capability to tailor your presentation "on the fly." By selecting only those options in the presentation that appeal to a specific audience, you lessen the chance of giving the audience too much (or too little) information. Every bit of information about a service or product can be present in the application, but only the specific information wanted by the audience needs to be shown. For example, a QuickTime-based marketing presentation allows a salesperson to demonstrate cost-savings to vice presidents and buyers, features to users, and technical details to the support staff—all with the same presentation!

This section contains a case study for developing a marketing presentation to sell an advanced manufacturing system. It starts with a analysis of the original printed brochure, showing how the information in the brochure is broken down into discrete pieces so that they can be more easily turned into QuickTime applications.

Next, planning for the use of graphics and animation is discussed, showing not only what is possible, but also what is feasible within the time and budget constraints. There is a brief discussion of the tasks required to transform standard graphics and animation into a QuickTime application. The last part of this section shows how it all is put together—the text, graphics, animation, and sound—to make the final presentation.

Creating an Online Brochure with QuickTime

Many companies distribute self-running "storyboards" demonstrating their product or service. A little of this goes a long way. A user can read a printed brochure for the same information. Some companies distribute "crippled" versions of their software—programs that have some of the features of the full-fledged product either limited or missing in the sample. A QuickTime-based presentation can combine the best of both of these worlds. Designed correctly, the online brochure can be run as a standalone presentation, or as an interactive tool that allows the user to try out some of the products features while also instructing him in their use.

Although an online brochure shares many of the qualities of the marketing presentation discussed in the previous section, there are some fundamental differences. One of the major differences is that the online brochure is likely to be viewed by only a single individual at any one time, whereas the presentation will be seen by several people at the same time. This means that the online brochure requires a higher level of interaction with the user, and must be ready to convey all of the information it contains in a manner easily understood by the user.

The case study in this section analyzes an attempt to sell an automobile via the use of an online brochure. It begins with a discussion of the target audience. This is more vital than it was with the marketing presentation because, to view the brochure, the user must have access to a QuickTime-capable computer.

Chapter 11: Using QuickTime for Documentation and Online Help

In situations where there is not a great deal of technical support available, QuickTime can be an invaluable method of delivery for user documentation. The expense of setting up the user documentation in a QuickTime application is quickly offset by the reduced amount of technical support required for the product. Documentation of this kind typically falls into two categories: user guides and references. Because the design of each of these types of documentation is fundamentally different, their development as QuickTime applications also differs.

This chapter takes a slightly different approach by taking the same information and showing how both the user's and reference guides are designed to convey the same information. The similarities and differences between the types of documents are noted during each case study.

Creating a User's Guide with QuickTime

A user's guide typically takes more of a "cookbook" approach to presenting information. It relies heavily on examples and procedures to not only demonstrate how a product works, but also to show the user how to accomplish specific tasks with the product. As a result, a user's guide has some elements in common with a tutorial, but usually without the tutorial's depth.

This case study begins with an analysis of what information is to be conveyed in the user's guide. It covers what specific features of the product are covered and what specific tasks will be presented. Following this analysis is a discussion of how both the features and tasks will be covered and with what level of detail.

Next, there follows an examination of the user interface that will accompany the user's guide. Because this application is something to which the user might refer fairly often, and in desperation, the information must be easily accessible and the navigational tools used to guide him to the information must be clear and intuitive.

The section concludes with the final implementation and delivery of the user's guide. In this case, the application is being packaged separately from the application, but can be accessed either by itself or from within the application.

Creating a Reference Guide with QuickTime

Different from the user's guide, a reference guide is designed to be a more detailed compendium of information, usually presented in an encyclopedia-like format. When using this application, the user wants to find the information fast and with as little fuss as possible. It is usually assumed that the user of a reference guide has at least intermediate knowledge of the product.

The same analysis takes place for a reference guide as for the user's guide, but none of the task-oriented material is included. The discussion encompasses determining which topics need to covered in the reference guide, and which of those need to be repeated (with additional detail) from the user's guide.

The user interface for the reference guide should be consistent with the user's guide, but can include fewer visual "clues" for the user since the information is organized in a straightforward, familiar manner. Of more importance here is the structure of the information: determining hierarchies of information, planning links between entries, and determining the depth of the information.

The section concludes with the final implementation and delivery of the reference guide. In this case, the application is being packaged separately from the application, but can be accessed either by itself or from within the application.

Using QuickTime for Online Help

Creating a QuickTime online help system is not unlike creating a user's guide or reference guide with QuickTime. The major difference is that the online help system requires a tighter integration with the application itself. Where the user's guide can exist as a standalone application, the online help often requires that the QuickTime developer work very closely with the software developer to insure a smooth integration between the information and the product.

The most common type of online help system used today is referred to as "context-sensitive" help. This means that, when the user requests help, they are taken directly to information about the topic with which they are currently working. The layout and content of the information will depend on the application itself and the context in which the user asked for help. For example, if the user is working with a spreadsheet application and requests help while trying to use the ADD function, the online help system immediately opens to the section in the help system that explains that function.

Generally, online help is intended to serve as a quick reference or flash card to jog the users' memory so that they can quickly continue with their work. If additional information is required, the user can be referred to an online reference guide or the printed documentation.

Using QuickTime to Complement Existing Documentation

The final section of this chapter discusses the partnership of online and printed documents. Online help systems should be designed to complement the more detailed documentation, whether printed or online. By burdening the user with too much information at one time, the QuickTime developer can render an application more difficult to use than the same application without online help.

Chapter 12: Using QuickTime for Training

QuickTime is an extremely effective training tool. A good example of this is an office of workers using the same computer network. Instead of taking time away from everyone's schedule to learn a new piece of software, a self-paced online tutorial is installed. It contains discrete lessons, allowing the employees to do as much or as little as they can at the times that are the most convenient for them. This eliminates the need for scheduling classes and gives every employee the opportunity to learn the software in a way that is comfortable for them. In addition, the training can be scaled to be as basic or as extensive as is required by each user.

This case study involves a company that has migrated from one database program to another. As a result, there have been several changes in the interface between the user and the database. Also, the same system will now be used by all levels of workers, from data entry operators to department managers. There is only the budget and time to construct one training system, and it must work for everyone who uses the system.

Analyzing Your Training Audiences

The analysis begins with a look at the prospective users, separating them into specific groups. After the groups are determined, the requirements of each group are analyzed to point out common needs between groups and needs required by any one group. The similarities between the groups will form the base for the lessons; the differences will form the layers.

Designing for Online Training

The design of the tutorial is then discussed. Because the training system will most likely be used at separate times, the interface and general use must be easy enough to understand that when users begin a new lesson several days later, they will still remember how to use the training system.

After the design is finalized, the implementation issues are discussed. The original design calls for sound, animation, and video. At this stage, it is determined which, if any, of these media can be run on the existing platform. Equally important, you must be determine whether the use of these media are within the scope of your budget.

Does it Really Work?

The end of this chapter deals with the issues of usability testing and distribution. Testing a training system is vital to the system's success. A training system might be the most beautiful QuickTime application ever created, but it is worthless as a tool if no one can learn from it.

Chapter 13: Using QuickTime in the Field

Field service applications are prime candidates for QuickTime delivery. Currently, field technicians might have to carry literally hundreds of pounds of documentation with them as they travel from service call to service call. For example, the technical documentation for the B-1 bomber weighs more than the aircraft itself. Through the use of QuickTime applications, not only is there a dramatic decrease in the amount of printed matter a technician must carry, but it provides a faster, simpler, and more effective method to access that information.

The case study in this chapter involves the attempt to place all of the technical and user reference guides for a complex telecommunications system online. The plan is to provide each field technician with a laptop computer equipped with a CD-ROM drive. All of the documentation that the technician requires can be contained on a single CD-ROM.

Combining QuickTime with Expert Systems

QuickTime systems for field service applications can also employ expert systems to assist the technician in troubleshooting. The QuickTime application might provide a user-friendly interface to the expert system, or the expert system might provide for QuickTime as part of its environment. In either case, QuickTime applications and expert systems working in unison provide a powerful combination for solving complex technical problems in the field or in the office.

Chapter 14: Using QuickTime for General Information

QuickTime technology is a wonderful and powerful tool. So far, we have explored its uses for marketing, user documentation, and training. Even though computers are now relatively commonplace, not everyone has access to one in the home or the workplace. How can QuickTime applications help these people?

Much of the information every company provides is simple and routine, and it keeps one or more employees from performing more productive work. Common questions such as business hours, location, or basic fees can easily be handled by a computer-based system. A simple, icon-driven system can provide the answers to any of these questions from a computerized kiosk. This kiosk can blend color, sound, and animation to explain and advertise services. These kinds of computerized information booths are already widely used in supermarkets, department stores, and museums.

The case study in this chapter involves the design and implementation of an information kiosk for a local bank. The premise is that it will present the answers to commonly asked financial questions and provide for an easy way to advertise some of the bank's services.

Chapter 15: Using QuickTime for Entertainment

For the last chapter, consider the possibilities of a hypertext novel. With a variety of paths to follow, the story might never be the same twice. If users do not want the hero to die at the end of the last chapter, they can start over and make different choices as they read to this time (hopefully) save the hero.

Hypermedia for entertainment was, in fact, one of the first uses for personal computers. The "role playing" adventure games allowed the player to choose their path many times during the course of the game. If the player "died" during the game, it is just a matter of starting over and not repeating the same mistake. The basic principles of the game have not changed much, but the changes in technology have permitted the addition of sound, animation, and video into the games — hypermedia.

This chapter's case study takes a brief look at the design and implementation of a computer game using QuickTime technology. The game is simple so that it can easily discussed within the confines of this book. Developing a game, with or without QuickTime, requires a great deal of additional planning and creativity not required with the other applications discussed here. There are entire texts devoted just to the topic of gaming theory.

Bibliography, Reading List, and Index

After the chapters of the book will be a complete bibliography of all of the reference materials used in creation of *Getting Started with QuickTime*. Following the Bibliography will be a Recommended Reading List that will consist of annotated entries selected from the Bibliography and grouped by the subject matter that the article or book addresses. A comprehensive index concludes the book.

